ON-SITE INSIGHT
A RECAP REAL ESTATE ADVISORS COMPANY

Capital Needs Assessment

Prepared for:

SAU-39
1 School Street
Amherst, NH 03031

Souhegan High School

Amherst, NH

June 2, 2017

Preliminary Report

RECAP
REAL ESTATE ADVISORS

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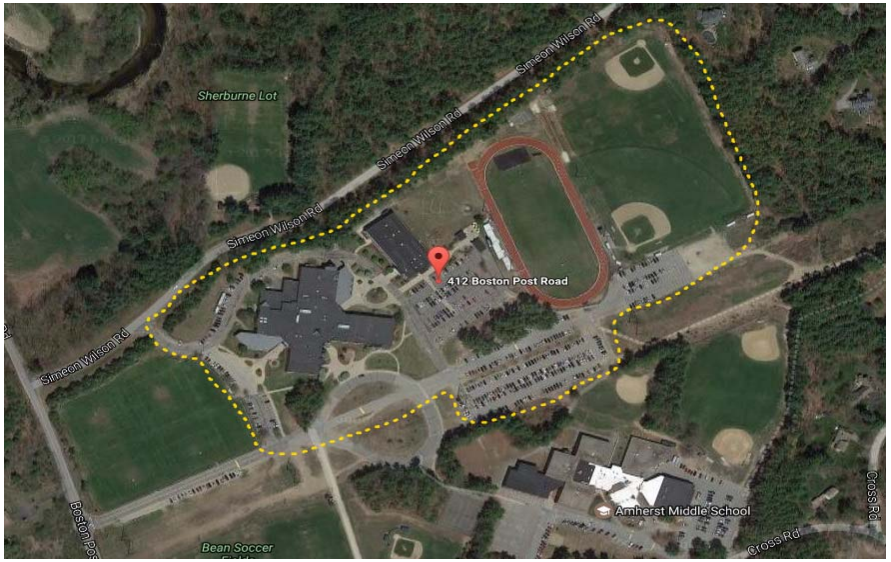
Souhegan High School: Property Overview

Total Buildings: 2

Total Area (sf) 168,556

Building Type	# Bldgs
Elevator	1
Walk-up	
Townhouse	-
Totals:	**1**



Occupancy: School
Financing: Municipal
Property/Development Age: 25 years
Year of Construction: 1992
Year of Most Recent Rehab: 2001

City & State: Amherst, NH 03031
Addresses: 412 Boston Post Road

OSI Project Number: 17258
Assessment Date: May 10, 2017
Assessment Conditions: Cloudy, 50°F
Assessor: David Jackson

Property Description:

This high school, built in 1992 and expanded in 2013, consists of two buildings. The buildings are clad with primarily with brick and augmented with metal composite, masonry block, and glass wall sections. The roofs are covered with rubber membranes and windows are double glazed metal framed models. The mechanical rooms have hydronic heat boilers which are governed by an EMS. Rooftop units are the main source of ventilation. The building uses municipal water and has its own leaching field.

Executive Summary

Souhegan High School

Amherst, NH

Souhegan High School consists of two low-rise buildings that serve over 850 students in grades 9 through 12. The main building was built in 1992 and the annex was added in 2013. Remarkable and excellent maintenance and service has helped to extend the useful life of many building systems and components. There are however several key needs that should be addressed in the near-term, including adding a facilities storage building, repairing the asphalt paving, replacing the DHW equipment in the main building, and renovating the roof deck outside of the student lounge (main building).. Future capital actions are based on useful life expectations and assume continued effective maintenance and physical management. Costs for the twenty-year plan total $7,349,010 or $43.60 per square feet in in inflated dollars.

Site

The site, located on a large relatively flat parcel of land adjacent to municipal ball fields and near the Amherst Middle School campus, features asphalt paved parking and driveways, concrete walkways, an athletic stadium (track/field and football), surrounding landscaping, and a gravity fed leaching field.

1. **Costs for the development's site related elements total $1,637,186 or $9.71 per square foot in inflated dollars.**

2. There is a need for a central storage building for the facilities equipment. The cost for a building (possibly a manufactured warehouse type structure) is shown in the first year of the plan. This item should be discussed at the client review meeting.
3. The plan also includes the cost to upgrade the stadium seating with a section for accessible seating in Year 1. Additionally, the rubber track and artificial playing field turf are to be repaired in Years 5, 10, 15, and 20. The stadium lights are to be replaced in Years 5, 11, and 17.
4. The parking lots, driveways, and walkways have areas that are cracked and damaged. The cost to repair these surfaces (crack-fill, sealcoat, and re-stripe) is shown in Years 1, 6, and 11; resurfacing is shown in Year 16.
5. The plan also includes an allowance to upgrade the landscaping in Year 12. The plan also includes the cost for future servicing to the septic system and leaching field, in Year 20.

Mechanical Room

Each building has a central mechanical room that contains the heating and domestic hot water (DHW) systems. The main building is served by a series of natural gas-fired hydronic heat boilers, which uses a pair of base-mounted circulation pumps to distribute the hydronic heat throughout the building. DHW is produced and stored in two natural gas-fired 400-gallon tanks. In the annex building, a pair of natural gas-fired boilers produce hydronic heat and two base-mounted pumps distribute the hydronic heat throughout the building. A natural gas-fired condensing boiler produces DHW which is stored in an insulated 50-gallon tank. The boiler plants are governed by an energy management system (EMS), which also controls the rooftop equipment (discussed in the Building Mechanical and Electrical report section), and monitors and controls space temperature throughout the buildings.

6. **Costs related to the development's boilers and boiler room systems total $335,418 or $1.99 per square foot in inflated dollars.**
7. The cost to upgrade the EMS is shown in Years 5, 12, and 19; the upgrade should also include integrating this system with the other energy management systems used throughout the school system. The boiler plant in the main building is to be replaced in Year 5 and preferably with condensing boilers (for improved energy efficiency). The boilers in the annex building are to be serviced in Year 13. The plan also shows the cost to replace the hydronic heat circulating pumps in the main building in Year 17.
8. The current demand for DHW in the main building has been significantly reduced from the time when this building was constructed, resulting in an oversized DHW system. The cost to replace the DHW gas-fired tanks is shown in Year 1 with a system that is sized to meet the DHW needs of this building. This system will contain a dedicated natural gas-fired condensing boiler and an insulated storage tank, similar to the system arrangement in the annex building. This item should be discussed at the client review meeting. The plan also shows the cost to replace the electric-heated DHW tank in the concession/restroom facility at the stadium, in Years 8 and 20, and to replace the DHW boiler and storage tank in the annex building in Year 16. The sump pumps are to be replaced toward the end of the plan in Year 17.

Building Mechanical and Electrical Systems

Major building systems include the fire sprinkler system, distribution piping for hydronic heat, domestic hot and cold water, sanitary wastewater, and natural gas services, heating, ventilation and air conditioning (HVAC) services, electrical, fire detection, security, and elevators.

9. **Costs related to the development's mechanical and electrical systems total $916,140 or $5.44 per square foot in inflated dollars.**
10. A recent air quality study performed by a third party, showed several areas where carbon dioxide (CO_2) readings exceeded the desired level of 1,000 ppm (the maximum level for acceptable ventilation), indicating a need to provide reliable ventilation throughout the facility. The make-up air systems at both buildings should be monitored to ensure that adequate ventilation is provided throughout each building.
11. The unit ventilators are to be upgraded (fan motors, coils, etc.) over the first 5 years of the plan. The split direct expansion (DX) air conditioners are to be replaced in Year 11. And the exhaust fans are to be upgraded in Year 12. The plan also includes the costs to replace the rooftop units (packaged air conditioners and make-up air units) in Year 16.
12. An allowance to upgrade the video monitoring system, public address system, and the central clock is shown in Years 3, 10, and 17. The generator, which provides 100 kW of emergency power exclusively to the main building is to be replaced in Year 10 and the battery powered emergency lights in the annex building are to be replaced in Years 6 and 16. The fire alarm system is to be upgraded toward the end of their 20-year useful life: in Year 10 in the main building and in Year 17 in the annex building.
13. There is a single hydraulic-type elevator in each building and both are maintained by a full service contract. The elevator cabs and door operators are normally items excluded from the service contract. The cabs are to be refurbished every 12 years, starting in Year 4 in the main building and in Year 8 in the annex building.

Building Architectural Systems and Program Areas

This buildings feature flat roofs covered with rubber membranes. The exterior walls are clad primarily with brick and are augmented with metal composite panels, metal framed glass wall sections, and masonry blocks (on the main building). The windows are metal

framed double glazed models. The primary entrances are metal frame glass storefronts with multiple doors. The secondary doors are single leaf solid metal models. Interior common areas include the classrooms, science labs, and industrial arts shops, hallways, stairways, a gymnasium, locker rooms and restrooms. The support areas feature the cafeteria with a theater, library, administration/support offices, and the central kitchen.

14. Costs related to the development's architectural systems total $3,739,497 or $22.19 per square foot in inflated dollars.

15. There are isolated areas of masonry block damage and mortar loss on the main building. The cost to repair and repoint these areas is shown in Year 1. Additional repointing is shown in the second half of the plan in Year 16. The costs to replace the caulking, and to repaint the metal lintels are also shown in Year 16. The metal composite sections are to be power washed every eight years starting in Year 4.
16. An allowance for anticipated failed window glazing replacement is shown starting in Year 8. Replacement of the service doors is shown in Year 20.
17. The roof deck with pavers over a rubber membrane, located outside of the student lounge at the main building has poor drainage. The cost to correct this issue is shown in the first year of the plan. The plan also includes the cost to reseal the seams of the rubber membranes on both buildings in Year 10, to help extend their useful life. The membranes are to be replaced in Year 20.
18. The pod classrooms have movable partitions, which can be used to vary the size of these areas, however the partitions transmit sound between the classrooms and over time have become difficult to use. An allowance to replace these partitions with newer ones, designed to limit sound transmission and to also be easier to use is shown over the first 3 years of the plan. This item should be discussed at the client review meeting.

19. Wall repainting and ceiling tile replacement is shown every ten years starting in Year 8. Replacement of the carpeting with vinyl plank flooring is shown starting in Year 2. The vinyl plank flooring should provide a long-lasting and resilient floor covering in the classrooms and hallways. In areas where carpeting is beneficial (noise reduction) or preferred the cost for carpet tiles is shown as the replacement product, which will allow for replacement of damaged sections without having to replace the floor covering within an entire area. The gymnasium floor is to be sanded and refinished in Years 8 and 18. An annual allowance to repair the lockers starts in the first year of the plan.

20. Costs related to the school's support areas total $720,769 or $4.28 per square foot in inflated dollars.

21. Future replacement of ceiling panels and repainting in the other program areas is shown in Years 8 and 18. The VCT in the cafeteria is to be replaced with vinyl plank flooring in Year 18. The Library furnishing and equipment replacement is shown starting in Years 9 and 19. The furnishing within the Cafeteria/Theater area is to be replaced starting in Year 1, and the equipment within this same space is to be replaced at the end of the plan in Year 20. In the central kitchen, the ceiling tiles are to be replaced and the walls repainted in Years 8 and 18. An allowance to replace the other appliances is shown starting in Year 10.

Additional Notes:

1. The Physical Assessment of the property was conducted on May 10, 2017. Additional information was provided to ON-SITE INSIGHT by site staff and others. OSI was represented on this assignment by David Jackson. We would like to thank site staff for their assistance.

2. Regular updates of this plan are recommended to ensure careful monitoring of major building systems and to adjust the program to accommodate unanticipated circumstances surrounding the buildings, operations, and/or occupants.

3. This report is delivered subject to the conditions on Appendix A, *Statement of Delivery*.

The running track and football field were recently renovated.

School officials are considering adding accessibility seating to the stands.

An overview of the campus with the main building on the left and the annex building (blue) on the right.

One of the entrances at the main building.

A close-up of deteriorating masonry blocks.

An isolated area of mortar loss, damaged bricks, and efflorescence on the main building (right arrow). Also shown is a snow melt device (left arrow) designed to keep the scupper and downspout from freezing.

A view of the membrane covering on the annex building's roof.

A view of the main building rooftop, which includes rooftop units and exhaust fans.

A roof deck with the pavers. The vegetation growth is an indication of poor drainage (water retention or ponding).

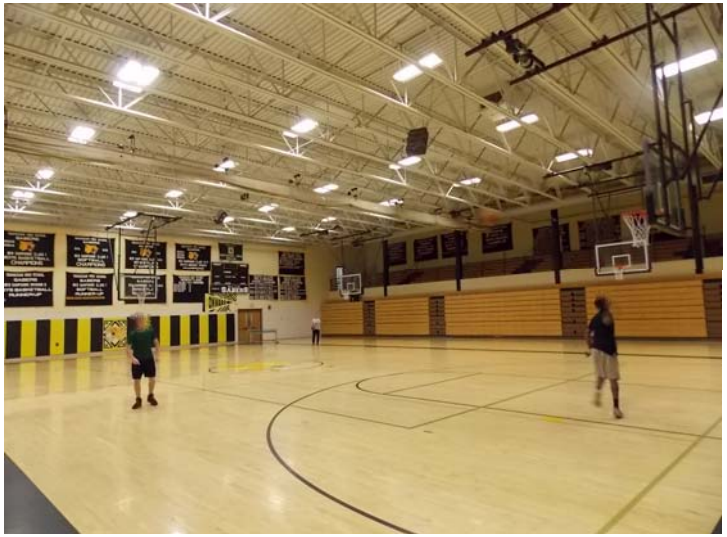
The hallways have ceiling tiles, painted walls, carpeting and lockers.

Looking upward at the large skylight in the library.

A view of the library.

The cafeteria is located in the main building.

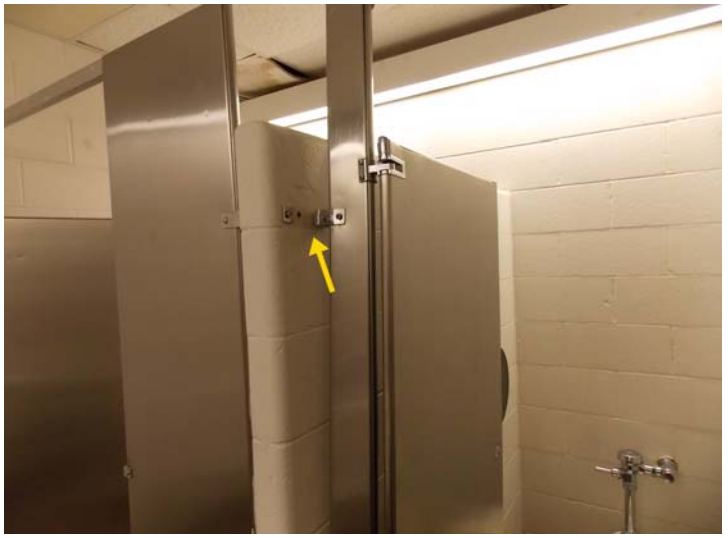
A view of the central kitchen.



The gymnasium is also located in the main building.

A number of lockers within the Boys' locker room have impact damage.

The Girls locker room was found to be in good condition.

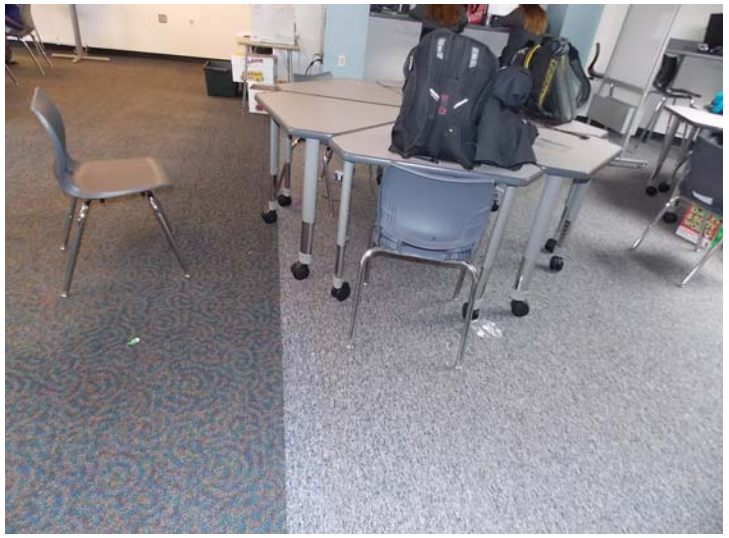


A damaged bathroom partition.

The weight room has a rubber mat floor, and painted surfaces.

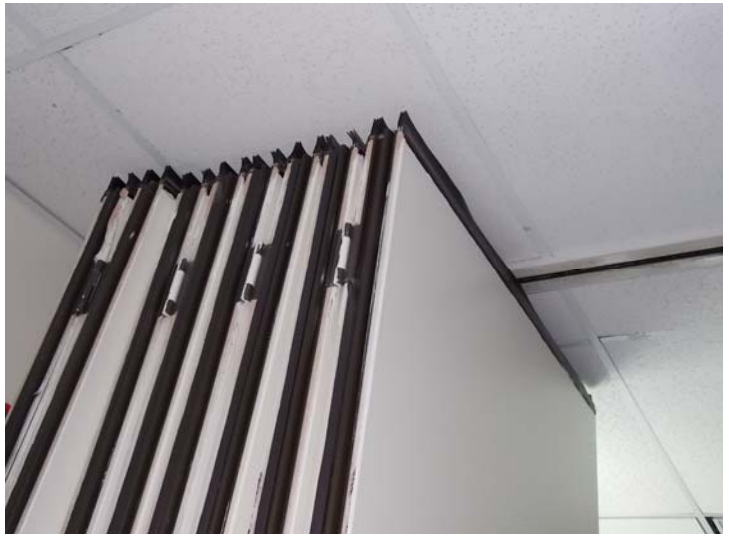
The school also includes a theater, which is located in the main building.

A view of the music room.



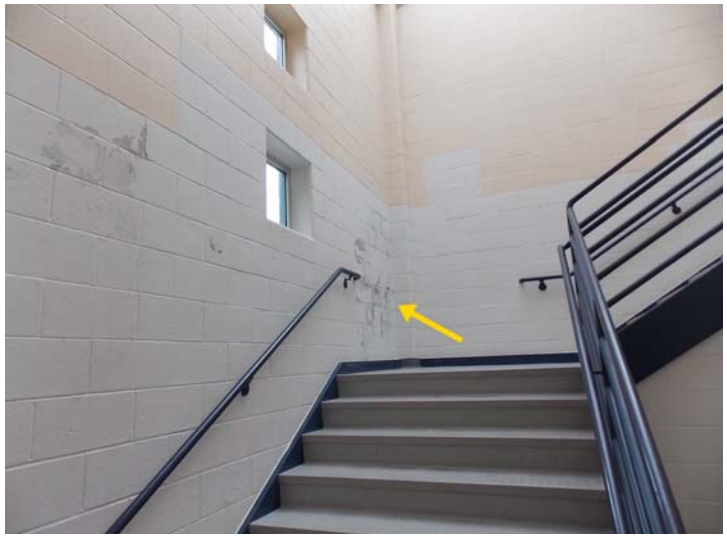
A close-up of different carpeting in a student lounge. Carpet tiles should be considered to help maintain a consistent appearance when replacing damaged sections.

Classrooms have ceiling tiles, painted walls, and carpeted floors.



A close-up of folding partitions in between two classrooms.

This lab which has been recently closed, has most of the original finishes including cabinets and countertops.



Moisture damage observed in one of the stairwells.

This boiler plant produces hydronic heat for the main building.

The pair of boilers that serve the annex building.

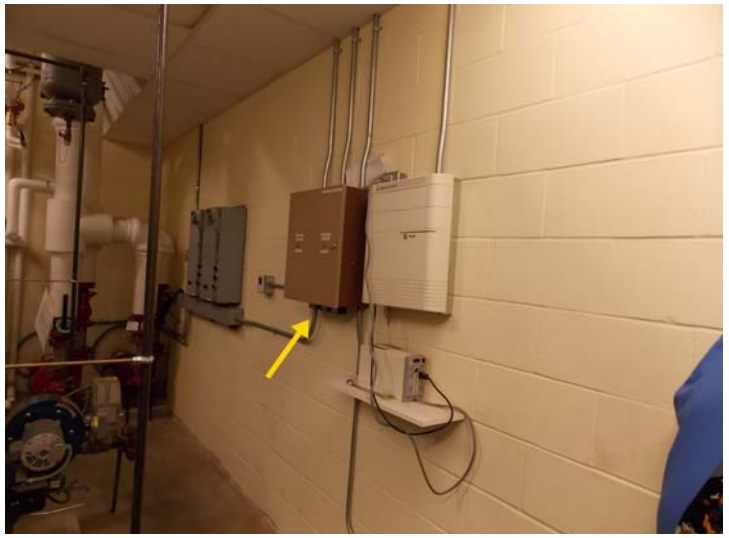
This pair of DHW boilers (400-gallon capacity each) serves the main building.

This natural gas-fired condensing boiler produces DHW for the annex building. The combustion air enters and flue gas vents through the sidewall.

The pair of hydronic heat circulating pumps in the main building.

The hydronic heat circulating pumps in the annex building. To the left is the DHW storage tank.

This electric-heated DHW tank serves both restrooms at the field house (by the stadium).



An energy management system (EMS) control panel in the main building.

The fire alarm control panel (FACP) and an emergency light fixture in the foyer of the annex building.

The FACP in the main building.

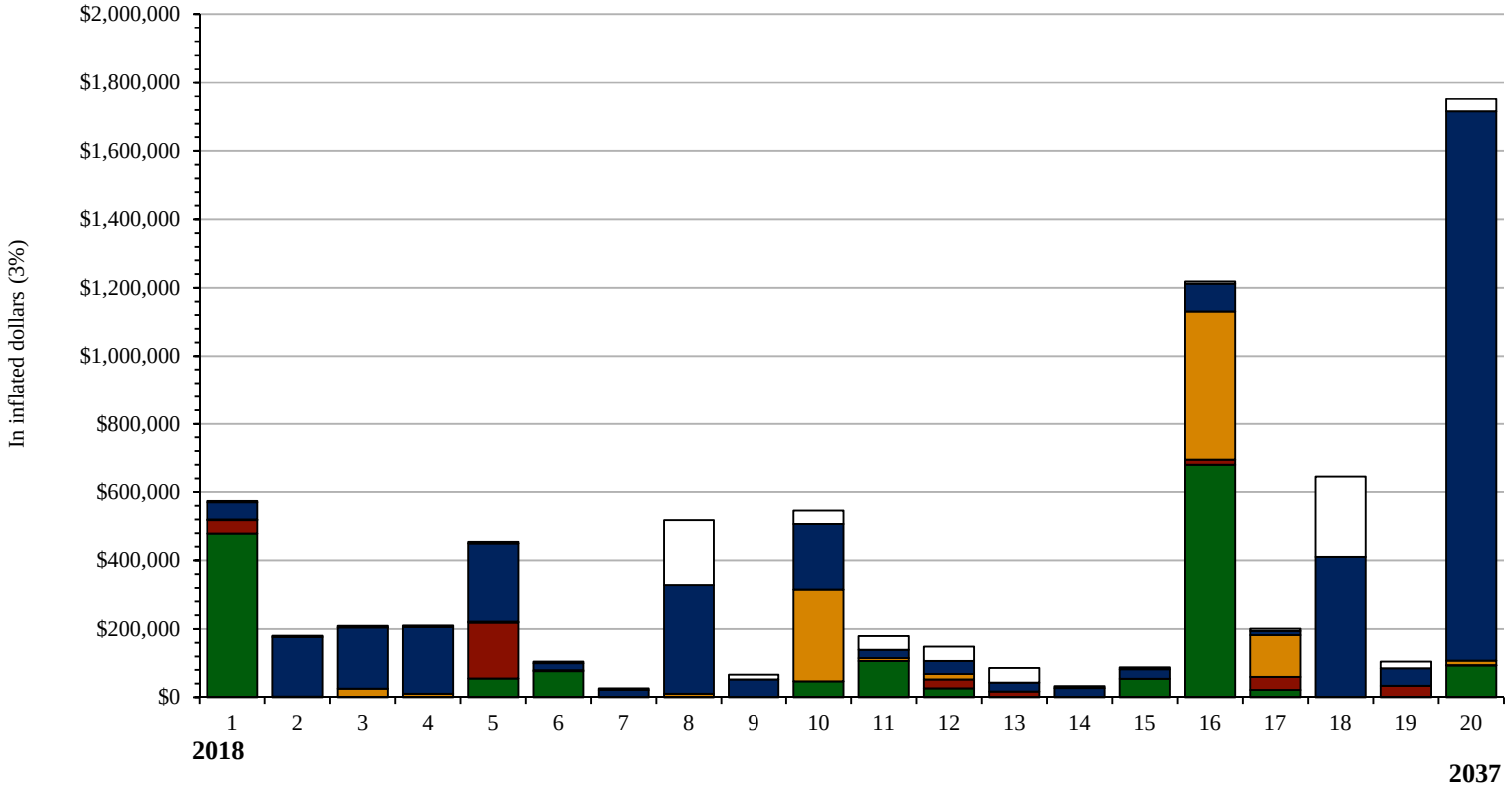
The backflow preventer on the fire sprinkler system.

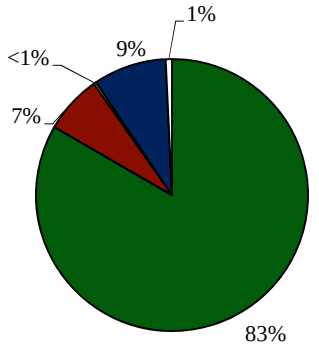
A view in one of the elevator equipment rooms.

This 100 kW natural gas powered generator produces emergency power for the main building.

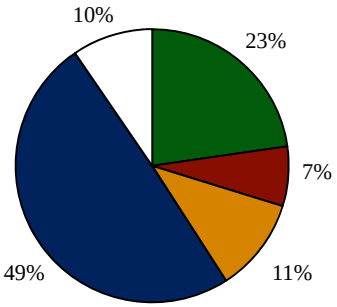
The pair of sump pumps in the main building.

Souhegan High School





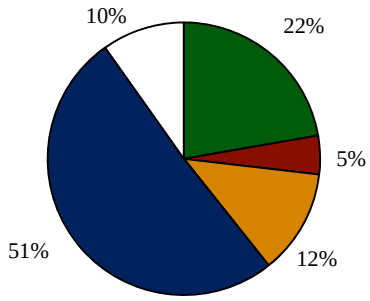
Year One Distribution



Ten Year Distribution

Total Costs by Building System (inflated dollars)

	In Year 1	In Years 1-10	In Years 1-20
Site Systems	$478,707 or $2.84 / SF	$656,766 or $3.90 / SF	$1,637,186 or $9.71 / SF
Mechanical Room	$39,600 or $.23 / SF	$204,038 or $1.21 / SF	$335,418 or $1.99 / SF
Building Mech. & Elec.	$1,900 or $.01 / SF	$321,368 or $1.91 / SF	$916,140 or $5.44 / SF
Building Architectural	$49,919 or $.30 / SF	$1,431,876 or $8.49 / SF	$3,739,497 or $22.19 / SF
Program Areas	$4,250 or $.03/SF	$276,956 or $1.64/SF	$720,769 or $4.28/SF
In inflated dollars:	**$574,376 or $3.41/SF**	**$2,891,005 or $17.15/SF**	**$7,349,010 or $43.60/SF**
In current dollars:	$574,376 or $3.41/SF	$2,548,098 or $15.12/SF	$5,289,274 or $31.38/SF



Twenty Year Distribution

Capital Needs Summary

OSI Ref:	**17258**	Number of Buildings:	**2**
Property Age:	**25 Years**	Total Number of Units:	**168556**
Financing:	**Municipal**	Occupancy:	**School**

Souhegan High School

Amherst, NH 03031

	2018 Year 1	2019 Year 2	2020 Year 3	2021 Year 4	2022 Year 5	2023 Year 6	2024 Year 7	2025 Year 8	2026 Year 9	2027 Year 10
Site Systems										
Surface	$478,707	$0	$0	$0	$55,162	$76,172	$0	$0	$0	$46,725
Site Distribution Systems	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Site Sub-Total	**$478,707**	**$0**	**$0**	**$0**	**$55,162**	**$76,172**	**$0**	**$0**	**$0**	**$46,725**
Mechanical Room										
Boilers	$0	$0	$0	$0	$163,762	$0	$0	$0	$0	$0
Boiler Room Systems	$39,600	$0	$0	$0	$0	$0	$0	$676	$0	$0
Mechanical Sub-Total	**$39,600**	**$0**	**$0**	**$0**	**$163,762**	**$0**	**$0**	**$676**	**$0**	**$0**
Building Mech. & Electrical										
Mechanical	$1,900	$1,957	$2,016	$2,076	$2,138	$0	$0	$0	$0	$0
Electrical	$0	$0	$22,809	$0	$0	$3,153	$0	$0	$0	$268,131
Elevators	$0	$0	$0	$8,086	$0	$0	$0	$9,101	$0	$0
Mechanical & Electrical Sub-Total	**$1,900**	**$1,957**	**$24,825**	**$10,162**	**$2,138**	**$3,153**	**$0**	**$9,101**	**$0**	**$268,131**
Building Architectural										
Structural and Exterior	$23,544	$0	$0	$10,675	$0	$0	$0	$370	$381	$392
Roof Systems	$8,500	$0	$0	$0	$0	$0	$0	$0	$0	$168,009
Classrooms/Halls/Stairs	$13,625	$135,909	$139,986	$144,185	$186,778	$15,795	$16,269	$218,794	$17,260	$17,778
Gym/Restrooms/Locker Rms	$4,250	$38,430	$39,583	$40,770	$41,994	$4,927	$5,075	$98,885	$34,169	$5,545
Building Architectural Sub-Total	**$49,919**	**$174,339**	**$179,569**	**$195,631**	**$228,772**	**$20,722**	**$21,344**	**$318,049**	**$51,809**	**$191,724**
Support Areas										
Cafeteria/Theater	$4,250	$4,378	$4,509	$4,644	$4,783	$4,927	$5,075	$60,081	$5,384	$5,545
Library	$0	$0	$0	$0	$0	$0	$0	$62,371	$9,247	$9,525
Admin Offices	$0	$0	$0	$0	$0	$0	$0	$61,989	$0	$0
Kitchen	$0	$0	$0	$0	$0	$0	$0	$5,785	$0	$24,464
Program Areas Sub-Total	**$4,250**	**$4,378**	**$4,509**	**$4,644**	**$4,783**	**$4,927**	**$5,075**	**$190,225**	**$14,631**	**$39,535**
Total Capital Costs	**$574,376**	**$180,673**	**$208,903**	**$210,437**	**$454,617**	**$104,974**	**$26,418**	**$518,051**	**$66,440**	**$546,114**

Costs on these two pages are aggregated by category from the Capital Needs worksheets which follow. Total capital costs on these two pages are carried forward to line F of the Replacement Reserve Analysis(es) that follow.

2028 Year 11	**2029** Year 12	**2030** Year 13	**2031** Year 14	**2032** Year 15	**2033** Year 16	**2034** Year 17	**2035** Year 18	**2036** Year 19	**2037** Year 20	
										Site Systems
$106,044	$25,608	$0	$0	$54,167	$679,937	$21,182	$0	$0	$62,795	Surface
$0	$0	$0	$0	$0	$0	$0	$0	$0	$30,686	Site Distribution Systems
$106,044	**$25,608**	**$0**	**$0**	**$54,167**	**$679,937**	**$21,182**	**$0**	**$0**	**$93,481**	Site Sub-Total
										Mechanical Room
$0	$26,993	$16,717	$0	$0	$0	$24,071	$0	$33,197	$0	Boilers
$0	$0	$0	$0	$0	$14,995	$14,442	$0	$0	$964	Boiler Room Systems
$0	**$26,993**	**$16,717**	**$0**	**$0**	**$14,995**	**$38,513**	**$0**	**$33,197**	**$964**	Mechanical Sub-Total
										Building Mech. & Electrical
$8,467	$15,573	$0	$0	$0	$419,872	$0	$0	$0	$0	Mechanical
$0	$0	$0	$0	$0	$4,238	$122,118	$0	$0	$0	Electrical
$0	$0	$0	$0	$0	$11,529	$0	$0	$0	$12,976	Elevators
$8,467	**$15,573**	**$0**	**$0**	**$0**	**$435,639**	**$122,118**	**$0**	**$0**	**$12,976**	Mechanical & Electrical Sub-Total
										Building Architectural
$404	$13,939	$428	$441	$455	$70,257	$482	$497	$512	$36,069	Structural and Exterior
$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,559,523	Roof Systems
$18,311	$18,860	$19,426	$20,009	$20,609	$4,869	$5,015	$276,686	$5,320	$5,480	Classrooms/Halls/Stairs
$5,712	$5,883	$6,059	$6,241	$6,429	$6,621	$6,820	$132,893	$45,920	$7,452	Gym/Restrooms/Locker Rms
$24,426	**$38,682**	**$25,914**	**$26,691**	**$27,492**	**$81,747**	**$12,317**	**$410,076**	**$51,752**	**$1,608,524**	Building Architectural Sub-Total
										Support Areas
$5,712	$5,883	$6,059	$6,241	$6,429	$6,621	$6,820	$125,657	$7,235	$24,111	Cafeteria/Theater
$9,811	$10,105	$10,408	$0	$0	$0	$0	$83,821	$12,428	$12,801	Library
$0	$0	$0	$0	$0	$0	$0	$18,012	$0	$0	Admin Offices
$25,198	$25,954	$26,733	$0	$0	$0	$0	$7,775	$0	$0	Kitchen
$40,721	**$41,942**	**$43,201**	**$6,241**	**$6,429**	**$6,621**	**$6,820**	**$235,264**	**$19,663**	**$36,911**	Program Areas Sub-Total
$179,658	**$148,798**	**$85,832**	**$32,933**	**$88,088**	**$1,218,939**	**$200,950**	**$645,340**	**$104,612**	**$1,752,857**	**Total Capital Costs**

Souhegan High School

SITE SYSTEMS

(Expected Useful life)

Replacement Items	Quantity		Cost per unit in 2018 $$	Total Cost in 2018 $$	AGE (Years)	EUL (Years)	Replacement Schedule Year of action AND duration of project	Notes
SURFACE								
Parking/Driveways/Walkways	178,133	sf	2.45	$436,426	Varies	20	16 in 1 Year	Asphalt paved; cracked and damaged areas observed Resurface in Year 11
Crack-Fill and Sealcoat	187,733	sf	0.35	$65,707	Varies	5	1 /6 /11 in 1 Year	Cracks and surface damage observed. Crack-fill, sealcoat, and re-stripe in Years 1, 6, and 11
Sidewalks	9,600	sf		$0	Varies	60		Concrete, in good condition Maintain out of Operating
Outdoor Courts		sf						
Retaining Walls		lf						
Retaining Walls		lf						
Fencing	1,475	lf		$0	25	20		Chain-link at perimeter of stadium and athletic fields Maintain out of Operating
Track & Field	119,370 1	sf ls	35811.00	$35,811	1	25	5 /10 /15 /20 in 1 Year	Artificial turf football field, rubber track, pole vault area, etc. Allowance to repair in Yrs 5, 10, 15, and 20
Play Equipment		ls						
Site Lighting	40	ea	330.00	$13,200	1	6	5 /11 /17 in 1 Year	Pole-mounted 1,500w metal halide lamps at stadium Replace
Site Lighting		ea						
Landscaping	1	ls	18500.00	$18,500	25	60	12 in 1 Year	Surround lawn, garden beds, and trees Upgrade allowance
Storage Building	1	ls	402500.00	$402,500	ADD	30	1 in 1 Year	Add storage facility for maintenance and outdoor equipment storage. Includes design & construction mgmt. **Discuss**
Stadium Seating	1	ls	10500.00	$10,500	25	40	1 in 1 Year	Aluminum benches Allowance to add accessible seating in Yr 1. **Discuss**
Concession Stand Building	1	ls		$0	25	20		CMU bldg, in good condition Maintain out of Operating
SITE DISTRIBUTION SYSTEMS								
Gas Lines	1	ls		$0	25	60		Maintain out of Operating
Sanitary Lines	1	ls		$0	25	60		Maintain out of Operating
Cold Water Lines	1	ls		$0	25	60		Maintain out of Operating
Electric Distribution	1	ls		$0	25	60		Maintain out of Operating
Sanitary Leach fields	1	ls	17500.00	$17,500	25	60	20 in 1 Year	Gravity-fed Service allowance
Miscellaneous		lf						

Costs projected at 3%

Replacement Items	Year 1 2018	Year 2 2019	Year 3 2020	Year 4 2021	Year 5 2022	Year 6 2023	Year 7 2024	Year 8 2025	Year 9 2026	Year 10 2027	Year 11 2028	Year 12 2029	Year 13 2030	Year 14 2031	Year 15 2032	Year 16 2033	Year 17 2034	Year 18 2035	Year 19 2036	Year 20 2037
SURFACE																				
Parking/Driveways/Walkways	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$679,937	$0	$0	$0	$0
Crack-Fill and Sealcoat	$65,707	$0	$0	$0	$0	$76,172	$0	$0	$0	$0	$88,304	$0	$0	$0	$0	$0	$0	$0	$0	$0
Sidewalks	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Outdoor Courts	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Retaining Walls	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Retaining Walls	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Fencing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Track & Field	$0	$0	$0	$0	$40,306	$0	$0	$0	$0	$46,725	$0	$0	$0	$0	$54,167	$0	$0	$0	$0	$62,795
Play Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Site Lighting	$0	$0	$0	$0	$14,857	$0	$0	$0	$0	$0	$17,740	$0	$0	$0	$0	$0	$21,182	$0	$0	$0
Site Lighting	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Landscaping	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$25,608	$0	$0	$0	$0	$0	$0	$0	$0
Storage Building	$402,500	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Stadium Seating	$10,500	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Concession Stand Building	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
SITE DISTRIBUTION SYSTEMS																				
Gas Lines	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Sanitary Lines	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Cold Water Lines	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Electric Distribution	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Sanitary Leach fields	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$30,686
Miscellaneous	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Souhegan High School

MECHANICAL ROOM

(Expected Useful life)

Replacement Items	Quantity	Cost per unit in 2018 $$	Total Cost in 2018 $$	AGE (Years)	EUL (Years)	Replacement Schedule Year of action AND duration of project	Notes
BOILERS							
Boilers - Main Bldg	10 ea	12600.00	$126,000	25	30	5 in 1 Year	Natural gas-fired Hydrotherms (300 MBH input each) Replace in Year 5, consider condensing boilers. **Discuss**
Boilers - Annex Bldg	2 ea	5862.50	$11,725	4	30	13 in 1 Year	Natural gas-fired Burnhams (1,674 MBH input each) Service allowance in Year 13
Controls - EMS	1 ls	19500.00	$19,500	Varies	20	5 /12 /19 in 1 Year	Andover Controls EMS, governs boilers & rooftop equip Allowance to upgrade in Years 5, 12, and 19
Circulating Pumps - Main Bldg	2 ea	7500.00	$15,000	8	25	17 in 1 Year	Base-mounted 7.5 hp ea Replace in Year 17; consider VFDs and eff motors. **Discuss**
Circulating Pumps - Annex Bldg	2 ea		$0	4	25		Base-mounted 5 hp ea Maintain out of Operating
Chilled Water Pumps	ls						
Cooling Water Pumps	ea						
Variable Frequency Drives	ls						
Miscellaneous	ls						
Combustion Air	1 ls		$0	8	30		Mix of ducted air source, sealed combustion Maintain out of Operating
Flue Exhaust	1 ls		$0	8	30		Galvanized steel (boilers) and CPVC (DHW tanks); in good condition. Maintain out of Operating
BOILER ROOM SYSTEMS							
Boiler Room Piping/Valves	1 ls		$0	Varies	25		No observed leaks or pipe corrosion Maintain out of Operating
Heat Exchanger	ea						
	2 ea	26750.00	$53,500	25	25		Natural gas-fired Polyshield Turbo Power. Replace in Yr 1
DHW Generation - Main Bldg	1 ls	39600.00	$39,600	25	20	1 in 1 Year	with condensing DHW blr and storage tank. **Discuss**
DHW Generation -Annex Bldg	1 ls	9625.00	$9,625	4	20	16 in 1 Year	Natural gas-fired condensing blr w/50-gal storage tank Replace in Year 16
DHW Generation -Concession	1 ls	550.00	$550	4	12	8 /20 in 1 Year	Electric heated 20-gal tank Replace in Years 8 and 20
DHW Pumps	1 ls		$0	25	15		In-line fractional hp pumps Maintain out of Operating
Boiler Room Piping Insulation	1 ls		$0	25	30		
Fuel Oil Storage	1 ea		$0	25	25		Day tank for generator; maintain out of Operating
Fuel Oil Transfer System	ls						
Sump Pumps	2 ea	4500.00	$9,000	8	25	17 in 1 Year	Replace in Year 17

Costs projected at 3%

Replacement Items	Year 1 2018	Year 2 2019	Year 3 2020	Year 4 2021	Year 5 2022	Year 6 2023	Year 7 2024	Year 8 2025	Year 9 2026	Year 10 2027	Year 11 2028	Year 12 2029	Year 13 2030	Year 14 2031	Year 15 2032	Year 16 2033	Year 17 2034	Year 18 2035	Year 19 2036	Year 20 2037
BOILERS																				
Boilers - Main Bldg	$0	$0	$0	$0	$141,814	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Boilers - Annex Bldg	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$16,717	$0	$0	$0	$0	$0	$0	$0
Controls - EMS	$0	$0	$0	$0	$21,947	$0	$0	$0	$0	$0	$0	$26,993	$0	$0	$0	$0	$0	$0	$33,197	$0
Circulating Pumps - Main Bldg	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$24,071	$0	$0	$0
Circulating Pumps - Annex Bldg	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Chilled Water Pumps	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Cooling Water Pumps	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Variable Frequency Drives	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Miscellaneous	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Combustion Air	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Flue Exhaust	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
BOILER ROOM SYSTEMS																				
Boiler Room Piping/Valves	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Heat Exchanger	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
DHW Generation - Main Bldg	$39,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
DHW Generation -Annex Bldg	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$14,995	$0	$0	$0	$0
DHW Generation -Concession	$0	$0	$0	$0	$0	$0	$0	$676	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$964
DHW Pumps	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Boiler Room Piping Insulation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Fuel Oil Storage	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Fuel Oil Transfer System	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Sump Pumps	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$14,442	$0	$0	$0

Souhegan High School

BUILDING MECHANICAL AND ELECTRICAL

(Expected Useful life)

Replacement Items	Quantity	Cost per unit in 2018 $$	Total Cost in 2018 $$	AGE (Years)	EUL (Years)	Replacement Schedule Year of action AND duration of project	Notes
BUILDING MECHANICAL							
Building Fire Suppression	1 ls		$0	25	50		Connected to water main Backflow preventer in place; maintain out of Operating
Hydronic Heat Distribution	1 ls		$0	25	50		No observed or reported systemic problems Maintain out of Operating
Domestic Hot/Cold Water Dist.	1 ls		$0	25	50		No observed or reported systemic problems Maintain out of Operating
Building Sanitary Waste & Vent. Dist.	1 ls		$0	25	40		No observed or reported systemic problems Maintain out of Operating
Building Gas Distribution	1 ea		$0	25	50		No observed or reported systemic problems Maintain out of Operating
Rooftop Units - Large	3 ea	41500.00	$124,500	4	20	16 in 1 Year	Trane units: 30 to 75-tons of cooling Replace in Year 16
Rooftop Make-up Air	10 ea	14500.00	$145,000	4	20	16 in 1 Year	Replace in Year 16
Heating/Ventilation (HV Units)	ea						
Air Handler Unit/ Unit Ventilators	1 ls	9500.00	$9,500	Varies	25	1 over 5 Years	Fan coil ventilators with fresh air intake in various areas Repair allowance
Split DX Air Conditioning	3 ea	2100.00	$6,300	4	15	11 in 1 Year	Cooling for program areas (Server room, elevators, etc.) Replace in Year 11
Exhaust Fans	15 ea	750.00	$11,250	Varies	20	12 in 1 Year	Upgrade in Year 12
Water Treatment	ea						
BUILDING ELECTRICAL							
Building Power Wiring	1 ls		$0	25	99		Main switchgear, panels, and transformers Monitor
Emergency Generator	1 ls	92500.00	$92,500	25	35	10 in 1 Year	Generac 100 kW serves main bldg Replace in Year 10
Emergency Lights	1 ls	2720.00	$2,720	4	10	6 /16 in 1 Year	Battery powered fixtures in the Annex Bldg Replace in Years 6 and 16
		54600.00	$54,600			/17 in 1 Year	Simplex FACPs w/ detection & alarm devices in both bldgs
Smoke / Fire Detection	1 ls	91500.00	$91,500	Varies	20	10 in 1 Year	Upgrade main bldg sys in Yr 10; annex bldg in Year 17
Signaling / Communication	1 ls	21500.00	$21,500	Varies	20	3 /10 /17 in 1 Year	Video monitoring, central clock, P/A system Upgrade allowance
BUILDING ELEVATORS							
Cabs - Main Bldg	1 ea	7400.00	$7,400	8	12	4 /16 in 1 Year	Dover hydraulic elevator w/full service contract Allowance to refurbish cab in Years 4 and 16
Machine Rm Equip - Main Bldg	1 ea		$0	8	35		Dover hydraulic Maintained by full service contract
Cabs - Annex	1 ls	7400.00	$7,400	4	12	8 /20 in 1 Year	ThyssenKrupp hydraulic elevator w/full service contract Allowance to refurbish cab in Years 4 and 16
Machine Rm Equip - Annex	1 ls		$0	4	35		ThyssenKrupp hydraulic Maintained by full service contract

Costs projected at 3%

Replacement Items	Year 1 2018	Year 2 2019	Year 3 2020	Year 4 2021	Year 5 2022	Year 6 2023	Year 7 2024	Year 8 2025	Year 9 2026	Year 10 2027	Year 11 2028	Year 12 2029	Year 13 2030	Year 14 2031	Year 15 2032	Year 16 2033	Year 17 2034	Year 18 2035	Year 19 2036	Year 20 2037
BUILDING MECHANICAL																				
Building Fire Suppression	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Hydronic Heat Distribution	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Domestic Hot/Cold Water Dist.	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Building Sanitary Waste & Vent. Dist.	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Building Gas Distribution	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Rooftop Units - Large	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$193,967	$0	$0	$0	$0
Rooftop Make-up Air	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$225,905	$0	$0	$0	$0
Heating/Ventilation (HV Units)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Air Handler Unit/ Unit Ventilators	$1,900	$1,957	$2,016	$2,076	$2,138	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Split DX Air Conditioning	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$8,467	$0	$0	$0	$0	$0	$0	$0	$0	$0
Exhaust Fans	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$15,573	$0	$0	$0	$0	$0	$0	$0	$0
Water Treatment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
BUILDING ELECTRICAL																				
Building Power Wiring	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Emergency Generator	$0	$0	$0	$0	$0	$0	$0	$0	$0	$120,692	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Emergency Lights	$0	$0	$0	$0	$0	$3,153	$0	$0	$0	$0	$0	$0	$0	$0	$0	$4,238	$0	$0	$0	$0
Smoke / Fire Detection	$0	$0	$0	$0	$0	$0	$0	$0	$0	$119,387	$0	$0	$0	$0	$0	$0	$87,617	$0	$0	$0
Signaling / Communication	$0	$0	$22,809	$0	$0	$0	$0	$0	$0	$28,053	$0	$0	$0	$0	$0	$0	$34,501	$0	$0	$0
BUILDING ELEVATORS																				
Cabs - Main Bldg	$0	$0	$0	$8,086	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$11,529	$0	$0	$0	$0
Machine Rm Equip - Main Bldg	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Cabs - Annex	$0	$0	$0	$0	$0	$0	$0	$9,101	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$12,976
Machine Rm Equip - Annex	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Souhegan High School

BUILDING ARCHITECTURE

(Expected Useful life)

Replacement Items	Quantity		Cost per unit in 2018 $$	Total Cost in 2018 $$	AGE (Years)	EUL (Years)	Replacement Schedule Year of action AND duration of project	Notes
STRUCTURE								
Foundation	2,326	lf		$0	25	50		Concrete slab Monitor
Framing		ls						
Slab		sf						
Miscellaneous		ls						
BUILDING EXTERIOR								
Exterior Common Doors	10	ea		$0	Varies	35		Metal framed glass storefront type, multiple doors Maintain out of Operating
Automatic Door Openers		ea						
Secondary Doors	5	ea		$0	Varies	35		Solid core metal doors Maintain out of Operating
Service Doors	7	ea	1500.00	$10,500	Varies	30	20 in 1 Year	Double leaf metal doors, in good condition Replace
Storm Doors		ea						
Exterior Walls - Brick	50,883 763	ttl sf sf	11.85	$9,044	25	60	1 /16 in 1 Year	In good condition; isolated mortar loss and efflorescence Allowance for repointing in Years 1 and 16
Exterior Walls - Metal Panels	24,423	sf	0.40	$9,769	25	60	4 /12 /20 in 1 Year	Metal composite panels, in good condition Power wash in Yrs 4, 12, and 20
Exterior Walls - Masonry Blocks	6,104 1	ls	14500.00	$14,500	Varies	60	1 in 1 Year	Deteriorated edges and hairline cracks observed Repoint/replace in Year 1
Exterior Walls - Glass	6,000	sf		$0	25	40		Metal framed plate glass, in good condition Maintain out of Operating
Exterior Caulking	1	ls	19500.00	$19,500	Varies	20	16 in 1 Year	Replace in Year 16
Window Frames	161	ea		$0	12	35		Metal framed double glazed Maintain out of Operating
Window Lintels	1	ls	16250.00	$16,250	Varies	65	16 in 1 Year	Metal, some rust observed on exposed edges Scrape, prime, and repaint in Year 16
Window Frames		ea						
Window Glass	32	ea	140.00	$4,508	12	20	8 over 15 Years	Allowance for glazing damage (breaks and fogging) starts in Year 8
Storm / Screen Windows		ls						
Balcony Railings		ea						
Fire Escapes		ea						
Bldg Mounted Lighting	1	ls		$0	25	15		Maintain out of Operating

Costs projected at 3%

Replacement Items	Year 1 2018	Year 2 2019	Year 3 2020	Year 4 2021	Year 5 2022	Year 6 2023	Year 7 2024	Year 8 2025	Year 9 2026	Year 10 2027	Year 11 2028	Year 12 2029	Year 13 2030	Year 14 2031	Year 15 2032	Year 16 2033	Year 17 2034	Year 18 2035	Year 19 2036	Year 20 2037
STRUCTURE																				
Foundation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Framing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Slab	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Miscellaneous	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
BUILDING EXTERIOR																				
Exterior Common Doors	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Automatic Door Openers	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Secondary Doors	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Service Doors	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$18,412
Storm Doors	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Exterior Walls - Brick	$9,044	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$14,091	$0	$0	$0	$0
Exterior Walls - Metal Panels	$0	$0	$0	$10,675	$0	$0	$0	$0	$0	$0	$0	$13,523	$0	$0	$0	$0	$0	$0	$0	$17,130
Exterior Walls - Masonry Blocks	$14,500	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Exterior Walls - Glass	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Exterior Caulking	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$30,380	$0	$0	$0	$0
Window Frames	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Window Lintels	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$25,317	$0	$0	$0	$0
Window Frames	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Window Glass	$0	$0	$0	$0	$0	$0	$0	$370	$381	$392	$404	$416	$428	$441	$455	$468	$482	$497	$512	$527
Storm / Screen Windows	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Balcony Railings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Fire Escapes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bldg Mounted Lighting	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

BUILDING ARCHITECTURE--*continued*

(Expected Useful life)

Replacement Items	Quantity	Cost per unit in 2018 $$	Total Cost in 2018 $$	AGE (Years)	EUL (Years)	Replacement Schedule Year of action AND duration of project	Notes
ROOF SYSTEMS							
Structure	59,892 sf		$0	25	40		Monitor
		14.85	$597,527		20	20 in 1 Year	Rubber membrane. Reseal membrane seams in Year 10
Roof - Main Bldg	40,238 sf	2.15	$86,511	4	20	10 in 1 Year	Replace membrane in Year 20
		14.85	$291,847		20	/20 in 1 Year	Rubber membrane. Reseal membrane seams in Year 10
Roof - Annex Bldg	19,653 sf	2.15	$42,254	4	20	10 in 1 Year	Replace membrane in Year 20
							Deck w/ pavers, poor drainage, ponding & vegetation growth
Roof Deck	1 ls	8500.00	$8,500	18	20	1 in 1 Year	Allowance to modify membrane pitch, replace pavers in Yr 1
Roof	sf						
							Interior drains; good pitch
Roof Drainage	1 ls		$0	Varies	40		Maintain out of Operating
							Metal framed, in good condition
Skylights - Large	1 ea		$0	4	25		Maintain out of Operating
							Metal framed, in good condition
Skylights - Small	5 ea		$0	4	25		Maintain out of Operating
Chimney	ls						
CLASSROOMS							Painted
Walls	107,540 sf	0.70	$75,278	Varies	10	8 /18 in 1 Year	Repaint in Years 8 and 18
							Suspended ceiling tiles
Ceilings	80,906 sf	1.10	$88,997	Varies	10	8 /18 in 1 Year	Replace
					10		Carpeted, in varying conditions
Floors	80,906 sf	5.85	$473,300	Varies	25	2 over 4 Years	Replace with vinyl plank starting in Year 2
							Durability and noise concerns. Replace w/sound
Movable Partitions	10 ea	3400.00	$34,000	Varies	20	5 in 1 Year	attenuating and resilient folding partitions.
							Fluorescent fixtures
Lighting	1 ls		$0	Varies	25		Maintain out of Operating; consider LEDs -Discuss
							Desks, chairs, tables, etc.
Furniture	1 ls	157500.00	$157,500	Varies	20	1 over 15 Years	Replacement allowance
							Computers, projectors, screens, whiteboards, etc.
Equipment	1 ls	62500.00	$62,500	Varies	25	1 over 20 Years	Replacement allowance
Miscellaneous	ls						
HALLS/STAIRS/LOBBY							Painted
Walls	29,400 sf	0.70	$20,580	2	10	8 /18 over 2 Year	Repaint in Years 8 and 18
							Suspended ceiling tiles
Ceilings	22,606 sf	1.10	$24,866	2	10	8 /18 over 2 Year	Replace
					10		Carpeted, in varying conditions
Floors	22,606 sf	5.85	$132,243	Varies	25	2 over 4 Year	Replace with vinyl plank starting in Year 2
							Metal lockers, older ones with combination locks
Lockers	1 sf	55000.00	$55,000	Varies	30	1 over 20 Year	Repair allowance
							Fluorescent fixtures
Lighting	1 ls		$0	25	20		Maintain out of Operating; consider LEDs -Discuss
Miscellaneous	ls						

Costs projected at 3%

Replacement Items	Year 1 2018	Year 2 2019	Year 3 2020	Year 4 2021	Year 5 2022	Year 6 2023	Year 7 2024	Year 8 2025	Year 9 2026	Year 10 2027	Year 11 2028	Year 12 2029	Year 13 2030	Year 14 2031	Year 15 2032	Year 16 2033	Year 17 2034	Year 18 2035	Year 19 2036	Year 20 2037
ROOF SYSTEMS																				
Structure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Roof - Main Bldg	$0	$0	$0	$0	$0	$0	$0	$0	$0	$112,877	$0	$0	$0	$0	$0	$0	$0	$0	$0	########
Roof - Annex Bldg	$0	$0	$0	$0	$0	$0	$0	$0	$0	$55,132	$0	$0	$0	$0	$0	$0	$0	$0	$0	$511,756
Roof Deck	$8,500	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Roof	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Roof Drainage	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Skylights - Large	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Skylights - Small	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Chimney	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
CLASSROOMS																				
Walls	$0	$0	$0	$0	$0	$0	$0	$92,582	$0	$0	$0	$0	$0	$0	$0	$0	$0	$124,423	$0	$0
Ceilings	$0	$0	$0	$0	$0	$0	$0	$109,455	$0	$0	$0	$0	$0	$0	$0	$0	$0	$147,098	$0	$0
Floors	$0	$121,875	$125,531	$129,297	$133,176	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Movable Partitions	$0	$0	$0	$0	$38,267	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Lighting	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Furniture	$10,500	$10,815	$11,139	$11,474	$11,818	$12,172	$12,538	$12,914	$13,301	$13,700	$14,111	$14,534	$14,970	$15,420	$15,882	$0	$0	$0	$0	$0
Equipment	$3,125	$3,219	$3,315	$3,415	$3,517	$3,623	$3,731	$3,843	$3,959	$4,077	$4,200	$4,326	$4,456	$4,589	$4,727	$4,869	$5,015	$5,165	$5,320	$5,480
Miscellaneous	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
HALLS/STAIRS/LOBBY																				
Walls	$0	$0	$0	$0	$0	$0	$0	$12,655	$13,035	$0	$0	$0	$0	$0	$0	$0	$0	$17,008	$17,518	$0
Ceilings	$0	$0	$0	$0	$0	$0	$0	$15,291	$15,750	$0	$0	$0	$0	$0	$0	$0	$0	$20,550	$21,166	$0
Floors	$0	$34,053	$35,074	$36,126	$37,210	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Lockers	$2,750	$2,833	$2,917	$3,005	$3,095	$3,188	$3,284	$3,382	$3,484	$3,588	$3,696	$3,807	$3,921	$4,038	$4,160	$4,284	$4,413	$4,545	$4,682	$4,822
Lighting	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Miscellaneous	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

BUILDING ARCHITECTURE--*continued*

(Expected Useful life)

Replacement Items	Quantity	Cost per unit in 2018 $$	Total Cost in 2018 $$	AGE (Years)	EUL (Years)	Replacement Schedule Year of action AND duration of project	Notes
GYMNASIUM/LOCKER ROOMS/RESTROOMS							
Walls	23,690 sf	0.85	$20,137	2	10	8 /18 in 1 Year	Painted Repaint
Ceilings	14,017 sf	0.85	$11,914	2	10	8 /18 in 1 Year	Painted Repaint
Floors	14,017 sf 9,295 sf	2.30	$21,379	2	10	8 /18 in 1 Year	Concrete, rubber, linoleum, and hardwood (in gym) Refinish in Years 8 and 18
Fixtures	1 ls		$0	25	25		Sinks, toilets, urinals, etc. Maintain out of Operating
Accessories	1 ls	30000.00	$30,000	25	20	1 over 20 Years	Metal lockers damaged in Boys' locker rm; lights, mirrors, etc. Allowance to repair/replace lockers
SUPPORT AREAS							
CAFETERIA and THEATER							
Walls/Ceilings	31,210 sf	0.70	$21,847	2	10	8 /18 in 1 Year	Painted Repaint
Café Floors	4,645 sf	5.85	$27,173	2	20 25	18 in 1 Year	VCT Replace with vinyl plank in Year 18
Theater Floors	7,340 sf	3.10	$22,754	2	10	8 /18 in 1 Year	Carpeted Replace with carpet tiles in Yrs 8 and 18
Furnishings	1 ls	85000.00	$85,000	Varies	20	1 over 20 Years	Tables, benches, stage equipment, theater seats Replacement allowance
Equipment	1 ls	9500.00	$9,500	Varies	20	20 in 1 Year	Stage lighting, A/V system Replacement allowance
LIBRARY							
Walls/Ceilings	16,157 sf	0.84	$13,572	2	10	8 /18 in 1 Year	Ceiling tiles, painted walls Replace tiles, repaint walls
Floors	11,981 sf	3.10	$37,141	2	10	8 /18 in 1 Year	Carpet Replace with carpet tiles in Yrs 8 and 18
Furnishing	1 ls	11500.00	$11,500	Varies	10	9 /19 over 5 Years	Tables, chairs, shelving, etc. Replacement allowance
Equipment	1 ls	25000.00	$25,000	Varies	10	9 /19 over 5 Years	Computers Replacement allowance
Miscellaneous							
ADMIN/SUPPORT OFFICES							
Walls/Ceilings	12,973 sf	0.84	$10,897	2	10	8 /18 in 1 Year	Ceiling tiles, painted walls Replace tiles, repaint walls
Floor Covering	6,753 sf	5.85	$39,505	Varies	25	8 in 1 Year	Carpeted, in varying conditions Replace with vinyl plank in Year 8
Equipment	1 ls		$0	Varies	10		Desks, chairs, cabinets, computers, copier, etc. Maintain out of Operating
KITCHEN							
Walls/Ceilings	5,600 sf	0.84	$4,704	2	10	8 /18 in 1 Year	Ceiling tiles, painted walls Replace tiles, repaint walls
Floors	2,450 sf		$0	15	35		Quarry tile, in good condition Maintain out of Operating
Cabinets/Countertops	1 ls		$0	25	20		Stainless steel cabinets and countertops Maintain out of Operating
Appliances	1 ls	75000.00	$75,000	Varies	25	10 over 4 Years	Walk-in refrig/freezer, gas range, dishwasher, comm equip. Allowance to replace appliances

Costs projected at 3%

Replacement Items	Year 1 2018	Year 2 2019	Year 3 2020	Year 4 2021	Year 5 2022	Year 6 2023	Year 7 2024	Year 8 2025	Year 9 2026	Year 10 2027	Year 11 2028	Year 12 2029	Year 13 2030	Year 14 2031	Year 15 2032	Year 16 2033	Year 17 2034	Year 18 2035	Year 19 2036	Year 20 2037
GYMNASIUM/LOCKER ROOMS/RESTROOMS																				
Walls	$0	$0	$0	$0	$0	$0	$0	$24,765	$0	$0	$0	$0	$0	$0	$0	$0	$0	$33,283	$0	$0
Ceilings	$0	$0	$0	$0	$0	$0	$0	$14,653	$0	$0	$0	$0	$0	$0	$0	$0	$0	$19,693	$0	$0
Floors	$0	$0	$0	$0	$0	$0	$0	$26,293	$0	$0	$0	$0	$0	$0	$0	$0	$0	$35,335	$0	$0
Fixtures	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Accessories	$1,500	$1,545	$1,591	$1,639	$1,688	$1,739	$1,791	$1,845	$1,900	$1,957	$2,016	$2,076	$2,139	$2,203	$2,269	$2,337	$2,407	$2,479	$2,554	$2,630
CAFETERIA and THEATER																				
Walls/Ceilings	$0	$0	$0	$0	$0	$0	$0	$26,869	$0	$0	$0	$0	$0	$0	$0	$0	$0	$36,110	$0	$0
Café Floors	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$44,913	$0	$0
Theater Floors	$0	$0	$0	$0	$0	$0	$0	$27,985	$0	$0	$0	$0	$0	$0	$0	$0	$0	$37,609	$0	$0
Furnishings	$4,250	$4,378	$4,509	$4,644	$4,783	$4,927	$5,075	$5,227	$5,384	$5,545	$5,712	$5,883	$6,059	$6,241	$6,429	$6,621	$6,820	$7,025	$7,235	$7,452
Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$16,658
LIBRARY																				
Walls/Ceilings	$0	$0	$0	$0	$0	$0	$0	$16,692	$0	$0	$0	$0	$0	$0	$0	$0	$0	$22,432	$0	$0
Floors	$0	$0	$0	$0	$0	$0	$0	$45,679	$0	$0	$0	$0	$0	$0	$0	$0	$0	$61,389	$0	$0
Furnishing	$0	$0	$0	$0	$0	$0	$0	$0	$2,914	$3,001	$3,091	$3,184	$3,279	$0	$0	$0	$0	$0	$3,916	$4,033
Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$6,334	$6,524	$6,720	$6,921	$7,129	$0	$0	$0	$0	$0	$8,512	$8,768
Miscellaneous	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
ADMIN/SUPPORT OFFICES																				
Walls/Ceilings	$0	$0	$0	$0	$0	$0	$0	$13,402	$0	$0	$0	$0	$0	$0	$0	$0	$0	$18,012	$0	$0
Floor Covering	$0	$0	$0	$0	$0	$0	$0	$48,586	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
KITCHEN																				
Walls/Ceilings	$0	$0	$0	$0	$0	$0	$0	$5,785	$0	$0	$0	$0	$0	$0	$0	$0	$0	$7,775	$0	$0
Floors	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Cabinets/Countertops	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Appliances	$0	$0	$0	$0	$0	$0	$0	$0	$0	$24,464	$25,198	$25,954	$26,733	$0	$0	$0	$0	$0	$0	$0

Appendix A: Statement of Delivery

Our Capital Needs Assessment (the "CNA" or the "Report") on the subject property is delivered subject to the following terms and conditions:

1. The report and analysis may be relied upon by you as a description of the observed current conditions of the building and site improvements, only as of the date of this report, and with the knowledge that certain limitations and exceptions within the report that are the reflective of the scope of services as defined in our contract. Although care has been taken in the performance of this assessment, ON-SITE INSIGHT, Inc. (and/or its representatives) makes no representations regarding latent or concealed defects that may exist and no warranty or guarantee is expressed or implied. This report is made only in the best exercise of our ability and judgment. Conclusions reached in this report assume current and continuing responsible ownership and competent property management.

2. We have undertaken no formal evaluation of environmental concerns, including but not limited to asbestos containing materials (ACMs), lead-based paint, chlorofluorocarbons (CFCs), polychlorinated biphenyls (PCBs), and mildew/mold.

3. Conclusions in this report are based on estimates of the age and normal working life of various items of equipment and/or statistical comparisons. Actual conditions can alter the useful life of any item. When an item needs immediate replacement depends on many factors, including previous use/misuse, irregularity of servicing, faulty manufacture, unfavorable conditions, Acts of God and unforeseen circumstances. Certain components that may be working when we made our inspection might deteriorate or break in the future without notice.

4. To prepare this report, we used historic data on capital activities and costs, blueprints (when available), and current prices for capital actions. We have not independently verified this information, have assumed that it is reliable, but assume no responsibility for its accuracy.

5. Unless otherwise noted in the report, we assume that all building components meet code requirements in force when the property was built.

6. If accessibility issues are referenced in the report, the site elements, common areas, and dwelling units at the development were examined for compliance with the requirements of the Uniform Federal Accessibility Standards (UFAS), and for Massachusetts properties, the Massachusetts Architectural Accessibility Board (AAB). The methodology employed in undertaking this examination is adapted from a Technical Assistance Guide (TAG-88-11) titled "Supplemental Information About the Section 504 Transition Plan Requirements" published by the Coordination and Review section of the U.S. Department of Justice Civil Rights Division, and the AAB Rules and Regulations, 521 CMR effective July 10, 1987. The Guide also incorporates the requirements of UFAS, published April 1, 1988 by the General Services Administration, the Department of Defense, the Department of Housing and Urban Development, and the U.S. Postal Service. Changes in legislation and/or regulations may make some observations moot.

7. Response Actions and estimated costs of responses were developed by ON-SITE INSIGHT, Inc. If additional structural work is necessary, costs for some Response Actions may exceed estimates. Whenever the Response Action is to remove, reposition, or modify walls, a competent structural engineer should be retained before any work is done, because such investigation may disclose that a Response Action is either more costly than estimated, or is not possible.

8. Conclusions reached in this report assume current and continuing responsible ownership and competent property management. Any unauthorized reliance on or use of the report, including any of its information or conclusions, will be at the third party's sole risk. For the same reasons, no warranties or representation, express or implied in this report, are made to any such third party. Reliance on the report by the client and all authorized parties will be subject to the terms, conditions and limitations stated in the contract Terms and Conditions. The limitation of liability defined in the Terms and Conditions is the aggregate limit of ON-SITE INSIGHT's liability to the client and all relying parties.

9. Regular updates of this plan are recommended to ensure careful monitoring of major building systems and to adjust the program to accommodate unanticipated circumstances surrounding the buildings, operations, and/or occupants.