Facility Condition Assessment Summary Report

This report provides a summary of the Facility Condition Index (FCI) value of a school facility and select major building systems. The FCI calculation represents the cost of needed repairs divided by the replacement value. The FCI is a numerical value of condition and helps to identify the need for renewal or replacement of specific parts of the facility. The FCI is particularly useful when comparing similar facilities within the same portfolio.

Brown, H A School

Governance	DISTRICT	Report Type	Elementarymiddle
Address	1946 E. Sergeant St.	Enrollment	526
	Philadelphia, Pa 19125	Grade Range	'00-08'
Phone/Fax	215-291-4717 / 215-291-5836	Admissions Category	Neighborhood
Website	Www.Philasd.Org/Schools/Habrown	Turnaround Model	N/A

Building/System FCI Tiers

Facility Condition Index (FCI) = Cost of Assessed Deficiencies / Replacement Value

< 15%	15 to 25%	25 to 45%	45 to 60%	> 60%
Buildings				
Minimal Current Capital Funding Required	Refurbish Systems in building	Replace Systems in building.	Building should be considered for major renovation.	Building should be considered for closing/replacement.
Systems				
Perform routine maintenance on system	System requires minor repairs	System should be studied to determine repair vs. replacement.	System is nearing end of its life expectancy and should be considered for replacement	System should be replaced as part of the Capital Program

Building and Grounds

	FCI	Repair Costs	Replacement Cost
Overall	**18.79%**	**$6,379,873**	**$33,956,278**
Building	18.68 %	$6,304,130	$33,742,286
Grounds	35.40 %	$75,744	$213,992

Major Building Systems

Building System	System FCI	Repair Costs	Replacement Cost
Roof (Shows physical condition of roof)	55.62 %	$630,205	$1,133,092
Exterior Walls (Shows condition of the structural condition of the exterior facade)	00.33 %	$8,322	$2,502,313
Windows (Shows functionality of exterior windows)	00.00 %	$0	$1,220,988
Exterior Doors (Shows condition of exterior doors)	120.44 %	$118,395	$98,303
Interior Doors (Classroom doors)	00.00 %	$0	$237,960
Interior Walls (Paint and Finishes)	03.03 %	$34,547	$1,139,634
Plumbing Fixtures	22.63 %	$207,446	$916,588
Boilers	40.47 %	$512,233	$1,265,733
Chillers/Cooling Towers	00.00 %	$0	$1,659,622
Radiators/Unit Ventilators/HVAC	72.26 %	$2,106,135	$2,914,507
Heating/Cooling Controls	158.92 %	$1,454,452	$915,233
Electrical Service and Distribution	00.00 %	$0	$657,612
Lighting	00.00 %	$0	$2,351,131
Communications and Security (Cameras, Pa System and Fire Alarm)	05.32 %	$46,861	$880,657

Please note that some FCIs may be over 100% because there are times when replacing a building system requires that other building systems be upgraded to complete the installation. A FCI of 0.0% represents that there are no current deficiencies with the associated system.

School District of Philadelphia

S521001;Brown, H A

Final

Site Assessment Report

January 31, 2017

PARSONS

Table of Contents

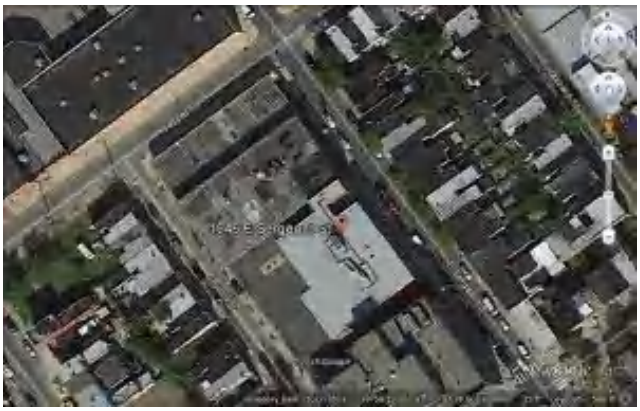
Site Executive Summary

The organization of this report, as displayed in the Table of Contents, follows the structure of the associated eCOMET database. The overall node for each school campus begins with the letter "S", which indicates the "Site" label. Each Site is comprised of separate "Building" and "Grounds" nodes; their asset names begin with the letters "B" and "G" respectively. Information rolls up to the Site node from the Building and Grounds nodes. This Site report combines facility information with subsections for the Buildings And Grounds nodes.

The basis for the evaluation of condition is the functional systems and elements of a building and grounds organized according to the UNIFORMAT II Elemental Classification. The grouping of these systems and elements and applying a current replacement value to them develops a representative building cost model. Cost Models are typically developed for similar building types and functions. Evaluation of systems and their elements takes into account their current replacement values, life cycles, installation dates and next renewal dates. Systems and their elements that are within their useful lives are further evaluated to identify current deficient conditions that may have a significant impact on a system's or element's remaining service life, and to determine if they are beyond their predicted expected life. The system's or element's current replacement value is based on RS Means Commercial Cost Data.

Following are the cost model's system details for this facility. The Replacement Value is the amount needed to replace the property of the same present value. The Current Repair Amount, also known as Condition Needs, represents the budgeted contractor installed costs plus owner's soft costs for the repair, replacement or renewal for a component or system level deficiency. It excludes contributing costs for other components or systems that might also be associated with the corrective actions due to packaging the work. Facility Condition Index (FCI) is an industry-standard measurement calculated as the ratio of the repair costs to correct a facility's deficiencies to the facility's Current Replacement Value. Condition Index (CI) for a system is calculated as the sum of a the deficiencies divided by the sum of a system's Replacement Value (both values include soft-cost) expressed as a percentage ranging from 0% 100%.

Gross Area (SF):	67,795
Year Built:	1959
Last Renovation:	2006
Replacement Value:	$33,956,278
Repair Cost:	$6,379,873.24
Total FCI:	18.79 %
Total RSLI:	67.18 %



Description:

Facility Assessment
August 2015

School District of Philadelphia
Brown, HA Elementary School
1946 E. Sergeant Street
Philadelphia, PA 19125

67,795 SF / 775 Students / LN 05

The Henry A. Brown Elementary school building is located at 1946 E. Sergeant Street in Philadelphia, PA. The 3 story with partial basement, approximately 67,795 square foot building was originally constructed in 1957. A new 3 story addition, approximately 24,000 square feet built in 2006, has been added to the original building that contains kindergarten and school offices on the first floor and classrooms on second and third floor.

Mr. Scott Ovington, Facility Area Coordinator provided input to the Parsons assessment team on current problems and planned renovation projects. Mr. James Helton, building engineer, accompanied us on our tour of the school and provided us with as much

information as he could on the building systems and recent maintenance history. School's principal, Ms. Connie Carnivale added to the information gathered during the site visit.

STRUCTURAL/ EXTERIOR CLOSURE:

The original building typically rests on concrete foundations and bearing walls that are not showing signs of settlement. However, there is constant water seepage through basement walls especially in the boiler room and mechanical closet of unknown origin. There is no mold build-up. The addition rests on spread and strip footings and foundation walls; it has no basement.

The main structure of the original building consists typically of cast-in-place concrete columns, beams and concrete slabs. The new addition structure consists of steel framing (columns and girders) supporting concrete and metal deck floors. The original roof structure consists of precast concrete roof panels supported by main structural frame or bar joists in good condition; the addition's roof structure consists of galvanized steel structural deck supported by steel truss joists.

The original building envelope is typically face brick masonry. The new addition exterior walls are face brick with CMU backup. In general, masonry is in good condition. There is no evidence of water penetration through walls, and around windows.

The original building windows were retrofitted in late 2006 with anodized, extruded aluminum double hung windows double glazed, with security screens attached to masonry. The windows are generally energy efficient. Windows in the new addition are anodized aluminum frames with double insulating glass and integral security screens; windows are typically fixed over either tilt-in or awning units. Windows are generally in very good condition.

The original building's exterior doors are typically hollow metal doors and frames, painted. The doors are generally in poor condition; no weather-stripping is installed; some doors have vision glazing with security screens. The new addition has fully glazed hollow metal doors in aluminum, store front type frames for people access and hollow metal doors and frames leading to support spaces, in good condition.

Roofing system on the original building is built-up, and in fair condition; however, it is beyond service life. All roofing and flashing is typically in fair condition with some deterioration of the built-up system; leaks have not been reported. There is no access from original main roof to original roof over auditorium and gym. Roofing over the new addition is in very good condition.

INTERIORS:

The original building partition walls are generally painted CMU in good condition. In the new addition partitions are generally painted CMU and gypsum wall board over metal studs in office spaces.

Interior doors in the original building are generally solid core wood doors, some glazed, in. Some of the doors leading to exit stairways are hollow metal doors hollow metal frames in good condition. New addition has solid core doors in hollow metal frames in very good condition. All doors have ADA compliant handles.

Fittings include: toilet accessories and toilet partitions, generally in good condition – replaced in 2006 and fully upgraded for accessibility. Handrails and ornamental metals are generally in good condition. Interior identifying signage is typically directly mounted to partitions next to doors, in good condition; however, some signage is missing.

The interior wall finishes in the original building are generally painted CMU or drywall. Generally, paint is in good condition throughout the original building and the addition. Boiler room and other mechanical and electrical spaces show substantial finish deterioration with paint peeling from walls and ductwork.

Most ceilings in the original building are 2x4 suspended acoustical panels or 1x1 tiles directly adhered to underside of floor slab; generally in fair to poor condition. Ceilings in the basement are exposed, painted, in poor condition. The acoustical tiles in the original building are old; at the end of their service life.

Flooring in classrooms and corridors is generally VCT, and ceramic tile in toilets. Corridors and some classrooms, gym and auditorium in the original building are mostly VAT. Most flooring is in good condition, however, the VAT tile is in poor condition; the main office and cafeteria/gym has VCT tile, generally in good condition. Library and principal's office has carpet in good condition.

Stair construction is generally concrete with cast iron non-slip treads in good condition.

Institutional and Commercial equipment includes: stage equipment, generally in fair condition; A/V equipment in good condition; gym

equipment – basketball backstops, scoreboards, etc.; generally in good condition. Other equipment includes kitchen equipment, generally in good condition.

Furnishings include fixed casework in classrooms, corridors and library, generally in good condition; window shades/blinds are not installed.

CONVEYING SYSTEMS:

The building has 3000 lb hydraulic elevator serving 3 floors, in good condition.

PLUMBING:

Plumbing Fixtures - In the original building many of the original plumbing fixtures remain in service. Fixtures in the restrooms on each of the three floors consist of wall mounted flush valve water closets, wall hung urinals and lavatories with wheel handle faucets. A few of the fixtures were not in service during the site visit. These older units should be replaced as they are beyond their service life.

In the addition the fixtures in the restrooms consist of wall mounted flush valve water closets, wall hung urinals, and sinks with wheel handle and lever faucets. These facilities are handicap accessible.

In the original building drinking fountains in the corridors are wall hung porcelain fixtures. They are well beyond their service life and should be replaced; most are NOT accessible type.

In the addition drinking fountains in the corridors at the restrooms are wall hung with integral refrigerated coolers. They are within their service life; most are accessible type.

A service sink is available in a janitor closet in the corridor on each floor of the original building for use by the janitorial staff.

Domestic Water Distribution - A 4" city water service enters the basement of the original building from Sergeant Street near where the addition, which does not have a basement, connects to the original building. The meter is 4" and located in the basement boiler room. A reduced pressure backflow preventer is installed on the incoming domestic line. The domestic hot and cold water distribution piping is copper piping and sweat fittings. The maintenance staff reports no significant problems with scale build up in the domestic piping and the supply is adequate to the fixtures, but the piping in the original building has been in use for almost 60 years and should be inspected and replaced by a qualified contractor.

In the original building one Bradford White Defender gas fired, 50 gallon, vertical hot water heater, installation date of 10/30/2014, supplies hot water for domestic use. A new circulating pump was installed with the heater, but the pump motor has not been connected by the District's electrician. The unit is located in the boiler room on the basement level. The hot water heater is equipped with a T&P relief valve, but has no expansion tank. The domestic hot water heater is within its service life and should provide reliable service for the next 8-10 years.

Sanitary Waste - In the original building the original sanitary sewer piping remains and is galvanized piping with threaded fittings. Sections of the original piping have been replaced with steel piping with no-hub couplings. The Principal reported that when it rains sewage from a first floor bathroom backs up into the building. A backflow preventer should be installed on the main sanitary line to prevent this health hazard from occurring.

In the addition the sanitary sewer piping is HDPE piping with no-hub fittings. No issues were reported with the sanitary piping in the addition.

Three (3) sewage ejector/sump pump pits, located throughout the basement, receive water from the basement area. It was reported that the basement routinely floods when it rains. The sewage ejector pit was sealed and looked to have been installed within the last few years. The other pits were not sealed but had new pumps and piping installed recently. All pumps are within their service lives.

The maintenance staff reported problems with the sanitary waste piping system in the original building. The sewer piping has been in service for six decades and will require more frequent attention from the maintenance staff as time passes. The District should hire a qualified contractor to examine the sanitary waste piping using video cameras to locate and replace any damaged piping and to further quantify the extent of potential failures.

Rain Water Drainage - In the original building rain water from the roof is routed down through pipe chases in the interior of the building by threaded galvanized piping. Some repairs have been made with HDPE piping with no-hub fittings. The drain piping should

be inspected by a qualified contractor and repaired as necessary.

In the addition rain water from the roof is routed down through pipe chases in the interior of the building. The piping was not visible during the site visit. The Building Engineer reported no major issues with the rain water drainage piping in the addition.

MECHANICAL:

Energy Supply - A 4" city gas service enters the building from Firth Street near where the addition, which does not have a basement, connects to the original building. The meter is 4" and located in the boiler room. A Spencer gas booster pump is installed to ensure adequate gas pressure to the building.

The reserve oil supply is stored in an 8,000 gallon underground storage tank (UST) located in the paved play area on the west side of the building. Duplex pumps located in the boiler room circulate oil through the system. Oil is used as a backup fuel and the District receives credit from the gas utility as an interruptible service. The current oil supply should be tested for quality on a regular schedule. USTs have an anticipated service life of 20 years.

Heat Generating Systems - Building heating hot water is generated by two (2) 42HP HB Smith 350 Mills cast iron sectional boilers. The boilers appear to be original to the building and are almost 60 years old. The two boilers serve the original building as well as the addition. Both boilers are required to hold the building load in normal winter weather conditions. Each boiler is equipped with a Power Flame burner designed to operate on natural gas or fuel oil. The burners appeared well beyond their useful service life. The gas train serving the boilers does appear to have code required venting of the regulators and dual solenoid valves with venting of the chamber between. Cast iron sectional boilers have an anticipated service life of 35 years or more; these units have been in service for almost 60 years and need to be replaced.

Cooling Generating Systems - Chilled water is generated for the addition, the original building is not air conditioned, by a nominal 120 ton McQuay model AGS screw air-cooled chiller located on the roof of the addition. This unit has two compressors and utilizes R134a refrigerant. Screw compressor chillers have an anticipated service life of 20 years; this unit has been in service 9 years. The Building Engineer reported no issues with the chiller. The District should provide reliable service for the next 10-12 years.

Distribution Systems - The building, original and addition, is equipped with a two pipe distribution system.

In the original building hot water distribution piping is black steel with welded fittings coming off the boilers. The main building heating distribution piping is black steel with threaded fittings. The piping mains from the basement level run up through the building to the unit ventilators and fin tube radiators on all three floors. The distribution piping has been in use well beyond its service life and will require more frequent attention from the maintenance staff to address pipe/valve failures as time passes. The District should hire a qualified contractor to examine the hot water distribution piping and perform additional testing to locate and replace any damaged piping and to further quantify the extent of potential failures. The District should budget for replacing this piping over the next 10 years.

In the addition building water distribution is a black steel dual temperature two pipe system. During cooling season the chilled water to the original building is valved off and chilled water serves only the addition.

The heating hot water system is equipped with two 7.5HP Armstrong model 4030 end suction pumps located in the boiler room. An expansion tank and air separator are located in the mechanical room on the first floor. The cooling water system is equipped with two 10HP Armstrong model 4030 end suction pumps located in the first floor mechanical room. The system is equipped with automatic valves for the turn over from heating to cooling, but the Building Engineer said the automatic valves only function manually.

In the original building two pipe unit ventilators and fin tube radiators provide heating for classrooms, offices, and hallways. The unit ventilators are well beyond their service life and should be replaced. A new heating system should be installed to meet ventilation requirements and achieve more efficient operation. The new units should be designed for quiet operation and equipped with integral heat exchangers, where applicable, to introduce sufficient outdoor air to the building.

In the addition two pipe unit ventilators provide heating and cooling for classrooms, offices, and hallways. Fin tube radiators provide heating in areas that are not adjacent to an external wall. The ventilators and radiators are within their service life and should provide reliable service for the next 15-20 years.

The Gymnasium is heated and ventilated by a heating and ventilation (HV) unit located above the drop ceiling in the Kitchen. Roof mounted ventilators ensure the space is not over pressurized. The Cafetorium has two (2) heating and ventilation units which provide heated outside to the space air during the winter. The two units are mounted in the ceiling on either side of the stage. Roof mounted

gravity ventilators ensure the space is not over pressurized. It is estimated that these HV units were installed in 2006 and are within their service life. The roof mounted ventilators are well beyond their service life and should be replaced.

In the addition a roof mounted Greenheck model ERV-521 energy recovery ventilator (ERV) provides preconditioned outdoor air to the building. The unit uses an energy recovery wheel to precondition outdoor air utilizing exhaust air from the building. The unit was installed in 2006, no issues were reported by the Building Engineer, and it should provide reliable service for the next 10-12 years.

The original building has two roof mounted exhaust fans. One fan serves the first through third floor boys and girls restrooms; the second fan serves the teachers' lounge and staff restroom. Both fans are defunct and need to be replaced.

The addition has one roof mounted exhaust fan. The fan serves the first through third floor boys and girls restrooms. This fan is operational and the Building Engineer reported no issues with it.

Terminal & Package Units - A Mitsubishi split system air conditioning system provides cooling to the LAN room located on the second floor of the original building. The installation date of this unit is unknown; the anticipated service life of a split system air conditioner is 15 years. The district should budget to replace this unit within the next 7-10 years.

A Daikin split system air conditioning system provides cooling to two telecom closets located on the second and third floors of the original building. The installation date of this unit is unknown; the anticipated service life of a split system air conditioner is 15 years. The district should budget to replace this unit within the next 7-10 years.

Controls & Instrumentation - The original pneumatic systems still provide basic control functions. Pneumatic room thermostats are intended to control the unit ventilator control valves. In reality the unit ventilator control valves are wide open and heating control is achieved via the boilers. Pneumatic control air is supplied from a duplex Quincy compressor and Hankison air dryer located in the boiler room. The maintenance staff reports no problems with oil, moisture, or dirt in the pneumatic copper tubing. The pneumatic systems are beyond their service life and require too much attention from the maintenance staff. The original control valves and pneumatic actuators are beyond their service life and should be rebuilt or replaced. These controls should be converted to DDC.

During the 2006 renovation a building management system was installed for monitoring only of the system. Automatic control valves are installed, but they do not function automatically according to the Building Engineer. Cutover from heating to cooling mode requires manual changeover. A new building automation system (BAS) with modern DDC modules and communications network should be installed to serve the HVAC systems in this building to improve reliability and energy efficiency. An interface should be provided with the preferred system in use throughout the District.

Sprinklers - The building is equipped with a wet type sprinkler system. An 8" fire water line enters the building on the east side of the first floor in a room off of the Cafetorium. The fire suppression system, installed in 2006 when the addition was built, should not need replacement within the next 15 years. A fire pump is not installed.

ELECTRICAL:

Site electrical service – The primary power is at 13.2KV from the street power pole (Jasper St) which feeds a pad mounted 500KVA transformer (13.2KV – 120V/208V, 3 phase). The electrical service is functioning adequately since it was installed in 2008. The main switchgear is rated at 1600 Amp, 120V/208 V, 3 phase, 4W, and is located in main electrical room. The PECO meter is also located inside the electrical room. The service entrance and the main building electrical distribution systems are in good condition. Also, the system has extra capacity for the additional loads. There is no deficiency with the school's site electrical service.

Distribution system - The electrical distribution is accomplished with a 120V/208V, 3 phase, distribution switchboard, located in the electrical room, feeding several panels throughout the building. These panels are in good condition. They have not reached the end of their service life.

Receptacles - The receptacles in classrooms, computer rooms, libraries, and other areas are adequate.

Lighting- Interior building is illuminated by various types of fixtures. They include fluorescent lighting (T-8 & T-5 lamp) in majority of the areas, including; classrooms, corridor, offices and Kitchen. Surface or pendant mounted industrial fluorescent fixtures are used in mechanical and electrical rooms. Gymnasium is illuminated by metal halide enclosed glass fixtures. The majorities of interior lighting fixtures are in good condition and have not reached the end of their service life.

Fire alarm - The present Fire Alarm system is automatic/addressable, and is in compliance with safety codes. There are manual pulls stations throughout the building. There is sufficient number of horn/strobes installed in the classrooms, corridors, offices and other

areas in the school. There is no deficiency with the school's Fire Alarm system.

Telephone/LAN - The school telephone and data systems are new and working adequately. A main distribution frame (MDF) along with a telephone PBX system are providing proper communication function for the building. School is also equipped with Wi-Fi system.

Public address - A separate PA system does not exist. School uses the telephone systems for public announcement. This system is working properly. The present Intercom System is functioning properly. Each class room is provided by with an intercom telephone service. The system permits paging and intercom communication between main office to each classroom, between each classroom to main office, and between classrooms to classrooms.

Clock and Program system - Clock and program systems are working adequately. Classrooms are provided with 12-inch wall mounted, round clock. The clocks are not controlled properly by central master control panel.

Television System - Television system is not provided in the school. Most classes are provided with smart boards having the ability to connect to computer and internet.

Security Systems-access control, video surveillance - The school is provided with video surveillance system. Cameras are installed at exit doors, corridors, exterior, and other critical areas. These cameras are controlled by a Closed Circuit Television system (CCTV). However, the Building Engineer and the Principal expressed their desire to have more security cameras to cover the dead spaces around the school.

Emergency Power System - School is provided with emergency power. There is a 100 KW generator for emergency lights and other emergency loads.

Emergency lighting system, including exit lighting - there are sufficient emergency lighting fixtures in corridors, library and other exit ways. Exit signs and emergency fixtures are fairly new and still have many years of useful service.

Lightning Protection System - There is adequate lightning protection system installed in the school.

Grounding- The present grounding system is adequate.

Site Lighting – Playground area and building perimeters are adequately lit for safety of people and security of property.

Site Paging – The present site paging is adequate. Sufficient numbers of speakers are located on the exterior walls.

Auditorium lighting and sound system – No major deficiencies were observed during the assessment.

GROUNDS (SITE):

There is no parking lot at the site.

Playground adjacent to the building is in good condition; playground equipment is in good condition. Perimeter fences are generally in good condition.

There is no landscaping.

ACCESSIBILITY:

Generally, all spaces in school are accessible per ADA requirements. Accessible route is provided via new addition and a ramp leading to original building. Toilets are equipped with accessible fixtures, partitions and accessories, such as grab bars and accessible partitions. The doors have ADA required door handles.

RECOMMENDATIONS:

- Install all new roofing system including insulation within next 3 to 4 years over the original building; tear-down existing roofing; install flashing, counter flashing and reglets
- Provide access ladder from original main roof to original roof over auditorium and gym.
- Install membrane waterproofing on foundation wall adjacent to boiler room and mechanical closet

- Replace exterior service and egress doors including hardware in the original building
- Repaint walls in basement
- Replace all VAT flooring including cove base
- Replace all suspended acoustical ceilings in original building
- Repair and repaint interior walls in basement mechanical spaces
- Replace ten (10) urinals in the restrooms of the original building with new code compliant fixtures.
- Replace twenty (20) water closets in the restrooms of the original building with new code compliant fixtures.
- Replace three (3) porcelain wall hung drinking fountains in the corridors with units that have integral refrigerated coolers. These units are beyond their service life and most are NOT accessible type.
- Hire a qualified contractor to perform a detailed inspection of the domestic water piping in the original building, in use for almost 60 years, and replace any damaged piping.
- Install a backflow preventer on the outgoing sewage line in the original building to prevent sewage from backing up into the building when it rains.
- Hire a qualified contractor to perform a detailed examination of the sanitary waste piping using visual inspection and video cameras to locate and replace any damaged piping and to further quantify the extent of potential failures.
- Hire a qualified contractor to perform a detailed examination of the rain water drainage piping using visual inspection and video cameras to locate and replace any damaged piping and to further quantify the extent of potential failures.
- Hire a qualified contractor to examine the hot water distribution piping in the original building, in service for almost 60 years, and replace any damaged piping and to further quantify the extent of potential failures.
- Replace the two existing 1,405 MBH cast iron boilers, which are well beyond their service life, with new more efficient boilers.
- Remove the existing unit ventilators in the original building and install units with integral heat exchangers to introduce outdoor air to the building.
- Replace the three (3) roof mounted ventilators serving the Gymnasium and Cafeteria as they are well beyond their useful service life.
- Replace the two (2) existing roof mounted exhaust fans serving the boys and girls restrooms, staff restroom, and teachers' lounge. Utilize the existing ductwork.
- Replace the pneumatic controls for the HVAC systems with modern DDC modules, valves and actuators to improve reliability and energy efficiency. Provide a new building automation system (BAS) with communication interface to the preferred system in use throughout the District.
- Install more security cameras to cover the dead spaces around the school as requested by the school principal.

Attributes:

General Attributes:

Active:	Open	Bldg Lot Tm:	Lot 2 / Tm 4
Status:	Accepted by SDP	Team:	Tm 4
Site ID:	S521001		

Site Condition Summary

The Table below shows the CI and FCI for each major system shown at the UNIFORMAT classification Level II. Note that Systems with lower FCIs require less investment than systems with higher FCIs.

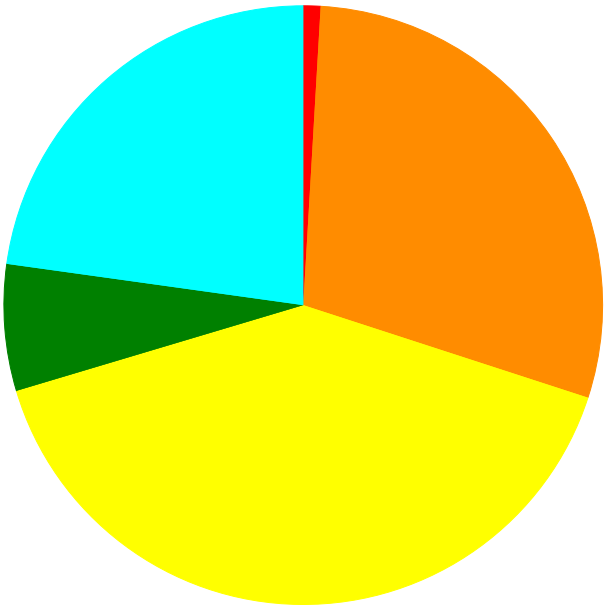
Current Investment Requirement and Condition by Uniformat Classification

UNIFORMAT Classification	RSLI%	FCI %	Current Repair
A10 - Foundations	44.00 %	0.00 %	$0.00
A20 - Basement Construction	44.00 %	10.88 %	$141,983.89
B10 - Superstructure	44.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	56.35 %	3.32 %	$126,716.70
B30 - Roofing	109.80 %	55.62 %	$630,205.40
C10 - Interior Construction	53.05 %	0.00 %	$0.00
C20 - Stairs	44.00 %	0.00 %	$0.00
C30 - Interior Finishes	42.61 %	19.94 %	$625,008.86
D10 - Conveying	74.29 %	0.00 %	$0.00
D20 - Plumbing	71.11 %	47.71 %	$660,533.45
D30 - HVAC	83.15 %	54.01 %	$4,072,819.90
D40 - Fire Protection	64.98 %	0.00 %	$0.00
D50 - Electrical	110.11 %	1.18 %	$46,861.36
E10 - Equipment	74.29 %	0.00 %	$0.00
E20 - Furnishings	77.50 %	0.00 %	$0.00
G20 - Site Improvements	73.97 %	0.00 %	$0.00
G40 - Site Electrical Utilities	70.00 %	124.74 %	$75,743.68
Totals:	**67.18 %**	**18.79 %**	**$6,379,873.24**

Condition Deficiency Priority

Facility Name	Gross Area (S.F.)	FCI %	1 - Response Time (< 2 yr)	2 - Response Time (2-3 yrs)	3 - Response Time (3-4 yrs)	4 - Response Time (4-5 yrs)	5 - Response Time (> 5 yrs)
B521001;Brown, H A	67,795	18.68	$59,134.36	$1,854,935.51	$2,500,337.67	$435,270.20	$1,454,451.82
G521001;Grounds	9,200	35.40	$0.00	$0.00	$75,743.68	$0.00	$0.00
Total:		**18.79**	**$59,134.36**	**$1,854,935.51**	**$2,576,081.35**	**$435,270.20**	**$1,454,451.82**

Deficiencies By Priority



- 1 - Response Time (< 2 yr) - $59,134.36
- 2 - Response Time (2-3 yrs) - $1,854,935.51
- 3 - Response Time (3-4 yrs) - $2,576,081.35
- 4 - Response Time (4-5 yrs) - $435,270.20
- 5 - Response Time (> 5 yrs) - $1,454,451.82

Budget Estimate Total: $6,379,873.24

Executive Summary

Building condition is evaluated based on the functional systems and elements of a building and organized according to the UNIFORMAT II Elemental Classification. The grouping of these systems and elements and applying a current replacement value to them develops a representative building cost model. Cost Models are developed for similar building types and functions. Systems and their elements are evaluated based on their current replacement values, life cycles, installation dates and next renewal dates. Systems and their elements that are within their useful lives are further evaluated to identify current deficient conditions that may have a significant impact on a system's or element's remaining service life, and to determine if they are beyond their predicted expected life. The system's or element's current replacement value is based on RS Means Commercial Cost Data.

Following are the cost model's system details for this facility. The Replacement Value is the amount needed to replace the property of the same present value. The Current Repair Amount, also known as Condition Needs, represents the budgeted contractor installed costs plus owner's soft costs for the repair, replacement or renewal for a component or system level deficiency. It excludes contributing costs for other components or systems that might also be associated with the corrective actions due to packaging the work. Facility Condition Index (FCI) FCI is an industry-standard measurement of facility condition calculated as the ratio of the costs to correct a facility's deficiencies to the facility's Current Replacement Value. It ranges from 0% (new) to 100% (very poor). Condition Index (CI) is calculated as the sum of a renewable system's Remaining Service Life (RSL) divided by the sum of a system's Replacement Value (both values exclude soft-cost to simplify calculation updates) expressed as a percentage ranging from 100% (new) to 0% (expired).

Function:	
Gross Area (SF):	67,795
Year Built:	1959
Last Renovation:	2006
Replacement Value:	$33,742,286
Repair Cost:	$6,304,129.56
Total FCI:	18.68 %
Total RSLI:	67.14 %

Description:

Attributes:

General Attributes:

Active:	Open	Bldg ID:	B521001
Sewage Ejector:	Yes	Status:	Accepted by SDP
Site ID:	S521001		

Condition Summary

The Table below shows the CI and FCI for each major building system shown at the UNIFORMAT classification Level II. Note that Systems with lower FCIs require less investment than systems with higher FCIs.

UNIFORMAT Classification	RSLI %	FCI %	Current Repair Cost
A10 - Foundations	44.00 %	0.00 %	$0.00
A20 - Basement Construction	44.00 %	10.88 %	$141,983.89
B10 - Superstructure	44.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	56.35 %	3.32 %	$126,716.70
B30 - Roofing	109.80 %	55.62 %	$630,205.40
C10 - Interior Construction	53.05 %	0.00 %	$0.00
C20 - Stairs	44.00 %	0.00 %	$0.00
C30 - Interior Finishes	42.61 %	19.94 %	$625,008.86
D10 - Conveying	74.29 %	0.00 %	$0.00
D20 - Plumbing	71.11 %	47.71 %	$660,533.45
D30 - HVAC	83.15 %	54.01 %	$4,072,819.90
D40 - Fire Protection	64.98 %	0.00 %	$0.00
D50 - Electrical	110.11 %	1.18 %	$46,861.36
E10 - Equipment	74.29 %	0.00 %	$0.00
E20 - Furnishings	77.50 %	0.00 %	$0.00
Totals:	**67.14 %**	**18.68 %**	**$6,304,129.56**

Condition Detail

This section of the report contains results of the Facility Condition Assessment. The building is separated into system components based on UNIFORMAT II classification. The columns in the System Listing table below represent the following:

1. System Code: A code that identifies the system.
2. System Description: A brief description of a system present in the building.
3. Unit Price $: The unit price of the system.
4. UoM: The unit of measure for of the system.
5. Qty: The quantity for the system
6. Life: anticipated service life for thesystem based on Building Owners and Managers Association (BOMA) recommendations.
7. Year Installed: The date of system installation.
8. Calc Next Renewal Year: The date of system expiration based on the life, NR stands for non renewable.
9. Next Renewal Year: The suggested system expiration date by the assessor based on visual inspection.
10. CI: The Condition Index of the system.
11. FCI: The Facility Condition Index of the system.
12. RSL: Remaining Service Life.
13. eCR: eCOMET Condition Rating (not used).
14. Deficiency $: The financial investment to repair/replace system.

System Listing

The System Listing table below lists each of the systems organized by their UNIFORMAT II classification. The assessment team was tasked with recording the most recent replacement year of each system, determining the remaining service life based on the theoretical life, and evaluating the condition to confirm the forecast next replacement year. The system listing is the basis for all data contained in the Building Assessment Report.

Additionally, a condition rating (eCR) based on the following guidelines is provided as observed at the time of the assessment.

- Excellent (E) - No noticeable distress or damage. The entire system is free from observable defect.
- Very Good (VG) - Overall no serviceability reduction for the entire system. No degradation of critical components and minor distress and defect noticeable for some but not non critical components within the system.
- Good (G) - Slight or no serviceability reduction for the entire system. There may be noticeable defects for some non critical components and slight noticeable degradation of the critical components.
- Fair (F) - Overall serviceability is degraded but adequate. There may be moderate deterioration for very few of the critical components and few of the non critical components may have severe degradation.
- Marginal (MA) - Overall serviceability and reliability loss. Most if not all of the non critical components suffer from severe degradation and a few of the critical component may have severe degradation.
- Moderate (MO) - Overall a significant serviceability loss. Most if not all the components have severe degradation with the reminder of the component showing visible distress.
- Very Poor (VP) - Overall the system is barely functional. All of the components are severely degraded.
- Non-Functional (NF) - Overall the system does not function with all the components having no serviceability and suffer from severe degradation.

System Code	System Description	Unit Price $	UoM	Qty	Life	Year Installed	Calc Next Renewal Year	Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency $	Replacement Value $
A1010	Standard Foundations	$18.40	S.F.	67,795	100	1959	2059		44.00 %	0.00 %	44			$1,247,428
A1030	Slab on Grade	$7.73	S.F.	67,795	100	1959	2059		44.00 %	0.00 %	44			$524,055
A2010	Basement Excavation	$6.55	S.F.	67,795	100	1959	2059		44.00 %	0.00 %	44			$444,057
A2020	Basement Walls	$12.70	S.F.	67,795	100	1959	2059		44.00 %	16.49 %	44		$141,983.89	$860,997
B1010	Floor Construction	$75.10	S.F.	67,795	100	1959	2059		44.00 %	0.00 %	44			$5,091,405
B1020	Roof Construction	$13.88	S.F.	67,795	100	1959	2059		44.00 %	0.00 %	44			$940,995
B2010	Exterior Walls	$36.91	S.F.	67,795	100	1959	2059		44.00 %	0.33 %	44		$8,321.53	$2,502,313
B2020	Exterior Windows	$18.01	S.F.	67,795	40	2006	2046		77.50 %	0.00 %	31			$1,220,988
B2030	Exterior Doors	$1.45	S.F.	67,795	25	1959	1984	2042	108.00 %	120.44 %	27		$118,395.17	$98,303
B3010105	Built-Up	$37.76	S.F.	29,900	20	1959	1979	2037	110.00 %	55.82 %	22		$630,205.40	$1,129,024
B3010120	Single Ply Membrane	$38.73	S.F.		20				0.00 %	0.00 %				$0
B3010130	Preformed Metal Roofing	$54.22	S.F.		30				0.00 %	0.00 %				$0
B3010140	Shingle & Tile	$38.73	S.F.		25				0.00 %	0.00 %				$0
B3020	Roof Openings	$0.06	S.F.	67,795	20	2006	2026		55.00 %	0.00 %	11			$4,068
C1010	Partitions	$17.91	S.F.	67,795	100	1959	2059		44.00 %	0.00 %	44			$1,214,208
C1020	Interior Doors	$3.51	S.F.	67,795	40	2006	2046		77.50 %	0.00 %	31			$237,960
C1030	Fittings	$3.12	S.F.	67,795	40	2006	2046		77.50 %	0.00 %	31			$211,520
C2010	Stair Construction	$1.41	S.F.	67,795	100	1959	2059		44.00 %	0.00 %	44			$95,591

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System Code	System Description	Unit Price $	UoM	Qty	Life	Year Installed	Calc Next Renewal Year	Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency $	Replacement Value $
C3010230	Paint & Covering	$13.21	S.F.	67,795	10	2006	2016	2020	50.00 %	3.86 %	5		$34,546.77	$895,572
C3010231	Vinyl Wall Covering	$0.97	S.F.	67,795	15				0.00 %	0.00 %				$65,761
C3010232	Wall Tile	$2.63	S.F.	67,795	30	2006	2036		70.00 %	0.00 %	21			$178,301
C3020411	Carpet	$7.30	S.F.	2,300	10	2006	2016	2020	50.00 %	0.00 %	5			$16,790
C3020412	Terrazzo & Tile	$75.52	S.F.	2,400	50	2006	2056		82.00 %	0.00 %	41			$181,248
C3020413	Vinyl Flooring	$9.68	S.F.	38,200	20	2006	2026		55.00 %	63.98 %	11		$236,600.02	$369,776
C3020414	Wood Flooring	$22.27	S.F.		25				0.00 %	0.00 %				$0
C3020415	Concrete Floor Finishes	$0.97	S.F.	5,700	50	2006	2056		82.00 %	0.00 %	41			$5,529
C3030	Ceiling Finishes	$20.97	S.F.	67,795	25	1990	2015	2022	28.00 %	24.89 %	7		$353,862.07	$1,421,661
D1010	Elevators and Lifts	$1.53	S.F.	67,795	35	2006	2041		74.29 %	0.00 %	26			$103,726
D2010	Plumbing Fixtures	$13.52	S.F.	67,795	35	1959	1994	2041	74.29 %	22.63 %	26		$207,446.17	$916,588
D2020	Domestic Water Distribution	$1.68	S.F.	67,795	25	1959	1984	2031	64.00 %	150.82 %	16		$171,783.45	$113,896
D2030	Sanitary Waste	$2.90	S.F.	67,795	25	1959	1984	2031	64.00 %	90.78 %	16		$178,485.85	$196,606
D2040	Rain Water Drainage	$2.32	S.F.	67,795	30	1959	1989	2035	66.67 %	65.37 %	20		$102,817.98	$157,284
D3020	Heat Generating Systems	$18.67	S.F.	67,795	35	1959	1994	2052	105.71 %	40.47 %	37		$512,232.87	$1,265,733
D3030	Cooling Generating Systems	$24.48	S.F.	67,795	30	2006	2036		70.00 %	0.00 %	21			$1,659,622
D3040	Distribution Systems	$42.99	S.F.	67,795	25	2006	2031	2035	80.00 %	72.26 %	20		$2,106,135.21	$2,914,507
D3050	Terminal & Package Units	$11.60	S.F.	67,795	20	2006	2026		55.00 %	0.00 %	11			$786,422
D3060	Controls & Instrumentation	$13.50	S.F.	67,795	20	2006	2026	2037	110.00 %	158.92 %	22		$1,454,451.82	$915,233
D4010	Sprinklers	$7.05	S.F.	67,795	35	2006	2041		74.29 %	0.00 %	26			$477,955
D4020	Standpipes	$1.01	S.F.	67,795	35				0.00 %	0.00 %				$68,473
D5010	Electrical Service/Distribution	$9.70	S.F.	67,795	30	1959	1989	2047	106.67 %	0.00 %	32			$657,612
D5020	Lighting and Branch Wiring	$34.68	S.F.	67,795	20	1959	1979	2037	110.00 %	0.00 %	22			$2,351,131
D5030	Communications and Security	$12.99	S.F.	67,795	15	1959	1974	2032	113.33 %	5.32 %	17		$46,861.36	$880,657
D5090	Other Electrical Systems	$1.41	S.F.	67,795	30	1959	1989	2047	106.67 %	0.00 %	32			$95,591
E1020	Institutional Equipment	$4.82	S.F.	67,795	35	2006	2041		74.29 %	0.00 %	26			$326,772
E1090	Other Equipment	$11.10	S.F.	67,795	35	2006	2041		74.29 %	0.00 %	26			$752,525
E2010	Fixed Furnishings	$2.13	S.F.	67,795	40	2006	2046		77.50 %	0.00 %	31			$144,403
								Total	**67.14 %**	**18.68 %**			**$6,304,129.56**	**$33,742,286**

System Notes

The facility description in the site executive summary contains an overview of each system. The notes listed below provide additional information on select systems found within the facility.

System: C3010 - Wall Finishes — This system contains no images

Note: Paint (CMU) 85%
Ceramic tile 15%

System: C3020 - Floor Finishes — This system contains no images

Note: VCT 46%
VAT 32%
Ceramic tile 5%
Carpet 5%
Concrete 11%

Renewal Schedule

eCOMET forecasts future Capital Renewal funding needed to address expiring systems based on the Next Renewal year found in the Cost Models. A 3% annual inflation factor is applied to the costs for systems expiring in future years. The table below reflects recommended Capital Renewal funding needs over the next 10 years. Note: Cells with a zero value indicate systems for which renewal is not scheduled in that year.

Inflation Rate: 3%

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Total:	**$6,304,130**	**$0**	**$0**	**$0**	**$0**	**$1,163,445**	**$0**	**$1,923,310**	**$0**	**$0**	**$0**	**$9,390,885**
*** A - Substructure**	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A10 - Foundations	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A1010 - Standard Foundations	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A1030 - Slab on Grade	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A20 - Basement Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A2010 - Basement Excavation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A2020 - Basement Walls	$141,984	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$141,984**
B - Shell	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B10 - Superstructure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B1010 - Floor Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B1020 - Roof Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B20 - Exterior Enclosure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B2010 - Exterior Walls	$8,322	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$8,322**
B2020 - Exterior Windows	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B2030 - Exterior Doors	$118,395	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$118,395**
B30 - Roofing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3010 - Roof Coverings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3010105 - Built-Up	$630,205	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$630,205**
B3010120 - Single Ply Membrane	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3010130 - Preformed Metal Roofing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3010140 - Shingle & Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3020 - Roof Openings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C - Interiors	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C10 - Interior Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C1010 - Partitions	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

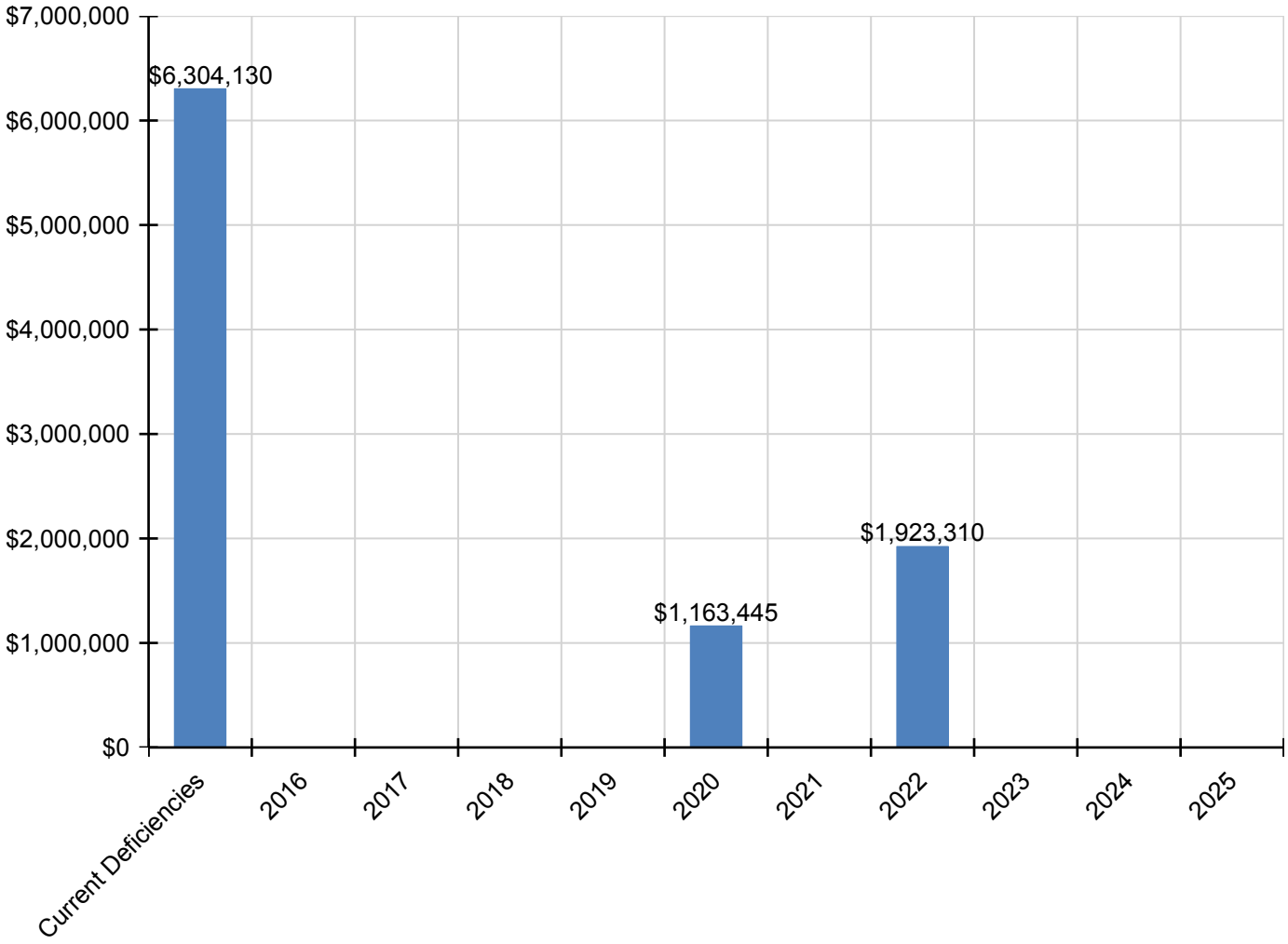
C1020 - Interior Doors	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C1030 - Fittings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C20 - Stairs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C2010 - Stair Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C30 - Interior Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010 - Wall Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010230 - Paint & Covering	$34,547	$0	$0	$0	$0	$1,142,035	$0	$0	$0	$0	$0	**$1,176,581**
C3010231 - Vinyl Wall Covering	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010232 - Wall Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020 - Floor Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020411 - Carpet	$0	$0	$0	$0	$0	$21,411	$0	$0	$0	$0	$0	**$21,411**
C3020412 - Terrazzo & Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020413 - Vinyl Flooring	$236,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$236,600**
C3020414 - Wood Flooring	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020415 - Concrete Floor Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3030 - Ceiling Finishes	$353,862	$0	$0	$0	$0	$0	$0	$1,923,310	$0	$0	$0	**$2,277,172**
D - Services	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D10 - Conveying	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D1010 - Elevators and Lifts	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D20 - Plumbing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2010 - Plumbing Fixtures	$207,446	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$207,446**
D2020 - Domestic Water Distribution	$171,783	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$171,783**
D2030 - Sanitary Waste	$178,486	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$178,486**
D2040 - Rain Water Drainage	$102,818	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$102,818**
D30 - HVAC	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3020 - Heat Generating Systems	$512,233	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$512,233**
D3030 - Cooling Generating Systems	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3040 - Distribution Systems	$2,106,135	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$2,106,135**
D3050 - Terminal & Package Units	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3060 - Controls & Instrumentation	$1,454,452	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,454,452**
D40 - Fire Protection	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D4010 - Sprinklers	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D4020 - Standpipes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

D50 - Electrical	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D5010 - Electrical Service/Distribution	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D5020 - Lighting and Branch Wiring	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D5030 - Communications and Security	$46,861	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$46,861**
D5090 - Other Electrical Systems	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E - Equipment & Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E10 - Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E1020 - Institutional Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E1090 - Other Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E20 - Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E2010 - Fixed Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

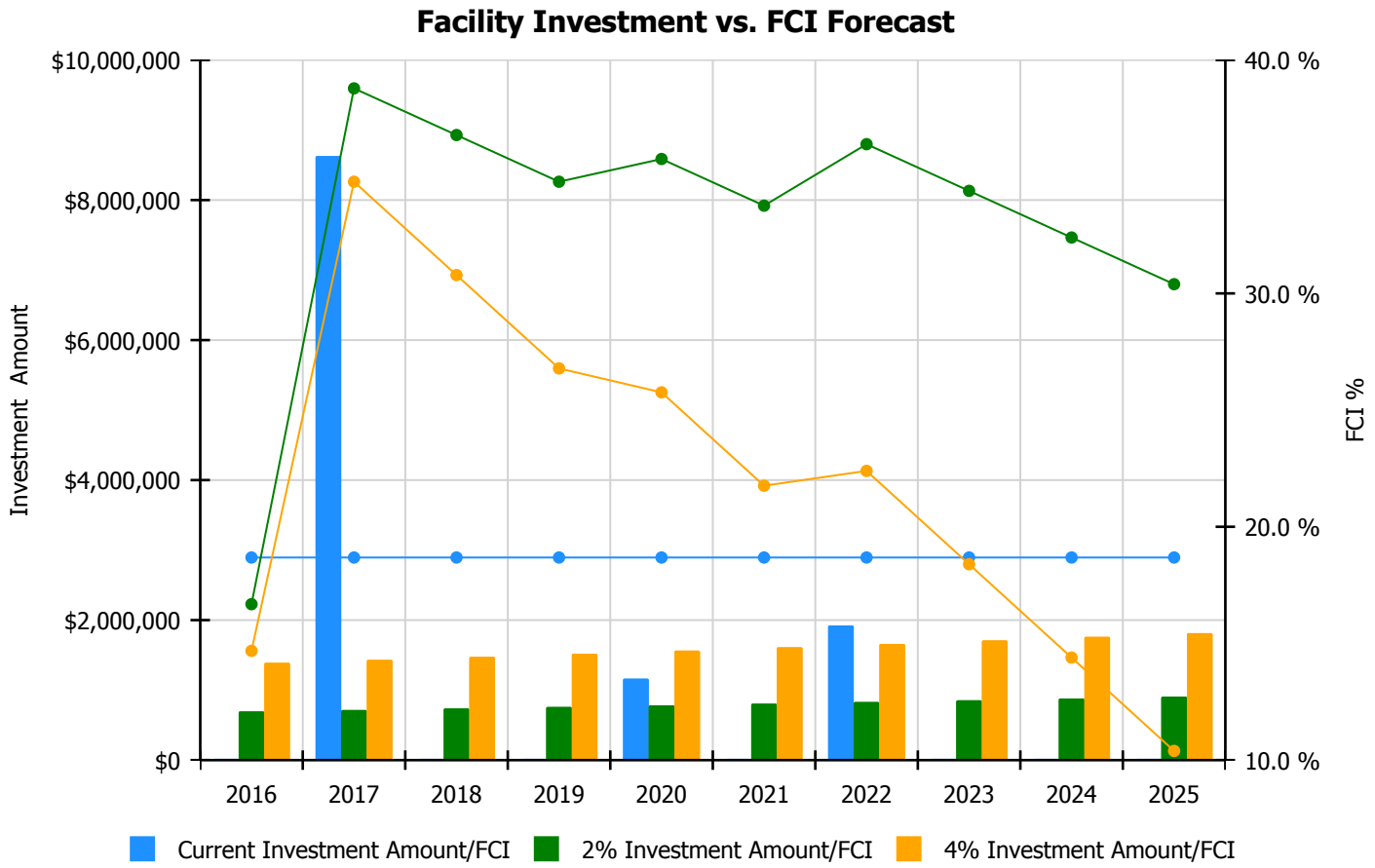
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



10 Year FCI Forecast by Investment Scenario

The chart below illustrates the effect of various investment levels on the building FCI for the next 10 years. The levels of investment shown below include:

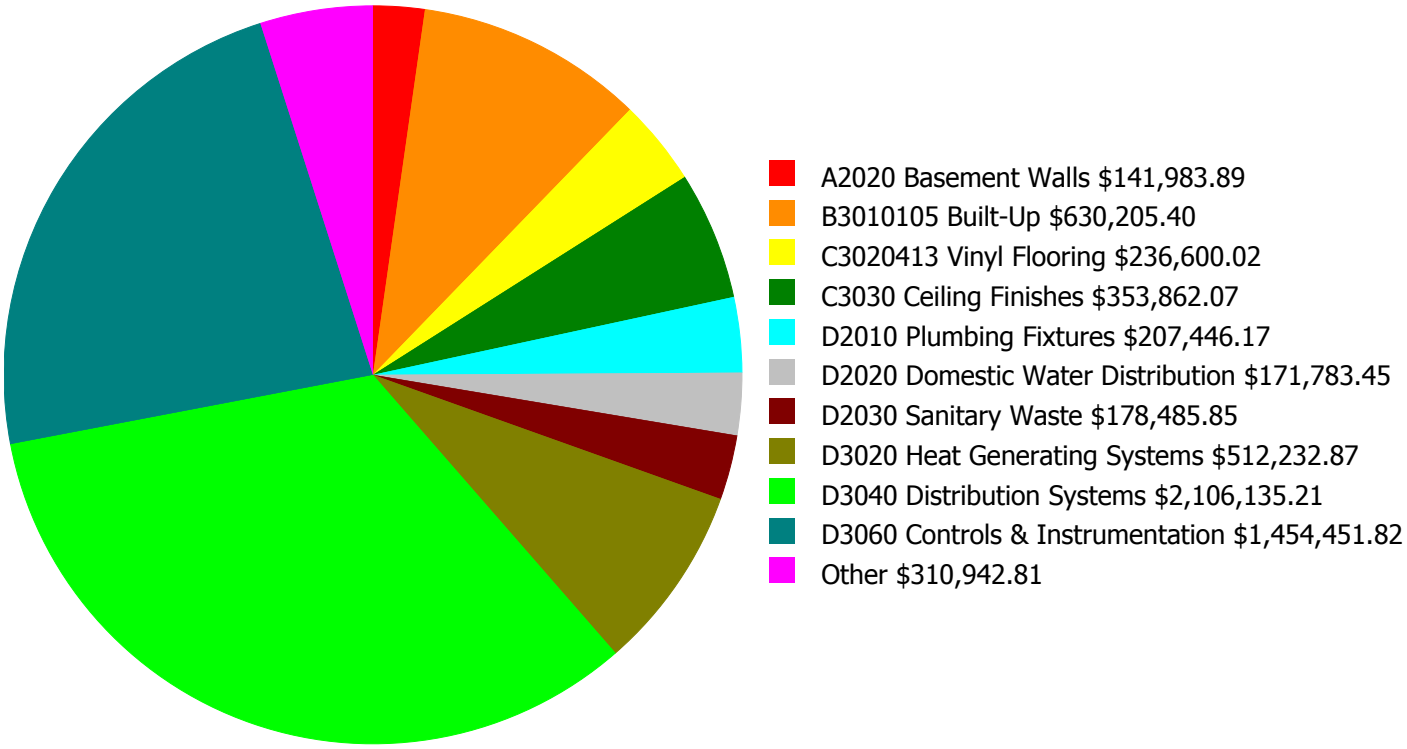
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value of the building, escalated for inflation



Year	Investment Amount Current FCI - 18.68%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$695,091.00	16.68 %	$1,390,182.00	14.68 %
2017	$8,627,887	$715,944.00	38.79 %	$1,431,888.00	34.79 %
2018	$0	$737,422.00	36.79 %	$1,474,844.00	30.79 %
2019	$0	$759,545.00	34.79 %	$1,519,090.00	26.79 %
2020	$1,163,445	$782,331.00	35.76 %	$1,564,662.00	25.76 %
2021	$0	$805,801.00	33.76 %	$1,611,602.00	21.76 %
2022	$1,923,310	$829,975.00	36.39 %	$1,659,950.00	22.39 %
2023	$0	$854,874.00	34.39 %	$1,709,749.00	18.39 %
2024	$0	$880,521.00	32.39 %	$1,761,041.00	14.39 %
2025	$0	$906,936.00	30.39 %	$1,813,872.00	10.39 %
Total:	**$11,714,642**	**$7,968,440.00**		**$15,936,880.00**	

Deficiency Summary by System

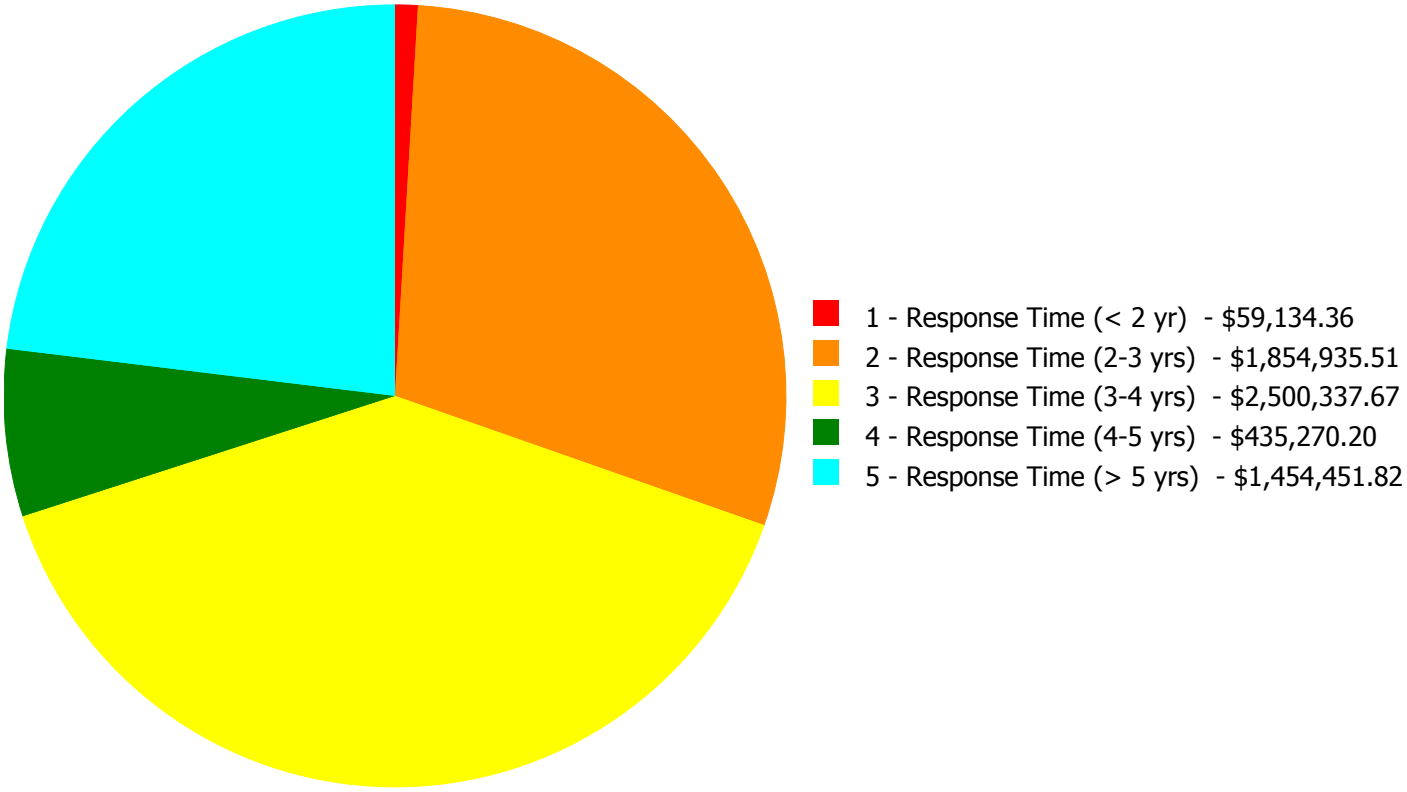
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart lists all current deficiencies associated with this facility.



Budget Estimate Total: $6,304,129.56

Deficiency Summary by Priority

The following chart shows the total repair costs broken down by priority. Assessors assigned deficiencies within eCOMET to one of the following priority categories:



Budget Estimate Total: $6,304,129.56

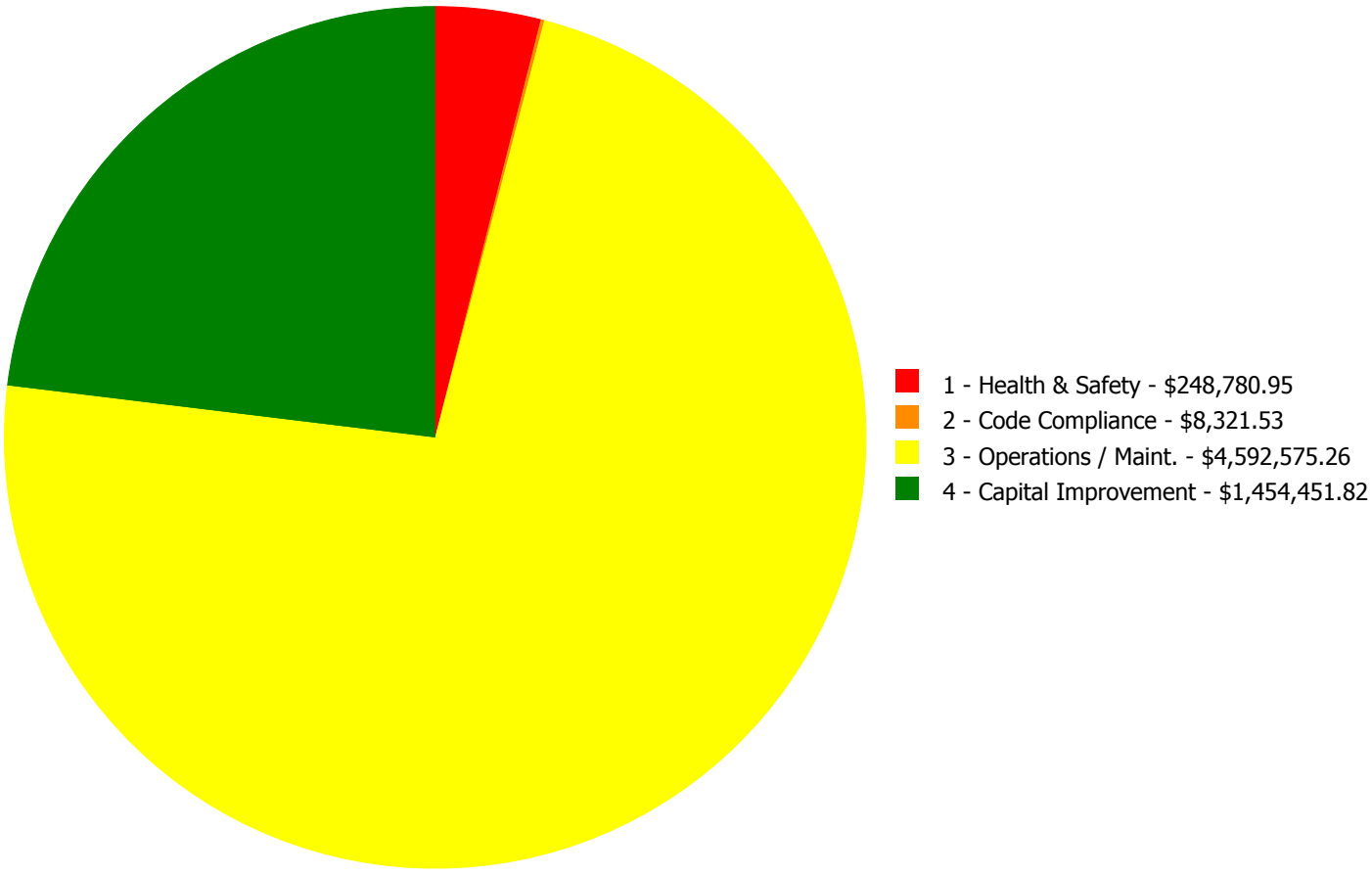
Deficiency By Priority Investment Table

The table below shows the current investment cost grouped by deficiency priority and building system.

System Code	System Description	1 - Response Time (< 2 yr)	2 - Response Time (2-3 yrs)	3 - Response Time (3-4 yrs)	4 - Response Time (4-5 yrs)	5 - Response Time (> 5 yrs)	Total
A2020	Basement Walls	$0.00	$0.00	$141,983.89	$0.00	$0.00	$141,983.89
B2010	Exterior Walls	$0.00	$0.00	$8,321.53	$0.00	$0.00	$8,321.53
B2030	Exterior Doors	$0.00	$0.00	$118,395.17	$0.00	$0.00	$118,395.17
B3010105	Built-Up	$0.00	$0.00	$630,205.40	$0.00	$0.00	$630,205.40
C3010230	Paint & Covering	$0.00	$0.00	$0.00	$34,546.77	$0.00	$34,546.77
C3020413	Vinyl Flooring	$0.00	$0.00	$236,600.02	$0.00	$0.00	$236,600.02
C3030	Ceiling Finishes	$0.00	$0.00	$0.00	$353,862.07	$0.00	$353,862.07
D2010	Plumbing Fixtures	$0.00	$207,446.17	$0.00	$0.00	$0.00	$207,446.17
D2020	Domestic Water Distribution	$0.00	$0.00	$171,783.45	$0.00	$0.00	$171,783.45
D2030	Sanitary Waste	$0.00	$12,180.93	$166,304.92	$0.00	$0.00	$178,485.85
D2040	Rain Water Drainage	$0.00	$0.00	$102,817.98	$0.00	$0.00	$102,817.98
D3020	Heat Generating Systems	$0.00	$0.00	$512,232.87	$0.00	$0.00	$512,232.87
D3040	Distribution Systems	$59,134.36	$1,635,308.41	$411,692.44	$0.00	$0.00	$2,106,135.21
D3060	Controls & Instrumentation	$0.00	$0.00	$0.00	$0.00	$1,454,451.82	$1,454,451.82
D5030	Communications and Security	$0.00	$0.00	$0.00	$46,861.36	$0.00	$46,861.36
	Total:	$59,134.36	$1,854,935.51	$2,500,337.67	$435,270.20	$1,454,451.82	$6,304,129.56

Deficiency Summary by Category

The following chart shows the total repair costs broken down by deficiency categories. Assessors assigned deficiencies to one of the following categories:



Budget Estimate Total: $6,304,129.56

Deficiency Details by Priority

The deficiency detail notes listed below provide additional information on identified deficiencies found within the facility.

Priority 1 - Response Time (< 2 yr):

System: D3040 - Distribution Systems

Location: Roof - original building

Distress: Failing

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Replace utility set exhaust fan (5 HP)

Qty: 2.00

Unit of Measure: Ea.

Estimate: $59,134.36

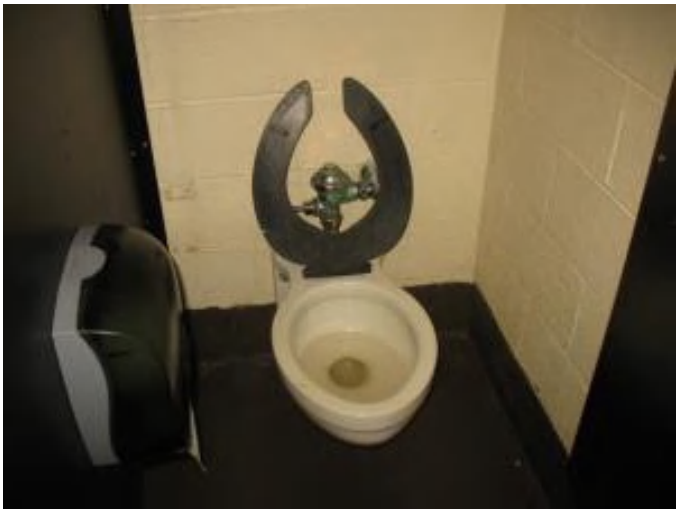
Assessor Name: Craig Anding

Date Created: 09/18/2015

Notes: Replace the two (2) existing roof mounted exhaust fans serving the boys and girls restrooms, staff restroom, and teachers' lounge. Utilize the existing ductwork.

Priority 2 - Response Time (2-3 yrs):

System: D2010 - Plumbing Fixtures



Location: Restrooms - original building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 2 - Response Time (2-3 yrs)

Correction: Remove and replace or replace water closet - quantify additional units

Qty: 20.00

Unit of Measure: Ea.

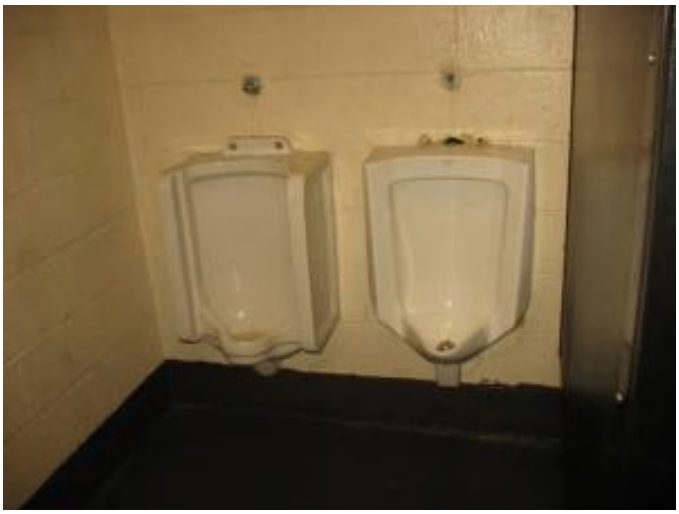
Estimate: $149,710.04

Assessor Name: Craig Anding

Date Created: 09/18/2015

Notes: Replace twenty (20) water closets in the restrooms of the original building with new code compliant fixtures.

System: D2010 - Plumbing Fixtures



Location: Restrooms - original building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 2 - Response Time (2-3 yrs)

Correction: Remove and replace or replace wall hung urinals

Qty: 10.00

Unit of Measure: Ea.

Estimate: $34,998.56

Assessor Name: Craig Anding

Date Created: 09/18/2015

Notes: Replace ten (10) urinals in the restrooms of the original building with new code compliant fixtures.

System: D2010 - Plumbing Fixtures

Location: Corridors

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 2 - Response Time (2-3 yrs)

Correction: Remove and Replace Water Fountains - without ADA new recessed alcove

Qty: 3.00

Unit of Measure: Ea.

Estimate: $22,737.57

Assessor Name: Craig Anding

Date Created: 09/18/2015

Notes: Replace three (3) porcelain wall hung drinking fountains in the corridors with units that have integral refrigerated coolers. These units are beyond their service life and most are NOT accessible type.

System: D2030 - Sanitary Waste

Location: Basement

Distress: Health Hazard / Risk

Category: 1 - Health & Safety

Priority: 2 - Response Time (2-3 yrs)

Correction: Install backwater prevention system to prevent storm water from backing up into the sanitary sewer system - 6" - change the pipe lengths if necessary - assumes 100 SF hardscape repair

Qty: 1.00

Unit of Measure: Ea.

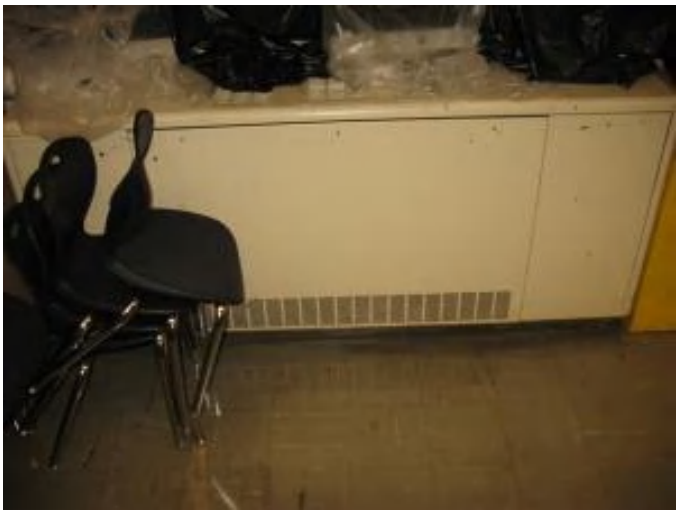
Estimate: $12,180.93

Assessor Name: Craig Anding

Date Created: 09/18/2015

Notes: Install a backwater valve on the outgoing sewage line in the original building to prevent sewage from backing up into the building when it rains.

System: D3040 - Distribution Systems



Location: Throughout - original building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 2 - Response Time (2-3 yrs)

Correction: Replace the existing unit ventilators with new units designed to provide adequate ventilation per ASHRAE Std 62 - insert the SF of bldg. in the qty.

Qty: 33,900.00

Unit of Measure: S.F.

Estimate: $1,635,308.41

Assessor Name: Craig Anding

Date Created: 09/18/2015

Notes: Remove the existing unit ventilators in the original building and install units with integral heat exchangers to introduce outdoor air to the building.

Priority 3 - Response Time (3-4 yrs):

System: A2020 - Basement Walls

Location: Interior/ Exterior

Distress: Failing

Category: 3 - Operations / Maint.

Priority: 3 - Response Time (3-4 yrs)

Correction: Waterproof basement walls - excavate, waterproof and backfill per LF based on 10' of depth

Qty: 150.00

Unit of Measure: L.F.

Estimate: $141,983.89

Assessor Name: Craig Anding

Date Created: 11/09/2015

Notes: Install membrane waterproofing on foundation wall adjacent to boiler room and mechanical closet

System: B2010 - Exterior Walls

Location: Exterior/ roof

Distress: OSHA

Category: 2 - Code Compliance

Priority: 3 - Response Time (3-4 yrs)

Correction: Add fixed ladders to wall

Qty: 30.00

Unit of Measure: V.L.F.

Estimate: $8,321.53

Assessor Name: Craig Anding

Date Created: 11/09/2015

Notes: Provide access ladder from original main roof to original roof over auditorium and gym

System: B2030 - Exterior Doors

Location: Exterior

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 3 - Response Time (3-4 yrs)

Correction: Remove and replace exterior doors - per leaf

Qty: 13.00

Unit of Measure: Ea.

Estimate: $118,395.17

Assessor Name: Craig Anding

Date Created: 11/09/2015

Notes: Replace exterior service and egress doors including hardware in the original building

System: B3010105 - Built-Up

Location: Exterior

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 3 - Response Time (3-4 yrs)

Correction: Remove and Replace Built Up Roof

Qty: 18,600.00

Unit of Measure: S.F.

Estimate: $630,205.40

Assessor Name: Craig Anding

Date Created: 11/09/2015

Notes: Install all new roofing system including insulation within next 3 to 4 years over the original building; tear-down existing roofing; install flashing, counter flashing and reglets

System: C3020413 - Vinyl Flooring

Location: Interior

Distress: Health Hazard / Risk

Category: 1 - Health & Safety

Priority: 3 - Response Time (3-4 yrs)

Correction: Remove VAT and replace with VCT - SF of area

Qty: 15,600.00

Unit of Measure: S.F.

Estimate: $236,600.02

Assessor Name: Craig Anding

Date Created: 11/09/2015

Notes: Replace all VAT flooring including cove base

System: D2020 - Domestic Water Distribution

Location: Throughout - original building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 3 - Response Time (3-4 yrs)

Correction: Replace domestic water piping (75 KSF)

Qty: 33,900.00

Unit of Measure: S.F.

Estimate: $171,783.45

Assessor Name: Craig Anding

Date Created: 09/18/2015

Notes: Hire a qualified contractor to perform a detailed inspection of the domestic water piping in the original building, in use for almost 60 years, and replace any damaged piping.

System: D2030 - Sanitary Waste

Location: Throughout - original building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 3 - Response Time (3-4 yrs)

Correction: Inspect sanitary waste piping and replace damaged sections. (+50KSF)

Qty: 33,900.00

Unit of Measure: S.F.

Estimate: $166,304.92

Assessor Name: Craig Anding

Date Created: 09/18/2015

Notes: Hire a qualified contractor to perform a detailed examination of the sanitary waste piping using visual inspection and video cameras to locate and replace any damaged piping and to further quantify the extent of potential failures.

System: D2040 - Rain Water Drainage

Location: Throughout - original building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 3 - Response Time (3-4 yrs)

Correction: Replace roof drains - per drain including piping

Qty: 4.00

Unit of Measure: Ea.

Estimate: $102,817.98

Assessor Name: Craig Anding

Date Created: 09/18/2015

Notes: Hire a qualified contractor to perform a detailed examination of the rain water drainage piping using visual inspection and video cameras to locate and replace any damaged piping and to further quantify the extent of potential failures.

System: D3020 - Heat Generating Systems

Location: Boiler room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 3 - Response Time (3-4 yrs)

Correction: Replace boiler, cast iron sectional (50 HP)

Qty: 2.00

Unit of Measure: Ea.

Estimate: $512,232.87

Assessor Name: Craig Anding

Date Created: 09/18/2015

Notes: Replace the two existing 1,405 MBH cast iron boilers, which are well beyond their service life, with new more efficient boilers.

System: D3040 - Distribution Systems

Location: Throughout - original building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 3 - Response Time (3-4 yrs)

Correction: Perform testing to identify and replace damaged steam and condensate piping.

Qty: 33,900.00

Unit of Measure: S.F.

Estimate: $320,706.63

Assessor Name: Craig Anding

Date Created: 09/18/2015

Notes: Hire a qualified contractor to examine the hot water distribution piping in the original building, in service for almost 60 years, and replace any damaged piping and to further quantify the extent of potential failures

System: D3040 - Distribution Systems

Location: Roof - original building

Distress: Failing

Category: 3 - Operations / Maint.

Priority: 3 - Response Time (3-4 yrs)

Correction: Replace power roof ventilator (24" dia.)

Qty: 3.00

Unit of Measure: Ea.

Estimate: $90,985.81

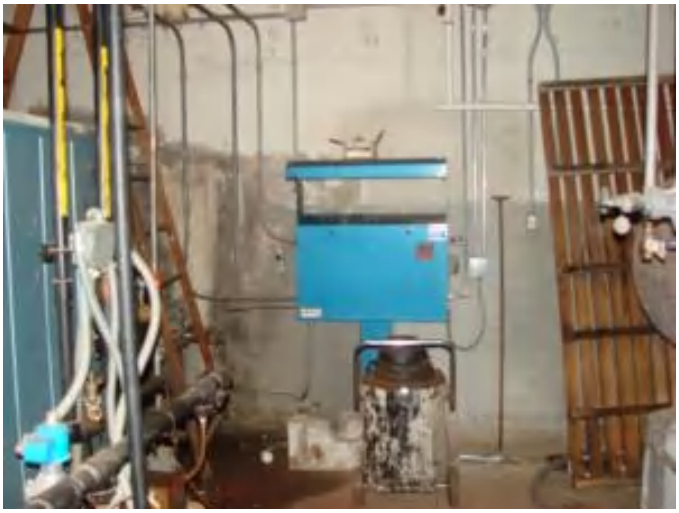
Assessor Name: Craig Anding

Date Created: 09/18/2015

Notes: Replace the three (3) roof mounted ventilators serving the Gymnasium and Cafetorium as they are well beyond their useful service life.

Priority 4 - Response Time (4-5 yrs):

System: C3010230 - Paint & Covering



Location: Interior

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 4 - Response Time (4-5 yrs)

Correction: Repair and repaint all interior walls - SF of wall surface

Qty: 5,100.00

Unit of Measure: S.F.

Estimate: $34,546.77

Assessor Name: Craig Anding

Date Created: 11/09/2015

Notes: Repaint walls in basement

System: C3030 - Ceiling Finishes

Location: Interior

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 4 - Response Time (4-5 yrs)

Correction: Remove and replace ceiling tiles only in suspended ceiling - pick the proper material

Qty: 33,200.00

Unit of Measure: S.F.

Estimate: $353,862.07

Assessor Name: Craig Anding

Date Created: 11/09/2015

Notes: Replace all suspended acoustical ceilings in original building

System: D5030 - Communications and Security

Location: throughout the building

Distress: Appearance

Category: 3 - Operations / Maint.

Priority: 4 - Response Time (4-5 yrs)

Correction: Add/Replace Video Surveillance System

Qty: 1.00

Unit of Measure: Ea.

Estimate: $46,861.36

Assessor Name: Craig Anding

Date Created: 09/28/2015

Notes: Add more cameras to cover the dead spaces.

Priority 5 - Response Time (> 5 yrs):

System: D3060 - Controls & Instrumentation

Location: Throughout building

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 5 - Response Time (> 5 yrs)

Correction: Replace pneumatic controls with DDC (75KSF)

Qty: 67,800.00

Unit of Measure: S.F.

Estimate: $1,454,451.82

Assessor Name: Craig Anding

Date Created: 09/18/2015

Notes: Replace the pneumatic controls for the HVAC systems with modern DDC modules, valves and actuators to improve reliability and energy efficiency. Provide a new building automation system (BAS) with communication interface to the preferred system in use throughout the District.

Equipment Inventory

The following table represents the inventory details of the inventory found in the building, which fall under the following subsystems:

Subsystem	Inventory	Qty	UoM	Location	Manufacturer	Model Number	Serial Number	Barcode	Life	Install Date	Next Renewal	Raw Cost	Inventory Cost
D1010 Elevators and Lifts	Hydraulic, passenger elevator, 3000 lb, 2 floors, 100 FPM	1.00	Ea.	Interior					30	2006	2036	$73,815.00	$81,196.50
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, steam, gross output, 1600 MBH, includes burners, controls and insulated jacket, packaged	2.00	Ea.	Boiler Room	HB Smith	Mills 350/10			35	1959	1994	$35,967.40	$79,128.28
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, steam, gross output, 1600 MBH, includes burners, controls and insulated jacket, packaged	2.00	Ea.	Boiler Room	HB Smith	Mills 350/10			35	1959	1994	$35,967.40	$79,128.28
D3030 Cooling Generating Systems	Water chiller, screw liquid chiller, air cooled, insulated evaporator, 130 ton, includes standard controls	1.00	Ea.	Roof	McQuay	AGS120CH12-ER10	STNU070500063		20	2006	2026	$122,760.00	$135,036.00
												Total:	**$374,489.06**

Executive Summary

Building condition is evaluated based on the functional systems and elements of a building and organized according to the UNIFORMAT II Elemental Classification. The grouping of these systems and elements and applying a current replacement value to them develops a representative building cost model. Cost Models are developed for similar building types and functions. Systems and their elements are evaluated based on their current replacement values, life cycles, installation dates and next renewal dates. Systems and their elements that are within their useful lives are further evaluated to identify current deficient conditions that may have a significant impact on a system's or element's remaining service life, and to determine if they are beyond their predicted expected life. The system's or element's current replacement value is based on RS Means Commercial Cost Data.

Following are the cost model's system details for this facility. The Replacement Value is the amount needed to replace the property of the same present value. The Current Repair Amount, also known as Condition Needs, represents the budgeted contractor installed costs plus owner's soft costs for the repair, replacement or renewal for a component or system level deficiency. It excludes contributing costs for other components or systems that might also be associated with the corrective actions due to packaging the work. Facility Condition Index (FCI) FCI is an industry-standard measurement of facility condition calculated as the ratio of the costs to correct a facility's deficiencies to the facility's Current Replacement Value. It ranges from 0% (new) to 100% (very poor). Condition Index (CI) is calculated as the sum of a renewable system's Remaining Service Life (RSL) divided by the sum of a system's Replacement Value (both values exclude soft-cost to simplify calculation updates) expressed as a percentage ranging from 100% (new) to 0% (expired).

Function:	
Gross Area (SF):	9,200
Year Built:	1959
Last Renovation:	
Replacement Value:	$213,992
Repair Cost:	$75,743.68
Total FCI:	35.40 %
Total RSLI:	72.84 %

Description:

Attributes:

General Attributes:

Bldg ID:	S521001	Site ID:	S521001

Condition Summary

The Table below shows the CI and FCI for each major building system shown at the UNIFORMAT classification Level II. Note that Systems with lower FCIs require less investment than systems with higher FCIs.

UNIFORMAT Classification	RSLI %	FCI %	Current Repair Cost
G20 - Site Improvements	73.97 %	0.00 %	$0.00
G40 - Site Electrical Utilities	70.00 %	124.74 %	$75,743.68
Totals:	**72.84 %**	**35.40 %**	**$75,743.68**

Condition Detail

This section of the report contains results of the Facility Condition Assessment. The building is separated into system components based on UNIFORMAT II classification. The columns in the System Listing table below represent the following:

1. System Code: A code that identifies the system.
2. System Description: A brief description of a system present in the building.
3. Unit Price $: The unit price of the system.
4. UoM: The unit of measure for of the system.
5. Qty: The quantity for the system
6. Life: anticipated service life for thesystem based on Building Owners and Managers Association (BOMA) recommendations.
7. Year Installed: The date of system installation.
8. Calc Next Renewal Year: The date of system expiration based on the life, NR stands for non renewable.
9. Next Renewal Year: The suggested system expiration date by the assessor based on visual inspection.
10. CI: The Condition Index of the system.
11. FCI: The Facility Condition Index of the system.
12. RSL: Remaining Service Life.
13. eCR: eCOMET Condition Rating (not used).
14. Deficiency $: The financial investment to repair/replace system.

System Listing

The System Listing table below lists each of the systems organized by their UNIFORMAT II classification. The assessment team was tasked with recording the most recent replacement year of each system, determining the remaining service life based on the theoretical life, and evaluating the condition to confirm the forecast next replacement year. The system listing is the basis for all data contained in the Building Assessment Report.

Additionally, a condition rating (eCR) based on the following guidelines is provided as observed at the time of the assessment.

- Excellent (E) - No noticeable distress or damage. The entire system is free from observable defect.
- Very Good (VG) - Overall no serviceability reduction for the entire system. No degradation of critical components and minor distress and defect noticeable for some but not non critical components within the system.
- Good (G) - Slight or no serviceability reduction for the entire system. There may be noticeable defects for some non critical components and slight noticeable degradation of the critical components.
- Fair (F) - Overall serviceability is degraded but adequate. There may be moderate deterioration for very few of the critical components and few of the non critical components may have severe degradation.
- Marginal (MA) - Overall serviceability and reliability loss. Most if not all of the non critical components suffer from severe degradation and a few of the critical component may have severe degradation.
- Moderate (MO) - Overall a significant serviceability loss. Most if not all the components have severe degradation with the reminder of the component showing visible distress.
- Very Poor (VP) - Overall the system is barely functional. All of the components are severely degraded.
- Non-Functional (NF) - Overall the system does not function with all the components having no serviceability and suffer from severe degradation.

System Code	System Description	Unit Price $	UoM	Qty	Life	Year Installed	Calc Next Renewal Year	Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency $	Replacement Value $
G2010	Roadways	$11.52	S.F.		30				0.00 %	0.00 %				$0
G2020	Parking Lots	$8.50	S.F.		30				0.00 %	0.00 %				$0
G2030	Pedestrian Paving	$12.30	S.F.	9,200	40	2006	2046		77.50 %	0.00 %	31			$113,160
G2040	Site Development	$4.36	S.F.	9,200	25	2006	2031		64.00 %	0.00 %	16			$40,112
G2050	Landscaping & Irrigation	$4.36	S.F.		15				0.00 %	0.00 %				$0
G4020	Site Lighting	$4.84	S.F.	9,200	30	2006	2036	2036	70.00 %	0.00 %	21			$44,528
G4030	Site Communications & Security	$1.76	S.F.	9,200	30	2006	2036	2036	70.00 %	467.78 %	21		$75,743.68	$16,192
								Total	**72.84 %**	**35.40 %**			**$75,743.68**	**$213,992**

System Notes

The facility description in the site executive summary contains an overview of each system. The notes listed below provide additional information on select systems found within the facility.

No data found for this asset

Renewal Schedule

eCOMET forecasts future Capital Renewal funding needed to address expiring systems based on the Next Renewal year found in the Cost Models. A 3% annual inflation factor is applied to the costs for systems expiring in future years. The table below reflects recommended Capital Renewal funding needs over the next 10 years. Note: Cells with a zero value indicate systems for which renewal is not scheduled in that year.

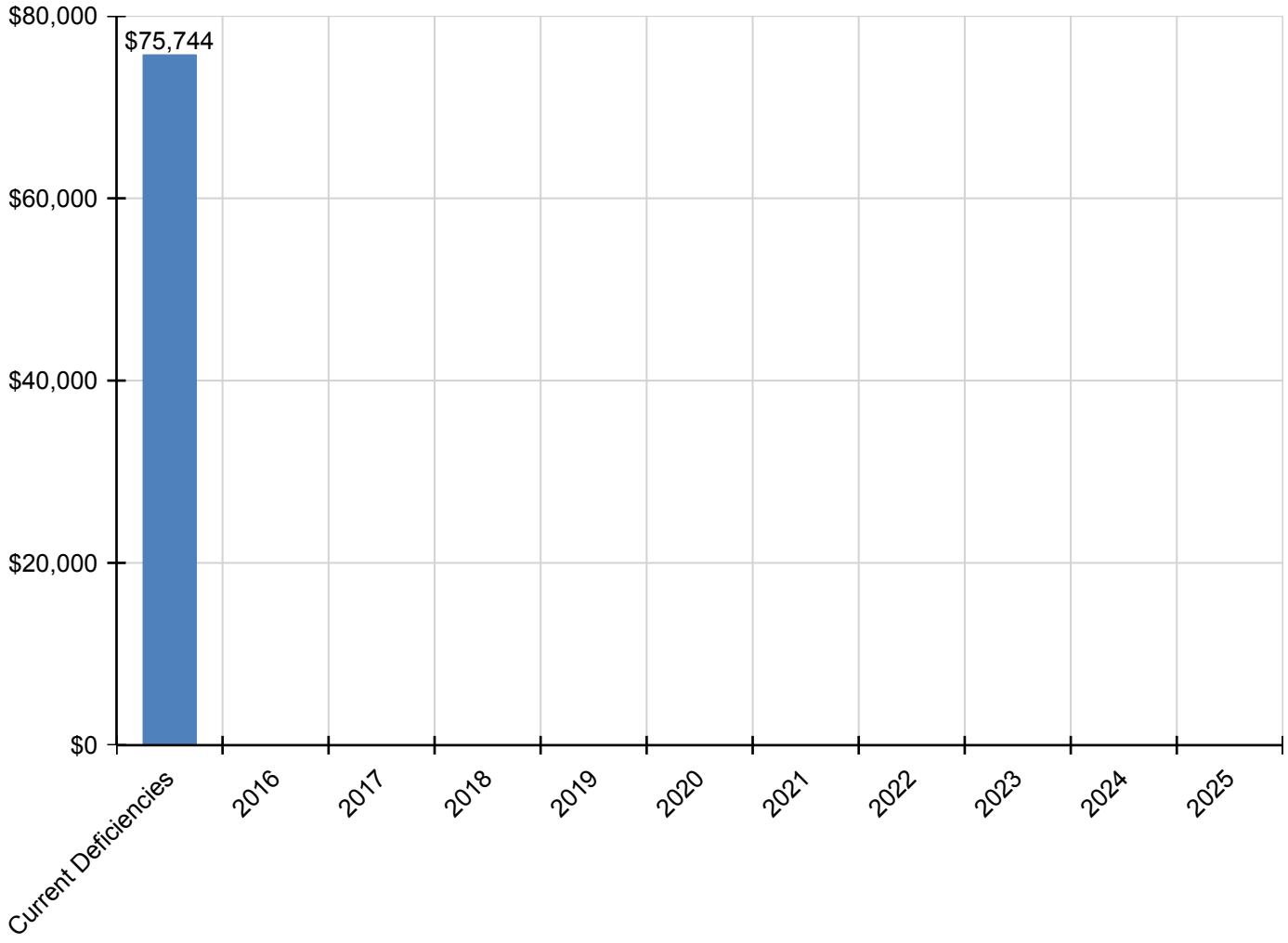
Inflation Rate: 3%

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Total:	**$75,744**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$75,744**
G - Building Sitework	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G20 - Site Improvements	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G2010 - Roadways	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G2020 - Parking Lots	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G2030 - Pedestrian Paving	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G2040 - Site Development	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G2050 - Landscaping & Irrigation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G40 - Site Electrical Utilities	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G4020 - Site Lighting	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G4030 - Site Communications & Security	$75,744	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$75,744**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

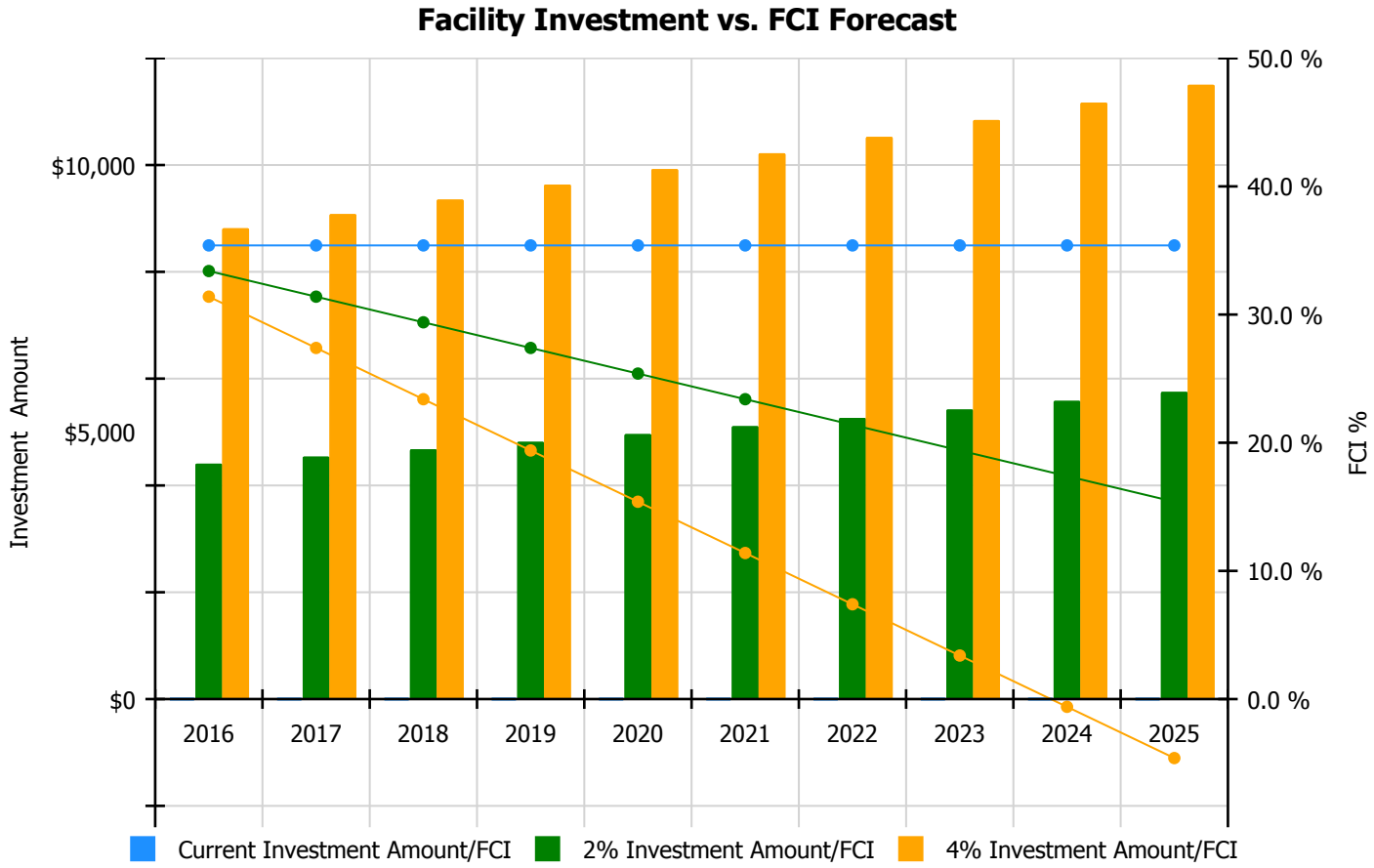
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



10 Year FCI Forecast by Investment Scenario

The chart below illustrates the effect of various investment levels on the building FCI for the next 10 years. The levels of investment shown below include:

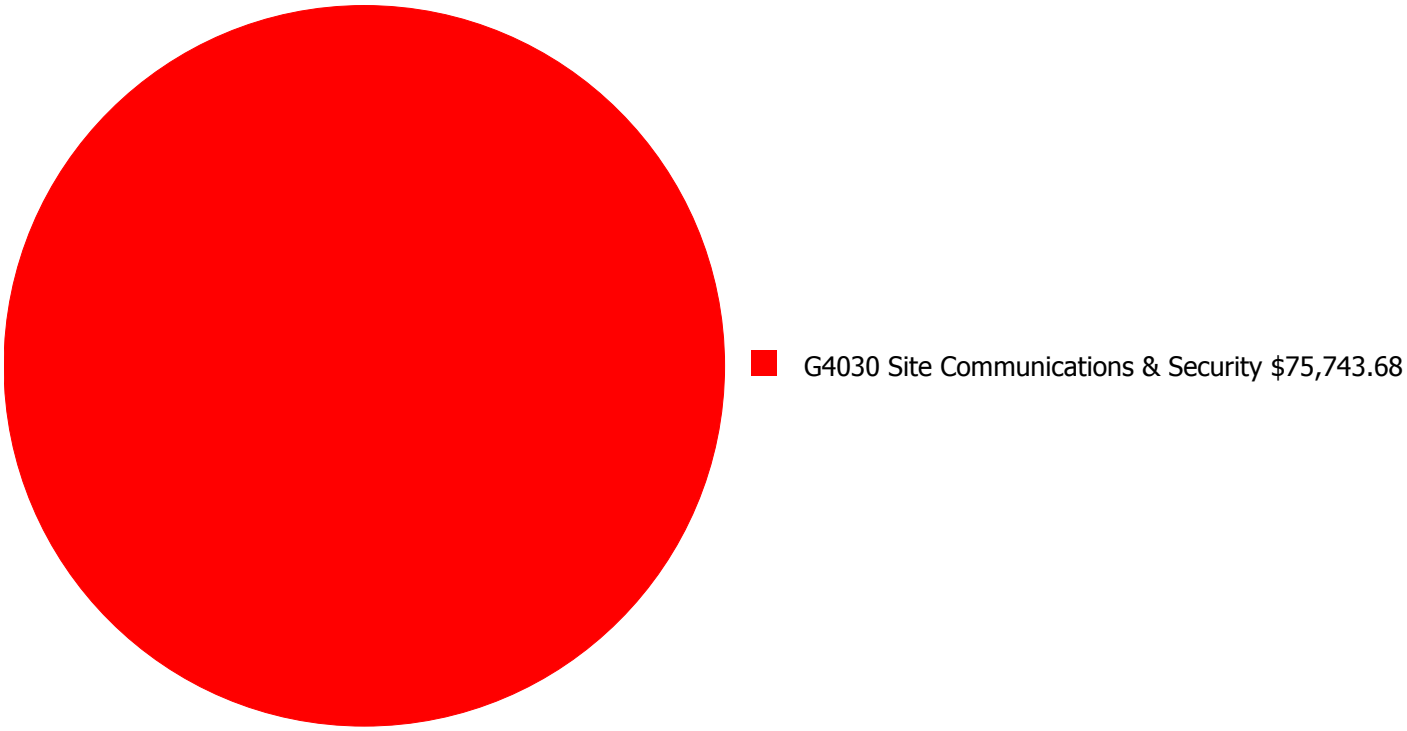
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value of the building, escalated for inflation



Year	Investment Amount Current FCI - 35.4%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$4,408.00	33.40 %	$8,816.00	31.40 %
2017	$0	$4,540.00	31.40 %	$9,081.00	27.40 %
2018	$0	$4,677.00	29.40 %	$9,353.00	23.40 %
2019	$0	$4,817.00	27.40 %	$9,634.00	19.40 %
2020	$0	$4,962.00	25.40 %	$9,923.00	15.40 %
2021	$0	$5,110.00	23.40 %	$10,221.00	11.40 %
2022	$0	$5,264.00	21.40 %	$10,527.00	7.40 %
2023	$0	$5,422.00	19.40 %	$10,843.00	3.40 %
2024	$0	$5,584.00	17.40 %	$11,168.00	-0.60 %
2025	$0	$5,752.00	15.40 %	$11,503.00	-4.60 %
Total:	**$0**	**$50,536.00**		**$101,069.00**	

Deficiency Summary by System

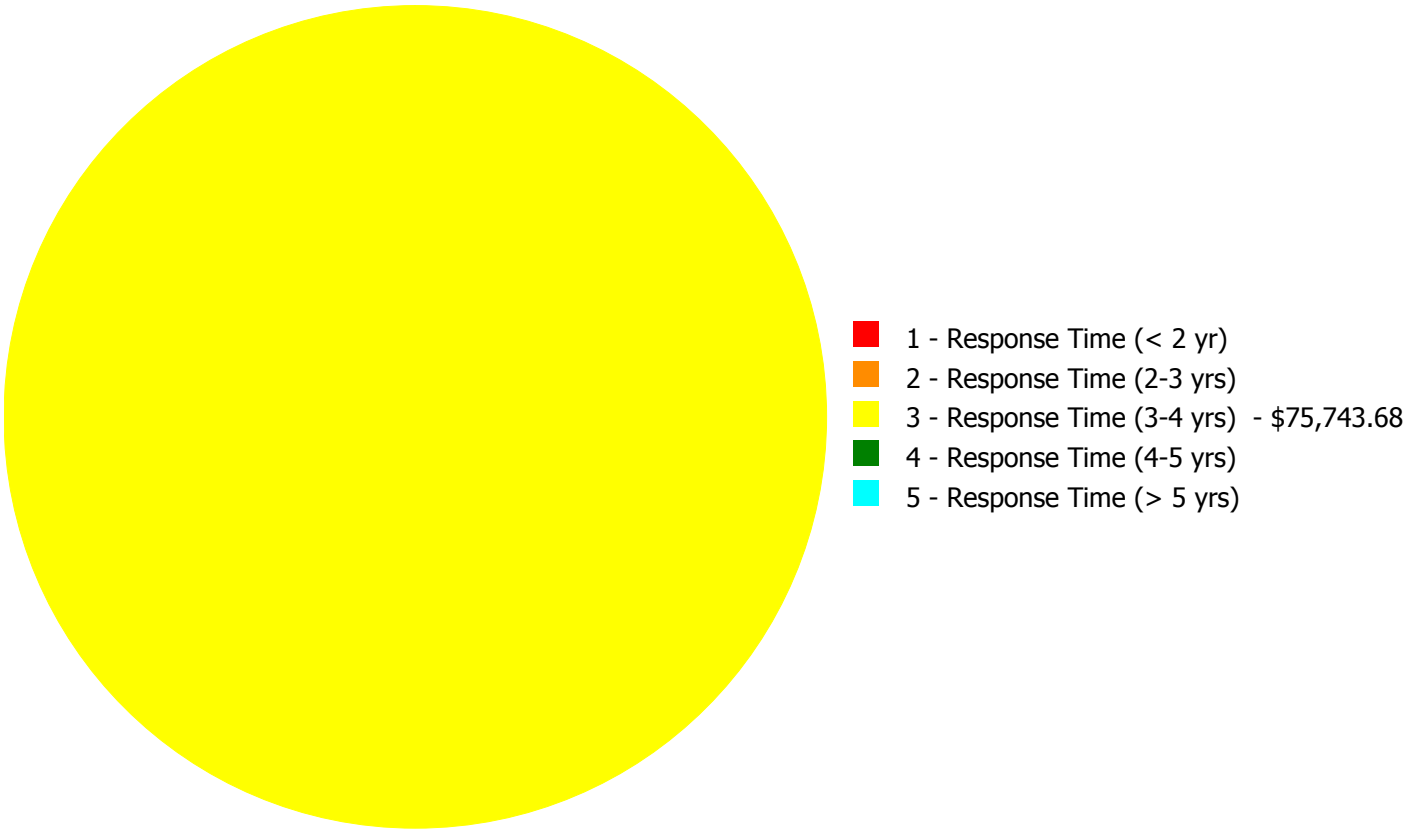
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart lists all current deficiencies associated with this facility.



Budget Estimate Total: $75,743.68

Deficiency Summary by Priority

The following chart shows the total repair costs broken down by priority. Assessors assigned deficiencies within eCOMET to one of the following priority categories:



Budget Estimate Total: $75,743.68

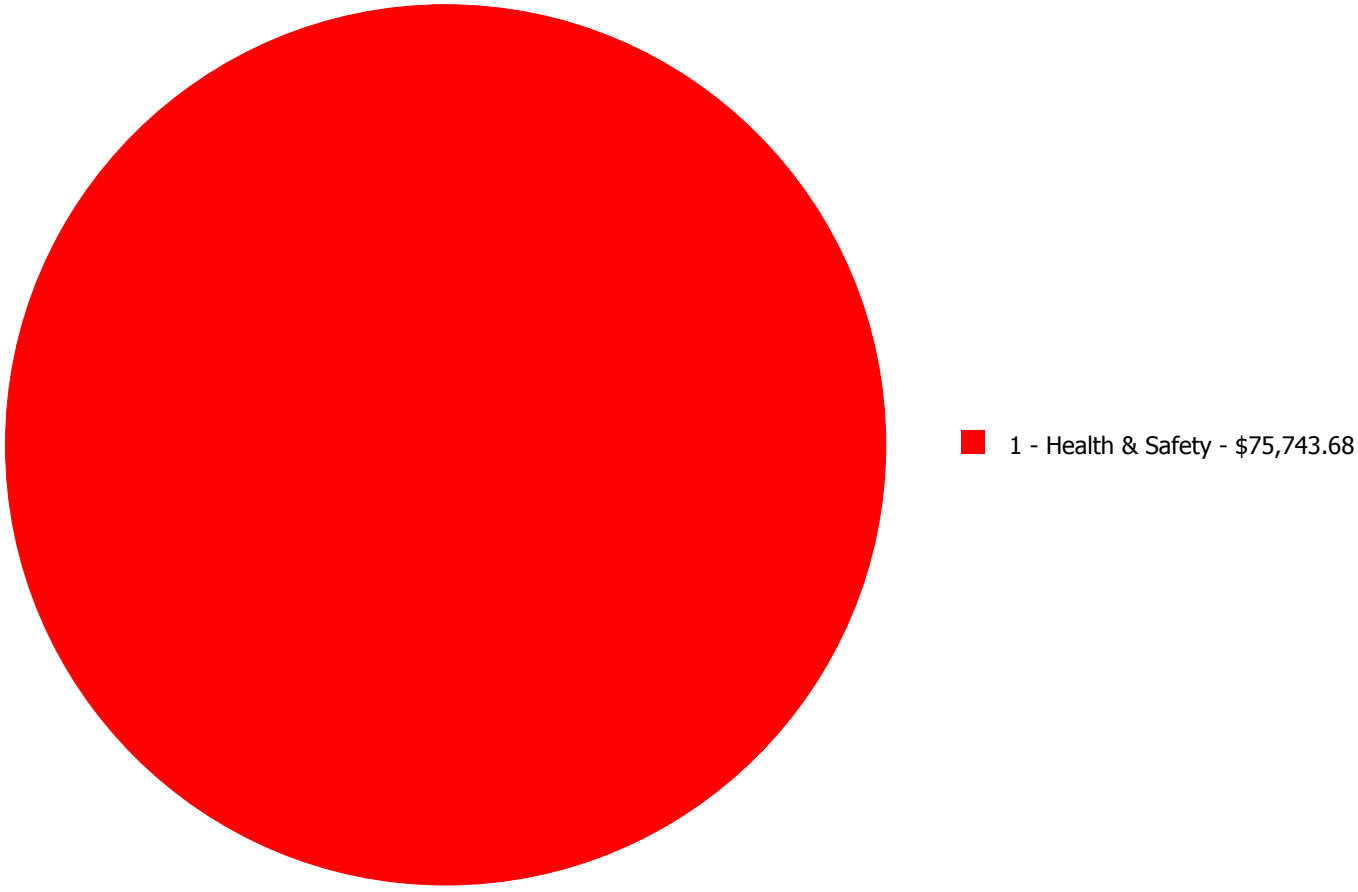
Deficiency By Priority Investment Table

The table below shows the current investment cost grouped by deficiency priority and building system.

System Code	System Description	1 - Response Time (< 2 yr)	2 - Response Time (2-3 yrs)	3 - Response Time (3-4 yrs)	4 - Response Time (4-5 yrs)	5 - Response Time (> 5 yrs)	Total
G4030	Site Communications & Security	$0.00	$0.00	$75,743.68	$0.00	$0.00	$75,743.68
	Total:	$0.00	$0.00	$75,743.68	$0.00	$0.00	$75,743.68

Deficiency Summary by Category

The following chart shows the total repair costs broken down by deficiency categories. Assessors assigned deficiencies to one of the following categories:



Budget Estimate Total: $75,743.68

Deficiency Details by Priority

The deficiency detail notes listed below provide additional information on identified deficiencies found within the facility.

Priority 3 - Response Time (3-4 yrs):

System: G4030 - Site Communications & Security

Location: Grounds

Distress: Security Issue

Category: 1 - Health & Safety

Priority: 3 - Response Time (3-4 yrs)

Correction: Add Video Surveillance System

Qty: 0.00

Unit of Measure: Ea.

Estimate: $75,743.68

Assessor Name: Craig Anding

Date Created: 11/10/2015

Notes: Install more security cameras to cover the dead spaces around the school (as requested by the school principal).

Equipment Inventory

The following table represents the inventory details of the inventory found in the building, which fall under the following subsystems:

No data found for this asset

Glossary

ABMA	American Boiler Manufacturers Association http://www.abma.com/
ACEEE	American Council for an Energy-Efficient Economy
ACGIH	American Council of Governmental and Industrial Hygienists
AEE	Association of Energy Engineers
AFD	Adjustable Frequency Drive
AFTC	After Tax Cash Flow
AGA	American Gas Association
AHU	Air Handling Unit
Amp	Ampere
ANSI	American National Standards Institute
ARI	Air Conditioning and Refrigeration Institute
ASD	Adjustable Speed Drive
ASHRAE	American Society of Heating Refrigerating and Air-Conditioning Engineers Inc.
ASME	American Society of Mechanical Engineers
Assessment	Visual survey of a facility to determine its condition. It involves looking at the age of systems reviewing information from local sources and visual evidence of potential problems to assign a condition rating. It does not include destructive testing of materials or testing of systems or equipment for functionality.
ATS	After Tax Savings
AW	Annual worth
BACNET	Building Automation Control Network
BAS	Building Automation System
BCR	Benefit Cost Ratio
BEP	Business Energy Professional (AEE)
BF	Ballast Factor
BHP	Boiler Horsepower (boilers)
BHP	Brake Horsepower (motors)
BLCC	Building Life Cycle Cost analysis program (FEMP)
BOCA	Building Officials and Code Administrators
BTCF	Before Tax Cash Flow

BTS	Before Tax Savings
Btu	British thermal unit
Building Addition	An area space or component of a building added to a building after the original building's year built date.
CAA	Clean Air Act
CAAA-90	Clean Air Act Amendments of 1990
CABO	Council of American Building Officials
CAC	Conventional Air Conditioning
CADDET	Center for the Analysis and Dissemination of Demonstrated Energy Technologies
Calculated Next Renewal	The year a system or element would be expected to expire based solely on the date it was installed and the expected useful lifetime for that kind of system.
Capital Renewal	Capital renewal is condition work (excluding suitability and energy audit work) that includes the replacement of building systems or elements (as they become obsolete or beyond their useful life) not normally included in an annual operating budget. Calculated next renewal The year a system or element would be expected to expire based solely on the date it was installed and the expected useful lifetime for that kind of system. Next renewal The assessor adjusted expected useful life of a system or element based on on-site inspection.
CDD	Cooling Degree Days
CDGP	Certified Distributed Generation Professional
CEC	California Energy Commission
CEM	Certified Energy Manager
CEP	Certified Energy Procurement Professional
CFC	Chlorofluorocarbon
CFD	Cash Flow Diagram
CFL	Compact Fluorescent Light
CFM cfm	Cubic Feet per Minute
CHP	Combined Heat and Power (a.k.a. cogeneration)
CHW	Chilled Water
Condition	Condition refers to the state of physical fitness or readiness of a facility system or system element for its intended use.
COP	Coefficient of Performance
Cp	Heat Capacity of Material
CPUC	California Public Utility Commission
CRI	Color Rendering Index
CRT	Cathode Ray Tube VDT HMI

CTC	Competitive Transition Charge
Cu	Coefficient of Utilization
Current Replacement Value (CRV)	CRV represents the hypothetical total cost of rebuilding or replacing an existing facility in current dollars to its optimal condition (excluding auxiliary facilities) under current codes and construction standards.
Cv	Value Coefficient
CWS	Chilled Water System
D d	Distance (usually feet)
DB	Dry Bulb
DCV	Demand Control Ventilation
DD	Degree Day
DDB	Double Declining Balance
DDC	Direct Digital Controls
Deferred maintenance	Deferred maintenance is condition work (excluding suitability and energy audit needs) deferred on a planned or unplanned basis to a future budget cycle or postponed until funds are available.
Deficiency	A deficiency is a repair item that is damaged missing inadequate or insufficient for an intended purpose.
Delta	Difference
Delta P	Pressure Difference
Delta T	Temperature Difference
DG	Distributed Generation
DOE	Department of Energy
DP	Dew Point
DR	Demand Response
DX	Direct Expansion Air Conditioner
EA	Energy Audit
EBITDA	Earnings before Interest Taxes Depreciation and Amortization
ECI	Energy Cost Index
ECM	Energy Conservation Measure
ECO	Energy Conservation Opportunity
ECPA	Energy Conservation and Production Act
ECR	Energy Conservation Recommendation
ECS	Energy Control System

EER	Energy Efficiency Ratio
EERE	Energy Efficiency and Renewable Energy division of US DOE
EIA	Energy Information Agency
EIS	Energy Information System
EMCS	Energy Management Computer System
EMO	Energy Management Opportunity
EMP	Energy Management Project
EMR	Energy Management Recommendation
EMS	Energy Management System
Energy Utilization Index (EUI)	EUI is the measure of total energy consumed in the cooling or heating of a building in a period expressed as British thermal unit (BTU) per (cooled or heated) gross square foot.
EO	Executive Order
EPA	Environmental Protection Agency
EPACT	Energy Policy Act of 1992
EPCA	Energy Production and Conservation Act of 1975
EPRI	Electric Power Research Institute
EREN	Efficiency and Renewable Energy (Division of USDOE)
ERV	Energy Recovery Ventilator
ESCO	Energy Service Company
ESPC	Energy Savings Performance Contract
EUI	Energy Use Index
EWG	Exempt Wholesale Generators
Extended Facility Condition Index (EFCI)	EFCI is calculated as the condition needs for the current year plus facility system renewal needs going out to a set time in the future divided by Current Replacement Value.
f	Frequency
F	Fahrenheit
Facility	A facility refers to site(s) building(s) or building addition(s) or combinations thereof that provide a particular service.
Facility Condition Assessment (FCA)	FCA is a process for evaluating the condition of buildings and facilities for programming and budgetary purposes through an on site inspection and evaluation process.
Facility Condition Index (FCI)	FCI is an industry-standard measurement of a facility's condition that is the ratio of the cost to correct a facility's deficiencies to the Current Replacement Value of the facilities. The higher the FCI the poorer the condition of a facility. After an FCI is established for all buildings within a portfolio a building's condition can be ranked relative to other buildings. The FCI may also represent the condition of a portfolio based on the cumulative FCIs of the portfolio's facilities.

FC	Footcandle
FCA	Fuel Cost Adjustment
FEMIA	Federal Energy Management Improvement Act of 1988
FEMP	Federal Energy Management Program
FERC	Federal Energy Regulatory Commission
FESR	Fuel Energy Savings Ratio
FLA	Full Load Amps
FLF	Facility Load Factor (usually monthly)
FLRPM	Full Load Revolutions per Minute
FMS	Facility Management System
FPM fpm	Feet per Minute (velocity)
FSEC	Florida Solar Energy Center
Ft	Foot
GPM gpm	Gallons per Minute
GRI	Gas Research Institute
Gross Square Feet (GSF)	The size of the enclosed floor space of a building in square feet measured to the outside face of the enclosing wall.
GUI	Graphical User Interface
H h	Enthalpy Btu/lb
HCFC	Hydrochlorofluorocarbons
HDD	Heating Degree days
HFC	Hydrofluorocarbons
HHV	Higher Heating Value
HID	High Intensity Discharge (lamp)
HMI	Human Machine Interface
HMMI	Human Man Machine Interface
HO	High Output (lamp)
HP Hp hp	Horsepower
HPS	High Pressure Sodium (lamp)
HR	Humidity Ratio
Hr hr	Hour

HRU	Heat Recovery Unit
HVAC	Heating Ventilation and Air-Conditioning
Hz	Hertz
I	Intensity (lumen output of lamp)
I i	Interest rate or Discount rate
IAQ	Indoor Air Quality
ICA	International Cogeneration Alliance
ICBO	International Conference of Buildings Officials
ICC	International Code Council
ICP	Institutional Conservation Program
IECC	International Energy Conservation Code
IEEE	Institute of Electrical and Electronic Engineers
IESNA	Illuminating Engineering Society of North America
Install year	The year a building or system was built or the most recent major renovation date (where a minimum of 70 of the system?s Current Replacement Value (CRV) was replaced).
IRP	Integrated Resource Planning
IRR	Internal Rate of Return
ISO	Independent System Operator
ITA	Independent Tariff Administrator
k	Kilo multiple of thousands in SI system
K	Kelvins (color temperature of lamp)
K k	Thermal Conductivity of Material
KVA	Kilovolt Ampere
KVAR	Kilovolt Ampere Reactive
kW	kiloWatt
kWh	kiloWatt hour
L	Length (usually feet)
LCC	Life Cycle Costing
LDC	Local Distribution Company
LEED	Leadership in Energy and Environmental Design
LEED EB	LEED for Existing Buildings

LEED NC	LEED for new construction
LF	Load Factor
LHV	Lower Heating Value
Life cycle	The period of time that a building or site system or element can be expected to adequately serve its intended function.
LPS	Low Pressure Sodium (lamp)
Lu	Lumen Output of a Lamp or Fixture
M	Mega multiple of millions in SI system
M&V	Measurement and Verification
MACRS	Modified Accelerated Cost Recovery System
MARR	Minimum Attractive Rate of Return
Mbtu	Thousand Btu
MCF	Thousand Cubic Feet (usually of gas)
MEC	Model Energy Code
Mm	Multiple of Thousands in I/P System
MMBtu	Million Btu
MMCS	Maintenance Management Computer System
MMI	Man Machine Interface
MMS	Maintenance Management System
MSE 2000	Management System for Energy 2000 (ANSI Georgia Tech Univ)
MW	MegaWatt
MWH MWh	MegaWatt hour
NAAQS	National Ambient Air Quality Standards
NAESCO	National Association of Energy Service Companies
NAIMA	North American Insulation Manufacturers Association
NEA	National Energy Act of 1978
NECPA	National Energy Conservation Policy Act
NEMA	National Electrical Manufacturer's Association
NERC	North American Electric Reliability Council
Next Renewal	The Next Renewal date is an override of the 'Calculated Next Renewal' date and is based upon the assessor?s visual inspection.

NFPA	National Fire Protection Association
NGPA	National Gas Policy Act of 1978
NLRPM	No Load Revolutions per Minute (speed)
Nn	Equipment or Project lifetime in economic analysis
NOPR	Notice of Proposed Rule Making from FERC
NOx	Nitrogen Oxide Compounds
NPV	Net present value in economic analysis
NREL	National Renewable Energy Laboratory
NUG	Non-Utility Generator
O&M	Operation and Maintenance
OA	Outside Air
ODP	Ozone Depletion Potential
OPAC	Off-Peak Air Conditioning
P	Present value in economic analysis
PBR	Performance Based Rates
PEA	Preliminary Energy Audit
PF	Power Factor
PID	Proportional plus integral plus derivative (control system)
PM	Portfolio Manager in Energy Star rating system
PM	Preventive Maintenance
PoolCo	Power Pool Company or Organization
POU	Point of Use
PQ	Power Quality
PSC	Public Service Commission
PSIA psia	Pounds per square inch absolute (pressure)
PSIG psig	Pounds per square inch gauge (pressure)
PUC	Public Utility Commission
PUHCA	Public Utilities Holding Company Act of 1935
PURPA	Public Utilities Regulatory Policies of 1978
PV	Photovotaic system

PV	Present Value
PW	Present Worth
PX	Power Exchange
q	Rate of heat flow in Btu per hour
Q	Heat load due to conduction using degree days
QF	Qualifying Facility
R	Electrical resistance
R	Thermal Resistance
RC	Remote controller
RCR	Room Cavity Ratio
RCRA	Resource Conservation and Recovery Act
Remaining Service Life (RSL)	RSL is the number of years service remaining for a system or equipment item. It is automatically calculated based on the difference between the current year and the 'Calculated Next Renewal' date or the 'Next Renewal' date whichever one is the later date.
Remaining Service Life Index (RSLI)	RSLI is defined as a percentage ratio of the remaining service life of a system. It usually ranges from 0 to 100
REMR	Repair Evaluation Maintenance Rehabilitation (REMR) is a scale used to objectively rank systems based on their condition
Renewal Schedule	A timeline that provides the items that need repair the year in which the repair is needed and the estimated price of the renewal.
RH	Relative Humidity
RLA	Running Load Amps
RMS	Root Mean Square
RO	Reverse Osmosis
ROI	Return on Investment
RPM	Revolutions Per Minute
RTG	Regional Transmission Group
RTO	Regional Transmission Organization
RTP	Real Time Pricing
SBCCI	Southern Building Code Congress International
SC	Scheduling Coordinator
SC	Shading Coefficient
SCADA	Supervisory Control and Data Acquisition Systems

SEER	Seasonal Energy Efficiency Ratio
SHR	Sensible Heat Ratio
Site	The grounds and utilities roadways landscaping fencing and other typical land improvements needed to support the facility.
Soft Cost	An expense item that is not considered direct construction cost. Soft cost includes architectural engineering financing legal fees and other pre-and-post construction expenses.
SOx	Sulfur Oxide Compounds
SP	Static Pressure
SP SPB	Simple Payback
SPP	Simple Payback Period
SPP	Small Power Producers
STR	Stack Temperature Rise
SV	Specific Volume
System	System refers to building and related site work elements as described by ASTM Uniformat II Classification for Building Elements (E1557-97) a format for classifying major facility elements common to most buildings. Elements usually perform a given function regardless of the design specification construction method or materials used. See also Uniformat II.
T	Temperature
T	Tubular (lamps)
TAA	Technical Assistance Audit
TCP/IP	Transmission Control Protocol/Internet Protocol
TES	Thermal Energy Storage
THD	Total Harmonic Distortion
TOD	Time of Day
TOU	Time of Use
TQM	Total Quality Management
TransCo	Transmission Company
U	Thermal Conductance
UDC	Utility Distribution Company
UL	Underwriters Laboratories
UNIFORMAT II	The ASTM UNIFORMAT II Classification for Building Elements (E1557-97) a format for classifying major facility components common to most buildings.
USGBC	US Green Building Council
v	Specific Volume

V	Volts Voltage
V	Volume
VAV	Variable Air Volume
VDT	Video Display Terminal
VFD	Variable Frequency Drive
VHO	Very High Output
VSD	Variable Speed Drive
W	Watts
W	Width
WB	Wet bulb
WH Wh	Watt Hours
Year built	The year that a building or addition was originally built based on substantial completion or occupancy.
Z	Electrical Impedance