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.

AMY at Levering School

Governance	DISTRICT	Report Type	Middle
Address	6000 Ridge Ave.	Enrollment	308
	Philadelphia, Pa 19128	Grade Range	'06-08'
Phone/Fax	215-487-7600 / 215-487-7505	Admissions Category	Special Admit
Website	Www.Philasd.Org/Schools/Amynw	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	**41.50%**	**$16,821,193**	**$40,533,700**
Building	45.07 %	$15,854,918	$35,179,323
Grounds	25.25 %	$301,788	$1,195,417

Major Building Systems

Building System	System FCI	Repair Costs	Replacement Cost
Roof (Shows physical condition of roof)	00.00 %	$0	$1,101,746
Exterior Walls (Shows condition of the structural condition of the exterior facade)	00.00 %	$0	$2,564,322
Windows (Shows functionality of exterior windows)	105.69 %	$1,322,405	$1,251,245
Exterior Doors (Shows condition of exterior doors)	128.59 %	$129,537	$100,739
Interior Doors (Classroom doors)	172.15 %	$419,812	$243,857
Interior Walls (Paint and Finishes)	06.96 %	$81,287	$1,167,875
Plumbing Fixtures	09.36 %	$87,898	$939,302
Boilers	80.09 %	$1,038,883	$1,297,098
Chillers/Cooling Towers	64.37 %	$1,094,740	$1,700,748
Radiators/Unit Ventilators/HVAC	160.01 %	$4,779,063	$2,986,730
Heating/Cooling Controls	158.90 %	$1,490,382	$937,913
Electrical Service and Distribution	109.21 %	$735,951	$673,908
Lighting	34.13 %	$822,297	$2,409,393
Communications and Security (Cameras, Pa System and Fire Alarm)	45.55 %	$411,044	$902,480

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.

Facility Condition Assessment Summary Report

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AMY at Levering Annex School

Governance	DISTRICT	Report Type	Middle
Address	6000 Ridge Ave.	Enrollment	
	Philadelphia, Pa 19128	Grade Range	'06-08'
Phone/Fax	215-487-7600 / 215-487-7505	Admissions Category	Special Admit
Website	Www.Philasd.Org/Schools/Amynw	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	**41.50%**	**$16,821,193**	**$40,533,700**
Building	15.98 %	$664,488	$4,158,960
Grounds	25.25 %	$301,788	$1,195,417

Major Building Systems

Building System	System FCI	Repair Costs	Replacement Cost
Roof (Shows physical condition of roof)	00.00 %	$0	$253,935
Exterior Walls (Shows condition of the structural condition of the exterior facade)	00.00 %	$0	$234,150
Windows (Shows functionality of exterior windows)	00.00 %	$0	$102,225
Exterior Doors (Shows condition of exterior doors)	00.00 %	$0	$12,525
Interior Doors (Classroom doors)	00.00 %	$0	$28,200
Interior Walls (Paint and Finishes)	00.00 %	$0	$126,075
Plumbing Fixtures	00.00 %	$0	$236,850
Boilers	00.00 %	$0	$140,025
Chillers/Cooling Towers	00.00 %	$0	$183,600
Radiators/Unit Ventilators/HVAC	00.00 %	$0	$322,425
Heating/Cooling Controls	00.00 %	$0	$101,250
Electrical Service and Distribution	00.00 %	$0	$72,750
Lighting	00.00 %	$0	$260,100
Communications and Security (Cameras, Pa System and Fire Alarm)	00.00 %	$0	$97,425

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

S629001;Levering

Final

Site Assessment Report

February 2, 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):	69,475
Year Built:	
Last Renovation:	
Replacement Value:	$40,533,700
Repair Cost:	$16,821,193.17
Total FCI:	41.50 %
Total RSLI:	66.08 %

Description:

Facility Assessment
November 2015

School District of Philadelphia
Levering Elementary School and Annex
6000 Ridge Ave
Philadelphia, PA 19130

69,475 SF / 576 Students / LN 04

GENERAL

The Levering Elementary School building is located at 6000 Ridge Ave in Philadelphia, PA. The 3 story, 69,475 square foot main building was constructed in 1929 as an addition to the original two storied building with basement constructed in 1895. The main building has a basement partially above ground and penthouses on the roof. A renovation was performed in 2005 where restrooms fixtures and toilet partitions were replaced for ADA accessibility.

The Facility Area Coordinator was not able to accompany the Parsons assessment team on this site visit. Mr. Feturell Saunders, the

Building Engineer, accompanied us on our tour of the school and provided us with as much information on the building systems as he could provide; he had been at the school for one (1) week.

STRUCTURAL EXTERIOR CLOSURE

The building typically rests on concrete foundations and bearing walls that are not showing signs of settlement or water penetration. Foundation walls do not show signs of deterioration. The basement slab does not show signs of heaving.

The main structure consists typically of cast-in-place concrete columns, beams and one-way concrete slabs. Long slab spans are supported with steel truss girders. The floor slabs and superstructure are generally in good condition.

The roof structure is typically similar to floor construction.

The building envelope is typically masonry with face brick with decorative stone friezes and quoining. Main entrance is accentuated with stone columns and archway. In general, masonry is in good condition; masonry restoration (lintel replacement) was performed in 2005; however there are still leaks at the window sill's and headers, plus sealant is showing signs of deterioration.

The original building windows were retrofitted in 1980's with extruded aluminum double hung windows single glazed with acrylic glazing; original wood frames are left in place. Basement and first floor windows are fitted with galvanized steel security screens. All windows are generally beyond their useful life.

Roofing is typically built-up. All roofing and flashing is typically in good condition having been installed in 2005.

Exterior doors are typically hollow metal in poor condition, missing weather-stripping and beyond useful life.

INTERIORS:

Partition wall types include plastered ceramic hollow blocks and painted CMU. Corridors and stairways have marble wainscot.

The interior wall finishes are generally painted plaster and marble wainscoting on first floor corridor. Walls in toilets are covered with ceramic tile installed in 2000s. Generally, paint is in fair condition with some deterioration in stairways and other spaces.

Flooring in main entryway is marble, in corridors sealed concrete, in offices and gym VCT in fair condition. The IMC is carpeted in fair condition with a few stained areas. Flooring in restrooms is typically ceramic tile installed in approximately 2000. Auditorium floor is VAT and needs to be replace with VCT.

Most ceilings are painted plaster in first floor main corridor and gym; 2x4 suspended acoustical panels are installed in classrooms on second and third floors, offices and library in 2005; auditorium has 1x1 ACT in good condition.

Interior doors are generally rail and stile wood doors, most glazed, in wood frames with transoms and solid core in hollow metal frames. Doors are typically beyond their service life. Most doors are fitted with door knobs and are not ADA compliant.

Fittings include original chalk boards, generally in poor condition. Toilet partitions and accessories are in very good condition, installed in approximately 2000 and ADA compliant; handrails, generally in good condition. Interior identifying signage is typically directly painted on wall or door surfaces generally in poor condition.

Stair construction is generally concrete treads and stringers with steel non-slip nosing in good condition.

Furnishings include fixed casework in classrooms, corridors and library, generally in good condition; window shades/blinds, generally in good condition; fixed auditorium seating is original, generally in fair condition. A small number of lockers line the corridor wall and are in poor condition.

CONVEYING SYSTEMS:

The building has no elevators.

LEVERING ANNEX

STRUCTURAL/ EXTERIOR CLOSURE:

The building typically rests on stone and brick foundations and bearing walls that are not showing signs of settlement or water penetration. Foundation walls do not show signs of deterioration. The basement slab does not show signs of heaving.

The main structure consists typically of heavy timber, joist and hardwood plank subflooring, beams and one-way concrete slabs. Portions of first floor reconstructed with concrete slab over steel decking, fireproofed, supported by steel beams resting on original load bearing walls. Long slab spans are supported with steel truss girders. The floor slabs and superstructure are generally in good condition.

The roof structure not assessed due to lack of access. Possibly heavy timber trusses and purlins.

The building envelope is typically masonry with ashlar face stone over brick masonry (load bearing). In general, masonry is in fair condition.

The original building windows were retrofitted in 1980's with extruded aluminum double hung windows single glazed with acrylic glazing; original wood frames are left in place. Basement windows are fitted with galvanized steel security screens. All windows are generally beyond their useful life.

Roofing is a combination of built-up on the upper low slope portion of the roof and asphalt shingle on the pitched roof areas. All roofing and flashing is typically in good condition having been installed in 2005.

Exterior doors are typically hollow metal in poor condition, missing weather-stripping and beyond useful life.

INTERIORS:

Partition wall types include plastered ceramic hollow blocks.

The interior wall finishes, including corridor and stairwells, are generally painted plaster. Walls in toilets are covered with painted brick. Generally, paint is in fair condition with some deterioration in restrooms, stairways and basement.

Flooring in corridors sealed concrete, in offices VCT in fair condition. Flooring in restrooms is typically painted concrete.

Most ceilings are painted plaster in first floor main corridor and basement; suspended acoustical panels are installed in classrooms, offices and are in poor condition with many showing signs of water damage.

Interior doors are generally rail and stile wood doors, most glazed, in wood frames with transoms and solid core in hollow metal frames. Doors are typically beyond their service life. Most doors are fitted with door knobs and are not ADA compliant.

Fittings include original chalk boards, generally in poor condition. Toilet partitions and accessories in are in good condition, installed in approximately 2000 and ADA compliant; handrails, generally in good condition. Interior identifying signage is typically directly painted on wall or door surfaces generally in poor condition.

Stair construction is generally steel treads and stringers with steel non-slip nosing in good condition.

Furnishings include fixed casework in classrooms, offices and corridors generally in fair condition; window shades/blinds, generally in fair condition.

MECHANICAL

Plumbing Fixtures

The original plumbing fixtures were replaced in approximately 2005. Fixtures in the restrooms on each floor consist of both floor and wall mounted push button and lever operated flush valve water closets, wall hung urinals, and lavatories with wheel handle faucets. Each floor has handicap accessible stalls. These fixtures are in good condition and should provide reliable service for the next 20-25 years.

Drinking fountains in the corridors are a mixture of stainless steel handicap accessible wall hung fixtures with integral refrigerated

coolers and plastic fixtures in the basement. The fixtures are in poor condition and the district should replace them in the next 4-5 years.

A mop basin is available in a janitor closet in the corridor on each floor for use by the janitorial staff. The mop basins are well beyond their service lives and should be replaced.

The Cafeteria has one (1) sink; a three-compartment stainless steel prep sink with lever operated faucets. Chemicals are injected manually into the sanitizing basins.

Domestic Water Distribution

A 4" city water service enters the boiler room in the basement from Gerhard Street on the South side of the building. The 4" meter and valves are located in the basement boiler room. A reduced pressure backflow preventer is installed. Duplex skid mounted 3HP domestic pressure booster pumps are installed on the domestic water line to ensure adequate pressure throughout the building. The pumps show signs of rust damage and should be replaced within the next 3-5 years. The original domestic hot and cold water distribution piping was replaced with 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 has been in use for an unknown amount of time and should be inspected and repaired as necessary by a qualified contractor.

One (1) State Sandblaster natural gas, 70 gallon, vertical hot water heater with circulating pump supplies hot water for domestic use. The unit is located in the boiler room on the basement level and has an installation date of 2002. The hot water heater is equipped with a T&P relief valve. The domestic hot water heater is beyond its service life and should be replaced within the next 0-2 years.

Sanitary Waste

The original sanitary sewer piping is still in use and is threaded galvanized piping. Extensive repairs have been made with cast iron piping and no-hub fittings.

The maintenance staff reported mostly minor problems with the sanitary waste piping systems. The original sewer piping has been in service for over 85 years 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.

The Levering building does not have a sewage ejector or sump pump.

Rain Water Drainage

The majority of rain water drains from the roof are routed through mechanical chases in the building and appear to be original. The piping is a mixture of cast iron piping with hub and spigot fittings and galvanized piping with threaded fittings. The piping has been in use well beyond its service life. The District should hire a qualified contractor to examine the rain water drainage piping using video cameras to locate and replace any damaged piping and to further quantify the extent of potential failures.

Energy Supply

A 1" city gas line enters the building in the Cafeteria from the South side of the building from Gerhard Street. The gas meter is 1" and the gas line serves the domestic water heater located in the boiler room.

The oil supply is stored in a 12,000 gallon storage tank located in the former coal/ash room on the East side of the school. The fuel oil pumps are beyond their service life and should be inspected and replaced with a new system and control scheme. Oil is used as the primary fuel for the boilers. It is estimated that the storage tank is beyond its useful life and should be inspected on a regular basis. The actual condition of the fuel side is unknown.

Heat Generating Systems

Low pressure steam is generated at a maximum of 15 lbs. /sq. in. by two (2) 156HP Weil-McLain model 94 cast iron sectional boilers, installation date unknown but estimated to be over 30 years old and in poor condition. Each boiler is equipped with a newer Power Flame burner designed to operate on fuel oil. Combustion air makeup is supplied by louvers equipped with motorized dampers. Burner controls provide full modulation with electronic ignition and digital flame sensing. Burner oil pumps are loose and not driven by the fan motor. The oil supply to the burner is equipped with dual solenoid valves and a strainer. Condensate makeup water is supplemented

with chemically treated city water. The Building Engineer reported that boiler B1 is not operable and that B2 is running rough. Cast iron sectional boilers have an anticipated service life of 35 years or more with proper maintenance. These boilers appear to be in poor condition. The District should budget to immediately replace the boiler that is out of service. The operational boiler should be scheduled for replacement in the next few years as it is nearing the end of its anticipated service life.

A condensate receiver pit with duplex 1-1/2HP pumps, located in a pit in the boiler room, returns condensate to the boilers. The condensate receiver piping and pit cover are covered in rust, look to be in poor condition, and should be replaced. There was steam leaking from the pit, which was not sealed, during the site visit. A serious problem was reported with failed steam traps. Live steam passes into the condensate piping system from the failed traps and then vents from the condensate handling equipment. The District should hire a qualified contractor to conduct a steam trap survey for this building.

Distribution Systems

Steam piping is black steel with welded fittings. The condensate piping is black steel with threaded fittings. Steam and condensate piping mains from the basement level run up through the building to the radiators on all three floors. The boilers in the main building also serve the Annex. 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 steam and condensate 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.

Two pipe cast iron and fin tube radiators provide heating for the building. The radiators are original to the building and well beyond their service lives. A house fan is installed in basement mechanical room, but the Building Engineer did not know if it is operational. Ventilation for the building is provided by the house fan, if it is operational, and roof mounted gravity vents which does not meet current codes for outdoor air ventilation. 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 hot water coils, chilled water coils, and integral heat exchangers, where applicable, to introduce outdoor air to the building.

The school has no known operational mechanical ventilation. Ventilation should be provided for the Cafeteria by installing a constant volume air handling unit with distribution ductwork and registers. For the Gymnasium a fan coil air handling unit should be hung from the structure with outdoor air ducted to the unit from louvers in the window openings. Similar units should be installed for the administration offices. Ventilation is provided to the Auditorium by two (2) heating and ventilation (HV) units, which were not accessible during the site visit. The units are assumed to be beyond their service lives and should be replaced. The new units would be equipped with hot water heating coils and chilled water cooling coils. Steam converters should be installed in the existing boiler room with circulating pumps, distribution piping and controls to provide heating hot water for the new coils.

Mechanical ventilation for the restrooms and Cafeteria is provided by two (2) roof mounted exhaust fans and one (1) through wall fan. The two (2) fans serving the restrooms are located on the roof above the Gymnasium. The one (1) fan serving the Cafeteria is a through wall fan. The Building Engineer reported no issues with the fans and they appeared to be in good condition; the District should provide reliable service for the next 5-8 years. The building has gravity ventilators on the roof for relief air. One (1) power ventilator, located on the Gymnasium roof, allows relief air from the building. The Building Engineer did not report any issues.

Terminal & Package Units

Several of the classrooms in the school building have window air conditioning units that have an anticipated service life of only 10 years. Installing a 200 ton air-cooled chiller, with pumps located in a mechanical room, and chilled water distribution piping would supply more reliable air conditioning for the building with a much longer service life.

A Mitsubishi split system air conditioning system provides cooling to the LAN room located on the first floor in a room adjacent to the IMC. 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.

The Kitchen does not have any cooking equipment and therefor a kitchen hood is not installed.

Controls & Instrumentation

The original pneumatic systems provide no control functions. Pneumatic room thermostats are intended to control the steam radiator control valves, but the thermostats are no longer functional. In reality the radiator control valves are wide open and heating control is achieved via the boilers. Pneumatic control air is supplied by a single air compressor and air dryer located in the basement fan room. The pneumatic systems are beyond their service life and are no longer functional. 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.

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 school building is NOT covered by an automatic sprinkler system. Installing a sprinkler system with quick response type heads should reduce insurance costs by providing protection for the property investment. A fire pump may be required depending on the available city water pressure.

The building is equipped with fire standpipes in the fire tower between Levering and Levering Annex. The piping appears to be in good condition, the installation date of the piping is estimated to be approximately 1990. The stand pipe is not accessible from the Annex, as the buildings are only connected by a corridor in the basement.

LEVERING ANNEX

Domestic Water Distribution

One (1) small electric vertical hot water heater supplies hot water for domestic use. The unit is located in a crawl space in the basement of the Annex. The model and installation date of the unit was not accessible, but the unit looked new and to be in good condition.

Sanitary Waste

The original sanitary sewer piping is still in use and is cast iron piping with hub and spigot fittings. The piping is covered in rust and in need of inspection.

A sewage ejector pit located in basement receives water from the basement area. It has two (2) pumps that are located within the sealed pit and are assumed to be in good condition. The pit looks like it has been recently replaced.

Rain Water Drainage

The Annex has a sloped roof and external rain leaders. The leaders are aluminum downspouts that transition to cast iron piping with hub and spigot fittings at ground level.

Distribution Systems

Two pipe cast iron and fin tube radiators provide heating for the majority of classrooms and corridors. The radiators are original to the building and well beyond their service lives. Five (5) heating and ventilation units are installed in the basement to provide heating and outdoor air to the building; it is not known if these units are operational. As with the main building, 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 hot water coils, chilled water coils, and integral heat exchangers, where applicable, to introduce outdoor air to the building.

No known mechanical ventilation is provided in the Annex, the gravity ventilation openings have been sealed. A bathroom addition attached to the Annex has one (1) through wall exhaust fan providing ventilation for the girls and boys restrooms.

ELECTRICAL:

Site electrical service - The electrical power is from an overhead distribution (13.2 KV) along the Gerhard Street. Two pole-top transformers provide secondary power at 240V/120V. The secondary power runs underground to the building. The electrical service and the main switchboard dates back to 1925 when the school was built. The entire electrical service and the main switchboard is very antiquated with live exposed bus bars in a cage. The electrical service is old and has reached the end of its useful service, and does not have capacity for future growth. The school’s main service switchgear is located in main electrical room. The PECO meter is also located inside the electrical room (PECO 01-017148965).

Distribution system - The electrical distribution is accomplished by the use of the 120 V distribution switchboard which feeds all the

120V distribution panels (two on each floor – total of 8). All distribution panels are outdated and have reached the end of their useful service life.

Lighting - Interior building is illuminated by various types of architecturally designed fixtures. They include fluorescent lighting (with T-12 & T-8 lamp) in majority of the areas, including; classrooms, corridor, offices and Kitchen. Surface or pendent mounted industrial fluorescent used in mechanical and electrical. Gymnasium is illuminated by metal halide enclosed glass fixture. Although some of the classrooms have recently (8 years ago) been upgraded with new parabolic fluorescent fixtures, the majority of the building (70%) have outdated fixtures in poor condition. Overall, the building illumination is insufficient.

Fire alarm - The present Fire Alarm system is not automatic/ addressable, and not in compliance with safety code. There are manual pulls stations throughout the building. There are insufficient number of horn/strobes installed in the classrooms, corridors, offices and other areas in the school.

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

Public address - Separate PA system does not exist. School uses the telephone systems for public announcement. This system is working adequately.

Intercom System and paging - The present Intercom System is functioning properly. Each class room is provided by with intercom telephone service. This system allows paging and intercom communication between main office phone to classrooms, and vice versa, between classrooms to main office. The system also allows direct communication between classrooms to classrooms.

Clock and Program system - The present clock system is working adequately. The clocks are controlled by central master control panel. However, the system is old and has reached the end of its useful service.

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

Security Systems, access control, video surveillance - The school is provided with video surveillance system, however there are insufficient number of cameras installed at exit doors, corridors and other critical areas. The system is old and has reached the end of its useful service life.

Emergency Power System - School is provided with a 30KW, 120V/240V, 2 PH, 3W generator which feeds emergency lighting and other emergency loads. The emergency loads are fed via an auto transfer switch (ATS), and an emergency panel. The generator and the emergency distribution system are fairly new and in a good condition

Emergency lighting system, including exit lighting – there are insufficient number of emergency lighting fixtures and exit lights in corridors, library and other exit ways. The emergency lights and exit light have reached the end of their useful service life.

Lightning Protection System - There is no lightning protection system installed in the school.

Grounding - The present grounding system is adequate. All equipment are properly bonded to the ground.

Elevator- There is no elevator provided in the school.

Site Lighting - Campus grounds, and building Perimeters are partially lighted. However, the exterior lighting is not adequate for safety of the people and security of property.

Site Paging - The present Site paging System is inadequate. Insufficient number of speaker are located on building exterior walls.

Auditorium lighting and sound system - The auditorium general lighting is adequate. Stage lighting is provided without dimmable and switchable stage lights. There is no sound system.

GROUNDS (SITE)

There is onsite parking for staff as part of the concrete paved area on the southwest side of the building which is in very poor condition. There is no striping or accessible stalls or signage.

There is no playground at the site. Landscaping consists of a narrow strip of shrubs along the north and east façade in good condition.

ACCESSIBILITY

The building does not have an accessible entrance nor an accessible route to the upper floors. The toilets are equipped with accessible fixtures, partitions and accessories, such as grab bars. Most doors in the building do not have ADA required door handles.

RECOMMENDATIONS:

- Replace exterior windows.
- Replace exterior doors.
- Replace interior doors with ADA compliant hardware.
- Replace all VAT tile in auditorium.
- Repair (15%) and repaint walls.
- Replace acoustic tile system.
- Install new signage throughout.
- Install new ADA compliant 2500 lb. elevator on exterior of building.
- Replace damaged courtyard paving.
- Paint picket fencing along site boundary.
- Resurface and re-stripe parking, replace wheel stops.
- Replace eight (8) wall hung drinking fountains and integral refrigerated coolers in the corridors. These units are approaching the end of their service life.
- Replace four (4) mop basins, located in janitor closets off the corridors, which are beyond their service lives.
- Hire a qualified contractor to perform a detailed inspection of the domestic water piping, in use for an unknown amount of time, and replace any damaged piping.
- Replace the duplex 3HP domestic water booster pumps and isolation valves on incoming domestic water line with a new skid mounted pressure booster system within the next 3-5 years.
- Replace one (1) gas fired, 70 gallon, vertical hot water heater that is beyond the end of its service life.
- 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.
- Inspect and replace the current fuel oil pumping system with a new system and control scheme.
- Replace the existing condensate receiver serving the boilers, which has duplex pumps that are damaged from rust, with a new vacuum condensate receiver.
- Replace the one (1) not-operable existing 5,320MBH cast iron boiler (B1), which is approaching the end of its service life, within the next 0-2 years.
- Replace the one (1) operational existing 5,320MBH cast iron boiler (B2), which is approaching the end of its service life, within the next 3-5 years.
- Conduct a steam trap survey to identify and replace failed traps passing live steam into the condensate piping system.
- Hire a qualified contractor to examine the steam piping, in service for 85 years, and perform additional testing to locate and replace any damaged piping and to further quantify the extent of potential failures.
- Remove the existing cast iron and fin tube steam radiators and install units with hot and chilled water coils and integral heat exchangers to introduce outdoor air to the building.
- Provide ventilation for the Cafeteria by installing a fan coil air handling unit hung from the structure with outdoor air ducted to the unit from louvers in window openings.
- Provide ventilation for the Gymnasium by installing a fan coil air handling unit hung from the structure with outdoor air ducted to the unit from louvers in the window openings.
- Provide ventilation for the administration offices by installing a fan coil air handling unit hung from the structure with outdoor air ducted to the unit from louvers in window openings.
- Replace the two (2) existing heating and ventilation units which are beyond their service lives and provide ventilation for the Auditorium by installing a fan coil air handling unit hung from the structure with outdoor air ducted to the unit from louvers in window openings.
- Remove the window air conditioning units and install a 200 ton air-cooled chiller with chilled water distribution piping and pumps located in a mechanical room to supply more reliable air conditioning for the building with a much longer service life.
- 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 a fire protection sprinkler system with quick response type heads to reduce insurance costs by providing protection for the property. A fire pump may be required depending on the available city water pressure.

- Install new 480V, 3 phase power for the entire school to feed the existing loads, as well as the new mechanical loads.
- Install new 120V distribution system (panelboards) throughout the building for lighting, receptacles.
- Install min of two receptacles (12' center) on each wall of the classrooms and other purpose rooms. Add a wire-mold system with receptacles on every 3’ for the computer room.
- Install new lighting system for 70% of the building
- Install new automated/addressable FA system
- Install new Clock System
- Install new emergency exit signs & emergency lights
- Install new Lightning protection
- Install a new sound system for the auditorium
- Install additional pole-mounted site lighting for the grounds. The present site lighting is not adequate for safety of the people and security of property.
- Install additional site paging since the present exterior paging System is not adequate. There are insufficient number of speaker on building exterior walls.

Attributes:

General Attributes:

Active:	Open	Bldg Lot Tm:	Lot 4 / Tm 4
Status:	Accepted by SDP	Team:	Tm 4
Site ID:	S629001		

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	36.01 %	0.00 %	$0.00
A20 - Basement Construction	35.82 %	0.00 %	$0.00
B10 - Superstructure	36.13 %	0.00 %	$0.00
B20 - Exterior Enclosure	57.96 %	34.04 %	$1,451,942.16
B30 - Roofing	50.81 %	0.00 %	$0.00
C10 - Interior Construction	52.63 %	23.48 %	$440,401.02
C20 - Stairs	36.38 %	0.00 %	$0.00
C30 - Interior Finishes	49.92 %	3.85 %	$152,468.78
D10 - Conveying	105.71 %	332.76 %	$1,012,601.25
D20 - Plumbing	80.49 %	69.14 %	$1,191,849.51
D30 - HVAC	102.38 %	107.66 %	$9,067,555.63
D40 - Fire Protection	97.41 %	158.37 %	$993,870.19
D50 - Electrical	110.11 %	48.82 %	$2,208,717.03
E10 - Equipment	19.23 %	0.00 %	$0.00
E20 - Furnishings	14.45 %	0.00 %	$0.00
G20 - Site Improvements	23.06 %	19.99 %	$174,496.18
G40 - Site Electrical Utilities	106.67 %	39.48 %	$127,291.42
Totals:	**66.08 %**	**41.50 %**	**$16,821,193.17**

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)
B629001;Levering	69,475	45.07	$1,782,534.89	$915,020.30	$4,721,841.20	$3,582,689.88	$4,852,831.38
B629002;Levering Annex	7,500	15.98	$0.00	$0.00	$0.00	$0.00	$664,487.92
G629001;Grounds	55,500	25.25	$0.00	$0.00	$99,864.83	$201,922.77	$0.00
Total:		**41.50**	**$1,782,534.89**	**$915,020.30**	**$4,821,706.03**	**$3,784,612.65**	**$5,517,319.30**

Deficiencies By Priority

- 1 - Response Time (< 2 yr) - $1,782,534.89
- 2 - Response Time (2-3 yrs) - $915,020.30
- 3 - Response Time (3-4 yrs) - $4,821,706.03
- 4 - Response Time (4-5 yrs) - $3,784,612.65
- 5 - Response Time (> 5 yrs) - $5,517,319.30

Budget Estimate Total: $16,821,193.17

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:	Elementary School
Gross Area (SF):	69,475
Year Built:	1929
Last Renovation:	
Replacement Value:	$35,179,323
Repair Cost:	$15,854,917.65
Total FCI:	45.07 %
Total RSLI:	68.31 %

Description:

Attributes:

General Attributes:

Active:	Open	Bldg ID:	B629001
Sewage Ejector:	No	Status:	Accepted by SDP
Site ID:	S629001		

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	37.00 %	0.00 %	$0.00
A20 - Basement Construction	37.00 %	0.00 %	$0.00
B10 - Superstructure	37.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	60.55 %	37.07 %	$1,451,942.16
B30 - Roofing	50.99 %	0.00 %	$0.00
C10 - Interior Construction	55.37 %	25.83 %	$440,401.02
C20 - Stairs	37.00 %	0.00 %	$0.00
C30 - Interior Finishes	49.87 %	4.15 %	$152,468.78
D10 - Conveying	105.71 %	332.76 %	$1,012,601.25
D20 - Plumbing	83.63 %	84.01 %	$1,191,849.51
D30 - HVAC	103.82 %	108.73 %	$8,403,067.71
D40 - Fire Protection	105.71 %	177.49 %	$993,870.19
D50 - Electrical	110.11 %	54.09 %	$2,208,717.03
E10 - Equipment	17.30 %	0.00 %	$0.00
E20 - Furnishings	12.50 %	0.00 %	$0.00
Totals:	**68.31 %**	**45.07 %**	**$15,854,917.65**

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.	69,475	100	1929	2029	2052	37.00 %	0.00 %	37			$1,278,340
A1030	Slab on Grade	$7.73	S.F.	69,475	100	1929	2029	2052	37.00 %	0.00 %	37			$537,042
A2010	Basement Excavation	$6.55	S.F.	69,475	100	1929	2029	2052	37.00 %	0.00 %	37			$455,061
A2020	Basement Walls	$12.70	S.F.	69,475	100	1929	2029	2052	37.00 %	0.00 %	37			$882,333
B1010	Floor Construction	$75.10	S.F.	69,475	100	1929	2029	2052	37.00 %	0.00 %	37			$5,217,573
B1020	Roof Construction	$13.88	S.F.	69,475	100	1929	2029	2052	37.00 %	0.00 %	37			$964,313
B2010	Exterior Walls	$36.91	S.F.	69,475	100	1929	2029	2052	37.00 %	0.00 %	37			$2,564,322
B2020	Exterior Windows	$18.01	S.F.	69,475	40	1929	1969	2057	105.00 %	105.69 %	42		$1,322,404.87	$1,251,245
B2030	Exterior Doors	$1.45	S.F.	69,475	25	1929	1954	2042	108.00 %	128.59 %	27		$129,537.29	$100,739
B3010105	Built-Up	$37.76	S.F.	22,870	20	2005	2025		50.00 %	0.00 %	10			$863,571
B3010120	Single Ply Membrane	$38.73	S.F.		20				0.00 %	0.00 %				$0
B3010130	Preformed Metal Roofing	$54.22	S.F.	530	30	1990	2020		16.67 %	0.00 %	5			$28,737
B3010140	Shingle & Tile	$38.73	S.F.	5,300	25	2005	2030		60.00 %	0.00 %	15			$205,269
B3020	Roof Openings	$0.06	S.F.	69,475	20	2005	2025		50.00 %	0.00 %	10			$4,169
C1010	Partitions	$17.91	S.F.	69,475	100	1929	2029	2052	37.00 %	0.00 %	37			$1,244,297
C1020	Interior Doors	$3.51	S.F.	69,475	40	1929	1969	2057	105.00 %	172.15 %	42		$419,811.67	$243,857
C1030	Fittings	$3.12	S.F.	69,475	40	1929	1969	2057	105.00 %	9.50 %	42		$20,589.35	$216,762
C2010	Stair Construction	$1.41	S.F.	69,475	100	1929	2029	2052	37.00 %	0.00 %	37			$97,960

Site Assessment Report - B629001;Levering

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.	69,475	10	2010	2020		50.00 %	8.86 %	5		$81,286.52	$917,765
C3010231	Vinyl Wall Covering	$0.97	S.F.	69,475	15				0.00 %	0.00 %				$67,391
C3010232	Wall Tile	$2.63	S.F.	69,475	30	2000	2030		50.00 %	0.00 %	15			$182,719
C3020411	Carpet	$7.30	S.F.	2,275	10	2010	2020		50.00 %	0.00 %	5			$16,608
C3020412	Terrazzo & Tile	$75.52	S.F.	4,500	50	2000	2050		70.00 %	0.00 %	35			$339,840
C3020413	Vinyl Flooring	$9.68	S.F.	33,500	20	1929	1949	2020	25.00 %	16.37 %	5		$53,083.34	$324,280
C3020414	Wood Flooring	$22.27	S.F.	16,000	25	1929	1954	2020	20.00 %	0.00 %	5			$356,320
C3020415	Concrete Floor Finishes	$0.97	S.F.	13,200	50	1929	1979	2052	74.00 %	0.00 %	37			$12,804
C3030	Ceiling Finishes	$20.97	S.F.	69,475	25	2005	2030		60.00 %	1.24 %	15		$18,098.92	$1,456,891
D1010	Elevators and Lifts	$4.38	S.F.	69,475	35	1929	1964	2052	105.71 %	332.76 %	37		$1,012,601.25	$304,301
D2010	Plumbing Fixtures	$13.52	S.F.	69,475	35	2005	2040		71.43 %	9.36 %	25		$87,897.89	$939,302
D2020	Domestic Water Distribution	$1.68	S.F.	69,475	25	1929	1954	2042	108.00 %	389.87 %	27		$455,042.66	$116,718
D2030	Sanitary Waste	$2.90	S.F.	69,475	25	1929	1954	2042	108.00 %	169.16 %	27		$340,826.90	$201,478
D2040	Rain Water Drainage	$2.32	S.F.	69,475	30	1929	1959	2047	106.67 %	191.14 %	32		$308,082.06	$161,182
D3020	Heat Generating Systems	$18.67	S.F.	69,475	35	1929	1964	2052	105.71 %	80.09 %	37		$1,038,883.34	$1,297,098
D3030	Cooling Generating Systems	$24.48	S.F.	69,475	20			2037	110.00 %	64.37 %	22		$1,094,740.20	$1,700,748
D3040	Distribution Systems	$42.99	S.F.	69,475	25	1929	1954	2042	108.00 %	160.01 %	27		$4,779,062.57	$2,986,730
D3050	Terminal & Package Units	$11.60	S.F.	69,475	20			2028	65.00 %	0.00 %	13			$805,910
D3060	Controls & Instrumentation	$13.50	S.F.	69,475	20	1929	1949	2037	110.00 %	158.90 %	22		$1,490,381.60	$937,913
D4010	Sprinklers	$7.05	S.F.	69,475	35			2052	105.71 %	202.91 %	37		$993,870.19	$489,799
D4020	Standpipes	$1.01	S.F.	69,475	35			2052	105.71 %	0.00 %	37			$70,170
D5010	Electrical Service/Distribution	$9.70	S.F.	69,475	30	1929	1959	2047	106.67 %	109.21 %	32		$735,951.35	$673,908
D5020	Lighting and Branch Wiring	$34.68	S.F.	69,475	20	1929	1949	2037	110.00 %	34.13 %	22		$822,297.10	$2,409,393
D5030	Communications and Security	$12.99	S.F.	69,475	15	1929	1944	2032	113.33 %	45.55 %	17		$411,043.91	$902,480
D5090	Other Electrical Systems	$1.41	S.F.	69,475	30	1929	1959	2047	106.67 %	244.41 %	32		$239,424.67	$97,960
E1020	Institutional Equipment	$4.82	S.F.	69,475	35	2000	2035		57.14 %	0.00 %	20			$334,870
E1090	Other Equipment	$11.10	S.F.	69,475	35				0.00 %	0.00 %				$771,173
E2010	Fixed Furnishings	$2.13	S.F.	69,475	40	1929	1969	2020	12.50 %	0.00 %	5			$147,982
								Total	**68.31 %**	**45.07 %**			**$15,854,917.65**	**$35,179,323**

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:	**$15,854,918**	**$0**	**$0**	**$0**	**$0**	**$2,284,766**	**$0**	**$0**	**$0**	**$0**	**$1,282,786**	**$19,422,469**
*** 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	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
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	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B2020 - Exterior Windows	$1,322,405	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,322,405**
B2030 - Exterior Doors	$129,537	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$129,537**
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	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,276,624	**$1,276,624**
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	$36,645	$0	$0	$0	$0	$0	**$36,645**
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	$6,162	**$6,162**
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**

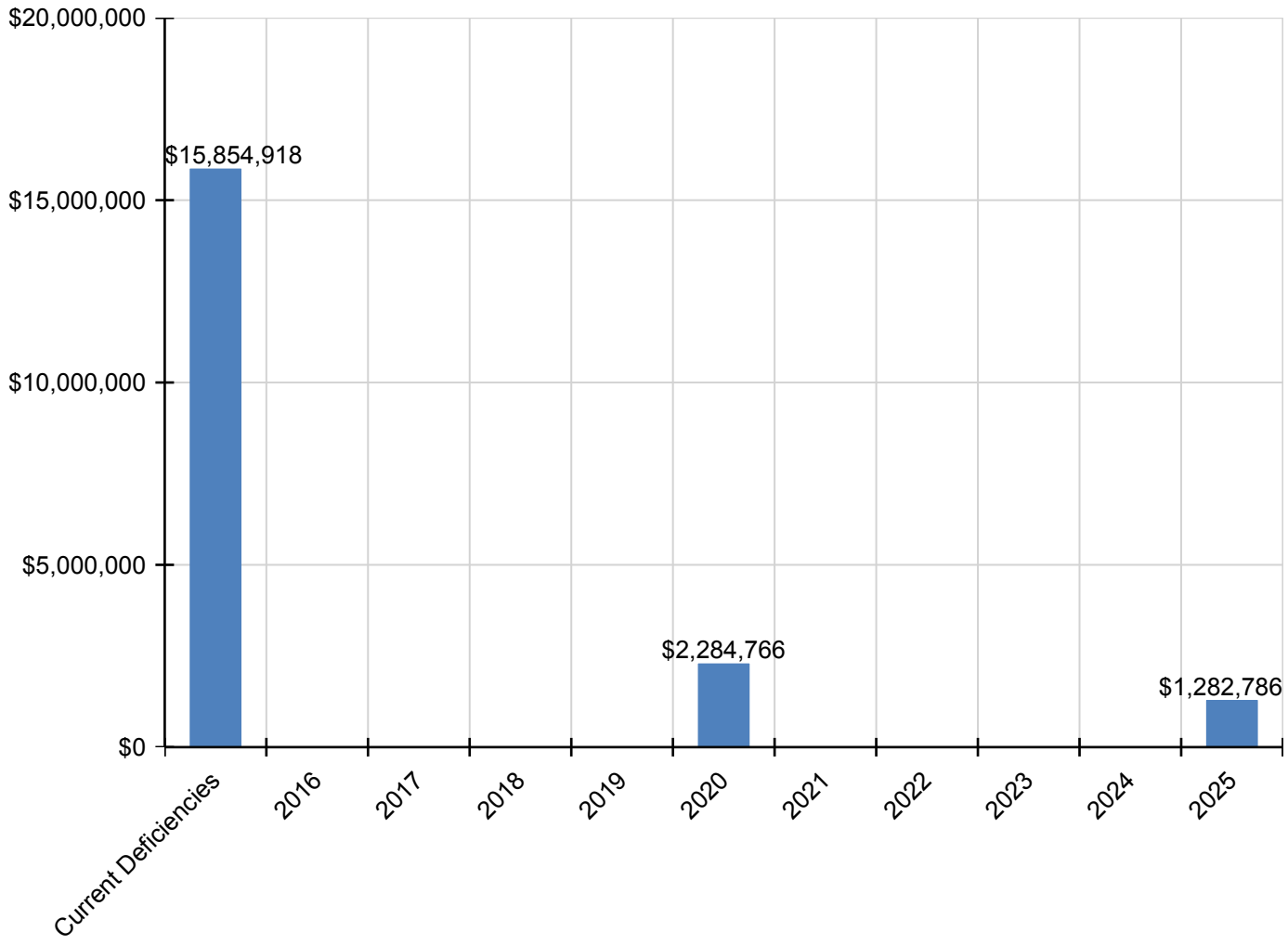
C1020 - Interior Doors	$419,812	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$419,812**
C1030 - Fittings	$20,589	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$20,589**
C20 - Stairs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C2010 - Stair Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C30 - Interior Finishes	$0	$0	$0	$0	$0	$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	$81,287	$0	$0	$0	$0	$1,170,335	$0	$0	$0	$0	$0	**$1,251,621**
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	$21,178	$0	$0	$0	$0	$0	**$21,178**
C3020412 - Terrazzo & Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020413 - Vinyl Flooring	$53,083	$0	$0	$0	$0	$413,522	$0	$0	$0	$0	$0	**$466,606**
C3020414 - Wood Flooring	$0	$0	$0	$0	$0	$454,380	$0	$0	$0	$0	$0	**$454,380**
C3020415 - Concrete Floor Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3030 - Ceiling Finishes	$18,099	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$18,099**
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	$1,012,601	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,012,601**
D20 - Plumbing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2010 - Plumbing Fixtures	$87,898	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$87,898**
D2020 - Domestic Water Distribution	$455,043	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$455,043**
D2030 - Sanitary Waste	$340,827	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$340,827**
D2040 - Rain Water Drainage	$308,082	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$308,082**
D30 - HVAC	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3020 - Heat Generating Systems	$1,038,883	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,038,883**
D3030 - Cooling Generating Systems	$1,094,740	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,094,740**
D3040 - Distribution Systems	$4,779,063	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$4,779,063**
D3050 - Terminal & Package Units	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3060 - Controls & Instrumentation	$1,490,382	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,490,382**
D40 - Fire Protection	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D4010 - Sprinklers	$993,870	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$993,870**
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	$735,951	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$735,951**
D5020 - Lighting and Branch Wiring	$822,297	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$822,297**
D5030 - Communications and Security	$411,044	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$411,044**
D5090 - Other Electrical Systems	$239,425	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$239,425**
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	$188,707	$0	$0	$0	$0	$0	**$188,707**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

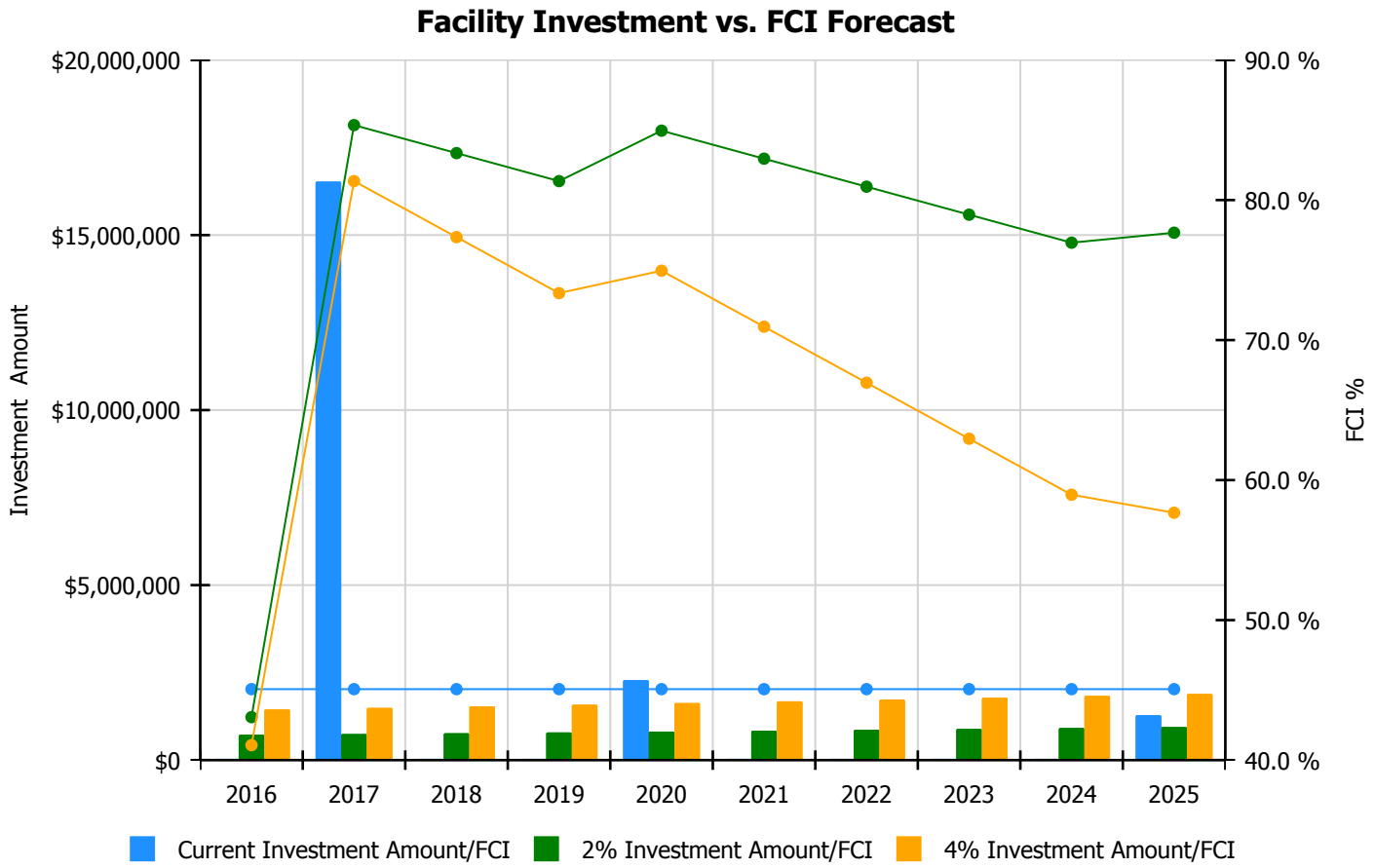
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



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:

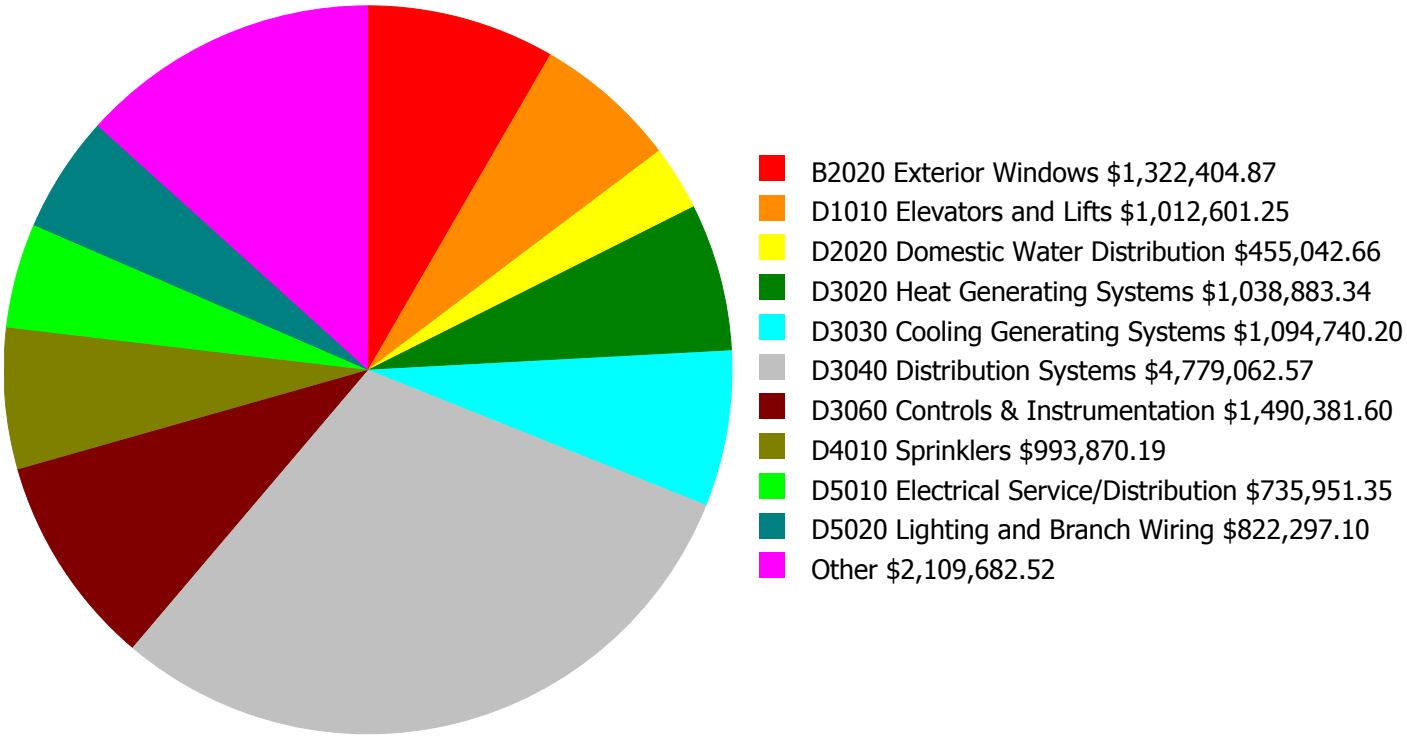
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 45.07%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$724,694.00	43.07 %	$1,449,388.00	41.07 %
2017	$16,527,471	$746,435.00	85.35 %	$1,492,870.00	81.35 %
2018	$0	$768,828.00	83.35 %	$1,537,656.00	77.35 %
2019	$0	$791,893.00	81.35 %	$1,583,786.00	73.35 %
2020	$2,284,766	$815,650.00	84.95 %	$1,631,299.00	74.95 %
2021	$0	$840,119.00	82.95 %	$1,680,238.00	70.95 %
2022	$0	$865,323.00	80.95 %	$1,730,645.00	66.95 %
2023	$0	$891,282.00	78.95 %	$1,782,565.00	62.95 %
2024	$0	$918,021.00	76.95 %	$1,836,041.00	58.95 %
2025	$1,282,786	$945,561.00	77.67 %	$1,891,123.00	57.67 %
Total:	**$20,095,023**	**$8,307,806.00**		**$16,615,611.00**	

Deficiency Summary by System

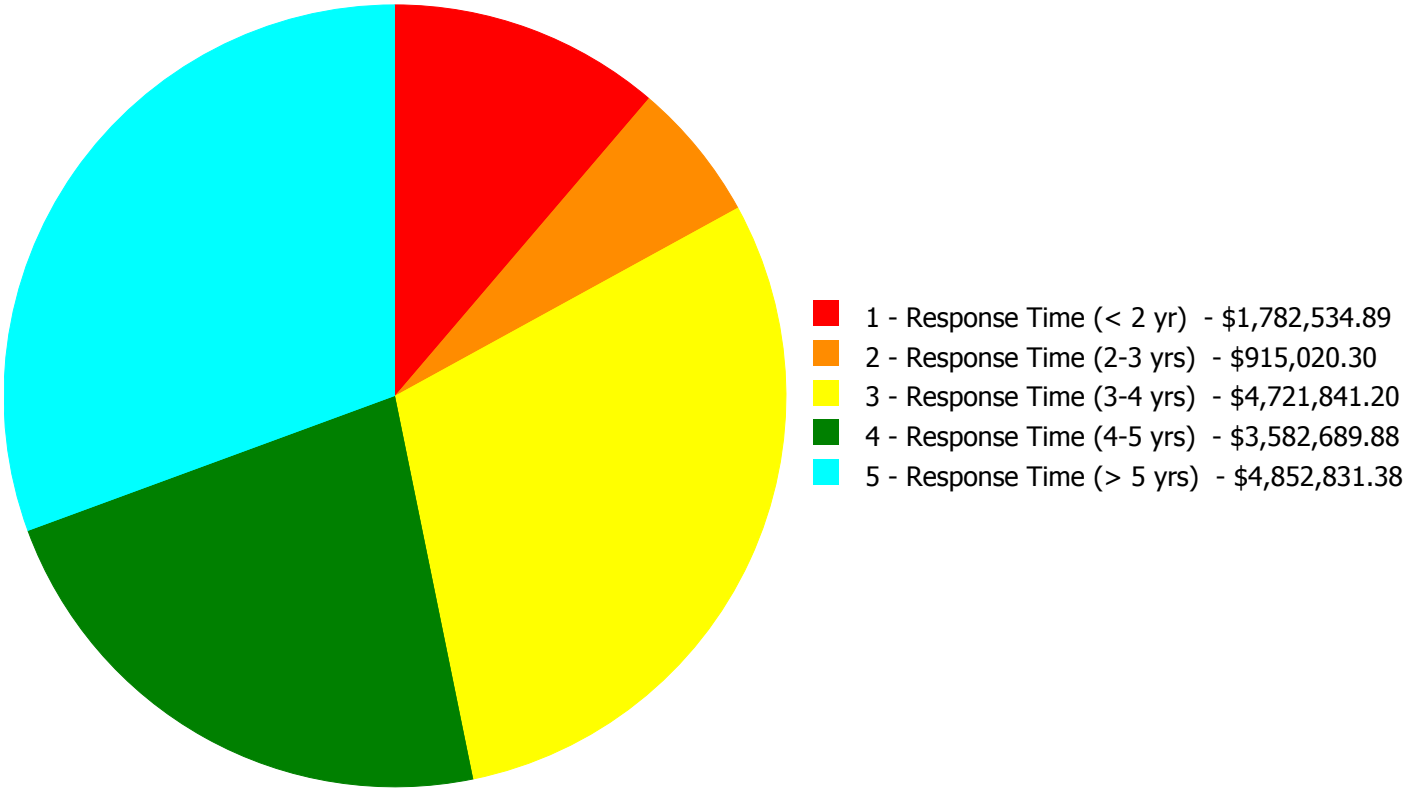
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $15,854,917.65

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: $15,854,917.65

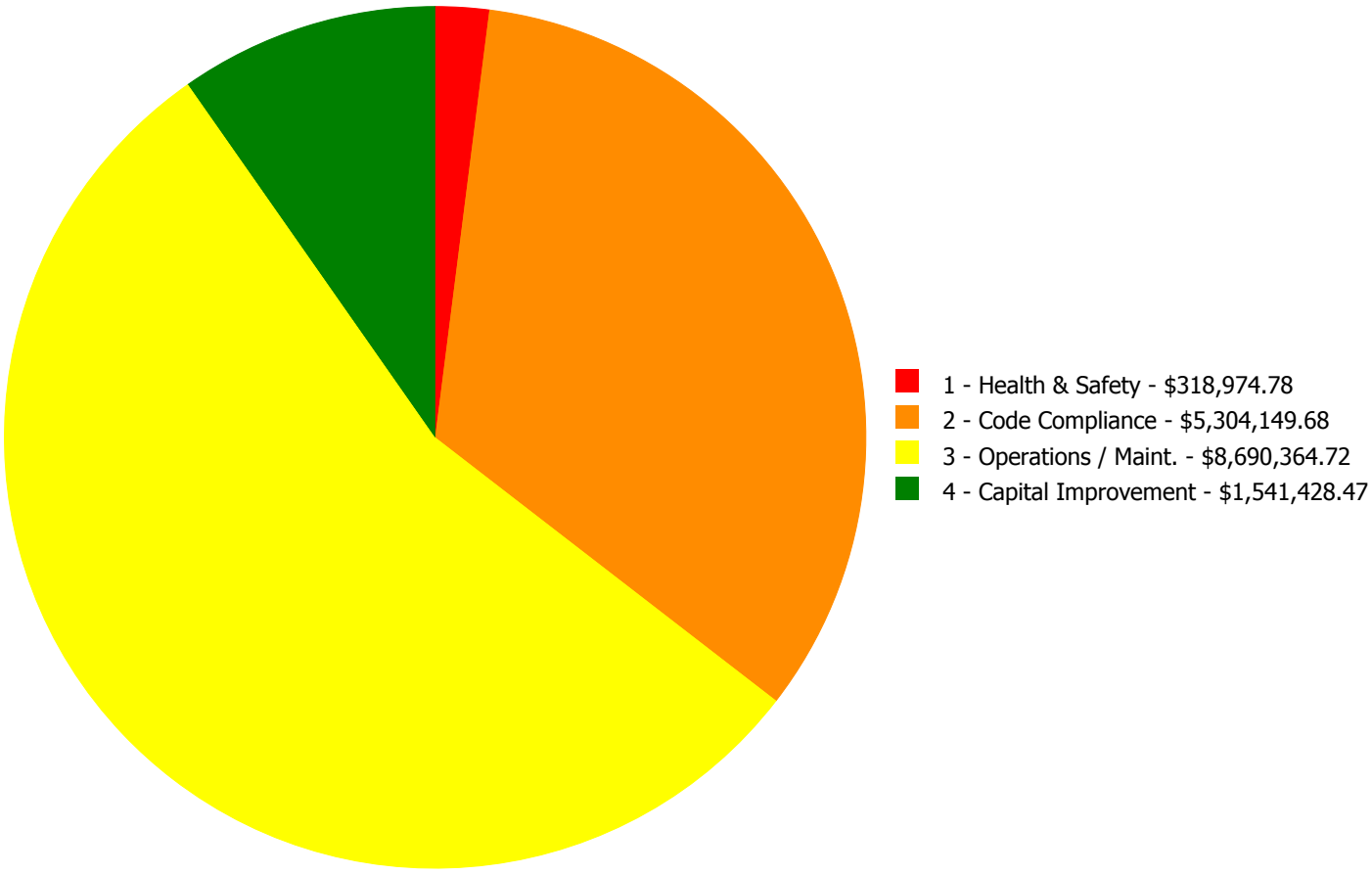
Deficiency By Priority Investment Table

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
B2020	Exterior Windows	$0.00	$0.00	$0.00	$1,322,404.87	$0.00	$1,322,404.87
B2030	Exterior Doors	$0.00	$0.00	$0.00	$129,537.29	$0.00	$129,537.29
C1020	Interior Doors	$0.00	$0.00	$0.00	$419,811.67	$0.00	$419,811.67
C1030	Fittings	$0.00	$0.00	$0.00	$20,589.35	$0.00	$20,589.35
C3010230	Paint & Covering	$0.00	$0.00	$0.00	$81,286.52	$0.00	$81,286.52
C3020413	Vinyl Flooring	$0.00	$0.00	$53,083.34	$0.00	$0.00	$53,083.34
C3030	Ceiling Finishes	$0.00	$0.00	$0.00	$18,098.92	$0.00	$18,098.92
D1010	Elevators and Lifts	$0.00	$0.00	$0.00	$1,012,601.25	$0.00	$1,012,601.25
D2010	Plumbing Fixtures	$0.00	$0.00	$27,264.37	$60,633.52	$0.00	$87,897.89
D2020	Domestic Water Distribution	$54,606.72	$0.00	$352,054.50	$48,381.44	$0.00	$455,042.66
D2030	Sanitary Waste	$0.00	$340,826.90	$0.00	$0.00	$0.00	$340,826.90
D2040	Rain Water Drainage	$0.00	$0.00	$308,082.06	$0.00	$0.00	$308,082.06
D3020	Heat Generating Systems	$506,102.63	$26,678.08	$506,102.63	$0.00	$0.00	$1,038,883.34
D3030	Cooling Generating Systems	$0.00	$0.00	$0.00	$0.00	$1,094,740.20	$1,094,740.20
D3040	Distribution Systems	$227,955.35	$135,756.55	$657,259.49	$0.00	$3,758,091.18	$4,779,062.57
D3060	Controls & Instrumentation	$0.00	$0.00	$1,490,381.60	$0.00	$0.00	$1,490,381.60
D4010	Sprinklers	$993,870.19	$0.00	$0.00	$0.00	$0.00	$993,870.19
D5010	Electrical Service/Distribution	$0.00	$411,758.77	$0.00	$324,192.58	$0.00	$735,951.35
D5020	Lighting and Branch Wiring	$0.00	$0.00	$822,297.10	$0.00	$0.00	$822,297.10
D5030	Communications and Security	$0.00	$0.00	$265,891.44	$145,152.47	$0.00	$411,043.91
D5090	Other Electrical Systems	$0.00	$0.00	$239,424.67	$0.00	$0.00	$239,424.67
	Total:	$1,782,534.89	$915,020.30	$4,721,841.20	$3,582,689.88	$4,852,831.38	$15,854,917.65

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: $15,854,917.65

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: D2020 - Domestic Water Distribution

Location: Boiler room
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 1 - Response Time (< 2 yr)
Correction: Replace vertical tank type gas-fired water heater (75 gal)
Qty: 1.00
Unit of Measure: Ea.
Estimate: $54,606.72
Assessor Name: System
Date Created: 01/27/2016

Notes: Replace one (1) gas fired, 70 gallon, vertical hot water heater that is beyond the end of its service life.

System: D3020 - Heat Generating Systems

Location: Boiler room
Distress: Failing
Category: 3 - Operations / Maint.
Priority: 1 - Response Time (< 2 yr)
Correction: Replace boiler, cast iron sectional (150 HP)
Qty: 1.00
Unit of Measure: Ea.
Estimate: $506,102.63
Assessor Name: System
Date Created: 01/27/2016

Notes: Replace the one (1) not-operable existing 5,320MBH cast iron boiler (B1), which is approaching the end of its service life, within the next 0-2 years.

System: D3040 - Distribution Systems

Location: Throughout building

Distress: Failing

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Conduct a steam trap survey and replace failed units.

Qty: 69,475.00

Unit of Measure: S.F.

Estimate: $227,955.35

Assessor Name: System

Date Created: 01/27/2016

Notes: Conduct a steam trap survey to identify and replace failed traps passing live steam into the condensate piping system.

System: D4010 - Sprinklers

Location: Throughout building

Distress: Life Safety / NFPA / PFD

Category: 2 - Code Compliance

Priority: 1 - Response Time (< 2 yr)

Correction: Install a fire protection sprinkler system

Qty: 69,475.00

Unit of Measure: S.F.

Estimate: $993,870.19

Assessor Name: System

Date Created: 01/27/2016

Notes: Install a fire protection sprinkler system with quick response type heads to reduce insurance costs by providing protection for the property. A fire pump may be required depending on the available city water pressure.

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

System: D2030 - Sanitary Waste

Location: Throughout building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 69,475.00

Unit of Measure: S.F.

Estimate: $340,826.90

Assessor Name: System

Date Created: 01/27/2016

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: D3020 - Heat Generating Systems

Location: Boiler room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace fuel oil pumps

Qty: 1.00

Unit of Measure: Ea.

Estimate: $26,678.08

Assessor Name: System

Date Created: 01/27/2016

Notes: Inspect and replace the current fuel oil pumping system with a new system and control scheme.

System: D3040 - Distribution Systems

Location: Boiler room

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Replace duplex vacuum and condensate receiver

Qty: 1.00

Unit of Measure: Ea.

Estimate: $135,756.55

Assessor Name: System

Date Created: 01/27/2016

Notes: Replace the existing condensate receiver serving the boilers, which has duplex pumps that are damaged from rust, with a new vacuum condensate receiver.

System: D5010 - Electrical Service/Distribution

Location: throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and Replace Panelboard - 400 amp

Qty: 1.00

Unit of Measure: Ea.

Estimate: $411,758.77

Assessor Name: System

Date Created: 02/05/2016

Notes: Install new 120V distribution system (panel-boards) throughout the building for lighting, receptacles.

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

System: C3020413 - Vinyl Flooring

Location: Auditorium

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: 3,500.00

Unit of Measure: S.F.

Estimate: $53,083.34

Assessor Name: System

Date Created: 02/26/2016

Notes: Replace all VAT tile in auditorium

System: D2010 - Plumbing Fixtures

Location: Corridors

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace floor janitor or mop sink - insert the quantity

Qty: 4.00

Unit of Measure: Ea.

Estimate: $27,264.37

Assessor Name: System

Date Created: 01/27/2016

Notes: Replace four (4) mop basins, located in janitor closets off the corridors, which are beyond their service lives.

System: D2020 - Domestic Water Distribution

Location: Throughout building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace domestic water piping (75 KSF)

Qty: 69,475.00

Unit of Measure: S.F.

Estimate: $352,054.50

Assessor Name: System

Date Created: 01/27/2016

Notes: Hire a qualified contractor to perform a detailed inspection of the domestic water piping, in use for an unknown amount of time, and replace any damaged piping.

System: D2040 - Rain Water Drainage

Location: Throughout building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Inspect internal rain water drainage piping and replace pipe - based on SF of multi-story building - insert SF of building

Qty: 69,475.00

Unit of Measure: S.F.

Estimate: $308,082.06

Assessor Name: System

Date Created: 01/27/2016

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 (150 HP)

Qty: 1.00

Unit of Measure: Ea.

Estimate: $506,102.63

Assessor Name: System

Date Created: 01/27/2016

Notes: Replace the one (1) operational existing 5,320MBH cast iron boiler (B2), which is approaching the end of its service life, within the next 3-5 years.

System: D3040 - Distribution Systems

Location: Throughout 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: 69,475.00

Unit of Measure: S.F.

Estimate: $657,259.49

Assessor Name: System

Date Created: 01/27/2016

Notes: Hire a qualified contractor to examine the steam piping, in service for 85 years, and perform additional testing to locate and replace any damaged piping and to further quantify the extent of potential failures.

System: D3060 - Controls & Instrumentation

Location: Throughout building

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Replace pneumatic controls with DDC (75KSF)

Qty: 69,475.00

Unit of Measure: S.F.

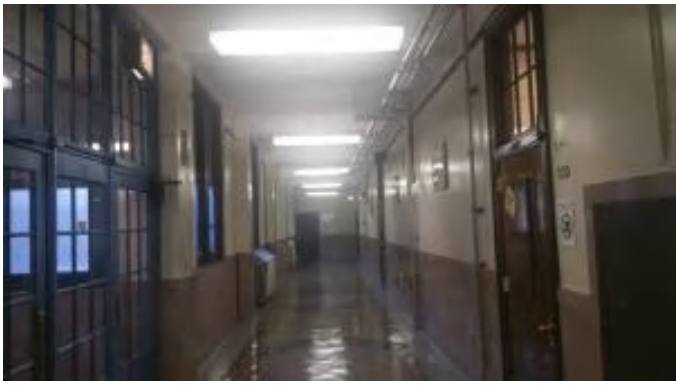
Estimate: $1,490,381.60

Assessor Name: System

Date Created: 01/27/2016

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.

System: D5020 - Lighting and Branch Wiring



Location: throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace Lighting Fixtures (SF)

Qty: 0.00

Unit of Measure: S.F.

Estimate: $437,774.04

Assessor Name: System

Date Created: 02/05/2016

Notes: Install new lighting system for 70% of the building
69,475 SF x 70% = 48,633 SF

System: D5020 - Lighting and Branch Wiring

Location: throughout the building

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Replace Wiring Devices (SF) - surface mounted conduit and boxes

Qty: 0.00

Unit of Measure: S.F.

Estimate: $384,523.06

Assessor Name: System

Date Created: 02/05/2016

Notes: Install min of two receptacles (12' center) on each wall of the classrooms and other purpose rooms. Add a wire-mold system with receptacles on every 3’ for the computer room.

System: D5030 - Communications and Security

Location: throughout the building

Distress: Health Hazard / Risk

Category: 1 - Health & Safety

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

Correction: Replace fire alarm system

Qty: 1.00

Unit of Measure: S.F.

Estimate: $265,891.44

Assessor Name: System

Date Created: 02/05/2016

Notes: Install new automated/addressable FA system

System: D5090 - Other Electrical Systems

Location: throughout the building
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 3 - Response Time (3-4 yrs)
Correction: Replace Emergency/Exit Lighting
Qty: 1.00
Unit of Measure: Ea.
Estimate: $177,259.46
Assessor Name: System
Date Created: 02/05/2016

Notes: Install new emergency exit signs and emergency lights

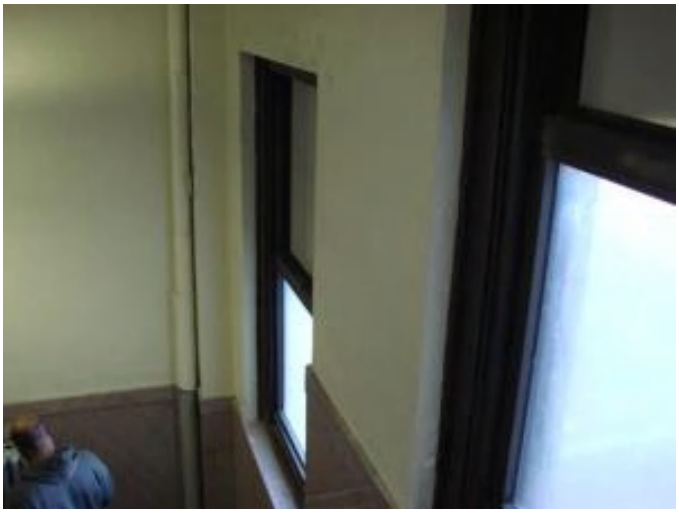
System: D5090 - Other Electrical Systems

Location: roof
Distress: Inadequate
Category: 4 - Capital Improvement
Priority: 3 - Response Time (3-4 yrs)
Correction: Repair Lightning Protection System
Qty: 1.00
Unit of Measure: Job
Estimate: $62,165.21
Assessor Name: System
Date Created: 02/05/2016

Notes: Install new Lightning protection

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

System: B2020 - Exterior Windows



Location: Exterior all elevations

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace aluminum windows - pick the appropriate size and style and insert the number of units

Qty: 240.00

Unit of Measure: Ea.

Estimate: $1,322,404.87

Assessor Name: System

Date Created: 02/26/2016

Notes: Replace exterior windows.

System: B2030 - Exterior Doors

Location: Building elevations

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace exterior doors - per leaf

Qty: 16.00

Unit of Measure: Ea.

Estimate: $129,537.29

Assessor Name: System

Date Created: 02/26/2016

Notes: Replace exterior doors.

System: C1020 - Interior Doors

Location: Interior doors; corridors, classrooms, restrooms

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace interior doors - wood doors with hollow metal frames - per leaf

Qty: 88.00

Unit of Measure: Ea.

Estimate: $419,811.67

Assessor Name: System

Date Created: 02/26/2016

Notes: Replace interior doors with ADA compliant hardware.

System: C1030 - Fittings

Location: Throughout building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace missing or damaged signage - insert the number of rooms

Qty: 76.00

Unit of Measure: Ea.

Estimate: $20,589.35

Assessor Name: System

Date Created: 02/26/2016

Notes: Install new signage throughout building

System: C3010230 - Paint & Covering

Location: Corridor and stairwell walls

Distress: Appearance

Category: 3 - Operations / Maint.

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

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

Qty: 12,000.00

Unit of Measure: S.F.

Estimate: $81,286.52

Assessor Name: System

Date Created: 02/26/2016

Notes: Repair (15%) and repaint all walls

System: C3030 - Ceiling Finishes

Location: Throughout building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace suspended acoustic ceilings - lighting not included

Qty: 1,200.00

Unit of Measure: S.F.

Estimate: $18,098.92

Assessor Name: System

Date Created: 02/26/2016

Notes: Replace acoustic tile system.

System: D1010 - Elevators and Lifts

This deficiency has no image.

Location: Near main lobby on exterior of building

Distress: Accessibility

Category: 2 - Code Compliance

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

Correction: Add external 4 stop elevator - adjust the electrical run lengths to hook up the elevator

Qty: 1.00

Unit of Measure: Ea.

Estimate: $1,012,601.25

Assessor Name: System

Date Created: 02/26/2016

Notes: Install new ADA compliant 2500 lb. elevator on exterior of building.

System: D2010 - Plumbing Fixtures

Location: Corridors

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 8.00

Unit of Measure: Ea.

Estimate: $60,633.52

Assessor Name: System

Date Created: 01/27/2016

Notes: Replace eight (8) wall hung drinking fountains and integral refrigerated coolers in the corridors. These units are approaching the end of their service life.

System: D2020 - Domestic Water Distribution

Location: Boiler room

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Replace duplex domestic booster pump set (5 HP)

Qty: 1.00

Unit of Measure: Ea.

Estimate: $48,381.44

Assessor Name: System

Date Created: 01/27/2016

Notes: Replace the duplex 3HP domestic water booster pumps and isolation valves on incoming domestic water line with a new skid mounted pressure booster system within the next 3-5 years.

System: D5010 - Electrical Service/Distribution

Location: electrical room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace Service Transformer, Add Switchboard

Qty: 0.00

Unit of Measure: Ea.

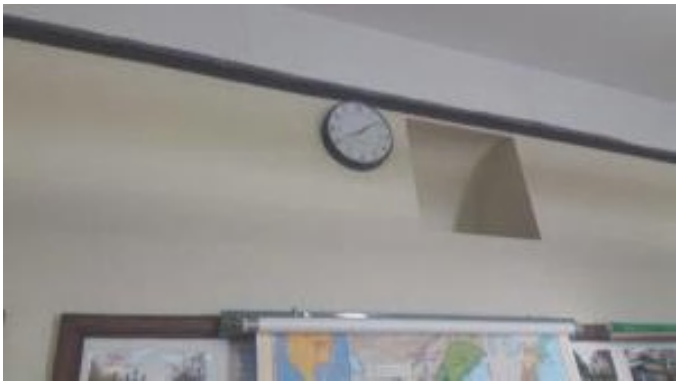
Estimate: $324,192.58

Assessor Name: System

Date Created: 02/05/2016

Notes: Install new 480V, 3 phase power for the entire school to feed the existing loads, as well as the new mechanical loads.

System: D5030 - Communications and Security



Location: throughout the building
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 4 - Response Time (4-5 yrs)
Correction: Add/Replace Clock System or Components
Qty: 0.00
Unit of Measure: Ea.
Estimate: $124,657.83
Assessor Name: System
Date Created: 02/05/2016

Notes: Install new Clock System

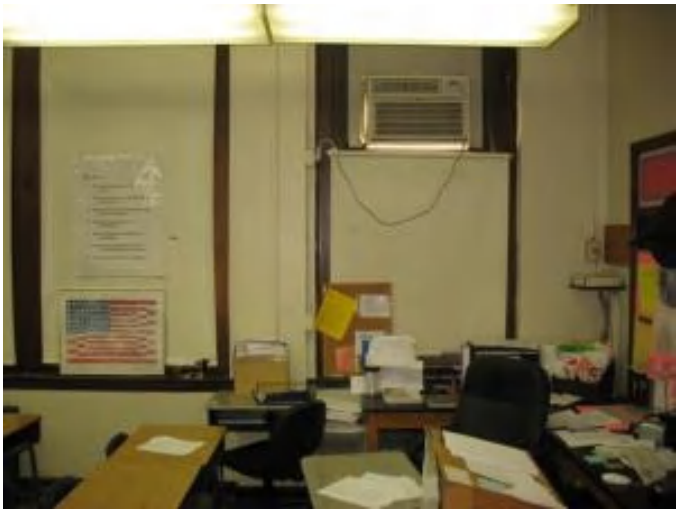
System: D5030 - Communications and Security

Location: auditorium
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 4 - Response Time (4-5 yrs)
Correction: Add/Replace Sound System
Qty: 1.00
Unit of Measure: LS
Estimate: $20,494.64
Assessor Name: System
Date Created: 02/05/2016

Notes: Install a new sound system for the auditorium

Priority 5 - Response Time (> 5 yrs):

System: D3030 - Cooling Generating Systems



Location: Throughout building

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 5 - Response Time (> 5 yrs)

Correction: Install chilled water system with distribution piping and pumps. (+75KSF)

Qty: 69,475.00

Unit of Measure: S.F.

Estimate: $1,094,740.20

Assessor Name: System

Date Created: 01/27/2016

Notes: Remove the window air conditioning units and install a 200 ton air-cooled chiller with chilled water distribution piping and pumps located in a mechanical room to supply more reliable air conditioning for the building with a much longer service life.

System: D3040 - Distribution Systems

Location: Throughout building

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 5 - Response Time (> 5 yrs)

Correction: Provide classroom FC units and dedicated OA ventilation system. (20 clsrms)

Qty: 29.00

Unit of Measure: C

Estimate: $2,408,768.64

Assessor Name: System

Date Created: 01/27/2016

Notes: Remove the existing cast iron and fin tube steam radiators and install units with hot and chilled water coils and integral heat exchangers to introduce outdoor air to the building.

System: D3040 - Distribution Systems

Location: Auditorium

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Install HVAC unit for Auditorium (200 seat).

Qty: 323.00

Unit of Measure: Seat

Estimate: $460,412.94

Assessor Name: System

Date Created: 01/27/2016

Notes: Replace the two (2) existing heating and ventilation units which are beyond their service lives and provide ventilation for the Auditorium by installing a fan coil air handling unit hung from the structure with outdoor air ducted to the unit from louvers in window openings.

System: D3040 - Distribution Systems

Location: Gymnasium

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 5 - Response Time (> 5 yrs)

Correction: Install HVAC unit for Gymnasium (single station).

Qty: 6,000.00

Unit of Measure: S.F.

Estimate: $344,860.27

Assessor Name: System

Date Created: 01/27/2016

Notes: Provide ventilation for the Gymnasium by installing a fan coil air handling unit hung from the structure with outdoor air ducted to the unit from louvers in the window openings.

System: D3040 - Distribution Systems

Location: Cafeteria

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 5 - Response Time (> 5 yrs)

Correction: Install HVAC unit for Cafeteria (850 students).

Qty: 576.00

Unit of Measure: Student

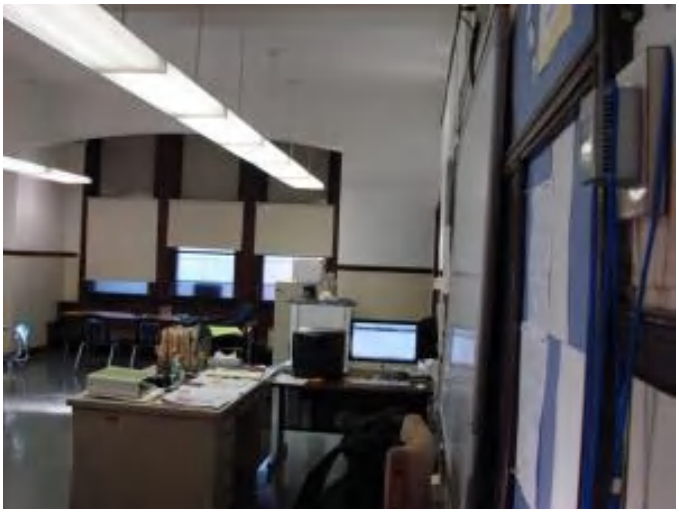
Estimate: $294,742.93

Assessor Name: System

Date Created: 01/27/2016

Notes: Provide ventilation for the Cafeteria by installing a fan coil air handling unit hung from the structure with outdoor air ducted to the unit from louvers in window openings.

System: D3040 - Distribution Systems



Location: Administration offices

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 5 - Response Time (> 5 yrs)

Correction: Install HVAC unit for Administration (2000 students).

Qty: 576.00

Unit of Measure: Student

Estimate: $249,306.40

Assessor Name: System

Date Created: 01/27/2016

Notes: Provide ventilation for the administration offices by installing a fan coil air handling unit hung from the structure with outdoor air ducted to the unit from louvers in window openings.

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
D2020 Domestic Water Distribution	Pump, pressure booster system, 3 HP pump, includes diaphragm tank, control and pressure switch	1.00	Ea.	Boiler Room	Alyan				25	1995	2020	$9,861.00	$10,847.10
D3020 Heat Generating Systems	Boiler, oil fired, flame retention burner, cast iron, steam, gross output, 5520 MBH, includes standard controls and insulated flush jacket, packaged	2.00	Ea.	Boiler Room	Weil-McLain	1994			35			$118,960.50	$261,713.10
D3020 Heat Generating Systems	Boiler, oil fired, flame retention burner, cast iron, steam, gross output, 5520 MBH, includes standard controls and insulated flush jacket, packaged	2.00	Ea.	Boiler Room	Weil-McLain	1994			35			$118,960.50	$261,713.10
D5010 Electrical Service/Distribution	Load interrupter switch, 2 position, 300 kVA & below, 13.8 kV, 600 amp w/CLF fuses, NEMA 1	1.00	Ea.	electrical room					30			$42,600.60	$46,860.66
D5010 Electrical Service/Distribution	Panelboards, 1 phase 3 wire, main lugs, 120/240 V, 225 amp, 24 circuits, NQOD, incl 20 A 1 pole plug-in breakers	4.00	Ea.	electrical room					30			$2,608.20	$11,476.08
D5010 Electrical Service/Distribution	Switchboards, distribution section, aluminum bus bars, 4 W, 120/208 or 277/480 V, 1200 amp, excl breakers	1.00	Ea.	electrical room					30			$6,551.55	$7,206.71
D5090 Other Electrical Systems	Generator set, diesel, 3 phase 4 wire, 277/480 V, 125 kW, incl battery, charger, muffler, & day tank, excl conduit, wiring, & concrete	1.00	Ea.	electrical room					30	2010	2040	$50,797.80	$55,877.58
												Total:	**$655,694.33**

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:	Annex
Gross Area (SF):	7,500
Year Built:	1895
Last Renovation:	
Replacement Value:	$4,158,960
Repair Cost:	$664,487.92
Total FCI:	15.98 %
Total RSLI:	53.11 %

Description:

The deficiencies for this building are included in the Levering main building node.

Attributes:

General Attributes:

Active:	Open	Bldg ID:	B629002
Sewage Ejector:	Yes	Status:	Accepted by SDP
Site ID:	S629001		

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	30.00 %	0.00 %	$0.00
A20 - Basement Construction	30.00 %	0.00 %	$0.00
B10 - Superstructure	30.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	28.89 %	0.00 %	$0.00
B30 - Roofing	50.00 %	0.00 %	$0.00
C10 - Interior Construction	25.27 %	0.00 %	$0.00
C20 - Stairs	30.00 %	0.00 %	$0.00
C30 - Interior Finishes	50.61 %	0.00 %	$0.00
D20 - Plumbing	65.86 %	0.00 %	$0.00
D30 - HVAC	86.44 %	95.71 %	$664,487.92
D40 - Fire Protection	28.57 %	0.00 %	$0.00
D50 - Electrical	110.11 %	0.00 %	$0.00
E10 - Equipment	37.14 %	0.00 %	$0.00
E20 - Furnishings	32.50 %	0.00 %	$0.00
Totals:	**53.11 %**	**15.98 %**	**$664,487.92**

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	$24.32	S.F.	7,500	100	1895	1995	2045	30.00 %	0.00 %	30			$182,400
A1030	Slab on Grade	$15.51	S.F.	7,500	100	1895	1995	2045	30.00 %	0.00 %	30			$116,325
A2010	Basement Excavation	$13.07	S.F.	7,500	100	1895	1995	2045	30.00 %	0.00 %	30			$98,025
A2020	Basement Walls	$23.02	S.F.	7,500	100	1895	1995	2045	30.00 %	0.00 %	30			$172,650
B1010	Floor Construction	$92.20	S.F.	7,500	100	1895	1995	2045	30.00 %	0.00 %	30			$691,500
B1020	Roof Construction	$24.11	S.F.	7,500	100	1895	1995	2045	30.00 %	0.00 %	30			$180,825
B2010	Exterior Walls	$31.22	S.F.	7,500	100	1895	1995	2045	30.00 %	0.00 %	30			$234,150
B2020	Exterior Windows	$13.63	S.F.	7,500	40	1985	2025		25.00 %	0.00 %	10			$102,225
B2030	Exterior Doors	$1.67	S.F.	7,500	25	1985	2010	2025	40.00 %	0.00 %	10			$12,525
B3010105	Built-Up	$37.76	S.F.	3,000	20	2005	2025		50.00 %	0.00 %	10			$113,280
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.	3,500	20	2005	2025		50.00 %	0.00 %	10			$135,555
B3020	Roof Openings	$0.68	S.F.	7,500	20	2005	2025		50.00 %	0.00 %	10			$5,100
C1010	Partitions	$14.93	S.F.	7,500	100	1895	1995	2045	30.00 %	0.00 %	30			$111,975
C1020	Interior Doors	$3.76	S.F.	7,500	40	1895	1935	2021	15.00 %	0.00 %	6			$28,200
C1030	Fittings	$4.12	S.F.	7,500	40	1895	1935	2022	17.50 %	0.00 %	7			$30,900
C2010	Stair Construction	$1.28	S.F.	7,500	100	1895	1995	2045	30.00 %	0.00 %	30			$9,600

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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.	7,500	10	1895	1905	2020	50.00 %	0.00 %	5			$99,075
C3010231	Vinyl Wall Covering	$0.97	S.F.	7,500	15	1895	1910	2026	73.33 %	0.00 %	11			$7,275
C3010232	Wall Tile	$2.63	S.F.	7,500	30	1895	1925	2028	43.33 %	0.00 %	13			$19,725
C3020411	Carpet	$7.30	S.F.		10				0.00 %	0.00 %				$0
C3020412	Terrazzo & Tile	$75.52	S.F.		50				0.00 %	0.00 %				$0
C3020413	Vinyl Flooring	$9.68	S.F.		20				0.00 %	0.00 %				$0
C3020414	Wood Flooring	$22.27	S.F.		25				0.00 %	0.00 %				$0
C3020415	Concrete Floor Finishes	$0.97	S.F.	7,500	50	1895	1945	2028	26.00 %	0.00 %	13			$7,275
C3030	Ceiling Finishes	$20.97	S.F.	7,500	25	1895	1920	2028	52.00 %	0.00 %	13			$157,275
D2010	Plumbing Fixtures	$31.58	S.F.	7,500	35	2005	2040		71.43 %	0.00 %	25			$236,850
D2020	Domestic Water Distribution	$2.90	S.F.	7,500	25	1895	1920	2027	48.00 %	0.00 %	12			$21,750
D2030	Sanitary Waste	$2.90	S.F.	7,500	25	1895	1920	2030	60.00 %	0.00 %	15			$21,750
D2040	Rain Water Drainage	$3.29	S.F.	7,500	30	1895	1925	2025	33.33 %	0.00 %	10			$24,675
D3020	Heat Generating Systems	$18.67	S.F.	0	0				0.00 %	0.00 %				$0
D3030	Cooling Generating Systems	$24.48	S.F.	0	0				0.00 %	0.00 %				$0
D3040	Distribution Systems	$67.47	S.F.	7,500	25			2040	100.00 %	131.32 %	25		$664,487.92	$506,025
D3050	Terminal & Package Units	$11.60	S.F.	7,500	20	2005	2025		50.00 %	0.00 %	10			$87,000
D3060	Controls & Instrumentation	$13.50	S.F.	7,500	20	2005	2025		50.00 %	0.00 %	10			$101,250
D4010	Sprinklers	$8.02	S.F.	7,500	35	1990	2025		28.57 %	0.00 %	10			$60,150
D4020	Standpipes	$0.99	S.F.	7,500	35	1990	2025		28.57 %	0.00 %	10			$7,425
D5010	Electrical Service/Distribution	$9.70	S.F.	7,500	30	1895	1925	2047	106.67 %	0.00 %	32			$72,750
D5020	Lighting and Branch Wiring	$34.68	S.F.	7,500	20	1895	1915	2037	110.00 %	0.00 %	22			$260,100
D5030	Communications and Security	$12.99	S.F.	7,500	15	1895	1910	2032	113.33 %	0.00 %	17			$97,425
D5090	Other Electrical Systems	$1.41	S.F.	7,500	30	1895	1925	2047	106.67 %	0.00 %	32			$10,575
E1020	Institutional Equipment	$4.82	S.F.	7,500	35	1895	1930	2028	37.14 %	0.00 %	13			$36,150
E1090	Other Equipment	$11.10	S.F.	7,500	35	1895	1930	2028	37.14 %	0.00 %	13			$83,250
E2010	Fixed Furnishings	$2.13	S.F.	7,500	40	1895	1935	2028	32.50 %	0.00 %	13			$15,975
								Total	**53.11 %**	**15.98 %**			**$664,487.92**	**$4,158,960**

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:	**$664,488**	**$0**	**$0**	**$0**	**$0**	**$126,341**	**$37,040**	**$41,803**	**$0**	**$0**	**$959,699**	**$1,829,371**
*** 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	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
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	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B2020 - Exterior Windows	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$151,121	**$151,121**
B2030 - Exterior Doors	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$18,516	**$18,516**
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	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$167,463	**$167,463**
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	$200,393	**$200,393**
B3020 - Roof Openings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$7,539	**$7,539**
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**

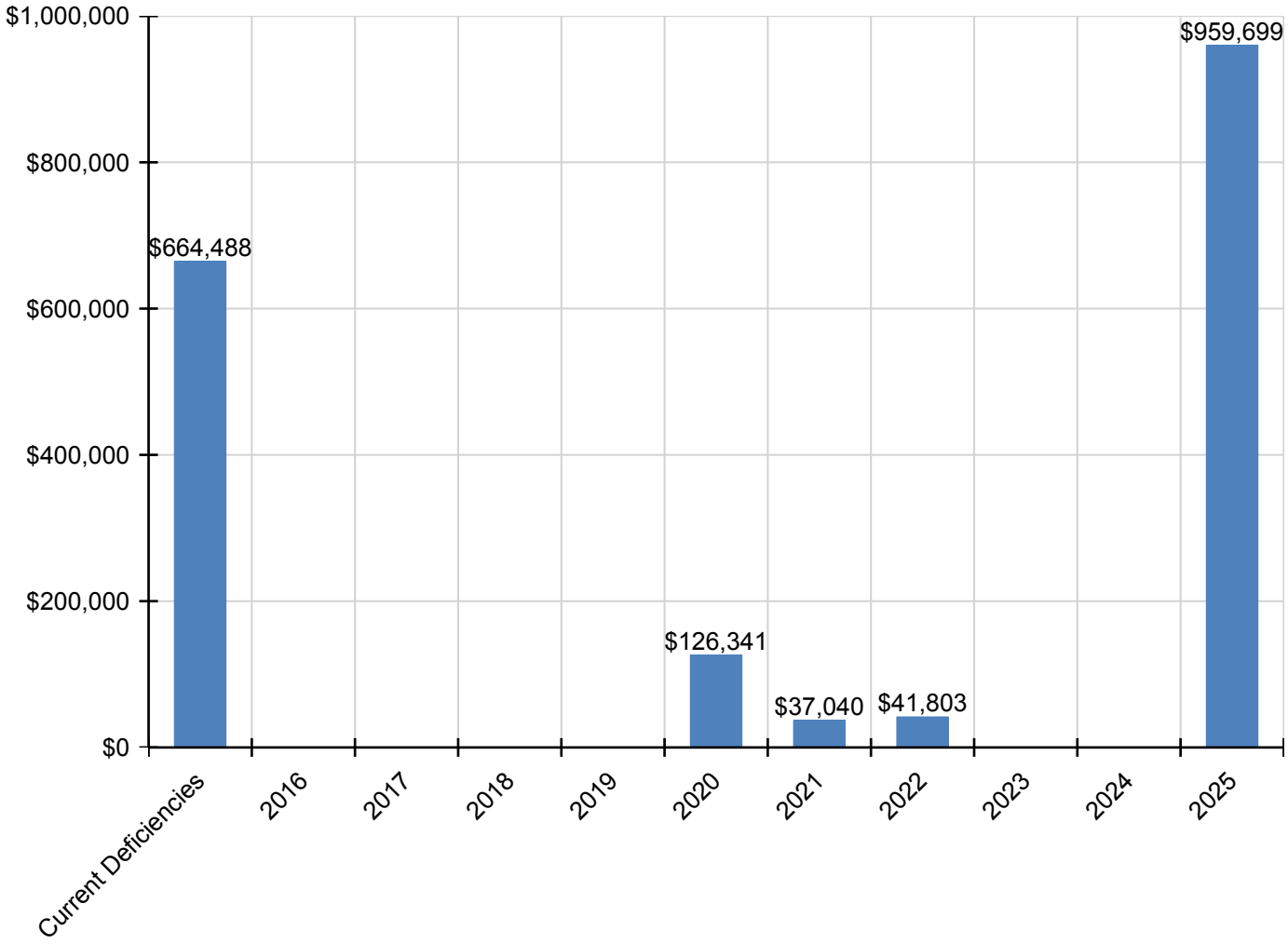
C1020 - Interior Doors	$0	$0	$0	$0	$0	$0	$37,040	$0	$0	$0	$0	**$37,040**
C1030 - Fittings	$0	$0	$0	$0	$0	$0	$0	$41,803	$0	$0	$0	**$41,803**
C20 - Stairs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C2010 - Stair Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C30 - Interior Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010 - Wall Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010230 - Paint & Covering	$0	$0	$0	$0	$0	$126,341	$0	$0	$0	$0	$0	**$126,341**
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	$0	$0	$0	$0	$0	$0	**$0**
C3020412 - Terrazzo & Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020413 - Vinyl Flooring	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
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	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D - Services	$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	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2020 - Domestic Water Distribution	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2030 - Sanitary Waste	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2040 - Rain Water Drainage	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$36,478	**$36,478**
D30 - HVAC	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3020 - Heat Generating Systems	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3030 - Cooling Generating Systems	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3040 - Distribution Systems	$664,488	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$664,488**
D3050 - Terminal & Package Units	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$128,613	**$128,613**
D3060 - Controls & Instrumentation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$149,679	**$149,679**
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	$88,920	**$88,920**
D4020 - Standpipes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$10,977	**$10,977**
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	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
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

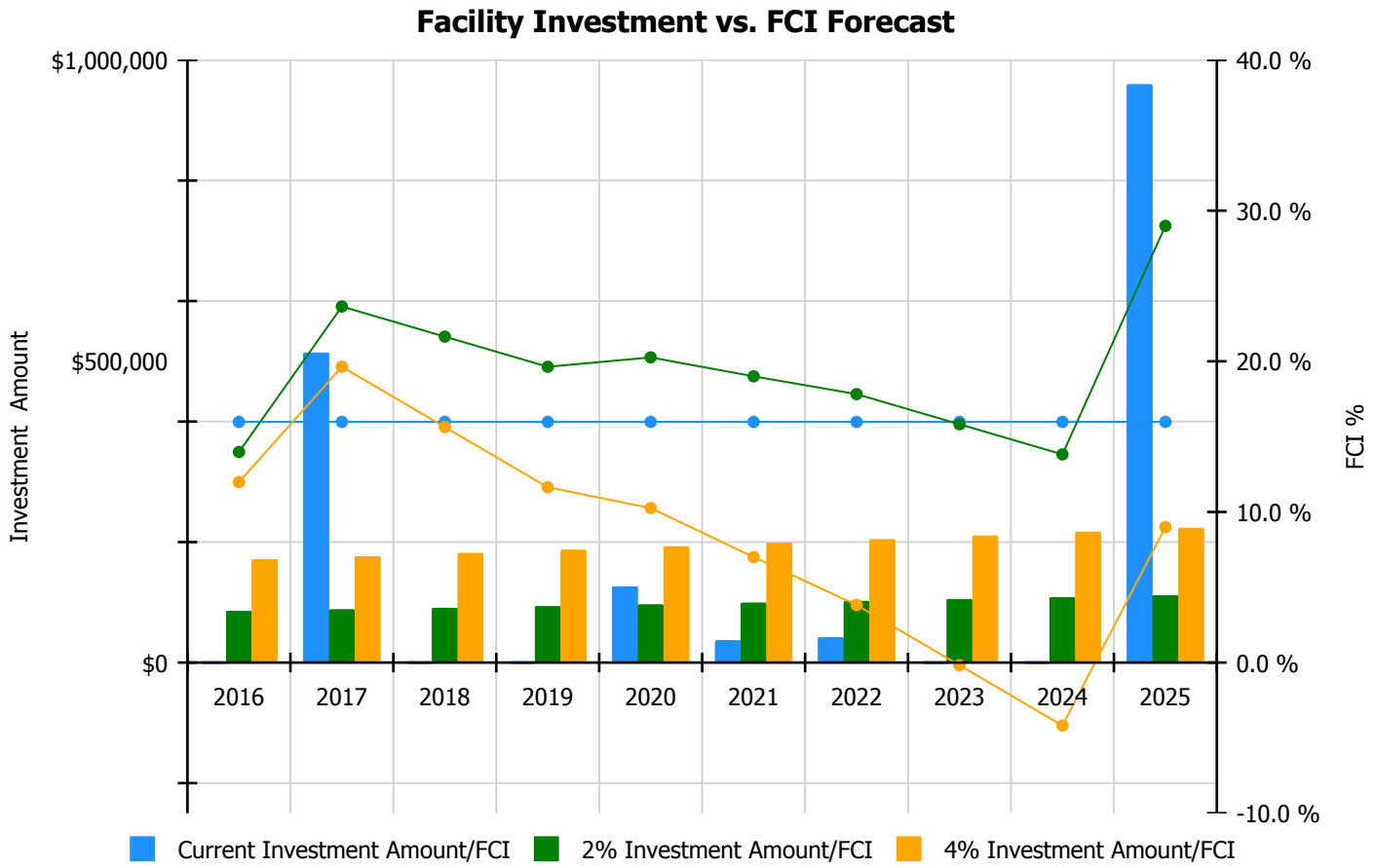
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



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:

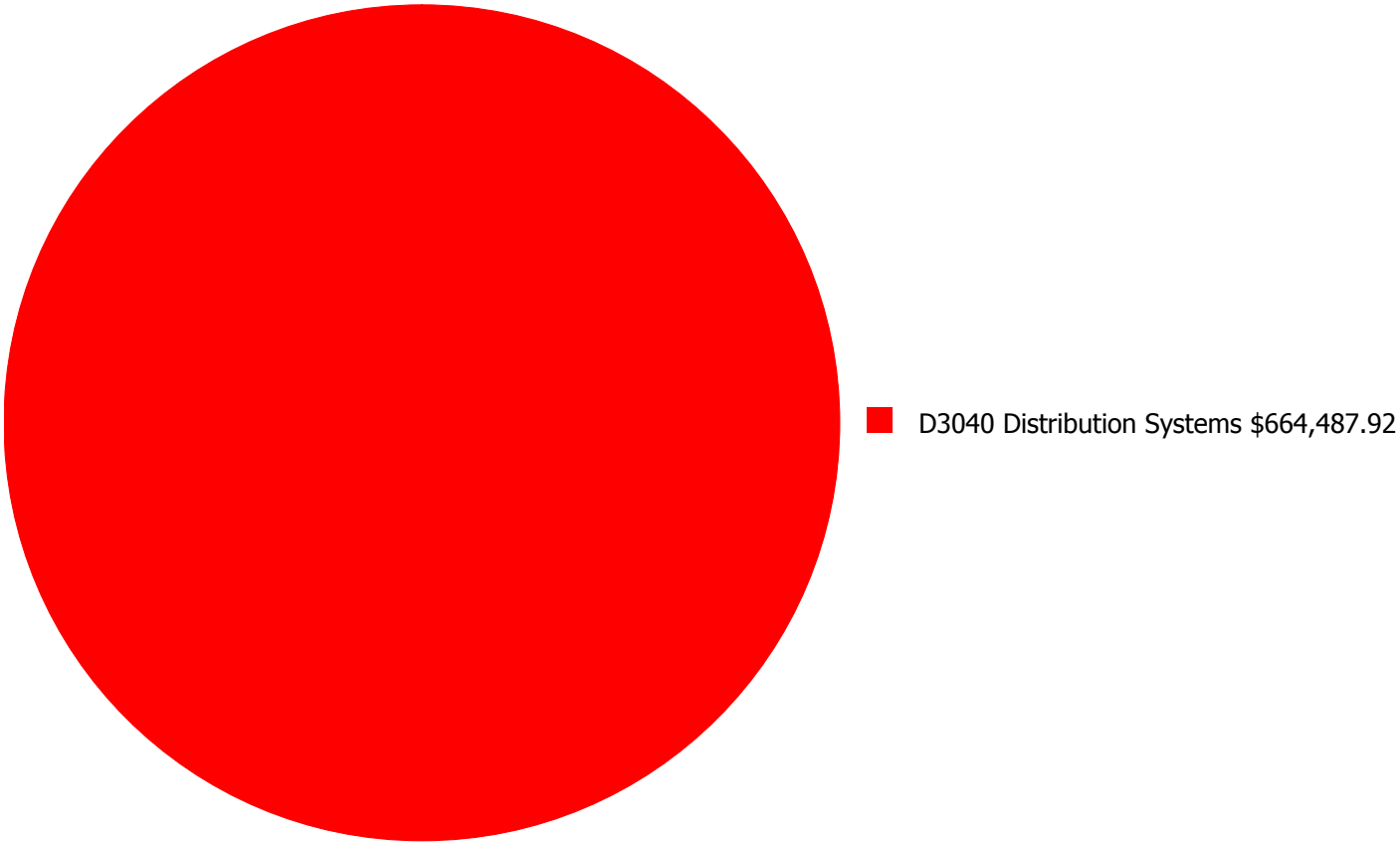
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 15.98%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$85,675.00	13.98 %	$171,349.00	11.98 %
2017	$514,469	$88,245.00	23.64 %	$176,490.00	19.64 %
2018	$0	$90,892.00	21.64 %	$181,784.00	15.64 %
2019	$0	$93,619.00	19.64 %	$187,238.00	11.64 %
2020	$126,341	$96,427.00	20.26 %	$192,855.00	10.26 %
2021	$37,040	$99,320.00	19.00 %	$198,641.00	7.00 %
2022	$41,803	$102,300.00	17.82 %	$204,600.00	3.82 %
2023	$0	$105,369.00	15.82 %	$210,738.00	-0.18 %
2024	$0	$108,530.00	13.82 %	$217,060.00	-4.18 %
2025	$959,699	$111,786.00	28.99 %	$223,572.00	8.99 %
Total:	**$1,679,351**	**$982,163.00**		**$1,964,327.00**	

Deficiency Summary by System

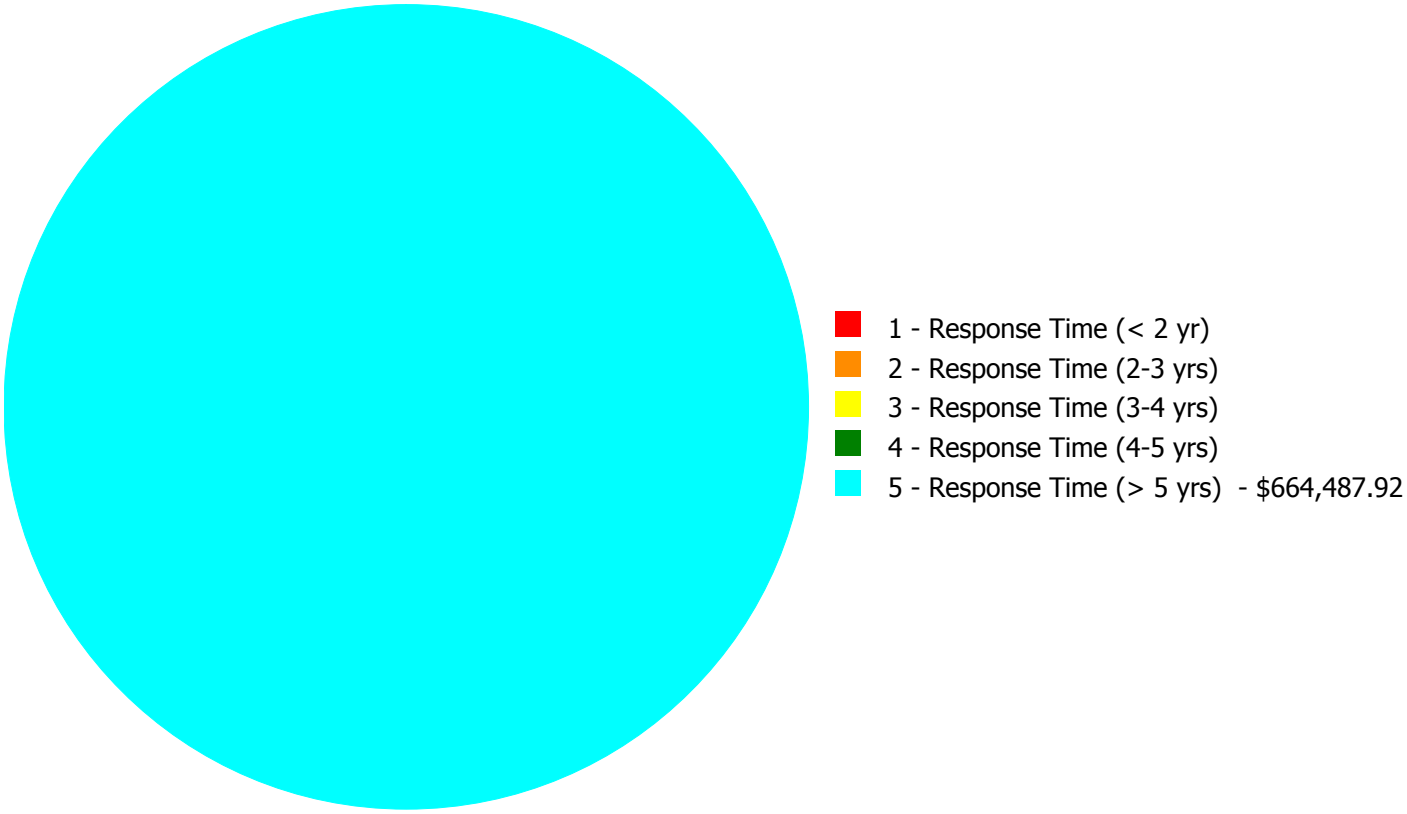
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $664,487.92

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: $664,487.92

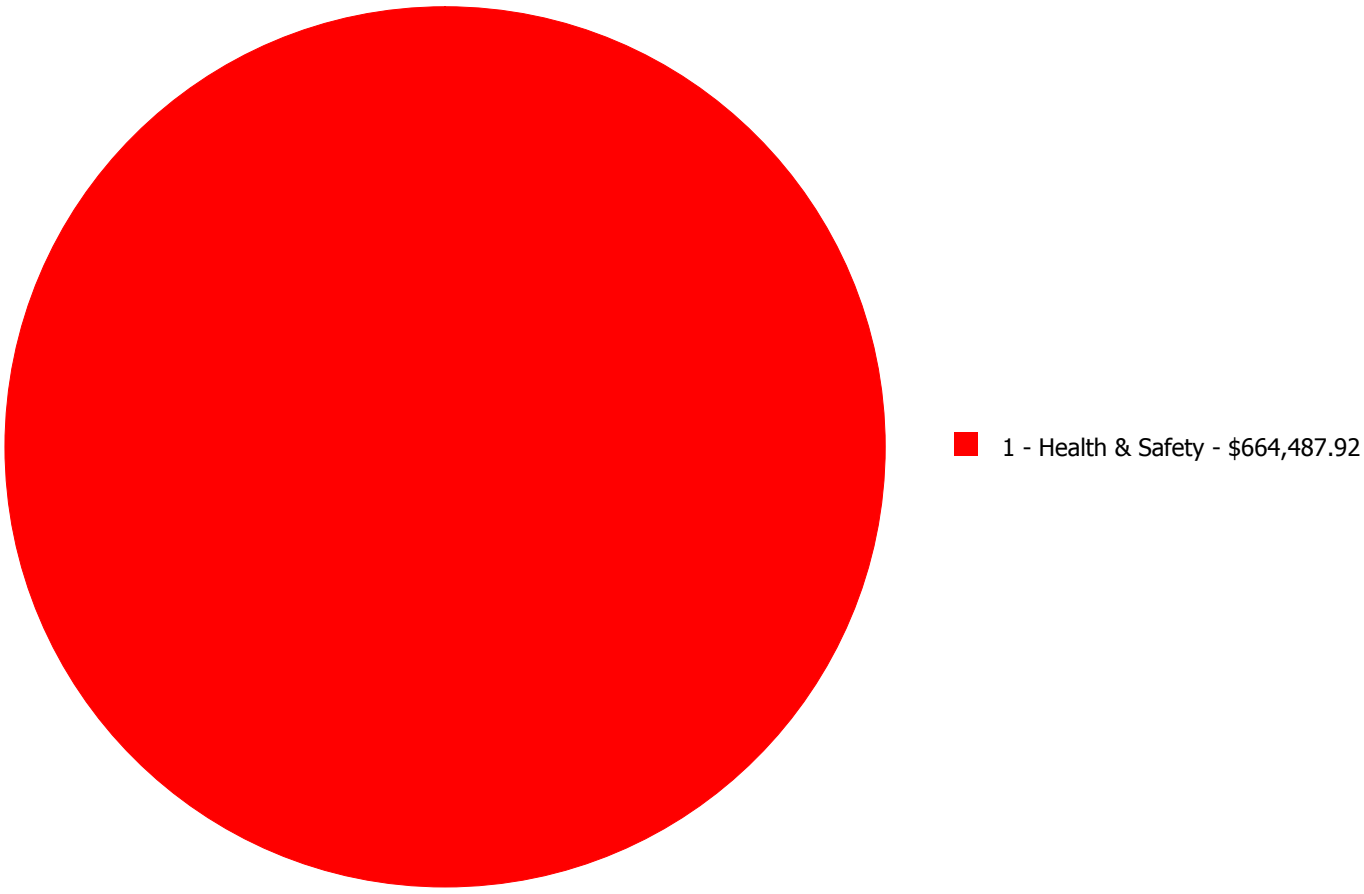
Deficiency By Priority Investment Table

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
D3040	Distribution Systems	$0.00	$0.00	$0.00	$0.00	$664,487.92	$664,487.92
	Total:	$0.00	$0.00	$0.00	$0.00	$664,487.92	$664,487.92

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: $664,487.92

Deficiency Details by Priority

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

Priority 5 - Response Time (> 5 yrs):

System: D3040 - Distribution Systems

This deficiency has no image.

Location: B629002;Levering Annex

Distress: Health Hazard / Risk

Category: 1 - Health & Safety

Priority: 5 - Response Time (> 5 yrs)

Correction: Provide classroom FC units and dedicated OA ventilation system. (20 clsrms)

Qty: 8.00

Unit of Measure: Room

Estimate: $664,487.92

Assessor Name: Craig Anding

Date Created: 01/05/2017

Notes: No known mechanical ventilation is provided in the Annex, the gravity ventilation openings have been sealed. As with the main building, 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 hot water coils, chilled water coils, and integral heat exchangers, where applicable, to introduce outdoor air to the building.

Equipment Inventory

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

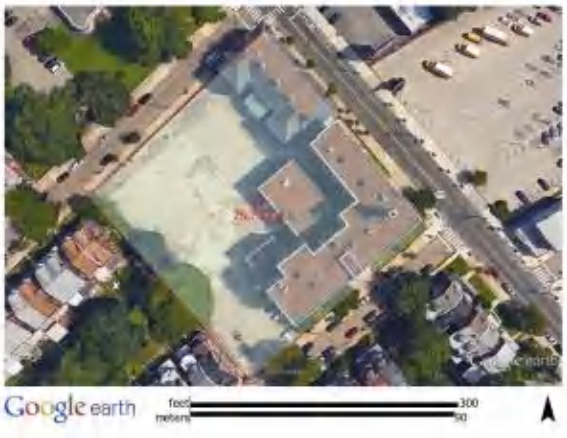
No data found for this asset

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):	55,500
Year Built:	1929
Last Renovation:	
Replacement Value:	$1,195,417
Repair Cost:	$301,787.60
Total FCI:	25.25 %
Total RSLI:	45.61 %



Description:

Attributes:

General Attributes:

Bldg ID:	S629001	Site ID:	S629001

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	23.06 %	19.99 %	$174,496.18
G40 - Site Electrical Utilities	106.67 %	39.48 %	$127,291.42
Totals:	**45.61 %**	**25.25 %**	**$301,787.60**

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.	9,000	30	1929	1959	2047	106.67 %	142.79 %	32		$109,236.13	$76,500
G2030	Pedestrian Paving	$12.30	S.F.	44,300	40	1929	1969	2020	12.50 %	0.00 %	5			$544,890
G2040	Site Development	$4.36	S.F.	55,500	25	1929	1954	2020	20.00 %	26.97 %	5		$65,260.05	$241,980
G2050	Landscaping & Irrigation	$4.36	S.F.	2,200	15	1929	1944	2020	33.33 %	0.00 %	5			$9,592
G4020	Site Lighting	$4.84	S.F.	55,500	30	1929	1959	2047	106.67 %	35.69 %	32		$95,860.24	$268,620
G4030	Site Communications & Security	$0.97	S.F.	55,500	30	1929	1959	2047	106.67 %	58.38 %	32		$31,431.18	$53,835
								Total	**45.61 %**	**25.25 %**			**$301,787.60**	**$1,195,417**

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.

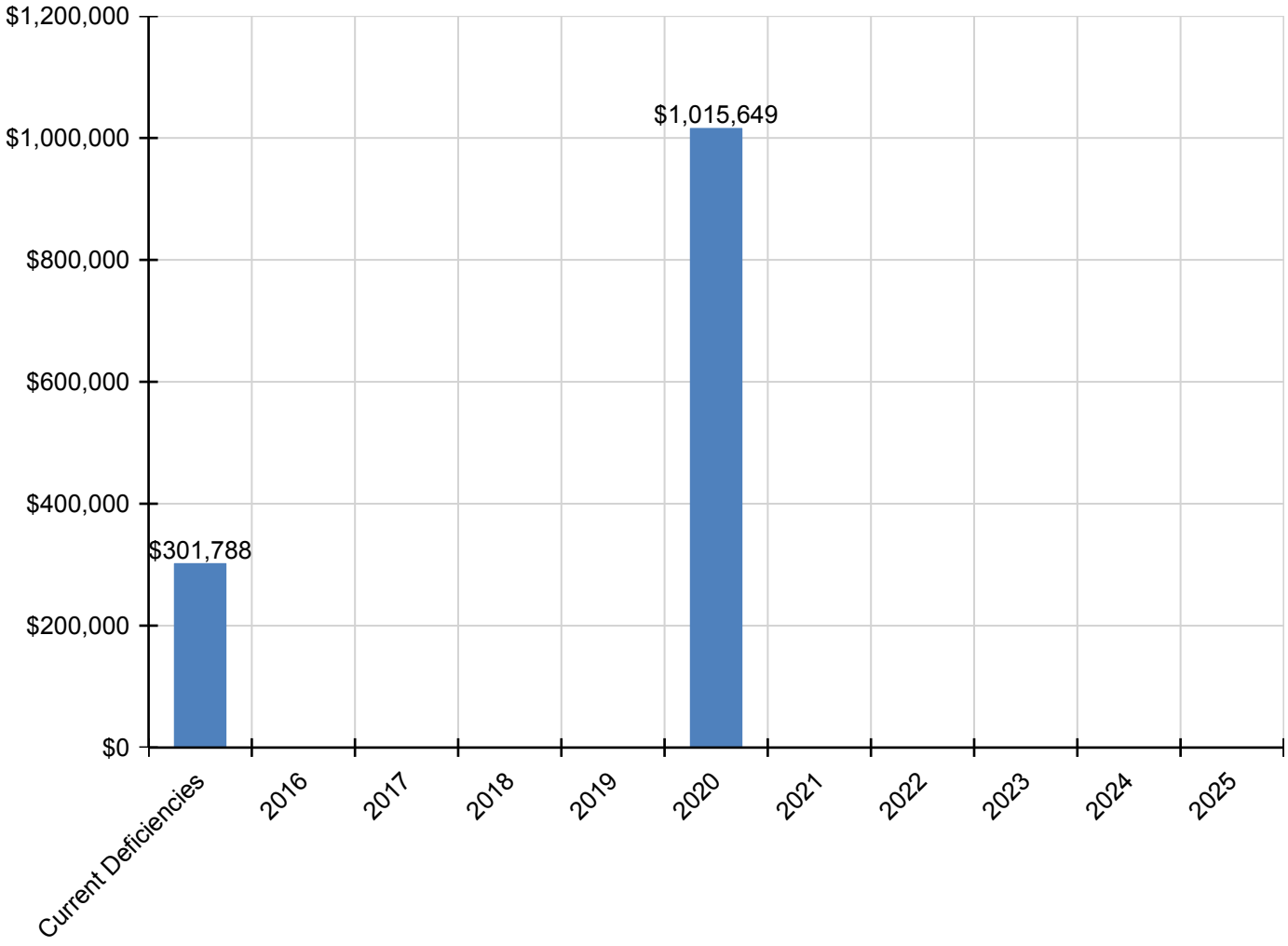
Inflation Rate: 3%

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Total:	**$301,788**	**$0**	**$0**	**$0**	**$0**	**$1,015,649**	**$0**	**$0**	**$0**	**$0**	**$0**	**$1,317,437**
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	$109,236	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$109,236**
G2030 - Pedestrian Paving	$0	$0	$0	$0	$0	$694,845	$0	$0	$0	$0	$0	**$694,845**
G2040 - Site Development	$65,260	$0	$0	$0	$0	$308,573	$0	$0	$0	$0	$0	**$373,833**
G2050 - Landscaping & Irrigation	$0	$0	$0	$0	$0	$12,232	$0	$0	$0	$0	$0	**$12,232**
G40 - Site Electrical Utilities	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G4020 - Site Lighting	$95,860	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$95,860**
G4030 - Site Communications & Security	$31,431	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$31,431**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

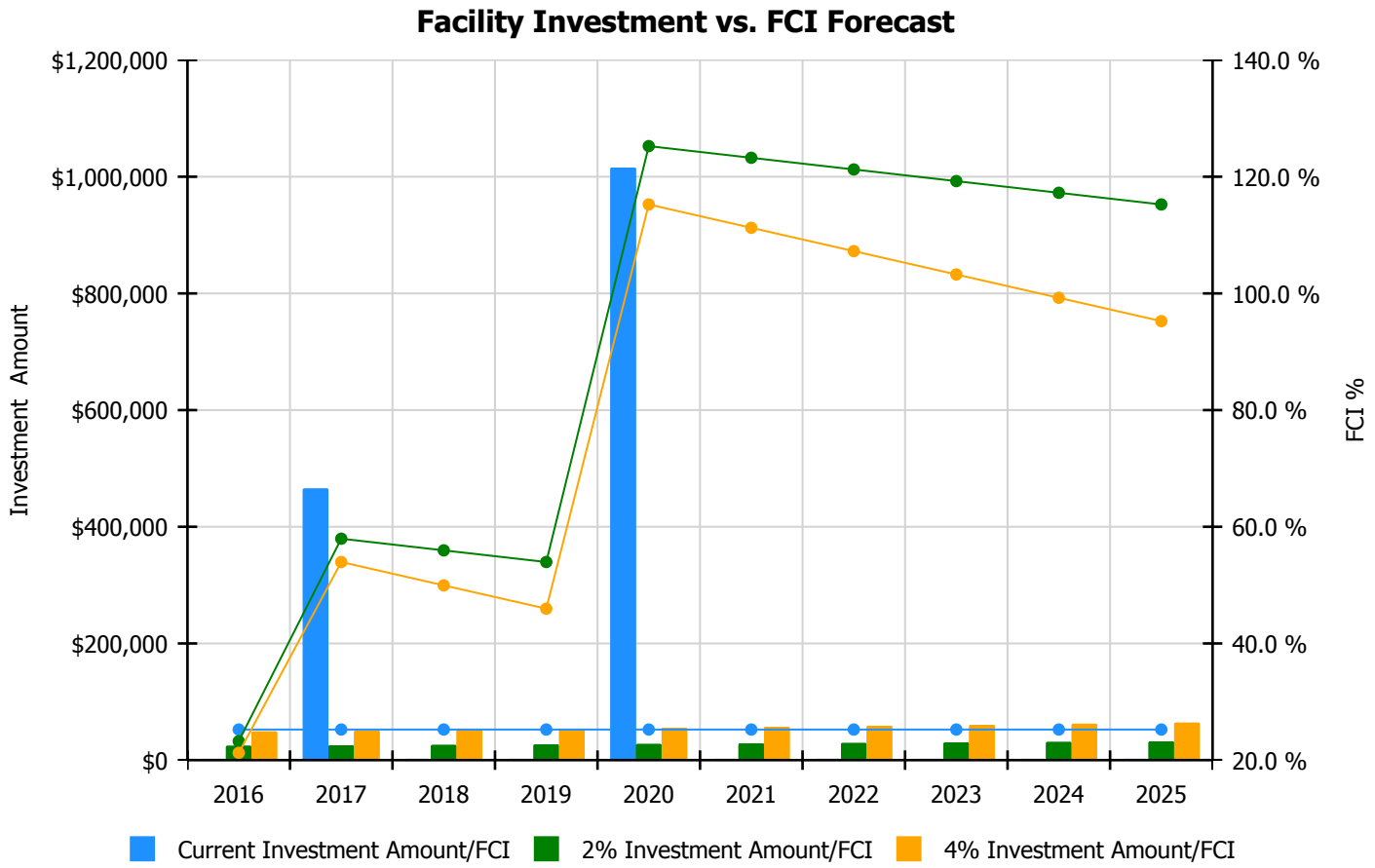
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



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:

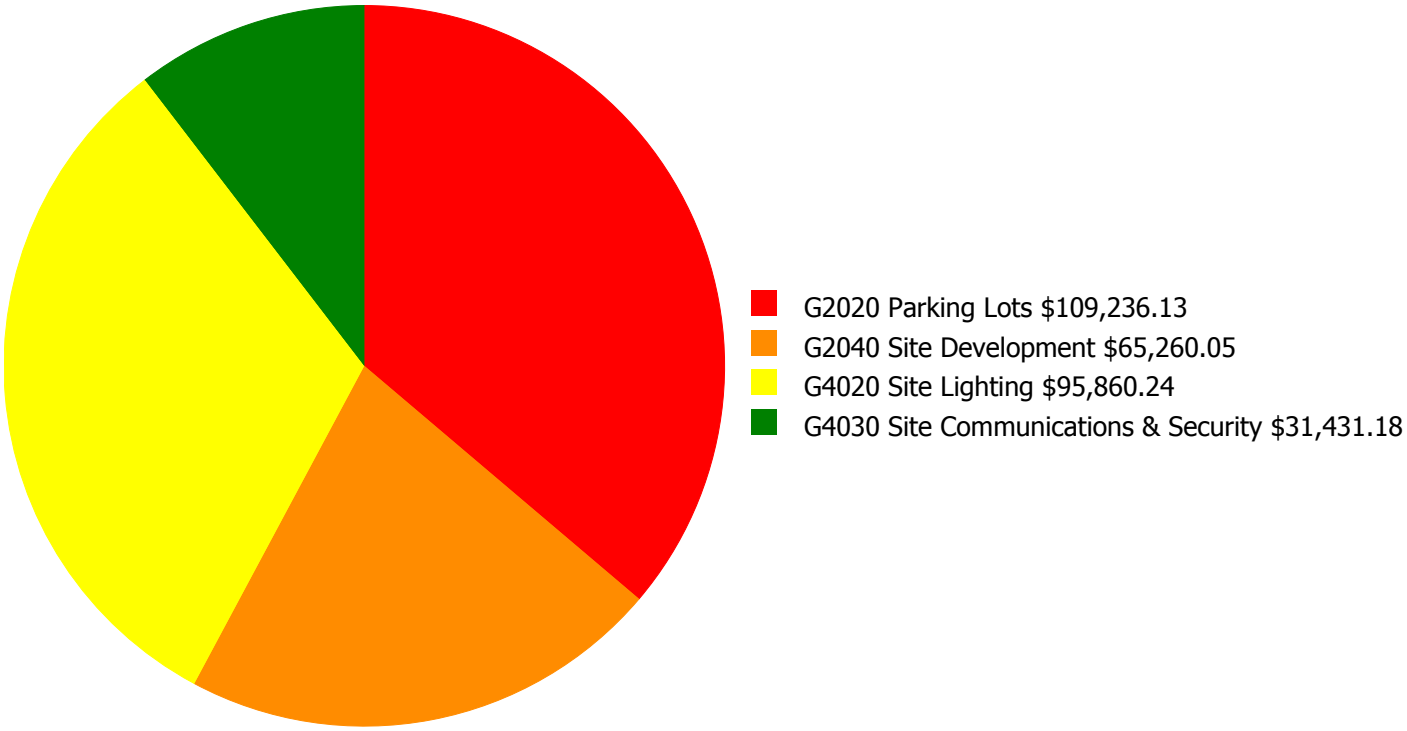
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 25.25%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$24,626.00	23.25 %	$49,251.00	21.25 %
2017	$465,577	$25,364.00	57.96 %	$50,729.00	53.96 %
2018	$0	$26,125.00	55.96 %	$52,251.00	49.96 %
2019	$0	$26,909.00	53.96 %	$53,818.00	45.96 %
2020	$1,015,649	$27,716.00	125.25 %	$55,433.00	115.25 %
2021	$0	$28,548.00	123.25 %	$57,096.00	111.25 %
2022	$0	$29,404.00	121.25 %	$58,808.00	107.25 %
2023	$0	$30,286.00	119.25 %	$60,573.00	103.25 %
2024	$0	$31,195.00	117.25 %	$62,390.00	99.25 %
2025	$0	$32,131.00	115.25 %	$64,262.00	95.25 %
Total:	**$1,481,226**	**$282,304.00**		**$564,611.00**	

Deficiency Summary by System

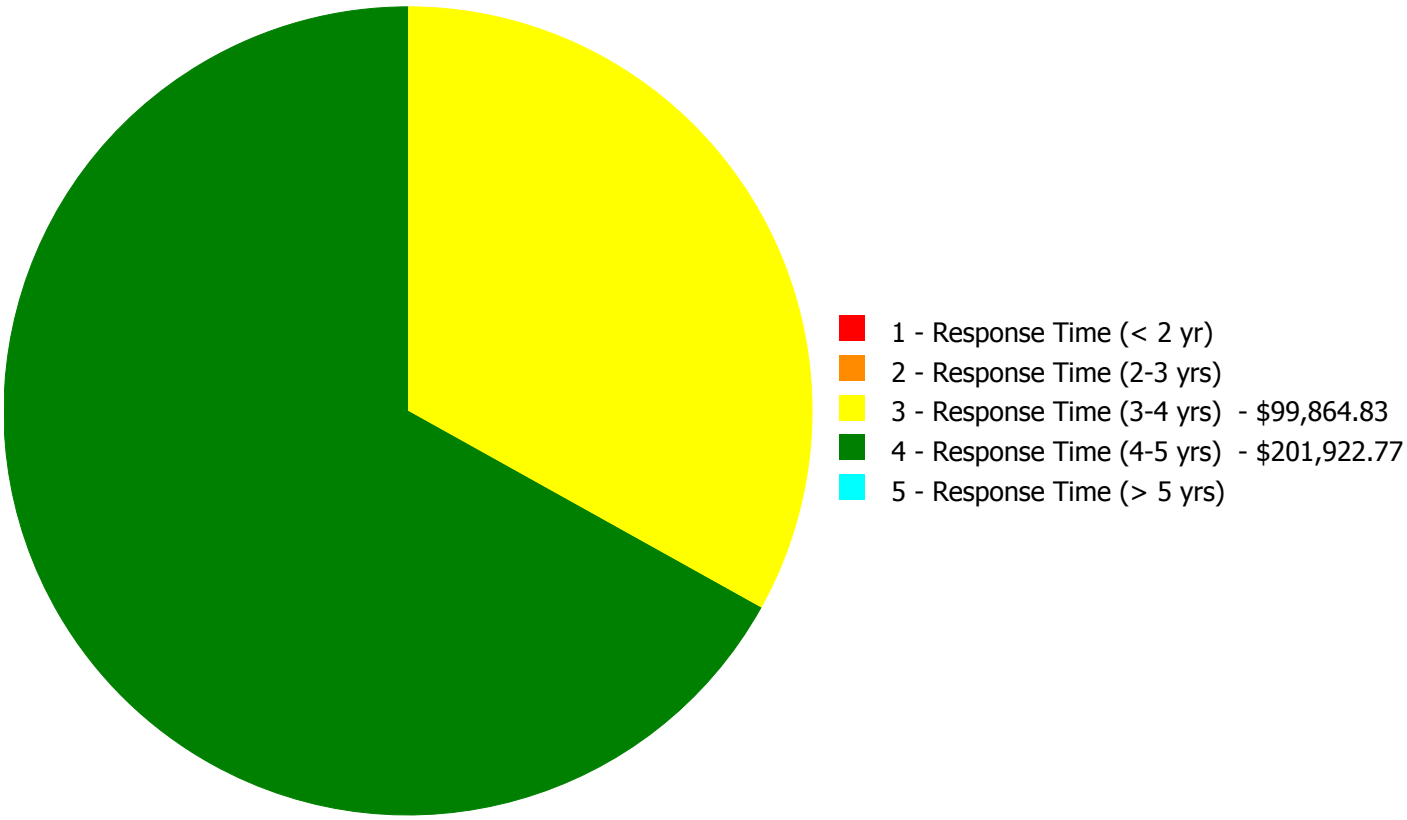
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $301,787.60

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: $301,787.60

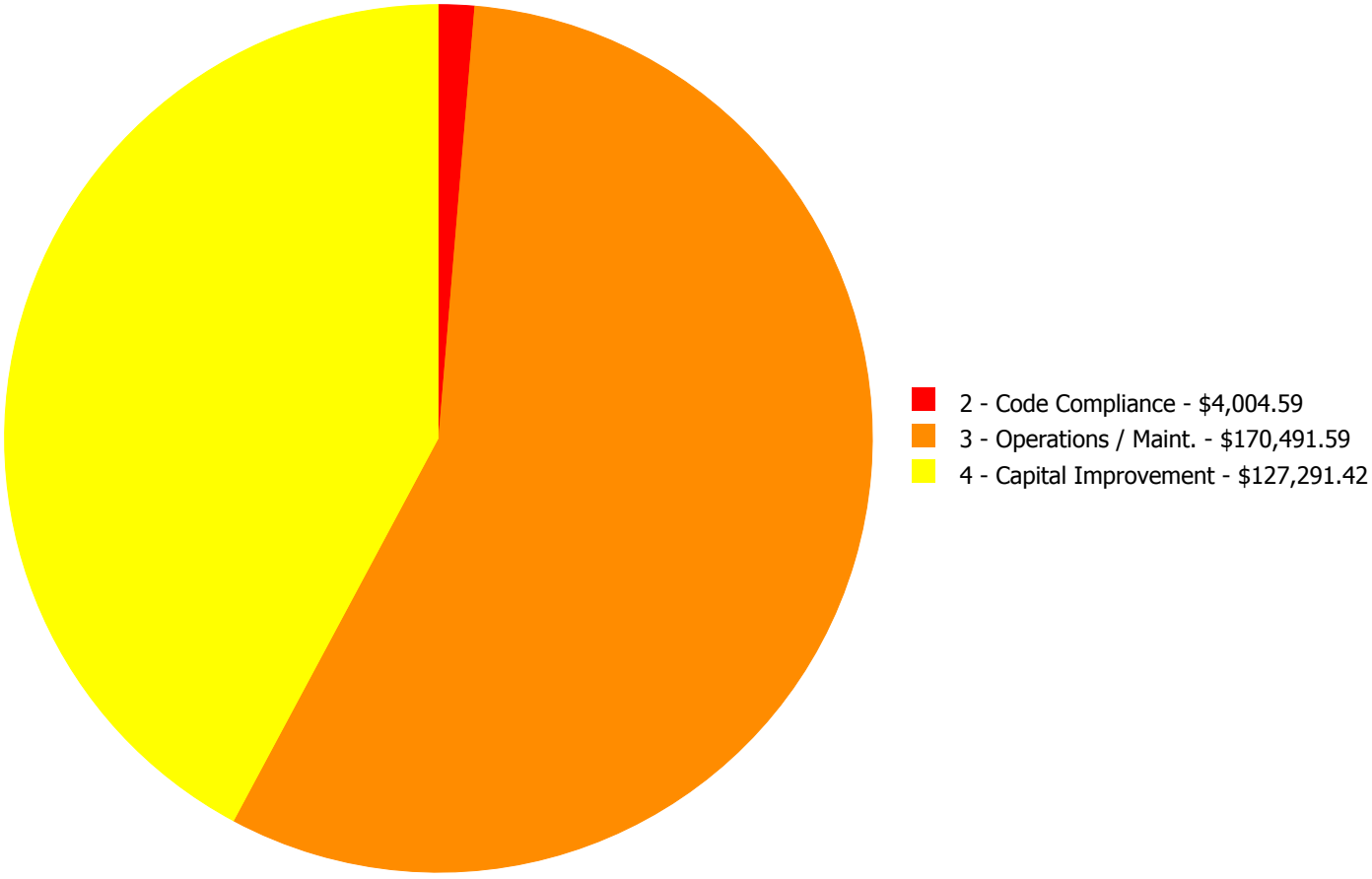
Deficiency By Priority Investment Table

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
G2020	Parking Lots	$0.00	$0.00	$4,004.59	$105,231.54	$0.00	$109,236.13
G2040	Site Development	$0.00	$0.00	$0.00	$65,260.05	$0.00	$65,260.05
G4020	Site Lighting	$0.00	$0.00	$95,860.24	$0.00	$0.00	$95,860.24
G4030	Site Communications & Security	$0.00	$0.00	$0.00	$31,431.18	$0.00	$31,431.18
	Total:	$0.00	$0.00	$99,864.83	$201,922.77	$0.00	$301,787.60

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: $301,787.60

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: G2020 - Parking Lots

Location: Parking area west side of site

Distress: Accessibility

Category: 2 - Code Compliance

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

Correction: Stripe parking stalls, install parking bumpers, provide handicap symbol and handicap post mounted sign - insert proper quantities in estimate

Qty: 5.00

Unit of Measure: Ea.

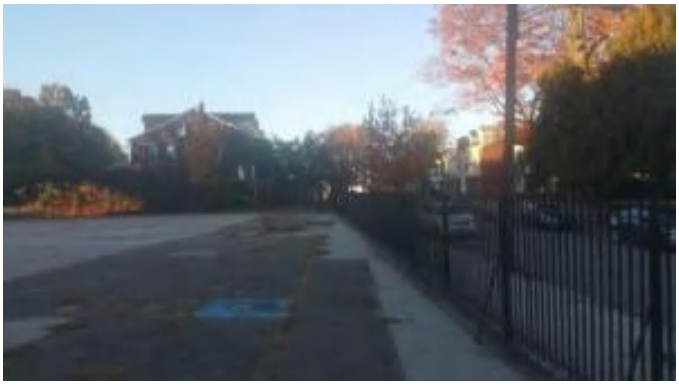
Estimate: $4,004.59

Assessor Name: Christopher Finnican

Date Created: 02/26/2016

Notes: Resurface and restripe parking, replace wheel stops.

System: G4020 - Site Lighting



Location: grounds

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Add Site Lighting - pole mounted - select the proper light and pole

Qty: 1.00

Unit of Measure: Ea.

Estimate: $95,860.24

Assessor Name: Christopher Finnican

Date Created: 02/05/2016

Notes: Install additional pole-mounted site lighting for the grounds. The present site lighting is not adequate for safety of the people and security of property.

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

System: G2020 - Parking Lots

Location: Parking area west side of site
Distress: Damaged
Category: 3 - Operations / Maint.
Priority: 4 - Response Time (4-5 yrs)
Correction: Remove and replace concrete paving
Qty: 5,000.00
Unit of Measure: S.F.
Estimate: $105,231.54
Assessor Name: Christopher Finnican
Date Created: 02/26/2016

Notes: Replace damaged courtyard paving

System: G2040 - Site Development

Location: Picket fence along site perimeter
Distress: Appearance
Category: 3 - Operations / Maint.
Priority: 4 - Response Time (4-5 yrs)
Correction: Paint steel picket fence - LF of fence 6' high
Qty: 1,000.00
Unit of Measure: L.F.
Estimate: $65,260.05
Assessor Name: Christopher Finnican
Date Created: 02/26/2016

Notes: Paint picket fencing along site boundary. 1,100 LF

System: G4030 - Site Communications & Security

Location: grounds

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Add Site Paging System

Qty: 0.00

Unit of Measure: Ea.

Estimate: $31,431.18

Assessor Name: Christopher Finnican

Date Created: 02/05/2016

Notes: Install additional site paging since the present exterior paging System is not adequate. There are insufficient number of speaker on building exterior walls.

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