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.

Gideon School

Governance	DISTRICT	Report Type	Elementarymiddle
Address	2817 W. Glenwood Ave.	Enrollment	284
	Philadelphia, Pa 19121	Grade Range	'00-08'
Phone/Fax	215-684-5072 / 215-684-8917	Admissions Category	Neighborhood
Website	Www.Philasd.Org/Schools/Gideon	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	**43.52%**	**$15,170,560**	**$34,862,490**
Building	44.06 %	$14,728,531	$33,426,720
Grounds	30.79 %	$442,029	$1,435,770

Major Building Systems

Building System	System FCI	Repair Costs	Replacement Cost
Roof (Shows physical condition of roof)	00.00 %	$0	$942,507
Exterior Walls (Shows condition of the structural condition of the exterior facade)	00.52 %	$12,916	$2,472,970
Windows (Shows functionality of exterior windows)	144.27 %	$1,740,920	$1,206,670
Exterior Doors (Shows condition of exterior doors)	90.53 %	$87,948	$97,150
Interior Doors (Classroom doors)	164.31 %	$386,418	$235,170
Interior Walls (Paint and Finishes)	49.37 %	$650,959	$1,318,560
Plumbing Fixtures	39.50 %	$357,793	$905,840
Boilers	00.00 %	$0	$1,250,890
Chillers/Cooling Towers	64.08 %	$1,051,043	$1,640,160
Radiators/Unit Ventilators/HVAC	130.46 %	$3,757,540	$2,880,330
Heating/Cooling Controls	158.90 %	$1,437,288	$904,500
Electrical Service and Distribution	109.27 %	$710,160	$649,900
Lighting	39.72 %	$922,940	$2,323,560
Communications and Security (Cameras, Pa System and Fire Alarm)	86.57 %	$753,483	$870,330

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

S453001;Gideon

Final

Site Assessment Report

January 30, 2017

PARSONS

Table of Contents

Site Executive Summary

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

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

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

Gross Area (SF):	67,000
Year Built:	1952
Last Renovation:	
Replacement Value:	$34,862,490
Repair Cost:	$15,170,559.68
Total FCI:	43.52 %
Total RSLI:	69.74 %

Description:

Facility Assessment
December 2015

School District of Philadelphia
Gideon Elementary School
2817 W. Glenwood Ave
Philadelphia, PA 19121

67,000 SF / 596 Students / LN 04

The Gideon Elementary School building is located at 2817 W. Glenwood Ave in Philadelphia, PA. The 3 story with basement, 67,000 square foot building was originally constructed in 1951. The building has an L-shape footprint. The building has a basement partially above grade.

Mr. Derek Parker, Facility Area Coordinator, provided input to the Parsons assessment team on current problems and planned renovation projects.

Mr. Terrance Woods, the Building Engineer, accompanied us on our tour of the school and provided us with detailed information on the building systems and recent maintenance history.

STRUCTURAL/ EXTERIOR CLOSURE:

The building typically rests on concrete foundations and bearing walls that are not showing signs of settlement. There is major water seepage through basement walls during rain in boiler and coal storage rooms on the north side of the building. Foundation walls do not show signs of deterioration. Microbial growth and rust is heavy in basement areas. 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. Above ground floor slabs are generally in good condition.

The roof structure is typically similar to floor construction.

The building envelope is typically masonry with face brick over CMU or SGFT. In general, masonry is in fair condition with some small cracks and missing mortar.

The original windows were replaced in 1990 with extruded aluminum single hung windows, Lexan Plexiglas in poor condition with heavy hazing and not energy efficient. First floor windows are fitted with integral security screens in good condition. Exterior doors are typically hollow metal in poor condition; they are beyond their service life. Generally, the building is not accessible per ADA requirements due to first floor-grade separation, with no ramps or lifts.

Roofing is typically built-up system installed in 2000. All roofing and flashing is typically in fair condition. No leaks have been reported.

INTERIORS:

Partition wall types typically include painted CMU. The interior wall finishes are generally painted CMU and plaster. Walls in some toilets are SGFT. Generally, paint is in poor condition, applied in approximately 2003. Approximately 80% of ceilings are exposed, plastered and painted. 2x4 suspended acoustical panels are installed in some classrooms and office spaces in good condition.

Flooring throughout is generally VAT and VCT with concrete in toilets, stairways, and mechanical spaces. Flooring in some toilets are heavily damaged.

Interior doors are generally solid core wood doors with some glazing in hollow metal frames. Original 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 fair condition. Toilet partitions and accessories in are in very poor condition, mostly original to the building, some missing. Interior identifying signage is typically directly painted on wall or door surfaces generally in poor condition.

Stair construction is generally concrete in good condition.

Furnishings include fixed metal casework in classrooms, under window sills in good condition.

CONVEYING SYSTEMS:

The building has a 2000 lb. capacity elevator.

MECHANICAL

Plumbing Fixtures

Many of the original plumbing fixtures remain in service. Fixtures in the restrooms on each floor consist of wall mounted push button flush valve water closets, wall hung urinals, and lavatories with wheel handle faucets. Many of the units appear to be in poor condition, are beyond their useful service lives, and should be replaced.

Drinking fountains in the corridors are a mixture of wall hung porcelain and floor mounted fountains with integral refrigerated coolers. They are beyond their service life and should be replaced; most are NOT accessible type.

A service sink is available in a janitor closet in the corridor on each floor for use by the janitorial staff. The sinks are original to the building, in poor condition, and should be replaced.

The Kitchen only has a single one-basin sink, with a grease trap, installed for washing hands.

Domestic Water Distribution

A 4" city water service enters the basement boiler room on the Northeast side of the building from West Glenwood Avenue. The 4" meter and valves are located in the same room and a reduced pressure backflow preventer is installed. Duplex 5HP Armstrong domestic pressure booster pumps with an associated expansion tank are installed on the domestic water line. A Marlo water treatment system is installed. 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) Bradford White natural gas, 80 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 2010. The hot water heater is equipped with a T&P relief valve. The domestic hot water heater is well within its service life and should provide reliable service for the next 5-7 years.

Sanitary Waste

The original storm and sanitary sewer piping is a mixture of galvanized piping with threaded fittings and cast iron piping with hub and spigot fittings. Repairs have been made with cast iron piping with no-hub fittings.

A sewage ejector pit located, in the basement boiler room, receives sewage from the basement area. The system has been in use for an unknown amount of time and appears to be in good condition. The pit is sealed. Two (2) 1.5 HP pumps are located outside the pit and appeared to be in good condition.

The maintenance staff reported mostly minor problems with the sanitary waste piping systems. However, the sewer piping has been in service for almost 65 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.

Rain Water Drainage

Rain water drains from the roof are routed through mechanical chases in the building and appear to be original. The piping is threaded galvanized and 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 service enters the building from West Glenwood Avenue. The gas meter is 1" and is located in the custodial office adjacent to the boiler room.

The oil supply is stored in a 12,000 gallon underground storage tank (UST) located in the paved play area on the North side of the building. Duplex pumps located in the former coal/ash room circulate oil through the system. Oil is used as the primary fuel for the boilers. The storage tank 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) 150HP HB Smith model 4500A cast iron sectional boilers, estimated to have been installed in 2004. The Building Engineer reported that steam leaks from the system if the boilers are run above 2 lbs. /sq. in. Each boiler is equipped with a Power Flame burner designed to operate on natural gas or fuel oil. The boilers are currently only run off of fuel oil. Combustion air makeup is supplied by louvers equipped with motorized dampers. Burner controls provide full modulation with flame sensing and pressure atomization on oil. Burner oil pumps are loose and not driven by the fan motor. Induced draft fans with positive draft control are installed on the rear of each boiler. The oil supply to the burner is equipped with dual solenoid valves and a strainer. The Building Engineer reports the system loses a significant amount of condensate due to failed traps, which is made up with chemically treated city water. Cast iron sectional boilers have an anticipated service life of 35 years or more; these units have been in service approximately 12 years. The boilers appear to be in poor condition, with rust forming on their exterior, due to the steam that has leaked into the boiler room. The District should provide reliable service for the next

15 to 20 years.

A vacuum condensate receiver tank and boiler feed pump assembly are installed in the boiler room. The receiver tank provides treated make-up water to the boilers. The unit has three (3) 2HP pumps headered together and mounted on the tank. The unit appears to be in poor condition with rust forming on many parts due to leaking steam. The condensate receiver and associated pumps are damaged from rust and should be replaced.

Distribution Systems

Steam piping mains are black steel with flanged fittings and smaller distribution piping is black steel with welded fittings. The condensate piping is black steel with threaded fittings. Steam and condensate piping mains run up through the building to the unit ventilators and fin tube radiators on all three (3) floors. The Building Engineer reported that many sections of the condensate piping leak and the piping is in poor condition. 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 5 years.

Unit ventilators and fin tube radiators provide heating for classrooms, offices, and to the corridors. The unit ventilators and fin tube radiators are original to the building and well beyond their service lives. Outdoor air for the building is provided by wall openings in the unit ventilators. The existing unit ventilators should be removed and new units installed with hot and chilled water coils and integral heat exchangers to introduce sufficient outdoor air to the building. Heating is supplied to the Gymnasium/Cafeteria and Auditorium by fin tube radiators. Ventilation is provided to the Gymnasium/Cafeteria and Auditorium by two (2) 3HP fans, located in the third floor mechanical room. This does not meet current code required ventilation requirements. Ventilation should be provided for the Gymnasium/Cafeteria 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. Similar units should be installed for the administration offices. Ventilation should be provided for the Auditorium by installing a constant volume air handling unit with distribution ductwork and registers. These units would be equipped with hot water heating coils and chilled water cooling coils.

Exhaust for the restrooms and janitor closets is provided by five (5) exhaust fans located in closets on the first and third floors. The exhaust fans are in poor condition, well beyond their service lives, and all should be replaced. Thirteen (13) small roof mounted gravity ventilators provide relief air for the corridors and are in poor condition. All gravity ventilators are beyond their service lives and should be replaced.

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 190 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.

Two (2) Mitsubishi split system air conditioning systems provide cooling to the two (2) LAN rooms; one (1) located on the third floor adjacent to the Gymnasium/Cafeteria, the second located on the first floor on the North side of the building. The installation date of this unit is unknown; the anticipated service life of a split system air conditioner is 15 years. The district should budget to replace this unit within the next 7-10 years.

One (1) small exhaust hood is installed in the Kitchen, no equipment is installed below the hood. The hood appeared to be in good condition and is not used according to the Building Engineer.

Controls & Instrumentation

The original pneumatic systems no longer provide basic control functions. Pneumatic room thermostats are intended to control the unit ventilator control valves. In reality the unit ventilator control valves are wide open and heating is controlled via the boilers. Pneumatic control air is no longer supplied as the two (2) air compressors are defunct. The pneumatic systems are beyond their service life, no longer functional, and require too much attention from the maintenance staff. The original control valves and pneumatic actuators are beyond their service life and should be rebuilt or replaced. These controls should be converted to DDC.

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 not equipped with fire stand pipes.

ELECTRICAL:

Site electrical service - The primary power is at 13.2KV from the power poles. The primary power is brought into the school underground and to the electrical vault outside, feeding two vault mounted transformers. The secondary power feeds an old 1200A, 120V/240V, 2 phase switchboard. The PECO meter is also located inside the new electrical room (basement). The switchboard is old and not functioning properly. The site electrical service has reached the end of its useful service life.

Distribution system - The electrical distribution is accomplished by using the main 120V/240V switchboard (located in the electrical room) and feeding several 120V lighting and receptacle panels throughout the building. These panels are old, and they have reached the end of their useful service life.

Receptacles - The receptacles in classrooms, computer rooms, libraries, and other areas are not adequate. The walls in classrooms and the computer rooms have insufficient number of receptacles (minimum of 2 on each wall is required). Only about 20% of school has been upgraded with more receptacles, however the majority of the school (80%) lacks enough receptacles.

Lighting - Interior building is illuminated by various types of fixtures. They include fluorescent lighting (mostly T-12 lamps) in majority of the areas, including; classrooms, corridors, offices, Library, cafeteria, Kitchen, etc. Surface or pendant mounted industrial fluorescent fixtures are used in mechanical and electrical rooms. There are upgraded HID lighting fixtures in the Gymnasium. About 20% of the school lighting has been upgraded, however the majority of the building (80%) lacks adequate illumination level. The majority of interior lighting fixtures (80%) are in poor condition and have reached the end of their useful service life.

Fire alarm - The present Fire Alarm system is old, not automatic/addressable, and is not in compliance with safety codes. There are some manual pulls stations throughout the building. There are also some horn/strobes in the classrooms, corridors, offices and other areas in the school. Overall, the FA system is old and has reached the end of its useful service life.

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

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

Clock and Program system – There are clocks in each classroom (12-inch round clocks), however the clocks are not controlled properly by the master clock control.

Television System - Television system is not provided for the school. There are smart boards in most of the classrooms capable of connecting to computers and internet.

Security Systems, access control, and video surveillance - The school has a video surveillance system. There are cameras are installed at exit doors, corridors, exterior, and other critical areas. However school would like to have more cameras to cover critical areas. The new cameras should be controlled by a Closed Circuit Television system (CCTV).

Emergency Power System – There is no emergency generator in this building. School needs an Emergency generator for all the critical loads and elevator loads.

Emergency lighting and exit lights - there are insufficient number of emergency lights/exit lights in the corridors and other exit ways. The exit/emergency lights are old and they have reached the end of their useful service life.

Lightning Protection System - There are several lightning protection rods installed on the roof. The rods are connected to the ground by using stranded aluminum cables from the roof top all the way to the ground floor.

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

Auditorium – The auditorium general lighting uses decorative light fixtures with adequate lumens. The stage lighting has old fixtures without a

proper controller. Also, the auditorium has an old sound system.

The auditorium stage lighting and sound systems are old and they have reached the end of their useful service life.

Elevators – This school has no elevator.

GROUNDS/SITE

Southern point of site used for faculty parking is asphalt in fair condition. Play yard on north and west sides is concrete paving in poor condition with damaged areas and cracks. Play structure is in fair condition with damaged fall protection surface in need of replacement. Fencing surrounding site is chain link in poor condition. Landscaping is minimal and consists of mature trees along north and south sides.

Site Lighting - The school has some exterior lighting. However, a few pole-mounted lights are needed to provide adequate lighting for the grounds security and safety of people at night.

Site Paging – The school has some exterior speakers, however a few additional speakers are needed for proper communication with students playing outside.

RECOMMENDATIONS:

- Investigate and repair water intrusion in basement areas
- Remediate mold in basement area
- Repair cracks in exterior brick masonry
- Replace exterior widows for energy efficiency
- Replace exterior doors – beyond service life and damaged
- Install accessible door hardware on at least one entrance
- Repaint interior wall surfaces – 80% beyond service life
- Repair and replace flooring in toilet – damaged
- Replace interior doors – beyond service life
- Replace toilet partitions – missing and damaged
- Install interior ID signage

- Replace sixteen (16) urinals, in use beyond their service life, with new low flow fixtures.
- Replace twenty-seven (27) water closets, in use beyond their service life, with new code compliant fixtures.
- Replace three (3) lavatories, in use beyond their service life, with new code compliant fixtures.
- Replace four (4) drinking fountains in the corridors. These units are beyond their service life and most are NOT accessible type.
- Replace three (3) service sinks, located in the corridors of each floor, 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.
- 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.
- Replace the vacuum condensate receiver tank and three (3) associated 2HP boiler feed pumps which are damaged from rust.
- 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 and condensate piping, in service for almost 65 years and which is leaking, and perform additional testing to locate and replace any damaged piping and to further quantify the extent of potential failures.
- Remove the existing unit ventilators and install units with hot and chilled water coils and integral heat exchangers to introduce outdoor air to the building.
- Provide ventilation for the Gymnasium/Cafeteria 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 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.
- 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.
- Remove the window air conditioning units and install a 190 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 five (5) exhaust fans, located on the first and third floors, serving the restrooms which are well beyond their service

lives.
- Replace thirteen (13) roof mounted gravity ventilators which are beyond their service lives.
- 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 a new and upgraded electrical service for this school to handle existing loads plus any additional mechanical loads.

- Install new 120V lighting and receptacle panels throughout the building (total of 10)

- Install new lighting system for 80% of the building.

- Install new receptacles for 80% of the building

- Install new clock system

- Install additional video surveillance system for indoor and outdoor.

- Install new automated/addressable FA system.

- Install a new Emergency generator.

- Install new exit lights and emergency lights.

- Install an upgraded auditorium stage lighting, lighting control and sound system.
- Repair play yard concrete – damaged
- Replace playground fall protection surface – damaged
- Replace chain link fencing surrounding site – beyond service life
- Install accessible ramp on at least one main entrance

- Install additional pole-mounted lights for the grounds

- Install additional exterior speakers for the grounds

Site Assessment Report - S453001;Gideon

Attributes:

General Attributes:

Active:	Open	Bldg Lot Tm:	Lot 5 / Tm 4
Status:	Accepted by SDP	Team:	Tm 4
Site ID:	S453001		

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.

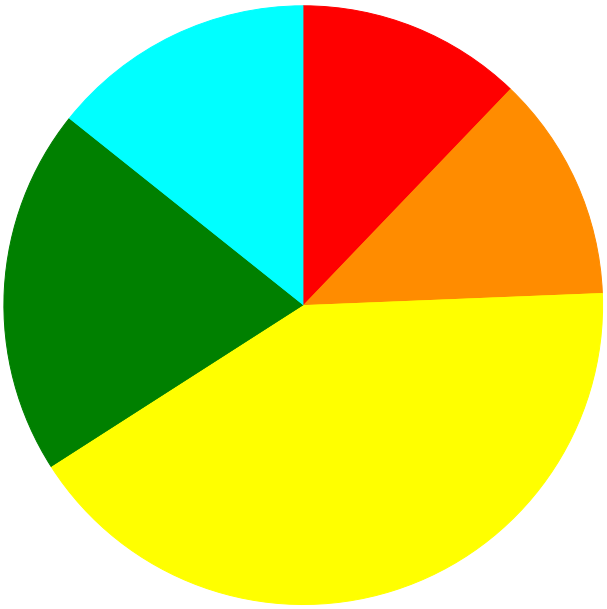
Current Investment Requirement and Condition by Uniformat Classification

UNIFORMAT Classification	RSLI%	FCI %	Current Repair
A10 - Foundations	37.00 %	16.17 %	$283,035.04
A20 - Basement Construction	37.00 %	1.37 %	$17,716.67
B10 - Superstructure	37.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	60.55 %	48.77 %	$1,841,783.60
B30 - Roofing	50.00 %	0.00 %	$0.00
C10 - Interior Construction	55.37 %	27.61 %	$454,000.40
C20 - Stairs	37.00 %	0.00 %	$0.00
C30 - Interior Finishes	75.12 %	20.15 %	$676,011.47
D10 - Conveying	28.57 %	0.00 %	$0.00
D20 - Plumbing	106.34 %	96.71 %	$1,323,097.73
D30 - HVAC	90.80 %	83.80 %	$6,245,870.65
D40 - Fire Protection	92.47 %	177.49 %	$958,466.34
D50 - Electrical	110.11 %	71.33 %	$2,809,295.05
E10 - Equipment	57.14 %	11.18 %	$119,253.93
E20 - Furnishings	62.50 %	0.00 %	$0.00
G20 - Site Improvements	55.66 %	23.81 %	$261,700.68
G40 - Site Electrical Utilities	106.67 %	53.56 %	$180,328.12
Totals:	**69.74 %**	**43.52 %**	**$15,170,559.68**

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)
B453001;Gideon	67,000	44.06	$1,812,145.66	$1,626,577.07	$6,203,494.44	$2,919,293.84	$2,167,019.87
G453001;Grounds	77,400	30.79	$32,477.25	$223,937.71	$103,190.32	$82,423.52	$0.00
Total:		**43.52**	**$1,844,622.91**	**$1,850,514.78**	**$6,306,684.76**	**$3,001,717.36**	**$2,167,019.87**

Deficiencies By Priority



- 1 - Response Time (< 2 yr) - $1,844,622.91
- 2 - Response Time (2-3 yrs) - $1,850,514.78
- 3 - Response Time (3-4 yrs) - $6,306,684.76
- 4 - Response Time (4-5 yrs) - $3,001,717.36
- 5 - Response Time (> 5 yrs) - $2,167,019.87

Budget Estimate Total: $15,170,559.68

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.

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Function:	Elementary School
Gross Area (SF):	67,000
Year Built:	1952
Last Renovation:	
Replacement Value:	$33,426,720
Repair Cost:	$14,728,530.88
Total FCI:	44.06 %
Total RSLI:	69.83 %

Description:

Attributes:

General Attributes:

Active:	Open	Bldg ID:	B453001
Sewage Ejector:	Yes	Status:	Accepted by SDP
Site ID:	S453001		

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 %	16.17 %	$283,035.04
A20 - Basement Construction	37.00 %	1.37 %	$17,716.67
B10 - Superstructure	37.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	60.55 %	48.77 %	$1,841,783.60
B30 - Roofing	50.00 %	0.00 %	$0.00
C10 - Interior Construction	55.37 %	27.61 %	$454,000.40
C20 - Stairs	37.00 %	0.00 %	$0.00
C30 - Interior Finishes	75.12 %	20.15 %	$676,011.47
D10 - Conveying	28.57 %	0.00 %	$0.00
D20 - Plumbing	106.34 %	96.71 %	$1,323,097.73
D30 - HVAC	90.80 %	83.80 %	$6,245,870.65
D40 - Fire Protection	92.47 %	177.49 %	$958,466.34
D50 - Electrical	110.11 %	71.33 %	$2,809,295.05
E10 - Equipment	57.14 %	11.18 %	$119,253.93
E20 - Furnishings	62.50 %	0.00 %	$0.00
Totals:	**69.83 %**	**44.06 %**	**$14,728,530.88**

Condition Detail

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

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

System Listing

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

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

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

System Code	System Description	Unit Price $	UoM	Qty	Life	Year Installed	Calc Next Renewal Year	Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency $	Replacement Value $
A1010	Standard Foundations	$18.40	S.F.	67,000	100	1952	2052		37.00 %	0.00 %	37			$1,232,800
A1030	Slab on Grade	$7.73	S.F.	67,000	100	1952	2052		37.00 %	54.65 %	37		$283,035.04	$517,910
A2010	Basement Excavation	$6.55	S.F.	67,000	100	1952	2052		37.00 %	0.00 %	37			$438,850
A2020	Basement Walls	$12.70	S.F.	67,000	100	1952	2052		37.00 %	2.08 %	37		$17,716.67	$850,900
B1010	Floor Construction	$75.10	S.F.	67,000	100	1952	2052		37.00 %	0.00 %	37			$5,031,700
B1020	Roof Construction	$13.88	S.F.	67,000	100	1952	2052		37.00 %	0.00 %	37			$929,960
B2010	Exterior Walls	$36.91	S.F.	67,000	100	1952	2052		37.00 %	0.52 %	37		$12,915.80	$2,472,970
B2020	Exterior Windows	$18.01	S.F.	67,000	40	1990	2030	2057	105.00 %	144.27 %	42		$1,740,919.72	$1,206,670
B2030	Exterior Doors	$1.45	S.F.	67,000	25	1980	2005	2042	108.00 %	90.53 %	27		$87,948.08	$97,150
B3010105	Built-Up	$37.76	S.F.	24,854	20	2000	2020	2025	50.00 %	0.00 %	10			$938,487
B3010120	Single Ply Membrane	$38.73	S.F.		20				0.00 %	0.00 %				$0
B3010130	Preformed Metal Roofing	$54.22	S.F.		30				0.00 %	0.00 %				$0
B3010140	Shingle & Tile	$38.73	S.F.		25				0.00 %	0.00 %				$0
B3020	Roof Openings	$0.06	S.F.	67,000	20	2000	2020	2025	50.00 %	0.00 %	10			$4,020
C1010	Partitions	$17.91	S.F.	67,000	100	1952	2052		37.00 %	0.00 %	37			$1,199,970
C1020	Interior Doors	$3.51	S.F.	67,000	40	1952	1992	2057	105.00 %	164.31 %	42		$386,417.56	$235,170
C1030	Fittings	$3.12	S.F.	67,000	40	1952	1992	2057	105.00 %	32.33 %	42		$67,582.84	$209,040
C2010	Stair Construction	$1.41	S.F.	67,000	100	1952	2052		37.00 %	0.00 %	37			$94,470

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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	$19.29	S.F.	67,000	10	2003	2013	2027	120.00 %	50.37 %	12		$650,959.12	$1,292,430
C3010231	Vinyl Wall Covering	$0.00	S.F.	67,000	15				0.00 %	0.00 %				$0
C3010232	Wall Tile	$0.39	S.F.	67,000	30	1952	1982	2030	50.00 %	0.00 %	15			$26,130
C3020411	Carpet	$7.30	S.F.		10				0.00 %	0.00 %				$0
C3020412	Terrazzo & Tile	$75.52	S.F.	1,340	50	1952	2002	2022	14.00 %	0.00 %	7			$101,197
C3020413	Vinyl Flooring	$9.68	S.F.	53,600	20	1983	2003	2023	40.00 %	0.00 %	8			$518,848
C3020414	Wood Flooring	$22.27	S.F.		25				0.00 %	0.00 %				$0
C3020415	Concrete Floor Finishes	$0.97	S.F.	12,060	50	1983	2033		36.00 %	214.16 %	18		$25,052.35	$11,698
C3030	Ceiling Finishes	$20.97	S.F.	67,000	25	2003	2028		52.00 %	0.00 %	13			$1,404,990
D1010	Elevators and Lifts	$1.53	S.F.	67,000	35	1990	2025		28.57 %	0.00 %	10			$102,510
D2010	Plumbing Fixtures	$13.52	S.F.	67,000	35	1952	1987	2052	105.71 %	39.50 %	37		$357,792.87	$905,840
D2020	Domestic Water Distribution	$1.68	S.F.	67,000	25	1952	1977	2042	108.00 %	301.63 %	27		$339,512.78	$112,560
D2030	Sanitary Waste	$2.90	S.F.	67,000	25	1952	1977	2042	108.00 %	169.16 %	27		$328,685.26	$194,300
D2040	Rain Water Drainage	$2.32	S.F.	67,000	30	1952	1982	2047	106.67 %	191.14 %	32		$297,106.82	$155,440
D3020	Heat Generating Systems	$18.67	S.F.	67,000	35	2004	2039		68.57 %	0.00 %	24			$1,250,890
D3030	Cooling Generating Systems	$24.48	S.F.	67,000	20			2037	110.00 %	64.08 %	22		$1,051,042.97	$1,640,160
D3040	Distribution Systems	$42.99	S.F.	67,000	25	1952	1977	2042	108.00 %	130.46 %	27		$3,757,540.11	$2,880,330
D3050	Terminal & Package Units	$11.60	S.F.	67,000	20				0.00 %	0.00 %				$777,200
D3060	Controls & Instrumentation	$13.50	S.F.	67,000	20	1952	1972	2037	110.00 %	158.90 %	22		$1,437,287.57	$904,500
D4010	Sprinklers	$7.05	S.F.	67,000	35			2052	105.71 %	202.91 %	37		$958,466.34	$472,350
D4020	Standpipes	$1.01	S.F.	67,000	35				0.00 %	0.00 %				$67,670
D5010	Electrical Service/Distribution	$9.70	S.F.	67,000	30	1952	1982	2047	106.67 %	109.27 %	32		$710,159.79	$649,900
D5020	Lighting and Branch Wiring	$34.68	S.F.	67,000	20	1952	1972	2037	110.00 %	39.72 %	22		$922,939.77	$2,323,560
D5030	Communications and Security	$12.99	S.F.	67,000	15	1952	1967	2032	113.33 %	86.57 %	17		$753,483.40	$870,330
D5090	Other Electrical Systems	$1.41	S.F.	67,000	30	1952	1982	2047	106.67 %	447.46 %	32		$422,712.09	$94,470
E1020	Institutional Equipment	$4.82	S.F.	67,000	35	2000	2035		57.14 %	36.93 %	20		$119,253.93	$322,940
E1090	Other Equipment	$11.10	S.F.	67,000	35	2000	2035		57.14 %	0.00 %	20			$743,700
E2010	Fixed Furnishings	$2.13	S.F.	67,000	40	2000	2040		62.50 %	0.00 %	25			$142,710
								Total	**69.83 %**	**44.06 %**			**$14,728,530.88**	**$33,426,720**

System Notes

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

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

Note: 98% - Paint & Covering
2% - Wall Tile (glazed block)

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

Note: 2% - Terrazzo & Tile (ceramic)
80% - Vinyl Flooring
18% - Concrete Floor Finishes

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:	**$14,728,531**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$136,905**	**$722,987**	**$0**	**$1,544,857**	**$17,133,280**
*** 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	$283,035	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$283,035**
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	$17,717	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$17,717**
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	$12,916	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$12,916**
B2020 - Exterior Windows	$1,740,920	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,740,920**
B2030 - Exterior Doors	$87,948	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$87,948**
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	$1,387,373	**$1,387,373**
B3010120 - Single Ply Membrane	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3010130 - Preformed Metal Roofing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3010140 - Shingle & Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3020 - Roof Openings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$5,943	**$5,943**
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**

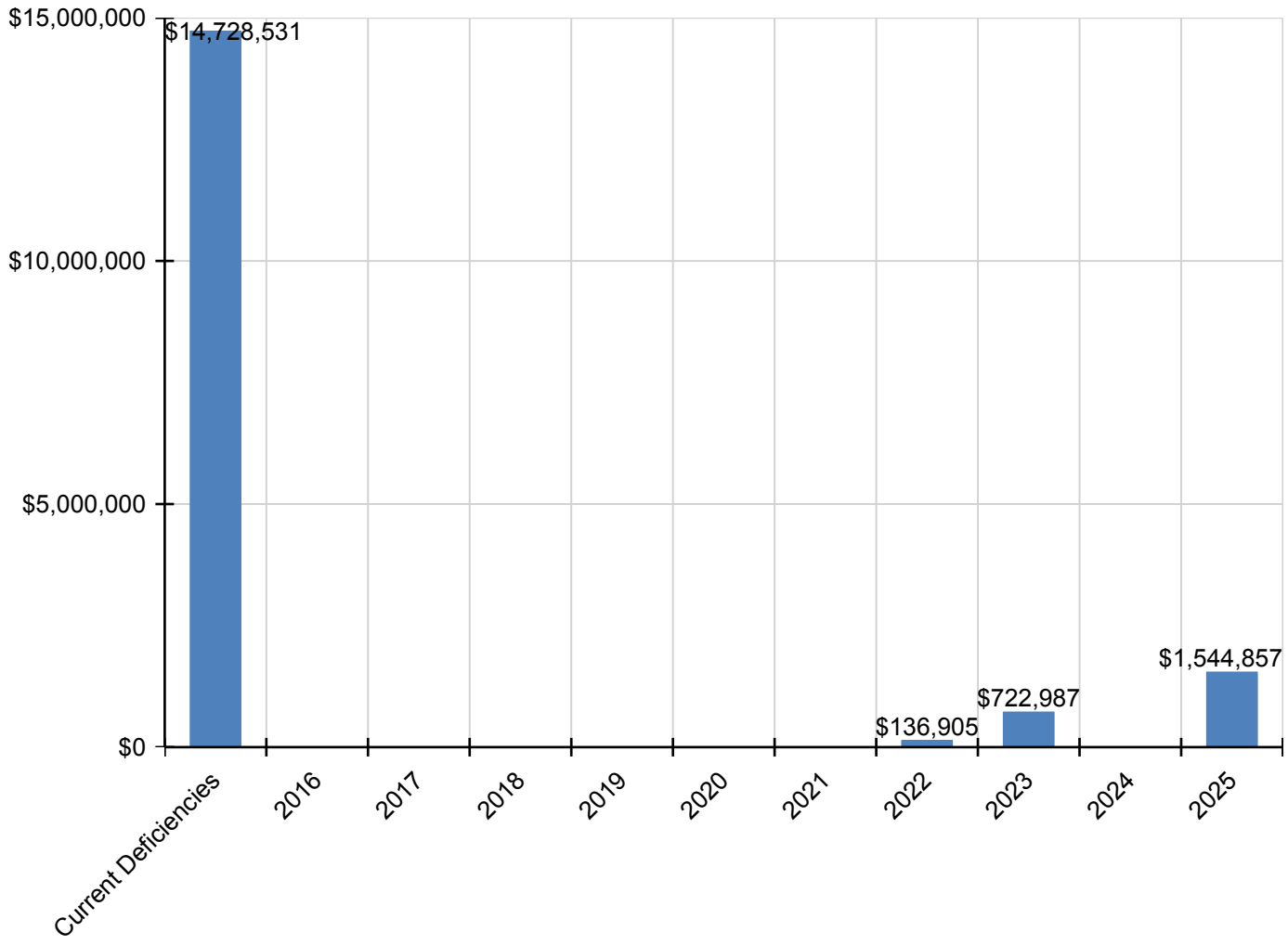
C1020 - Interior Doors	$386,418	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$386,418**
C1030 - Fittings	$67,583	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$67,583**
C20 - Stairs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C2010 - Stair Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C30 - Interior Finishes	$0	$0	$0	$0	$0	$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	$650,959	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$650,959**
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	$136,905	$0	$0	$0	**$136,905**
C3020413 - Vinyl Flooring	$0	$0	$0	$0	$0	$0	$0	$0	$722,987	$0	$0	**$722,987**
C3020414 - Wood Flooring	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020415 - Concrete Floor Finishes	$25,052	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$25,052**
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**
D10 - Conveying	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D1010 - Elevators and Lifts	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$151,541	**$151,541**
D20 - Plumbing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2010 - Plumbing Fixtures	$357,793	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$357,793**
D2020 - Domestic Water Distribution	$339,513	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$339,513**
D2030 - Sanitary Waste	$328,685	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$328,685**
D2040 - Rain Water Drainage	$297,107	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$297,107**
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	$1,051,043	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,051,043**
D3040 - Distribution Systems	$3,757,540	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$3,757,540**
D3050 - Terminal & Package Units	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3060 - Controls & Instrumentation	$1,437,288	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,437,288**
D40 - Fire Protection	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D4010 - Sprinklers	$958,466	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$958,466**
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	$710,160	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$710,160**
D5020 - Lighting and Branch Wiring	$922,940	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$922,940**
D5030 - Communications and Security	$753,483	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$753,483**
D5090 - Other Electrical Systems	$422,712	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$422,712**
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	$119,254	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$119,254**
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

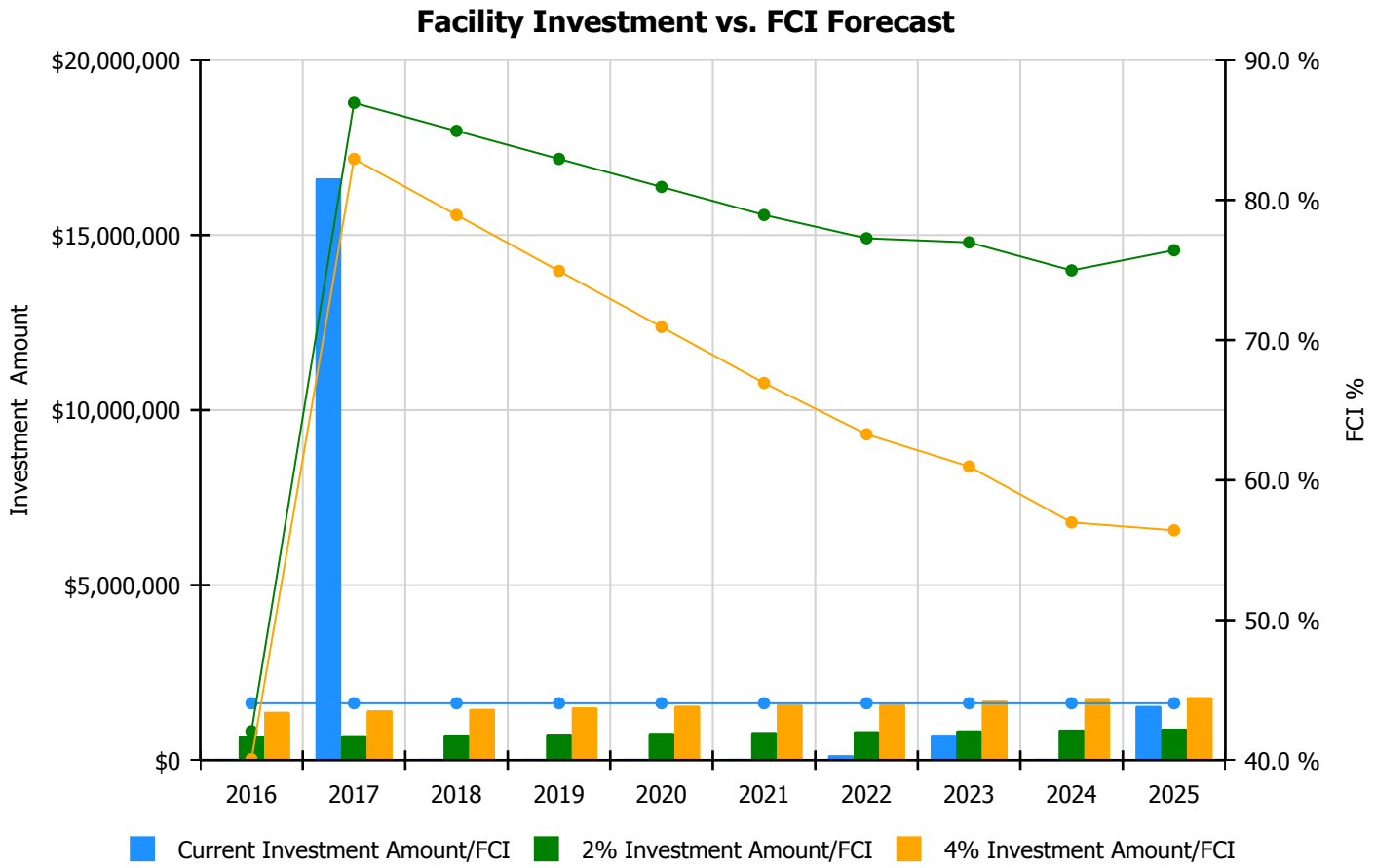
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



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:

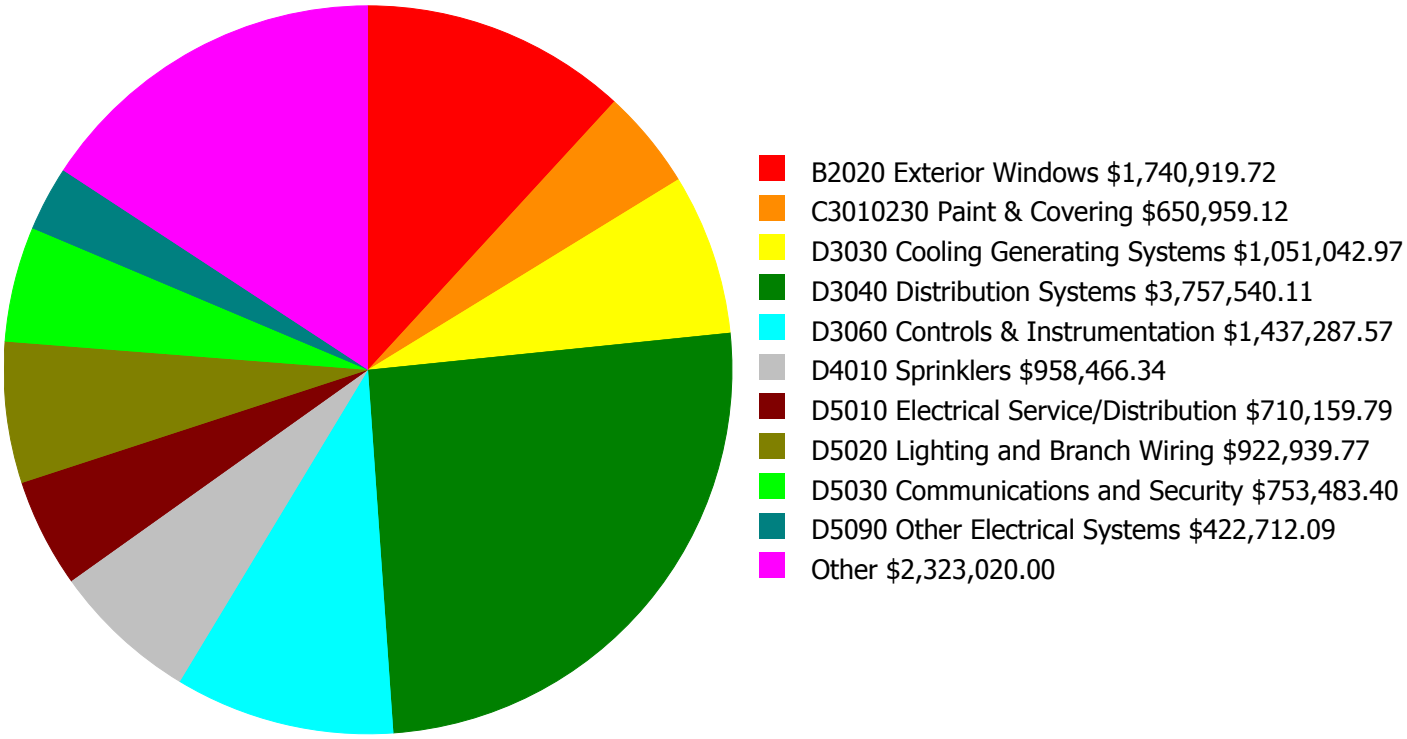
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 44.06%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$688,590.00	42.06 %	$1,377,181.00	40.06 %
2017	$16,622,839	$709,248.00	86.94 %	$1,418,496.00	82.94 %
2018	$0	$730,526.00	84.94 %	$1,461,051.00	78.94 %
2019	$0	$752,441.00	82.94 %	$1,504,883.00	74.94 %
2020	$0	$775,015.00	80.94 %	$1,550,029.00	70.94 %
2021	$0	$798,265.00	78.94 %	$1,596,530.00	66.94 %
2022	$136,905	$822,213.00	77.27 %	$1,644,426.00	63.27 %
2023	$722,987	$846,879.00	76.98 %	$1,693,759.00	60.98 %
2024	$0	$872,286.00	74.98 %	$1,744,572.00	56.98 %
2025	$1,544,857	$898,454.00	76.42 %	$1,796,909.00	56.42 %
Total:	**$19,027,588**	**$7,893,917.00**		**$15,787,836.00**	

Deficiency Summary by System

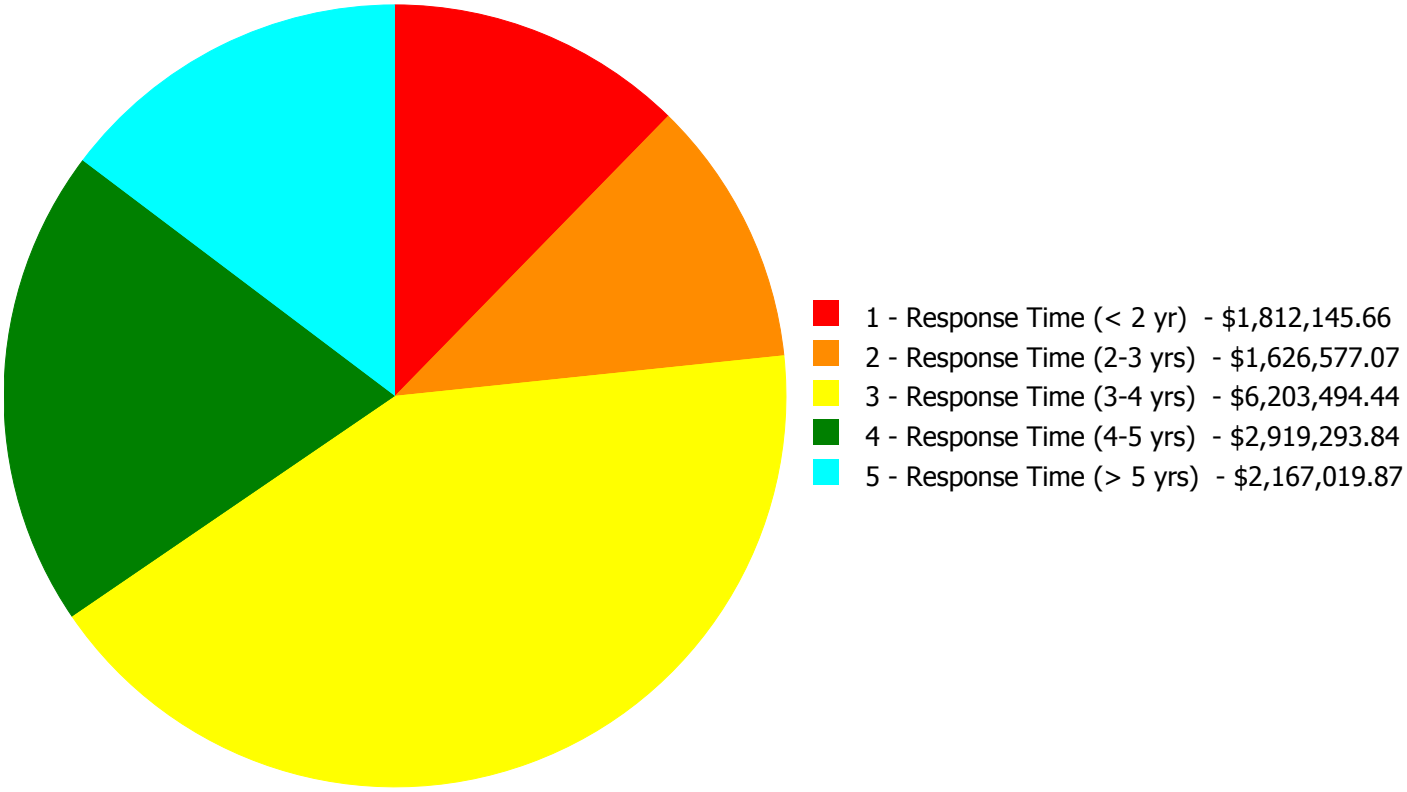
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $14,728,530.88

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: $14,728,530.88

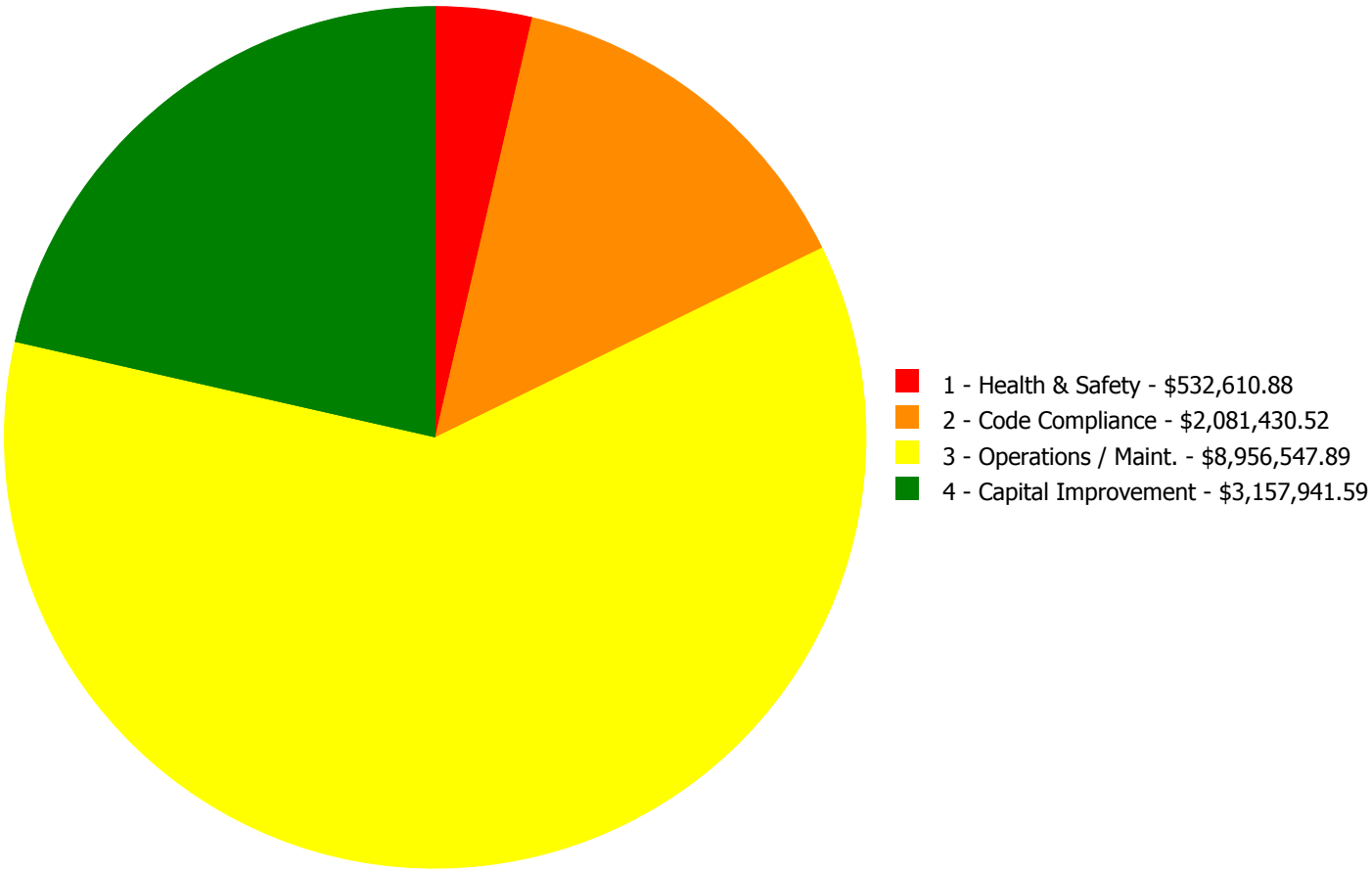
Deficiency By Priority Investment Table

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
A1030	Slab on Grade	$0.00	$283,035.04	$0.00	$0.00	$0.00	$283,035.04
A2020	Basement Walls	$0.00	$17,716.67	$0.00	$0.00	$0.00	$17,716.67
B2010	Exterior Walls	$0.00	$12,915.80	$0.00	$0.00	$0.00	$12,915.80
B2020	Exterior Windows	$0.00	$0.00	$0.00	$1,740,919.72	$0.00	$1,740,919.72
B2030	Exterior Doors	$0.00	$87,948.08	$0.00	$0.00	$0.00	$87,948.08
C1020	Interior Doors	$0.00	$0.00	$386,417.56	$0.00	$0.00	$386,417.56
C1030	Fittings	$0.00	$51,328.09	$0.00	$16,254.75	$0.00	$67,582.84
C3010230	Paint & Covering	$0.00	$650,959.12	$0.00	$0.00	$0.00	$650,959.12
C3020415	Concrete Floor Finishes	$0.00	$25,052.35	$0.00	$0.00	$0.00	$25,052.35
D2010	Plumbing Fixtures	$0.00	$0.00	$334,198.75	$23,594.12	$0.00	$357,792.87
D2020	Domestic Water Distribution	$0.00	$0.00	$0.00	$339,512.78	$0.00	$339,512.78
D2030	Sanitary Waste	$0.00	$0.00	$328,685.26	$0.00	$0.00	$328,685.26
D2040	Rain Water Drainage	$0.00	$0.00	$297,106.82	$0.00	$0.00	$297,106.82
D3030	Cooling Generating Systems	$0.00	$0.00	$0.00	$0.00	$1,051,042.97	$1,051,042.97
D3040	Distribution Systems	$853,679.32	$85,863.15	$1,702,020.74	$0.00	$1,115,976.90	$3,757,540.11
D3060	Controls & Instrumentation	$0.00	$0.00	$1,437,287.57	$0.00	$0.00	$1,437,287.57
D4010	Sprinklers	$958,466.34	$0.00	$0.00	$0.00	$0.00	$958,466.34
D5010	Electrical Service/Distribution	$0.00	$411,758.77	$0.00	$298,401.02	$0.00	$710,159.79
D5020	Lighting and Branch Wiring	$0.00	$0.00	$922,939.77	$0.00	$0.00	$922,939.77
D5030	Communications and Security	$0.00	$0.00	$372,125.88	$381,357.52	$0.00	$753,483.40
D5090	Other Electrical Systems	$0.00	$0.00	$422,712.09	$0.00	$0.00	$422,712.09
E1020	Institutional Equipment	$0.00	$0.00	$0.00	$119,253.93	$0.00	$119,253.93
	Total:	$1,812,145.66	$1,626,577.07	$6,203,494.44	$2,919,293.84	$2,167,019.87	$14,728,530.88

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: $14,728,530.88

Deficiency Details by Priority

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

Priority 1 - Response Time (< 2 yr):

System: D3040 - Distribution Systems

Location: Throughout building
Distress: Failing
Category: 3 - Operations / Maint.
Priority: 1 - Response Time (< 2 yr)
Correction: Perform testing to identify and replace damaged steam and condensate piping.
Qty: 67,000.00
Unit of Measure: S.F.
Estimate: $633,845.05
Assessor Name: System
Date Created: 02/04/2016

Notes: Hire a qualified contractor to examine the steam and condensate piping, in service for almost 65 years and which is leaking, and perform additional testing to locate and replace any damaged piping and to further quantify the extent of potential failures.

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: 67,000.00
Unit of Measure: S.F.
Estimate: $219,834.27
Assessor Name: System
Date Created: 02/04/2016

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: 67,000.00

Unit of Measure: S.F.

Estimate: $958,466.34

Assessor Name: System

Date Created: 02/04/2016

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: A1030 - Slab on Grade

Location: Basement

Distress: Building Envelope Integrity

Category: 3 - Operations / Maint.

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

Correction: Provide dewatering sump basin w/duplex pumps and under slab drain tile

Qty: 4.00

Unit of Measure: Ea.

Estimate: $283,035.04

Assessor Name: System

Date Created: 02/11/2016

Notes: Provide dewatering sump basins w/duplex pumps and under slab drain tile

System: A2020 - Basement Walls

Location: Basement

Distress: Health Hazard / Risk

Category: 1 - Health & Safety

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

Correction: Mold abatement on basement walls - insert proper quantities

Qty: 8,610.00

Unit of Measure: S.F.

Estimate: $17,716.67

Assessor Name: System

Date Created: 02/11/2016

Notes: Remediate mold in basement area

System: B2010 - Exterior Walls

Location: Exterior

Distress: Maintenance Required

Category: 3 - Operations / Maint.

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

Correction: Repair cracks in masonry - replace missing mortar and repoint - SF of wall area

Qty: 400.00

Unit of Measure: S.F.

Estimate: $12,915.80

Assessor Name: System

Date Created: 02/11/2016

Notes: Repair cracks in exterior brick masonry

System: B2030 - Exterior Doors

Location: Throughout

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace exterior doors - per leaf

Qty: 10.00

Unit of Measure: Ea.

Estimate: $80,960.80

Assessor Name: System

Date Created: 02/11/2016

Notes: Replace exterior doors – beyond service life and damaged

System: B2030 - Exterior Doors

Location: Entrance

Distress: Accessibility

Category: 2 - Code Compliance

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

Correction: Replace hardware with compliant hardware, paint and weatherstrip - per leaf

Qty: 2.00

Unit of Measure: Ea.

Estimate: $6,987.28

Assessor Name: System

Date Created: 02/11/2016

Notes: Install accessible door hardware on at least one entrance

System: C1030 - Fittings

Location: Toilets

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Remove and replace toilet partitions

Qty: 20.00

Unit of Measure: Ea.

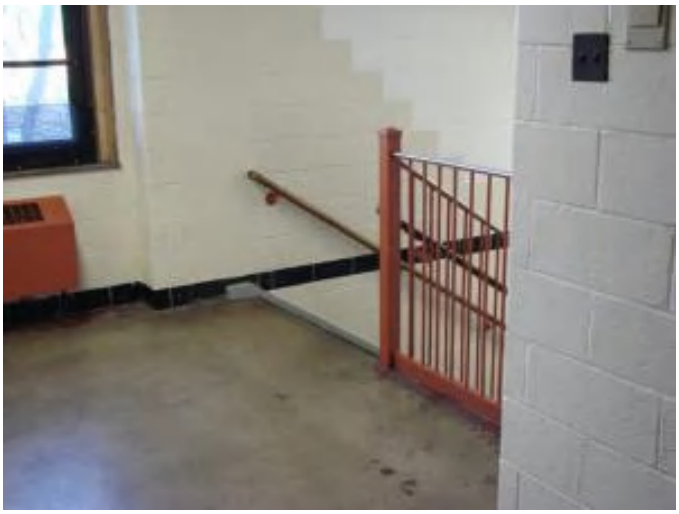
Estimate: $51,328.09

Assessor Name: System

Date Created: 02/11/2016

Notes: Replace toilet partitions – missing and damaged

System: C3010230 - Paint & Covering



Location: Throughout

Distress: Appearance

Category: 3 - Operations / Maint.

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

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

Qty: 107,200.00

Unit of Measure: S.F.

Estimate: $650,959.12

Assessor Name: System

Date Created: 02/11/2016

Notes: Repaint interior wall surfaces – 80% beyond service life

System: C3020415 - Concrete Floor Finishes

Location: Toilet

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Repair spalled concrete floor surface

Qty: 350.00

Unit of Measure: S.F.

Estimate: $25,052.35

Assessor Name: System

Date Created: 02/11/2016

Notes: Repair and replace flooring in toilet – damaged

System: D3040 - Distribution Systems

Location: Boiler room

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Replace vacuum condensate pump set (duplex)

Qty: 1.00

Unit of Measure: Ea.

Estimate: $85,863.15

Assessor Name: System

Date Created: 02/04/2016

Notes: Replace the vacuum condensate receiver tank and three (3) associated 2HP boiler feed pumps which are damaged from rust.

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: 02/17/2016

Notes: Install new 120V lighting and receptacle panels throughout the building (total of 10)

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

System: C1020 - Interior Doors

Location: Throughout

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 81.00

Unit of Measure: Ea.

Estimate: $386,417.56

Assessor Name: System

Date Created: 02/11/2016

Notes: Replace interior doors – beyond service life

System: D2010 - Plumbing Fixtures

Location: Restrooms

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 27.00

Unit of Measure: Ea.

Estimate: $201,836.09

Assessor Name: System

Date Created: 02/04/2016

Notes: Replace twenty-seven (27) water closets, in use beyond their service life, with new code compliant fixtures.

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 water fountains to meet ADA - includes high and low fountains and new recessed alcove

Qty: 4.00

Unit of Measure: Ea.

Estimate: $62,771.59

Assessor Name: System

Date Created: 02/04/2016

Notes: Replace four (4) drinking fountains in the corridors. These units are beyond their service life and most are NOT accessible type.

System: D2010 - Plumbing Fixtures

Location: Restrooms

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace or replace wall hung urinals

Qty: 16.00

Unit of Measure: Ea.

Estimate: $53,105.34

Assessor Name: System

Date Created: 02/04/2016

Notes: Replace sixteen (16) urinals, in use beyond their service life, with new low flow fixtures.

System: D2010 - Plumbing Fixtures

Location: Restrooms

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace or replace lavatory - quantify accessible if required

Qty: 3.00

Unit of Measure: Ea.

Estimate: $16,485.73

Assessor Name: System

Date Created: 02/04/2016

Notes: Replace three (3) lavatories, in use beyond their service life, with new code compliant fixtures.

System: D2030 - Sanitary Waste

Location: Throughout building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 67,000.00

Unit of Measure: S.F.

Estimate: $328,685.26

Assessor Name: System

Date Created: 02/04/2016

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: 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: 67,000.00

Unit of Measure: S.F.

Estimate: $297,106.82

Assessor Name: System

Date Created: 02/04/2016

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: D3040 - Distribution Systems

Location: Classrooms

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace classroom unit ventilator (htg/clg coils, 5 tons, 2,000 CFM)

Qty: 30.00

Unit of Measure: Ea.

Estimate: $1,496,360.18

Assessor Name: System

Date Created: 02/04/2016

Notes: Remove the existing unit ventilators 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: Mechanical closet

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace utility set exhaust fan (5 HP)

Qty: 5.00

Unit of Measure: Ea.

Estimate: $180,619.58

Assessor Name: System

Date Created: 02/04/2016

Notes: Replace five (5) exhaust fans, located on the first and third floors, serving the restrooms which are well beyond their service lives.

System: D3040 - Distribution Systems

Location: Roof

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace rooftop gravity ventilator units - select the proper type and size

Qty: 13.00

Unit of Measure: Ea.

Estimate: $25,040.98

Assessor Name: System

Date Created: 02/04/2016

Notes: Replace thirteen (13) roof mounted gravity ventilators which are beyond their service lives.

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: 67,000.00

Unit of Measure: S.F.

Estimate: $1,437,287.57

Assessor Name: System

Date Created: 02/04/2016

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: $573,215.62

Assessor Name: System

Date Created: 02/17/2016

Notes: Install new lighting system for 80% of the building.
67,000 SF x 80% = 53,600 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: $349,724.15

Assessor Name: System

Date Created: 02/17/2016

Notes: Install new receptacles for 80% of the building.
67,000 SF x 80% = 53,600 SF

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: $372,125.88

Assessor Name: System

Date Created: 02/17/2016

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: $247,633.42
Assessor Name: System
Date Created: 02/17/2016

Notes: Install new exit lights and emergency lights.

System: D5090 - Other Electrical Systems

This deficiency has no image.

Location: electrical room
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 3 - Response Time (3-4 yrs)
Correction: Replace standby generator system
Qty: 1.00
Unit of Measure: Ea.
Estimate: $175,078.67
Assessor Name: System
Date Created: 02/17/2016

Notes: Install a new Emergency generator
Note: There is no picture attached since presently there is no emergency generator in school.

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

System: B2020 - Exterior Windows

Location: Throughout

Distress: Energy Efficiency

Category: 4 - Capital Improvement

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

Correction: Remove and replace double slider windows

Qty: 345.00

Unit of Measure: Ea.

Estimate: $1,740,919.72

Assessor Name: System

Date Created: 02/11/2016

Notes: Replace exterior widows for energy efficiency

System: C1030 - Fittings

Location: Throughout

Distress: Inadequate

Category: 4 - Capital Improvement

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

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

Qty: 60.00

Unit of Measure: Ea.

Estimate: $16,254.75

Assessor Name: System

Date Created: 02/11/2016

Notes: Install interior ID signage

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 wall janitor or mop sink - insert the quantity

Qty: 3.00

Unit of Measure: Ea.

Estimate: $23,594.12

Assessor Name: System

Date Created: 02/04/2016

Notes: Replace three (3) service sinks, located in janitor closets on each floor, which are beyond their service lives.

System: D2020 - Domestic Water Distribution

Location: Throughout building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace domestic water piping (75 KSF)

Qty: 67,000.00

Unit of Measure: S.F.

Estimate: $339,512.78

Assessor Name: System

Date Created: 02/04/2016

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: 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: $298,401.02

Assessor Name: System

Date Created: 02/17/2016

Notes: Install a new and upgraded electrical service for this school to handle existing loads plus any additional 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: Replace clock/program system

Qty: 0.00

Unit of Measure: Ea.

Estimate: $238,589.19

Assessor Name: System

Date Created: 02/17/2016

Notes: Install new clock system

System: D5030 - Communications and Security

Location: throughout the building

Distress: Health Hazard / Risk

Category: 1 - Health & Safety

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

Correction: Add/Replace Video Surveillance System

Qty: 1.00

Unit of Measure: Ea.

Estimate: $142,768.33

Assessor Name: System

Date Created: 02/17/2016

Notes: Install additional video surveillance system for indoor and outdoor.

System: E1020 - Institutional Equipment

Location: Auditorium

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Add/Replace Stage Theatrical Lighting System

Qty: 1.00

Unit of Measure: Ea.

Estimate: $119,253.93

Assessor Name: System

Date Created: 02/17/2016

Notes: Install an upgraded auditorium stage lighting, lighting control and sound system.

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: 67,000.00

Unit of Measure: S.F.

Estimate: $1,051,042.97

Assessor Name: System

Date Created: 02/04/2016

Notes: Remove the window air conditioning units and install a 190 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: Auditorium

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 360.00

Unit of Measure: Seat

Estimate: $513,153.72

Assessor Name: System

Date Created: 02/04/2016

Notes: 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/Cafeteria

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.

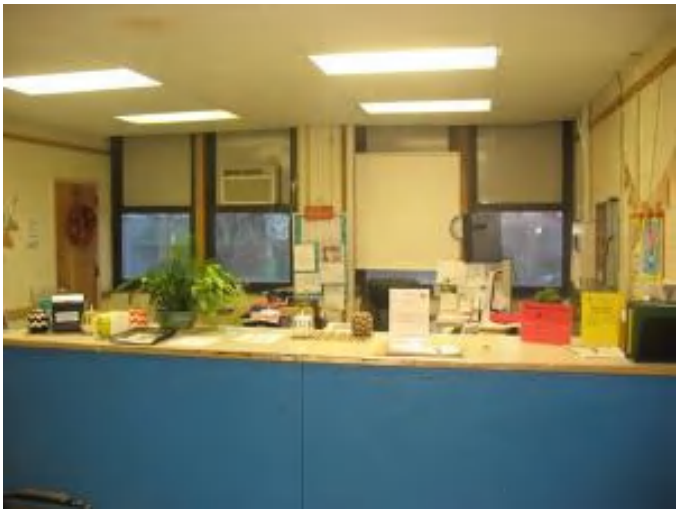
Estimate: $344,860.27

Assessor Name: System

Date Created: 02/04/2016

Notes: Provide ventilation for the Gymnasium/Cafeteria 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: 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: 596.00

Unit of Measure: Student

Estimate: $257,962.91

Assessor Name: System

Date Created: 02/04/2016

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
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, hot water, gross output, 5256 MBH, includes burners, controls and insulated jacket, packaged	2.00	Ea.	Boiler Room	HB Smith	4500A-S/W-15			35	2004	2039	$112,817.00	$248,197.40
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, hot water, gross output, 5256 MBH, includes burners, controls and insulated jacket, packaged	2.00	Ea.	Boiler Room	HB Smith	4500A-S/W-15			35	2004	2039	$112,817.00	$248,197.40
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	1952	2047	$42,600.60	$46,860.66
D5010 Electrical Service/Distribution	Panelboards, 3 pole 3 wire, main lugs, 240 V, 400 amp, no main breaker	3.00	Ea.	throughout the building					30	1952	2047	$2,297.70	$7,582.41
												Total:	**$550,837.87**

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):	77,400
Year Built:	1952
Last Renovation:	
Replacement Value:	$1,435,770
Repair Cost:	$442,028.80
Total FCI:	30.79 %
Total RSLI:	67.62 %

Description:

Attributes:

General Attributes:

Bldg ID:	S453001	Site ID:	S453001

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	55.66 %	23.81 %	$261,700.68
G40 - Site Electrical Utilities	106.67 %	53.56 %	$180,328.12
Totals:	**67.62 %**	**30.79 %**	**$442,028.80**

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	$7.65	S.F.	10,200	30	1995	2025		33.33 %	0.00 %	10			$78,030
G2030	Pedestrian Paving	$11.52	S.F.	55,500	40	1987	2027		30.00 %	19.88 %	12		$127,123.61	$639,360
G2040	Site Development	$4.36	S.F.	77,400	25	1987	2012	2042	108.00 %	39.88 %	27		$134,577.07	$337,464
G2050	Landscaping & Irrigation	$3.78	S.F.	11,700	15	1952	1967	2025	66.67 %	0.00 %	10			$44,226
G4020	Site Lighting	$3.58	S.F.	77,400	30	1952	1982	2047	106.67 %	35.33 %	32		$97,904.60	$277,092
G4030	Site Communications & Security	$0.77	S.F.	77,400	30	1952	1982	2047	106.67 %	138.30 %	32		$82,423.52	$59,598
								Total	**67.62 %**	**30.79 %**			**$442,028.80**	**$1,435,770**

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.

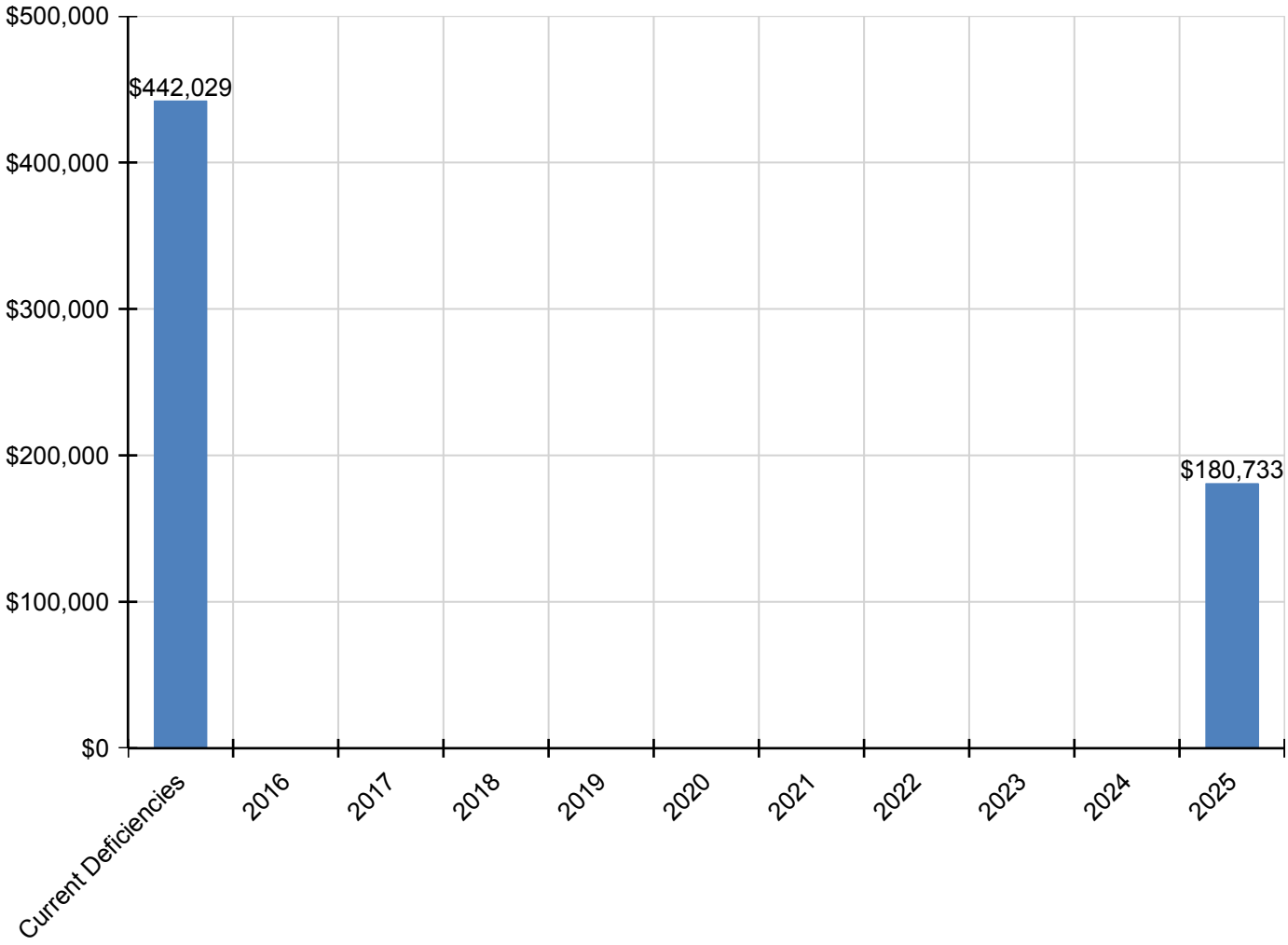
Inflation Rate: 3%

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Total:	**$442,029**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$180,733**	**$622,761**
G - Building Sitework	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G20 - Site Improvements	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G2010 - Roadways	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G2020 - Parking Lots	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$115,352	**$115,352**
G2030 - Pedestrian Paving	$127,124	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$127,124**
G2040 - Site Development	$134,577	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$134,577**
G2050 - Landscaping & Irrigation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$65,380	**$65,380**
G40 - Site Electrical Utilities	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G4020 - Site Lighting	$97,905	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$97,905**
G4030 - Site Communications & Security	$82,424	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$82,424**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

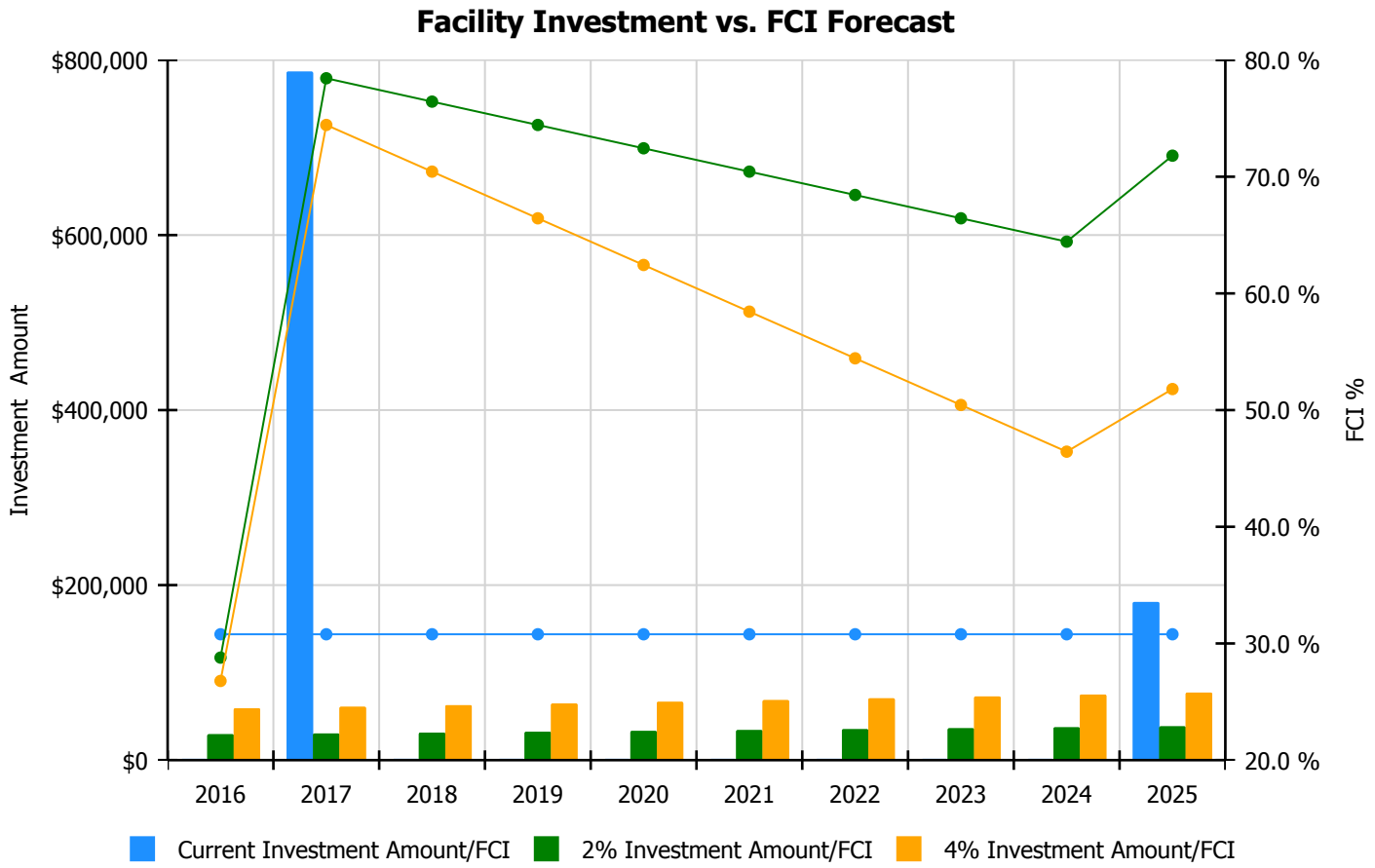
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



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:

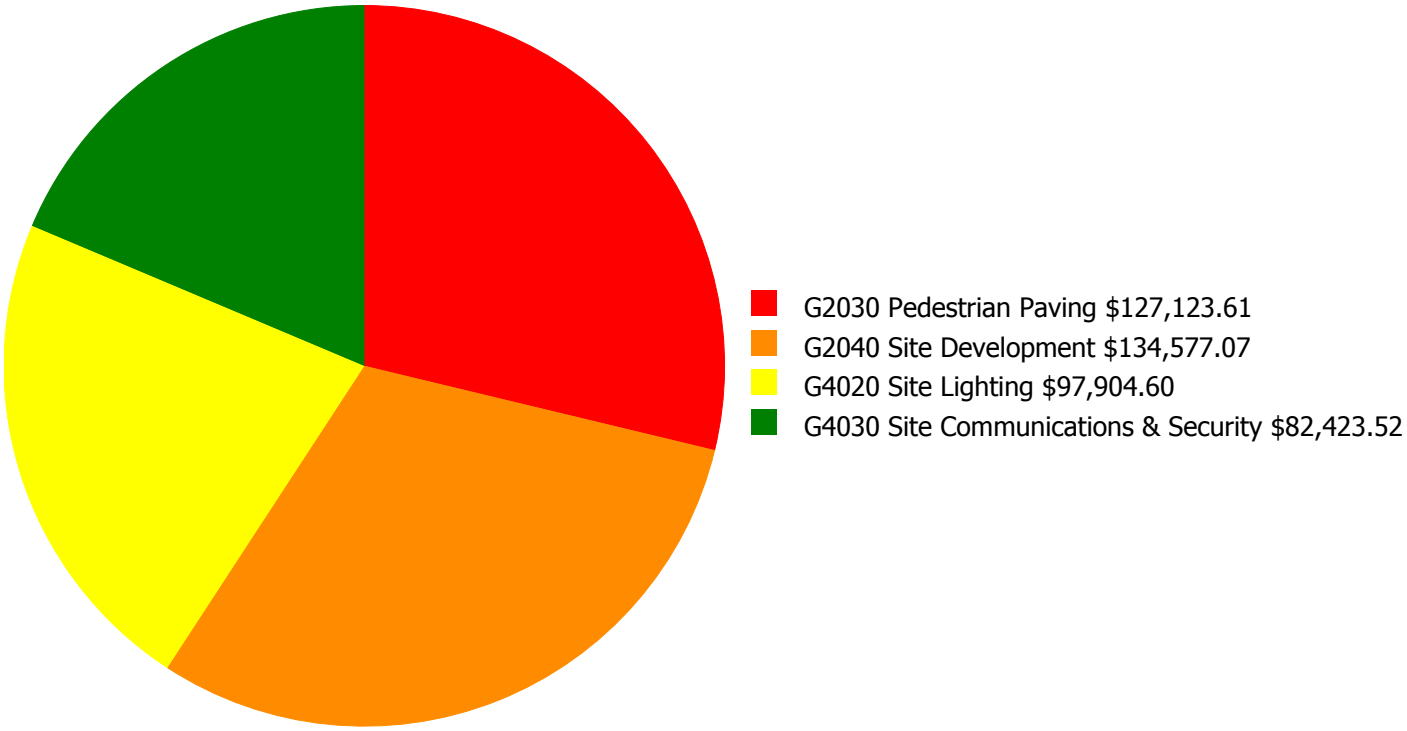
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 30.79%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$29,577.00	28.79 %	$59,154.00	26.79 %
2017	$786,731	$30,464.00	78.44 %	$60,928.00	74.44 %
2018	$0	$31,378.00	76.44 %	$62,756.00	70.44 %
2019	$0	$32,319.00	74.44 %	$64,639.00	66.44 %
2020	$0	$33,289.00	72.44 %	$66,578.00	62.44 %
2021	$0	$34,288.00	70.44 %	$68,575.00	58.44 %
2022	$0	$35,316.00	68.44 %	$70,633.00	54.44 %
2023	$0	$36,376.00	66.44 %	$72,752.00	50.44 %
2024	$0	$37,467.00	64.44 %	$74,934.00	46.44 %
2025	$180,733	$38,591.00	71.80 %	$77,182.00	51.80 %
Total:	**$967,463**	**$339,065.00**		**$678,131.00**	

Deficiency Summary by System

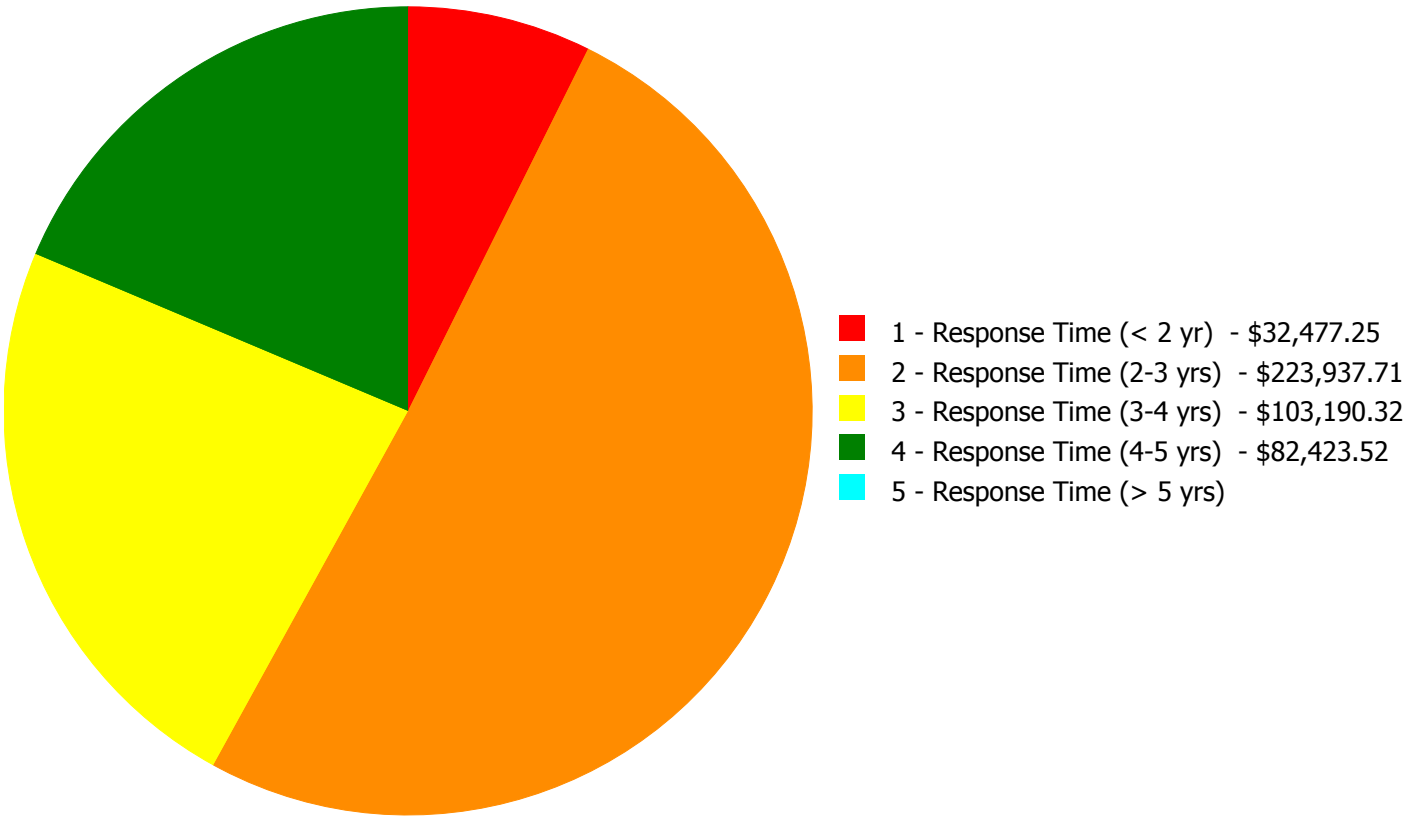
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $442,028.80

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: $442,028.80

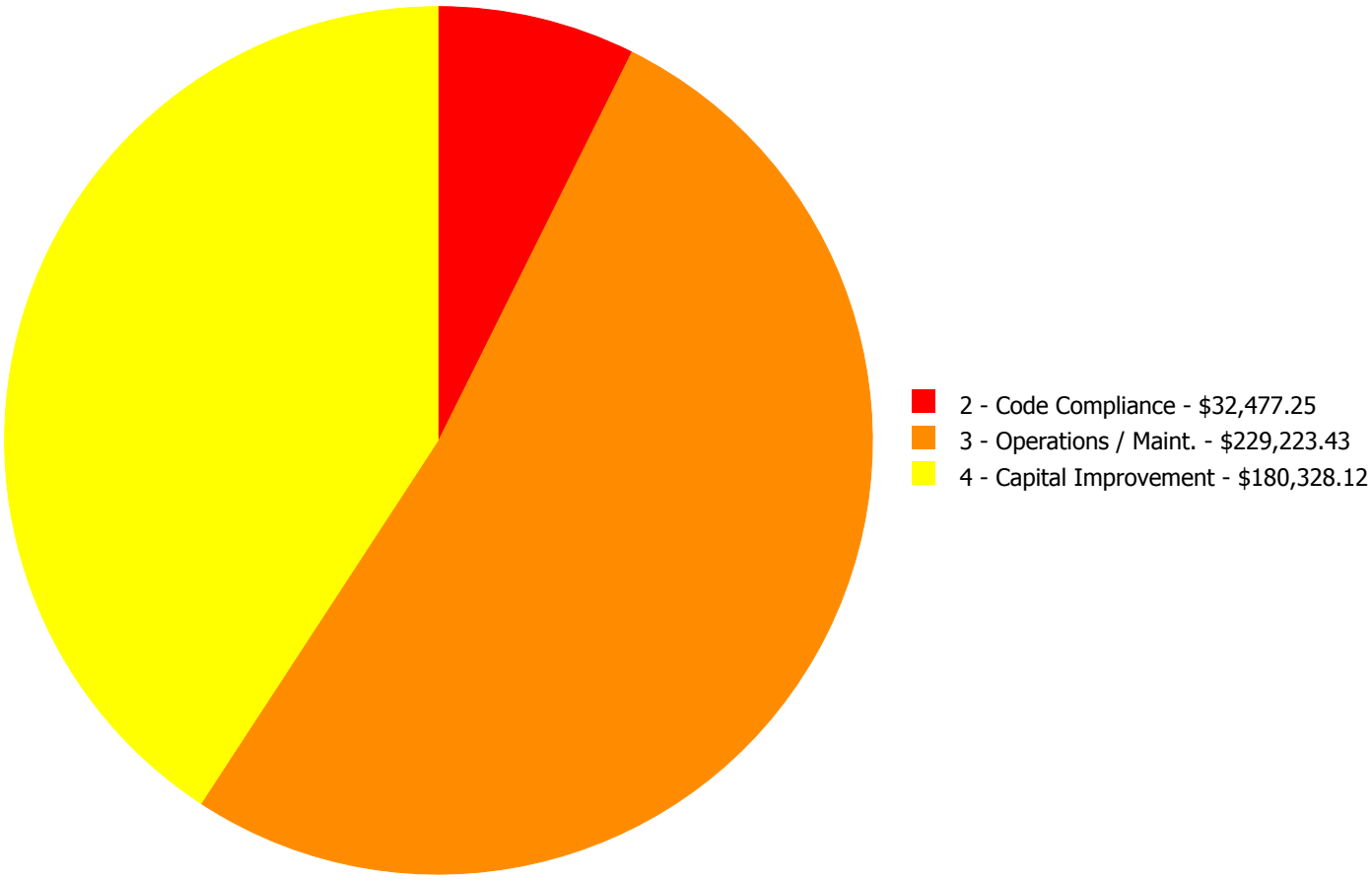
Deficiency By Priority Investment Table

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
G2030	Pedestrian Paving	$32,477.25	$89,360.64	$5,285.72	$0.00	$0.00	$127,123.61
G2040	Site Development	$0.00	$134,577.07	$0.00	$0.00	$0.00	$134,577.07
G4020	Site Lighting	$0.00	$0.00	$97,904.60	$0.00	$0.00	$97,904.60
G4030	Site Communications & Security	$0.00	$0.00	$0.00	$82,423.52	$0.00	$82,423.52
	Total:	$32,477.25	$223,937.71	$103,190.32	$82,423.52	$0.00	$442,028.80

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: $442,028.80

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: G2030 - Pedestrian Paving

Location: Entrance

Distress: Accessibility

Category: 2 - Code Compliance

Priority: 1 - Response Time (< 2 yr)

Correction: Install an exterior ADA ramp - based on 5' wide by the linear foot - up to a 48" rise - per LF of ramp - figure 1 LF per inch of rise

Qty: 25.00

Unit of Measure: L.F.

Estimate: $32,477.25

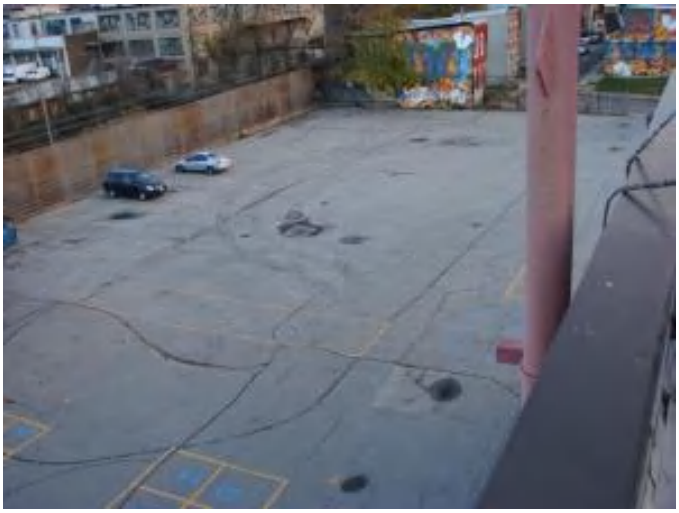
Assessor Name: Craig Anding

Date Created: 02/11/2016

Notes: Install accessible ramp on at least one main entrance

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

System: G2030 - Pedestrian Paving



Location: Play yard

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace concrete sidewalk or concrete paving - 4" concrete thickness

Qty: 6,213.00

Unit of Measure: S.F.

Estimate: $89,360.64

Assessor Name: Iraj Boroumand

Date Created: 02/11/2016

Notes: Repair play yard concrete – damaged

System: G2040 - Site Development

Location: Yard

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace chain link fence - 6' high

Qty: 1,500.00

Unit of Measure: L.F.

Estimate: $134,577.07

Assessor Name: Iraj Boroumand

Date Created: 02/11/2016

Notes: Replace chain link fencing surrounding site – beyond service life

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

System: G2030 - Pedestrian Paving

Location: Playground

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Remove and replace resilient playground surface

Qty: 200.00

Unit of Measure: S.F.

Estimate: $5,285.72

Assessor Name: Iraj Boroumand

Date Created: 02/11/2016

Notes: Replace playground fall protection surface – damaged

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: $97,904.60

Assessor Name: Iraj Boroumand

Date Created: 02/17/2016

Notes: Install additional pole-mounted lights for the grounds

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

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: $82,423.52

Assessor Name: Iraj Boroumand

Date Created: 02/17/2016

Notes: Install additional exterior speakers for the grounds

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