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.

Lankenau School

Governance	DISTRICT	Report Type	High
Address	201 Spring Lane	Enrollment	344
	Philadelphia, Pa 19128	Grade Range	'09-12'
Phone/Fax	215-487-4465 / 215-487-4879	Admissions Category	Special Admit
Website	Www.Philasd.Org/Schools/Lankenau	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	**38.99%**	**$17,208,739**	**$44,137,562**
Building	39.89 %	$16,527,176	$41,431,886
Grounds	25.19 %	$681,563	$2,705,676

Major Building Systems

Building System	System FCI	Repair Costs	Replacement Cost
Roof (Shows physical condition of roof)	00.00 %	$0	$755,346
Exterior Walls (Shows condition of the structural condition of the exterior facade)	00.00 %	$0	$2,310,280
Windows (Shows functionality of exterior windows)	00.00 %	$0	$1,008,620
Exterior Doors (Shows condition of exterior doors)	00.00 %	$0	$123,580
Interior Doors (Classroom doors)	19.00 %	$52,874	$278,240
Interior Walls (Paint and Finishes)	00.00 %	$0	$977,540
Plumbing Fixtures	01.95 %	$45,475	$2,336,920
Boilers	04.29 %	$59,338	$1,381,580
Chillers/Cooling Towers	00.00 %	$0	$1,811,520
Radiators/Unit Ventilators/HVAC	238.04 %	$7,572,710	$3,181,260
Heating/Cooling Controls	158.90 %	$1,587,457	$999,000
Electrical Service and Distribution	104.90 %	$752,942	$717,800
Lighting	52.74 %	$1,353,478	$2,566,320
Communications and Security (Cameras, Pa System and Fire Alarm)	16.39 %	$157,584	$961,260

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

S654001;Lankenau

Final

Site Assessment Report

February 2, 2017

PARSONS

Table of Contents

Site Executive Summary

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

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

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

Gross Area (SF):	74,000
Year Built:	1971
Last Renovation:	
Replacement Value:	$44,137,562
Repair Cost:	$17,208,738.91
Total FCI:	38.99 %
Total RSLI:	68.76 %

Description:

Facility Assessment
September 2015

School District of Philadelphia
Lankenau Elementary School
201 Spring Ln
Philadelphia, PA 19128

74,000 SF / 347 Students / LN 04

GENERAL

The Lankenau Elementary school building is located at 201 Spring Ln in Philadelphia, PA. The two story with basement, approximately 74,000 square foot building was originally constructed in 1970. Part of the basement serves as a parking garage for approximately 26 cars. The balance houses mechanical spaces.

The Facility Area Coordinator did not accompany the Parsons assessment team to the site and was unable to provide input on current problems and planned renovation projects. Mr. Greg James, 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 original building typically rests on concrete foundations and concrete bearing walls that are not showing signs of settlement. There are no signs of moisture penetration through basement walls although during heavy rains there is excessive water ponding without positive drainage along the northeast corner of the building.

The main structure consists typically of load bearing concrete masonry units with "flexicore" precast ceiling panels supported on load bearing walls. The superstructure is in good condition.

The building envelope is typically face brick masonry with CMU backup. In general, masonry is in fair condition. Water penetration through walls has not been reported, however, some missing mortar, minor cracking has been observed.

The building windows are part of a Kalwall system with extruded aluminum frames translucent fiberglass panels and pivoting operable hopper window without insect screens. All windows are generally in fair to poor condition with minor deteriorated operable frames and hardware. All windows are single glazed, not energy efficient and beyond their service life.

The exterior doors are typically hollow metal doors and frames, painted. The doors are generally in fair condition; with full height piano hinges and weather-stripping. The entrances on the south side of the building leading to main lobby are half glazed steel doors in steel frames in fair condition.

Roofing system is a built-up system installed approximately in 1990 and in fair condition; gravel stop flashing was replaced in 2014.

INTERIORS:

The building partition wall types include painted CMU and gypsum board; generally in good condition. Folding partition between auditorium and cafeteria is in good condition.

Interior doors are in fair condition; but are missing ADA compliant hardware. The doors leading to exits stairways are hollow metal doors and frames in good condition.

Fittings include toilet accessories and toilet partitions, generally in good condition, installed approximately in 2000, no accessible compartments; chalkboards are mostly original in fair condition. Handrails and ornamental metals are generally in good condition. Built-in cabinets are wood in good condition, installed in mid 2000's. Interior identifying signage is typically directly painted on wall or door surfaces generally in poor condition.

The interior wall finishes in the building are generally painted CMU or drywall. Ceilings in classrooms are 2x4 suspended acoustical panels or exposed painted structural concrete panels. Ceilings in most corridors are 2x4 suspended acoustical panels and beyond their service life.

Flooring is mostly VCT with small areas of sealed concrete, carpet and ceramic tile in restrooms. Flooring in the kitchen is quarry tile in good condition. Most flooring is in fair to good condition.

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

Institutional and Commercial equipment includes: A/V equipment in good condition; gym equipment – basketball backstops in good condition. Other equipment includes kitchen equipment, generally in good condition.

Furnishings include fixed casework in classrooms, and other spaces are generally in good condition; window shades/blinds, generally in good condition.

CONVEYING SYSTEMS:

The building has 2100 lb hydraulic elevator, original to the building. Cabin size does not conform to ADA requirement and its finishes are old and deteriorating.

GROUNDS (SITE):

There is a parking lot at the northeast side of the site; pavement in the parking area is in fair condition, but striping is deteriorated with no accessible stalls or signage. The paving on the entry drive from Spring Lane is in very poor condition,

The handrails on the concrete stairs leading from front drop off area to the open lawn play area are in poor condition.

The landscaping is primarily grass around the playground and property line on the north side consists of mature and semi-mature trees and shrubs, generally well maintained.

ACCESSIBILITY:

Generally, the building has an accessible route per ADA requirements, however, floors other than the ground floor are not accessible due to non-compliant elevator cabin. Toilets are not equipped with accessible fixtures and accessories, such as grab bars, and accessible partitions. Most of the doors in the building do not have ADA required door handles.

MECHANICAL

Plumbing Fixtures

The original plumbing fixtures have been replaced. Fixtures in the restrooms on each floor consist of both floor and wall mounted flush valve water closets, wall hung urinals, and lavatories with both lever and wheel handle faucets. The installation date of the plumbing fixtures is unknown, but estimated to be within the last 15 years. Restrooms that are handicap accessible are available on each floor. With proper maintenance these fixtures should provide reliable service for the next 15-20 years.

Drinking fountains in the corridors and at the restrooms are wall hung with integral refrigerated coolers. Many are beyond their service life, several have been replaced, and should be replaced; most are NOT accessible type.

A mop basin is available in a janitor closet in the corridor on each floor for use by the janitorial staff.

The Kitchen, located adjacent to the Cafeterias, has one (1) sink; a three-compartment, stainless steel sink with lever operated faucets. A grease trap is not installed as only premade meals are served at the school and no cooking is done in the Kitchen. Chemicals are injected manually into the sanitizing basins.

Domestic Water Distribution

A 3” city water service enters the building room from Spring Street. A reduced pressure backflow preventer is located in the basement boiler room on the front side of the building, where the water service enters the building. The original domestic hot and cold water distribution piping is copper piping and sweat fittings. The maintenance staff reports no significant problems with scale build up in the domestic piping and the supply is adequate to the fixtures. The domestic water piping is beyond its service life and should be inspected and replaced as necessary by a qualified contractor.

One (1) Bradford White electric, 50 gallon, vertical hot water heater with circulating pump and storage tank supplies hot water for domestic use. The water heater was installed in 2013. The unit is located in the boiler room on the basement level. The domestic hot water heater is within its service life and should provide reliable service for the next 8-10 years. A water softener is not installed.

Sanitary Waste

The original storm and sanitary sewer piping is cast iron with hub and spigot fittings. Several sections have been replaced with cast iron piping with no-hub fittings or PVC piping. A septic tank located in the field behind the school handles sewage from the building. The maintenance staff reported mostly minor problems with the sanitary waste piping systems. However, the sewer piping has been in service for 45 years and will require more frequent attention from the maintenance staff as time passes. The District should hire a qualified contractor to examine the sanitary waste piping using video cameras to locate and replace any damaged piping and to further quantify the extent of potential failures. The building engineer did not report any issues with the septic tank but the District should inspect it on a regular basis.

This school does not have a sewage ejector or sump pump.

Rain Water Drainage

The rain water drains from the roof are routed through mechanical chases in the building and appear to be original. The piping is cast

iron with hub and spigot fittings and has been in use beyond its service life. The drain piping should be inspected by a qualified contractor and repaired as necessary.

Energy Supply

The building does not have a city gas service.

The oil supply is stored in a 10,000 gallon underground storage tank (UST) on the front side of the building, according to the Building Engineer. The fuel oil circulating pumps were not visible during the site visit and their condition is unknown. USTs have an anticipated service life of 20 years.

Heat Generating Systems

Building heating hot water is generated by one (1) 106HP Weil-McLain model 88 cast iron sectional boiler estimated to have been installed in 1990. The single boiler handles the building heating load in all winter weather conditions. The boiler is equipped with a Carlin burner designed to operate on fuel oil. Combustion air makeup is supplied by louvers equipped with motorized dampers. No major issues with the boiler were reported by the Building Engineer. Cast iron sectional boilers have an anticipated service life of 35 years or more; this unit has been in service approximately 25 years. The boiler appears to have been well maintained. The District should provide reliable service for the next 8 to 10 years.

Distribution Systems

A two pipe distribution system supplies building heating water to the roof top air handling units. The piping is black steel with threaded fittings; all piping in the boiler room was covered with insulation and appears to be in good condition. Two (2) hot water pumps circulate building hot water to the roof top units. One (1) 3HP end-suction pump, no name plate available, is the main hot water circulating pump. This pump is well beyond its service life and should be replaced. One (1) small in-line pump supplements the main pump. The heating hot water system is equipped with an expansion tank and air separator located in the boiler room. The Building Engineer did not report any issues with the distribution piping, but it is beyond its service life and should be inspected by a qualified contractor.

The school is heated and cooled by three (3) Governair model TL20 roof mounted packaged air handling units. Each unit is custom designed to have integral direct expansion (DX) condensers for air conditioning, hot water coils for heating, and integral outdoor air intake. Conditioned air is provided to the spaces within the building by these units and associated variable air volume (VAV) boxes and distribution ductwork within the building. Each unit serves approximately 1/3 of the building with HVAC-1 serving the North side of the building, HVAC-2 serving the central part of the building, and HVAC-3 serving the South side of the building. Each unit has a 15HP supply fan, a three or five horsepower return fan, two (2) compressors, and utilizes R-22 refrigerant which is being phased out of use. These three (3) units were installed in 1993, are approaching the end of their service lives, and should be replaced within the next 1-3 years.

Exhaust for the restrooms and Kitchen is provided by three (3) roof mounted exhaust fans. The two (2) fans serving the restrooms are beyond their service lives, no longer operational, and should be replaced. The one (1) fan serving the Kitchen is operational and within its service life. Three (3) roof mounted power ventilators allow relief air to escape from the building. These units are beyond their service life and should be replaced.

Terminal & Package Units

One (1) kitchen fume hood is installed above the warming oven. An Asul fire suppression system is installed on the hood. An automatic gas shut-off system is installed. The equipment looks to be within its service life.

Controls & Instrumentation

The original pneumatic systems still provide basic control functions. Pneumatic room thermostats are intended to control the temperature of each space, most of the thermostats still function at a basic level. Pneumatic control air is supplied by one (1) Champion air compressor and associated air dryer located in the boiler room. The pneumatic systems are beyond their service life and require too much attention from the maintenance staff. 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 does have standpipe in the stairwells.

The building is not equipped with fire stand pipe.

ELECTRICAL:

Site electrical service – The primary power is at 13.2KV from the street power pole which feeds a 500KVA dry-type transformer (13.2KV – 480V/277V) located inside the electrical room. There is also a second 13.2 KV to 120V power electrical service. The overall electrical service is not functioning adequately and has reached its useful service life (built in 1971). The main switchgear is rated at 600 Amp, 480 V, 3 phase, 4W, and is located in main electrical room. The PECO meter (PECO 01 017457) is also located inside the electrical room. The service entrance and the main building electrical distribution systems are not in good condition, and have reached the end of their service life. Also, the system has no extra capacity for the additional mechanical loads.

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

Receptacles- The receptacles in classrooms, computer rooms, libraries, and other areas are not adequate. There is a need for minimum of two receptacles on each wall of the classrooms.

Lighting- Interior building is illuminated by various types of fixtures. They include fluorescent lighting (T-8 and some T-12) in majority of the areas, including; classrooms, corridor, offices and Kitchen. Surface or pendant mounted industrial fluorescent fixtures are used in mechanical and electrical rooms. Gymnasium and cafeteria and multi-purpose rooms are also illuminated by Fluorescent fixtures. The majority of interior lighting fixtures are in a poor condition and have reached the end of their service life.

Fire alarm- The present Fire Alarm system is new (installed in 2015). It is automatic/addressable, and is in compliance with safety codes. There are manual pulls stations throughout the building. There is sufficient number of horn/strobes installed in the classrooms, corridors, offices and other areas in the school.

Telephone/LAN- The school telephone and data systems are new and working adequately. A main distribution frame (MDF) along with a telephone PBX system are providing 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. This system is working properly. The present Intercom System is functioning properly. Each class room is provided by with an intercom telephone service. The system permits paging and intercom communication between main office to each classroom, between each classroom to main office, and between classrooms to classrooms.

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

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

Security Systems-access control, video surveillance- The school is provided with a fairly new video surveillance system. Cameras are installed at exit doors, corridors, exterior, and other critical areas. These cameras are controlled by a Closed Circuit Television system (CCTV).

Emergency Power System - School is provided with a small 15 KW emergency generator. There is not adequate capacity for emergency lights and other emergency loads. The generator has reached the end of its useful service.

Emergency lighting system, including exit lighting- there are insufficient emergency lighting fixtures in corridors, library and other exit ways. Exit signs and emergency fixtures are old and beyond their useful life.

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

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

Site Lighting – There are several lighting poles on the grounds, however the majority of them are damaged and not working. Overall, the grounds are not adequately lighted for safety of the people and security of property.

Site Paging - The present Site paging System is not adequate. There are insufficient number of speaker on building's exterior walls.

RECOMMENDATIONS:

- Replace interior doors hardware for ADA accessibility
- Replace non-ADA compliant toilet partitions; reconfigure remaining toilet partitions
- Replace all carpeting
- Replace acoustical ceilings in corridors.
- Install new signage throughout.
- Replace existing elevator with an ADA compliant 2500 lb elevator serving all floors.
- Replace pavement on entry road from Spring Lane.
- Stripe spaces including accessible spaces, provide ADA signage.
- Replace handrail on exterior stairs.

- Replace six (6) wall hung drinking fountains and integral refrigerated coolers in the corridors. These units are well beyond their service life and are NOT accessible type.
- Hire a qualified contractor to perform a detailed inspection of the domestic water piping, in use for 45 years, 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.
- Hire a qualified contractor to examine the distribution piping, in service for 45 years, and replace any damaged piping and to further quantify the extent of potential failures.
- Replace one (1) 3HP end-suction hot water supply pump in the boiler room which is beyond its service life.
- Replace the three (3) approximately 60 ton roof mounted air handling units, associated ductwork, and VAV boxes which are all approaching the end of their service lives.
- Replace two (2) roof mounted exhaust fans serving the restrooms on the east and west sides of the building which are no longer operational.
- Replace three (3) roof mounted power ventilators allowing relief air to escape from the building which are beyond their service lives.
- Replace the existing controls for the HVAC systems with modern DDC modules, valves and actuators to improve reliability and energy efficiency. Provide a new building automation system (BAS) with communication interface to the preferred system in use throughout the District.
- Install a fire protection sprinkler system with quick response type heads to reduce insurance costs by providing protection for the property. A fire pump may be required depending on the available city water pressure.

- Install new Site electrical service 1500KVA, 480V, 3 Phase to feed the HVAC, lighting and receptacle loads.
- Install a new 480V, 3 phase switchgear.
- Install a new 120V/208V, 3 phase switchgear.
- Install new 120V panelboards throughout the building for lighting, and receptacles loads.
- Install new receptacles in all classrooms and other areas (minimum two receptacles on each wall).
- Install new a lighting system for the entire building.
- Install new emergency exit signs & emergency lights.
- Install a new 100KW Emergency Generator.
- Install a new Clock System.
- Install a new Lightning protection system with lightning rods on the roof.
- Install new site lighting for safety of the people and security of property.
- Install new site paging on building exterior walls.

Attributes:

General Attributes:

Active:	Open	Bldg Lot Tm:	Lot 4 / Tm 4
Status:	Accepted by SDP	Team:	Tm 4
Site ID:	S654001		

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.

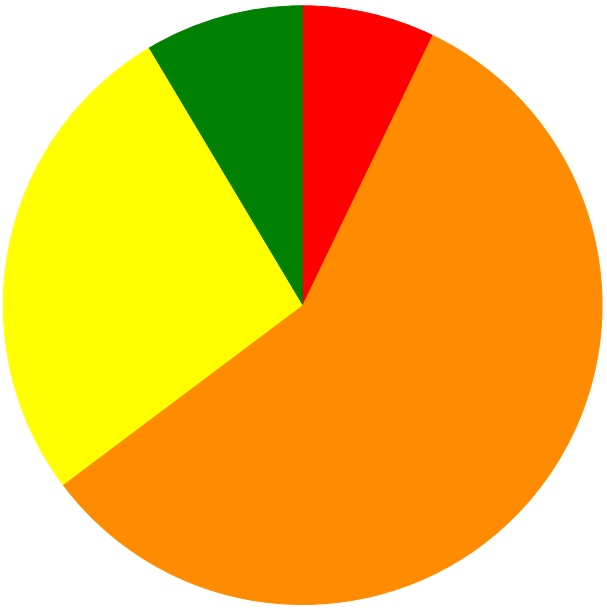
Current Investment Requirement and Condition by Uniformat Classification

UNIFORMAT Classification	RSLI%	FCI %	Current Repair
A10 - Foundations	56.00 %	0.00 %	$0.00
A20 - Basement Construction	56.00 %	0.00 %	$0.00
B10 - Superstructure	56.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	42.68 %	0.00 %	$0.00
B30 - Roofing	25.00 %	0.00 %	$0.00
C10 - Interior Construction	46.15 %	35.17 %	$593,590.86
C20 - Stairs	56.00 %	0.00 %	$0.00
C30 - Interior Finishes	71.67 %	22.62 %	$740,742.79
D10 - Conveying	105.71 %	353.59 %	$1,012,601.25
D20 - Plumbing	79.49 %	36.94 %	$1,111,633.29
D30 - HVAC	90.43 %	112.00 %	$9,219,504.93
D40 - Fire Protection	105.71 %	158.77 %	$1,058,601.61
D50 - Electrical	110.05 %	63.11 %	$2,790,501.17
E10 - Equipment	21.21 %	0.00 %	$0.00
E20 - Furnishings	32.50 %	0.00 %	$0.00
G20 - Site Improvements	33.83 %	14.91 %	$276,975.02
G40 - Site Electrical Utilities	106.67 %	47.70 %	$404,587.99
Totals:	**68.76 %**	**38.99 %**	**$17,208,738.91**

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)
B654001;Lankenau	74,000	39.89	$1,228,436.32	$9,892,381.53	$4,040,118.19	$1,366,239.86	$0.00
G654001;Grounds	195,000	25.19	$0.00	$22,438.71	$550,629.10	$108,495.20	$0.00
Total:		**38.99**	**$1,228,436.32**	**$9,914,820.24**	**$4,590,747.29**	**$1,474,735.06**	**$0.00**

Deficiencies By Priority



- 1 - Response Time (< 2 yr) - $1,228,436.32
- 2 - Response Time (2-3 yrs) - $9,914,820.24
- 3 - Response Time (3-4 yrs) - $4,590,747.29
- 4 - Response Time (4-5 yrs) - $1,474,735.06
- 5 - Response Time (> 5 yrs)

Budget Estimate Total: $17,208,738.91

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:	High School
Gross Area (SF):	74,000
Year Built:	1971
Last Renovation:	
Replacement Value:	$41,431,886
Repair Cost:	$16,527,175.90
Total FCI:	39.89 %
Total RSLI:	69.55 %

Description:

Attributes:

General Attributes:

Active:	Open	Bldg ID:	B654001
Sewage Ejector:	No	Status:	Accepted by SDP
Site ID:	S654001		

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	56.00 %	0.00 %	$0.00
A20 - Basement Construction	56.00 %	0.00 %	$0.00
B10 - Superstructure	56.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	42.68 %	0.00 %	$0.00
B30 - Roofing	25.00 %	0.00 %	$0.00
C10 - Interior Construction	46.15 %	35.17 %	$593,590.86
C20 - Stairs	56.00 %	0.00 %	$0.00
C30 - Interior Finishes	71.67 %	22.62 %	$740,742.79
D10 - Conveying	105.71 %	353.59 %	$1,012,601.25
D20 - Plumbing	79.49 %	36.94 %	$1,111,633.29
D30 - HVAC	90.43 %	112.00 %	$9,219,504.93
D40 - Fire Protection	105.71 %	158.77 %	$1,058,601.61
D50 - Electrical	110.05 %	63.11 %	$2,790,501.17
E10 - Equipment	21.21 %	0.00 %	$0.00
E20 - Furnishings	32.50 %	0.00 %	$0.00
Totals:	**69.55 %**	**39.89 %**	**$16,527,175.90**

Condition Detail

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

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

System Listing

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

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

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

System Code	System Description	Unit Price $	UoM	Qty	Life	Year Installed	Calc Next Renewal Year	Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency $	Replacement Value $
A1010	Standard Foundations	$24.32	S.F.	74,000	100	1971	2071		56.00 %	0.00 %	56			$1,799,680
A1030	Slab on Grade	$15.51	S.F.	74,000	100	1971	2071		56.00 %	0.00 %	56			$1,147,740
A2010	Basement Excavation	$13.07	S.F.	74,000	100	1971	2071		56.00 %	0.00 %	56			$967,180
A2020	Basement Walls	$23.02	S.F.	74,000	100	1971	2071		56.00 %	0.00 %	56			$1,703,480
B1010	Floor Construction	$92.20	S.F.	74,000	100	1971	2071		56.00 %	0.00 %	56			$6,822,800
B1020	Roof Construction	$24.11	S.F.	74,000	100	1971	2071		56.00 %	0.00 %	56			$1,784,140
B2010	Exterior Walls	$31.22	S.F.	74,000	100	1971	2071		56.00 %	0.00 %	56			$2,310,280
B2020	Exterior Windows	$13.63	S.F.	74,000	40	1971	2011	2020	12.50 %	0.00 %	5			$1,008,620
B2030	Exterior Doors	$1.67	S.F.	74,000	25	2000	2025		40.00 %	0.00 %	10			$123,580
B3010105	Built-Up	$37.76	S.F.	19,650	20	2000	2020		25.00 %	0.00 %	5			$741,984
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.		20				0.00 %	0.00 %				$0
B3020	Roof Openings	$0.68	S.F.	19,650	20	2000	2020		25.00 %	0.00 %	5			$13,362
C1010	Partitions	$14.93	S.F.	74,000	100	1971	2071		56.00 %	47.03 %	56		$519,585.59	$1,104,820
C1020	Interior Doors	$3.76	S.F.	74,000	40	1971	2011	2026	27.50 %	19.00 %	11		$52,874.10	$278,240
C1030	Fittings	$4.12	S.F.	74,000	40	1971	2011	2026	27.50 %	6.93 %	11		$21,131.17	$304,880
C2010	Stair Construction	$1.28	S.F.	74,000	100	1971	2071		56.00 %	0.00 %	56			$94,720

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System Code	System Description	Unit Price $	UoM	Qty	Life	Year Installed	Calc Next Renewal Year	Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency $	Replacement Value $
C3010230	Paint & Covering	$13.21	S.F.	74,000	10	2010	2020		50.00 %	0.00 %	5			$977,540
C3010231	Vinyl Wall Covering	$0.97	S.F.		15				0.00 %	0.00 %				$0
C3010232	Wall Tile	$2.63	S.F.		30				0.00 %	0.00 %				$0
C3020411	Carpet	$7.30	S.F.	1,480	10	2000	2010	2028	130.00 %	155.37 %	13		$16,786.14	$10,804
C3020412	Terrazzo & Tile	$75.52	S.F.	1,480	50	1971	2021		12.00 %	0.00 %	6			$111,770
C3020413	Vinyl Flooring	$9.68	S.F.	63,600	20	2000	2020		25.00 %	0.00 %	5			$615,648
C3020414	Wood Flooring	$22.27	S.F.		25				0.00 %	0.00 %				$0
C3020415	Concrete Floor Finishes	$0.97	S.F.	7,400	50	1971	2021		12.00 %	0.00 %	6			$7,178
C3030	Ceiling Finishes	$20.97	S.F.	74,000	25	1971	1996	2042	108.00 %	46.65 %	27		$723,956.65	$1,551,780
D1010	Elevators and Lifts	$3.87	S.F.	74,000	35			2052	105.71 %	353.59 %	37		$1,012,601.25	$286,380
D2010	Plumbing Fixtures	$31.58	S.F.	74,000	35	2005	2040		71.43 %	1.95 %	25		$45,475.14	$2,336,920
D2020	Domestic Water Distribution	$2.90	S.F.	74,000	25	1971	1996	2042	108.00 %	174.74 %	27		$374,984.87	$214,600
D2030	Sanitary Waste	$2.90	S.F.	74,000	25	1971	1996	2042	108.00 %	169.16 %	27		$363,025.45	$214,600
D2040	Rain Water Drainage	$3.29	S.F.	74,000	30	1971	2001	2047	106.67 %	134.79 %	32		$328,147.83	$243,460
D3020	Heat Generating Systems	$18.67	S.F.	74,000	35	1990	2025		28.57 %	4.29 %	10		$59,338.10	$1,381,580
D3030	Cooling Generating Systems	$24.48	S.F.	0	0				0.00 %	0.00 %				$0
D3040	Distribution Systems	$67.47	S.F.	74,000	25	1993	2018	2042	108.00 %	151.67 %	27		$7,572,709.63	$4,992,780
D3050	Terminal & Package Units	$11.60	S.F.	74,000	20	1990	2010	2028	65.00 %	0.00 %	13			$858,400
D3060	Controls & Instrumentation	$13.50	S.F.	74,000	20	1990	2010	2037	110.00 %	158.90 %	22		$1,587,457.20	$999,000
D4010	Sprinklers	$8.02	S.F.	74,000	35			2052	105.71 %	178.37 %	37		$1,058,601.61	$593,480
D4020	Standpipes	$0.99	S.F.	74,000	35			2052	105.71 %	0.00 %	37			$73,260
D5010	Electrical Service/Distribution	$9.70	S.F.	74,000	30	1971	2001	2047	106.67 %	104.90 %	32		$752,941.73	$717,800
D5020	Lighting and Branch Wiring	$34.68	S.F.	74,000	20	1971	1991	2037	110.00 %	52.74 %	22		$1,353,477.95	$2,566,320
D5030	Communications and Security	$12.99	S.F.	74,000	15	1971	1986	2032	113.33 %	16.39 %	17		$157,584.31	$961,260
D5090	Other Electrical Systems	$2.38	S.F.	74,000	30	1971	2001	2047	106.67 %	298.94 %	32		$526,497.18	$176,120
E1020	Institutional Equipment	$4.82	S.F.	74,000	35	1971	2006	2028	37.14 %	0.00 %	13			$356,680
E1090	Other Equipment	$11.10	S.F.	74,000	35	1971	2006	2020	14.29 %	0.00 %	5			$821,400
E2010	Fixed Furnishings	$2.13	S.F.	74,000	40	1971	2011	2028	32.50 %	0.00 %	13			$157,620
								Total	**69.55 %**	**39.89 %**			**$16,527,175.90**	**$41,431,886**

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:	**$16,527,176**	**$0**	**$0**	**$0**	**$0**	**$5,328,498**	**$156,233**	**$0**	**$0**	**$0**	**$2,225,090**	**$24,236,997**
*** A - Substructure**	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
*** A10 - Foundations**	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A1010 - Standard Foundations	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A1030 - Slab on Grade	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
*** A20 - Basement Construction**	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A2010 - Basement Excavation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A2020 - Basement Walls	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B - Shell	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B10 - Superstructure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B1010 - Floor Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B1020 - Roof Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B20 - Exterior Enclosure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B2010 - Exterior Walls	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B2020 - Exterior Windows	$0	$0	$0	$0	$0	$1,286,194	$0	$0	$0	$0	$0	**$1,286,194**
B2030 - Exterior Doors	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$182,689	**$182,689**
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	$946,179	$0	$0	$0	$0	$0	**$946,179**
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	$17,039	$0	$0	$0	$0	$0	**$17,039**
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	$519,586	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$519,586**

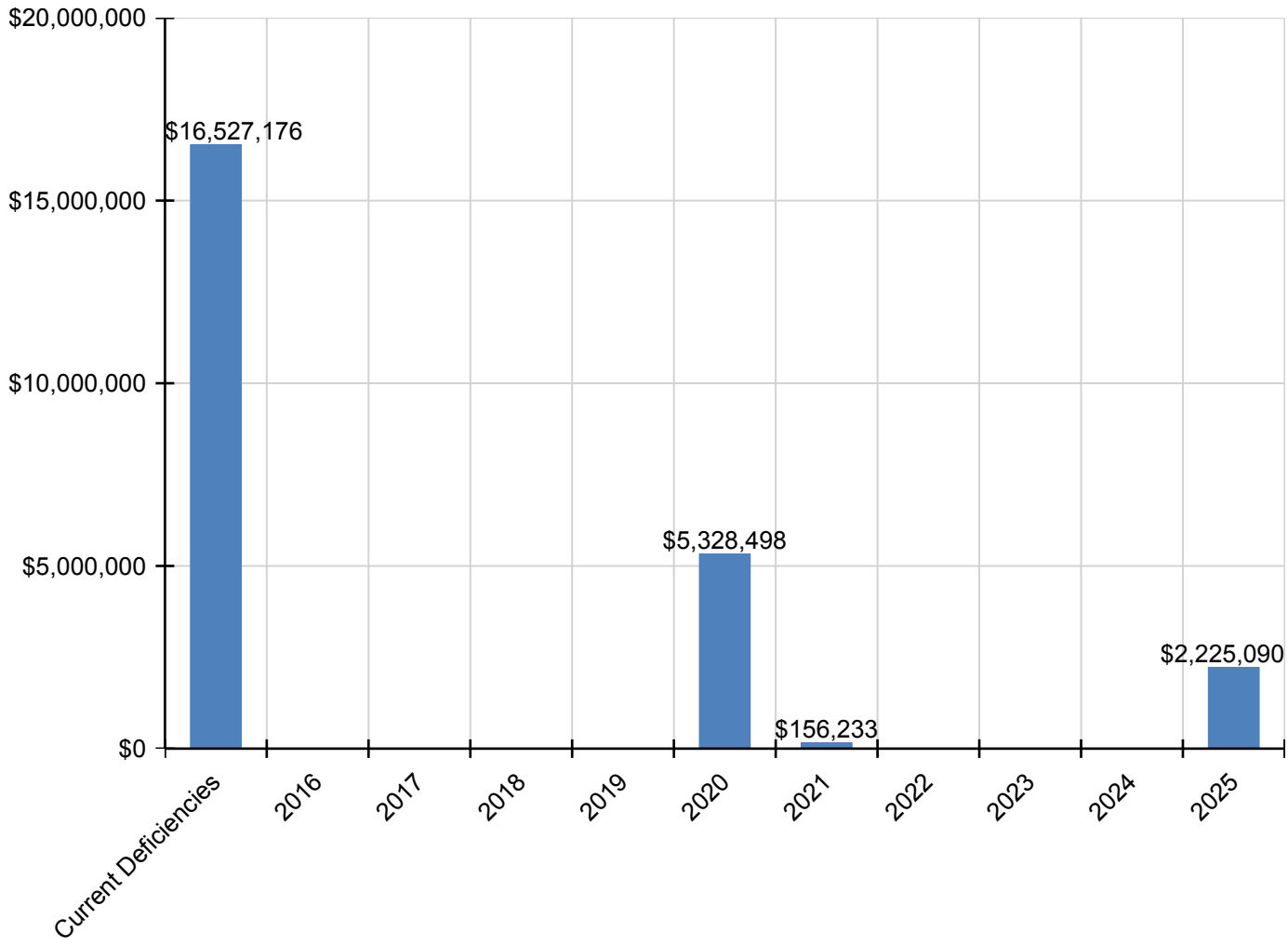
C1020 - Interior Doors	$52,874	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$52,874**
C1030 - Fittings	$21,131	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$21,131**
C20 - Stairs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C2010 - Stair Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C30 - Interior Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010 - Wall Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010230 - Paint & Covering	$0	$0	$0	$0	$0	$1,246,560	$0	$0	$0	$0	$0	**$1,246,560**
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	$16,786	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$16,786**
C3020412 - Terrazzo & Tile	$0	$0	$0	$0	$0	$0	$146,805	$0	$0	$0	$0	**$146,805**
C3020413 - Vinyl Flooring	$0	$0	$0	$0	$0	$785,075	$0	$0	$0	$0	$0	**$785,075**
C3020414 - Wood Flooring	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020415 - Concrete Floor Finishes	$0	$0	$0	$0	$0	$0	$9,428	$0	$0	$0	$0	**$9,428**
C3030 - Ceiling Finishes	$723,957	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$723,957**
D - Services	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D10 - Conveying	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D1010 - Elevators and Lifts	$1,012,601	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,012,601**
D20 - Plumbing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2010 - Plumbing Fixtures	$45,475	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$45,475**
D2020 - Domestic Water Distribution	$374,985	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$374,985**
D2030 - Sanitary Waste	$363,025	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$363,025**
D2040 - Rain Water Drainage	$328,148	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$328,148**
D30 - HVAC	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3020 - Heat Generating Systems	$59,338	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,042,401	**$2,101,739**
D3030 - Cooling Generating Systems	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3040 - Distribution Systems	$7,572,710	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$7,572,710**
D3050 - Terminal & Package Units	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3060 - Controls & Instrumentation	$1,587,457	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,587,457**
D40 - Fire Protection	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D4010 - Sprinklers	$1,058,602	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,058,602**
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	$752,942	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$752,942**
D5020 - Lighting and Branch Wiring	$1,353,478	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,353,478**
D5030 - Communications and Security	$157,584	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$157,584**
D5090 - Other Electrical Systems	$526,497	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$526,497**
E - Equipment & Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E10 - Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E1020 - Institutional Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E1090 - Other Equipment	$0	$0	$0	$0	$0	$1,047,450	$0	$0	$0	$0	$0	**$1,047,450**
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

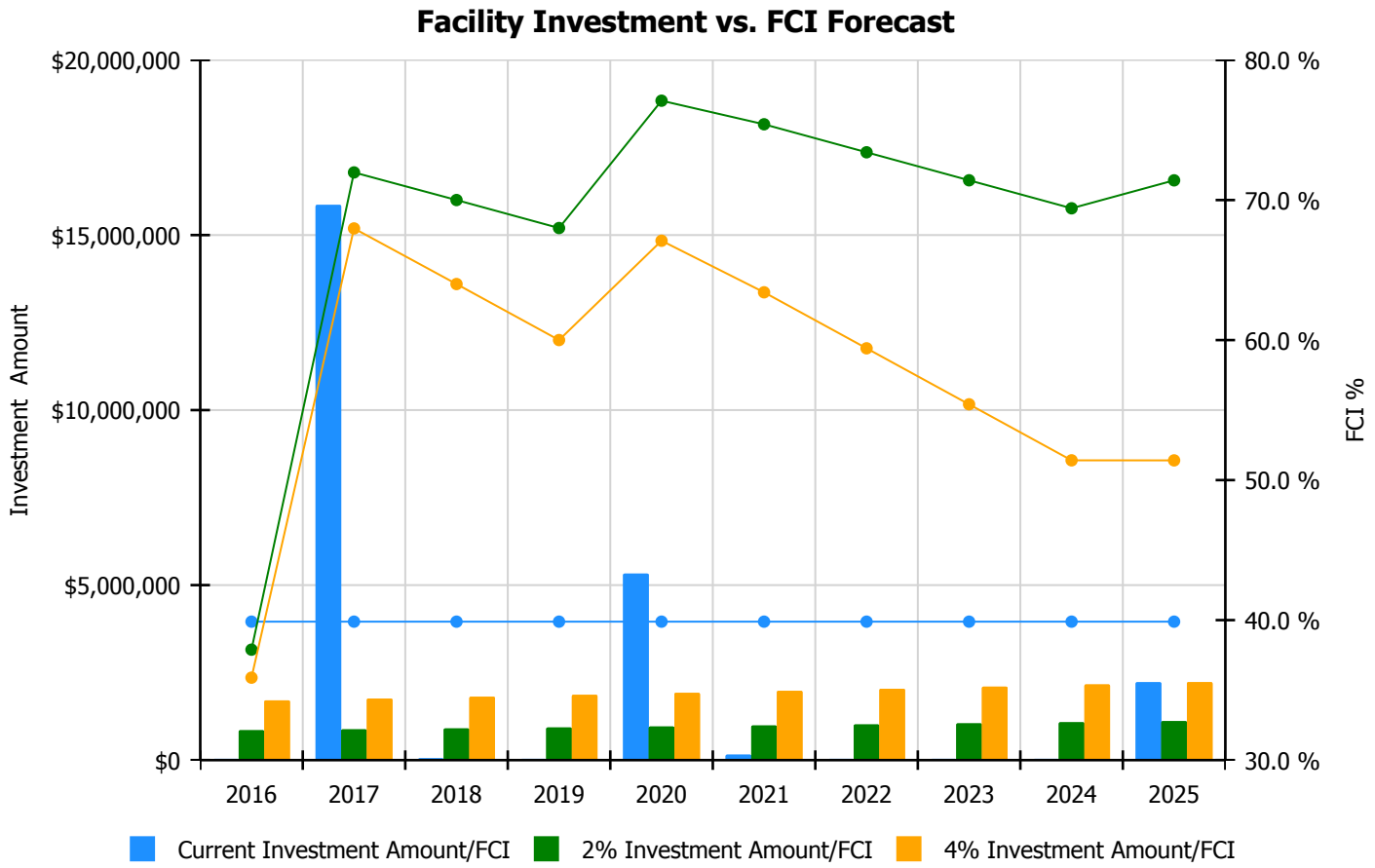
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



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:

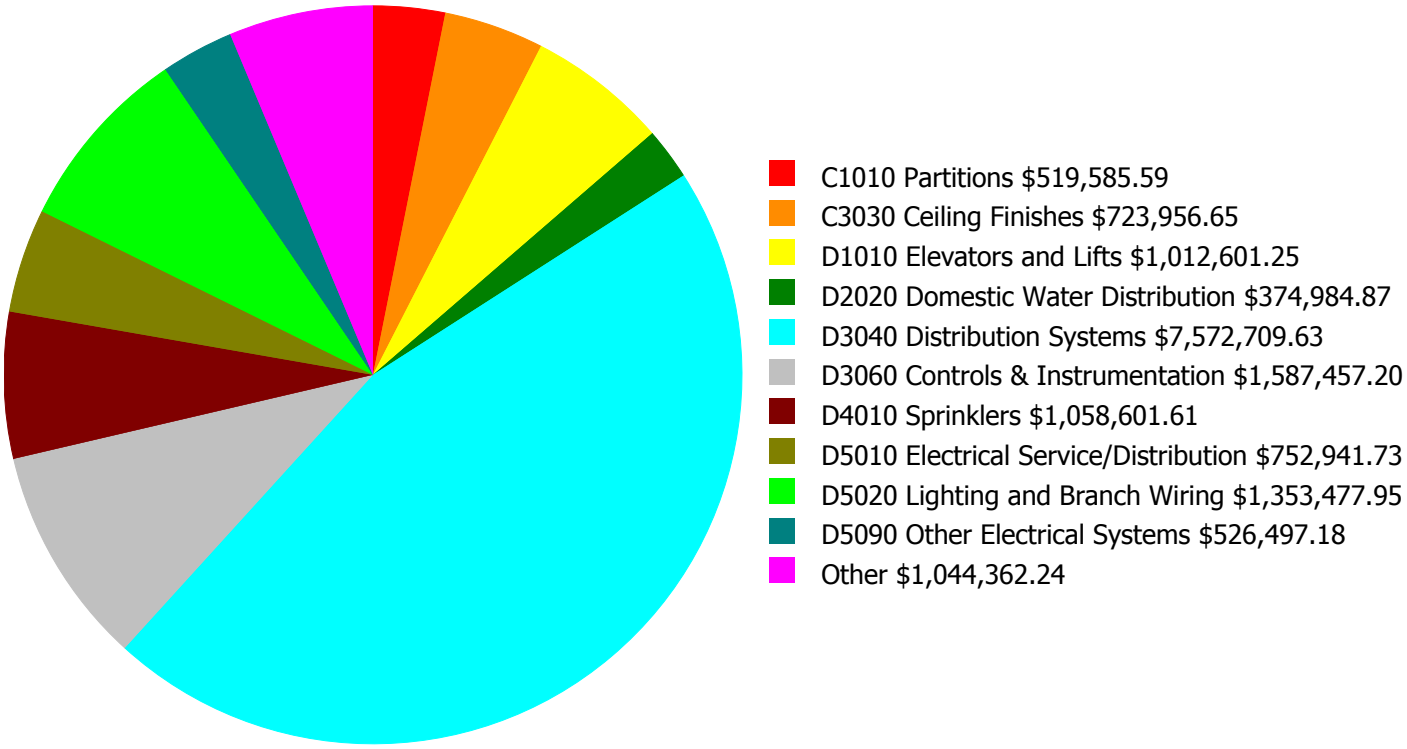
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 39.89%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$853,497.00	37.89 %	$1,706,994.00	35.89 %
2017	$15,860,374	$879,102.00	71.97 %	$1,758,204.00	67.97 %
2018	$12,986	$905,475.00	70.00 %	$1,810,950.00	64.00 %
2019	$0	$932,639.00	68.00 %	$1,865,278.00	60.00 %
2020	$5,328,498	$960,618.00	77.10 %	$1,921,236.00	67.10 %
2021	$156,233	$989,437.00	75.41 %	$1,978,874.00	63.41 %
2022	$0	$1,019,120.00	73.41 %	$2,038,240.00	59.41 %
2023	$0	$1,049,693.00	71.41 %	$2,099,387.00	55.41 %
2024	$0	$1,081,184.00	69.41 %	$2,162,369.00	51.41 %
2025	$2,225,090	$1,113,620.00	71.41 %	$2,227,240.00	51.41 %
Total:	**$23,583,182**	**$9,784,385.00**		**$19,568,772.00**	

Deficiency Summary by System

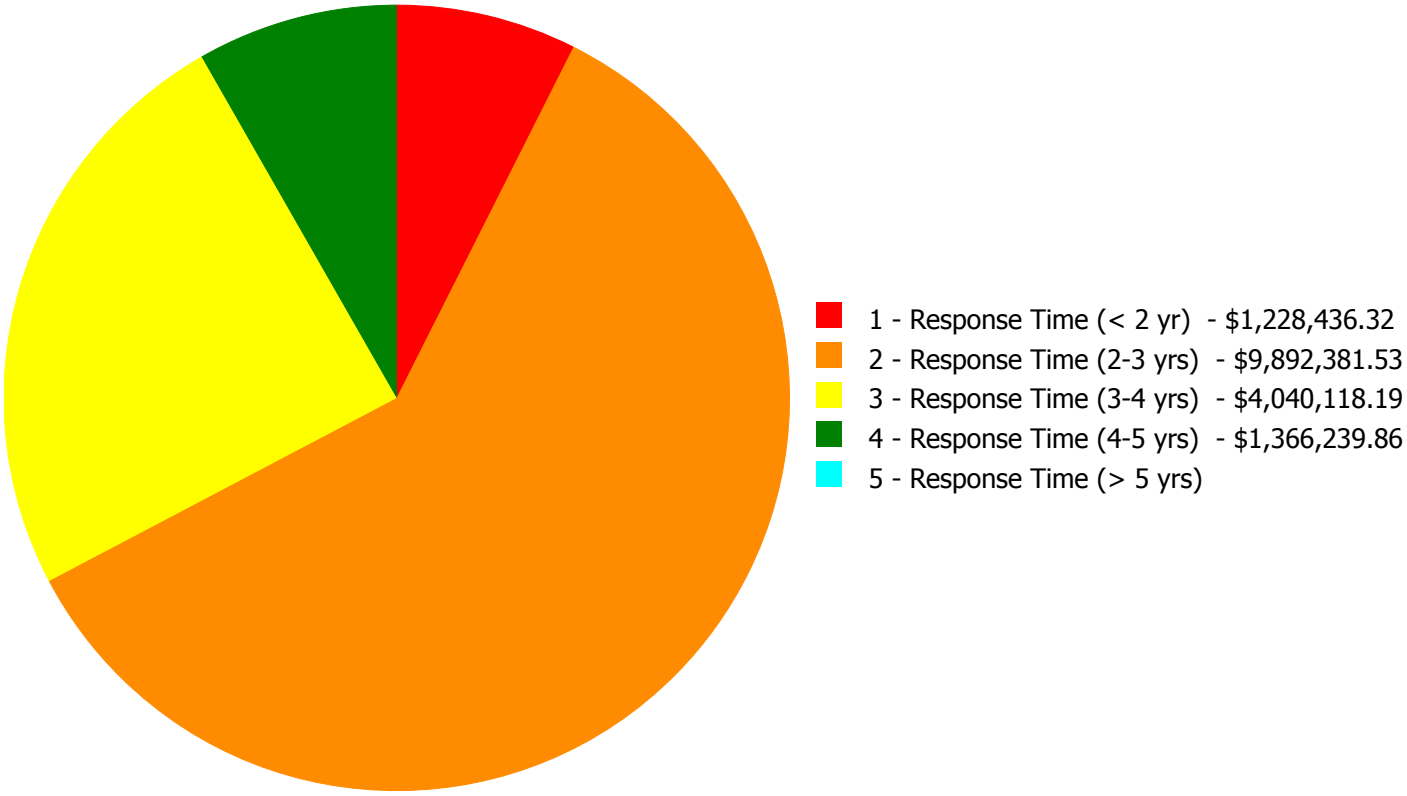
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $16,527,175.90

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: $16,527,175.90

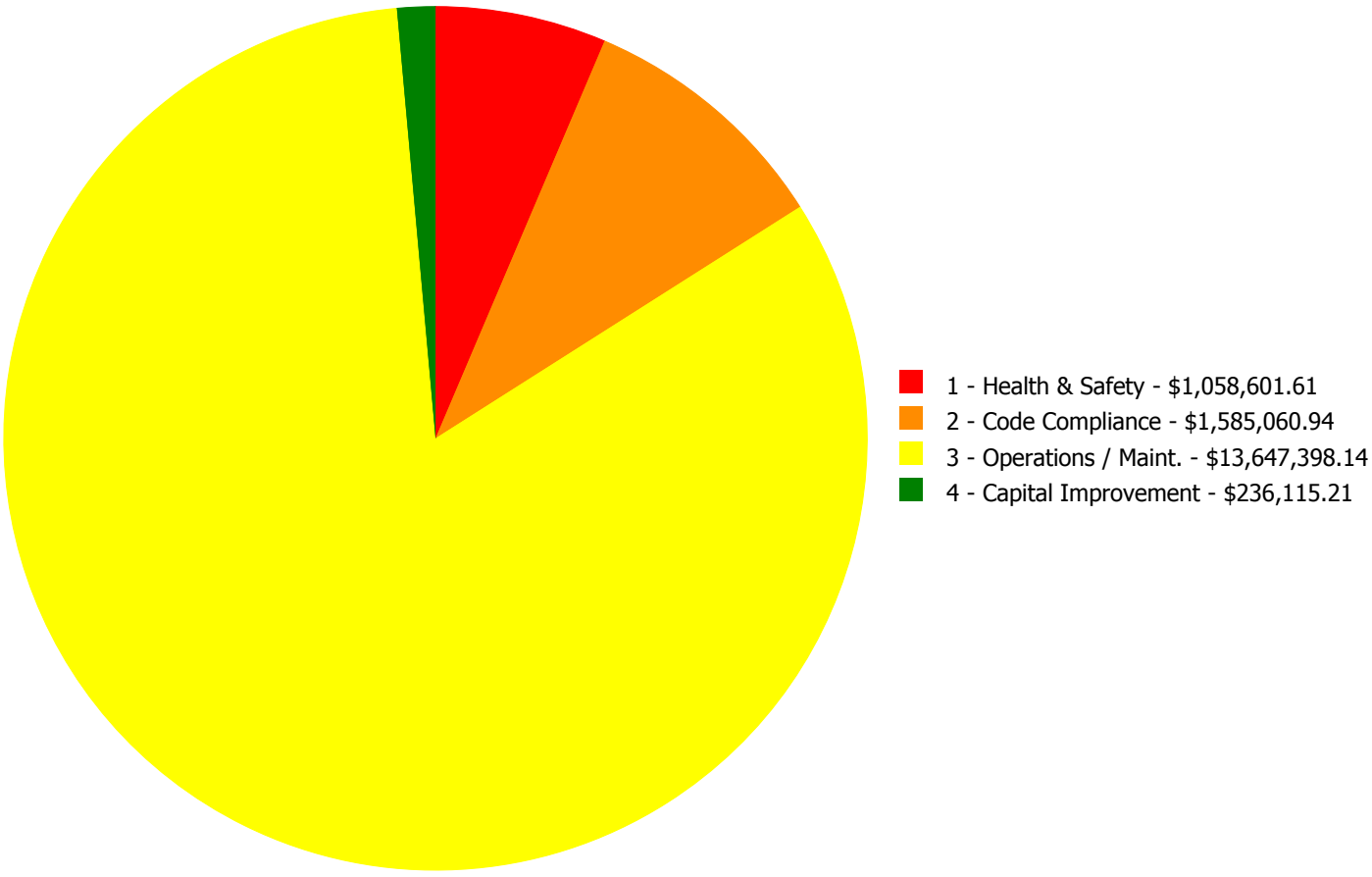
Deficiency By Priority Investment Table

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
C1010	Partitions	$0.00	$519,585.59	$0.00	$0.00	$0.00	$519,585.59
C1020	Interior Doors	$0.00	$52,874.10	$0.00	$0.00	$0.00	$52,874.10
C1030	Fittings	$0.00	$0.00	$0.00	$21,131.17	$0.00	$21,131.17
C3020411	Carpet	$0.00	$0.00	$0.00	$16,786.14	$0.00	$16,786.14
C3030	Ceiling Finishes	$0.00	$0.00	$0.00	$723,956.65	$0.00	$723,956.65
D1010	Elevators and Lifts	$0.00	$1,012,601.25	$0.00	$0.00	$0.00	$1,012,601.25
D2010	Plumbing Fixtures	$0.00	$45,475.14	$0.00	$0.00	$0.00	$45,475.14
D2020	Domestic Water Distribution	$0.00	$0.00	$374,984.87	$0.00	$0.00	$374,984.87
D2030	Sanitary Waste	$0.00	$0.00	$363,025.45	$0.00	$0.00	$363,025.45
D2040	Rain Water Drainage	$0.00	$0.00	$328,147.83	$0.00	$0.00	$328,147.83
D3020	Heat Generating Systems	$0.00	$0.00	$59,338.10	$0.00	$0.00	$59,338.10
D3040	Distribution Systems	$169,834.71	$6,674,388.25	$728,486.67	$0.00	$0.00	$7,572,709.63
D3060	Controls & Instrumentation	$0.00	$1,587,457.20	$0.00	$0.00	$0.00	$1,587,457.20
D4010	Sprinklers	$1,058,601.61	$0.00	$0.00	$0.00	$0.00	$1,058,601.61
D5010	Electrical Service/Distribution	$0.00	$0.00	$352,893.00	$400,048.73	$0.00	$752,941.73
D5020	Lighting and Branch Wiring	$0.00	$0.00	$1,353,477.95	$0.00	$0.00	$1,353,477.95
D5030	Communications and Security	$0.00	$0.00	$0.00	$157,584.31	$0.00	$157,584.31
D5090	Other Electrical Systems	$0.00	$0.00	$479,764.32	$46,732.86	$0.00	$526,497.18
	Total:	$1,228,436.32	$9,892,381.53	$4,040,118.19	$1,366,239.86	$0.00	$16,527,175.90

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: $16,527,175.90

Deficiency Details by Priority

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

Priority 1 - Response Time (< 2 yr):

System: D3040 - Distribution Systems

Location: Roof
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 1 - Response Time (< 2 yr)
Correction: Replace power roof ventilator (24" dia.)
Qty: 3.00
Unit of Measure: Ea.
Estimate: $90,985.81
Assessor Name: Craig Anding
Date Created: 12/21/2015

Notes: Replace three (3) roof mounted power ventilators allowing relief air to escape from the building which are beyond their service lives.

System: D3040 - Distribution Systems

Location: Roof
Distress: Failing
Category: 3 - Operations / Maint.
Priority: 1 - Response Time (< 2 yr)
Correction: Replace utility set exhaust fan (5 HP)
Qty: 2.00
Unit of Measure: Ea.
Estimate: $78,848.90
Assessor Name: Craig Anding
Date Created: 12/21/2015

Notes: Replace two (2) roof mounted exhaust fans serving the restrooms on the east and west sides of the building which are no longer operational.

System: D4010 - Sprinklers

Location: Throughout building

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

Priority: 1 - Response Time (< 2 yr)

Correction: Install a fire protection sprinkler system

Qty: 74,000.00

Unit of Measure: S.F.

Estimate: $1,058,601.61

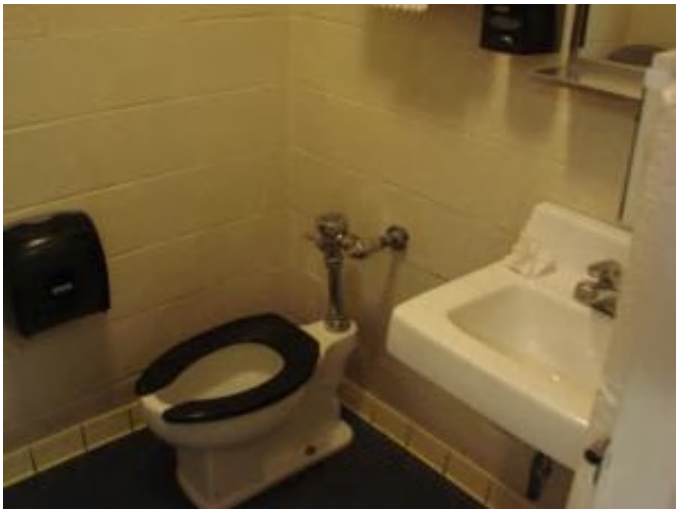
Assessor Name: Craig Anding

Date Created: 12/21/2015

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: C1010 - Partitions



Location: Restrooms

Distress: Accessibility

Category: 2 - Code Compliance

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

Correction: Build new gang restroom to meet code or occupant needs - select type and number of fixtures and toilet partitions for mens or womens

Qty: 3.00

Unit of Measure: Ea.

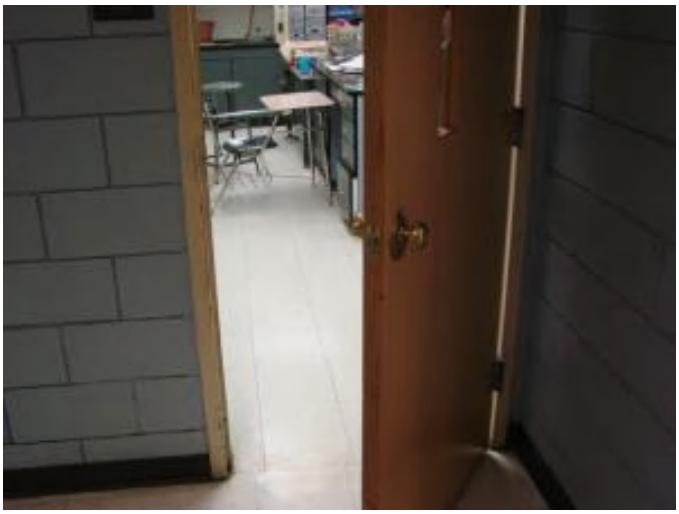
Estimate: $519,585.59

Assessor Name: Craig Anding

Date Created: 02/19/2016

Notes: Replace non-ADA compliant toilet partitions; reconfigure remaining toilet partitions

System: C1020 - Interior Doors



Location: Throughout building

Distress: Accessibility

Category: 2 - Code Compliance

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

Correction: Replace door knobs with compliant lever type

Qty: 95.00

Unit of Measure: Ea.

Estimate: $52,874.10

Assessor Name: Craig Anding

Date Created: 02/19/2016

Notes: Replace interior doors hardware for ADA accessibility

System: D1010 - Elevators and Lifts

Location: Main lobby area

Distress: Accessibility

Category: 2 - Code Compliance

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

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

Qty: 1.00

Unit of Measure: Ea.

Estimate: $1,012,601.25

Assessor Name: Craig Anding

Date Created: 02/19/2016

Notes: Replace existing elevator with an ADA compliant 2500 lb elevator serving all floors

System: D2010 - Plumbing Fixtures

Location: Throughout building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 6.00

Unit of Measure: Ea.

Estimate: $45,475.14

Assessor Name: Craig Anding

Date Created: 12/21/2015

Notes: Replace six (6) wall hung drinking fountains and integral refrigerated coolers in the corridors. These units are well beyond their service life and are NOT accessible type.

System: D3040 - Distribution Systems

Location: Roof

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace Rooftop Unit (50T) and air terminals

Qty: 74,000.00

Unit of Measure: S.F.

Estimate: $6,674,388.25

Assessor Name: Craig Anding

Date Created: 12/21/2015

Notes: Replace the three (3) approximately 60 ton roof mounted air handling units, associated ductwork, and VAV boxes which are all approaching the end of their service lives.

System: D3060 - Controls & Instrumentation

Location: Throughout building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace pneumatic controls with DDC (75KSF)

Qty: 74,000.00

Unit of Measure: S.F.

Estimate: $1,587,457.20

Assessor Name: Craig Anding

Date Created: 12/21/2015

Notes: Replace the existing 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.

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

System: D2020 - Domestic Water Distribution

Location: Throughout building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace domestic water piping (75 KSF)

Qty: 74,000.00

Unit of Measure: S.F.

Estimate: $374,984.87

Assessor Name: Craig Anding

Date Created: 12/21/2015

Notes: Hire a qualified contractor to perform a detailed inspection of the domestic water piping, in use for 45 years, and replace any damaged piping.

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: 74,000.00

Unit of Measure: S.F.

Estimate: $363,025.45

Assessor Name: Craig Anding

Date Created: 12/21/2015

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

System: D2040 - Rain Water Drainage

Location: Throughout 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: 74,000.00

Unit of Measure: S.F.

Estimate: $328,147.83

Assessor Name: Craig Anding

Date Created: 12/21/2015

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

System: D3020 - Heat Generating Systems

Location: Boiler room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace pump, base-mounted, end suction HHW (3" size, 5 HP, to 225 GPM)

Qty: 1.00

Unit of Measure: Ea.

Estimate: $59,338.10

Assessor Name: Craig Anding

Date Created: 12/21/2015

Notes: Replace one (1) 3HP end-suction hot water supply pump in the boiler room which is beyond its service life.

System: D3040 - Distribution Systems

Location: Throughout building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace hydronic heating piping (75KSF)

Qty: 74,000.00

Unit of Measure: S.F.

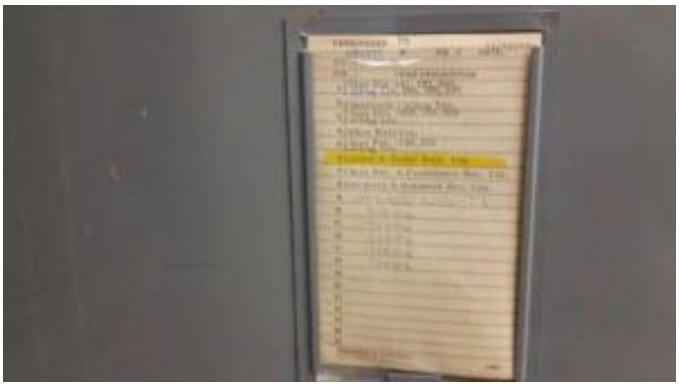
Estimate: $728,486.67

Assessor Name: Craig Anding

Date Created: 12/21/2015

Notes: Hire a qualified contractor to examine the distribution piping, in service for 45 years, and replace any damaged piping and to further quantify the extent of potential failures.

System: D5010 - Electrical Service/Distribution



Location: throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace Panelboard

Qty: 1.00

Unit of Measure: Ea.

Estimate: $352,893.00

Assessor Name: Craig Anding

Date Created: 01/20/2016

Notes: Install new 120V panel boards throughout the building for lighting, and receptacles loads.

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: $938,176.16

Assessor Name: Craig Anding

Date Created: 01/20/2016

Notes: Install new a lighting system for the entire building.

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 Wiring Devices (SF) - surface mounted conduit and boxes

Qty: 1.00

Unit of Measure: S.F.

Estimate: $415,301.79

Assessor Name: Craig Anding

Date Created: 01/20/2016

Notes: Install new receptacles in all classrooms and other areas (minimum two receptacles on each wall).

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: $311,513.14
Assessor Name: Craig Anding
Date Created: 01/20/2016

Notes: Install new emergency exit signs emergency lights.

System: D5090 - Other Electrical Systems

Location: electrical room
Distress: Inadequate
Category: 4 - Capital Improvement
Priority: 3 - Response Time (3-4 yrs)
Correction: Replace standby generator system
Qty: 1.00
Unit of Measure: Ea.
Estimate: $168,251.18
Assessor Name: Craig Anding
Date Created: 01/21/2016

Notes: Install a new 100KW Emergency Generator.

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

System: C1030 - Fittings

Location: Throughout building

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: 78.00

Unit of Measure: Ea.

Estimate: $21,131.17

Assessor Name: Craig Anding

Date Created: 02/19/2016

Notes: Install new signage throughout

System: C3020411 - Carpet

Location: Office areas

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace carpet

Qty: 1,500.00

Unit of Measure: S.F.

Estimate: $16,786.14

Assessor Name: Craig Anding

Date Created: 02/19/2016

Notes: Replace all carpeting

System: C3030 - Ceiling Finishes

Location: Corridors

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 48,000.00

Unit of Measure: S.F.

Estimate: $723,956.65

Assessor Name: Craig Anding

Date Created: 02/19/2016

Notes: Replace acoustical ceilings in corridors

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: $400,048.73

Assessor Name: Craig Anding

Date Created: 01/20/2016

Notes: Install new Site electrical service 1500KVA, 480V, 3 Phase to feed the HVAC, lighting and receptacle loads.
Install a new 480V, 3 phase switchgear.
Install a new 120V/208V, 3 phase switchgear.

System: D5030 - Communications and Security

Location: throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Add/Replace Clock System or Components

Qty: 0.00

Unit of Measure: Ea.

Estimate: $157,584.31

Assessor Name: Craig Anding

Date Created: 01/21/2016

Notes: Install a new Clock System.
Note: A multiplier of 1.4 (instead of 1.0) is used to cover the additional cost of other related construction cost.

System: D5090 - Other Electrical Systems

This deficiency has no image.

Location: roof

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Provide Lightning Protection System

Qty: 1.00

Unit of Measure: LS

Estimate: $46,732.86

Assessor Name: Craig Anding

Date Created: 01/21/2016

Notes: Install a new Lightning protection system with lightning rods on the roof.
Note: The reason there are no pictures attached is because presently the school has no lightning rods on the roof.

Equipment Inventory

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

Subsystem	Inventory	Qty	UoM	Location	Manufacturer	Model Number	Serial Number	Barcode	Life	Install Date	Next Renewal	Raw Cost	Inventory Cost
D1010 Elevators and Lifts	Hydraulic, passenger elevator, 2000 lb, 5 floors, 100 FPM	1.00	Ea.	inside the building					30	1971	2047	$140,070.00	$154,077.00
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, hot water, gross output, 3796 MBH, includes burners, controls and insulated jacket, packaged	1.00	Ea.	Boiler Room	Weil-McLain	BL-1488 SW			35	1990	2025	$84,333.50	$92,766.85
D3040 Distribution Systems	Air handling unit, packaged weatherproof, with cooling/heating coil section, filters, mixing box, variable air volume, single zone, 30,000 CFM, cooling coils may be chilled water or DX, heating coils may be hot water, steam or electric	3.00	Ea.	Roof	Governair	TL-20-5025-E	28268		25	1993	2018	$184,140.00	$607,662.00
D3040 Distribution Systems	Air handling unit, packaged weatherproof, with cooling/heating coil section, filters, mixing box, variable air volume, single zone, 30,000 CFM, cooling coils may be chilled water or DX, heating coils may be hot water, steam or electric	3.00	Ea.	Roof	Governair	TL-20-5028-E	28267		25	1993	2018	$184,140.00	$607,662.00
D3040 Distribution Systems	Air handling unit, packaged weatherproof, with cooling/heating coil section, filters, mixing box, variable air volume, single zone, 30,000 CFM, cooling coils may be chilled water or DX, heating coils may be hot water, steam or electric	3.00	Ea.	Roof	Governair	TL-20-5025-E	28266		25	1993	2018	$184,140.00	$607,662.00
D5010 Electrical Service/Distribution	Load interrupter switch, 2 position, 300 kVA & below w/CLF fuses, 4.8 kV, 600 amp, NEMA 1	1.00	Ea.	electrical room					30	1971	2047	$34,900.20	$38,390.22
D5010 Electrical Service/Distribution	Panelboard, 4 wire w/conductor & conduit, NEHB, 277/480 V, 600 A, 1 stories, 25' horizontal	1.00	Ea.	electrical room					30	1971	2047	$27,075.60	$29,783.16
												Total:	**$2,138,003.23**

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):	195,000
Year Built:	1971
Last Renovation:	
Replacement Value:	$2,705,676
Repair Cost:	$681,563.01
Total FCI:	25.19 %
Total RSLI:	56.67 %

Description:

Attributes:

General Attributes:

Bldg ID:	S654001	Site ID:	S654001

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	33.83 %	14.91 %	$276,975.02
G40 - Site Electrical Utilities	106.67 %	47.70 %	$404,587.99
Totals:	**56.67 %**	**25.19 %**	**$681,563.01**

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.	19,200	30	1971	2001	2047	106.67 %	115.08 %	32		$254,536.31	$221,184
G2020	Parking Lots	$7.65	S.F.	24,600	30	1971	2001	2020	16.67 %	8.86 %	5		$16,668.13	$188,190
G2030	Pedestrian Paving	$11.52	S.F.	3,400	40	1971	2011	2020	12.50 %	0.00 %	5			$39,168
G2040	Site Development	$4.36	S.F.	195,000	25	1971	1996	2020	20.00 %	0.68 %	5		$5,770.58	$850,200
G2050	Landscaping & Irrigation	$3.78	S.F.	147,800	15	1971	1986	2020	33.33 %	0.00 %	5			$558,684
G4020	Site Lighting	$3.58	S.F.	195,000	30	1971	2001	2047	106.67 %	42.41 %	32		$296,092.79	$698,100
G4030	Site Communications & Security	$0.77	S.F.	195,000	30	1971	2001	2047	106.67 %	72.26 %	32		$108,495.20	$150,150
								Total	**56.67 %**	**25.19 %**			**$681,563.01**	**$2,705,676**

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.

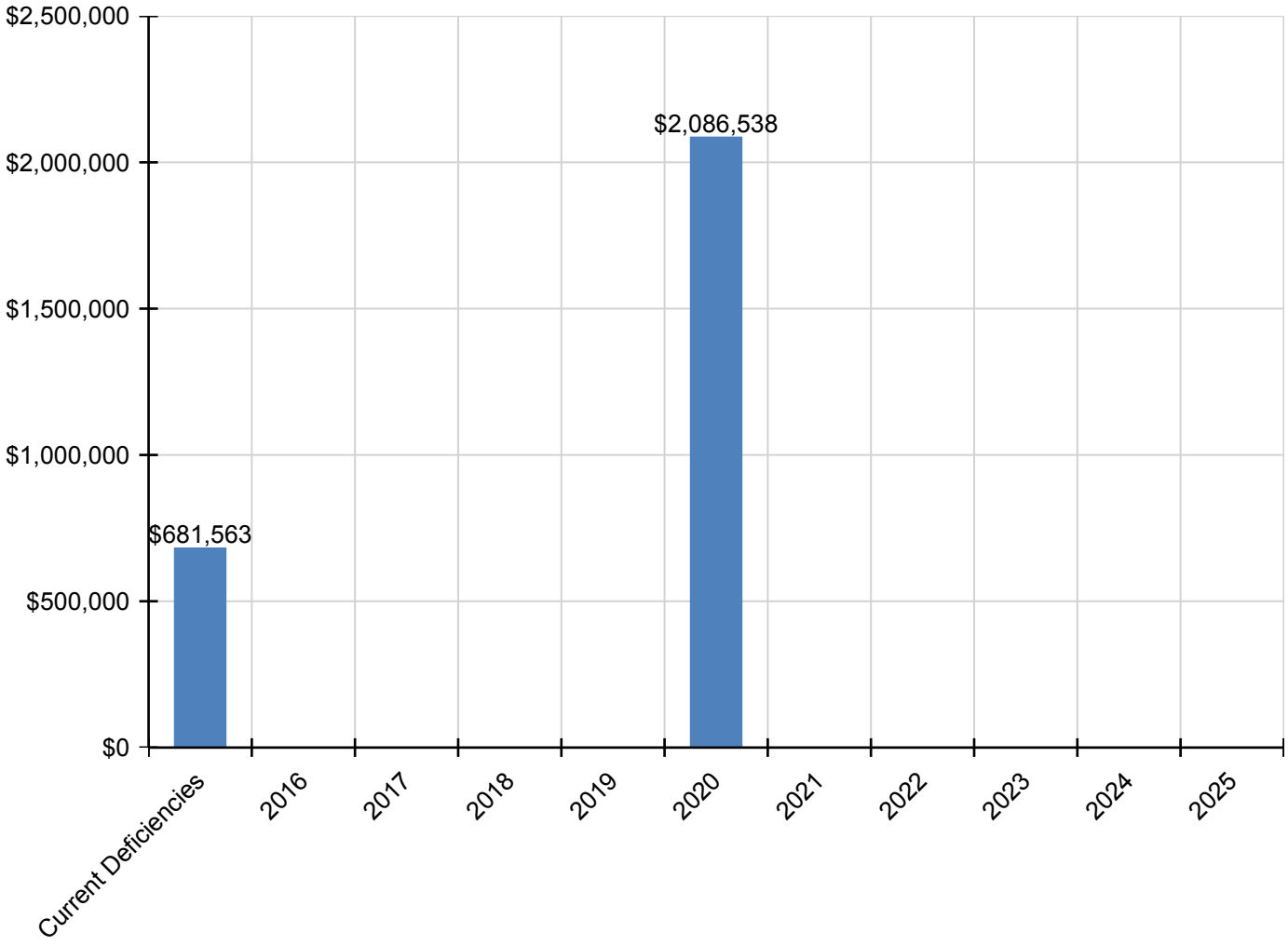
Inflation Rate: 3%

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Total:	**$681,563**	**$0**	**$0**	**$0**	**$0**	**$2,086,538**	**$0**	**$0**	**$0**	**$0**	**$0**	**$2,768,101**
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	$254,536	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$254,536**
G2020 - Parking Lots	$16,668	$0	$0	$0	$0	$239,980	$0	$0	$0	$0	$0	**$256,648**
G2030 - Pedestrian Paving	$0	$0	$0	$0	$0	$49,947	$0	$0	$0	$0	$0	**$49,947**
G2040 - Site Development	$5,771	$0	$0	$0	$0	$1,084,176	$0	$0	$0	$0	$0	**$1,089,947**
G2050 - Landscaping & Irrigation	$0	$0	$0	$0	$0	$712,434	$0	$0	$0	$0	$0	**$712,434**
G40 - Site Electrical Utilities	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G4020 - Site Lighting	$296,093	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$296,093**
G4030 - Site Communications & Security	$108,495	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$108,495**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

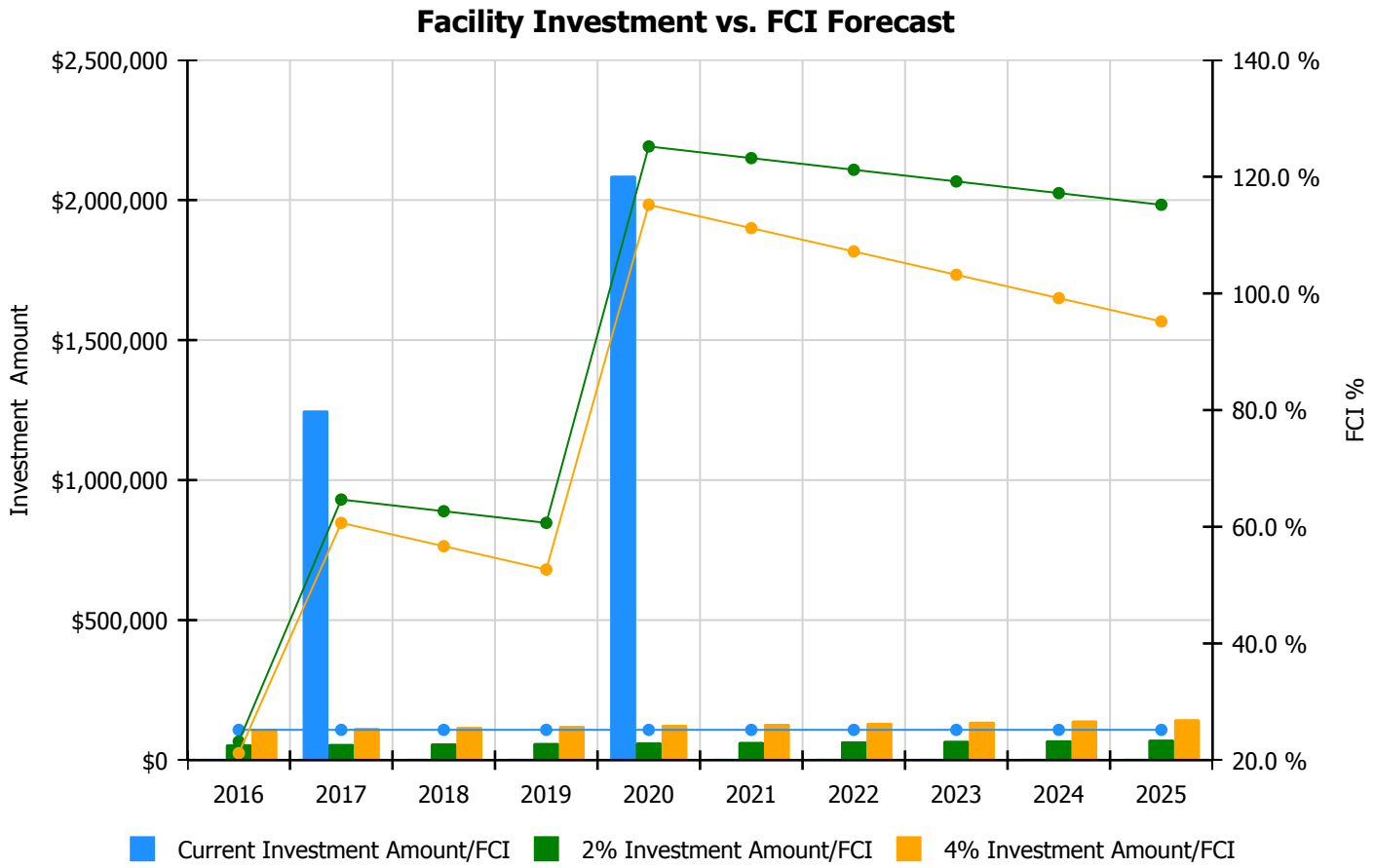
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



10 Year FCI Forecast by Investment Scenario

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

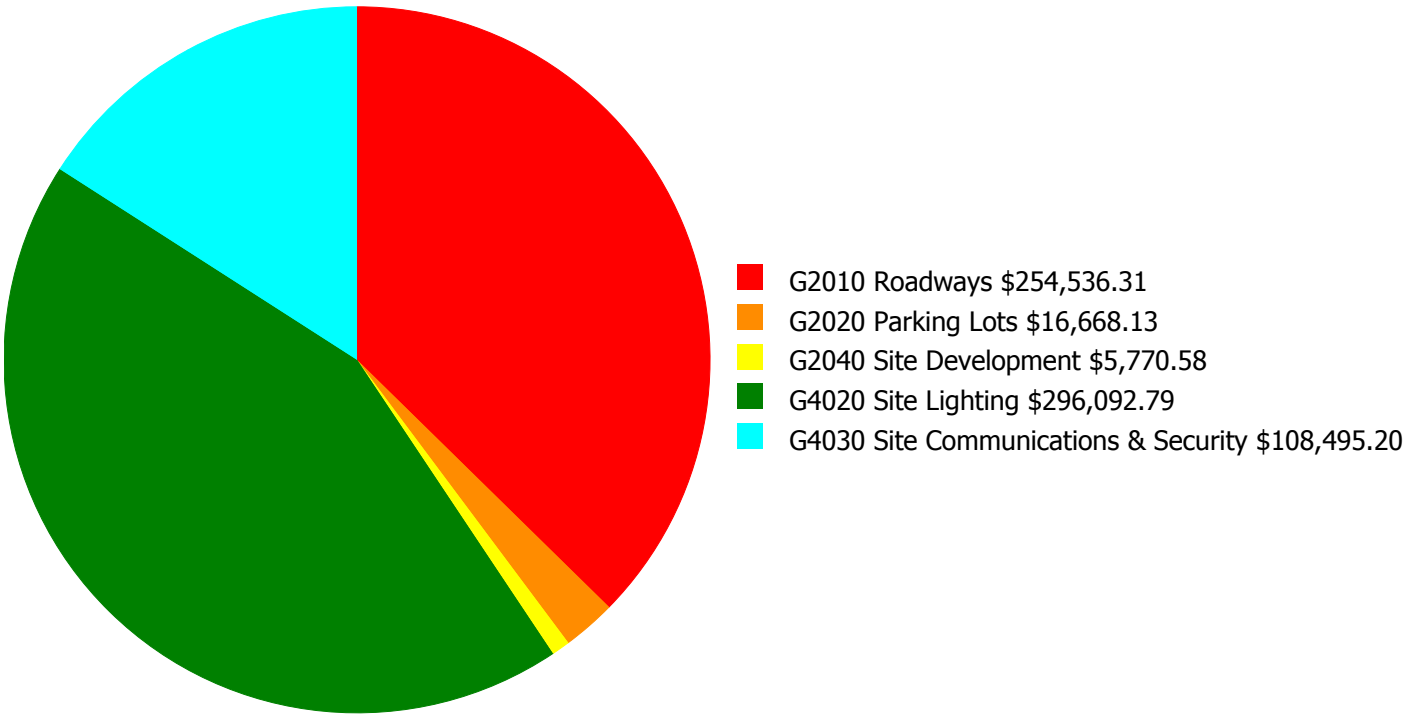
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 25.19%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$55,737.00	23.19 %	$111,474.00	21.19 %
2017	$1,248,018	$57,409.00	64.67 %	$114,818.00	60.67 %
2018	$0	$59,131.00	62.67 %	$118,263.00	56.67 %
2019	$0	$60,905.00	60.67 %	$121,810.00	52.67 %
2020	$2,086,538	$62,732.00	125.19 %	$125,465.00	115.19 %
2021	$0	$64,614.00	123.19 %	$129,229.00	111.19 %
2022	$0	$66,553.00	121.19 %	$133,106.00	107.19 %
2023	$0	$68,549.00	119.19 %	$137,099.00	103.19 %
2024	$0	$70,606.00	117.19 %	$141,212.00	99.19 %
2025	$0	$72,724.00	115.19 %	$145,448.00	95.19 %
Total:	**$3,334,556**	**$638,960.00**		**$1,277,924.00**	

Deficiency Summary by System

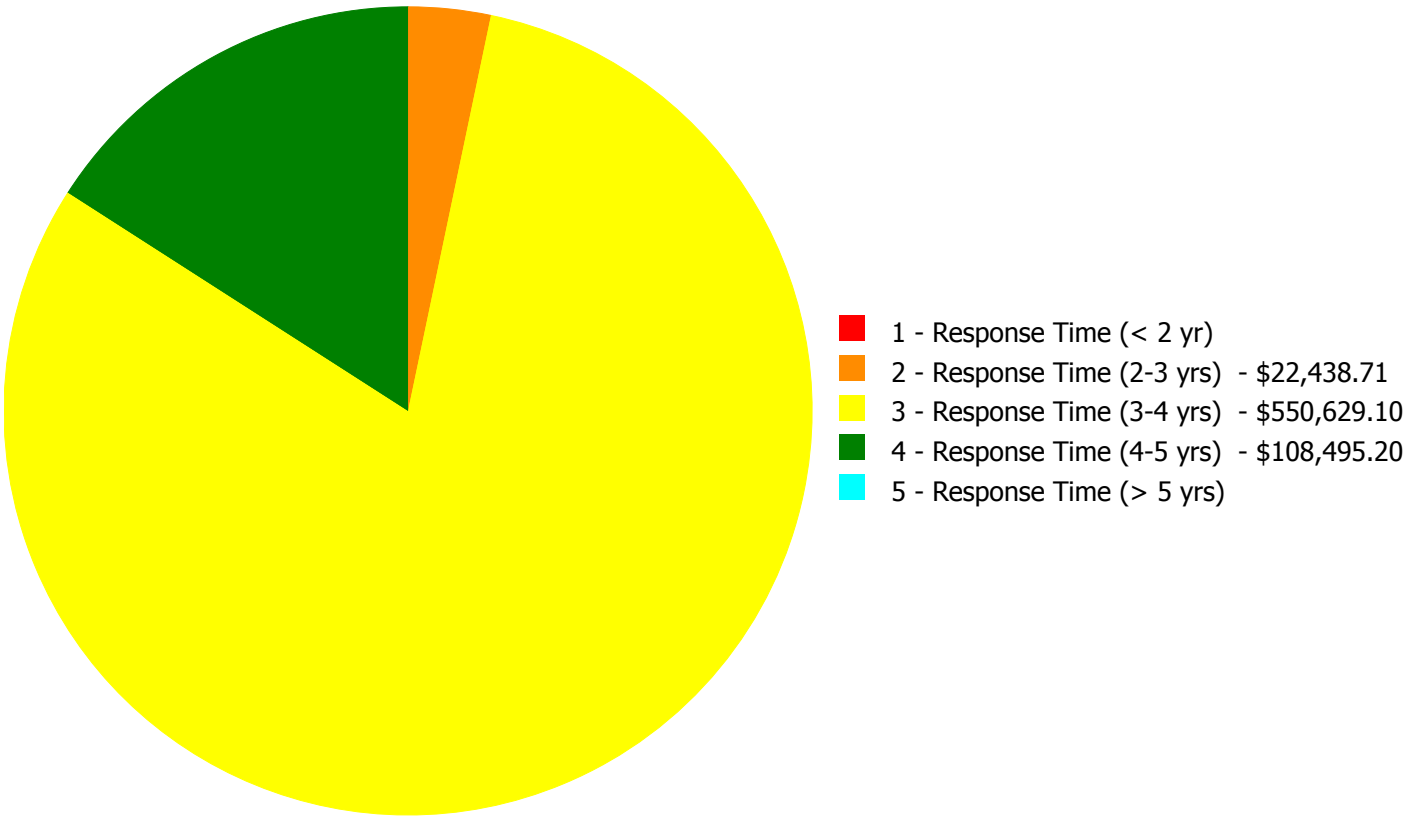
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $681,563.01

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: $681,563.01

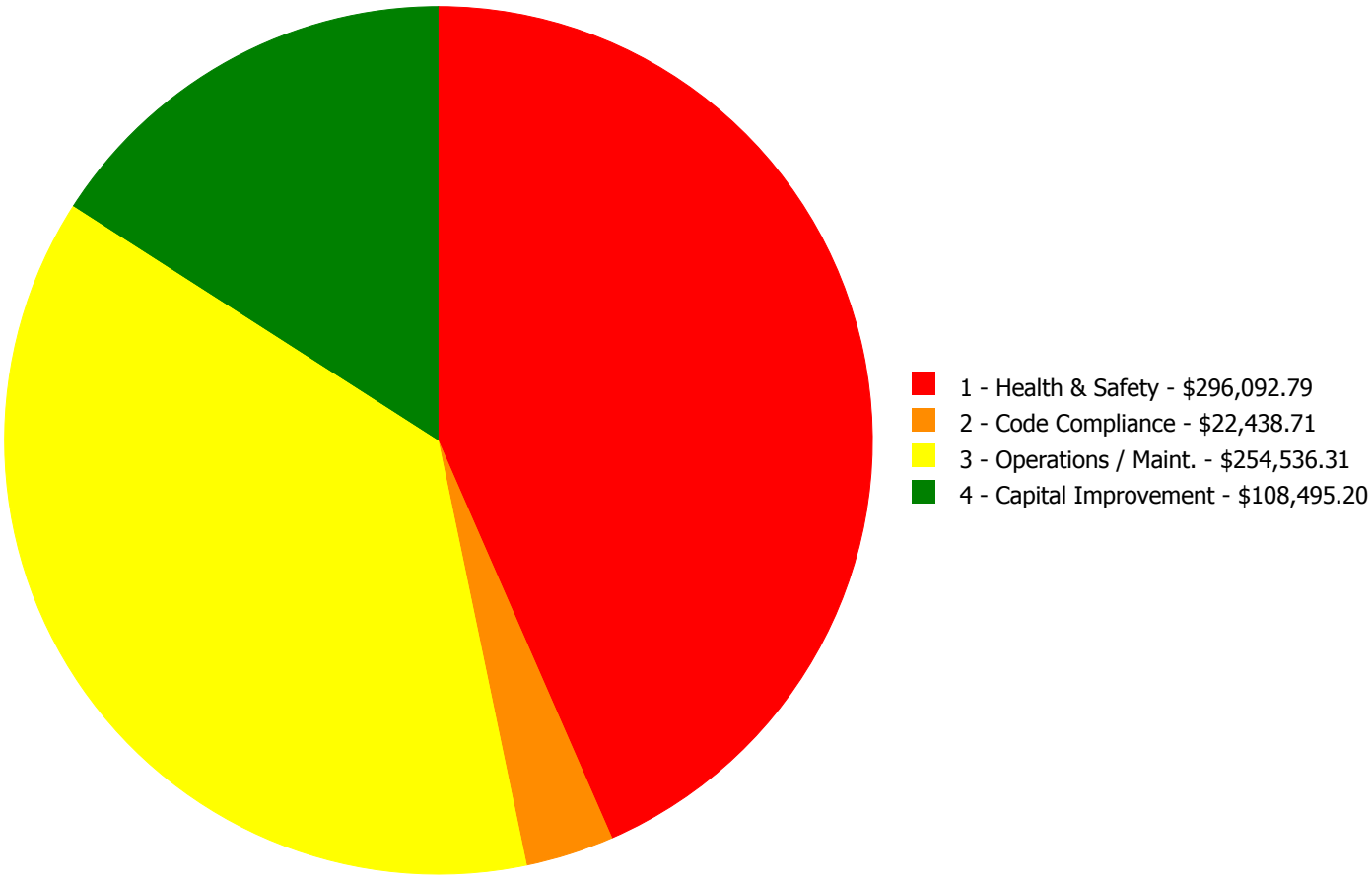
Deficiency By Priority Investment Table

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
G2010	Roadways	$0.00	$0.00	$254,536.31	$0.00	$0.00	$254,536.31
G2020	Parking Lots	$0.00	$16,668.13	$0.00	$0.00	$0.00	$16,668.13
G2040	Site Development	$0.00	$5,770.58	$0.00	$0.00	$0.00	$5,770.58
G4020	Site Lighting	$0.00	$0.00	$296,092.79	$0.00	$0.00	$296,092.79
G4030	Site Communications & Security	$0.00	$0.00	$0.00	$108,495.20	$0.00	$108,495.20
	Total:	$0.00	$22,438.71	$550,629.10	$108,495.20	$0.00	$681,563.01

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:



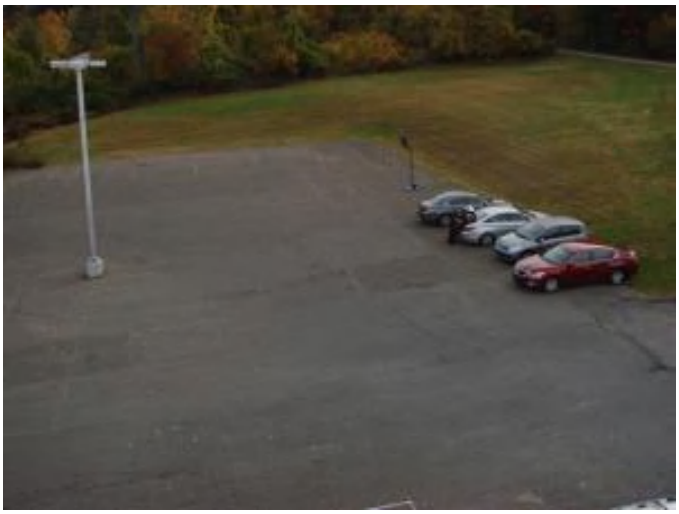
Budget Estimate Total: $681,563.01

Deficiency Details by Priority

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

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

System: G2020 - Parking Lots



Location: Parking area

Distress: Accessibility

Category: 2 - Code Compliance

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

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

Qty: 50.00

Unit of Measure: Ea.

Estimate: $16,668.13

Assessor Name: Christopher Finnican

Date Created: 02/19/2016

Notes: Stripe spaces including accessible spaces, provide ADA signage

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System: G2040 - Site Development

Location: Exterior stairs on southwest side

Distress: Accessibility

Category: 2 - Code Compliance

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

Correction: Replace or install exterior guardrails

Qty: 30.00

Unit of Measure: L.F.

Estimate: $5,770.58

Assessor Name: Christopher Finnican

Date Created: 02/19/2016

Notes: Replace handrail on exterior stairs

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

System: G2010 - Roadways

Location: Entry road way

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace AC paving roadway

Qty: 18,000.00

Unit of Measure: S.F.

Estimate: $254,536.31

Assessor Name: Christopher Finnican

Date Created: 02/19/2016

Notes: Replace pavement on entry road from Spring Lane

System: G4020 - Site Lighting

Location: grounds

Distress: Health Hazard / Risk

Category: 1 - Health & Safety

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: $296,092.79

Assessor Name: Christopher Finnican

Date Created: 01/21/2016

Notes: Install new site lighting for safety of the people and security of property.

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: $108,495.20

Assessor Name: Christopher Finnican

Date Created: 01/21/2016

Notes: Install new site paging on building exterior walls

Equipment Inventory

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

No data found for this asset

Glossary

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

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

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

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

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

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

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

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

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

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

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