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.

Robeson School

Governance	DISTRICT	Report Type	High
Address	4125 Ludlow St.	Enrollment	301
	Philadelphia, Pa 19104	Grade Range	'09-12'
Phone/Fax	215-823-8207 / 215-823-8252	Admissions Category	Citywide
Website	Www.Philasd.Org/Schools/Robeson	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	**32.23%**	**$7,080,767**	**$21,969,773**
Building	32.11 %	$6,867,331	$21,384,303
Grounds	36.46 %	$213,436	$585,470

Major Building Systems

Building System	System FCI	Repair Costs	Replacement Cost
Roof (Shows physical condition of roof)	00.00 %	$0	$755,523
Exterior Walls (Shows condition of the structural condition of the exterior facade)	00.00 %	$0	$1,728,000
Windows (Shows functionality of exterior windows)	24.61 %	$270,868	$1,100,800
Exterior Doors (Shows condition of exterior doors)	333.67 %	$154,824	$46,400
Interior Doors (Classroom doors)	42.82 %	$64,403	$150,400
Interior Walls (Paint and Finishes)	00.00 %	$0	$672,400
Plumbing Fixtures	25.31 %	$136,851	$540,800
Boilers	03.57 %	$26,678	$746,800
Chillers/Cooling Towers	49.20 %	$481,782	$979,200
Radiators/Unit Ventilators/HVAC	105.25 %	$1,809,952	$1,719,600
Heating/Cooling Controls	119.26 %	$643,987	$540,000
Electrical Service and Distribution	123.41 %	$478,827	$388,000
Lighting	29.34 %	$407,050	$1,387,200
Communications and Security (Cameras, Pa System and Fire Alarm)	68.04 %	$353,534	$519,600

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

S105001;Robeson

Final

Site Assessment Report

January 30, 2017

PARSONS

Table of Contents

Site Executive Summary

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

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

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

Gross Area (SF):	56,000
Year Built:	1960
Last Renovation:	
Replacement Value:	$21,969,773
Repair Cost:	$7,080,767.00
Total FCI:	32.23 %
Total RSLI:	71.12 %

Description:

Facility Assessment
October 5th, 2015

School District of Philadelphia
Robeson Elementary School
4125 Ludlow Street
Philadelphia, PA 19104

40,000 SF / 387 Students / LN 02

Mr. Richard Toohey, Facility Area Coordinator provided input to the Parsons Assessment team on current problems mainly in the mechanical systems, and Mr. Clifford Alston Building Engineer accompanied us on our tour of the school and provided us with detailed information on the building systems and maintenance history. Mr. Clifford Alston is a non-permanent Building Engineer.

The 3 story, 40,000 square foot building was originally constructed in 1958. The building has a multi-level basement.

ARCHITECTURAL/STRUCTURAL SYSTEMS

The building typically rests on concrete foundations and bearing walls that are not showing signs of settlement damage. The main structure typically consists of cast-in-place concrete columns, beams, and one way ribbed slab with a constant water source under slab that should be addressed. Basement walls are concrete in good condition. The main roof structure consists of concrete one-way slab supported by main structural frame with steel structural roof in gymnasium. Main roofing is built up application in very good condition. The building envelope is typically masonry and concrete with face brick in good condition. The exterior windows appear to be original, extruded aluminum, single hung, single pane windows in poor condition. Exterior doors are typically hollow metal in poor condition and beyond service life. Public access doors have concrete stoops and stairs. The building is not accessible per ADA requirements due to first floor grade separation.

Partition walls are painted CMU block in good condition. Interior doors are generally hollow metal frame with solid core wood doors with lites in fair condition with some doors and frames needing replaced. Doors leading to exit stairways are hollow metal frame and doors in fair condition. Interior doors do not have lever type handles. Fittings include: toilet accessories in fair condition; composite plastic toilet partitions in poor condition and failing; fixed metal wall lockers in corridors in fair condition; and handrails and ornamental metals, generally in fair condition. Toilet partitions and accessories are not ADA accessible. Interior identifying signage is typically painted in poor condition. Stair construction is generally concrete in steel with cast iron nosing in fair condition. Utility stairs are metal in good condition. Stair railings are floor and wall mounted metal railing in fair condition.

The interior wall finishes include: painted CMU throughout with glazed brick wainscot in toilets in fair condition. Paint is in fair condition. Flooring finishes includes patterned or bare concrete in stairways, storage, toilets, and basement service areas in good condition; hardwood in gym in good condition; and vinyl in all other areas in good condition. Ceiling finishes include: suspended acoustic tile system in office in fair condition; direct mounted acoustic ceiling tiles in some classrooms, corridors, cafeteria, and auditorium in varying conditions with some needing replaced; and painted plaster, structural concrete, or structural steel in all other areas fair condition. Multiple service and utility conduit lines can be seen in corridors where a suspended acoustic tile ceiling system could be installed to conceal them.

The building has no elevator.

Commercial and Institutional equipment includes: stage equipment in poor condition with damaged curtains, and gym equipment in good condition. Other equipment includes: food service equipment in good condition.

Fixed furnishings include: fixed casework in classrooms, corridors and library, generally in fair to good condition; and fixed auditorium seating for 286 generally in good condition.

MECHANICAL SYSTEMS

Toilet room plumbing fixtures include vitreous china, wall hung water closets and urinals, and enamel on cast iron lavatories with momentary valves for separate hot and cold spigots. Flush valves are installed in pipe chases. Some fixtures are contemporary low flow. The second floor toilet rooms are mostly individual use rooms serving a pair of classrooms. Some are out of service and used for storage presently. The district should replace 25% of toilet room fixtures due to age and stains. The cafeteria kitchen has a 3 basin, dual drain-board, floor standing, stainless steel, commercial sink with two mixing faucets and a stainless steel lavatory. There is a grease trap and sanitization chemical injection system. Second floor faculty lounge has the original 1959 enameled cast iron two basin residential sink with sheet metal cabinet. The enamel is scratched and stained, and the sheet metal is rusting. It should be replaced. There is a chemistry laboratory sink for instructor use in one classroom. The cold water does not run, so the faucet should be replaced. Service sinks are located in cleaning closets on each floor. They are floor level concrete basins with wall mounted faucets with vacuum breakers. Service sinks have exceeded their service life and should be replaced. Drinking fountains located in hallways are enameled cast iron, non-accessible, without chillers. These should be replaced with accessible fountains with integral chillers. Outdoor fountains are concrete with steel trim and have been abandoned in place.

Municipal water service enters the building in the basement near the boiler room. The 4 inch compound water meter was installed in 2012. It has a 2 inch bypass line. There is a 4 inch reduced pressure backflow preventer with 2 inch bypass backflow preventer. There is a domestic water pressure booster system manufactured in 2011 with two 7.5 HP pumps, storage tank, and controller. Water service equipment and valves are in good condition and can be expected to last 15 – 20 more years. In the boiler room, there are two Bradford White brand, gas fired, 100 gallon tank heaters manufactured in 2011. There is a thermal expansion tank for the domestic hot water also manufactured in 2011. Water heating equipment has at least 5 year life expectancy. Domestic water distribution pipe is soldered copper throughout the building. Visible areas show it in fair condition and it should be serviceable for 5 – 10 more years.

Sanitary drain piping is threaded galvanized steel. It is probably original to the building it shows little external rust. Some areas have been repaired with hubless cast iron pipe with banded couplings. The original pipe is beyond the expected service life and should be

inspected in detail and repaired or replaced as needed. The building does not have a sewage ejector.

Rain water drain pipes are also galvanized steel with cast iron strainers on roof top inlets. There are no overflow drains, but there are no parapets at the roof edges. Roof drains run internally and likely connect with sanitary drains. There is one ground water sump with 2 pumps in the boiler room. One pump has seized and does not work. This pump should be replaced to restore redundancy. There are holes in the concrete floor of the boiler room where ground water continuously flows out of the ground, across the floor, and into a floor drain. This is a major hydrological issue and remedy suggestions are beyond the scope of this survey, and a separate study should be performed to determine solution. Presently the sump pump is sufficient to prevent flooding.

The building has hydronic heating serving unit vents and multiple air handlers.

The building has two boilers installed in 2011: Buderus brand, model Logano GE615/9, cast iron sectional, 1,697 MBH net (488 HP), with Cyclonic brand gas-oil burners. The boilers and burners are in excellent condition visually, and have 30 years expected service life remaining. There are two Spencer brand 2 HP gas boosters in the boiler room, manufactured in 2011. Natural gas service enters the property in a 6 inch line. The gas meter is located north of the building in a fenced enclosure. The oil tank has 10,000 gallon capacity and is buried in the parking lot east of the building. There are 2 oil pumps located in a closet in the gymnasium by the east side exterior doors. One was running during the inspection and it was audibly cavitating. The oil pump system should be repaired or replaced.

The building does not have any central cooling generating equipment. There are about 10 window unit air conditioners for select offices and classrooms. A mini-split system provides cooling for a network equipment room. Total installed cooling capacity is approximately 20 tons. Inefficient window units should be removed and replaced with a 100 ton chiller system.

Three air handlers provide heating and ventilation for the auditorium and gym. They have 5,000 cfm estimated capacity each. The air handlers are still operable, but they have surpassed their service life and do not have cooling coils, so they should be replaced when cooling is added to the building. Classrooms have the original unit ventilators. They have exceeded their lifespan and many are damaged. Unit ventilators should all be replaced with new units. Five Penn Barry rooftop exhaust fans with 1/3 HP motors were installed in 2013. Toilet rooms have exhaust fans in the ceiling leading to rooftop vent hoods. The kitchen has an exhaust hood with fire extinguisher system for the gas stove and ovens. The hoods are original but the fire suppression systems were installed more recently. Hydronic distribution pipe is threaded steel in fair condition. Distribution pipe should be replaced when units are replaced. Hydronic pipe in the boiler room is flanged steel, new in 2011. There are two hydronic pumps: Bell & Gossett size 1510 BF 9.375 with 7.5 HP motors manufactured in 2011. The building has an 800 gallon storage tank. There is no water softener.

Hallway and toilet room radiators are finned tube units. Hallway units appear to have been replaced, while the toiler room units appear original. Radiators should be replaced due to age.

Classrooms are equipped with thermostats for unit vent temperature control. There is a duplex air compressor with tank and refrigerated filter drier. It is in like new condition and likely installed in 2011 along with the rest of the boiler room renovations. A digital control system should be installed when air conditioning is added to the building. Two thermometers for the domestic hot water system are broken and need replacement.

The building does not have stand pipes or sprinklers. A fire sprinkler system should be installed to increase occupant safety, including a fire pump if needed.

ELECTRICAL SYSTEMS

A pole mounted transformer on S. 42nd Street and an underground secondary conductors serve this building. The electrical service entrance is located in the basement which houses the utility main disconnect switch and utility metering PECO 222MUC 38354. The electrical distribution is obtained via a 100KVA phase converter 240V to 120/208V and 400A 120/208V distribution section. The electrical service entrance was upgraded in 2011. It has no extra capacity for new Heating, Ventilation, and Air Conditioning (HVAC) system. The electrical service entrance should be upgraded, using the present utility pole, and adding a pad mounted transformer on S. 42nd Street. The new service will be 208V/120V, 3 phase power, approximate 1200 Amperes and will be located in the vicinity of the existing electrical service. The electrical service will feed Motor Control Center (MCC), HVAC equipment, receptacles, lighting and other smaller loads.

There are 120/240V panel-boards in each floor for lighting and receptacles. These panelboards and associated wiring have exceeded the end of their useful life and are undersized to absorb new loads. The entire distribution system needs to be replaced with new 208/120 volt, 3 phase panelboards and new wiring. The raceway is mainly conduits run above the ceiling.

There number of receptacles in the classrooms are inadequate. Teachers use extension cords. The teacher's whiteboard wall and the opposite of it need to be provided with double compartment surface raceways, the other two walls with minimum two duplex outlets each, when feasible.

Classrooms, corridors and cafeteria are illuminated with surface mounted fluorescent fixtures. The auditorium is illuminated with pendant, architectural lighting fixtures with compact fluorescent lamp. The gymnasium is illuminated with pendant mounted HID fixture. Fluorescent fixtures in classrooms are provided with T12 lamps, corridors and stairways with T-8 lamps. T-12 fluorescent lamps are becoming more expensive, consume more energy and are difficult to find. Lighting fixtures with T-12 lamps represent almost 70% of the fluorescent fixtures in the school and should be replaced with pendant mounted up/down fixture with T-8 lamps

The Fire Alarm system is manufactured by Faraday MPC-2000. The system consists of pull station at each exit door and fire bell at corridors. The system is approximately 20 years old. The present Fire Alarm system does not meet current code. Fire alarm system is tested every day in the morning. Provide a new addressable fire alarm system.

The present telephone system is adequate. During the assessment, randomly, we verified that each wall mounted handset is provided with dial tone.

An independent and separate PA system does not exist. School uses the telephone systems for public announcement. This system is working adequately for most part.

The clock system is composed of an old master control panel at the main office and inoperable clocks at the classrooms. Most of the clocks in the classrooms are battery operated stand-alone. Provide a synchronized clock system, wireless, battery operated.

There is not television system.

The school is not provided with security system. Provide surveillance CCTV cameras for a complete coverage of the school building interior

The emergency power system consists of a gas powered generator, manufactured by Generac, 10KW (estimated) 120/240V. The present emergency power system serves the corridor lights, exit signs, boiler room, and stairways. The gas powered generator, already exceeds its useful service life and should be replaced with 40KW outdoor diesel powered generator.

There is adequate UPS in the IT room.

The emergency lighting is obtained via selected lighting fixtures in corridors and stairs. Exit signs are located at each exit door and corridors and are connected to the school emergency system.

The school lightning protection system is accomplished with air terminals mounted on the chimney. A study needs to be conducted to verify if the air terminals provide the proper coverage.

The auditorium is provided with two rows of pendant mounted theatrical lighting which are controlled from local panelboard. Modern school auditorium requires front, upstage, high side, back theatrical lighting and to create different scenes, theatrical lighting fixtures are controlled by a dimming system. Provide stage theatrical lighting and dimming control system.

The auditorium sound system is portable type. System is approximately 15 years old and has reached its useful service life. Provide the auditorium with new sound system.

GROUNDS SYSTEMS

Yard area on the east side is asphalt paving in fair condition and used for parking of staff vehicles accessible via Ludlow Ave. Small courtyard on north side is used for outdoor dining area and deliveries accessible via S. 42nd St. Chain link fence surrounding yard area is in good condition. Landscaping is limited to a few mature trees along public sidewalks.

Accessibility: the building does have an accessible entrance and accessible routes on the ground level. Toilets are not equipped with accessible fixtures, partitions and accessories, such as grab bars and accessible partitions. Most of the doors in the building do not have lever type door handles.

The school is illuminated with wall mounted HID fixtures providing a safer environment.

There is not outdoor security system. Provide outdoor surveillance CCTV cameras around the building perimeter.

Outdoor loud speaker is not provided in front of the playground area. Provide an outdoor loud speaker facing the playground area

RECOMMENDATIONS

- Waterproof slab and upgrade discharge piping for sub-surface water flow
- Replace windows – beyond service life and not energy efficient
- Replace exterior doors – beyond service life and failing
- Replace interior doors and frames – damaged
- Replace interior door handles with lever type handles and latch sets
- Install accessible toilet partitions
- Install proper ID signage
- Install suspended acoustic tile ceiling system – visible service conduit in corridors
- Install elevator for accessibility
- Replace stage curtains – torn
- Install accessible ramp on at least one entrance
- Provide new service 208V/120V, 3 phase power, approximate 1200 Amperes.
- Replace the entire distribution system with new panels and new wiring/conduits. Approximate (9) 208/120V.
- The teacher's whiteboard wall and the opposite of it need to be provided with double compartment surface raceways, the other two walls with minimum two duplex outlets each. Approximate 240 receptacles.
- Replace 70% of the fluorescent fixtures with pendant mounted up/down fixture with T-8 lamps. Approximate 370 fixtures.
- Provide a new addressable fire alarm system. Approximate 50 devices.
- Provide a clock system with wireless, battery operated clocks. Approximate 30 clocks.
- Add surveillance CCTV cameras for a complete coverage of the school building interior. Approximate 25
- Provide an outdoor diesel powered generator. Approximate 40KW
- Prepare a study to determine if the air terminals installed in the chimney provide the proper coverage to the school.
- Provide the auditorium with dimming and theatrical lighting.
- Provide the auditorium with a sound system.
- Add outdoor surveillance CCTV cameras to provide a complete coverage of the building perimeter. Approximate 10
- Provide an outdoor loud speaker facing the playground area

Attributes:

General Attributes:			
Active:	Open	Bldg Lot Tm:	Lot 3 / Tm 3
Status:	Accepted by SDP	Team:	Tm 3
Site ID:	S105001		

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	45.00 %	18.31 %	$237,772.69
A20 - Basement Construction	45.00 %	0.69 %	$3,928.38
B10 - Superstructure	45.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	68.99 %	14.81 %	$425,692.39
B30 - Roofing	50.05 %	0.00 %	$0.00
C10 - Interior Construction	40.19 %	8.00 %	$88,704.98
C20 - Stairs	42.10 %	0.00 %	$0.00
C30 - Interior Finishes	65.11 %	2.91 %	$54,957.39
D10 - Conveying	105.71 %	233.03 %	$497,751.74
D20 - Plumbing	56.48 %	42.88 %	$333,080.77
D30 - HVAC	104.90 %	66.58 %	$2,962,399.18
D40 - Fire Protection	105.71 %	177.49 %	$572,219.29
D50 - Electrical	110.11 %	58.92 %	$1,385,440.14
E10 - Equipment	56.80 %	46.10 %	$293,594.70
E20 - Furnishings	25.00 %	13.84 %	$11,789.41
G20 - Site Improvements	42.15 %	6.14 %	$25,981.81
G40 - Site Electrical Utilities	63.75 %	115.49 %	$187,454.13
Totals:	**71.12 %**	**32.23 %**	**$7,080,767.00**

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)
B105001;Robeson	40,000	32.11	$3,928.38	$2,303,544.39	$1,386,163.65	$878,547.87	$2,295,146.77
G105001;Grounds	16,000	36.46	$25,981.81	$0.00	$184,377.46	$3,076.67	$0.00
Total:		**32.23**	**$29,910.19**	**$2,303,544.39**	**$1,570,541.11**	**$881,624.54**	**$2,295,146.77**

Deficiencies By Priority

- 1 - Response Time (< 2 yr) - $29,910.19
- 2 - Response Time (2-3 yrs) - $2,303,544.39
- 3 - Response Time (3-4 yrs) - $1,570,541.11
- 4 - Response Time (4-5 yrs) - $881,624.54
- 5 - Response Time (> 5 yrs) - $2,295,146.77

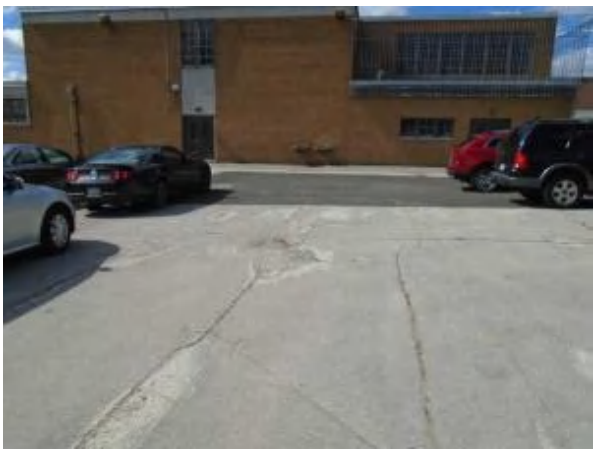
Budget Estimate Total: $7,080,767.00

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):	40,000
Year Built:	1960
Last Renovation:	
Replacement Value:	$21,384,303
Repair Cost:	$6,867,331.06
Total FCI:	32.11 %
Total RSLI:	71.75 %



Description:

Attributes:

General Attributes:

Active:	Open	Bldg ID:	B105001
Sewage Ejector:	No	Status:	Accepted by SDP
Site ID:	S105001		

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	45.00 %	18.31 %	$237,772.69
A20 - Basement Construction	45.00 %	0.69 %	$3,928.38
B10 - Superstructure	45.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	68.99 %	14.81 %	$425,692.39
B30 - Roofing	50.05 %	0.00 %	$0.00
C10 - Interior Construction	40.19 %	8.00 %	$88,704.98
C20 - Stairs	42.10 %	0.00 %	$0.00
C30 - Interior Finishes	65.11 %	2.91 %	$54,957.39
D10 - Conveying	105.71 %	233.03 %	$497,751.74
D20 - Plumbing	56.48 %	42.88 %	$333,080.77
D30 - HVAC	104.90 %	66.58 %	$2,962,399.18
D40 - Fire Protection	105.71 %	177.49 %	$572,219.29
D50 - Electrical	110.11 %	58.92 %	$1,385,440.14
E10 - Equipment	56.80 %	46.10 %	$293,594.70
E20 - Furnishings	25.00 %	13.84 %	$11,789.41
Totals:	**71.75 %**	**32.11 %**	**$6,867,331.06**

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	$27.30	S.F.	40,000	100	1960	2060		45.00 %	8.81 %	45		$96,255.17	$1,092,000
A1030	Slab on Grade	$5.17	S.F.	40,000	100	1960	2060		45.00 %	68.43 %	45		$141,517.52	$206,800
A2010	Basement Excavation	$4.36	S.F.	40,000	100	1960	2060		45.00 %	0.00 %	45			$174,400
A2020	Basement Walls	$9.91	S.F.	40,000	100	1960	2060		45.00 %	0.99 %	45		$3,928.38	$396,400
B1010	Floor Construction	$85.34	S.F.	40,000	100	1960	2060		45.00 %	0.00 %	45			$3,413,600
B1020	Roof Construction	$14.39	S.F.	40,000	100	1960	2060		45.00 %	0.00 %	45			$575,600
B2010	Exterior Walls	$43.20	S.F.	40,000	100	1960	2060		45.00 %	0.00 %	45			$1,728,000
B2020	Exterior Windows	$27.52	S.F.	40,000	40	1960	2000	2057	105.00 %	24.61 %	42		$270,867.94	$1,100,800
B2030	Exterior Doors	$1.16	S.F.	40,000	25	1985	2010	2042	108.00 %	333.67 %	27		$154,824.45	$46,400
B3010105	Built-Up	$37.76	S.F.	19,945	20	2005	2025		50.00 %	0.00 %	10			$753,123
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	$0.06	S.F.	40,000	30	2005	2035		66.67 %	0.00 %	20			$2,400
C1010	Partitions	$21.05	S.F.	40,000	100	1960	2060		45.00 %	0.00 %	45			$842,000
C1020	Interior Doors	$3.76	S.F.	40,000	40	1985	2025		25.00 %	42.82 %	10		$64,402.95	$150,400
C1030	Fittings	$2.90	S.F.	40,000	40	1985	2025		25.00 %	20.95 %	10		$24,302.03	$116,000
C2010	Stair Construction	$1.18	S.F.	40,000	100	1960	2060		45.00 %	0.00 %	45			$47,200

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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 $
C2020	Stair Finishes	$0.39	S.F.	40,000	30	1985	2015	2025	33.33 %	0.00 %	10			$15,600
C3010230	Paint & Covering	$15.98	S.F.	40,000	10	2011	2021		60.00 %	0.00 %	6			$639,200
C3010231	Vinyl Wall Covering	$0.00	S.F.		15				0.00 %	0.00 %				$0
C3010232	Wall Tile	$0.83	S.F.	40,000	30	1985	2015	2025	33.33 %	0.00 %	10			$33,200
C3020411	Carpet	$7.30	S.F.		10				0.00 %	0.00 %				$0
C3020412	Terrazzo & Tile	$75.52	S.F.		50				0.00 %	0.00 %				$0
C3020413	Vinyl Flooring	$9.68	S.F.	30,000	20	1995	2015	2025	50.00 %	0.00 %	10			$290,400
C3020414	Wood Flooring	$22.27	S.F.	3,600	25	1995	2020		20.00 %	0.00 %	5			$80,172
C3020415	Concrete Floor Finishes	$0.97	S.F.	6,400	50	1985	2035		40.00 %	0.00 %	20			$6,208
C3030	Ceiling Finishes	$20.97	S.F.	40,000	25	1995	2020	2035	80.00 %	6.55 %	20		$54,957.39	$838,800
D1010	Elevators and Lifts	$5.34	S.F.	40,000	35			2052	105.71 %	233.03 %	37		$497,751.74	$213,600
D2010	Plumbing Fixtures	$13.52	S.F.	40,000	35	1960	1995	2030	42.86 %	25.31 %	15		$136,850.85	$540,800
D2020	Domestic Water Distribution	$1.68	S.F.	40,000	25	1960	1985	2025	40.00 %	0.00 %	10			$67,200
D2030	Sanitary Waste	$2.32	S.F.	40,000	30	1960	1990	2047	106.67 %	211.45 %	32		$196,229.92	$92,800
D2040	Rain Water Drainage	$1.90	S.F.	40,000	30	1960	1990	2047	106.67 %	0.00 %	32			$76,000
D3020	Heat Generating Systems	$18.67	S.F.	40,000	35	2011	2046		88.57 %	3.57 %	31		$26,678.08	$746,800
D3030	Cooling Generating Systems	$24.48	S.F.	40,000	30			2047	106.67 %	49.20 %	32		$481,781.82	$979,200
D3040	Distribution Systems	$42.99	S.F.	40,000	25	1960	1985	2042	108.00 %	105.25 %	27		$1,809,952.41	$1,719,600
D3050	Terminal & Package Units	$11.60	S.F.	40,000	20	1960	1980	2037	110.00 %	0.00 %	22			$464,000
D3060	Controls & Instrumentation	$13.50	S.F.	40,000	20	1960	1980	2037	110.00 %	119.26 %	22		$643,986.87	$540,000
D4010	Sprinklers	$7.05	S.F.	40,000	35			2052	105.71 %	202.91 %	37		$572,219.29	$282,000
D4020	Standpipes	$1.01	S.F.	40,000	35			2052	105.71 %	0.00 %	37			$40,400
D5010	Electrical Service/Distribution	$9.70	S.F.	40,000	30	1960	1990	2047	106.67 %	123.41 %	32		$478,827.49	$388,000
D5020	Lighting and Branch Wiring	$34.68	S.F.	40,000	20	1960	1980	2037	110.00 %	29.34 %	22		$407,049.59	$1,387,200
D5030	Communications and Security	$12.99	S.F.	40,000	15	1960	1975	2032	113.33 %	68.04 %	17		$353,533.94	$519,600
D5090	Other Electrical Systems	$1.41	S.F.	40,000	30	1960	1990	2047	106.67 %	258.92 %	32		$146,029.12	$56,400
E1020	Institutional Equipment	$4.82	S.F.	40,000	35	1995	2030		42.86 %	152.28 %	15		$293,594.70	$192,800
E1090	Other Equipment	$11.10	S.F.	40,000	35	2002	2037		62.86 %	0.00 %	22			$444,000
E2010	Fixed Furnishings	$2.13	S.F.	40,000	40	1985	2025		25.00 %	13.84 %	10		$11,789.41	$85,200
								Total	**71.75 %**	**32.11 %**			**$6,867,331.06**	**$21,384,303**

System Notes

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

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

Note: 95% - Paint & Covering
5% - Wall Tile (glazed brick)

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

Note: 75% - Vinyl Flooring
9% - Wood Flooring
16% - Concrete Floor Finishes

System: D5010 - Electrical Service/Distribution

Note:

Renewal Schedule

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

Inflation Rate: 3%

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Total:	**$6,867,331**	**$0**	**$0**	**$0**	**$0**	**$102,235**	**$839,562**	**$0**	**$0**	**$0**	**$2,233,906**	**$10,043,035**
*** 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	$96,255	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$96,255**
A1030 - Slab on Grade	$141,518	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$141,518**
*** 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	$3,928	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$3,928**
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	$270,868	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$270,868**
B2030 - Exterior Doors	$154,824	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$154,824**
B30 - Roofing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3010 - Roof Coverings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3010105 - Built-Up	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,113,349	**$1,113,349**
B3010120 - Single Ply Membrane	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3010130 - Preformed Metal Roofing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3010140 - Shingle & Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3020 - Roof Openings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C - Interiors	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C10 - Interior Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C1010 - Partitions	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

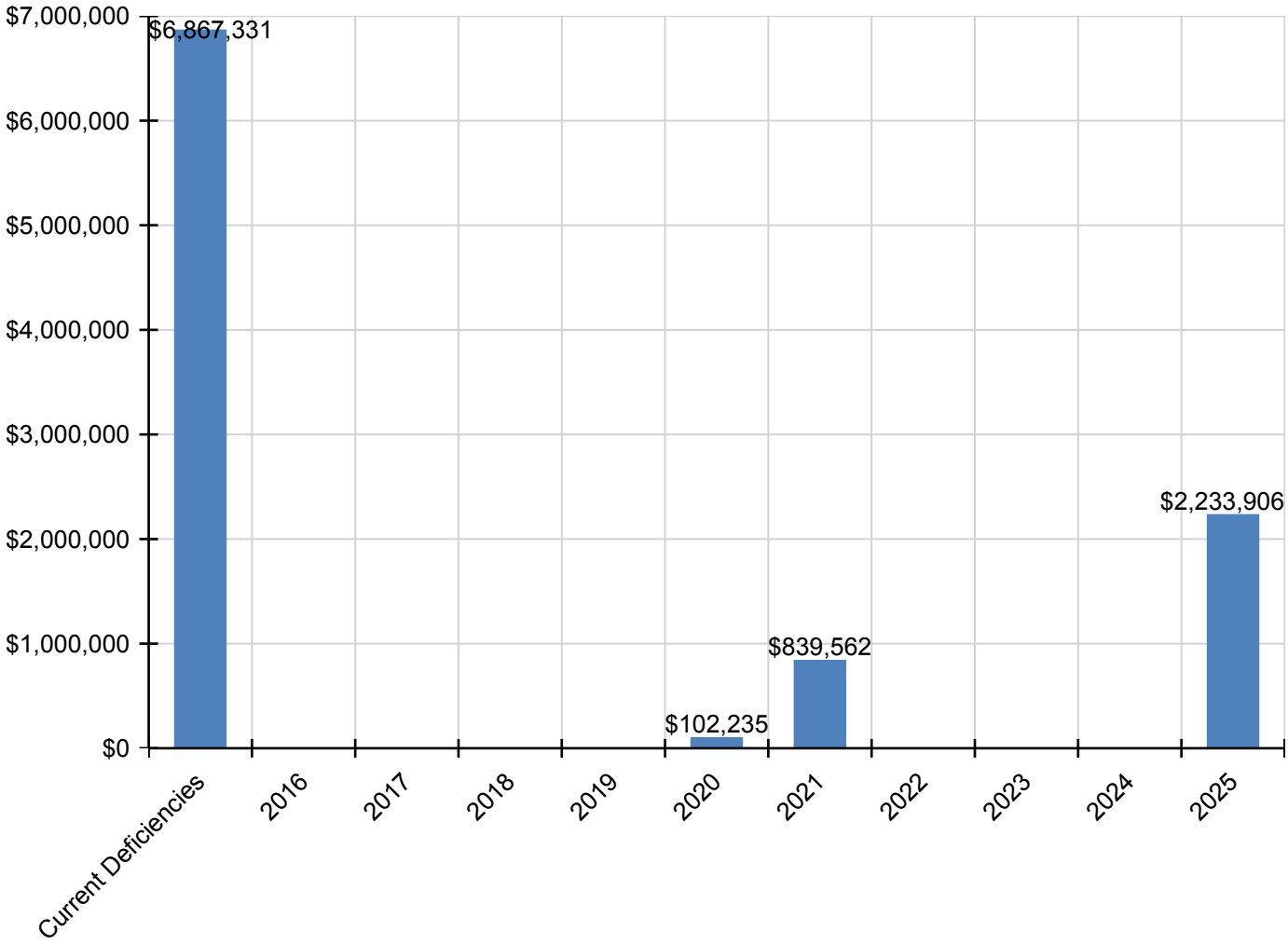
C1020 - Interior Doors	$64,403	$0	$0	$0	$0	$0	$0	$0	$0	$0	$222,338	**$286,740**
C1030 - Fittings	$24,302	$0	$0	$0	$0	$0	$0	$0	$0	$0	$171,484	**$195,786**
C20 - Stairs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C2010 - Stair Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C2020 - Stair Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$23,062	**$23,062**
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	$0	$839,562	$0	$0	$0	$0	**$839,562**
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	$49,080	**$49,080**
C3020 - Floor Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020411 - Carpet	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020412 - Terrazzo & Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020413 - Vinyl Flooring	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$429,301	**$429,301**
C3020414 - Wood Flooring	$0	$0	$0	$0	$0	$102,235	$0	$0	$0	$0	$0	**$102,235**
C3020415 - Concrete Floor Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3030 - Ceiling Finishes	$54,957	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$54,957**
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	$497,752	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$497,752**
D20 - Plumbing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2010 - Plumbing Fixtures	$136,851	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$136,851**
D2020 - Domestic Water Distribution	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$99,342	**$99,342**
D2030 - Sanitary Waste	$196,230	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$196,230**
D2040 - Rain Water Drainage	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D30 - HVAC	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3020 - Heat Generating Systems	$26,678	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$26,678**
D3030 - Cooling Generating Systems	$481,782	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$481,782**
D3040 - Distribution Systems	$1,809,952	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,809,952**
D3050 - Terminal & Package Units	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3060 - Controls & Instrumentation	$643,987	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$643,987**
D40 - Fire Protection	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D4010 - Sprinklers	$572,219	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$572,219**

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	$478,827	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$478,827**
D5020 - Lighting and Branch Wiring	$407,050	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$407,050**
D5030 - Communications and Security	$353,534	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$353,534**
D5090 - Other Electrical Systems	$146,029	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$146,029**
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	$293,595	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$293,595**
E1090 - Other Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E20 - Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E2010 - Fixed Furnishings	$11,789	$0	$0	$0	$0	$0	$0	$0	$0	$0	$125,952	**$137,741**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

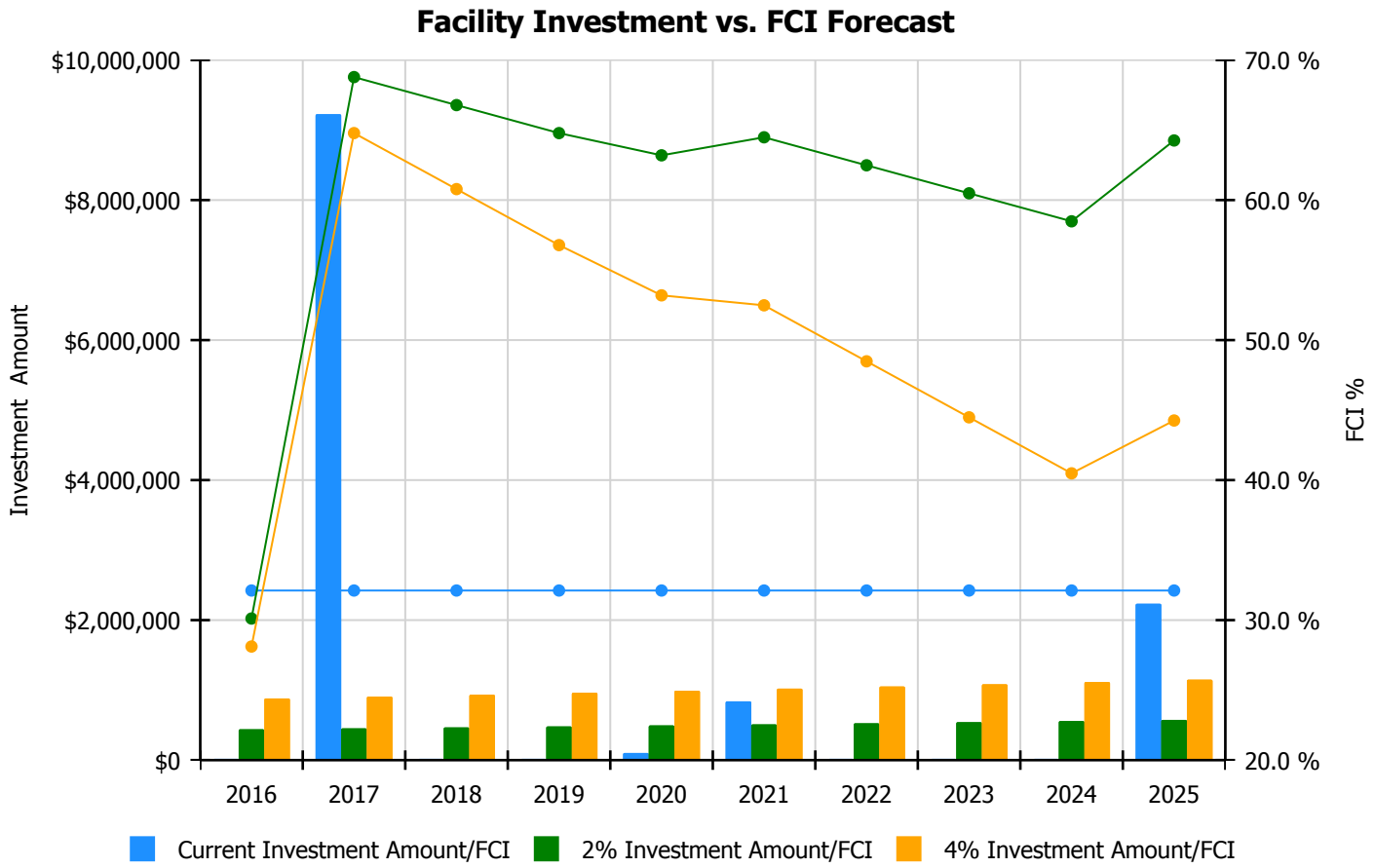
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



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:

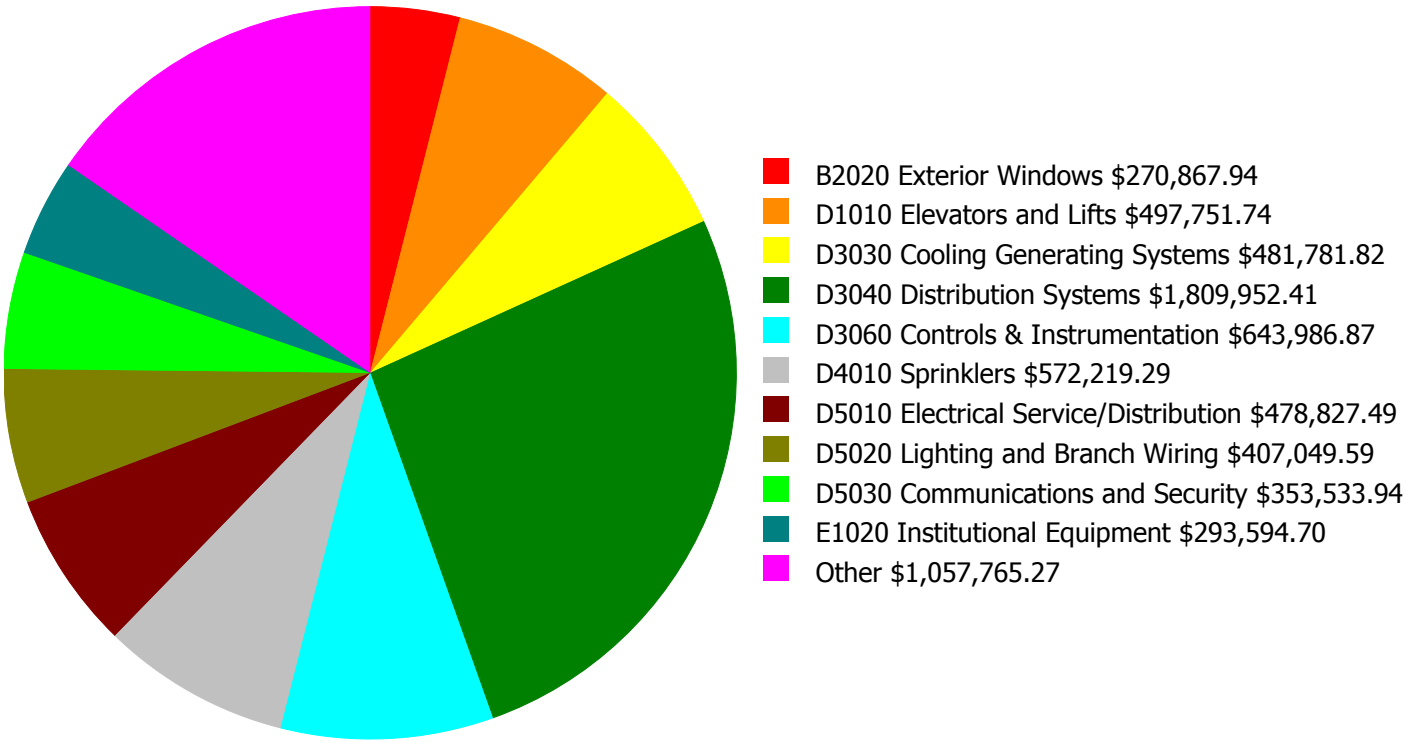
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 32.11%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$440,517.00	30.11 %	$881,033.00	28.11 %
2017	$9,226,223	$453,732.00	68.78 %	$907,464.00	64.78 %
2018	$0	$467,344.00	66.78 %	$934,688.00	60.78 %
2019	$0	$481,364.00	64.78 %	$962,729.00	56.78 %
2020	$102,235	$495,805.00	63.19 %	$991,611.00	53.19 %
2021	$839,562	$510,680.00	64.48 %	$1,021,359.00	52.48 %
2022	$0	$526,000.00	62.48 %	$1,052,000.00	48.48 %
2023	$0	$541,780.00	60.48 %	$1,083,560.00	44.48 %
2024	$0	$558,033.00	58.48 %	$1,116,067.00	40.48 %
2025	$2,233,906	$574,774.00	64.26 %	$1,149,549.00	44.26 %
Total:	**$12,401,926**	**$5,050,029.00**		**$10,100,060.00**	

Deficiency Summary by System

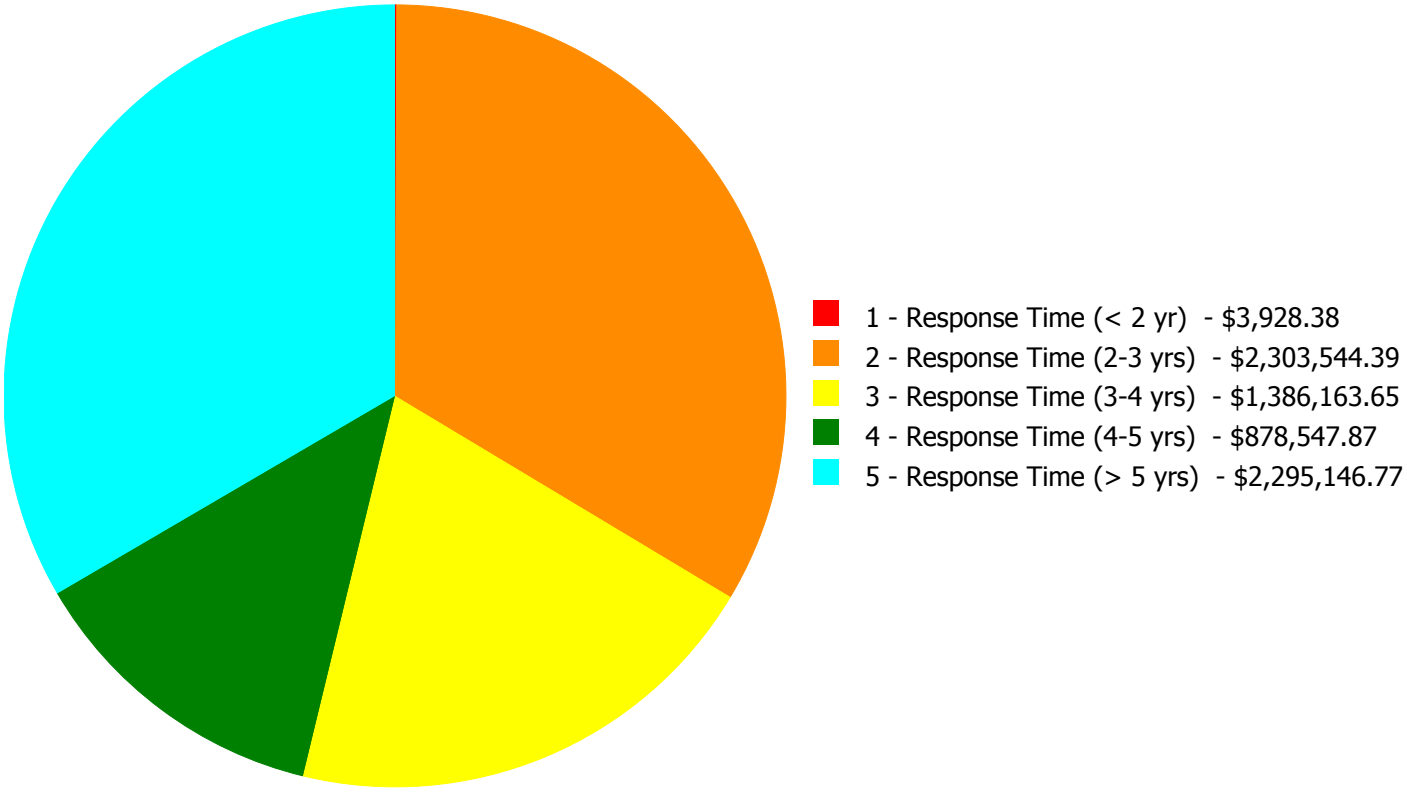
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $6,867,331.06

Deficiency Summary by Priority

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



Budget Estimate Total: $6,867,331.06

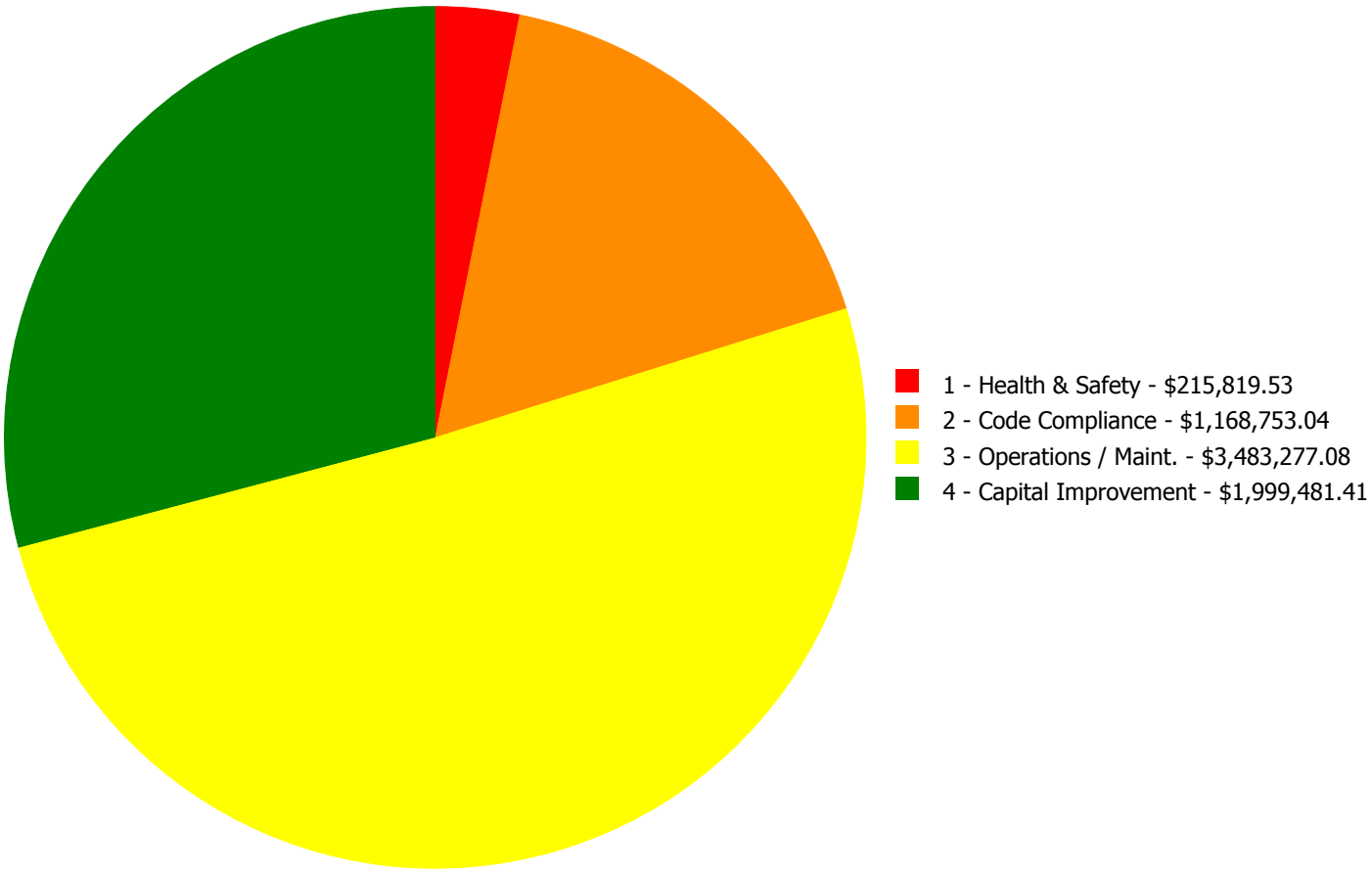
Deficiency By Priority Investment Table

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
A1010	Standard Foundations	$0.00	$96,255.17	$0.00	$0.00	$0.00	$96,255.17
A1030	Slab on Grade	$0.00	$141,517.52	$0.00	$0.00	$0.00	$141,517.52
A2020	Basement Walls	$3,928.38	$0.00	$0.00	$0.00	$0.00	$3,928.38
B2020	Exterior Windows	$0.00	$270,867.94	$0.00	$0.00	$0.00	$270,867.94
B2030	Exterior Doors	$0.00	$0.00	$154,824.45	$0.00	$0.00	$154,824.45
C1020	Interior Doors	$0.00	$64,402.95	$0.00	$0.00	$0.00	$64,402.95
C1030	Fittings	$0.00	$10,756.41	$13,545.62	$0.00	$0.00	$24,302.03
C3030	Ceiling Finishes	$0.00	$54,957.39	$0.00	$0.00	$0.00	$54,957.39
D1010	Elevators and Lifts	$0.00	$497,751.74	$0.00	$0.00	$0.00	$497,751.74
D2010	Plumbing Fixtures	$0.00	$136,850.85	$0.00	$0.00	$0.00	$136,850.85
D2030	Sanitary Waste	$0.00	$0.00	$0.00	$0.00	$196,229.92	$196,229.92
D3020	Heat Generating Systems	$0.00	$0.00	$0.00	$26,678.08	$0.00	$26,678.08
D3030	Cooling Generating Systems	$0.00	$0.00	$0.00	$0.00	$481,781.82	$481,781.82
D3040	Distribution Systems	$0.00	$1,030,184.42	$378,414.99	$0.00	$401,353.00	$1,809,952.41
D3060	Controls & Instrumentation	$0.00	$0.00	$0.00	$424.13	$643,562.74	$643,986.87
D4010	Sprinklers	$0.00	$0.00	$0.00	$0.00	$572,219.29	$572,219.29
D5010	Electrical Service/Distribution	$0.00	$0.00	$478,827.49	$0.00	$0.00	$478,827.49
D5020	Lighting and Branch Wiring	$0.00	$0.00	$88,169.04	$318,880.55	$0.00	$407,049.59
D5030	Communications and Security	$0.00	$0.00	$114,563.53	$238,970.41	$0.00	$353,533.94
D5090	Other Electrical Systems	$0.00	$0.00	$146,029.12	$0.00	$0.00	$146,029.12
E1020	Institutional Equipment	$0.00	$0.00	$0.00	$293,594.70	$0.00	$293,594.70
E2010	Fixed Furnishings	$0.00	$0.00	$11,789.41	$0.00	$0.00	$11,789.41
	Total:	$3,928.38	$2,303,544.39	$1,386,163.65	$878,547.87	$2,295,146.77	$6,867,331.06

Deficiency Summary by Category

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



Budget Estimate Total: $6,867,331.06

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: A2020 - Basement Walls

Location: Boiler room

Distress: Failing

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Sumps and sump pumps to control water intrusion in basement area - based on number of likely sumps needed

Qty: 1.00

Unit of Measure: Ea.

Estimate: $3,928.38

Assessor Name: System

Date Created: 01/18/2016

Notes: Replace seized sump pump

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

System: A1010 - Standard Foundations

Location: Basement

Distress: Maintenance Required

Category: 3 - Operations / Maint.

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

Correction: Apply waterproofing on existing foundation walls - SF of foundation wall - add for sump and discharge piping

Qty: 1,563.00

Unit of Measure: S.F.

Estimate: $96,255.17

Assessor Name: System

Date Created: 11/05/2015

Notes: Waterproof slab and upgrade discharge piping for sub-surface water flow

System: A1030 - Slab on Grade

Location: Boiler room

Distress: Building Envelope Integrity

Category: 3 - Operations / Maint.

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

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

Qty: 1.00

Unit of Measure: Ea.

Estimate: $141,517.52

Assessor Name: System

Date Created: 01/18/2016

Notes: Install under slab drain tile around the perimeter of the boiler room connected to a sump pit with duplex pumps that discharge to the storm sewer to manage ground water leaks

System: B2020 - Exterior Windows

Location: Throughout

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 100.00

Unit of Measure: Ea.

Estimate: $270,867.94

Assessor Name: System

Date Created: 11/05/2015

Notes: Replace windows – beyond service life and not energy efficient

System: C1020 - Interior Doors

Location: Various

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 10.00

Unit of Measure: Ea.

Estimate: $47,705.87

Assessor Name: System

Date Created: 11/05/2015

Notes: Replace interior doors and frames – damaged

System: C1020 - Interior Doors

Location: Throughout

Distress: Accessibility

Category: 2 - Code Compliance

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

Correction: Replace door knobs with compliant lever type

Qty: 30.00

Unit of Measure: Ea.

Estimate: $16,697.08

Assessor Name: System

Date Created: 11/05/2015

Notes: Replace interior door handles with lever type handles and latch sets

System: C1030 - Fittings

Location: Toilets

Distress: Accessibility

Category: 2 - Code Compliance

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

Correction: Remove and replace damaged toilet paritions - handicap units

Qty: 11.00

Unit of Measure: Ea.

Estimate: $10,756.41

Assessor Name: System

Date Created: 11/05/2015

Notes: Install accessible toilet partitions

System: C3030 - Ceiling Finishes

Location: Corridors

Distress: Appearance

Category: 3 - Operations / Maint.

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

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

Qty: 3,500.00

Unit of Measure: S.F.

Estimate: $54,957.39

Assessor Name: System

Date Created: 11/05/2015

Notes: Install suspended acoustic tile ceiling system – visible service conduit in corridors

System: D1010 - Elevators and Lifts

Location: TBD

Distress: Accessibility

Category: 2 - Code Compliance

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

Correction: Add interior hydraulic elevator - 3 floors - adjust the electrical run lengths to hook up the elevator

Qty: 1.00

Unit of Measure: Ea.

Estimate: $497,751.74

Assessor Name: System

Date Created: 11/05/2015

Notes: Install elevator for accessibility

System: D2010 - Plumbing Fixtures

Location: Corridors

Distress: Accessibility

Category: 2 - Code Compliance

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

Correction: Remove and replace water fountains to meet ADA - includes high and low fountains and new recessed alcove

Qty: 3.00

Unit of Measure: Ea.

Estimate: $47,078.70

Assessor Name: System

Date Created: 01/18/2016

Notes: Replace drinking fountains with accessible chilled fountains

System: D2010 - Plumbing Fixtures

Location: Toilet rooms

Distress: Failing

Category: 3 - Operations / Maint.

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

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

Qty: 5.00

Unit of Measure: Ea.

Estimate: $37,310.74

Assessor Name: System

Date Created: 01/18/2016

Notes: Replace out of service toilet room fixtures

System: D2010 - Plumbing Fixtures

Location: Cleaning closets

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 4.00

Unit of Measure: Ea.

Estimate: $27,264.37

Assessor Name: System

Date Created: 01/18/2016

Notes: Replace service sinks due to age

System: D2010 - Plumbing Fixtures

Location: Toilet rooms

Distress: Failing

Category: 3 - Operations / Maint.

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

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

Qty: 5.00

Unit of Measure: Ea.

Estimate: $20,585.48

Assessor Name: System

Date Created: 01/18/2016

Notes: Replace out of service toilet room fixtures

System: D2010 - Plumbing Fixtures

Location: Faculty lounge

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 1.00

Unit of Measure: Ea.

Estimate: $4,346.65

Assessor Name: System

Date Created: 01/18/2016

Notes: Replace original 1959 kitchen sink in faculty lounge

System: D2010 - Plumbing Fixtures

Location: Science classroom

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Replace lavatory faucet

Qty: 1.00

Unit of Measure: Ea.

Estimate: $264.91

Assessor Name: System

Date Created: 01/18/2016

Notes: Replace inoperable faucet for lab sink

System: D3040 - Distribution Systems

Location: Classrooms

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 20.00

Unit of Measure: Ea.

Estimate: $1,030,184.42

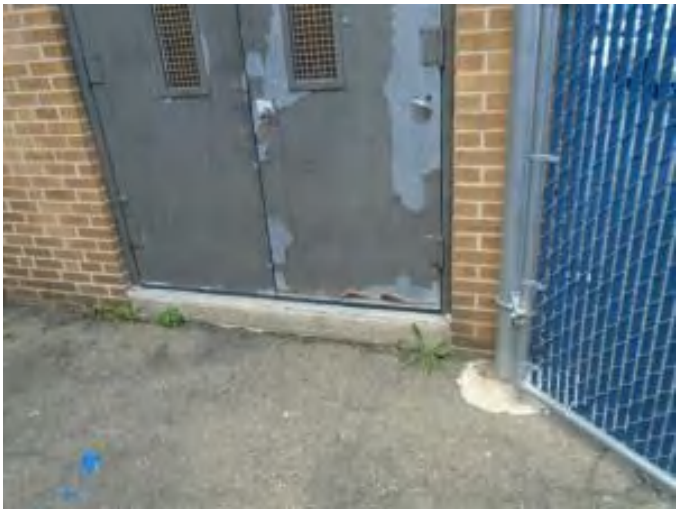
Assessor Name: System

Date Created: 01/18/2016

Notes: Replace unit ventilators and radiators due to age and damage

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

System: B2030 - Exterior Doors



Location: Throughout

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace exterior doors - per leaf

Qty: 17.00

Unit of Measure: Ea.

Estimate: $154,824.45

Assessor Name: System

Date Created: 11/05/2015

Notes: Replace exterior doors – beyond service life and failing

System: C1030 - Fittings

Location: Throughout

Distress: Inadequate

Category: 4 - Capital Improvement

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

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

Qty: 50.00

Unit of Measure: Ea.

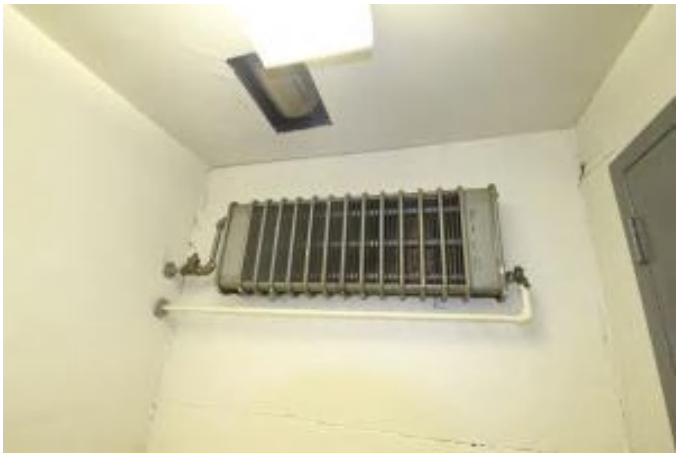
Estimate: $13,545.62

Assessor Name: System

Date Created: 11/05/2015

Notes: Install proper ID signage

System: D3040 - Distribution Systems



Location: Entire building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 40,000.00

Unit of Measure: S.F.

Estimate: $378,414.99

Assessor Name: System

Date Created: 01/18/2016

Notes: Replace hydronic distribution pipe due to age

System: D5010 - Electrical Service/Distribution

Location: Entire Building

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Replace Electrical Distribution System (U)

Qty: 1.00

Unit of Measure: Ea.

Estimate: $248,270.20

Assessor Name: System

Date Created: 12/29/2015

Notes: Replace the entire distribution system with new panels and new wiring/conduits. Approximate (9) 208/120V.

System: D5010 - Electrical Service/Distribution

Location: Basement

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Replace Switchboard

Qty: 1.00

Unit of Measure: Ea.

Estimate: $230,557.29

Assessor Name: System

Date Created: 12/29/2015

Notes: Provide new service 208V/120V, 3 phase power, approximate 1200 Amperes.

System: D5020 - Lighting and Branch Wiring

Location: Entire Building

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Add wiring device

Qty: 240.00

Unit of Measure: Ea.

Estimate: $88,169.04

Assessor Name: System

Date Created: 12/29/2015

Notes: The teacher's whiteboard wall and the opposite of it need to be provided with double compartment surface raceways, the other two walls with minimum two duplex outlets each. Approximate 240 receptacles.

System: D5030 - Communications and Security

Location: Entire Building
Distress: Life Safety / NFPA / PFD
Category: 1 - Health & Safety
Priority: 3 - Response Time (3-4 yrs)
Correction: Replace fire alarm system
Qty: 1.00
Unit of Measure: S.F.
Estimate: $114,563.53
Assessor Name: System
Date Created: 12/29/2015

Notes: Provide a new addressable fire alarm system. Approximate 50 devices.

System: D5090 - Other Electrical Systems

Location: Outdoor
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 3 - Response Time (3-4 yrs)
Correction: Add Standby Generator System
Qty: 1.00
Unit of Measure: Ea.
Estimate: $121,779.30
Assessor Name: System
Date Created: 12/29/2015

Notes: Provide an outdoor diesel powered generator. Approximate 40KW

System: D5090 - Other Electrical Systems

Location: Roof

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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

Correction: Repair Lightning Protection System

Qty: 1.00

Unit of Measure: Job

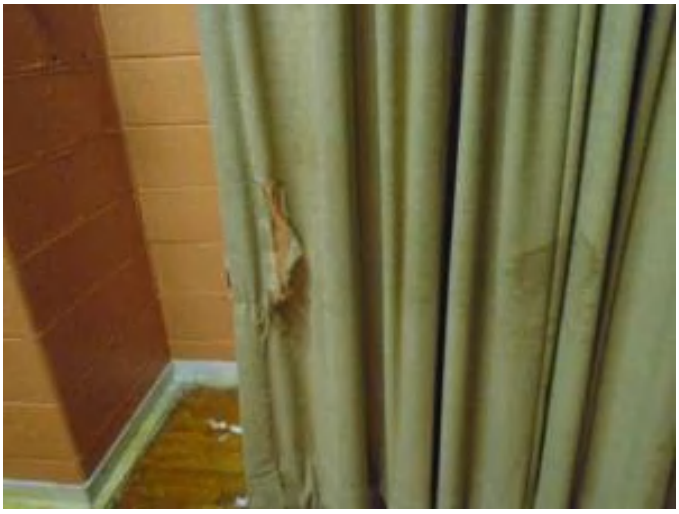
Estimate: $24,249.82

Assessor Name: System

Date Created: 12/29/2015

Notes: Prepare a study to determine if the air terminals installed in the chimney provide the proper coverage to the school.

System: E2010 - Fixed Furnishings



Location: Stage

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace stage curtain - insert the LF of track and SF of curtain

Qty: 80.00

Unit of Measure: Ea.

Estimate: $11,789.41

Assessor Name: System

Date Created: 11/05/2015

Notes: Replace stage curtains – torn

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

System: D3020 - Heat Generating Systems

Location: Gymnasium

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Replace fuel oil pumps

Qty: 1.00

Unit of Measure: Ea.

Estimate: $26,678.08

Assessor Name: System

Date Created: 01/18/2016

Notes: Repair or replace cavitating oil pump system

System: D3060 - Controls & Instrumentation

Location: Boiler room

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Replace temperature, pressure gauges (enter estimate)

Qty: 1.00

Unit of Measure: Ea.

Estimate: $424.13

Assessor Name: System

Date Created: 01/18/2016

Notes: Replace two broken thermometers for domestic hot water system

System: D5020 - Lighting and Branch Wiring

Location: Entire Buildiing
Distress: Obsolete
Category: 3 - Operations / Maint.
Priority: 4 - Response Time (4-5 yrs)
Correction: Add Lighting Fixtures
Qty: 370.00
Unit of Measure: Ea.
Estimate: $318,880.55
Assessor Name: System
Date Created: 12/29/2015

Notes: Replace 70% of the fluorescent fixtures with pendant mounted up/down fixture with T-8 lamps. Approximate 370 fixtures.

System: D5030 - Communications and Security

Location: Entire Buildiing
Distress: Obsolete
Category: 3 - Operations / Maint.
Priority: 4 - Response Time (4-5 yrs)
Correction: Add/Replace Clock System or Components
Qty: 30.00
Unit of Measure: Ea.
Estimate: $112,560.22
Assessor Name: System
Date Created: 12/29/2015

Notes: Provide a clock system with wireless, battery operated clocks. Approximate 30 clocks.

System: D5030 - Communications and Security

Location: Entire Building
Distress: Security Issue
Category: 1 - Health & Safety
Priority: 4 - Response Time (4-5 yrs)
Correction: Add/Replace Video Surveillance System
Qty: 1.00
Unit of Measure: Ea.
Estimate: $101,256.00
Assessor Name: System
Date Created: 12/29/2015

Notes: Add surveillance CCTV cameras for a complete coverage of the school building interior. Approximate 25

System: D5030 - Communications and Security

Location: Auditorium
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 4 - Response Time (4-5 yrs)
Correction: Add/Replace Sound System
Qty: 1.00
Unit of Measure: LS
Estimate: $25,154.19
Assessor Name: System
Date Created: 12/29/2015

Notes: Provide the auditorium with a sound system.

System: E1020 - Institutional Equipment

Location: Auditorium

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Add/Replace Stage Theatrical Lighting System

Qty: 1.00

Unit of Measure: Ea.

Estimate: $293,594.70

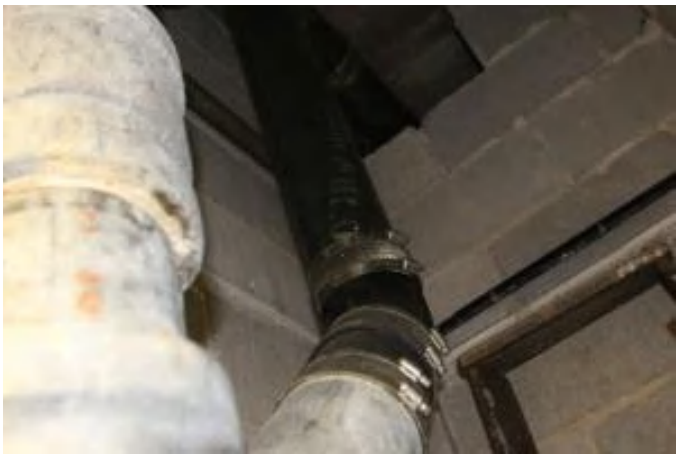
Assessor Name: System

Date Created: 12/29/2015

Notes: Provide the auditorium with dimming and theatrical lighting.

Priority 5 - Response Time (> 5 yrs):

System: D2030 - Sanitary Waste



Location: Entire building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 40,000.00

Unit of Measure: S.F.

Estimate: $196,229.92

Assessor Name: System

Date Created: 01/18/2016

Notes: Inspect and repair or replace original sanitary drain pipes

System: D3030 - Cooling Generating Systems

Location: Entire building

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 30,000.00

Unit of Measure: S.F.

Estimate: $481,781.82

Assessor Name: System

Date Created: 01/18/2016

Notes: Install 100 ton chiller system to replace inefficient window unit air conditioners

System: D3040 - Distribution Systems

Location: Gymnasium

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 4,200.00

Unit of Measure: Ea.

Estimate: $241,402.15

Assessor Name: System

Date Created: 01/18/2016

Notes: Replace gym air handlers to add cooling capacity

System: D3040 - Distribution Systems

Location: Auditorium

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Install / replace HVAC unit for Auditorium (800 seat).

Qty: 286.00

Unit of Measure: Seat

Estimate: $159,950.85

Assessor Name: System

Date Created: 01/18/2016

Notes: Replace auditorium air handler to add cooling capacity

System: D3060 - Controls & Instrumentation

Location: Entire building

Distress: Energy Efficiency

Category: 4 - Capital Improvement

Priority: 5 - Response Time (> 5 yrs)

Correction: Replace pneumatic controls with DDC (75KSF)

Qty: 30,000.00

Unit of Measure: S.F.

Estimate: $643,562.74

Assessor Name: System

Date Created: 01/18/2016

Notes: Install DDC to control upgraded HVAC

System: D4010 - Sprinklers

Location: Entire building

Distress: Life Safety / NFPA / PFD

Category: 2 - Code Compliance

Priority: 5 - Response Time (> 5 yrs)

Correction: Install a fire protection sprinkler system

Qty: 40,000.00

Unit of Measure: S.F.

Estimate: $572,219.29

Assessor Name: System

Date Created: 01/18/2016

Notes: Install fire protection sprinkler system with fire pump if needed

Equipment Inventory

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

Subsystem	Inventory	Qty	UoM	Location	Manufacturer	Model Number	Serial Number	Barcode	Life	Install Date	Next Renewal	Raw Cost	Inventory Cost
D2020 Domestic Water Distribution	Pump, pressure booster system, 7-1/2 HP pump, includes diaphragm tank, control and pressure switch	1.00	Ea.	Boiler room					25	2011	2036	$12,198.00	$13,417.80
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, hot water, gross output, 1460 MBH, includes burners, controls and insulated jacket, packaged	2.00	Ea.	Boiler room					35	2011	2046	$55,514.90	$122,132.78
D5010 Electrical Service/Distribution	Panelboards, 3 pole 4 wire, main circuit breaker, 120/208 V, 400 amp	1.00	Ea.	Basement Electrical Room					30	2011	2041	$4,626.45	$5,089.10
												Total:	**$140,639.68**

Executive Summary

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

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):	16,000
Year Built:	1960
Last Renovation:	
Replacement Value:	$585,470
Repair Cost:	$213,435.94
Total FCI:	36.46 %
Total RSLI:	48.14 %

Description:

Attributes:

General Attributes:

Bldg ID:	S105001	Site ID:	S105001

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	42.15 %	6.14 %	$25,981.81
G40 - Site Electrical Utilities	63.75 %	115.49 %	$187,454.13
Totals:	**48.14 %**	**36.46 %**	**$213,435.94**

Condition Detail

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

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

System Listing

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

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

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

System Code	System Description	Unit Price $	UoM	Qty	Life	Year Installed	Calc Next Renewal Year	Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency $	Replacement Value $
G2010	Roadways	$11.52	S.F.		30				0.00 %	0.00 %				$0
G2020	Parking Lots	$8.50	S.F.		30				0.00 %	0.00 %				$0
G2030	Pedestrian Paving	$12.30	S.F.	25,400	40	1995	2035		50.00 %	8.32 %	20		$25,981.81	$312,420
G2040	Site Development	$4.36	S.F.	25,400	25	1995	2020		20.00 %	0.00 %	5			$110,744
G2050	Landscaping & Irrigation	$4.36	S.F.		15				0.00 %	0.00 %				$0
G4020	Site Lighting	$4.84	S.F.	25,400	30	2000	2030		50.00 %	0.00 %	15			$122,936
G4030	Site Communications & Security	$1.55	S.F.	25,400	30	1960	1990	2047	106.67 %	476.13 %	32		$187,454.13	$39,370
								Total	**48.14 %**	**36.46 %**			**$213,435.94**	**$585,470**

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.

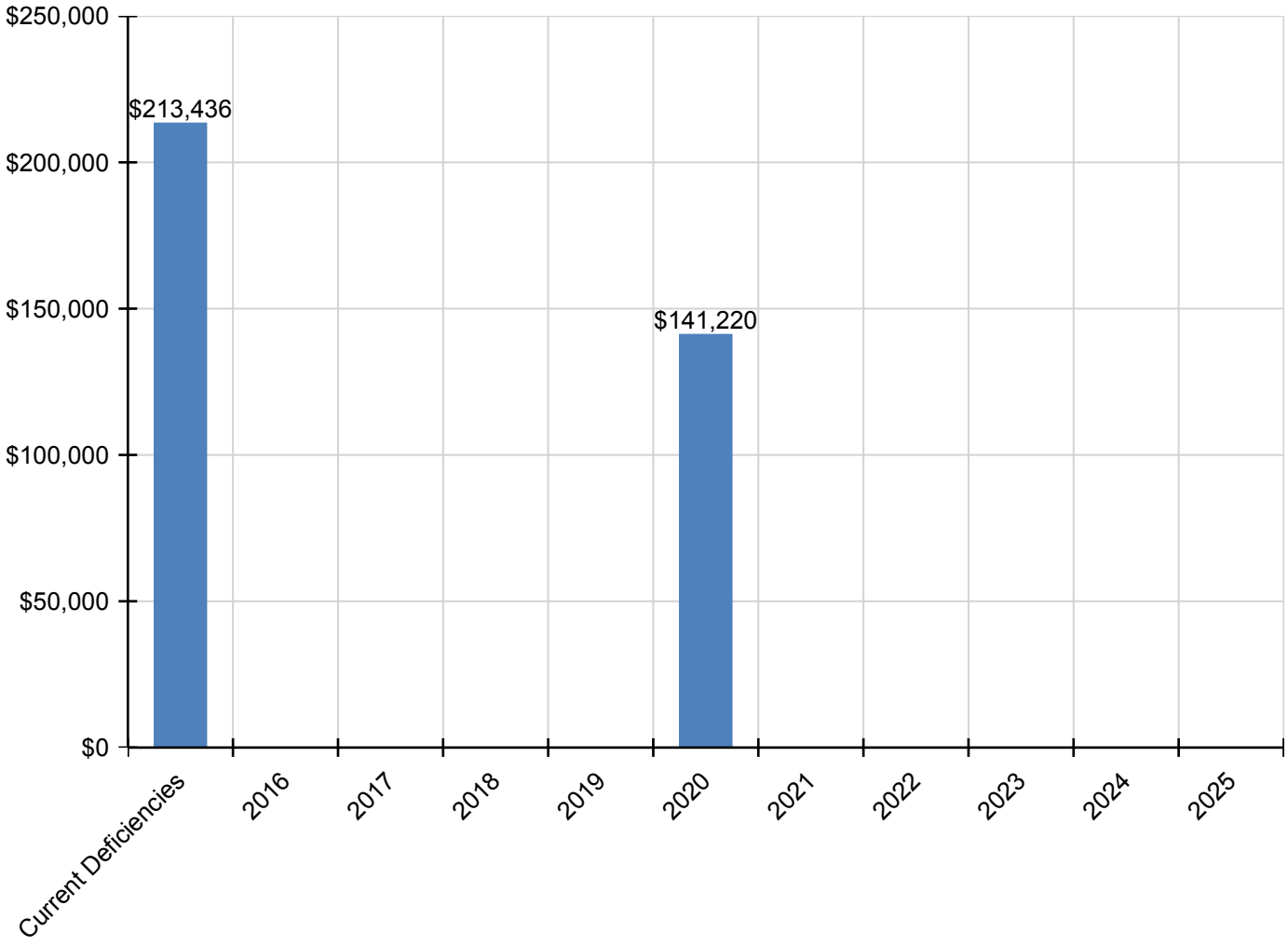
Inflation Rate: 3%

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Total:	**$213,436**	**$0**	**$0**	**$0**	**$0**	**$141,220**	**$0**	**$0**	**$0**	**$0**	**$0**	**$354,656**
G - Building Sitework	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G20 - Site Improvements	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G2010 - Roadways	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G2020 - Parking Lots	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G2030 - Pedestrian Paving	$25,982	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$25,982**
G2040 - Site Development	$0	$0	$0	$0	$0	$141,220	$0	$0	$0	$0	$0	**$141,220**
G2050 - Landscaping & Irrigation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G40 - Site Electrical Utilities	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G4020 - Site Lighting	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G4030 - Site Communications & Security	$187,454	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$187,454**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

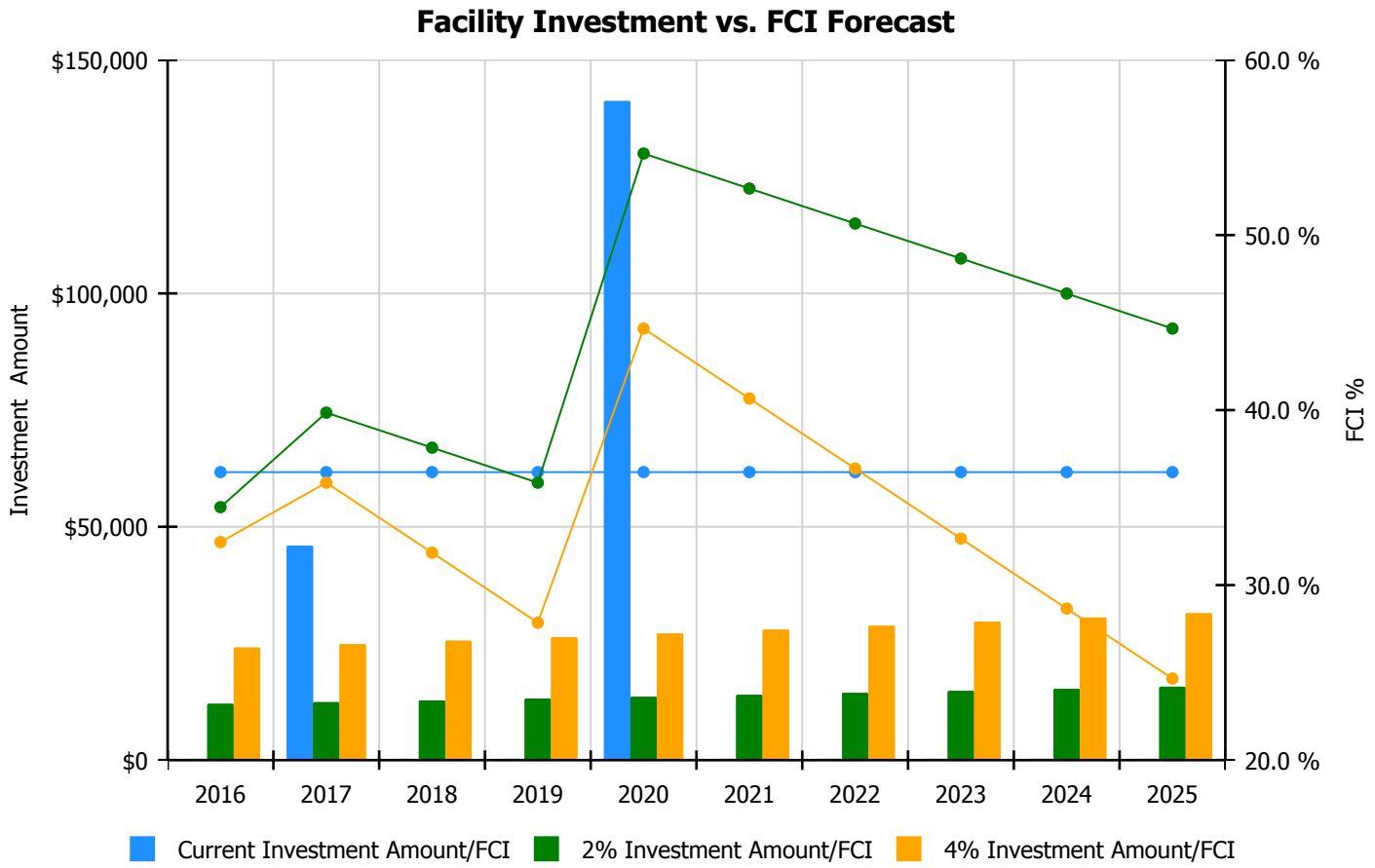
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



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:

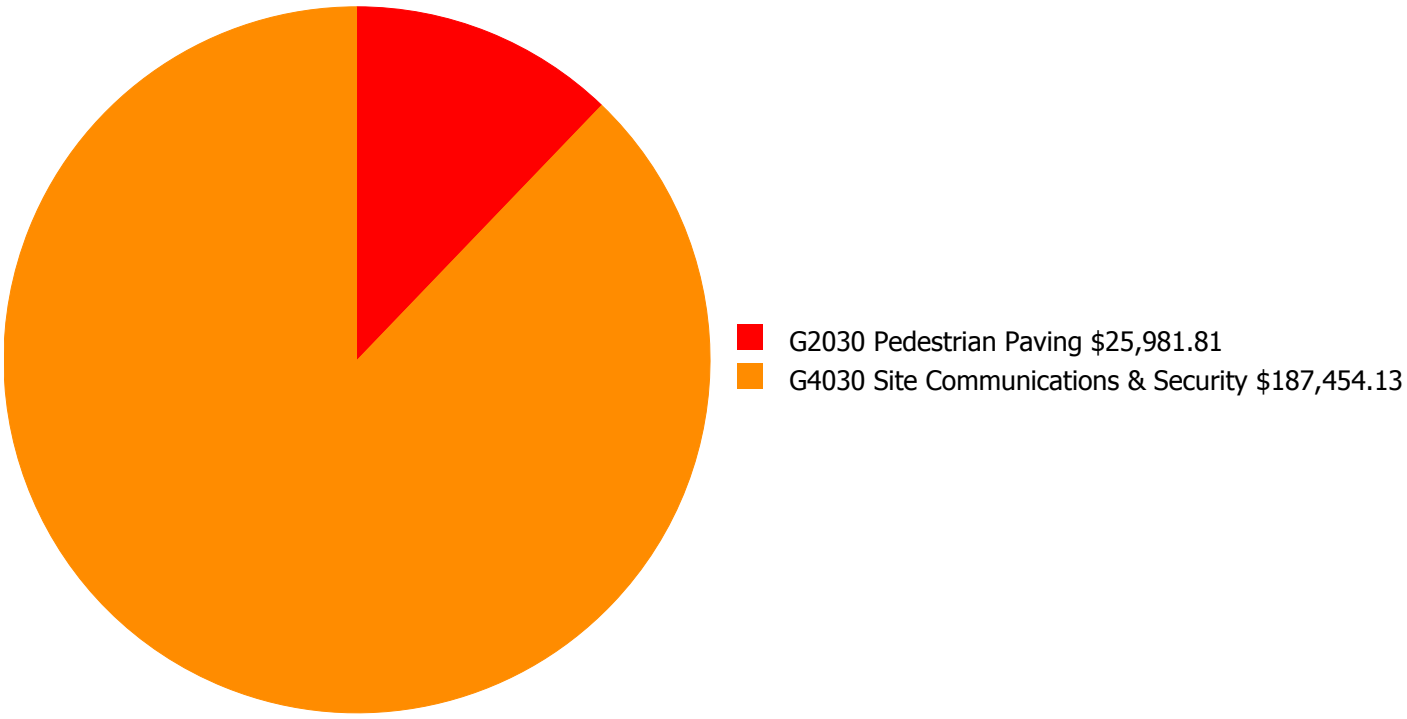
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 36.46%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$12,061.00	34.46 %	$24,121.00	32.46 %
2017	$45,944	$12,423.00	39.85 %	$24,845.00	35.85 %
2018	$0	$12,795.00	37.85 %	$25,590.00	31.85 %
2019	$0	$13,179.00	35.85 %	$26,358.00	27.85 %
2020	$141,220	$13,574.00	54.66 %	$27,149.00	44.66 %
2021	$0	$13,982.00	52.66 %	$27,963.00	40.66 %
2022	$0	$14,401.00	50.66 %	$28,802.00	36.66 %
2023	$0	$14,833.00	48.66 %	$29,666.00	32.66 %
2024	$0	$15,278.00	46.66 %	$30,556.00	28.66 %
2025	$0	$15,736.00	44.66 %	$31,473.00	24.66 %
Total:	**$187,165**	**$138,262.00**		**$276,523.00**	

Deficiency Summary by System

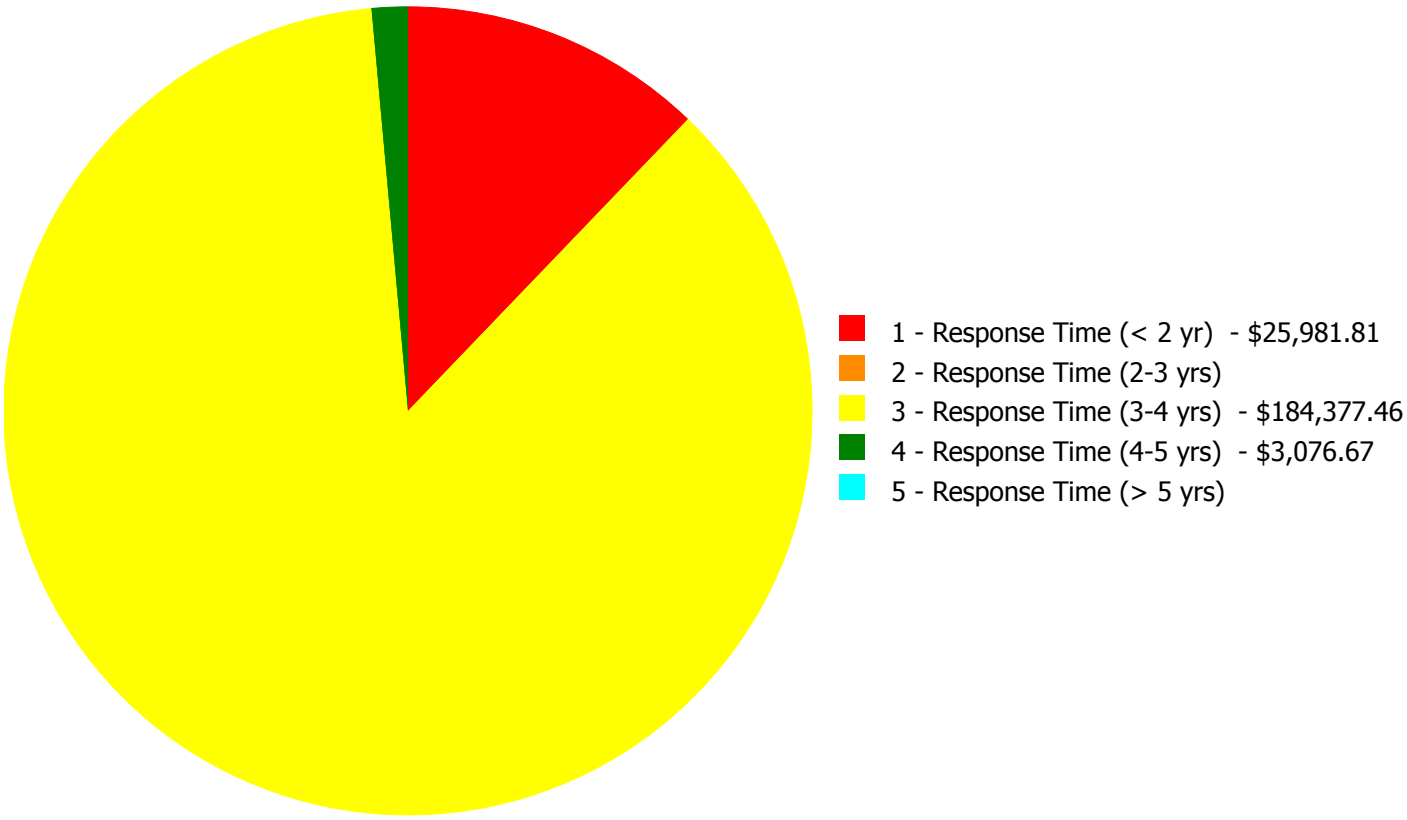
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $213,435.94

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: $213,435.94

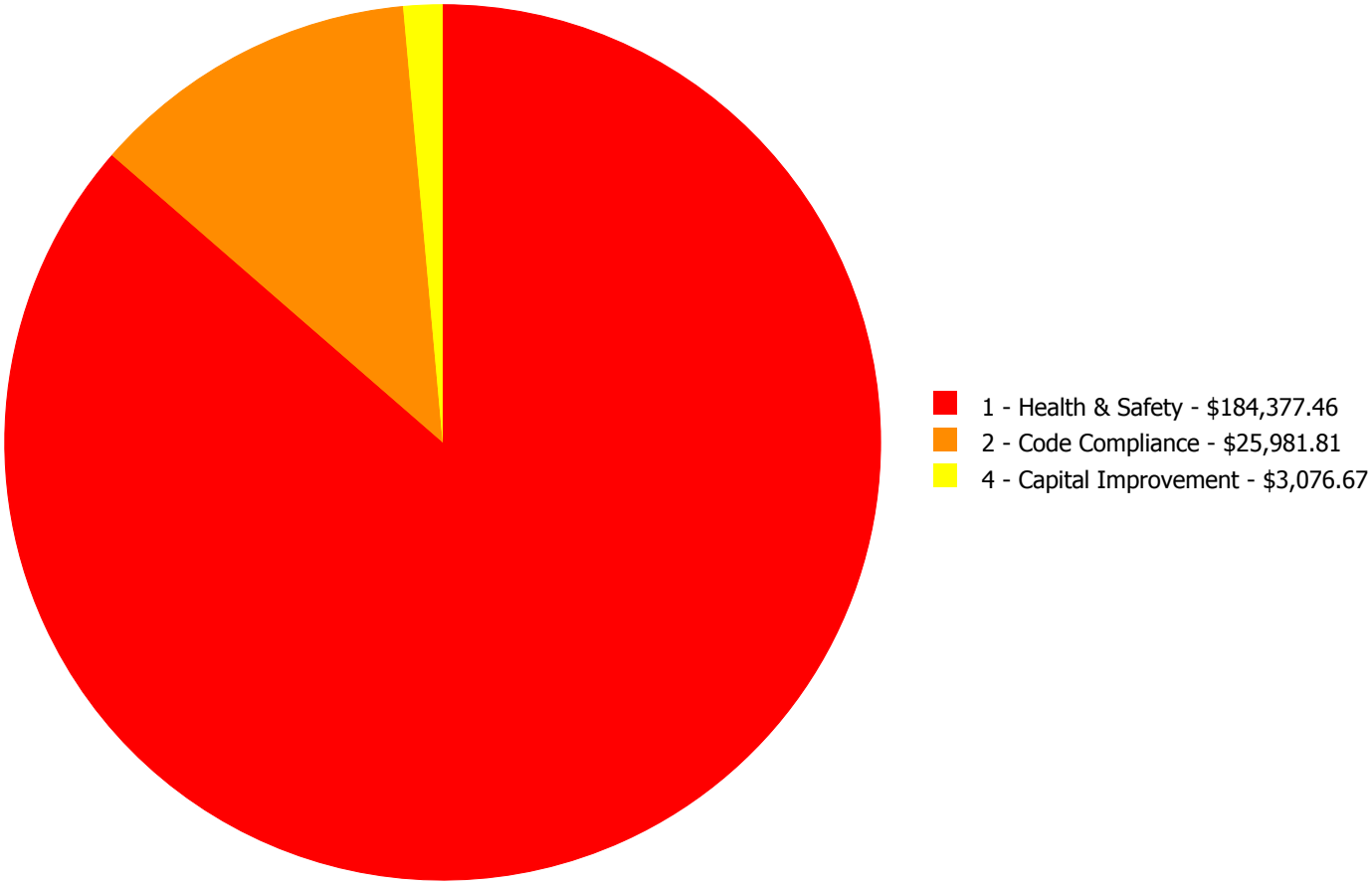
Deficiency By Priority Investment Table

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

System Code	System Description	1 - Response Time (< 2 yr)	2 - Response Time (2-3 yrs)	3 - Response Time (3-4 yrs)	4 - Response Time (4-5 yrs)	5 - Response Time (> 5 yrs)	Total
G2030	Pedestrian Paving	$25,981.81	$0.00	$0.00	$0.00	$0.00	$25,981.81
G4030	Site Communications & Security	$0.00	$0.00	$184,377.46	$3,076.67	$0.00	$187,454.13
	Total:	$25,981.81	$0.00	$184,377.46	$3,076.67	$0.00	$213,435.94

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: $213,435.94

Deficiency Details by Priority

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

Priority 1 - Response Time (< 2 yr):

System: G2030 - Pedestrian Paving

Location: Entrance

Distress: Accessibility

Category: 2 - Code Compliance

Priority: 1 - Response Time (< 2 yr)

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

Qty: 20.00

Unit of Measure: L.F.

Estimate: $25,981.81

Assessor Name: Craig Anding

Date Created: 11/05/2015

Notes: Install accessible ramp on at least one entrance

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

System: G4030 - Site Communications & Security

Location: Building Perimeter

Distress: Security Issue

Category: 1 - Health & Safety

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

Correction: Add Video Surveillance System

Qty: 10.00

Unit of Measure: Ea.

Estimate: $184,377.46

Assessor Name: Craig Anding

Date Created: 12/29/2015

Notes: Add outdoor surveillance CCTV cameras to provide a complete coverage of the building perimeter. Approximate 10

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

System: G4030 - Site Communications & Security

Location: Building Exterior

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Add Site Paging System

Qty: 1.00

Unit of Measure: Ea.

Estimate: $3,076.67

Assessor Name: Craig Anding

Date Created: 12/29/2015

Notes: Provide an outdoor loud speaker facing the playground area

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