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.

Barry School

Governance	DISTRICT	Report Type	Elementarymiddle
Address	5900 Race St.	Enrollment	687
	Philadelphia, Pa 19139	Grade Range	'00-08'
Phone/Fax	215-471-2744 / 215-471-6320	Admissions Category	Neighborhood
Website	Www.Philasd.Org/Schools/Barry	Turnaround Model	Turnaround

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	**00.01%**	**$5,666**	**$50,170,882**
Building	00.01 %	$5,666	$49,849,042
Grounds	00.00 %	$0	$321,840

Major Building Systems

Building System	System FCI	Repair Costs	Replacement Cost
Roof (Shows physical condition of roof)	00.00 %	$0	$1,400,821
Exterior Walls (Shows condition of the structural condition of the exterior facade)	00.00 %	$0	$3,664,683
Windows (Shows functionality of exterior windows)	00.00 %	$0	$1,788,159
Exterior Doors (Shows condition of exterior doors)	00.00 %	$0	$143,966
Interior Doors (Classroom doors)	00.00 %	$0	$348,497
Interior Walls (Paint and Finishes)	00.00 %	$0	$1,669,014
Plumbing Fixtures	00.00 %	$0	$1,342,360
Boilers	00.00 %	$0	$1,853,688
Chillers/Cooling Towers	00.00 %	$0	$2,430,546
Radiators/Unit Ventilators/HVAC	00.00 %	$0	$4,268,348
Heating/Cooling Controls	00.00 %	$0	$1,340,375
Electrical Service and Distribution	00.00 %	$0	$963,084
Lighting	00.16 %	$5,666	$3,443,273
Communications and Security (Cameras, Pa System and Fire Alarm)	00.00 %	$0	$1,289,738

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

S120001;Barry

Final

Site Assessment Report

February 1, 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):	99,287
Year Built:	2008
Last Renovation:	
Replacement Value:	$50,170,882
Repair Cost:	$5,666.49
Total FCI:	0.01 %
Total RSLI:	79.60 %

Description:

Facility Assessment

July 2015

School District of Philadelphia

Commodore John Barry Elementary School

5900 Race Street

Philadelphia, PA 19139

99,287 SF / 894 Students / LN 02

Commodore John Barry Elementary School is located at 5900 Race Street, Philadelphia, PA. The main entrance faces south. The 4 story plus a partial basement, 99,287 square foot building was constructed in 2008 with no additions. Mr. Newbern, Building Engineer, accompanied the Parsons assessors on the tour of the school and provided detailed information on the building systems and maintenance history.

Structural / Exterior Closure

Foundations are concrete. Visible portions show no signs of distress. Basement walls are cast in place concrete and appear to be in good condition with no visible signs of distress. The superstructure is fireproofed structural steel framing .Floor construction is concrete filled metal deck. Roof construction is steel joist framing with metal deck. Exterior walls are insulated aluminum panels and glazed brick on metal stud back-up. and are in generally good condition. Roof deck areas have metal and glass barriers/wind screens. Exterior soffits are plaster. There are some areas of vandalism or impact damage at grade level glazed brick walls. Exterior windows are typically cleare anodized frames with fixed and operable dual pane tinted glass glazing. There are some glass block windows. Windows at grade are protected with security screening. Windows are in good condition. Exterior doors are typically aluminum framed with glazing. Utility doors are hollow metal in hollow metal frames, and there is a motorized overhead coiling service door. Doors are in generally good condition and are ADA compliant. There is at least one handi-cap entrance. Roofing is low sloped with a built-up membrane with a reflective coating at the fourth floor. Third floor exterior balconies have a paver system. There are no reported or apparent roof leaks. The roof is in overall fair condition and is expected to last another 13-15 years with good maintenance. Re-coating the surface is recommended. Roof openings include a roof hatch and round skylights. Roof access is via alternating tread ship's ladder to the roof hatch at the equipment level roof. A fixed ladder provides access to the main roof level.

Interior partitions include CMU, glazed brick, gypsum wallboard on wood/metal studs, moveable partitions, and glazed openings. Interior partitions are in generally good condition, though there are some damaged column covers in corridors. Interior doors are typically solid core wood in hollow metal frames. Selected openings have transom lites and/or sidelites. Other interior doors include hollow metal in hollow metal frames at stairwells and exit ways, overhead doors at the cafetorium, and access doors. Doors are generally in good condition and are ADA compliant or fire rated where necessary. Doors swing in the direction of exit and do not obstruct hallways. Fittings include: chalkboards; marker boards; tack boards; interior signage; metal lockers; toilet accessories and plastic toilet partitions; fixed storage shelving. Fittings are in generally good condition.

Stair construction is steel with concrete treads and landings. Stair treads and landings are finished with VCT and nosings are steel. Handrails are painted tubular and have extensions and returns at landings.

Interior wall finishes are typically paint. Other wall finishes include: ceramic tile at restrooms; and some glazed brick. Wall finishes are generally in good condition. Interior floor finishes are typically VCT in classrooms and corridors. Other floor finishes include: carpet at offices and the media center; wood flooring in the gym; ceramic tile in restrooms and the kitchen, and sealed concrete in mechanical/utility spaces. Interior ceilings are typically 2 x 4 acoustical tile in metal grid. Other ceiling finishes include: exposed structure in the gym and mechanical spaces; and painted gypsum wallboard. Ceilings are in generally good condition.

Institutional equipment includes: library shelving; A/V equipment including Smartboards; laboratory casework; gym equipment – 2 retractable basketball backstops. Other equipment includes kitchen equipment.

Furnishings include: fixed casework and window shades.

Grounds

There are no off-street parking areas at this school Pedestrian pavements are concrete in good condition. Play areas have crumbled rubber fill. Fencing is chain link in good condition. Landscaping consists of trees in planters. There is no irrigations system.

Site Lighting - The present Site Lighting System is adequate. There are sufficient numbers of wall mounted flood lights illuminate the play ground located at south part of the building. Emergency lighting fixtures are also installed at exit doors.

Site Paging– We could not find any speaker at exterior walls but building engineer mentioned that any announcement is hearable form interior speakers.

Mechanical

Plumbing - All of the original plumbing fixtures remain in service. Fixtures in the restrooms on each floor consist of wall mounted water closets, wall hung urinals and lavatories with wheel handle faucets. Drinking fountains in the corridors and at the restrooms are wall hung with integral refrigerated coolers. A service sink is available in the corridor on each floor for use by the janitorial staff. The Cafeteria has one three compartment, stainless steel sink with lever operated faucets and one two compartment stainless steel sink, also with lever operated faucets. Chemicals are injected manually into the sanitizing basin. The plumbing systems throughout the building appear to be the original installed equipment and should provide reliable service the next 10 years.

Domestic water distribution piping is soldered copper and in good condition. Water service enters the building in the basement, with backflow preventers and the water meter on the main line after entering the building. The distribution piping appears to be the original

installed equipment and should not need service or replacement within the next 10 years. Two gas fired vertical water heater tanks are installed in the basement with appropriate piping, controls, and venting. The water heaters appear to be the original installed equipment and should not need replacement within the next 10 years.

The maintenance staff reported no problems with the sanitary waste piping systems. The small sewer ejector pit is located in the basement with dual pumps. The complete sanitary system appears to be the original installed equipment and should not need replacement within the next 10 years.

The rain water drains from the roof are routed through mechanical chases in the building and appear to be in good condition. There are no roof overflow drains.

HVAC - Duplex fuel oil supply pumps provide the required fuel to the boilers when operating on fuel oil. The boilers run on natural gas unless the power company specifically requests that they operate on fuel oil. The natural gas service enters the basement on the same wall as the domestic water. Boiler and chiller makeup water enters the basement of the building alongside the natural gas service. Cooling tower makeup water is currently a garden hose running into the top of the fill. Recommend fixing chiller makeup water system.

Heating hot water is generated by two 1376 Mbtu/hr Buderus Logano GE515 dual fuel boilers. Each boiler is equipped with a Power Flame burner designed to operate on natural gas or fuel oil. When the building is in heating mode the hot water is diverted to a plate and frame heat exchanger that heats the water in the secondary water loop. This is the original installed equipment and should not need replacement within the next 10 years.

Chilled water is generated by a 300 ton McQuay water cooled chiller in the basement and (2) Marley MC Series cooling towers on the roof. There are two 20 hp condenser water pumps in the basement chiller room. A Sherlock refrigerant gas monitor and visible/audible alarm monitors refrigerant leaks in the chiller room. When the building is in cooling mode the chilled water is diverted to a plate and frame heat exchanger that cools the water in the secondary water loop. This appears to be the original installed equipment and should not need replacement within the next 10 years.

The water is treated with a combination of chemicals, controlled with a WebMaster water treatment controller, and a Pulse Pure unit by Evapco. There are two 15 hp primary loop water pumps, which can serve either the boilers or the chillers depending on valve configuration. There are also two 7.5 hp secondary loop water pumps, which serve the hot/cold water distribution network after the plate and frame heat exchanger. The distribution network serves induction units throughout the building. They are served with fresh air from outdoor air units mounted on the roof. This appears to be the original installed equipment and should not need replacement within the next 10 years

There is a total of two Primary Air Units with plate air to air heat exchangers, two Central Air Conditioning Units with a heat recovery wheel, and three Central Air Conditioning units. The units are served by hot or chilled water. There is also a makeup air unit serving the kitchen hood. All of these units are located on the roof in the open mechanical area. There are two Mistubishi split systems that serve the computer rooms. This appears to be the original installed equipment and should not need replacement within the next 10 years.

The building is controlled by a Honeywell DDC system installed in 2008. Outdoor air ventilation is controlled by CO2 sensors. Per the building engineer, no maintenance or calibration has been done on the CO2 sensors since they were installed in 2008. Recommend calibration or replacement of CO2 sensors and incorporating them into the maintenance program. With these improvements, the control system should provide reliable service for the next 10 years.

Fire Protection - The building is equipped with both wet and dry type sprinkler systems. The water service enters the building in the basement along the same wall as the domestic water. There is one electric fire pump, with backup power provided by the backup generator. There is also a jockey pump and small air compressor for the dry pipe system. The kitchen hood is protected by an Ansul R-102 wet chemical system. The fire suppression systems all appear to be the original installed equipment and should provide reliable service for the next 10 years.

Electrical

Site electrical service- An underground medium voltage cable drop from the utility power pole located on Redfield Street feed the school main switchgear located in the Main electrical room in the basement of the building. The main service switchgear consists of medium voltage pull section, 13.2KV load interrupter, PT/CT section, and 1500KVA, 13200V to 480/277V, 3PH, 4 wires, dry type transformer and 2000A, 408/277V power distribution switchboard. Utility meter was installed in separate enclosure adjacent to the switchgear assembly. Service entrance is upgraded recently and is in a very good condition, and has ample capacity.

Distribution system- The electrical distribution is accomplished with several lighting panel, step down transformers and power panels

located in the main electrical room and other electrical rooms locates two on each floor. Motor Control Centers are controlling the mechanical loads. No deficiencies observed on school distribution system since it was recently upgraded.

Receptacle- There is sufficient number of receptacles installed in classrooms, officer, corridors and other areas throughout the building. No major deficiency observed except in kitchen area which general receptacle was installed close to the sink without Ground Fault Current Interrupter device (GFCI).

Lighting- Interior building is illuminated by various type fixtures (architectural Design). Classrooms are illuminated by linear direct/indirect 8 feet long fluorescent lighting fixtures with 4- T8 lamps. Decorative wall mounted fluorescent lighting fixture with indirect reflector mounted continuously in corridors. Wall mounted uplight/downlight in stairways. Surface mounted industrial fluorescent in boiler room, electrical rooms and storage. High bay luminaries in the gymnasium, recessed 2 x 4 troffer3-lamps, deep housing, high impact white acrylic lens, UL listed for wet location in the kitchen and 1 x 4 recessed parabolic louver units in dining area. There is some decorative round type fixtures used in school entrance hall. Lighting system is control by wall switches and motion sensors. All interior lighting fixtures are in a good condition and building illumination is sufficient. There are no lighting fixtures provided on the roofs where Air Handling Units AHU1 and AHU2 are installed.

Fire alarm- Present Fire Alarm system is adequate. Smoke is monitored by duct smoke detectors, area smoke detectors and pullstations. There are sufficient number of horn/strobes installed in the classrooms, corridors, offices and other areas in the school. No major deficiencies observed.

Telephone/LAN- The school telephone and data systems are new and working adequately. The school provided with three IT rooms, one on each floor.

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

Intercom System and paging- present paging system is completely functional. The paging system is one way communication from office to classrooms. Two way communications is obtained through wall mounted phones in the classrooms and other areas.

Clock and Program system- Present clock and program system are working adequately. Classrooms are provided with 12 inches, wall mounted, round clock. The clocks are controlled by central master control panel. The master control is also programmed for class change.

Television System- Television system is not provided in the school.

Security Systems-access control, video surveillance- The school is provided with adequate video surveillance system. Sufficient number of camera is installed at exit doors, corridors and other critical areas and controlled by a Closed Circuit Television system (CCTV). The system is working properly. During the assessment we observed that one of the Dum cameras at the school entrance was defected and needed to be repair.

Emergency Power System- 300KW diesel generator manufactured by Detroit Diesel with the respective transfer switch is provided in the school for life safety and other emergency loads. This diesel generator tested once a week and is in a good condition.

UPS- Adequate Uninterruptible Power System (UPS) is provided for each IT racks.

Elevator- There is one hydraulic type elevator manufactured by ThyssenKrupp, model TAC 20 is provided in the school. The elevator working properly and no major deficiency observed during the assessment.

Emergency lighting system, including exit lighting - Sufficient emergency lighting fixtures are instated in corridors, library and other exit ways. All exit signs are equipped with adequate batteries.

Lightning Protection System- There is no lightning protection system installed in the school. Risk Assessment Study needs to be conducted to verify if lightning protection system is required to be provided for the school.

Grounding- The present grounding system is adequate. Adequate service ground bus bar was installed in main electrical and IT rooms.

RECOMMENDATIONS:

- Repair exterior glazed brick walls.
- Re-coat the reflective roof surface.

- Repair gypboard column covers and provide outside corner protection.
- Calibrate and/or replace CO2 sensors. Add CO2 sensor calibration as an inspection and maintenance item per manufacturers recommend intervals.
- Install ventilation in kitchen dry storage room.
- Fix cooling tower makeup water system.
- Replace existing general receptacle adjacent to the sink in the kitchen with GFCI receptacle. Estimated one receptacle.
- Install new wall mounted 70 watt high pressure sodium lighting fixtures on roof where AHU1 and AHU2 are installed. Estimated 2 fixtures.

Attributes:

General Attributes:

Active:	Open	Bldg Lot Tm:	Lot 1 / Tm 2
Status:	Accepted by SDP	Team:	Tm 2
Site ID:	S120001		

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.

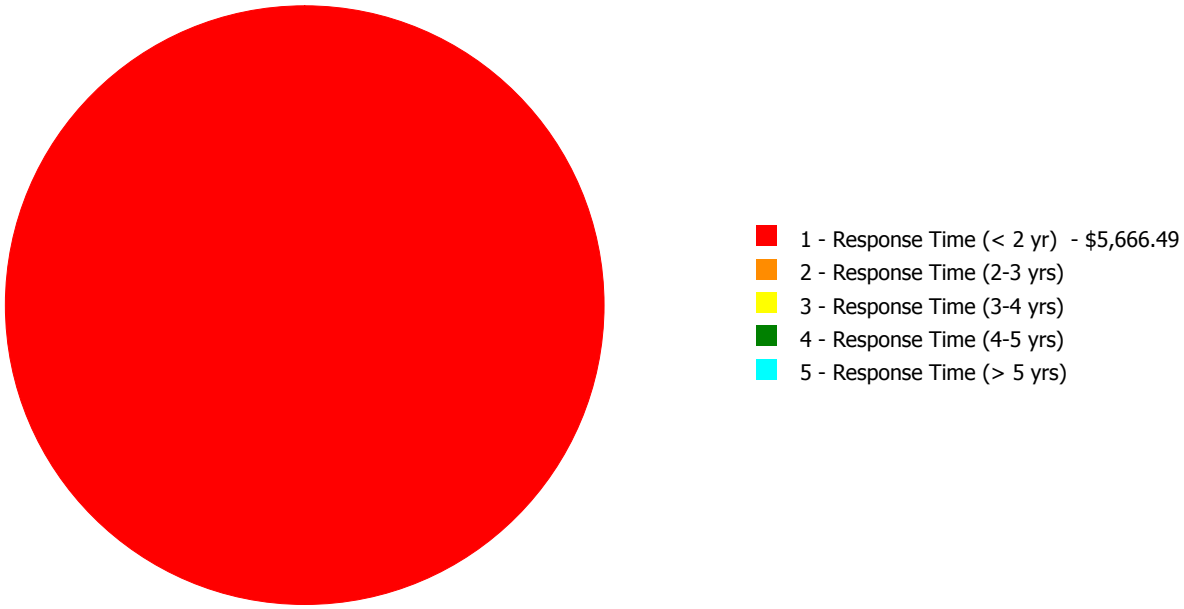
Current Investment Requirement and Condition by Uniformat Classification

UNIFORMAT Classification	RSLI%	FCI %	Current Repair
A10 - Foundations	93.00 %	0.00 %	$0.00
A20 - Basement Construction	93.00 %	0.00 %	$0.00
B10 - Superstructure	93.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	89.11 %	0.00 %	$0.00
B30 - Roofing	65.56 %	0.00 %	$0.00
C10 - Interior Construction	90.16 %	0.00 %	$0.00
C20 - Stairs	93.00 %	0.00 %	$0.00
C30 - Interior Finishes	66.27 %	0.00 %	$0.00
D20 - Plumbing	78.00 %	0.00 %	$0.00
D30 - HVAC	72.79 %	0.00 %	$0.00
D40 - Fire Protection	80.00 %	0.00 %	$0.00
D50 - Electrical	64.63 %	0.10 %	$5,666.49
E10 - Equipment	80.00 %	0.00 %	$0.00
E20 - Furnishings	82.50 %	0.00 %	$0.00
G20 - Site Improvements	68.41 %	0.00 %	$0.00
G40 - Site Electrical Utilities	76.67 %	0.00 %	$0.00
Totals:	**79.60 %**	**0.01 %**	**$5,666.49**

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)
B120001;Barry	99,287	0.01	$5,666.49	$0.00	$0.00	$0.00	$0.00
G120001;Grounds	18,047	0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Total:		**0.01**	**$5,666.49**	**$0.00**	**$0.00**	**$0.00**	**$0.00**

Deficiencies By Priority



Budget Estimate Total: $5,666.49

Executive Summary

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

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

Function:	Elementary School
Gross Area (SF):	99,287
Year Built:	2008
Last Renovation:	
Replacement Value:	$49,849,042
Repair Cost:	$5,666.49
Total FCI:	0.01 %
Total RSLI:	79.65 %

Description:

Elementary School

Attributes:

General Attributes:

Active:	Open	Bldg ID:	B120001
Sewage Ejector:	No	Status:	Accepted by SDP
Site ID:	S120001		

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	93.00 %	0.00 %	$0.00
A20 - Basement Construction	93.00 %	0.00 %	$0.00
B10 - Superstructure	93.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	89.11 %	0.00 %	$0.00
B30 - Roofing	65.56 %	0.00 %	$0.00
C10 - Interior Construction	90.16 %	0.00 %	$0.00
C20 - Stairs	93.00 %	0.00 %	$0.00
C30 - Interior Finishes	66.27 %	0.00 %	$0.00
D20 - Plumbing	78.00 %	0.00 %	$0.00
D30 - HVAC	72.79 %	0.00 %	$0.00
D40 - Fire Protection	80.00 %	0.00 %	$0.00
D50 - Electrical	64.63 %	0.10 %	$5,666.49
E10 - Equipment	80.00 %	0.00 %	$0.00
E20 - Furnishings	82.50 %	0.00 %	$0.00
Totals:	**79.65 %**	**0.01 %**	**$5,666.49**

Condition Detail

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

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

System Listing

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

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

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

System Code	System Description	Unit Price $	UoM	Qty	Life	Year Installed	Calc Next Renewal Year	Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency $	Replacement Value $
A1010	Standard Foundations	$18.40	S.F.	99,287	100	2008	2108		93.00 %	0.00 %	93			$1,826,881
A1030	Slab on Grade	$7.73	S.F.	99,287	100	2008	2108		93.00 %	0.00 %	93			$767,489
A2010	Basement Excavation	$6.55	S.F.	99,287	100	2008	2108		93.00 %	0.00 %	93			$650,330
A2020	Basement Walls	$12.70	S.F.	99,287	100	2008	2108		93.00 %	0.00 %	93			$1,260,945
B1010	Floor Construction	$75.10	S.F.	99,287	100	2008	2108		93.00 %	0.00 %	93			$7,456,454
B1020	Roof Construction	$13.88	S.F.	99,287	100	2008	2108		93.00 %	0.00 %	93			$1,378,104
B2010	Exterior Walls	$36.91	S.F.	99,287	100	2008	2108		93.00 %	0.00 %	93			$3,664,683
B2020	Exterior Windows	$18.01	S.F.	99,287	40	2008	2048		82.50 %	0.00 %	33			$1,788,159
B2030	Exterior Doors	$1.45	S.F.	99,287	25	2008	2033		72.00 %	0.00 %	18			$143,966
B3010105	Built-Up	$37.76	S.F.	35,310	20	2008	2028		65.00 %	0.00 %	13			$1,333,306
B3010120	Single Ply Membrane	$38.73	S.F.		20				0.00 %	0.00 %				$0
B3010130	Preformed Metal Roofing	$54.22	S.F.		30				0.00 %	0.00 %				$0
B3010140	Shingle & Tile	$38.73	S.F.		20				0.00 %	0.00 %				$0
B3020	Roof Openings	$0.68	S.F.	99,287	30	2008	2038		76.67 %	0.00 %	23			$67,515
C1010	Partitions	$17.91	S.F.	99,287	100	2008	2108		93.00 %	0.00 %	93			$1,778,230
C1020	Interior Doors	$3.51	S.F.	99,287	40	2008	2048		82.50 %	0.00 %	33			$348,497
C1030	Fittings	$3.12	S.F.	99,287	40	2008	2048		82.50 %	0.00 %	33			$309,775
C2010	Stair Construction	$1.41	S.F.	99,287	100	2008	2108		93.00 %	0.00 %	93			$139,995

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System Code	System Description	Unit Price $	UoM	Qty	Life	Year Installed	Calc Next Renewal Year	Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency $	Replacement Value $
C3010230	Paint & Covering	$13.21	S.F.	99,287	10	2008	2018	2020	50.00 %	0.00 %	5			$1,311,581
C3010231	Vinyl Wall Covering	$0.97	S.F.	99,287	15	2008	2023		53.33 %	0.00 %	8			$96,308
C3010232	Wall Tile	$2.63	S.F.	99,287	30	2008	2038		76.67 %	0.00 %	23			$261,125
C3020411	Carpet	$7.30	S.F.	2,000	10	2008	2018	2020	50.00 %	0.00 %	5			$14,600
C3020412	Terrazzo & Tile	$75.52	S.F.	10,000	30	2008	2038		76.67 %	0.00 %	23			$755,200
C3020413	Vinyl Flooring	$9.68	S.F.	77,287	20	2008	2028		65.00 %	0.00 %	13			$748,138
C3020414	Wood Flooring	$22.27	S.F.	10,000	25	2008	2033		72.00 %	0.00 %	18			$222,700
C3020415	Concrete Floor Finishes	$0.97	S.F.		50				0.00 %	0.00 %				$0
C3030	Ceiling Finishes	$20.97	S.F.	99,287	25	2008	2033		72.00 %	0.00 %	18			$2,082,048
D2010	Plumbing Fixtures	$13.52	S.F.	99,287	35	2008	2043		80.00 %	0.00 %	28			$1,342,360
D2020	Domestic Water Distribution	$1.68	S.F.	99,287	25	2008	2033		72.00 %	0.00 %	18			$166,802
D2030	Sanitary Waste	$2.32	S.F.	99,287	25	2008	2033		72.00 %	0.00 %	18			$230,346
D2040	Rain Water Drainage	$2.32	S.F.	99,287	30	2008	2038		76.67 %	0.00 %	23			$230,346
D3020	Heat Generating Systems	$18.67	S.F.	99,287	35	2008	2043		80.00 %	0.00 %	28			$1,853,688
D3030	Cooling Generating Systems	$24.48	S.F.	99,287	30	2008	2038		76.67 %	0.00 %	23			$2,430,546
D3040	Distribution Systems	$42.99	S.F.	99,287	25	2008	2033		72.00 %	0.00 %	18			$4,268,348
D3050	Terminal & Package Units	$11.60	S.F.	99,287	20	2008	2028		65.00 %	0.00 %	13			$1,151,729
D3060	Controls & Instrumentation	$13.50	S.F.	99,287	20	2008	2028		65.00 %	0.00 %	13			$1,340,375
D4010	Sprinklers	$7.05	S.F.	99,287	35	2008	2043		80.00 %	0.00 %	28			$699,973
D4020	Standpipes	$1.01	S.F.	99,287	35	2008	2043		80.00 %	0.00 %	28			$100,280
D5010	Electrical Service/Distribution	$9.70	S.F.	99,287	30	2008	2038		76.67 %	0.00 %	23			$963,084
D5020	Lighting and Branch Wiring	$34.68	S.F.	99,287	20	2008	2028		65.00 %	0.16 %	13		$5,666.49	$3,443,273
D5030	Communications and Security	$12.99	S.F.	99,287	15	2008	2023		53.33 %	0.00 %	8			$1,289,738
D5090	Other Electrical Systems	$1.41	S.F.	99,287	30	2008	2038		76.67 %	0.00 %	23			$139,995
E1020	Institutional Equipment	$4.82	S.F.	99,287	35	2008	2043		80.00 %	0.00 %	28			$478,563
E1090	Other Equipment	$11.10	S.F.	99,287	35	2008	2043		80.00 %	0.00 %	28			$1,102,086
E2010	Fixed Furnishings	$2.13	S.F.	99,287	40	2008	2048		82.50 %	0.00 %	33			$211,481
								Total	**79.65 %**	**0.01 %**			**$5,666.49**	**$49,849,042**

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: D5090 - Other Electrical Systems — This system contains no images

Note: (8) 75KVA, 480V to 120/208V dry type transformer.

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:	**$5,666**	**$0**	**$0**	**$0**	**$0**	**$1,691,148**	**$0**	**$0**	**$1,931,382**	**$0**	**$0**	**$3,628,197**
*** A - Substructure**	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
*** A10 - Foundations**	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A1010 - Standard Foundations	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A1030 - Slab on Grade	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
*** A20 - Basement Construction**	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A2010 - Basement Excavation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A2020 - Basement Walls	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B - Shell	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B10 - Superstructure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B1010 - Floor Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B1020 - Roof Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B20 - Exterior Enclosure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B2010 - Exterior Walls	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B2020 - Exterior Windows	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B2030 - Exterior Doors	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
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	$0	**$0**
B3010120 - Single Ply Membrane	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3010130 - Preformed Metal Roofing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3010140 - Shingle & Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3020 - Roof Openings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C - Interiors	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C10 - Interior Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C1010 - Partitions	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

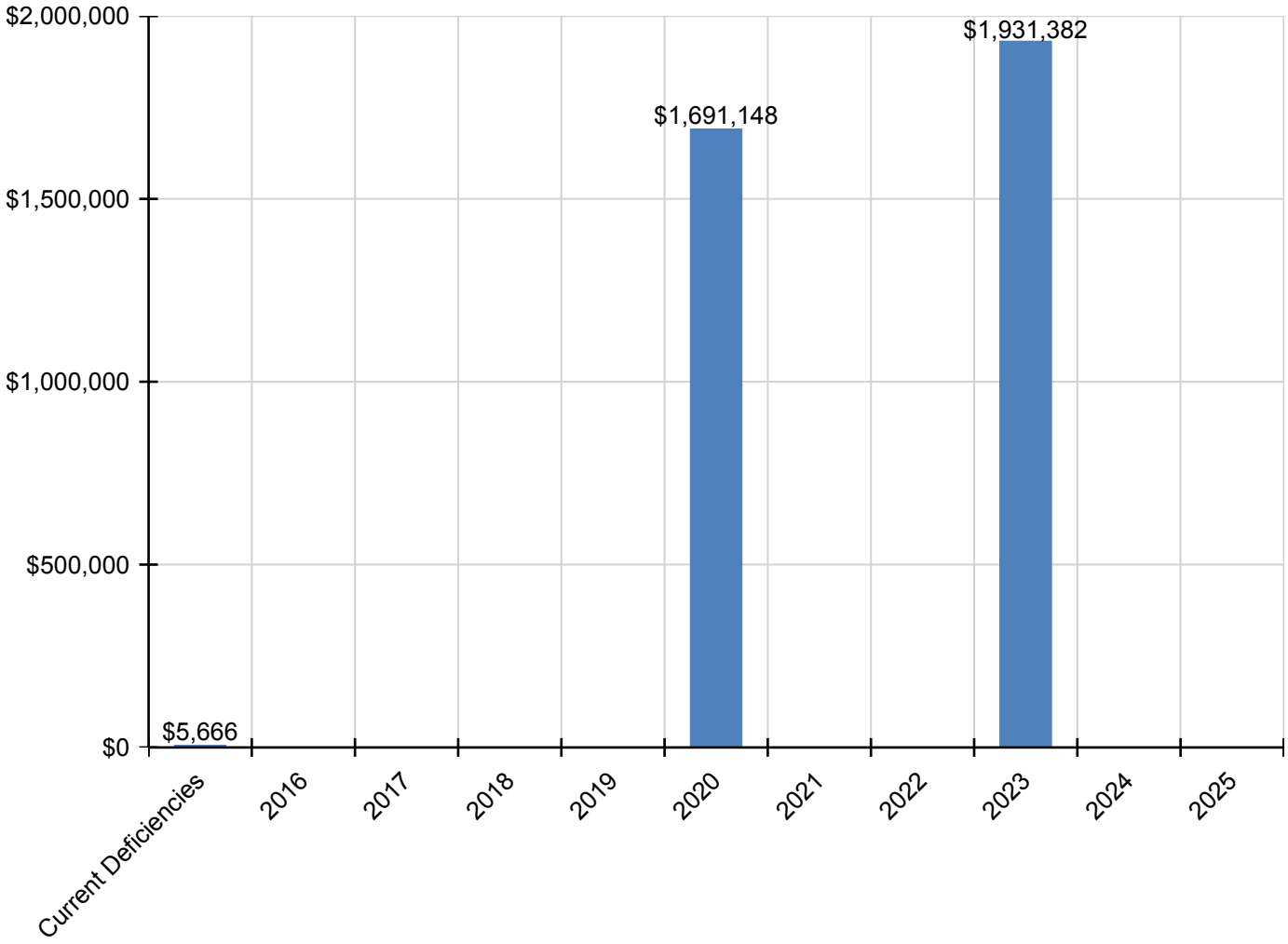
C1020 - Interior Doors	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C1030 - Fittings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C20 - Stairs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C2010 - Stair Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C30 - Interior Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010 - Wall Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010230 - Paint & Covering	$0	$0	$0	$0	$0	$1,672,530	$0	$0	$0	$0	$0	**$1,672,530**
C3010231 - Vinyl Wall Covering	$0	$0	$0	$0	$0	$0	$0	$0	$134,200	$0	$0	**$134,200**
C3010232 - Wall Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020 - Floor Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020411 - Carpet	$0	$0	$0	$0	$0	$18,618	$0	$0	$0	$0	$0	**$18,618**
C3020412 - Terrazzo & Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020413 - Vinyl Flooring	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020414 - Wood Flooring	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020415 - Concrete Floor Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3030 - Ceiling Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D - Services	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D20 - Plumbing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2010 - Plumbing Fixtures	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2020 - Domestic Water Distribution	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2030 - Sanitary Waste	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2040 - Rain Water Drainage	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D30 - HVAC	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3020 - Heat Generating Systems	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3030 - Cooling Generating Systems	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3040 - Distribution Systems	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3050 - Terminal & Package Units	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3060 - Controls & Instrumentation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D40 - Fire Protection	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D4010 - Sprinklers	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D4020 - Standpipes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D50 - Electrical	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D5010 - Electrical Service/Distribution	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

D5020 - Lighting and Branch Wiring	$5,666	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$5,666**
D5030 - Communications and Security	$0	$0	$0	$0	$0	$0	$0	$0	$1,797,182	$0	$0	**$1,797,182**
D5090 - Other Electrical Systems	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E - Equipment & Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E10 - Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E1020 - Institutional Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E1090 - Other Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E20 - Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E2010 - Fixed Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

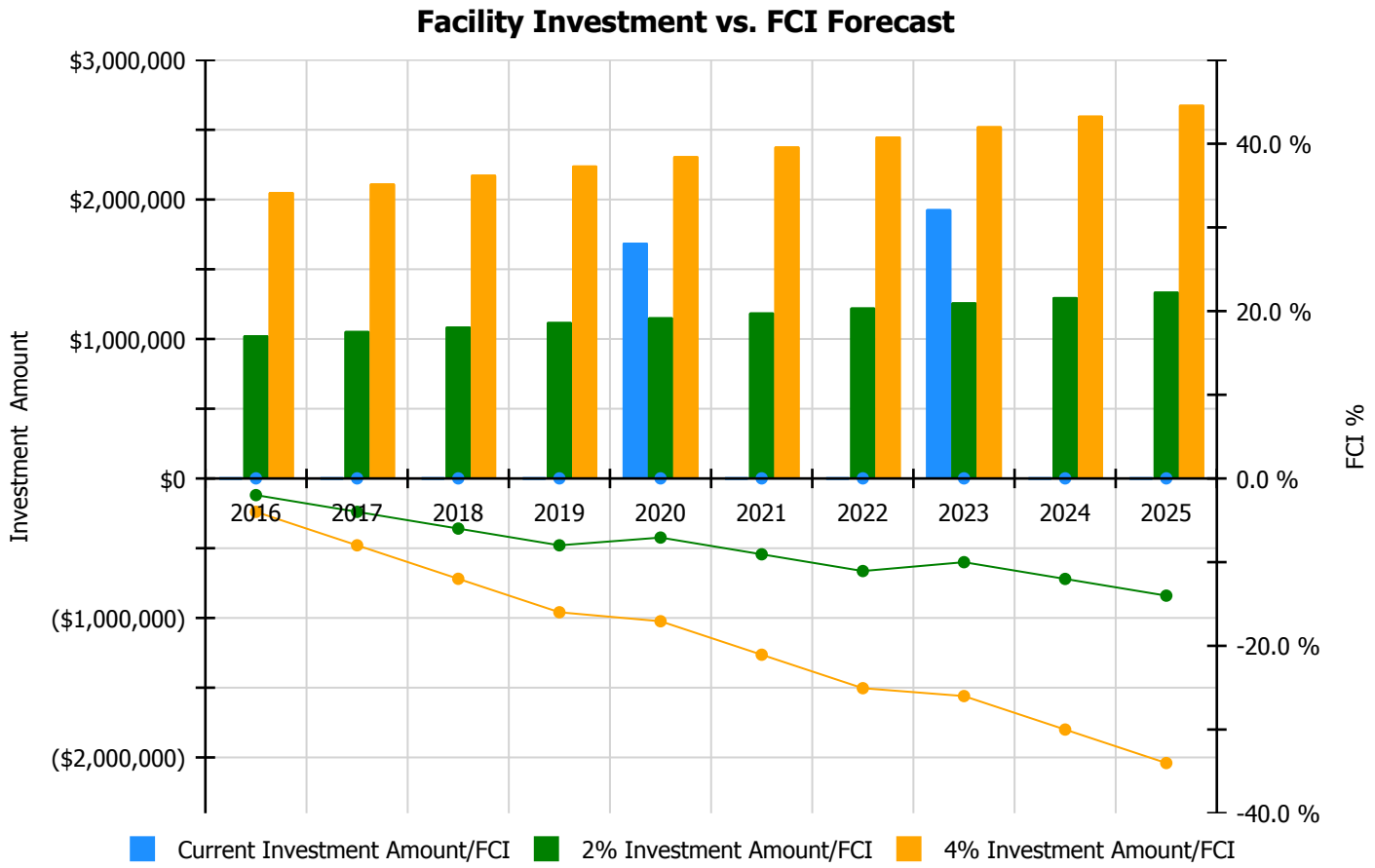
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



10 Year FCI Forecast by Investment Scenario

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

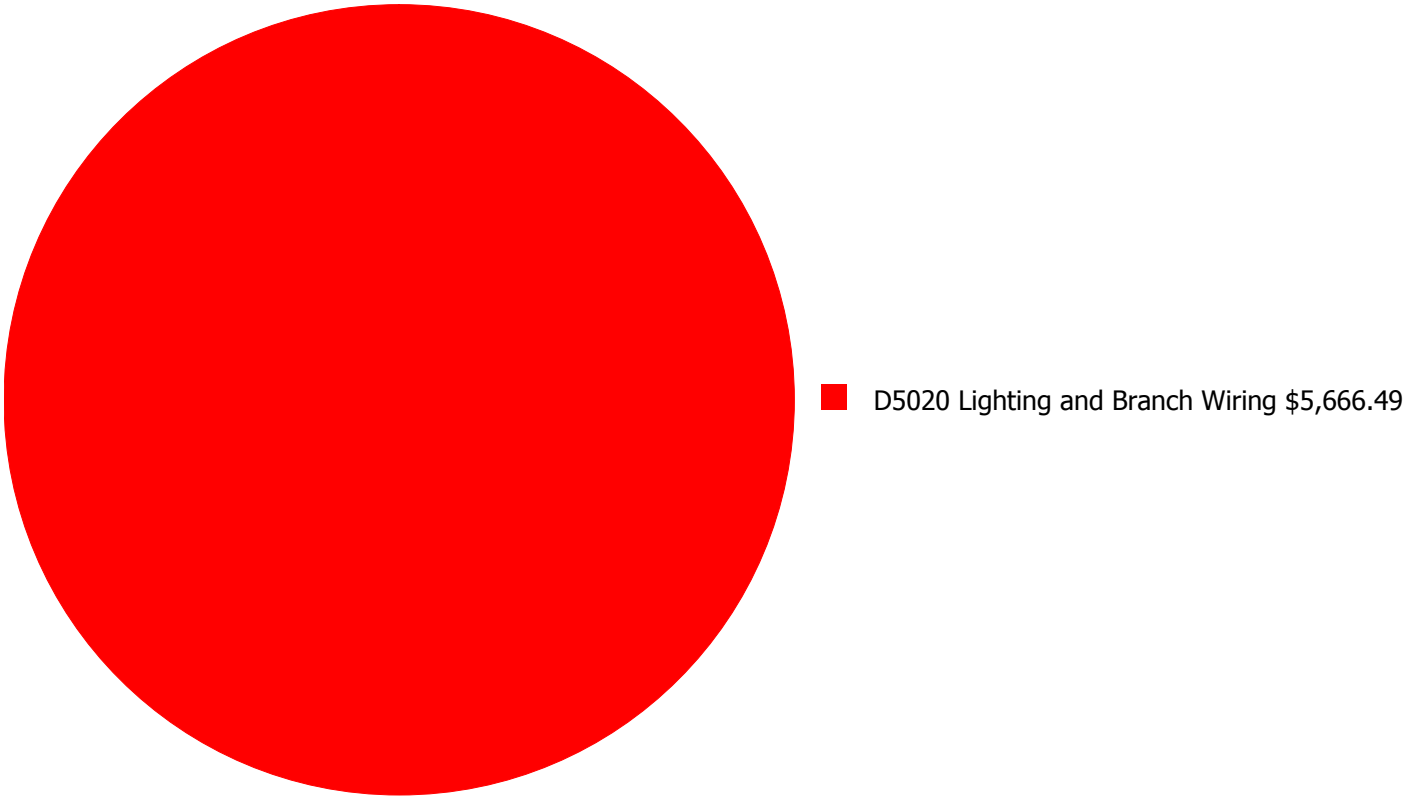
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 0.01%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$1,026,890.00	-1.99 %	$2,053,781.00	-3.99 %
2017	$0	$1,057,697.00	-3.99 %	$2,115,394.00	-7.99 %
2018	$0	$1,089,428.00	-5.99 %	$2,178,856.00	-11.99 %
2019	$0	$1,122,111.00	-7.99 %	$2,244,221.00	-15.99 %
2020	$1,691,148	$1,155,774.00	-7.06 %	$2,311,548.00	-17.06 %
2021	$0	$1,190,447.00	-9.06 %	$2,380,895.00	-21.06 %
2022	$0	$1,226,161.00	-11.06 %	$2,452,321.00	-25.06 %
2023	$1,931,382	$1,262,945.00	-10.00 %	$2,525,891.00	-26.00 %
2024	$0	$1,300,834.00	-12.00 %	$2,601,668.00	-30.00 %
2025	$0	$1,339,859.00	-14.00 %	$2,679,718.00	-34.00 %
Total:	**$3,622,530**	**$11,772,146.00**		**$23,544,293.00**	

Deficiency Summary by System

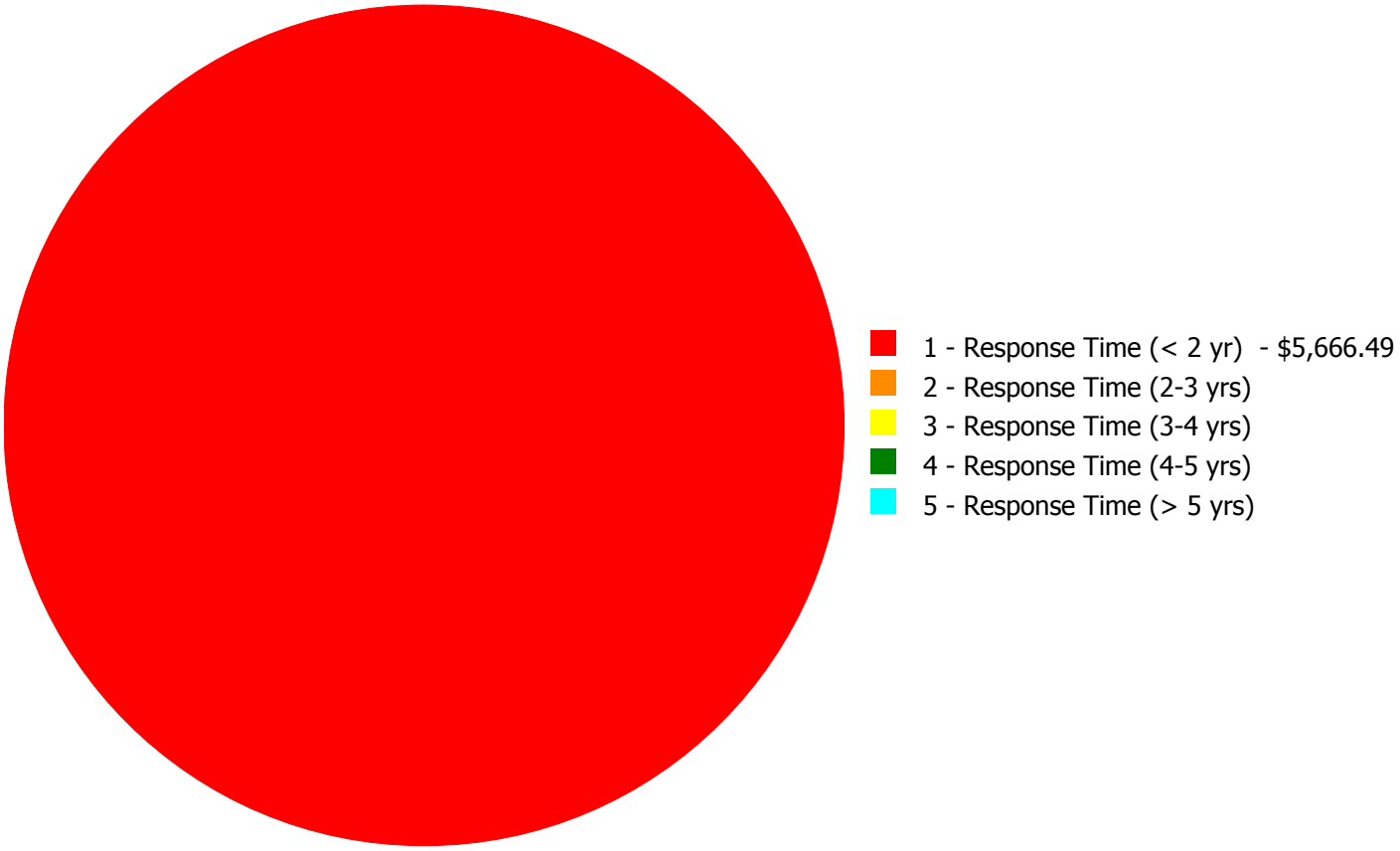
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $5,666.49

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: $5,666.49

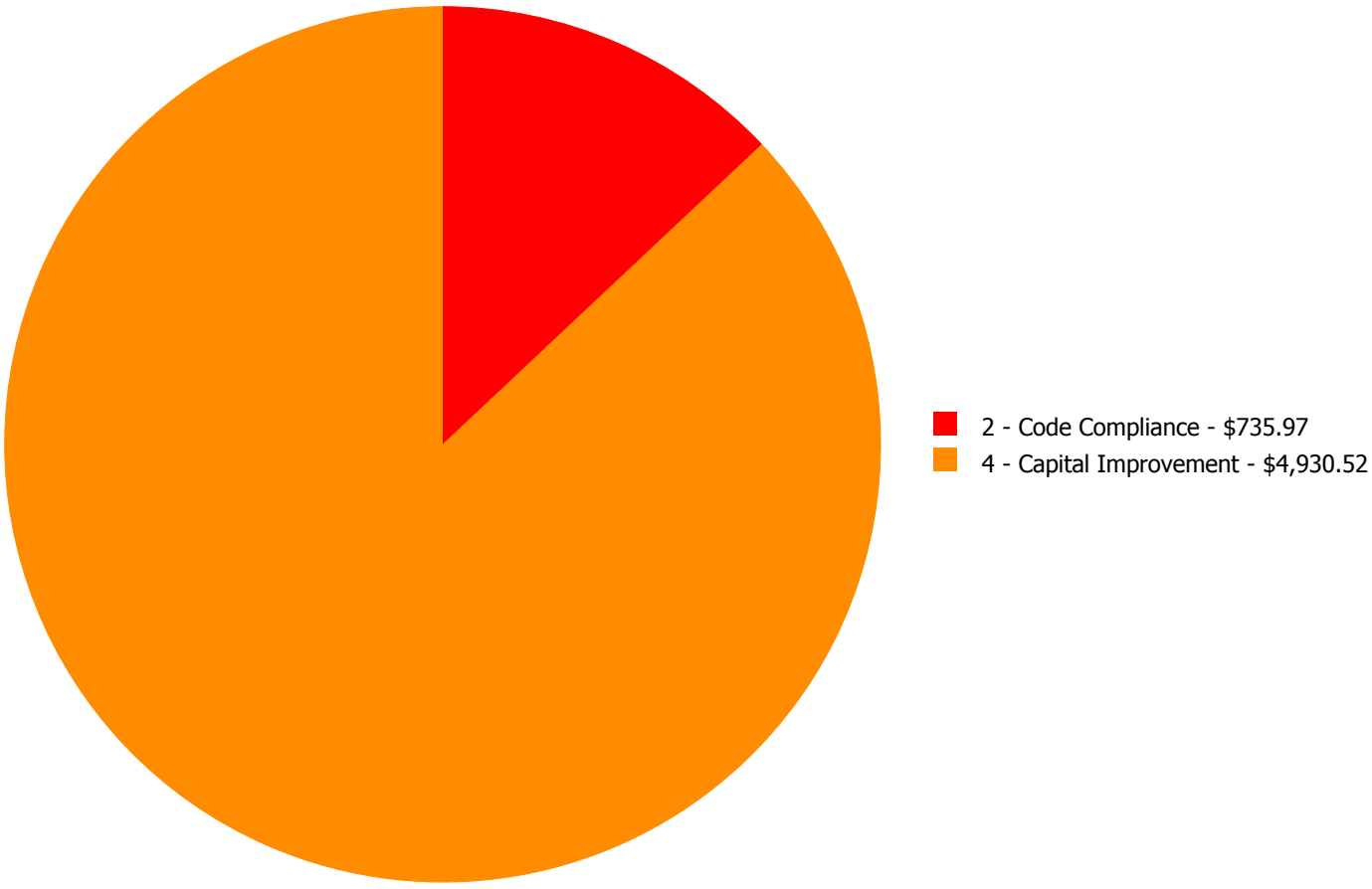
Deficiency By Priority Investment Table

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
D5020	Lighting and Branch Wiring	$5,666.49	$0.00	$0.00	$0.00	$0.00	$5,666.49
	Total:	$5,666.49	$0.00	$0.00	$0.00	$0.00	$5,666.49

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: $5,666.49

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: D5020 - Lighting and Branch Wiring

Location: Roof
Distress: Inadequate
Category: 4 - Capital Improvement
Priority: 1 - Response Time (< 2 yr)
Correction: Replace lighting fixtures
Qty: 2.00
Unit of Measure: Ea.
Estimate: $4,930.52
Assessor Name: Craig Anding
Date Created: 07/09/2015

Notes: Install new wall mounted 70 watt high pressure sodium lighting fixtures on roof where AHU1 and AHU2 are installed. Estimated 2 fixtures.

System: D5020 - Lighting and Branch Wiring

Location: Kitchen
Distress: Building / MEP Codes
Category: 2 - Code Compliance
Priority: 1 - Response Time (< 2 yr)
Correction: Add wiring device
Qty: 1.00
Unit of Measure: Ea.
Estimate: $735.97
Assessor Name: Craig Anding
Date Created: 07/09/2015

Notes: Replace existing general receptacle adjacent to the sink in the kitchen with GFCI receptacle

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Equipment Inventory

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

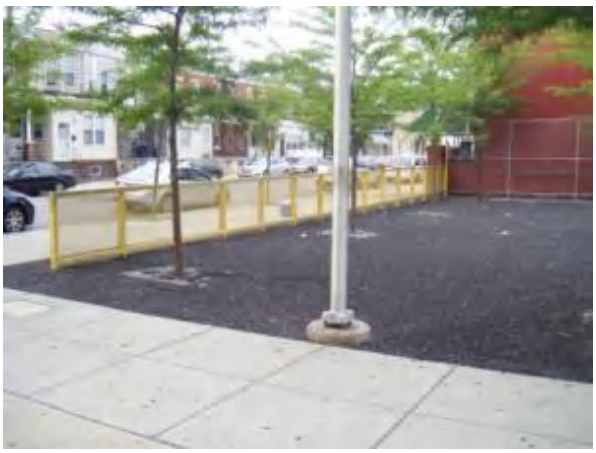
Subsystem	Inventory	Qty	UoM	Location	Manufacturer	Model Number	Serial Number	Barcode	Life	Install Date	Next Renewal	Raw Cost	Inventory Cost
D1010 Elevators and Lifts	Hydraulic passenger elevators, base unit, standard finish, 1500 lb, 100 fpm, 2 stop	1.00	Ea.						1			$61,999.00	$68,198.90
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, hot water, gross output, 4672 MBH, includes burners, controls and insulated jacket, packaged	1.00	Ea.	mechanical room	Buderus	Logano GE515	05086708-00-5252-0066		30	2008	2038	$102,205.50	$112,426.05
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, hot water, gross output, 4672 MBH, includes burners, controls and insulated jacket, packaged	1.00	Ea.	mechanical room	Buderus	Logano GE515	05086708-00-7024-0106		30	2008	2038	$102,205.50	$112,426.05
D3030 Cooling Generating Systems	Water chiller, centrifugal liquid chiller, packaged unit, water cooled, 300 ton, includes standard controls, excludes water tower	1.00	Ea.	mechanical room	McQuay	WMC300DSC-ER10	S7NU070300103		20	2008	2028	$126,852.00	$139,537.20
D5010 Electrical Service/Distribution	Load interrupter switch, 2 position, 400 kVA & above, 13.8 kV, 600 amp w/CLF fuses, NEMA 1	1.00	Ea.						1			$42,849.00	$47,133.90
D5010 Electrical Service/Distribution	Switchgear installation, incl switchboard, panels & circuit breaker, 277/480 V, 2000 A	1.00	Ea.						20	2008	2028	$64,242.45	$70,666.70
												Total:	**$550,388.80**

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):	18,047
Year Built:	2008
Last Renovation:	
Replacement Value:	$321,840
Repair Cost:	$0.00
Total FCI:	0.00 %
Total RSLI:	71.09 %



Description:

Attributes:

General Attributes:

Bldg ID:	B120001	Site ID:	S120001

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	68.41 %	0.00 %	$0.00
G40 - Site Electrical Utilities	76.67 %	0.00 %	$0.00
Totals:	**71.09 %**	**0.00 %**	**$0.00**

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	$0.00	S.F.		30				0.00 %	0.00 %				$0
G2020	Parking Lots	$0.00	S.F.		30				0.00 %	0.00 %				$0
G2030	Pedestrian Paving	$3.62	S.F.	18,000	40	2008	2048		82.50 %	0.00 %	33			$65,160
G2040	Site Development	$4.09	S.F.	18,000	25	2008	2033		72.00 %	0.00 %	18			$73,620
G2050	Landscaping & Irrigation	$4.36	S.F.	18,000	15	2008	2023		53.33 %	0.00 %	8			$78,480
G4020	Site Lighting	$4.84	S.F.	18,000	30	2008	2038		76.67 %	0.00 %	23			$87,120
G4030	Site Communications & Security	$0.97	S.F.	18,000	30	2008	2038		76.67 %	0.00 %	23			$17,460
								Total	**71.09 %**					**$321,840**

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.

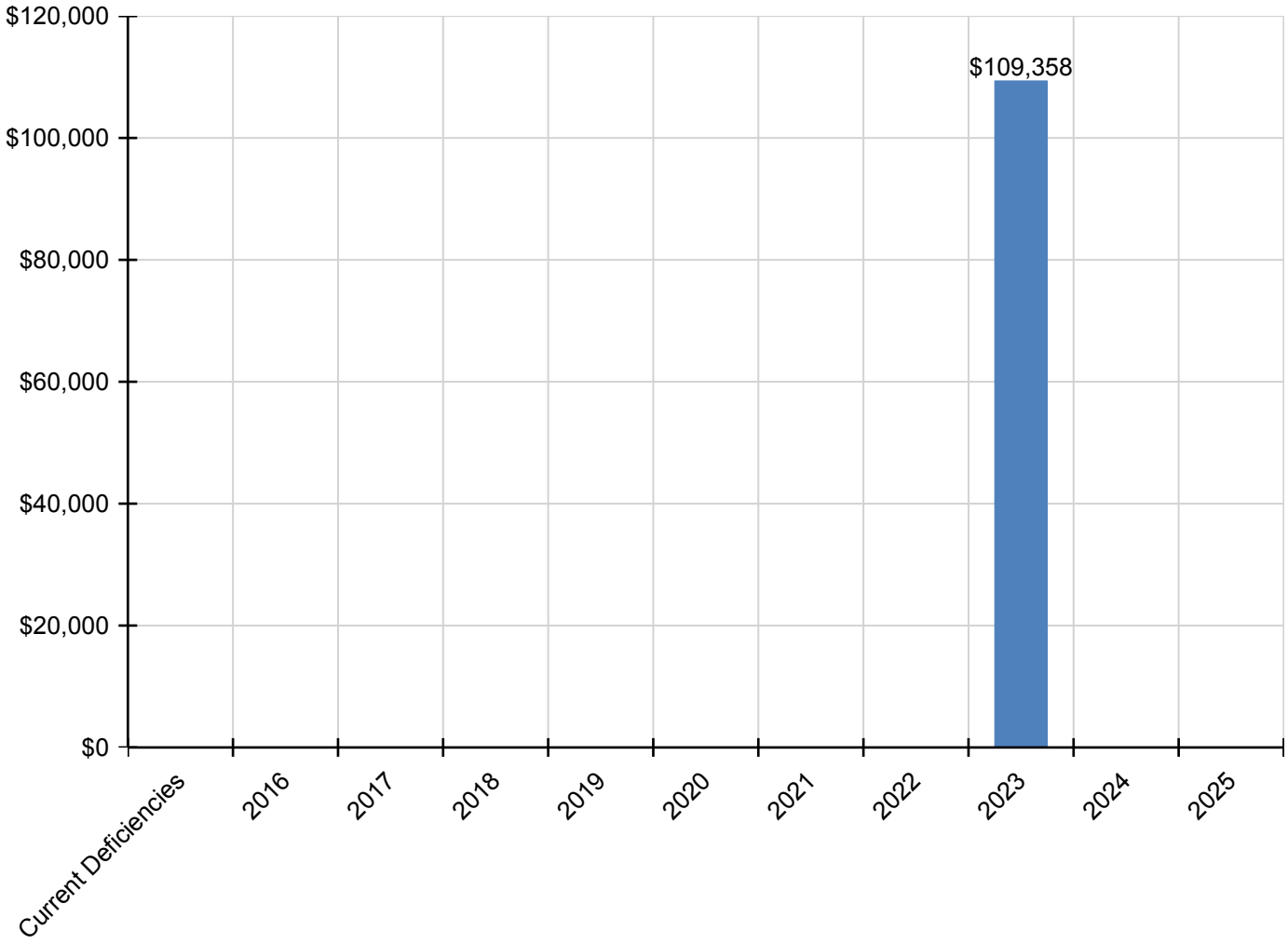
Inflation Rate: 3%

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Total:	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$109,358**	**$0**	**$0**	**$109,358**
G - Building Sitework	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G20 - Site Improvements	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G2010 - Roadways	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G2020 - Parking Lots	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G2030 - Pedestrian Paving	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G2040 - Site Development	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G2050 - Landscaping & Irrigation	$0	$0	$0	$0	$0	$0	$0	$0	$109,358	$0	$0	**$109,358**
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	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

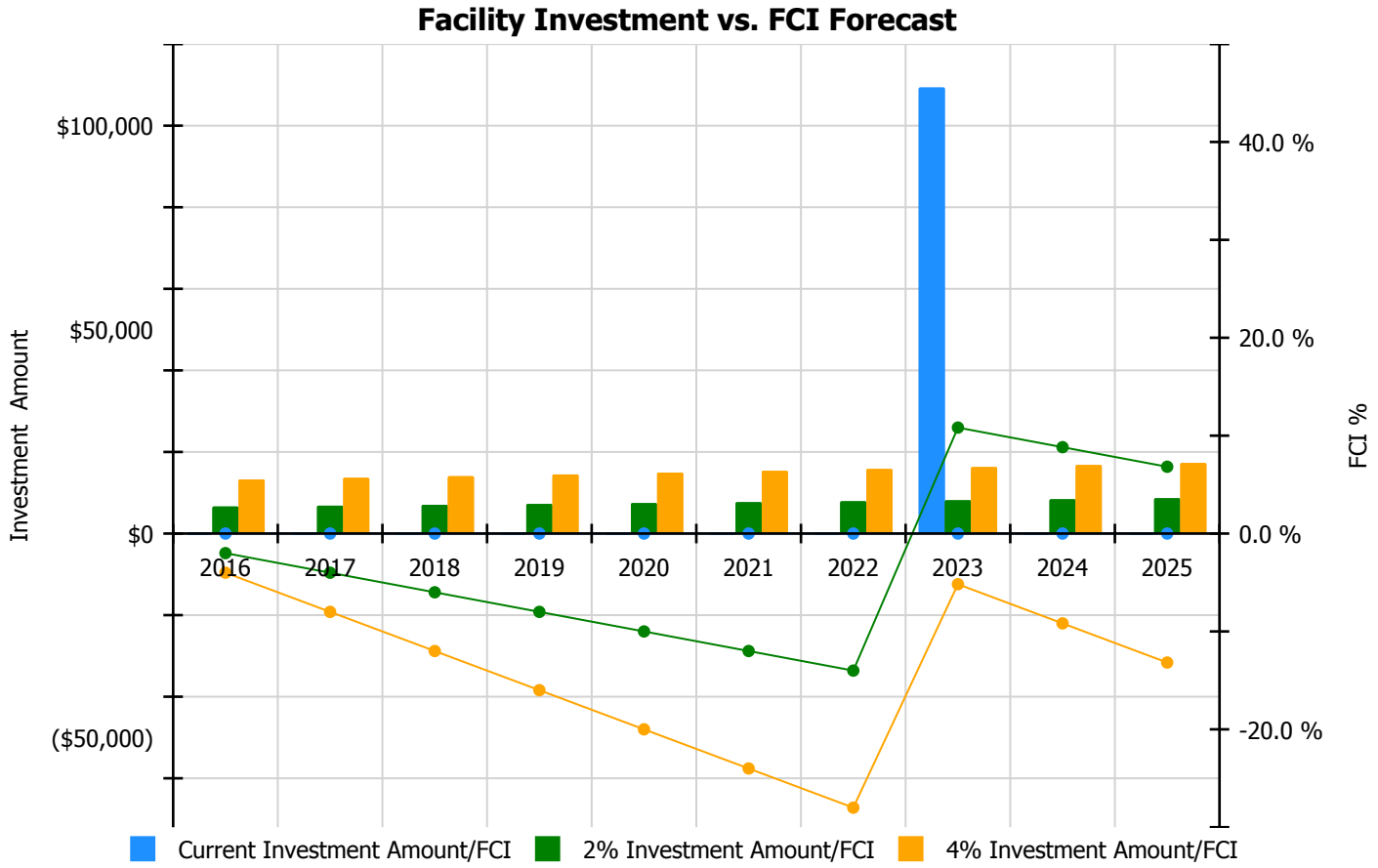
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



10 Year FCI Forecast by Investment Scenario

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

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



Year	Investment Amount Current FCI - 0%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$6,630.00	-2.00 %	$13,260.00	-4.00 %
2017	$0	$6,829.00	-4.00 %	$13,658.00	-8.00 %
2018	$0	$7,034.00	-6.00 %	$14,067.00	-12.00 %
2019	$0	$7,245.00	-8.00 %	$14,489.00	-16.00 %
2020	$0	$7,462.00	-10.00 %	$14,924.00	-20.00 %
2021	$0	$7,686.00	-12.00 %	$15,372.00	-24.00 %
2022	$0	$7,916.00	-14.00 %	$15,833.00	-28.00 %
2023	$109,358	$8,154.00	10.82 %	$16,308.00	-5.18 %
2024	$0	$8,399.00	8.82 %	$16,797.00	-9.18 %
2025	$0	$8,651.00	6.82 %	$17,301.00	-13.18 %
Total:	**$109,358**	**$76,006.00**		**$152,009.00**	

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.

No data found for this asset

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:

No data found for this asset

Deficiency By Priority Investment Table

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

No data found for this asset

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:

No data found for this asset

Deficiency Details by Priority

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

No data found for this asset

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