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.

De Burgos School

Governance	DISTRICT	Report Type	Elementarymiddle
Address	401 W. Lehigh Ave.	Enrollment	872
	Philadelphia, Pa 19133	Grade Range	'00-08'
Phone/Fax	215-291-4065 / 215-291-4084	Admissions Category	Neighborhood
Website	Www.Philasd.Org/Schools/Deburgos	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	**00.62%**	**$412,111**	**$66,963,798**
Building	00.48 %	$316,304	$65,830,634
Grounds	08.45 %	$95,807	$1,133,164

Major Building Systems

Building System	System FCI	Repair Costs	Replacement Cost
Roof (Shows physical condition of roof)	00.00 %	$0	$2,267,750
Exterior Walls (Shows condition of the structural condition of the exterior facade)	00.00 %	$0	$4,853,665
Windows (Shows functionality of exterior windows)	00.00 %	$0	$2,368,315
Exterior Doors (Shows condition of exterior doors)	00.00 %	$0	$190,675
Interior Doors (Classroom doors)	00.00 %	$0	$461,565
Interior Walls (Paint and Finishes)	00.00 %	$0	$2,210,515
Plumbing Fixtures	00.00 %	$0	$1,777,880
Boilers	00.00 %	$0	$2,455,105
Chillers/Cooling Towers	00.00 %	$0	$3,219,120
Radiators/Unit Ventilators/HVAC	00.00 %	$0	$5,653,185
Heating/Cooling Controls	00.00 %	$0	$1,775,250
Electrical Service and Distribution	00.00 %	$0	$1,275,550
Lighting	00.00 %	$0	$4,560,420
Communications and Security (Cameras, Pa System and Fire Alarm)	00.00 %	$0	$1,708,185

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

S517001;deBurgos

Final

Site Assessment Report

January 30, 2017

PARSONS

Table of Contents

Site Executive Summary 4

Site Condition Summary 10

B517001;deBurgos 12

- Executive Summary 12
  - Condition Summary 13
- Condition Detail 14
  - System Listing 15
  - System Notes 17
  - Renewal Schedule 18
    - Forecasted Sustainment Requirement 21
  - Condition Index Forecast by Investment Scenario 22
  - Deficiency Summary By System 23
  - Deficiency Summary By Priority 24
  - Deficiency By Priority Investment 25
  - Deficiency Summary By Category 26
  - Deficiency Details By Priority 27
- Equipment Inventory Detail 30

G517001;Grounds 32

- Executive Summary 32
  - Condition Summary 33
- Condition Detail 34
  - System Listing 35
  - System Notes 36
  - Renewal Schedule 37
    - Forecasted Sustainment Requirement 38
  - Condition Index Forecast by Investment Scenario 39
  - Deficiency Summary By System 40
  - Deficiency Summary By Priority 41
  - Deficiency By Priority Investment 42

Deficiency Summary By Category 43
Deficiency Details By Priority 44
Equipment Inventory Detail 45
Glossary 46

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):	131,500
Year Built:	2002
Last Renovation:	
Replacement Value:	$66,963,798
Repair Cost:	$412,110.67
Total FCI:	0.62 %
Total RSLI:	65.69 %

Description:

Facility Assessment, August, 2015

School District of Philadelphia

DeBurgos Elementary School

401 W. Lehigh Avenue

Philadelphia, PA 19133

131,500 SF / 1,093 Students / LN 05

The DeBurgos Elementary School building is located at 401 W. Lehigh Avenue in Philadelphia, PA. The 3 story, 131,500 square foot building was constructed in 2002. The building has a partial basement.

Mr. Scott Ovington, Facility Area Coordinator provided input to the Parsons assessment team on current problems and planned renovation projects. Mr. Jonathan Glover, Building Engineer, accompanied us on our tour of the school and provided us with detailed

information on the building systems and recent maintenance history. The school principal, Ms. Maritza Hernandez provided additional information about building condition.

STRUCTURAL/ EXTERIOR CLOSURE:

The building typically rests on concrete spread and strip footings and foundation walls that are not showing signs of settlement or damage. The main structure is typically steel frame, columns and girders; floors are typically precast concrete panels supported by bar joists. The superstructure is generally in very good condition.

The building envelope is typically comprised of face brick, glazed CMU, ground face CMU, and metal panels over CMU; walls are insulated cavity type in very good condition.

The roof structure is a metal deck supported by bar joists and wide flange framing and is typically flat with slopes to roof drains.

Exterior walls are typically a combination of ground face CMU, face brick and metal panels over insulated CMU backup (cavity wall), in very good condition.

Exterior windows are typically anodized aluminum curtain wall, double insulated units with tilt-in operating sections; curtain walls are partially covered with extruded aluminum sun screens; all in very good condition.

Exterior doors are typically aluminum, double insulated glazed and part of the curtain wall system; service doors are typically hollow metal in hollow metal frames, in very good condition.

Roofing is typically built-up system over rigid insulation. All roofing is generally in very good condition.

INTERIORS:

Partition wall types include painted, scored CMU, ground face CMU, glazed aluminum store front and drywall, in very good condition. Portions of Auditorium walls are acoustic CMU. The interior wall finishes are generally painted drywall and CMU.

Most ceilings are 2x4 suspended acoustical panels and suspended metal slat; ceiling in gym, portions of hallways are exposed metal deck, painted. Ceiling in the auditorium theatre is exposed with suspended acoustical baffles. All ceilings are in very good condition.

Flooring in most areas is generally vinyl composition tile, in very good condition. Flooring in library and principal's office is carpet in very poor condition. Gym has resilient sheet flooring in very good condition. Flooring in toilets and kitchen area is typically ceramic tiles and quarry tiles, respectively; in good condition.

Interior doors are generally solid core wood doors in hollow metal frames, in good condition. Some doors are in store front partitions which are typically hollow metal, glazed.

Stairs are generally painted steel with concrete filled metal pan treads.

Interior identifying devices are of modular type directly affixed to wall surfaces.

Toilet partitions are mostly phenolic resin panels, ADA compliant, in very good condition, Accessories are in very good condition.

Institutional equipment includes library equipment; stage equipment; A/V equipment; and laboratory equipment; gym equipment – basketball backstops, scoreboards, etc. Other equipment includes kitchen equipment. All equipment is in very good condition.

Built-in furniture comprises of storage and filing cabinets in typically in good condition.

CONVEYING EQUIPMENT:

The building does have a 3000 lb hydraulic elevator, serving all floors; in good condition.

ACCESSIBILITY:

The building does have accessible entrance and accessible routes, including walkways not exceeding 5% slope, per requirement.

Toilets are generally in compliance with ADA. All doors have ADA compliant handles.

GROUNDS (SITE):

There is a staff parking lot at the site, in good condition. Parking for 62 vehicles has 2 spaces designated as accessible. Compliant accessible signage is in good condition.

There are two playground areas on east and west side of the building, raspactively; generally in good condition. Original perimeter picket fences are generally in good condition. The portions of playgrounds are landscaped with trees and grass areas, generally in good condition. The trees and grass are fully mature, in good condition.

PLUMBING:

Plumbing Fixtures - The original plumbing fixtures remain in service. Fixtures in the restrooms on each floor consist of wall mounted flush valve water closets, wall hung urinals and lavatories with both wheel handle faucets. The units appear to be in good condition and should provide reliable service for the next 20-25 years.

Drinking fountains in the corridors and at the restrooms consist of wall hung fixtures with integral refrigerated coolers. They are within their service life; most are accessible type.

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

The Kitchen has four (4) sinks; one three compartment stainless steel sink with lever operated faucets and In-Sink-Erator disposal, one two compartment stainless steel sink with lever operated faucets and In-Sink-Erator disposal, and two single basin stainless steel sinks with lever operated faucets. There are no grease traps. Chemicals are injected manually into the sanitizing basins.

Domestic Water Distribution - A 6” city water service enters the basement mechanical from the north side parking lot adjacent to W. Somerset Street. The 4” meter and valves are located in the mechanical room and two reduced pressure backflow preventers are installed in parallel. Duplex 7.5HP Bell & Gossett domestic pressure booster pumps on a Technologic pressure booster skid are installed on the domestic water line to ensure adequate pressure throughout the system. The pump system has rust stains on it and should be monitored in the future for further damage. The domestic hot and cold water distribution piping is copper piping and sweat fittings. The maintenance staff reports no significant problems with scale build up in the domestic piping and the supply is adequate to the fixtures.

Two Bradford White Magnum Series 65 gallon vertical domestic hot water heaters with circulating pumps and expansion tank provide domestic hot water for the building. One unit was installed in 2014, the other unit in 2010. They are gas fired and are located in the basement mechanical room. The hot water heaters are equipped with T&P relief valves. The domestic hot water heaters are within their service life and should provide reliable service for the next 5-7 years. A water softener was located in the basement mechanical room.

Sanitary Waste - The sanitary sewer piping is cast iron with no-hub fittings and is within its service life. The majority of sanitary piping is located under the building slab and within mechanical chases. The maintenance staff reported no problems with the sanitary waste piping systems.

Two (2) sewage ejector pits located in the basement mechanical room receive water from the basement area; one is in the upper mechanical room area and the other in the depressed chiller pit. The upper ejector has dual 2HP submerged pumps that are original to the building. The system appeared to be in good condition and the pit is sealed. The lower sewage ejector pit has submerged pumps, which were not visible during the site visit. A pin hole leak was observed in the copper piping on this pump system and the cover is covered in rust. The leak should be repaired and the cover replaced.

Rain Water Drainage - The rain water drains from the roof are routed through mechanical chases in the building and are original. The system is well within its service life. No issues were reported with the roof drains or rain leaders.

MECHANICAL:

Energy Supply - A 10” city gas services enter the building from the north side parking lot adjacent to W. Somerset Street. There are a 4” and a 3” gas meter and located in the basement mechanical room. Two natural gas pressure booster pumps are installed to ensure adequate gas pressure to the building.

The oil supply is stored in two underground storage tanks (UST) in the parking lot on the north side of the building; the Building Engineer did not know the size of the tanks. Duplex pumps on an Alyan skid, located in the basement, circulate oil through the system. Oil is used as a backup fuel and the District receives credit from the gas utility as an interruptible service. USTs have an anticipated service life of 20 years. The actual condition of the fuel side is unknown.

Heat Generating Systems - Building heating hot water is generated by three (3) 91HP HB Smith 28A cast iron sectional boilers each with gross output of 2,636MBH. Each boiler is equipped with a Power Flame burner designed to operate on natural gas or fuel oil. Combustion air makeup is supplied by louvers equipped with motorized dampers. Burner oil pumps are loose and not driven by the fan motor. The gas train serving each boiler does have code required venting of the regulators and dual solenoid valves with venting of the chamber between. No major issues with the boilers were reported by the Building Engineer. Cast iron boilers have an anticipated service life of 35years or more; these units have been in service 13 years. The District should provide reliable service for the next 20 to 25 years.

Cooling Generating Systems - Chilled water is generated by two 250 nominal ton Carrier 19XR water-cooled centrifugal chillers located in the basement mechanical room. Heat from the chillers is rejected by one double cell roof mounted BAC forced draft, counterflow cooling tower. One chiller is sufficient to hold the building on normal summer days; two chillers are required on very hot days. Centrifugal chillers have an anticipated service life of 28 years; these units have been in service 13 years. The District should budget for replacing the chillers over the next 12-15 years. Galvanized metal cooling towers have an anticipated service life of 18 years; these units have been in service 13 years. The District should budget for replacing the chillers over the next 5-7 years. The Building Engineer reported no issues with either the chillers or cooling towers.

Distribution Systems - A two pipe, dual temperature distribution system supplies building heating or cooling water to the unit ventilators. A four pipe distribution system supplies building heating and cooling water to the indoor air handling units. Two (2) 75HP double-suction vertically split case Bell & Gossett dual temperature supply pumps, P-10 and P-11, circulate building heating or cooling water.

Building water distribution is accomplished by pumps installed in the basement mechanical room. A series of valves are modulated depending on the configuration of the system for heating or cooling season. Three (3) 7.5HP double-suction vertically split case Bell & Gossett heating water pumps, P-4, P-5, and P-6, circulate water through the boilers to the dual temperature system. The pumps are headered together so that if one fails the others can supply hot water. Three (3) 15HP double-suction vertically split case Bell & Gossett chilled water pumps, P-7, P-8, and P-9, circulate water through the chillers to the dual temperature system. The pumps are headered together so that if one fails the others can supply chilled water. Two (2) 422 gallon Wessels Company bladder type expansion tanks with associated duplex Quincy air compressor and Hankison air cleaner ensure proper pressure within the piping system. The only issue noted on the distribution system was condensation dripping onto a motor control center (MCCA) in the basement mechanical room; a drip pan should be installed above the MCCA.

A two pipe condenser water loop serves the chillers and cooling towers. Three (3) 30HP double-suction vertically split case Bell & Gossett condenser water supply pumps, P-1, P-2, and P-3, circulate water between the chillers and cooling tower. The pumps are headered together with P-1 serving one chiller, P-2 serving the other, and P-3 used as a backup.

All pumps are original to the building, appear to be in good condition, and are within the anticipated service life of 25 years. All main piping is black steel, covered with insulation, and appears to be in good condition. The condenser water piping is not covered with insulation and does not require it. Smaller branch piping is copper and covered in insulation. No problems with the distribution systems were reported.

Four (4) McQuay and three (3) Racan air handling units (AHU) provide heating and cooling to specific spaces within the building. The McQuay AHUs are fed by a four pipe system for building hot and chilled water. The Racan units are fed by a two pipe chilled water system and are gas fired for heating. All units provide outdoor air ventilation. AHU-1, a McQuay unit located in the basement mechanical room, serves the north wing of the building. AHU-2, a McQuay unit located in the basement mechanical room, serves the Cafeteria. There is no AHU-3. AHU-4, a McQuay unit located in the basement mechanical room, serves the central portion of the building. AHU-5, a McQuay unit located in the third floor south mechanical room, serves the south wing of the building. AHU-6, a Racan unit located on the lower roof above the Gymnasium serves the Gymnasium. AHU-7, a Racan unit located on the lower roof above the Auditorium serves the Auditorium. AHU-8, a Racan unit located on the upper roof, serves the Library and second floor south side classrooms. All units were operational during the site visit, are original to the building, and are well within their service life.

Unit ventilators provide heating and cooling for the classrooms and offices. The unit ventilators are original to the building and are within their service life. Outdoor air for the building is provided by wall openings in the unit ventilators and the air handling units. No major issues were reported with the unit ventilators. Fin tube radiators provide heating for hallways and stairwells. All radiators appeared to be in good condition.

Terminal & Package Units - The building is exhausted by a total of four (4) roof mounted exhaust fans and eight (8) power ventilators. The Building Engineer did not report and problems with the exhaust system. The exhaust fans remove air from restrooms, janitor closets, and the Kitchen. Located on the upper room; EF-1 serves boys and girls restrooms on the first through third floor north side, EF-2 serves boys and girls restrooms on the first through third floor south side, EF-3 serves the Kitchen, and EF-9 serves the north side janitor closets. The power ventilators were located on the upper and lower roofs.

A smoke exhaust system is installed in the central part of the building. Five (5) smoke exhaust fans are installed on the roof and are to be used in case of a smoke emergency.

A supply fan on the south east lower roof, above the Gymnasium, supplies additional fresh air for the Gymnasium and Auditorium.

Two kitchen hoods with integral Ansul fire suppression and outdoor air make-up systems are installed above the gas fired cooking equipment. A Caddy automatic gas shutoff system is installed with the kitchen hood equipment. The equipment is well within service life.

Controls & Instrumentation - A building management system (BMS) with DDC modules and communications network is installed in this building. The Building Engineer reported that he controls the temperature of each classroom centrally from the BMS, installed when the building was built. Thermostats in each space report the temperature to the BMS and the Building Engineer adjusts the temperature as necessary. The system is operational and he did not report any issues with the system. All major mechanical equipment (chillers, boilers, air handling units, pumps, fans, etc.) are monitored and controlled by the system. This system is well within its service life.

Sprinklers - The building is equipped with a wet type sprinkler system. An 8" fire water line enters the building in the basement mechanical room along the same wall as the domestic water and gas line. An inline vertical mount 40-HP, 500 gpm Armstrong pump ensures adequate pressure throughout the system during a sprinkler discharge. The fire suppression system is the originally installed equipment and should not need replacement within the next 10 years, but the fire pump is damaged from rust and should be inspected by a qualified contractor.

ELECTRICAL:

Site electrical service - An underground medium voltage (13.2 KV) cable drops from the utility power pole and feeds a utility company Dry-type transformer (1500 KVA, 13.2KV – 480V/277V, 3-Phase). The PECO metering (PECO 02-411320136) is located inside the electrical room in the basement. The school's main service switchgear is located in the main electrical room. The main service is 1600 Amp at 480 V. The main 480 V switchgear consists of 1600A (frame size) adjustable main Breaker, plus two 600A, 480V feeder circuit breakers (to MCC-A & MCC-B). There are several other 480V Circuit Breakers that feed the HVAC loads, the receptacle loads & lighting loads. There is a large 100 KW emergency generator for the elevators and other emergency loads. Service entrance and the main building electrical distribution systems are new, in a very good condition (built in 2002), and have ample capacity. No deficiencies were noted for the electrical service.

Distribution system - The electrical distribution system is accomplished by using a 480 V distribution switchboard. The main switchboard feeds a 480V/277V, 3 phase, distribution panelboard, as well as, two Motor Control Centers (MCCs) for the mechanical loads. The main switchboard also feeds the emergency loads through a 100 KW generator via an Automatic Transfer Switch (ATS). There are eight secondary transformers to step down the voltage from 480V to 120V/208V and feeding eight 120V/208V sub-panels. These transformers and panels are located throughout the building. All distribution transformers, panels, etc. are in good condition.

Lighting - Interior of building is illuminated by using various types of architecturally designed fixtures. They include fluorescent lighting (with T-5 & T-8 lamp) in majority of the areas, including; classrooms, corridors, offices and Kitchen. Surface or pendant mounted industrial fluorescent fixtures are used in mechanical and electrical rooms. Gymnasium is illuminated by metal halide enclosed glass fixtures. All interior lighting fixtures are in a good condition and building illumination is sufficient. There is no deficiency in this area.

Fire alarm - The present Fire Alarm system is fully automatic, addressable, and in compliance with safety codes. Smoke is monitored by duct smoke detectors, and area smoke detectors in corridors. There are manual pull stations throughout the building. There are sufficient number of horn/strobes installed in the classrooms, corridors, offices and other areas in the school. No deficiencies with FA System were observed during the assessment.

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

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

working adequately.

Intercom System and Paging - The present Intercom System is functioning fine. Each class room is provided by with intercom telephone service. The system permits paging and intercom communication between main office to classrooms, and vice versa (classrooms to main office), and between classrooms to classrooms.

Clock and Program Systems- Clock and program systems are working adequately. All classrooms are provided with 12-inch wall mounted round clocks. The clocks are controlled by central master control panel. The master control is also programmed for class change.

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

Security Systems, access control, video surveillance - The school is provided with adequate video surveillance system. Sufficient numbers of cameras are installed at exit doors, corridors and other critical areas. They are controlled by a Closed Circuit Television system (CCTV). The system is working properly for most part, however, the Building Engineer and the Principal indicated that a few additional cameras to cover the dead spaces are required.

Emergency Power System - School is provided with a 100KW, 480/277V, 3PH, 4W generator to feed elevators, emergency lighting and other emergency loads via an Automatic Transfer Switch (ATS). The generator is fairly new (2002) and in a very good condition.

UPS - There is an Uninterruptible Power System (UPS) provided on the IT racks.

Emergency lighting system, including exit lighting - There are sufficient Emergency Lights/Exit Lights installed in corridors, and other exit ways.

Lightning Protection System - There is adequate lightning protection system installed in the school. The lightning rods are in good shape and have a clear path to the ground from the roof.

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

Elevator - There is one 75HP hydraulic type elevator in the school. The elevator is working properly and no deficiencies were observed during the assessment.

Site Lighting – The school grounds and building perimeters are adequately lighted for safety of the people and security of property.

Site Paging– The present Site paging System is adequate. Sufficient numbers of speakers are located on building exterior walls.

Auditorium lighting and sound system – The auditorium general lighting is sufficient and meets IES requirements. Stage lighting is provided with dimmable and switchable stage work lights. Also, sound system is working properly. No major deficiencies were observed during the assessment.

RECOMMENDATIONS:

- Replace carpet in library and office spaces.
- Replace the piping section with the pin-hole leak in the sewage ejector piping in the chiller pit and replace the rusted cover of the pit.
- Install a drip pan on piping over the motor control center (MCCA) in the basement mechanical room which was dripping condensation onto the panel and pipe it to the nearest floor drain.
- Hire a qualified contractor to inspect fire pump and repair or replace it as necessary.
- Install additional video surveillance cameras around the school to cover a few dead spaces.

Attributes:

General Attributes:

Active:	Open	Bldg Lot Tm:	Lot 2 / Tm 4
Status:	Accepted by SDP	Team:	Tm 4
Site ID:	S517001		

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.

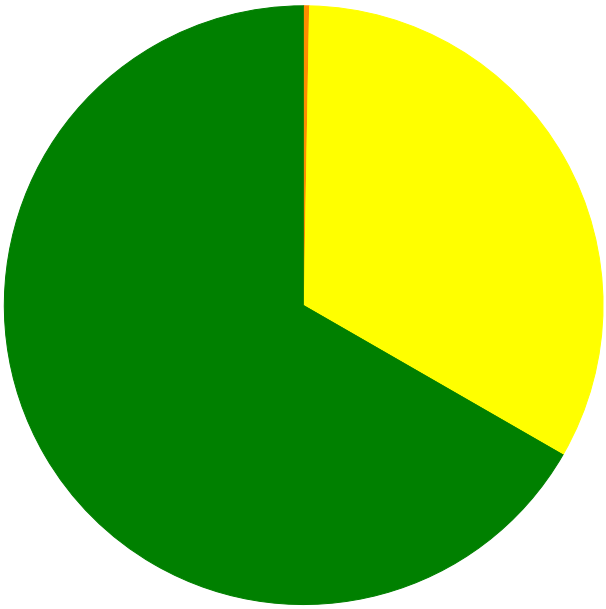
Current Investment Requirement and Condition by Uniformat Classification

UNIFORMAT Classification	RSLI%	FCI %	Current Repair
A10 - Foundations	87.00 %	0.00 %	$0.00
A20 - Basement Construction	87.00 %	0.00 %	$0.00
B10 - Superstructure	87.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	79.77 %	0.00 %	$0.00
B30 - Roofing	35.00 %	0.00 %	$0.00
C10 - Interior Construction	81.73 %	0.00 %	$0.00
C20 - Stairs	87.00 %	0.00 %	$0.00
C30 - Interior Finishes	68.90 %	0.63 %	$40,286.73
D10 - Conveying	62.86 %	0.00 %	$0.00
D20 - Plumbing	58.82 %	0.04 %	$1,190.29
D30 - HVAC	49.47 %	0.00 %	$0.00
D40 - Fire Protection	54.98 %	25.93 %	$274,827.15
D50 - Electrical	38.73 %	0.00 %	$0.00
E10 - Equipment	62.86 %	0.00 %	$0.00
E20 - Furnishings	67.50 %	0.00 %	$0.00
G20 - Site Improvements	61.24 %	0.00 %	$0.00
G40 - Site Electrical Utilities	56.67 %	35.75 %	$95,806.50
Totals:	**65.69 %**	**0.62 %**	**$412,110.67**

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)
B517001;deBurgos	131,500	0.48	$0.00	$1,190.29	$40,286.73	$274,827.15	$0.00
G517001;Grounds	61,600	8.45	$0.00	$0.00	$95,806.50	$0.00	$0.00
Total:		**0.62**	**$0.00**	**$1,190.29**	**$136,093.23**	**$274,827.15**	**$0.00**

Deficiencies By Priority



Budget Estimate Total: $412,110.67

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):	131,500
Year Built:	2002
Last Renovation:	
Replacement Value:	$65,830,634
Repair Cost:	$316,304.17
Total FCI:	0.48 %
Total RSLI:	65.78 %

Description:

Attributes:

General Attributes:

Active:	Open	Bldg ID:	B517001
Sewage Ejector:	Yes	Status:	Accepted by SDP
Site ID:	S517001		

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	87.00 %	0.00 %	$0.00
A20 - Basement Construction	87.00 %	0.00 %	$0.00
B10 - Superstructure	87.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	79.77 %	0.00 %	$0.00
B30 - Roofing	35.00 %	0.00 %	$0.00
C10 - Interior Construction	81.73 %	0.00 %	$0.00
C20 - Stairs	87.00 %	0.00 %	$0.00
C30 - Interior Finishes	68.90 %	0.63 %	$40,286.73
D10 - Conveying	62.86 %	0.00 %	$0.00
D20 - Plumbing	58.82 %	0.04 %	$1,190.29
D30 - HVAC	49.47 %	0.00 %	$0.00
D40 - Fire Protection	54.98 %	25.93 %	$274,827.15
D50 - Electrical	38.73 %	0.00 %	$0.00
E10 - Equipment	62.86 %	0.00 %	$0.00
E20 - Furnishings	67.50 %	0.00 %	$0.00
Totals:	**65.78 %**	**0.48 %**	**$316,304.17**

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.	131,500	100	2002	2102		87.00 %	0.00 %	87			$2,419,600
A1030	Slab on Grade	$7.73	S.F.	131,500	100	2002	2102		87.00 %	0.00 %	87			$1,016,495
A2010	Basement Excavation	$6.55	S.F.	131,500	100	2002	2102		87.00 %	0.00 %	87			$861,325
A2020	Basement Walls	$12.70	S.F.	131,500	100	2002	2102		87.00 %	0.00 %	87			$1,670,050
B1010	Floor Construction	$75.10	S.F.	131,500	100	2002	2102		87.00 %	0.00 %	87			$9,875,650
B1020	Roof Construction	$13.88	S.F.	131,500	100	2002	2102		87.00 %	0.00 %	87			$1,825,220
B2010	Exterior Walls	$36.91	S.F.	131,500	100	2002	2102		87.00 %	0.00 %	87			$4,853,665
B2020	Exterior Windows	$18.01	S.F.	131,500	40	2002	2042		67.50 %	0.00 %	27			$2,368,315
B2030	Exterior Doors	$1.45	S.F.	131,500	25	2002	2027		48.00 %	0.00 %	12			$190,675
B3010105	Built-Up	$37.76	S.F.	59,848	20	2002	2022		35.00 %	0.00 %	7			$2,259,860
B3010120	Single Ply Membrane	$38.73	S.F.		0				0.00 %	0.00 %				$0
B3010130	Preformed Metal Roofing	$54.22	S.F.		0				0.00 %	0.00 %				$0
B3010140	Shingle & Tile	$38.73	S.F.		0				0.00 %	0.00 %				$0
B3020	Roof Openings	$0.06	S.F.	131,500	20	2002	2022		35.00 %	0.00 %	7			$7,890
C1010	Partitions	$17.91	S.F.	131,500	100	2002	2102		87.00 %	0.00 %	87			$2,355,165
C1020	Interior Doors	$3.51	S.F.	131,500	40	2002	2042		67.50 %	0.00 %	27			$461,565
C1030	Fittings	$3.12	S.F.	131,500	40	2002	2042		67.50 %	0.00 %	27			$410,280
C2010	Stair Construction	$1.41	S.F.	131,500	100	2002	2102		87.00 %	0.00 %	87			$185,415

Site Assessment Report - B517001;deBurgos

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.	131,500	10	2002	2012	2027	120.00 %	0.00 %	12			$1,737,115
C3010231	Vinyl Wall Covering	$0.97	S.F.	131,500	15				0.00 %	0.00 %				$127,555
C3010232	Wall Tile	$2.63	S.F.	131,500	30	2002	2032		56.67 %	0.00 %	17			$345,845
C3020411	Carpet	$7.30	S.F.	3,600	10	2002	2012	2027	120.00 %	153.30 %	12		$40,286.73	$26,280
C3020412	Terrazzo & Tile	$75.52	S.F.	9,200	50	2002	2052		74.00 %	0.00 %	37			$694,784
C3020413	Vinyl Flooring	$9.68	S.F.	70,500	20	2002	2022		35.00 %	0.00 %	7			$682,440
C3020414	Wood Flooring	$22.27	S.F.		25				0.00 %	0.00 %				$0
C3020415	Concrete Floor Finishes	$0.97	S.F.	21,000	50	2002	2052		74.00 %	0.00 %	37			$20,370
C3030	Ceiling Finishes	$20.97	S.F.	131,500	25	2002	2027		48.00 %	0.00 %	12			$2,757,555
D1010	Elevators and Lifts	$1.53	S.F.	131,500	35	2002	2037		62.86 %	0.00 %	22			$201,195
D2010	Plumbing Fixtures	$13.52	S.F.	131,500	35	2002	2037		62.86 %	0.00 %	22			$1,777,880
D2020	Domestic Water Distribution	$1.68	S.F.	131,500	25	2002	2027		48.00 %	0.00 %	12			$220,920
D2030	Sanitary Waste	$2.90	S.F.	131,500	25	2002	2027		48.00 %	0.31 %	12		$1,190.29	$381,350
D2040	Rain Water Drainage	$2.32	S.F.	131,500	30	2002	2032		56.67 %	0.00 %	17			$305,080
D3020	Heat Generating Systems	$18.67	S.F.	131,500	35	2002	2037		62.86 %	0.00 %	22			$2,455,105
D3030	Cooling Generating Systems	$24.48	S.F.	131,500	30	2002	2032		56.67 %	0.00 %	17			$3,219,120
D3040	Distribution Systems	$42.99	S.F.	131,500	25	2002	2027		48.00 %	0.00 %	12			$5,653,185
D3050	Terminal & Package Units	$11.60	S.F.	131,500	20	2002	2022		35.00 %	0.00 %	7			$1,525,400
D3060	Controls & Instrumentation	$13.50	S.F.	131,500	20	2002	2022		35.00 %	0.00 %	7			$1,775,250
D4010	Sprinklers	$7.05	S.F.	131,500	35	2002	2037		62.86 %	29.64 %	22		$274,827.15	$927,075
D4020	Standpipes	$1.01	S.F.	131,500	35				0.00 %	0.00 %				$132,815
D5010	Electrical Service/Distribution	$9.70	S.F.	131,500	30	2002	2032	2032	56.67 %	0.00 %	17			$1,275,550
D5020	Lighting and Branch Wiring	$34.68	S.F.	131,500	20	2002	2022	2022	35.00 %	0.00 %	7			$4,560,420
D5030	Communications and Security	$12.99	S.F.	131,500	15	2002	2017	2020	33.33 %	0.00 %	5			$1,708,185
D5090	Other Electrical Systems	$1.41	S.F.	131,500	30	2002	2032	2032	56.67 %	0.00 %	17			$185,415
E1020	Institutional Equipment	$4.82	S.F.	131,500	35	2002	2037		62.86 %	0.00 %	22			$633,830
E1090	Other Equipment	$11.10	S.F.	131,500	35	2002	2037		62.86 %	0.00 %	22			$1,459,650
E2010	Fixed Furnishings	$2.13	S.F.	131,500	40	2002	2042		67.50 %	0.00 %	27			$280,095
								Total	**65.78 %**	**0.48 %**			**$316,304.17**	**$65,830,634**

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: Paint 100%

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

Note: VCT/ resilient 67%
Terrazzo 6%
Carpet 3%
Concrete 20%

System: C3030 - Ceiling Finishes — This system contains no images

Note: ACT 62%
Exposed 30%
Drywall 8%

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:	**$316,304**	**$0**	**$0**	**$0**	**$0**	**$2,178,281**	**$0**	**$14,626,136**	**$0**	**$0**	**$0**	**$17,120,721**
*** 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	$3,057,278	$0	$0	$0	**$3,057,278**
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	$10,674	$0	$0	$0	**$10,674**
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**

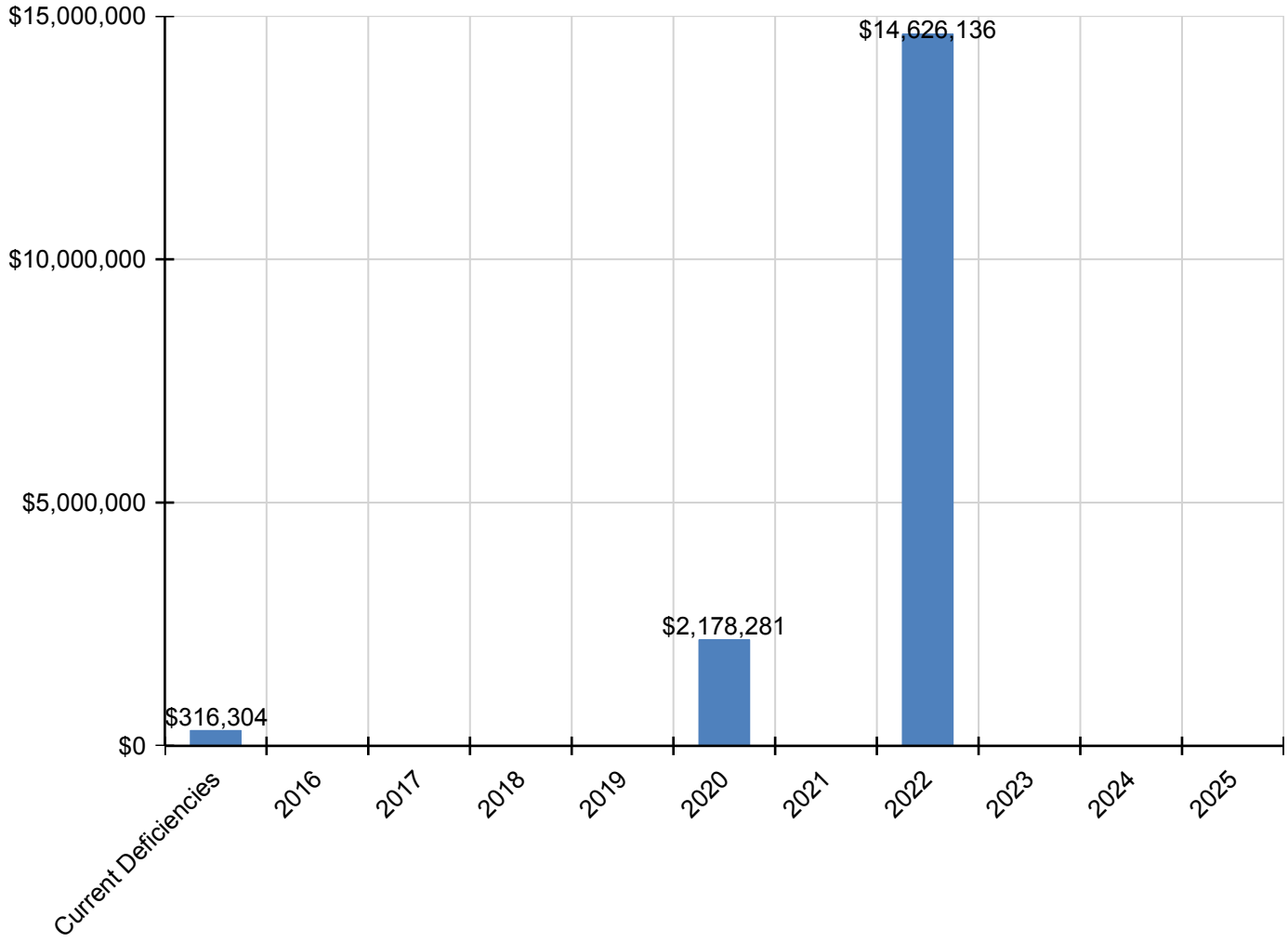
C1020 - Interior Doors	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C1030 - Fittings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C20 - Stairs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C2010 - Stair Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C30 - Interior Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010 - Wall Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010230 - Paint & Covering	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010231 - Vinyl Wall Covering	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010232 - Wall Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020 - Floor Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020411 - Carpet	$40,287	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$40,287**
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	$923,247	$0	$0	$0	**$923,247**
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**
D10 - Conveying	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D1010 - Elevators and Lifts	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$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	$1,190	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,190**
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	$2,063,655	$0	$0	$0	**$2,063,655**
D3060 - Controls & Instrumentation	$0	$0	$0	$0	$0	$0	$0	$2,401,667	$0	$0	$0	**$2,401,667**
D40 - Fire Protection	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D4010 - Sprinklers	$274,827	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$274,827**
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	$0	$0	$0	$0	$0	$0	$0	$6,169,616	$0	$0	$0	**$6,169,616**
D5030 - Communications and Security	$0	$0	$0	$0	$0	$2,178,281	$0	$0	$0	$0	$0	**$2,178,281**
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

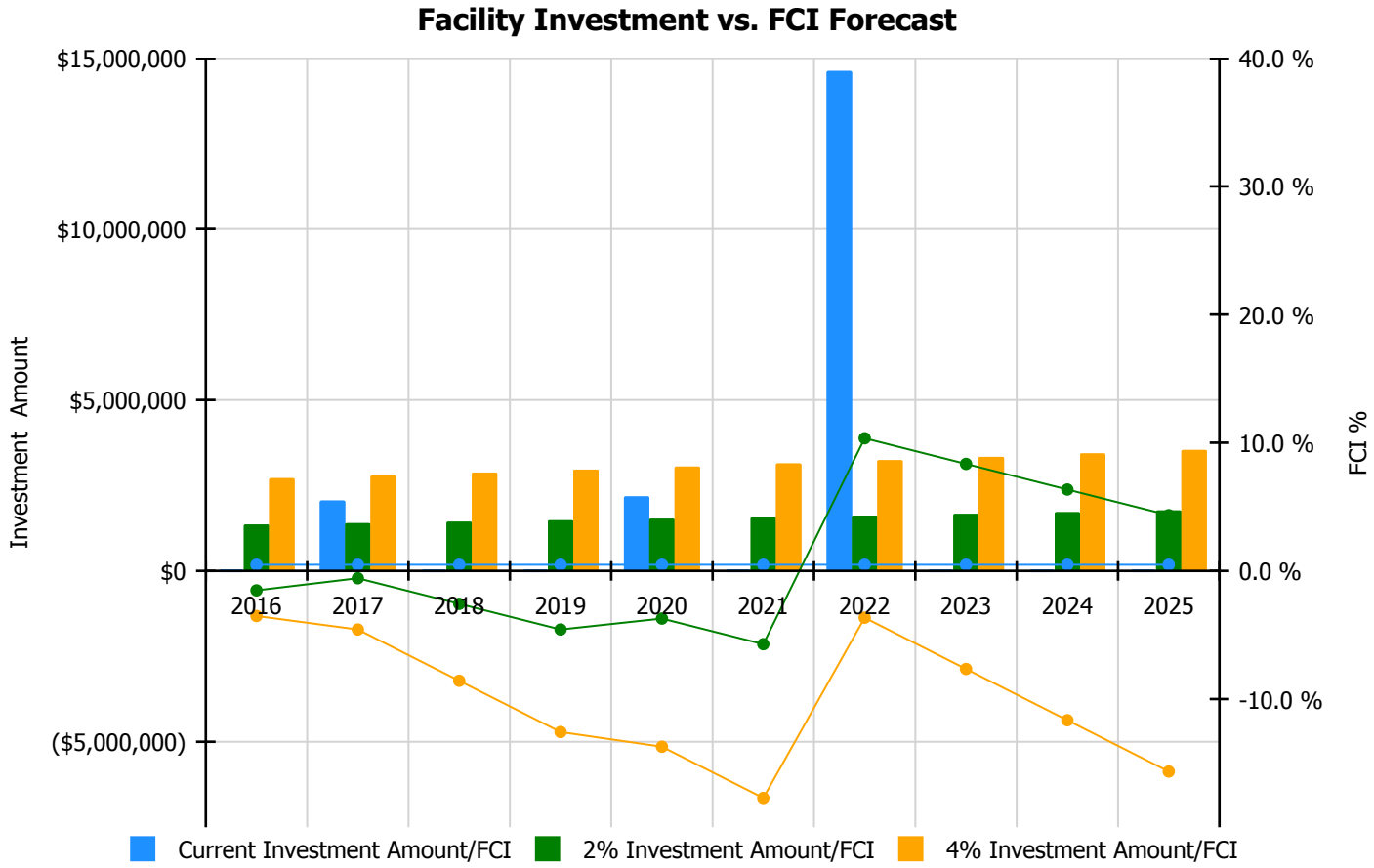
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



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:

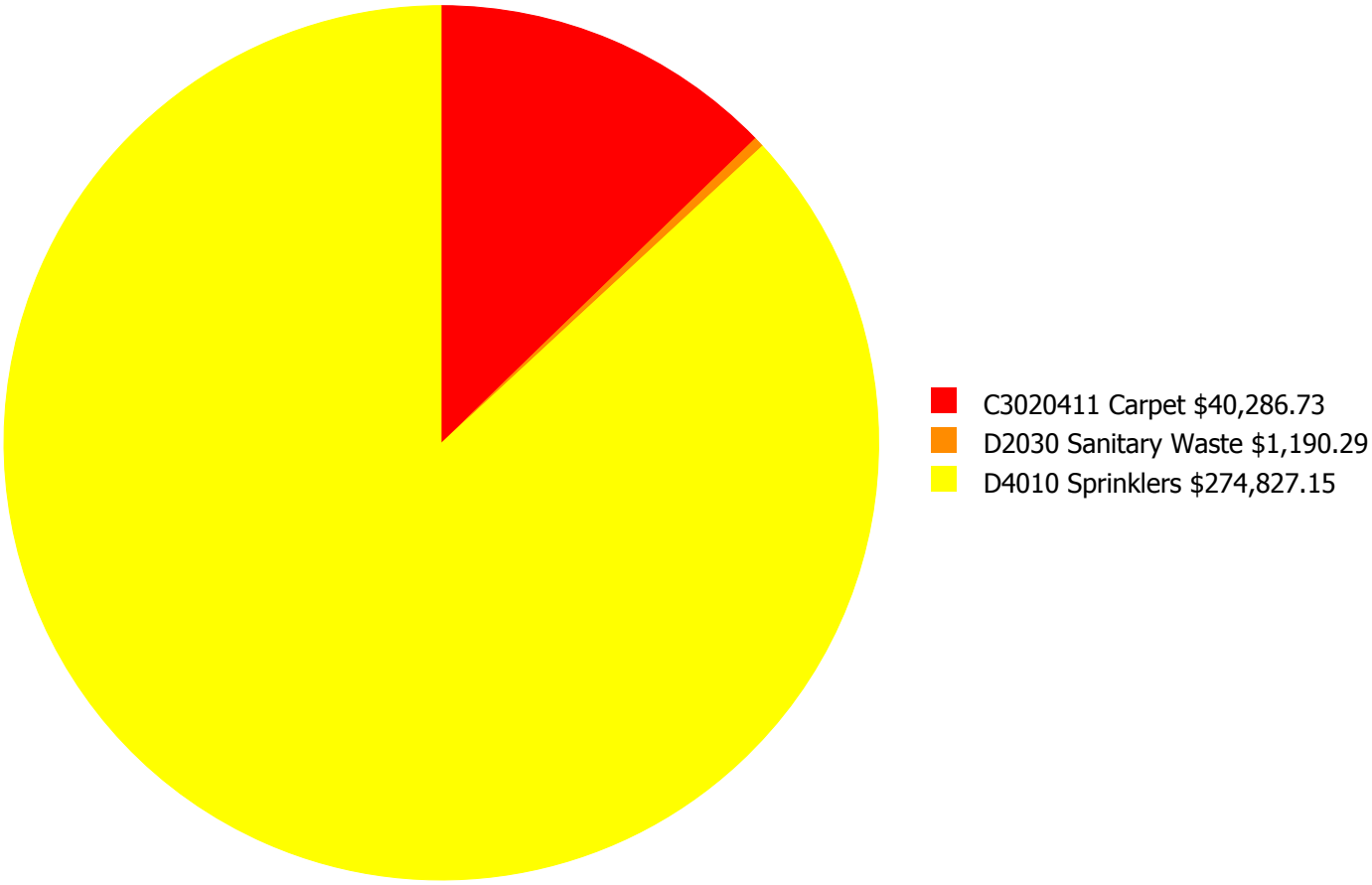
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 0.48%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$1,356,111.00	-1.52 %	$2,712,222.00	-3.52 %
2017	$2,057,865	$1,396,794.00	-0.57 %	$2,793,589.00	-4.57 %
2018	$0	$1,438,698.00	-2.57 %	$2,877,396.00	-8.57 %
2019	$0	$1,481,859.00	-4.57 %	$2,963,718.00	-12.57 %
2020	$2,178,281	$1,526,315.00	-3.72 %	$3,052,630.00	-13.72 %
2021	$0	$1,572,104.00	-5.72 %	$3,144,209.00	-17.72 %
2022	$14,626,136	$1,619,268.00	10.35 %	$3,238,535.00	-3.65 %
2023	$0	$1,667,846.00	8.35 %	$3,335,691.00	-7.65 %
2024	$0	$1,717,881.00	6.35 %	$3,435,762.00	-11.65 %
2025	$0	$1,769,417.00	4.35 %	$3,538,835.00	-15.65 %
Total:	**$18,862,281**	**$15,546,293.00**		**$31,092,587.00**	

Deficiency Summary by System

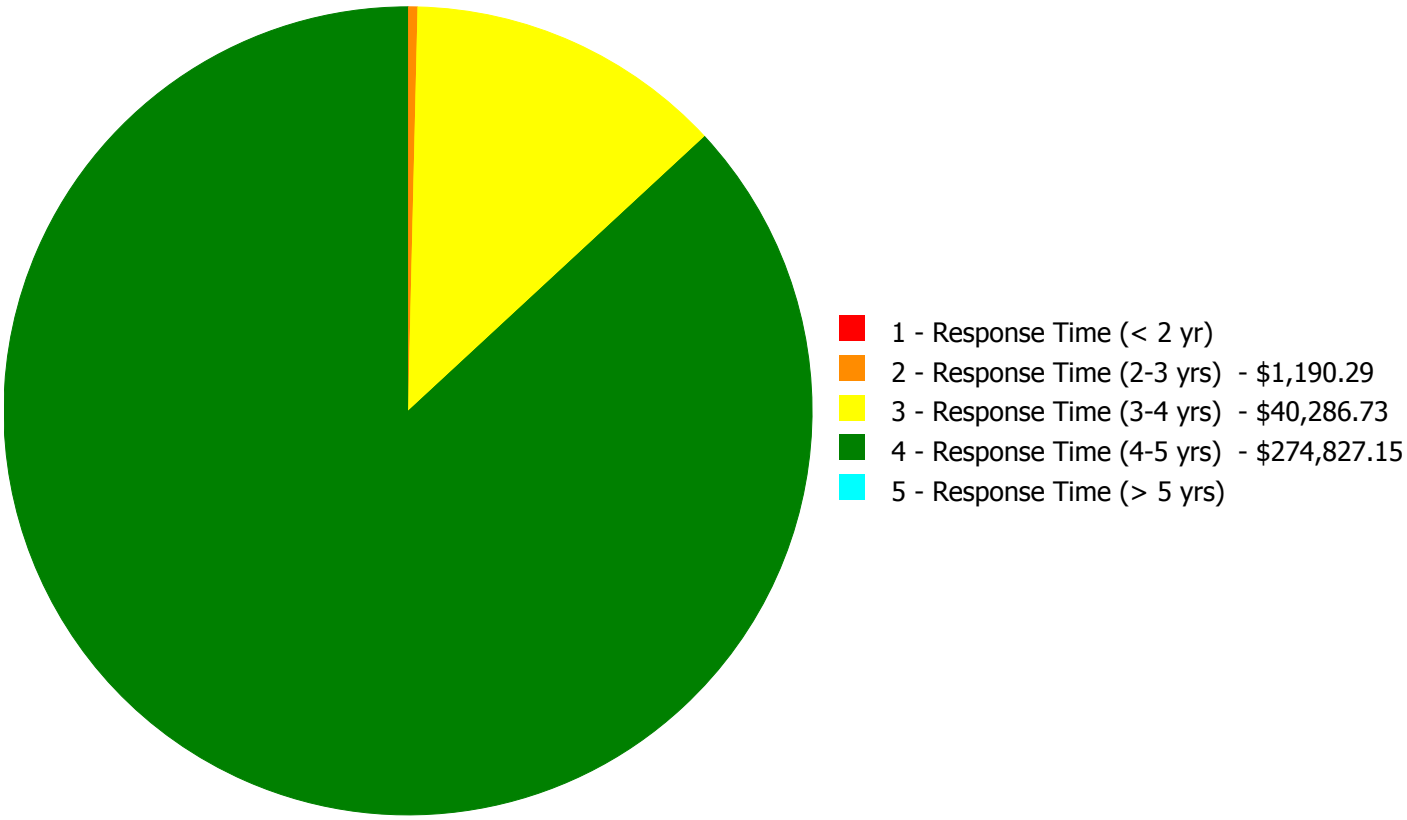
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $316,304.17

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: $316,304.17

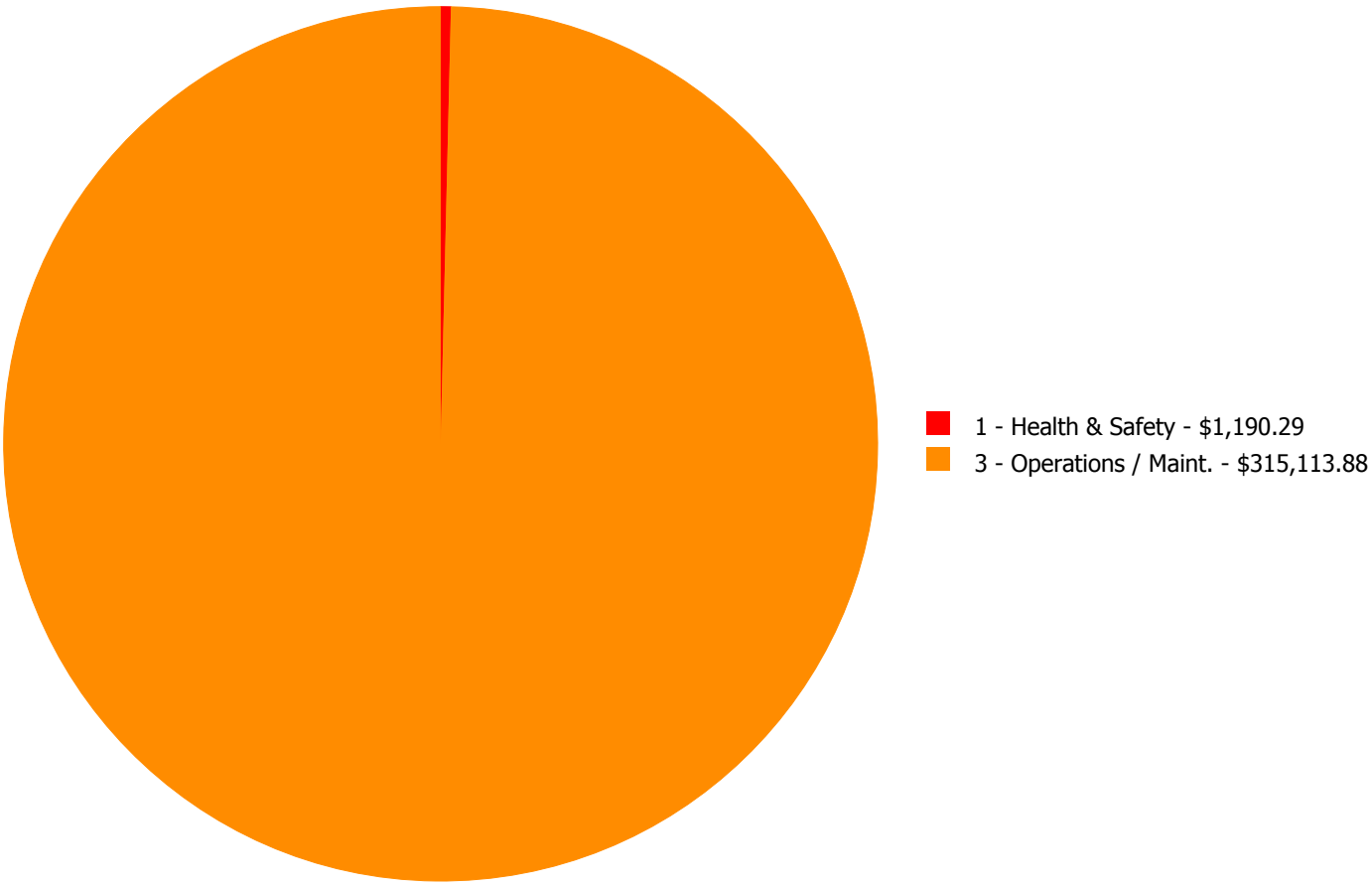
Deficiency By Priority Investment Table

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
C3020411	Carpet	$0.00	$0.00	$40,286.73	$0.00	$0.00	$40,286.73
D2030	Sanitary Waste	$0.00	$1,190.29	$0.00	$0.00	$0.00	$1,190.29
D4010	Sprinklers	$0.00	$0.00	$0.00	$274,827.15	$0.00	$274,827.15
	Total:	$0.00	$1,190.29	$40,286.73	$274,827.15	$0.00	$316,304.17

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: $316,304.17

Deficiency Details by Priority

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

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

System: D2030 - Sanitary Waste

Location: Basement Mechanical Room

Distress: Health Hazard / Risk

Category: 1 - Health & Safety

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

Correction: Replace defective or leaking piping - select the appropriate size and insert length and number of fittings in the estimate

Qty: 1.00

Unit of Measure: L.F.

Estimate: $1,190.29

Assessor Name: Craig Anding

Date Created: 09/23/2015

Notes: Replace the piping section with the pin hole leak in the sewage ejector piping in the chiller pit and replace the rusted cover of the pit.

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

System: C3020411 - Carpet

Location: Interior

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace carpet

Qty: 3,600.00

Unit of Measure: S.F.

Estimate: $40,286.73

Assessor Name: Craig Anding

Date Created: 11/13/2015

Notes: Replace carpet in library and office spaces

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

System: D4010 - Sprinklers

Location: Basement Mechanical Room

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Replace fire pump, electric, 1000 GPM

Qty: 1.00

Unit of Measure: Ea.

Estimate: $274,827.15

Assessor Name: Craig Anding

Date Created: 09/23/2015

Notes: Hire a qualified contractor to inspect the fire pump and repair or replace it as necessary.

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	2.00	Ea.	Basement Mechanical Room	Bell & Gossett	1.25AC 6.375BF	2271065		25	2002	2027	$12,198.00	$26,835.60
D2020 Domestic Water Distribution	Pump, pressure booster system, 7-1/2 HP pump, includes diaphragm tank, control and pressure switch	2.00	Ea.	Basement Mechanical Room	Bell & Gossett	1.25AC 6.375BF	2271064		25	2002	2027	$12,198.00	$26,835.60
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, steam, gross output, 2700 MBH, includes burners, controls and insulated jacket, packaged	3.00	Ea.	Basement Mechanical Room	HB Smith	Series 28A-12	N2001-170		35	2002	2037	$50,376.70	$166,243.11
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, steam, gross output, 2700 MBH, includes burners, controls and insulated jacket, packaged	3.00	Ea.	Basement Mechanical Room	HB Smith	Series 28A-12	N2001-169		35	2002	2037	$50,376.70	$166,243.11
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, steam, gross output, 2700 MBH, includes burners, controls and insulated jacket, packaged	3.00	Ea.	Basement Mechanical Room	HB Smith	Series 28A-12	N2001-168		35	2002	2037	$50,376.70	$166,243.11
D3030 Cooling Generating Systems	Cooling tower, packaged unit, galvanized steel, blow through, centrifugal type, 400 ton, includes standard controls, excludes pumps and piping	1.00	Ea.	Roof	BAC	33269-2	U012898101		18	2002	2020	$57,799.50	$63,579.45
D3030 Cooling Generating Systems	Water chiller, centrifugal liquid chiller, packaged unit, water cooled, 300 ton, includes standard controls, excludes water tower	2.00	Ea.	Basement Mechanical Room	Carrier	19XR---2--65451	1501Q65451		28	2002	2030	$126,852.00	$279,074.40
D3030 Cooling Generating Systems	Water chiller, centrifugal liquid chiller, packaged unit, water cooled, 300 ton, includes standard controls, excludes water tower	2.00	Ea.	Basement Mechanical Room	Carrier	19XR---2--65450	1501Q65450		28	2002	2030	$126,852.00	$279,074.40
D3040 Distribution Systems	Pump, circulating, cast iron, close coupled, end suction, bronze impeller, flanged joints, 15 HP, to 1000 GPM, 5" size	3.00	Ea.	Basement Mechanical Room	Bell and Gossett	VSC	2244971		25	2002	2027	$7,780.50	$25,675.65
D3040 Distribution Systems	Pump, circulating, cast iron, close coupled, end suction, bronze impeller, flanged joints, 15 HP, to 1000 GPM, 5" size	3.00	Ea.	Basement Mechanical Room	Bell and Gossett	VSC	2244972		25	2002	2027	$7,780.50	$25,675.65
D3040 Distribution Systems	Pump, circulating, cast iron, close coupled, end suction, bronze impeller, flanged joints, 15 HP, to 1000 GPM, 5" size	3.00	Ea.	Basement Mechanical Room	Bell and Gossett	VSC	2244970		25	2002	2027	$7,780.50	$25,675.65
D3040 Distribution Systems	Pump, general utility, single stage, double suction, 50 H.P., 5" discharge x 6" suction, includes motor	3.00	Ea.	Basement Mechanical Room	Bell and Gossett				25	2002	2027	$18,354.00	$60,568.20
D3040 Distribution Systems	Pump, general utility, single stage, double suction, 50 H.P., 5" discharge x 6" suction, includes motor	3.00	Ea.	Basement Mechanical Room	Bell and Gossett				25	2002	2027	$18,354.00	$60,568.20
D3040 Distribution Systems	Pump, general utility, single stage, double suction, 50 H.P., 5" discharge x 6" suction, includes motor	3.00	Ea.	Basement Mechanical Room	Bell and Gossett				25	2002	2027	$18,354.00	$60,568.20

D3040 Distribution Systems	Pump, general utility, single stage, double suction, 75 H.P. to 2500 GPM, includes motor	2.00	Ea.	Basement Mechanical Room	Bell and Gossett	VSC	2277429		25	2002	2027	$36,252.00	$79,754.40
D3040 Distribution Systems	Pump, general utility, single stage, double suction, 75 H.P. to 2500 GPM, includes motor	2.00	Ea.	Basement Mechanical Room	Bell and Gossett	VSC	2277428		25	2002	2027	$36,252.00	$79,754.40
D4010 Sprinklers	Fire pumps, electric, 500 GPM, 100 psi, 47 HP, 3550 RPM, 3" pump, including controller, fittings and relief valve	1.00	Ea.	Basement Mechanical Room	Armstrong	LAF	450-94		35	2002	2037	$24,386.40	$26,825.04
												Total:	**$1,619,194.17**

Executive Summary

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

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

Function:	
Gross Area (SF):	61,600
Year Built:	2002
Last Renovation:	
Replacement Value:	$1,133,164
Repair Cost:	$95,806.50
Total FCI:	8.45 %
Total RSLI:	60.16 %

Description:

Attributes:

General Attributes:

Bldg ID:	S517001	Site ID:	S517001

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	61.24 %	0.00 %	$0.00
G40 - Site Electrical Utilities	56.67 %	35.75 %	$95,806.50
Totals:	**60.16 %**	**8.45 %**	**$95,806.50**

Condition Detail

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

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

System Listing

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

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

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

System Code	System Description	Unit Price $	UoM	Qty	Life	Year Installed	Calc Next Renewal Year	Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency $	Replacement Value $
G2010	Roadways	$11.52	S.F.		30				0.00 %	0.00 %				$0
G2020	Parking Lots	$7.65	S.F.	16,000	30	2002	2032		56.67 %	0.00 %	17			$122,400
G2030	Pedestrian Paving	$11.52	S.F.	39,000	40	2002	2042		67.50 %	0.00 %	27			$449,280
G2040	Site Development	$4.36	S.F.	61,600	25	2002	2027		48.00 %	0.00 %	12			$268,576
G2050	Landscaping & Irrigation	$3.78	S.F.	6,600	15	2002	2017	2032	113.33 %	0.00 %	17			$24,948
G4020	Site Lighting	$3.58	S.F.	61,600	30	2002	2032	2032	56.67 %	0.00 %	17			$220,528
G4030	Site Communications & Security	$0.77	S.F.	61,600	30	2002	2032	2032	56.67 %	201.99 %	17		$95,806.50	$47,432
								Total	**60.16 %**	**8.45 %**			**$95,806.50**	**$1,133,164**

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.

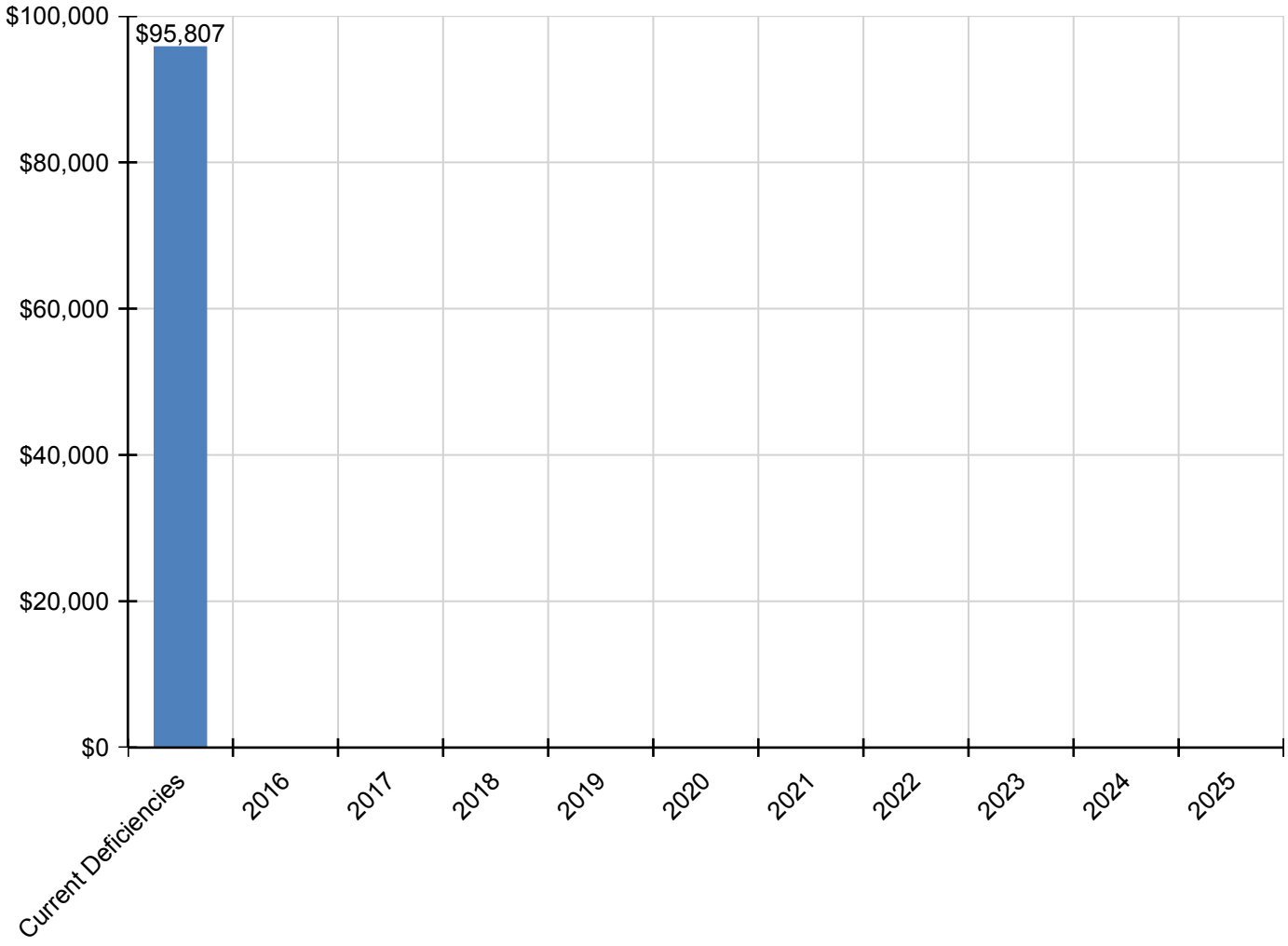
Inflation Rate: 3%

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Total:	**$95,807**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$95,807**
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	$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	$95,807	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$95,807**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

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

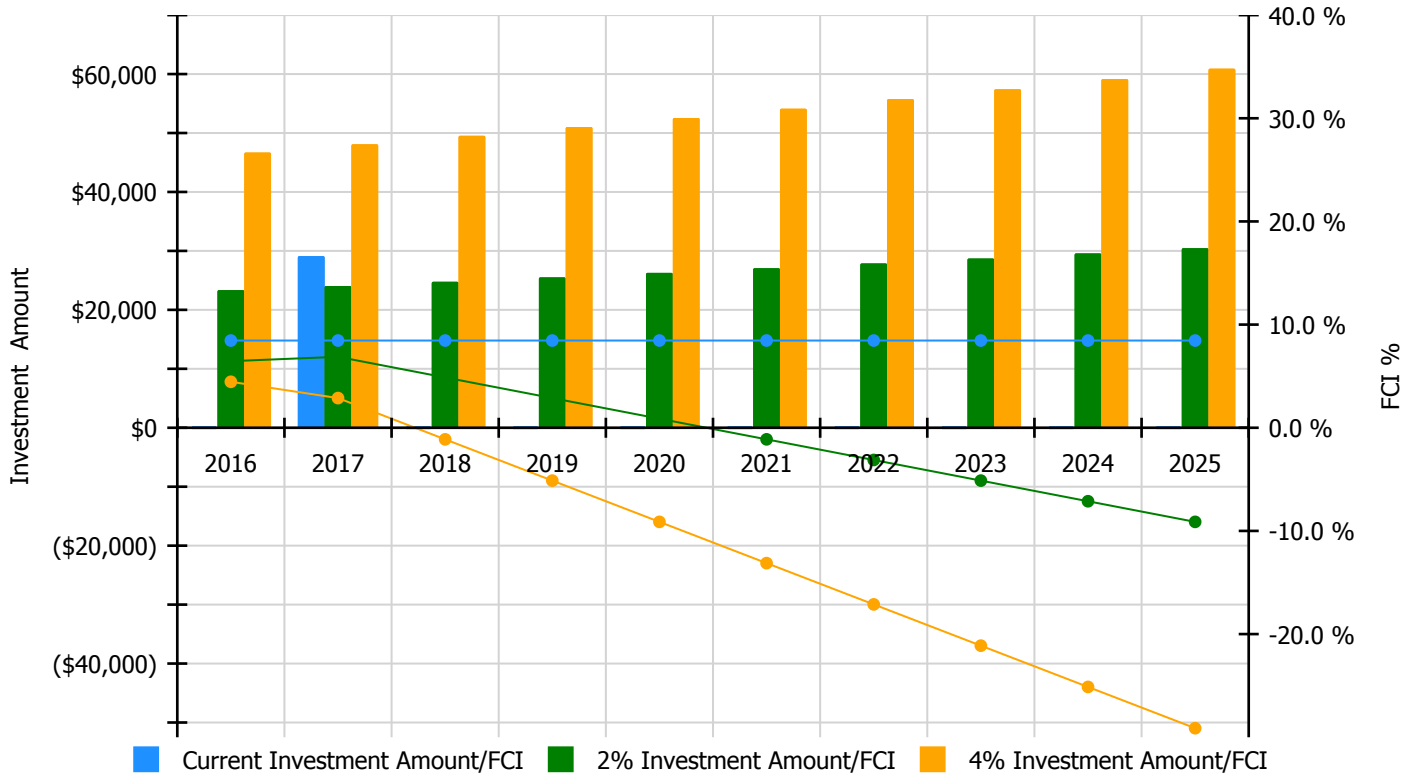


10 Year FCI Forecast by Investment Scenario

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

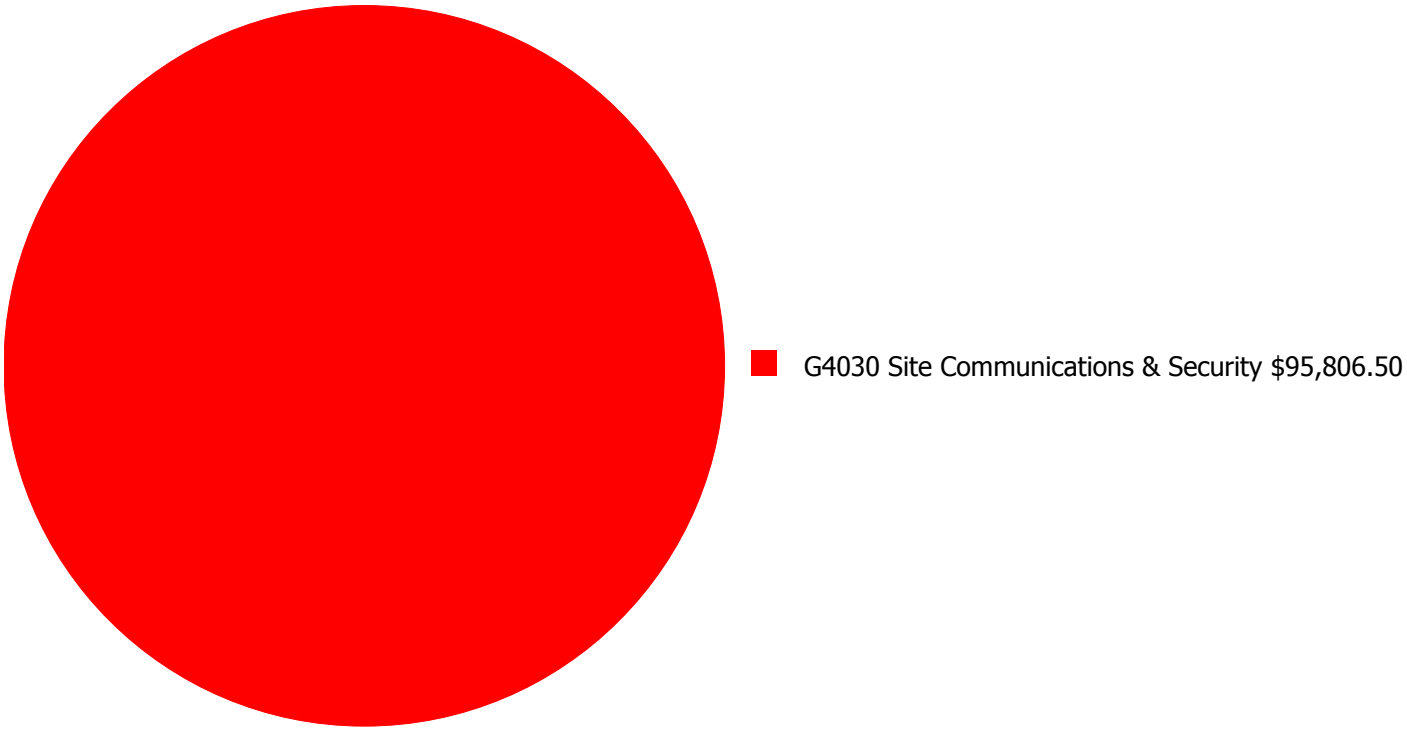
Facility Investment vs. FCI Forecast



Year	Investment Amount Current FCI - 8.45%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$23,343.00	6.45 %	$46,686.00	4.45 %
2017	$29,114	$24,043.00	6.88 %	$48,087.00	2.88 %
2018	$0	$24,765.00	4.88 %	$49,530.00	-1.12 %
2019	$0	$25,508.00	2.88 %	$51,015.00	-5.12 %
2020	$0	$26,273.00	0.88 %	$52,546.00	-9.12 %
2021	$0	$27,061.00	-1.12 %	$54,122.00	-13.12 %
2022	$0	$27,873.00	-3.12 %	$55,746.00	-17.12 %
2023	$0	$28,709.00	-5.12 %	$57,418.00	-21.12 %
2024	$0	$29,570.00	-7.12 %	$59,141.00	-25.12 %
2025	$0	$30,458.00	-9.12 %	$60,915.00	-29.12 %
Total:	**$29,114**	**$267,603.00**		**$535,206.00**	

Deficiency Summary by System

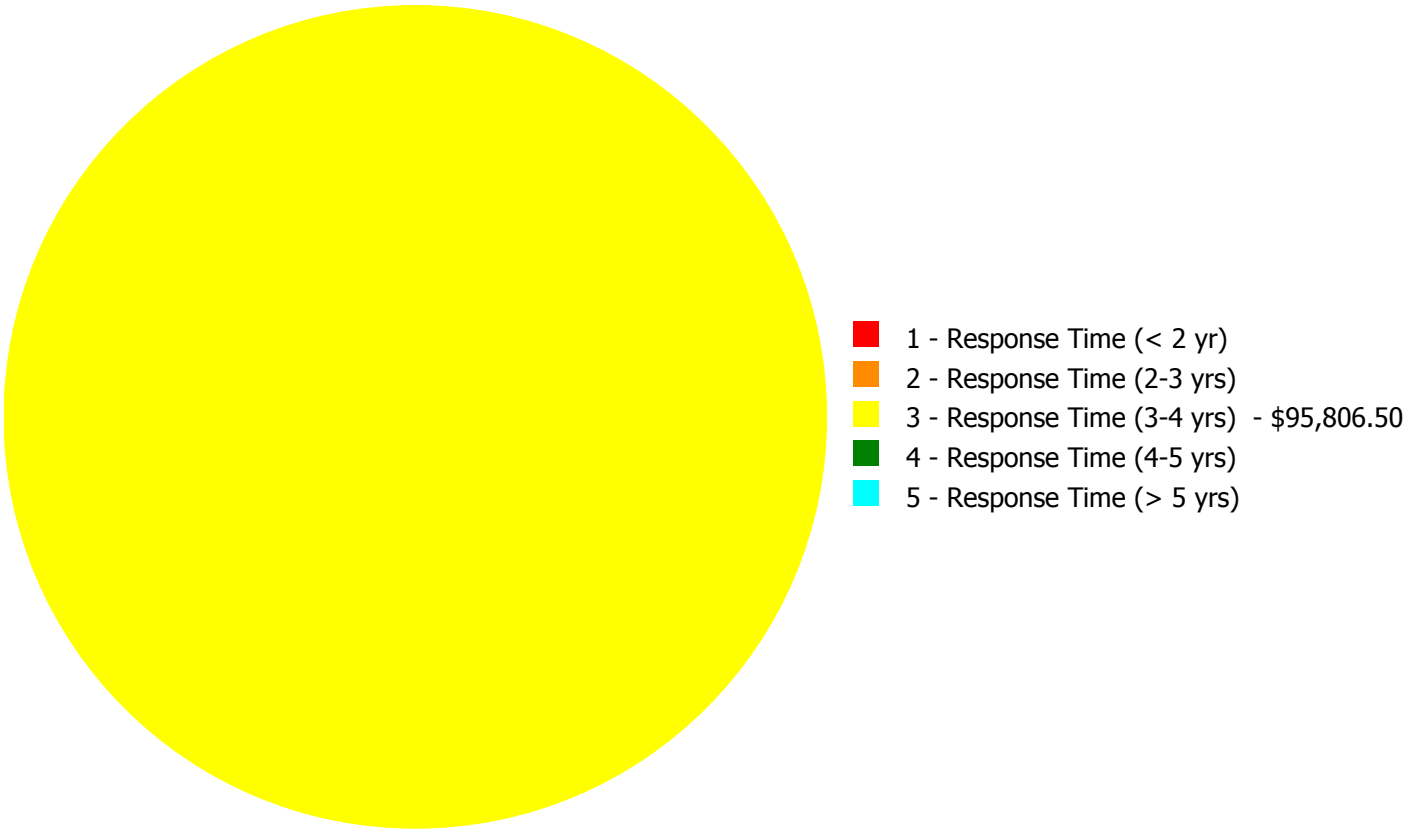
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $95,806.50

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: $95,806.50

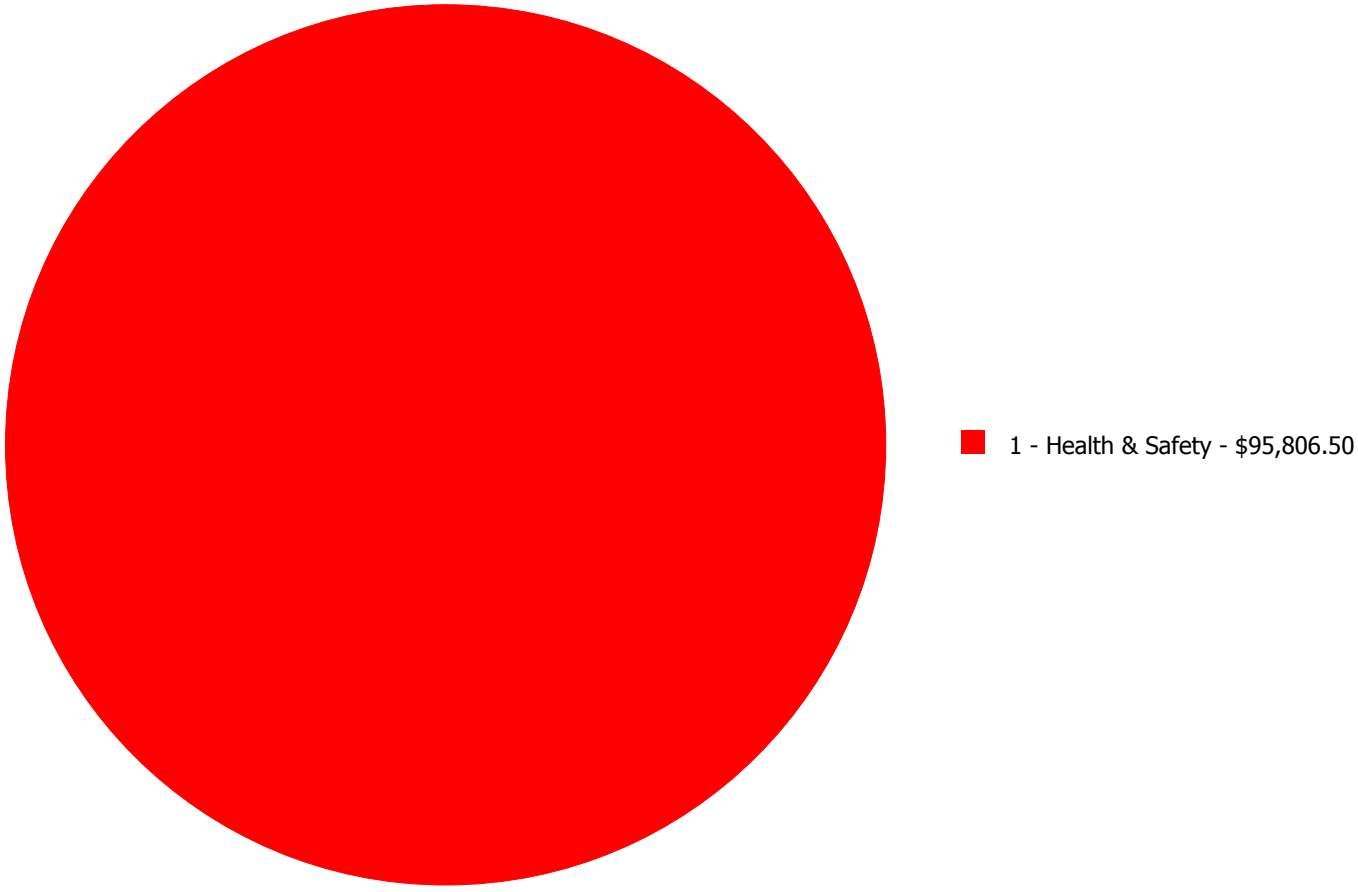
Deficiency By Priority Investment Table

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
G4030	Site Communications & Security	$0.00	$0.00	$95,806.50	$0.00	$0.00	$95,806.50
	Total:	$0.00	$0.00	$95,806.50	$0.00	$0.00	$95,806.50

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: $95,806.50

Deficiency Details by Priority

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

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

System: G4030 - Site Communications & Security

Location: Grounds

Distress: Security Issue

Category: 1 - Health & Safety

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

Correction: Add Video Surveillance System

Qty: 0.00

Unit of Measure: Ea.

Estimate: $95,806.50

Assessor Name: Tom Moe

Date Created: 10/22/2015

Notes: Install additional video surveillance cameras around the school to cover dead spaces.

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