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.

El Centro (Old Hunter) School

CONTRACTED High Governance Report Type Address 126 W. Dauphin St. Enrollment 208 '09-12' Philadelphia, Pa 19133 **Grade Range** Phone/Fax 267-687-1172 / 267-687-1170 **Admissions Category** Alternative

Website Www.Bigpicturephiladelphia.Org/El Centro.Html Turnaround Model N/A

Building/System FCI Tiers

Eacilit	y Condition Index (FCI)		ed 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	52.48%	\$9,465,629	\$18,037,080
Building	52.08 %	\$9,284,938	\$17,827,484
Grounds	86.21 %	\$180,691	\$209,596

Major Building Systems

Building System	System FCI	Repair Costs	Replacement Cost
Roof (Shows physical condition of roof)	00.00 %	\$0	\$484,344
Exterior Walls (Shows condition of the structural condition of the exterior facade)	00.00 %	\$0	\$952,210
Windows (Shows functionality of exterior windows)	123.81 %	\$514,707	\$415,715
Exterior Doors (Shows condition of exterior doors)	41.38 %	\$21,076	\$50,935
Interior Doors (Classroom doors)	00.00 %	\$0	\$114,680
Interior Walls (Paint and Finishes)	02.55 %	\$10,280	\$402,905
Plumbing Fixtures	51.92 %	\$500,112	\$963,190
Boilers	00.00 %	\$0	\$569,435
Chillers/Cooling Towers	70.37 %	\$525,446	\$746,640
Radiators/Unit Ventilators/HVAC	212.05 %	\$2,780,371	\$1,311,195
Heating/Cooling Controls	158.90 %	\$654,291	\$411,750
Electrical Service and Distribution	256.01 %	\$757,391	\$295,850
Lighting	37.84 %	\$400,243	\$1,057,740
Communications and Security (Cameras, Pa System and Fire Alarm)	108.80 %	\$431,071	\$396,195

School District of Philadelphia

S569001; Hunter (Old)

Final
Site Assessment Report
February 1, 2017



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Site Executive Summary	4
Site Condition Summary	11
B569001;Hunter (Old)	13
Executive Summary	13
Condition Summary	14
Condition Detail	15
System Listing	16
System Notes	18
Renewal Schedule	19
Forecasted Sustainment Requirement	22
Condition Index Forecast by Investment Scenario	23
Deficiency Summary By System	24
Deficiency Summary By Priority	25
Deficiency By Priority Investment	26
Deficiency Summary By Category	27
Deficiency Details By Priority	28
Equipment Inventory Detail	45
G569001;Grounds	46
Executive Summary	46
Condition Summary	47
Condition Detail	48
System Listing	49
System Notes	50
Renewal Schedule	51
Forecasted Sustainment Requirement	52
Condition Index Forecast by Investment Scenario	53
Deficiency Summary By System	54
Deficiency Summary By Priority	55
Deficiency By Priority Investment	56

Site Assessment Report

Deficiency Summary By Category	57
Deficiency Details By Priority	58
Equipment Inventory Detail	61
Glossary	62

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): 30,500

Year Built: 1909

Last Renovation:

Replacement Value: \$18,037,080

Repair Cost: \$9,465,629.38

Total FCI: 52.48 %

Total RSLI: 69.73 %



Description:

Facility Assessment October 2015

School District of Philadelphia Hunter Elementary School 144 W Dauphin St Philadelphia, PA 19133

30,500 SF / 596 Students / LN 04

GENERAL

The Hunter Elementary building is located at 144 W Dauphin St in Philadelphia, PA. The 3 story, 68,076 square foot building was originally constructed in 1909. The original building has a basement partially above ground and 3 penthouses on the roof.

The Facility Area Coordinator was not able to accompany the Parsons assessment team on this site visit. Mrs. Madeline Rodriguez, the Building Engineer, accompanied us on our tour of the school and provided us with detailed information on the building systems and recent maintenance history.

STRUCTURAL/ EXTERIOR CLOSURE

The building typically rests on concrete foundations and bearing walls that are not showing signs of settlement. Foundation walls do not show signs of deterioration. The basement slab does not show signs of heaving or cracking. No signs of water penetration through walls have been observed or reported. The brick and stucco wall along the stair to the roof shows some signs of spalling at two locations.

The main structure consists typically of masonry load bearing walls supporting a combination of one-way concrete slabs with ceramic block fillers and heavy timber framing in the original building. Above ground floor slabs are generally in good condition.

The building envelope is typically face brick masonry with decorative stone and window sills. In general, masonry is in good condition. Extensive masonry restoration was performed in 2014.

The original windows appear to have been replaced in late 1940's with thin profile steel windows with single glazing, fixed uppers and operable hopper sections along base. Basement, first, second and third floor windows are fitted with galvanized metal security screens attached to adjacent masonry. All windows and are generally in poor condition, leaking, and beyond their useful life.

Exterior doors and frames are typically hollow metal in poor condition. They were installed in early 1980's, have old hardware, no weather stripping and are difficult to operate.

Roof access is via a stair. A new built up roof was installed in 2011. The copper flashing from previous roof remained in place and is in fair condition. Brick debris remains on the roof near the stair housing. No overflow drains were observed. Plywood was used to cover over the roof penetrations of the mechanical equipment that was removed during the roof replacement. The roof penetrations currently covered with plywood should be filled and covered with built up roofing.

INTERIORS

Partition wall types include plastered ceramic hollow blocks painted CMU and hollow metal framed glazed store front partitions. Partitions between some classrooms are original, movable partitions in poor condition and inoperable. The interior wall finishes are generally painted plaster, CMU or drywall. Walls in a stairwells are glazed face brick.

Generally, the wall surfaces were repainted in 2011 and good condition with some minor deterioration in stairways, around window's perimeters and toilets.

Most ceilings are 2x4 suspended acoustical panels and exposed, painted. The suspension system and tile are old and approaching the end of their useful life. Paint on exposed ceilings is deteriorated.

Flooring in classrooms is generally hardwood and VCT; and patterned concrete in corridors. Toilet floors are finished with ceramic tile. Most flooring is original and in poor condition, often uneven creating possible tripping hazard; cove base is typically in fair condition. Some areas have VCT, generally in good condition, installed in 2012.

Interior doors are wood rail and stile wood glazed doors with transoms, generally in various stages of deterioration. Most doors are fitted with door knobs and are not ADA compliant. Doors leading to exit stairways are retrofitted with hollow metal doors and frames in good condition. Doors in 1970 addition are mostly solid core in hollow metal frames, generally in poor condition.

Fittings include original chalk boards, generally in poor condition; toilet accessories in poor condition or missing; toilet partitions, generally in poor condition and not ADA compliant; handrails and ornamental metals, generally in good condition. Interior identifying signage is typically directly painted on wall or door surfaces generally in poor condition. Some doors have no signage.

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

Furnishings include fixed casework in classrooms (built-in cabinets), in poor condition.

CONVEYING SYSTEMS:

The building has no elevators.

GROUNDS (SITE):

Site Assessment Report - S569001; Hunter (Old)

Playground pavement adjacent to the building on the south side is painted concrete in fair condition. Basketball court pavement has section near the south east entry gate that needs replacing.

Playground equipment and outdoor furniture is in good condition, recently installed in 2012.

Perimeter picket fence separating the playground from the street and parking is generally in fair condition.

The landscaping is limited to three small trees along the east side that are in fair condition.

ACCESSIBILITY:

Generally, the building has no accessible route per ADA requirements; the building is not accessible due to level separation between side walk, entry steps and first floor. Building lacks an elevator. Toilets are not equipped with accessible fixtures, and accessories, such as grab bars, and accessible partitions. Most of the doors in the building have ADA required door handles.

MECHANICAL

Plumbing Fixtures

The original plumbing fixtures have been replaced over the years, but the current fixtures are in poor condition. Fixtures in the restrooms on each floor consist of floor mounted flush water closets, wall hung urinals, and lavatories with wheel handle faucets. These fixtures are in poor condition and need to be replaced.

Drinking fountains in the corridors consist of wall hung porcelain fixtures which are no longer operational according to the Building Engineer. The building uses bottled water for drinking purposes. The fixtures are no longer operational and need to be replaced.

A sink is available in the corridor on each floor for use by the janitorial staff. These sinks are beyond their service lives, insufficient, and should be replaced with new service sinks.

The Kitchen has one (1) sink; a three-compartment stainless steel prep sink with lever operated faucets. Chemicals are injected manually into the sanitizing basins.

Domestic Water Distribution

A 3" city water service enters the basement from Dauphin Street on the North side of the building. The 3" meter and valves are located in a room adjacent to the boiler room in the basement. A reduced pressure backflow preventer is not installed, but should be. A single 5HP domestic pressure booster pump with expansion tank is installed on the domestic water line. The original domestic hot and cold water distribution piping was replaced with copper piping and sweat fittings. The maintenance staff reports no significant problems with scale build up in the domestic piping and the supply is adequate to the fixtures, but the piping has been in use for an unknown amount of time and should be inspected and repaired as necessary by a qualified contractor.

One (1) Bradford White natural gas, 40 gallon, vertical hot water heater with circulating pump supplies hot water for domestic use. The unit is located in the boiler room on the basement level and has an installation date of 2013. The hot water heater is equipped with a T&P relief valve and powered exhaust. The domestic hot water heater is well within its service life and should provide reliable service for the next 7-10 years.

Sanitary Waste

The original sanitary sewer piping is still in use and is cast iron piping with hub and spigot fittings.

The maintenance staff reported mostly minor problems with the sanitary waste piping systems. The original sewer piping has been in service for over 100 years and will require more frequent attention from the maintenance staff as time passes. The District should hire a qualified contractor to examine the sanitary waste piping using video cameras to locate and replace any damaged piping and to further quantify the extent of potential failures.

The building does not have a sewage ejector or sump pump.

Rain Water Drainage

Rain water drains from the roof are routed through mechanical chases in the building and appear to be original. The piping is cast iron piping with hub and spigot fittings and has been in use well beyond its service life. The District should hire a qualified contractor to examine the rain water drainage piping using video cameras to locate and replace any damaged piping and to further quantify the extent of potential failures.

Energy Supply

A 3" city gas service enters the building from Dauphin Street. The gas meter is 3" and is located in the same room that the gas and water lines enter the building. A gas booster pump is installed to ensure adequate gas pressure to the boiler.

The oil supply is stored in a 2,800 gallon storage tank located in the former coal/ash room in the basement on the West side of the school. Duplex pumps located in the former coal/ash room circulate oil through the system. Oil is used as the primary fuel for the boilers. The storage tank should be inspected on a regular basis. The actual condition of the fuel side is unknown.

Heat Generating Systems

Low pressure steam is generated at a maximum of 15 lbs. /sq. in. by one (1) 122HP Weil-McLain model 88 cast iron sectional boiler, estimated to have been installed in 2008. A second boiler is defunct and no longer operational. The one (1) boiler can handle the building heating load in all weather conditions. The boiler is equipped with a Webster burner designed to operate on fuel oil or natural gas; fuel oil is the primary fuel. Combustion air makeup is supplied by louvers equipped with motorized dampers. Burner oil pumps are loose and not driven by the fan motor. Condensate makeup water is supplemented with chemically treated city water. Cast iron sectional boilers have an anticipated service life of 35 years or more; these units have been in service an estimated 10 years. The boiler appears to have been maintained well. The District should provide reliable service for the next 20-25 years.

The boiler feed tank assembly with three (3) 3/4HP pumps headered together is installed in the boiler room. The feed tank and pumps are in good condition and the Building Engineer reported no issues with the system. The Building Engineer reported that there is no steam in the boiler room when she runs the boiler.

Distribution Systems

Steam piping is black steel with welded fittings. The condensate piping is black steel with threaded fittings. Steam and condensate piping mains from the basement level run up through the building to the radiators on all three floors. The distribution piping has been in use well beyond its service life and will require more frequent attention from the maintenance staff to address pipe/valve failures as time passes. The District should hire a qualified contractor to examine the steam and condensate piping and perform additional testing to locate and replace any damaged piping and to further quantify the extent of potential failures. The District should budget for replacing this piping over the next 10 years.

Two pipe cast iron radiators and the house fan provide heating for the building. The radiators and house fan are original to the building and well beyond their service lives. The house fan is located in a mechanical room in the basement and has been refurbished in the recent past, but the Building Engineer did not know when. The fan is run by a 15HP motor and is not equipped with the OSHA required belt guard. Ventilation for the building is provided by the house fan when it is in use, which does not meet current codes for outdoor air ventilation. The house fan only runs during the heating season, thus the building is without mechanical ventilation much of the year. A new heating system should be installed to meet ventilation requirements and achieve more efficient operation. The new units should be designed for quiet operation and equipped with hot water coils, chilled water coils, and integral heat exchangers, where applicable, to introduce outdoor air to the building.

Ventilation for the restrooms is provided by three (3) exhaust fans; one (1) fan serving the restrooms on each floor. The fans were operational during the site visit and the Building Engineer did not report any issues.

Terminal & Package Units

The third floor of the building has air conditioning provided by nine (9) split system air conditioning units with the condensing units located on the roof. The units are a mixture of seven (7) Samsung units serving the classrooms and two (2) Quietside units serving the restrooms; the installation dates are unknown. Several classrooms on the first and second floors are equipped with window air conditioning units; these units have an anticipated service life of only 10 years. Installing a 90 ton air-cooled chiller with pumps located in a mechanical room and chilled water distribution piping would supply more reliable air conditioning for the building with a much longer service life.

Site Assessment Report - S569001; Hunter (Old)

The Kitchen does not have any cooking equipment as only premade meals are served, thus no exhaust system installed.

Controls & Instrumentation

The original pneumatic systems provide no control functions. Pneumatic room thermostats are intended to control the steam radiator control valves. In reality the radiator control valves are wide open and heating control is achieved via the boiler and house fan. Pneumatic control air is no longer supplied as the air compressor has been removed. The pneumatic systems are beyond their service life and are no longer functional. The original control valves and pneumatic actuators are beyond their service life and should be rebuilt or replaced. These controls should be converted to DDC.

A new building automation system (BAS) with modern DDC modules and communications network should be installed to serve the HVAC systems in this building to improve reliability and energy efficiency. An interface should be provided with the preferred system in use throughout the District.

Sprinklers

The school building is NOT covered by an automatic sprinkler system. Installing a sprinkler system with quick response type heads should reduce insurance costs by providing protection for the property investment. A fire pump may be required depending on the available city water pressure.

ELECTRICAL:

Site electrical service - The primary power is at 13.2KV from the power poles feeding a pole-top transformer. The secondary power is brought down on the face of the school building from a service head and goes into the building feeding an old 400A, 120V/240 V, 2 phase switchboard. There is also a 75 KVA phase transformer to convert 120V/240V system to 120V/208V, 3 phase system for some of the loads. The PECO meter is also located inside the new electrical room. The switchboard is not in a good condition and has reached the end of its useful service life.

Distribution system - The electrical distribution is accomplished by using the 400A switchboard distribution panel (located in the electrical room) and feeding several 120V lighting and receptacle panels throughout the building. These panels (with the exception of IT panels) are old and not in good condition. They have reached the end of their service life.

Receptacles - The receptacles in classrooms, computer rooms, libraries, and other areas are not adequate. The walls in classrooms and the computer rooms require minimum two receptacles.

Lighting - Interior building is illuminated by various types of fixtures. They include fluorescent lighting (mostly with T-12 lamps and T-8 lamps) in majority of the areas, including; classrooms, corridors, offices, Library, cafeteria and the Kitchen. Surface or pendant mounted industrial fluorescent fixtures are used in mechanical and electrical rooms. Although about 30% of the school lighting was upgraded, the majority of the building (70%) lacks adequate illumination level. The majority of interior lighting fixtures are in a poor condition and have reached the end of their useful service life.

Fire alarm - The present Fire Alarm system is old and not automatic/addressable, and is not in compliance with safety code. There are some manual pulls stations throughout the building. There is not sufficient number of horn/strobes in the classrooms, corridors, offices and other areas in the school.

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

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

Clock and Program system - Clock and program systems are not working adequately. Some of the classrooms are provided with 12-inch wall mounted, round clocks, however, the clocks are not controlled properly by central master control panel.

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

Security Systems, access control, and video surveillance - The school is not provided with video surveillance system. Typically cameras should be installed at exit doors, corridors, exterior, and other critical areas. These cameras should be controlled by a Closed Circuit Television system (CCTV).

Emergency Power System – There is an old emergency generator in the electrical room, however, it is broken and non-functional.

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

Lightning Protection System - There is no lightning protection system installed in the school. There are no lightning rods installed on the roof. These lightning rods should be properly connected to the ground using stranded aluminum cables from the roof top all the way to the ground floor.

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

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

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

Elevators - This school has a no elevator

RECOMMENDATIONS:

- Replace all windows (reinstall existing security screens)
- Replace all exterior doors
- Replace all suspended acoustical ceilings
- Repair and repaint interior walls
- · Repair & refinish hardwood flooring
- · Install new signage throughout the building
- Provide ADA compliant elevator serving basement and all floors (exterior)
- Provide ADA compliant ramp at main entrance
- Reconfigure toilets on each floor for accessibility, provide new toilet partitions
- Provide new toilet accessories including grab bars
- Repave playground area (20% area)
- Replace twenty (20) water closets in the restrooms, which are beyond their service life, with new code compliant fixtures.
- Replace ten (10) urinals in the restrooms, which are beyond their service life, with new fixtures.
- Replace three (3) lavatories, which are beyond their service life, with new fixtures.
- Replace eight (8) wall hung drinking fountains in the corridors. These units are well beyond their service lives and no longer functioning.
- Replace four (4) sinks in the corridors for use by the janitorial staff which are beyond their service lives.
- Hire a qualified contractor to perform a detailed inspection of the domestic water piping, in use for an unknown amount of time, and replace any damaged piping.
- Install a reduced pressure backflow preventer on the incoming 3" domestic water line.
- Hire a qualified contractor to perform a detailed examination of the sanitary waste piping using visual inspection and video cameras to locate and replace any damaged piping and to further quantify the extent of potential failures.
- Hire a qualified contractor to perform a detailed examination of the rain water drainage piping using visual inspection and video cameras to locate and replace any damaged piping and to further quantify the extent of potential failures.
- Hire a qualified contractor to examine the steam piping, in service for over 100 years, and perform additional testing to locate and replace any damaged piping and to further quantify the extent of potential failures.
- Remove the existing cast iron steam radiators and install units with hot and chilled water coils and integral heat exchangers to introduce outdoor air to the building.
- Remove the window air conditioning units and install a 90 ton air-cooled chiller with chilled water distribution piping and pumps located in a mechanical room to supply more reliable air conditioning for the building with a much longer service life.
- Replace the pneumatic controls for the HVAC systems with modern DDC modules, valves and actuators to improve reliability and energy efficiency. Provide a new building automation system (BAS) with communication interface to the preferred system in use throughout the District.
- Install a fire protection sprinkler system with quick response type heads to reduce insurance costs by providing protection for

Site Assessment Report - S569001; Hunter (Old)

the property. A fire pump may be required depending on the available city water pressure.

- Install a new electrical service to replace the old one and have enough capacity for future mechanical loads.
- Install new distribution panels 4 in each floor plus two in the basement, and one in the kitchen (9 total).
- Install adequate (two on each wall minimum) surface-mounted receptacles in all classrooms and other areas within the building.
- Install new lighting system for 70% of the building.
- Install new automated FA system.
- Install new Clock System.
- Install a new emergency generator.
- Install new emergency exit signs & emergency lights.
- Install a new security system with cameras and CCTV
- Install new lightning protection system.
- Install additional pole-mounted lights for the grounds
- Install additional exterior speakers for the grounds

Attributes:

General Attributes:

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

Site ID: S569001

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.

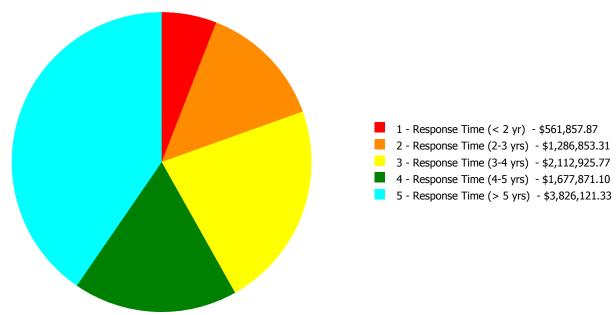
Current Investment Requirement and Condition by Uniformat Classification

UNIFORMAT Classification	RSLI%	FCI %	Current Repair
A10 - Foundations	44.00 %	0.00 %	\$0.00
A20 - Basement Construction	44.00 %	0.00 %	\$0.00
B10 - Superstructure	44.00 %	0.00 %	\$0.00
B20 - Exterior Enclosure	61.01 %	37.76 %	\$535,782.63
B30 - Roofing	80.00 %	0.00 %	\$0.00
C10 - Interior Construction	33.12 %	8.36 %	\$58,175.87
C20 - Stairs	44.00 %	0.00 %	\$0.00
C30 - Interior Finishes	28.52 %	32.06 %	\$454,035.27
D10 - Conveying	106.67 %	172.83 %	\$1,012,601.25
D20 - Plumbing	106.12 %	78.51 %	\$973,849.08
D30 - HVAC	98.54 %	116.72 %	\$3,960,107.80
D40 - Fire Protection	94.10 %	158.77 %	\$436,314.69
D50 - Electrical	109.97 %	99.36 %	\$1,854,071.82
E10 - Equipment	71.43 %	0.00 %	\$0.00
E20 - Furnishings	75.00 %	0.00 %	\$0.00
G20 - Site Improvements	9.85 %	30.61 %	\$38,369.60
G40 - Site Electrical Utilities	106.67 %	168.95 %	\$142,321.37
Totals:	69.73 %	52.48 %	\$9,465,629.38

Condition Deficiency Priority

Facility Name	Gross Area (S.F.)		_	2 - Response Time (2-3 yrs)		the state of the s	
B569001;Hunter (Old)	30,500	52.08	\$561,857.87	\$1,255,675.14	\$2,020,801.04	\$1,620,483.03	\$3,826,121.33
G569001;Grounds	6,100	86.21	\$0.00	\$31,178.17	\$92,124.73	\$57,388.07	\$0.00
Total:		52.48	\$561,857.87	\$1,286,853.31	\$2,112,925.77	\$1,677,871.10	\$3,826,121.33

Deficiencies By Priority



Budget Estimate Total: \$9,465,629.38

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).

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Function:	Elementary School
Gross Area (SF):	30,500
Year Built:	1909
Last Renovation:	
Replacement Value:	\$17,827,484
Repair Cost:	\$9,284,938.41
Total FCI:	52.08 %
Total RSLI:	69.98 %



Description:

C. ... al.: a

Attributes:

General Attributes:
Active: Open Bldg ID: B569001

Sewage Ejector: No Status: Accepted by SDP

Site ID: S569001

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	44.00 %	0.00 %	\$0.00
A20 - Basement Construction	44.00 %	0.00 %	\$0.00
B10 - Superstructure	44.00 %	0.00 %	\$0.00
B20 - Exterior Enclosure	61.01 %	37.76 %	\$535,782.63
B30 - Roofing	80.00 %	0.00 %	\$0.00
C10 - Interior Construction	33.12 %	8.36 %	\$58,175.87
C20 - Stairs	44.00 %	0.00 %	\$0.00
C30 - Interior Finishes	28.52 %	32.06 %	\$454,035.27
D10 - Conveying	106.67 %	172.83 %	\$1,012,601.25
D20 - Plumbing	106.12 %	78.51 %	\$973,849.08
D30 - HVAC	98.54 %	116.72 %	\$3,960,107.80
D40 - Fire Protection	94.10 %	158.77 %	\$436,314.69
D50 - Electrical	109.97 %	99.36 %	\$1,854,071.82
E10 - Equipment	71.43 %	0.00 %	\$0.00
E20 - Furnishings	75.00 %	0.00 %	\$0.00
Totals:	69.98 %	52.08 %	\$9,284,938.41

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 the system based on Building Owners and Managers Association (BOMA) recommendations.
- 7. Year Installed: The date of system installation.
- 8. Calc Next Renewal Year: The date of system expiration based on the life, NR stands for non renewable.
- 9. Next Renewal Year: The suggested system expiration date by the assessor based on visual inspection.
- 10. CI: The Condition Index of the system.
- 11. FCI: The Facility Condition Index of the system.
- 12. RSL: Remaining Service Life.
- 13. eCR: eCOMET Condition Rating (not used).
- 14. Deficiency \$: The financial investment to repair/replace system.

System Listing

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

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

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

System Code	System Description	Unit Price \$	UoM	Qty	Life	Year Installed	Calc Next Renewal Year	Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency \$	Replacement Value \$
A1010	Standard Foundations	\$24.32	S.F.	30,500	100	1909	2009	2059	44.00 %	0.00 %	44			\$741,760
A1030	Slab on Grade	\$15.51	S.F.	30,500	100	1909	2009	2059	44.00 %	0.00 %	44			\$473,055
A2010	Basement Excavation	\$13.07	S.F.	30,500	100	1909	2009	2059	44.00 %	0.00 %	44			\$398,635
A2020	Basement Walls	\$23.02	S.F.	30,500	100	1909	2009	2059	44.00 %	0.00 %	44			\$702,110
B1010	Floor Construction	\$92.20	S.F.	30,500	100	1909	2009	2059	44.00 %	0.00 %	44			\$2,812,100
B1020	Roof Construction	\$24.11	S.F.	30,500	100	1909	2009	2059	44.00 %	0.00 %	44			\$735,355
B2010	Exterior Walls	\$31.22	S.F.	30,500	100	1909	2009	2059	44.00 %	0.00 %	44			\$952,210
B2020	Exterior Windows	\$13.63	S.F.	30,500	40	1982	2022	2057	105.00 %	123.81 %	42		\$514,706.69	\$415,715
B2030	Exterior Doors	\$1.67	S.F.	30,500	25	1980	2005	2020	20.00 %	41.38 %	5		\$21,075.94	\$50,935
B3010105	Built-Up	\$37.76	S.F.	12,600	20	2011	2031		80.00 %	0.00 %	16			\$475,776
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.	12,600	20	2011	2031		80.00 %	0.00 %	16			\$8,568
C1010	Partitions	\$14.93	S.F.	30,500	100	1909	2009	2059	44.00 %	0.00 %	44			\$455,365
C1020	Interior Doors	\$3.76	S.F.	30,500	40	1960	2000	2020	12.50 %	0.00 %	5			\$114,680
C1030	Fittings	\$4.12	S.F.	30,500	40	1960	2000	2020	12.50 %	46.30 %	5		\$58,175.87	\$125,660
C2010	Stair Construction	\$1.28	S.F.	30,500	100	1909	2009	2059	44.00 %	0.00 %	44			\$39,040

Site Assessment Report - B569001; Hunter (Old)

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.	30,500	10	2009	2019	2020	50.00 %	2.55 %	5		\$10,280.49	\$402,905
C3010231	Vinyl Wall Covering	\$0.97	S.F.		15				0.00 %	0.00 %				\$0
C3010232	Wall Tile	\$2.63	S.F.		30				0.00 %	0.00 %				\$0
C3020411	Carpet	\$7.30	S.F.	500	10	2009	2019	2020	50.00 %	0.00 %	5			\$3,650
C3020412	Terrazzo & Tile	\$75.52	S.F.		50				0.00 %	0.00 %				\$0
C3020413	Vinyl Flooring	\$9.68	S.F.		20				0.00 %	0.00 %				\$0
C3020414	Wood Flooring	\$22.27	S.F.	16,000	25	1909	1934	2020	20.00 %	48.35 %	5		\$172,271.04	\$356,320
C3020415	Concrete Floor Finishes	\$0.97	S.F.	14,000	50	1909	1959	2020	10.00 %	0.00 %	5			\$13,580
C3030	Ceiling Finishes	\$20.97	S.F.	30,500	25	1909	1934	2020	20.00 %	42.45 %	5		\$271,483.74	\$639,585
D1010	Elevators and Lifts	\$19.21	S.F.	30,500	30			2047	106.67 %	172.83 %	32		\$1,012,601.25	\$585,905
D2010	Plumbing Fixtures	\$31.58	S.F.	30,500	35	1909	1944	2052	105.71 %	51.92 %	37		\$500,111.81	\$963,190
D2020	Domestic Water Distribution	\$2.90	S.F.	30,500	25	1909	1934	2042	108.00 %	213.52 %	27		\$188,861.66	\$88,450
D2030	Sanitary Waste	\$2.90	S.F.	30,500	25	1909	1934	2042	108.00 %	169.16 %	27		\$149,625.42	\$88,450
D2040	Rain Water Drainage	\$3.29	S.F.	30,500	30	1909	1939	2047	106.67 %	134.79 %	32		\$135,250.19	\$100,345
D3020	Heat Generating Systems	\$18.67	S.F.	30,500	35	2006	2041		74.29 %	0.00 %	26			\$569,435
D3030	Cooling Generating Systems	\$24.48	S.F.	30,500	20			2037	110.00 %	70.37 %	22		\$525,445.51	\$746,640
D3040	Distribution Systems	\$42.99	S.F.	30,500	25	1909	1934	2042	108.00 %	212.05 %	27		\$2,780,370.97	\$1,311,195
D3050	Terminal & Package Units	\$11.60	S.F.	30,500	20	2008	2028		65.00 %	0.00 %	13			\$353,800
D3060	Controls & Instrumentation	\$13.50	S.F.	30,500	20	1909	1929	2037	110.00 %	158.90 %	22		\$654,291.32	\$411,750
D4010	Sprinklers	\$8.02	S.F.	30,500	35			2052	105.71 %	178.37 %	37		\$436,314.69	\$244,610
D4020	Standpipes	\$0.99	S.F.	30,500	35				0.00 %	0.00 %				\$30,195
D5010	Electrical Service/Distribution	\$9.70	S.F.	30,500	30	1909	1939	2047	106.67 %	256.01 %	32		\$757,391.04	\$295,850
D5020	Lighting and Branch Wiring	\$34.68	S.F.	30,500	20	1909	1929	2037	110.00 %	37.84 %	22		\$400,242.60	\$1,057,740
D5030	Communications and Security	\$12.99	S.F.	30,500	15	1909	1924	2032	113.33 %	108.80 %	17		\$431,070.83	\$396,195
D5090	Other Electrical Systems	\$3.81	S.F.	30,500	30	1909	1939	2047	106.67 %	228.36 %	32		\$265,367.35	\$116,205
E1020	Institutional Equipment	\$4.82	S.F.	30,500	35	2005	2040		71.43 %	0.00 %	25			\$147,010
E1090	Other Equipment	\$11.10	S.F.	30,500	35	2005	2040		71.43 %	0.00 %	25			\$338,550
E2010	Fixed Furnishings	\$2.13	S.F.	30,500	40	2005	2045		75.00 %	0.00 %	30			\$64,965
								Total	69.98 %	52.08 %			\$9,284,938.41	\$17,827,484

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: C3010230 - Paint & Covering This system contains no images

Note: Painted plaster walls - 100%

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:	\$9,284,938	\$0	\$0	\$0	\$0	\$2,177,172	\$0	\$0	\$0	\$0	\$0	\$11,462,111
* 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	\$514,707	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$514,707
B2030 - Exterior Doors	\$21,076	\$0	\$0	\$0	\$0	\$64,953	\$0	\$0	\$0	\$0	\$0	\$86,029
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

Site Assessment Report - B569001; Hunter (Old)

C1020 - Interior Doors	\$0	\$0	\$0	\$0	\$0	\$146,240	\$0	\$0	\$0	\$0	\$0	\$146,240
C1030 - Fittings	\$58,176	\$0	\$0	\$0	\$0	\$160,242	\$0	\$0	\$0	\$0	\$0	\$218,418
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	\$10,280	\$0	\$0	\$0	\$0	\$513,786	\$0	\$0	\$0	\$0	\$0	\$524,066
C3010231 - Vinyl Wall Covering	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3010232 - Wall Tile	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3020 - Floor Finishes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C3020411 - Carpet	\$0	\$0	\$0	\$0	\$0	\$4,654	\$0	\$0	\$0	\$0	\$0	\$4,654
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	\$172,271	\$0	\$0	\$0	\$0	\$454,380	\$0	\$0	\$0	\$0	\$0	\$626,651
C3020415 - Concrete Floor Finishes	\$0	\$0	\$0	\$0	\$0	\$17,317	\$0	\$0	\$0	\$0	\$0	\$17,317
C3030 - Ceiling Finishes	\$271,484	\$0	\$0	\$0	\$0	\$815,600	\$0	\$0	\$0	\$0	\$0	\$1,087,084
D - Services	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D10 - Conveying	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D1010 - Elevators and Lifts	\$1,012,601	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,012,601
D20 - Plumbing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D2010 - Plumbing Fixtures	\$500,112	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$500,112
D2020 - Domestic Water Distribution	\$188,862	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$188,862
D2030 - Sanitary Waste	\$149,625	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$149,625
D2040 - Rain Water Drainage	\$135,250	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$135,250
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	\$525,446	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$525,446
D3040 - Distribution Systems	\$2,780,371	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,780,371
D3050 - Terminal & Package Units	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D3060 - Controls & Instrumentation	\$654,291	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$654,291
D40 - Fire Protection	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D4010 - Sprinklers	\$436,315	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$436,315
D4020 - Standpipes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

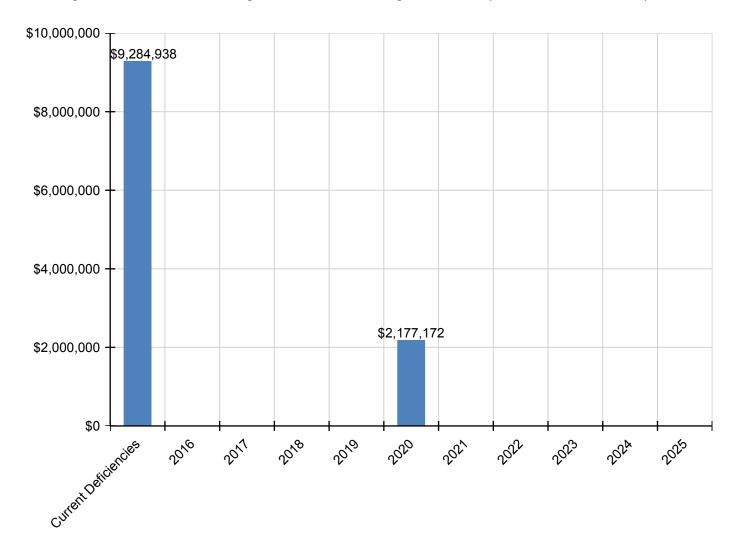
Site Assessment Report - B569001; Hunter (Old)

D50 - Electrical	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
D5010 - Electrical Service/Distribution	\$757,391	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$757,391
D5020 - Lighting and Branch Wiring	\$400,243	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$400,243
D5030 - Communications and Security	\$431,071	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$431,071
D5090 - Other Electrical Systems	\$265,367	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$265,367
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

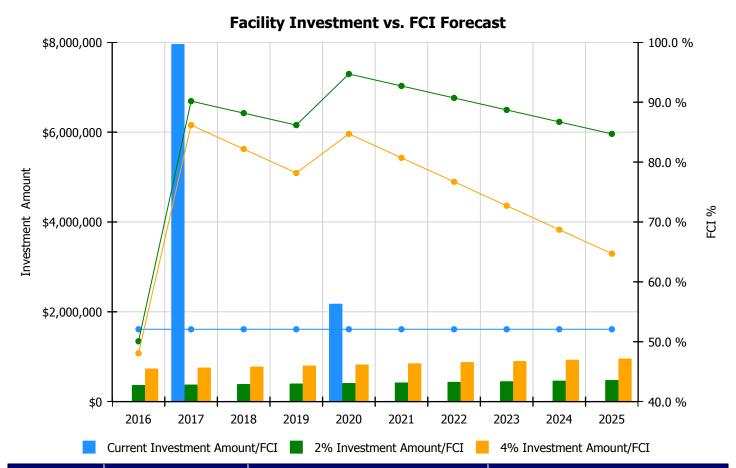
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



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:

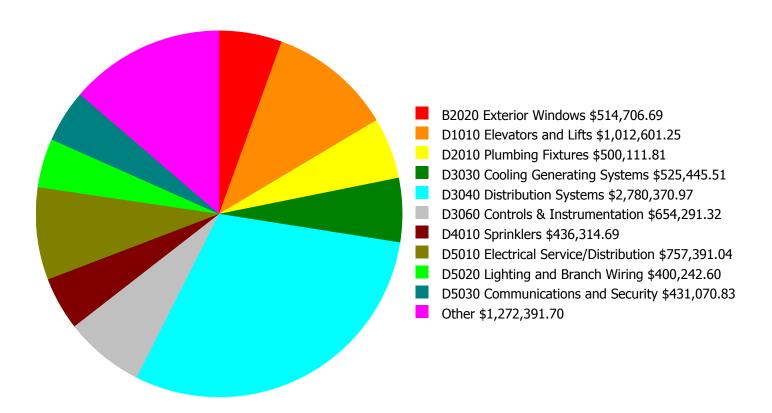
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



	Investment Amount	2% Investm	ent	4% Investment			
Year	Current FCI - 52.08%	Amount	FCI	Amount	FCI		
2016	\$0	\$367,246.00	50.08 %	\$734,492.00	48.08 %		
2017	\$7,961,489	\$378,264.00	90.18 %	\$756,527.00	86.18 %		
2018	\$0	\$389,611.00	88.18 %	\$779,223.00	82.18 %		
2019	\$0	\$401,300.00	86.18 %	\$802,600.00	78.18 %		
2020	\$2,177,172	\$413,339.00	94.71 %	\$826,678.00	84.71 %		
2021	\$0	\$425,739.00	92.71 %	\$851,478.00	80.71 %		
2022	\$0	\$438,511.00	90.71 %	\$877,022.00	76.71 %		
2023	\$0	\$451,666.00	88.71 %	\$903,333.00	72.71 %		
2024	\$0	\$465,216.00	86.71 %	\$930,433.00	68.71 %		
2025	\$0	\$479,173.00	84.71 %	\$958,346.00	64.71 %		
Total:	\$10,138,661	\$4,210,065.00		\$8,420,132.00			

Deficiency Summary by System

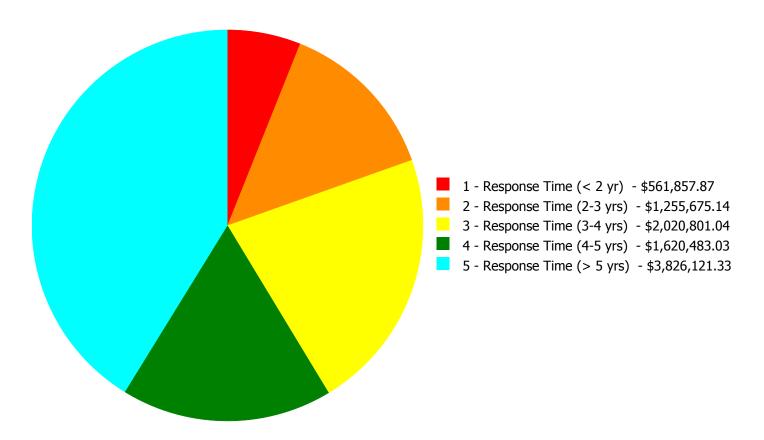
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: \$9,284,938.41

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: \$9,284,938.41

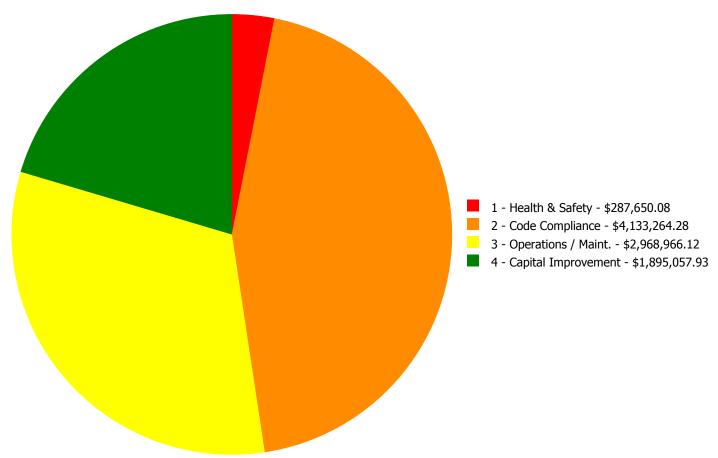
Deficiency By Priority Investment Table

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
B2020	Exterior Windows	\$0.00	\$0.00	\$0.00	\$514,706.69	\$0.00	\$514,706.69
B2030	Exterior Doors	\$0.00	\$0.00	\$0.00	\$21,075.94	\$0.00	\$21,075.94
C1030	Fittings	\$0.00	\$14,900.19	\$43,275.68	\$0.00	\$0.00	\$58,175.87
C3010230	Paint & Covering	\$0.00	\$0.00	\$0.00	\$10,280.49	\$0.00	\$10,280.49
C3020414	Wood Flooring	\$0.00	\$0.00	\$0.00	\$172,271.04	\$0.00	\$172,271.04
C3030	Ceiling Finishes	\$0.00	\$0.00	\$0.00	\$271,483.74	\$0.00	\$271,483.74
D1010	Elevators and Lifts	\$0.00	\$1,012,601.25	\$0.00	\$0.00	\$0.00	\$1,012,601.25
D2010	Plumbing Fixtures	\$125,543.18	\$193,866.84	\$180,701.79	\$0.00	\$0.00	\$500,111.81
D2020	Domestic Water Distribution	\$0.00	\$34,306.86	\$0.00	\$0.00	\$154,554.80	\$188,861.66
D2030	Sanitary Waste	\$0.00	\$0.00	\$149,625.42	\$0.00	\$0.00	\$149,625.42
D2040	Rain Water Drainage	\$0.00	\$0.00	\$135,250.19	\$0.00	\$0.00	\$135,250.19
D3030	Cooling Generating Systems	\$0.00	\$0.00	\$0.00	\$0.00	\$525,445.51	\$525,445.51
D3040	Distribution Systems	\$0.00	\$0.00	\$288,541.27	\$0.00	\$2,491,829.70	\$2,780,370.97
D3060	Controls & Instrumentation	\$0.00	\$0.00	\$0.00	\$0.00	\$654,291.32	\$654,291.32
D4010	Sprinklers	\$436,314.69	\$0.00	\$0.00	\$0.00	\$0.00	\$436,314.69
D5010	Electrical Service/Distribution	\$0.00	\$0.00	\$368,069.78	\$389,321.26	\$0.00	\$757,391.04
D5020	Lighting and Branch Wiring	\$0.00	\$0.00	\$400,242.60	\$0.00	\$0.00	\$400,242.60
D5030	Communications and Security	\$0.00	\$0.00	\$212,613.76	\$218,457.07	\$0.00	\$431,070.83
D5090	Other Electrical Systems	\$0.00	\$0.00	\$242,480.55	\$22,886.80	\$0.00	\$265,367.35
	Total:	\$561,857.87	\$1,255,675.14	\$2,020,801.04	\$1,620,483.03	\$3,826,121.33	\$9,284,938.41

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: \$9,284,938.41

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: D2010 - Plumbing Fixtures



Location: Corridors

Distress: Failing

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Remove and replace water fountains to meet

ADA - includes high and low fountains and new

recessed alcove

Qty: 8.00

Unit of Measure: Ea.

Estimate: \$125,543.18

Assessor Name: System

Date Created: 01/04/2016

Notes: Replace eight (8) wall hung drinking fountains in the corridors. These units are well beyond their service lives and no longer

functioning.

System: D4010 - Sprinklers



Location: Throughout building

Distress: Life Safety / NFPA / PFD

Category: 2 - Code Compliance

Priority: 1 - Response Time (< 2 yr)

Correction: Install a fire protection sprinkler system

Qty: 30,500.00

Unit of Measure: S.F.

Estimate: \$436,314.69

Assessor Name: System

Date Created: 01/04/2016

Notes: Install a fire protection sprinkler system with quick response type heads to reduce insurance costs by providing protection for the property. A fire pump may be required depending on the available city water pressure.

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

System: C1030 - Fittings



Location: Entire building

Distress: Accessibility

Category: 3 - Operations / Maint.

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

Correction: Replace missing or damaged signage - insert

the number of rooms

Qty: 55.00

Unit of Measure: Ea.

Estimate: \$14,900.19

Assessor Name: System

Date Created: 02/09/2016

Notes: Install new signage throughout the building

System: D1010 - Elevators and Lifts

This deficiency has no image.

Location: Near lobby on exterior of building

Distress: Accessibility

Category: 2 - Code Compliance

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

Correction: Add external 4 stop elevator - adjust the

electrical run lengths to hook up the elevator

Qty: 1.00

Unit of Measure: Ea.

Estimate: \$1,012,601.25

Assessor Name: System

Date Created: 02/09/2016

Notes: Install four stop elevator

System: D2010 - Plumbing Fixtures



Location: Restrooms

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace or replace water closet -

quantify additional units

Qty: 20.00

Unit of Measure: Ea.

Estimate: \$149,242.96

Assessor Name: System

Date Created: 01/04/2016

Notes: Replace twenty (20) water closets in the restrooms, which are beyond their service life, with new code compliant fixtures.

System: D2010 - Plumbing Fixtures

This deficiency has no image.

Location: Restrooms

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace or replace wall hung

urinals

Qty: 10.00

Unit of Measure: Ea.

Estimate: \$33,190.84

Assessor Name: System

Date Created: 01/04/2016

Notes: Replace ten (10) urinals in the restrooms, which are beyond their service life, with new fixtures.

System: D2010 - Plumbing Fixtures



Location: Restrooms

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace or replace lavatory -

quantify accessible if required

Qty: 3.00

Unit of Measure: Ea.

Estimate: \$11,433.04

Assessor Name: System

Date Created: 01/04/2016

Notes: Replace three (3) lavatories, which are beyond their service life, with new fixtures.

System: D2020 - Domestic Water Distribution

This deficiency has no image.

Location: Basement

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Provide 3" reduced pressure back flow

preventer

Qty: 1.00

Unit of Measure: Ea.

Estimate: \$34,306.86

Assessor Name: System

Date Created: 01/04/2016

Notes: Install a reduced pressure backflow preventer on the incoming 3" domestic water line.

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

System: C1030 - Fittings



Location: Restrooms

Distress: Accessibility

Category: 2 - Code Compliance

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

Correction: Replace toilet accessories - select accessories

and quantity

Qty: 20.00

Unit of Measure: Ea.

Estimate: \$43,275.68

Assessor Name: System

Date Created: 02/09/2016

Notes: Provide new toilet accessories including grab bars

System: D2010 - Plumbing Fixtures



Location: Restrooms

Distress: Accessibility

Category: 2 - Code Compliance

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

Correction: Remove and replace or replace water closet -

quantify additional units

Qty: 20.00

Unit of Measure: Ea.

Estimate: \$149,242.96

Assessor Name: System

Date Created: 02/09/2016

Notes: Reconfigure toilets on each floor for accessibility, provide new toilet partitions

System: D2010 - Plumbing Fixtures



Location: Corridors

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace wall janitor or mop sink -

insert the quantity

Qty: 4.00

Unit of Measure: Ea.

Estimate: \$31,458.83

Assessor Name: System

Date Created: 01/04/2016

Notes: Replace four (4) sinks in the corridors for use by the janitorial staff which are beyond their service lives.

System: D2030 - Sanitary Waste



Location: Throughout building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Inspect sanitary waste piping and replace

damaged sections. (+50KSF)

Qty: 30,500.00

Unit of Measure: S.F.

Estimate: \$149,625.42

Assessor Name: System

Date Created: 01/04/2016

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

System: D2040 - Rain Water Drainage



Location: Throughout building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Inspect internal rain water drainage piping and

replace pipe - based on SF of multi-story

building - insert SF of building

Qty: 30,500.00

Unit of Measure: S.F.

Estimate: \$135,250.19

Assessor Name: System

Date Created: 01/04/2016

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

System: D3040 - Distribution Systems



Location: Throughout building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Perform testing to identify and replace

damaged steam and condensate piping.

Qty: 30,500.00

Unit of Measure: S.F.

Estimate: \$288,541.27

Assessor Name: System

Date Created: 01/04/2016

Notes: Hire a qualified contractor to examine the steam piping, in service for over 100 years, and perform additional testing to locate and replace any damaged piping and to further quantify the extent of potential failures.

System: D5010 - Electrical Service/Distribution



Location: throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace Panelboard

Qty: 1.00

Unit of Measure: Ea.

Estimate: \$368,069.78

Assessor Name: System

Date Created: 02/03/2016

Notes: Install new distribution panels 4 in each floor plus two in the basement, and one in the kitchen (9 total).

System: D5020 - Lighting and Branch Wiring



Location: throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace Lighting Fixtures (SF)

Qty: 0.00

Unit of Measure: S.F.

Estimate: \$228,087.75

Assessor Name: System

Date Created: 02/03/2016

Notes: Install new lighting system for 70% of the building. $70\% \times 30,500 \text{ SF} = 21,350 \text{ SF}$

System: D5020 - Lighting and Branch Wiring



Location: throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace Wiring Devices (SF) - surface mounted

conduit and boxes

Qty: 0.00

Unit of Measure: S.F.

Estimate: \$172,154.85

Assessor Name: System

Date Created: 02/03/2016

Notes: Install adequate (two on each wall minimum) surface-mounted receptacles in all classrooms and other areas within the building.

System: D5030 - Communications and Security



Location: throughout the building

Distress: Health Hazard / Risk

Category: 1 - Health & Safety

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

Correction: Replace fire alarm system

Qty: 1.00

Unit of Measure: S.F.

Estimate: \$212,613.76

Assessor Name: System

Date Created: 02/03/2016

Notes: Install new automated FA system.

System: D5090 - Other Electrical Systems



Location: electrical room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace standby generator system

Qty: 1.00

Unit of Measure: Ea.

Estimate: \$142,426.44

Assessor Name: System

Date Created: 02/03/2016

Notes: Install a new emergency generator.

System: D5090 - Other Electrical Systems



Location: throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace Emergency/Exit Lighting

Qty: 1.00

Unit of Measure: Ea.

Estimate: \$100,054.11

Assessor Name: System

Date Created: 02/03/2016

Notes: Install new emergency exit signs and emergency lights.

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

System: B2020 - Exterior Windows



Location: B569001; Hunter (Old)

Distress: Beyond Service Life

Category: 4 - Capital Improvement

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

Correction: Remove and replace double slider windows

Qty: 102.00

Unit of Measure: Ea.

Estimate: \$514,706.69

Assessor Name: System

Date Created: 02/09/2016

Notes: Replace all windows (reinstall existing security screens)

System: B2030 - Exterior Doors



Notes: Replace all exterior doors.

Location: Front and Back elevations

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace exterior doors - per leaf

Qty: 6.00

Unit of Measure: Ea.

Estimate: \$21,075.94

Assessor Name: System

Date Created: 02/09/2016

System: C3010230 - Paint & Covering



Location: B569001; Hunter (Old)

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Repair substrate and repaint interior walls - SF

of wall surface

Qty: 1,200.00

Unit of Measure: S.F.

Estimate: \$10,280.49

Assessor Name: System

Date Created: 02/09/2016

Notes:

System: C3020414 - Wood Flooring



Notes: Repair refinish hardwood flooring

Location: Hard wood flooring; all floors

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Refinish wood floors

Qty: 16,000.00

Unit of Measure: S.F.

Estimate: \$172,271.04

Assessor Name: System

Date Created: 02/09/2016

System: C3030 - Ceiling Finishes



Location: Entire building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace suspended acoustic

ceilings - lighting not included

Qty: 18,000.00

Unit of Measure: S.F.

Estimate: \$271,483.74

Assessor Name: System

Date Created: 02/09/2016

Notes: Replace all suspended acoustical ceilings

System: D5010 - Electrical Service/Distribution



Location: electrical room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace Service Transformer, Add Switchboard

Qty: 0.00

Unit of Measure: Ea.

Estimate: \$389,321.26

Assessor Name: System

Date Created: 02/03/2016

Notes: Install a new electrical service to replace the old one and have enough capacity for future mechanical loads.

System: D5030 - Communications and Security



Location: throughout the building

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Add/Replace Clock System or Components

Qty: 0.00

Unit of Measure: Ea.

Estimate: \$143,420.75

Assessor Name: System

Date Created: 02/03/2016

Notes: Install new Clock System.

System: D5030 - Communications and Security

This deficiency has no image. **Location:** throughout the building

Distress: Health Hazard / Risk

Category: 1 - Health & Safety

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

Correction: Add/Replace Video Surveillance System

Qty: 1.00

Unit of Measure: Ea.

Estimate: \$75,036.32

Assessor Name: System

Date Created: 02/03/2016

Notes: Install a new security system with cameras and CCTV

Note: There is no picture attached for this deficiency since presently school does not have a video surveillance system.

System: D5090 - Other Electrical Systems



Location: roof

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Provide Lightning Protection System

Qty: 1.00

Unit of Measure: LS

Estimate: \$22,886.80

Assessor Name: System

Date Created: 02/03/2016

Notes: Install new lightning protection system.

Priority 5 - Response Time (> 5 yrs):

System: D2020 - Domestic Water Distribution



Location: Throughout building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Replace domestic water piping (75 KSF)

Qty: 30,500.00

Unit of Measure: S.F.

Estimate: \$154,554.80

Assessor Name: System

Date Created: 01/04/2016

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

System: D3030 - Cooling Generating Systems



Location: Throughout building

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 5 - Response Time (> 5 yrs)

Correction: Install chilled water system with distribution

piping and pumps. (+75KSF)

Qty: 30,500.00

Unit of Measure: S.F.

Estimate: \$525,445.51

Assessor Name: System

Date Created: 01/04/2016

Notes: Remove the window air conditioning units and install a 90 ton air-cooled chiller with chilled water distribution piping and pumps located in a mechanical room to supply more reliable air conditioning for the building with a much longer service life.

System: D3040 - Distribution Systems



Location: Throughout building

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 5 - Response Time (> 5 yrs)

Correction: Provide classroom FC units and dedicated OA

ventilation system. (20 clsrms)

Qty: 30.00

Unit of Measure: C

Estimate: \$2,491,829.70

Assessor Name: System

Date Created: 01/04/2016

Notes: Remove the existing cast iron steam radiators and install units with hot and chilled water coils and integral heat exchangers to introduce outdoor air to the building.

System: D3060 - Controls & Instrumentation



Location: Throughout building

Distress: Failing

Category: 4 - Capital Improvement

Priority: 5 - Response Time (> 5 yrs)

Correction: Replace pneumatic controls with DDC (75KSF)

Qty: 30,500.00

Unit of Measure: S.F.

Estimate: \$654,291.32

Assessor Name: System

Date Created: 01/04/2016

Notes: Replace the pneumatic controls for the HVAC systems with modern DDC modules, valves and actuators to improve reliability and energy efficiency. Provide a new building automation system (BAS) with communication interface to the preferred system in use throughout the District.

Equipment Inventory

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

Subsystem	Inventory	Qty	UoM	Location	Manufacturer	Model Number	Serial Number	Barcode	Life	Install Date	Next Renewal	Raw Cost	Inventory Cost
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, steam, gross output, 4070 MBH, includes burners, controls and insulated jacket, packaged	1.00	Ea.	Boiler Room	Weil-McLain	1688			35	2006	2041	\$106,115.00	\$116,726.50
D5010 Electrical Service/Distribution	Load interrupter switch, 2 position, 300 kVA & below w/CLF fuses, 4.8 kV, 600 amp, NEMA 1	2.00	Ea.	electrical room					30			\$34,900.20	\$76,780.44
D5010 Electrical Service/Distribution	Panelboards, 3 pole 3 wire, main circuit breaker, 240 V, 225 amp	4.00	Ea.						30	1909	2047	\$3,105.00	\$13,662.00
D5010 Electrical Service/Distribution	Switchboards, main fusible switch, 3 pole, 4 wire, 120/208, 120/240 V, 600 amp, incl fuse	1.00	Ea.	electrical room					30	1909	2047	\$6,986.25	\$7,684.88
												Total:	\$214,853.82

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): 6,100

Year Built: 1909

Last Renovation:

Replacement Value: \$209,596

Repair Cost: \$180,690.97

Total FCI: 86.21 %

Total RSLI: 48.76 %



Description:

GROUNDS (SITE):

Playground pavement adjacent to the building on the south side is painted concrete in fair condition. Basketball court pavement has section near the south east entry gate that needs replacing.

Playground equipment and outdoor furniture is in good condition, recently installed in 2012.

Perimeter picket fence separating the playground from the street and parking is generally in fair condition.

The landscaping is limited to three small trees along the east side that are in fair condition.

Attributes:

General Attributes:

Bldg ID: S569001 Site ID: S569001

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	9.85 %	30.61 %	\$38,369.60
G40 - Site Electrical Utilities	106.67 %	168.95 %	\$142,321.37
Totals:	48.76 %	86.21 %	\$180,690.97

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 the system 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	Otv	Life	Year Installed		Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency \$	Replacement Value \$
G2010	Roadways	\$11.52		Qty	30	Instaneu	rear	rear	0.00 %	0.00 %	KSL	eck	Deficiency \$	value \$
G2020	Parking Lots	\$8.50			30				0.00 %	0.00 %				\$0
G2030	Pedestrian Paving	\$16.19	S.F.	6,100	40	1980	2020		12.50 %	38.85 %	5		\$38,369.60	\$98,759
G2040	Site Development	\$4.36	S.F.	6,100	25	1990	2015		0.00 %	0.00 %	0			\$26,596
G2050	Landscaping & Irrigation	\$4.36	S.F.		15				0.00 %	0.00 %				\$0
G4020	Site Lighting	\$10.69	S.F.	6,100	30	1909	1939	2047	106.67 %	141.28 %	32		\$92,124.73	\$65,209
G4030	Site Communications & Security	\$3.12	S.F.	6,100	30	1909	1939	2047	106.67 %	263.75 %	32		\$50,196.64	\$19,032
								Total	48.76 %	86.21 %			\$180,690.97	\$209,596

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.

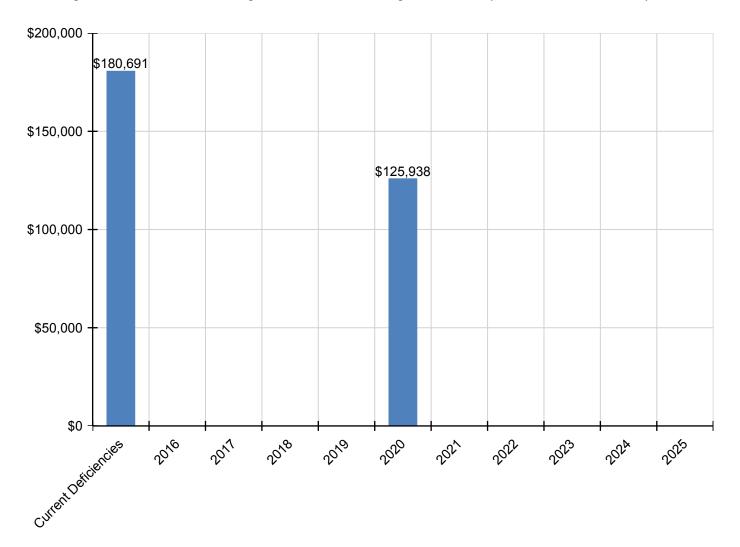
Inflation Rate: 3%

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Total:	\$180,691	\$0	\$0	\$0	\$0	\$125,938	\$0	\$0	\$0	\$0	\$0	\$306,629
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	\$38,370	\$0	\$0	\$0	\$0	\$125,938	\$0	\$0	\$0	\$0	\$0	\$164,307
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	\$92,125	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$92,125
G4030 - Site Communications & Security	\$50,197	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$50,197

^{*} 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:

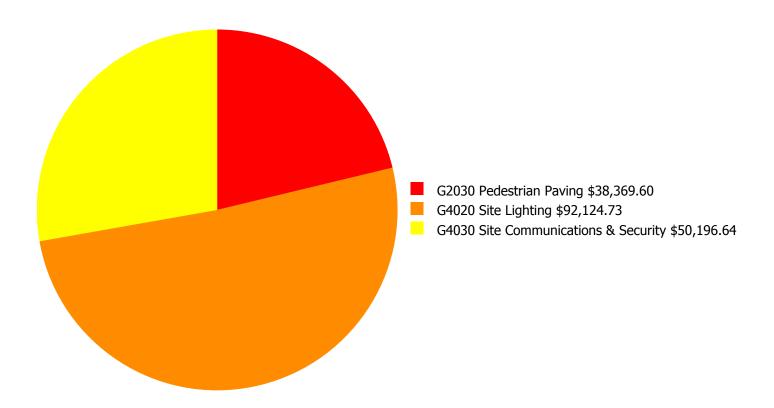
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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

Facility Investment vs. FCI Forecast \$150,000 180.0 % 160.0 % \$100,000 Investment Amount 140.0 % % \Box 120.0 % \$50,000 100.0 % \$0 80.0 % 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 Current Investment Amount/FCI 2% Investment Amount/FCI 4% Investment Amount/FCI

	Investment Amount	2% Investm	ent	4% Investment			
Year	Current FCI - 86.21%	Amount	FCI	Amount	FCI		
2016	\$0	\$4,318.00	84.21 %	\$8,635.00	82.21 %		
2017	\$98,308	\$4,447.00	126.42 %	\$8,894.00	122.42 %		
2018	\$0	\$4,581.00	124.42 %	\$9,161.00	118.42 %		
2019	\$0	\$4,718.00	122.42 %	\$9,436.00	114.42 %		
2020	\$125,938	\$4,860.00	172.25 %	\$9,719.00	162.25 %		
2021	\$0	\$5,005.00	170.25 %	\$10,011.00	158.25 %		
2022	\$0	\$5,156.00	168.25 %	\$10,311.00	154.25 %		
2023	\$0	\$5,310.00	166.25 %	\$10,620.00	150.25 %		
2024	\$0	\$5,470.00	164.25 %	\$10,939.00	146.25 %		
2025	\$0	\$5,634.00	162.25 %	\$11,267.00	142.25 %		
Total:	\$224,246	\$49,499.00		\$98,993.00			

Deficiency Summary by System

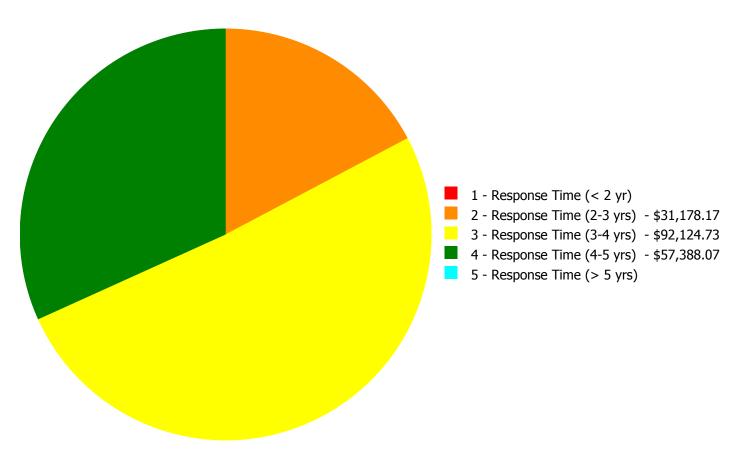
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: \$180,690.97

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: \$180,690.97

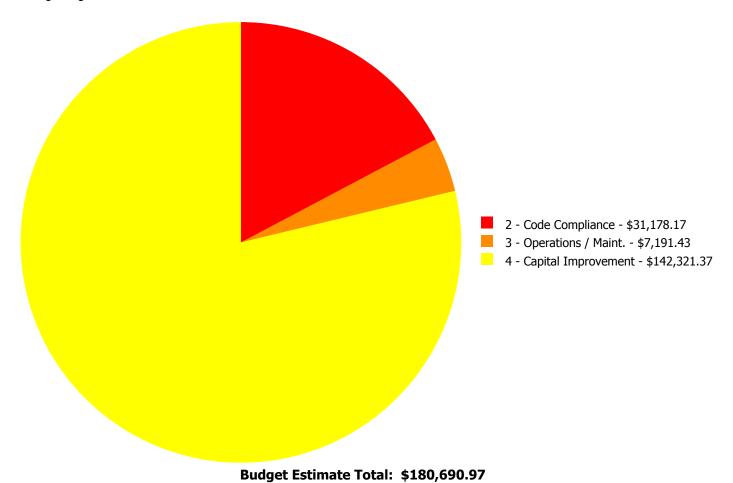
Deficiency By Priority Investment Table

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

System Code	System Description		2 - Response Time (2-3 yrs)			5 - Response Time (> 5 yrs)	Total
G2030	Pedestrian Paving	\$0.00	\$31,178.17	\$0.00	\$7,191.43	\$0.00	\$38,369.60
G4020	Site Lighting	\$0.00	\$0.00	\$92,124.73	\$0.00	\$0.00	\$92,124.73
G4030	Site Communications & Security	\$0.00	\$0.00	\$0.00	\$50,196.64	\$0.00	\$50,196.64
	Total:	\$0.00	\$31,178.17	\$92,124.73	\$57,388.07	\$0.00	\$180,690.97

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:



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: G2030 - Pedestrian Paving



Location: Front Entrance

Distress: Accessibility

Category: 2 - Code Compliance

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

Correction: Install an exterior ADA ramp - based on 5' wide

by the linear foot - up to a 48" rise - per LF of

ramp - figure 1 LF per inch of rise

Qty: 24.00

Unit of Measure: L.F.

Estimate: \$31,178.17

Assessor Name: Craig Anding

Date Created: 02/09/2016

Notes: Install an exterior ADA ramp at entrance

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

System: G4020 - Site Lighting



Location: grounds

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Add Site Lighting - pole mounted - select the

proper light and pole

Qty: 1.00

Unit of Measure: Ea.

Estimate: \$92,124.73

Assessor Name: Craig Anding

Date Created: 02/03/2016

Notes: Install additional pole-mounted lights for the grounds

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

System: G2030 - Pedestrian Paving



Location: Playground; southeast corner

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace concrete sidewalk or

concrete paving - 4" concrete thickness

Qty: 500.00

Unit of Measure: S.F.

Estimate: \$7,191.43

Assessor Name: Craig Anding

Date Created: 02/09/2016

Notes: Repave playground area (20% area)

System: G4030 - Site Communications & Security



Notes: Install additional exterior speakers for the grounds

Location: grounds

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Add Site Paging System

Qty: 12.00

Unit of Measure: Ea.

Estimate: \$50,196.64

Assessor Name: Craig Anding

Date Created: 02/03/2016

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 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

⁼ 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

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

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)

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.

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