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.

Taggart School

Governance	DISTRICT	Report Type	Elementarymiddle
Address	400 W. Porter St.	Enrollment	446
	Philadelphia, Pa 19148	Grade Range	'00-08'
Phone/Fax	215-952-6228 / 215-952-8502	Admissions Category	Neighborhood
Website	Www.Philasd.Org/Schools/Taggart	Turnaround Model	N/A

Building/System FCI Tiers

Facility Condition Index (FCI) = Cost of Assessed Deficiencies / Replacement Value

< 15%	15 to 25%	25 to 45%	45 to 60%	> 60%
Buildings				
Minimal Current Capital Funding Required	Refurbish Systems in building	Replace Systems in building.	Building should be considered for major renovation.	Building should be considered for closing/replacement.
Systems				
Perform routine maintenance on system	System requires minor repairs	System should be studied to determine repair vs. replacement.	System is nearing end of its life expectancy and should be considered for replacement	System should be replaced as part of the Capital Program

Building and Grounds

	FCI	Repair Costs	Replacement Cost
Overall	**30.60%**	**$11,952,789**	**$39,057,976**
Building	31.03 %	$11,738,571	$37,831,540
Grounds	17.47 %	$214,218	$1,226,436

Major Building Systems

Building System	System FCI	Repair Costs	Replacement Cost
Roof (Shows physical condition of roof)	63.75 %	$667,476	$1,046,955
Exterior Walls (Shows condition of the structural condition of the exterior facade)	00.00 %	$0	$2,060,520
Windows (Shows functionality of exterior windows)	00.00 %	$0	$899,580
Exterior Doors (Shows condition of exterior doors)	00.00 %	$0	$110,220
Interior Doors (Classroom doors)	98.04 %	$243,300	$248,160
Interior Walls (Paint and Finishes)	00.00 %	$0	$1,109,460
Plumbing Fixtures	06.05 %	$126,055	$2,084,280
Boilers	82.57 %	$1,017,428	$1,232,220
Chillers/Cooling Towers	49.20 %	$794,940	$1,615,680
Radiators/Unit Ventilators/HVAC	95.41 %	$2,706,977	$2,837,340
Heating/Cooling Controls	158.90 %	$1,415,838	$891,000
Electrical Service and Distribution	92.06 %	$589,391	$640,200
Lighting	05.14 %	$117,559	$2,288,880
Communications and Security (Cameras, Pa System and Fire Alarm)	32.07 %	$274,975	$857,340

Please note that some FCIs may be over 100% because there are times when replacing a building system requires that other building systems be upgraded to complete the installation. A FCI of 0.0% represents that there are no current deficiencies with the associated system.

School District of Philadelphia

S269001;Taggart

Final

Site Assessment Report

January 31, 2017

PARSONS

Table of Contents

Site Executive Summary

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

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

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

Gross Area (SF):	66,000
Year Built:	1916
Last Renovation:	1970
Replacement Value:	$39,057,976
Repair Cost:	$11,952,788.63
Total FCI:	30.60 %
Total RSLI:	61.50 %

Description:

Facility Assessment
September 30th, 2015

School District of Philadelphia
Taggart Elementary School
400 W Porter Street
Philadelphia, PA 19148

66,000 SF / 616 Students / LN 01

GENERAL

Mr. Dave Loftus FAC, provided input to the assessment team on current problems, Principal Nelson Reyes provided additional information about building operation and history and Mr. Danny Gay Building Engineer accompanied us on our tour of the school and provided us with detailed information on the building systems and maintenance history.

The 4 story, 66,000 square foot building was originally constructed in 1916 with an addition of multi-purpose gym/auditorium/cafeteria

and kitchen constructed in approximately 1970. The building has a multi-level basement.

ARCHITECHURAL/STRUCTURAL SYSTEMS

The main building rests on concrete foundations and bearing walls that are not showing signs of settlement or damage. The main structure consists typically of cast-in-place concrete columns, beams and concrete, one way ribbed slab with some brick slab sections in basement. The main roof structure consists of concrete one-way slab supported by main structural frame. Roofing is built up application in poor condition on main building with deterioration, pooling, and beyond service life, and fair condition on addition. The building envelope is masonry with face brick that is currently undergoing renovation that includes brick pointing. Exterior windows are extruded aluminum, double hung windows with insect/security screens in fair condition. Exterior doors are hollow metal in fair condition. The building is accessible per ADA requirements via ramp to ground floor level.

Main building partition wall types include plastered ceramic hollow blocks and CMU in addition with small amounts of gypsum throughout. Interior doors are wood frames with rail and stile wood doors with lites and transoms in poor condition with fitment issues and beyond service life. Doors leading to exit stairways are hollow metal doors and frames in fair condition. Fittings include: toilet accessories in fair condition; composite plastic and hollow metal toilet partitions, generally in fair condition but not meeting accessible building codes; and handrails and ornamental metals, generally in fair condition. Interior identifying signage is typically directly painted on wall or door surfaces in fair condition. Stair construction is concrete in steel in fair condition. Stair railings are cast iron balusters with wood handrail in fair condition, not code compliant.

The interior wall finishes are painted plaster, CMU, or gypsum throughout with glazed brick wainscot in stairways and corridors in good condition. Generally, paint is in fair condition with some plaster deterioration that is currently undergoing repair. Flooring finishes include: patterned or bare concrete in corridors, stairways, storage, basement service areas, and some toilets in good condition; hardwood in most classrooms in fair condition with some refinishing needed; vinyl tile in some classrooms, IMC, and multi-purpose addition in fair condition and nearing the end of service life; ceramic tile in some toilets in fair condition; and carpet in partial offices that is beyond service life. Ceilings finishes include suspended acoustic tile in classrooms, corridors, offices, IMC, and kitchen in fair to poor condition with some beyond service life and painted plaster and structural concrete or steel in toilets, stairways, and multi-purpose in good condition.

The building has no elevators.

Institutional and Commercial equipment includes: stage equipment and gym equipment generally in fair condition. Other equipment includes kitchen equipment (heat and serve only) in good condition.

Fixed furnishings include: fixed casework in classrooms, corridors and library, generally in fair to good condition; and window shades/blinds in fair condition.

MECHANICAL SYSTEMS

Toilet room plumbing fixtures include floor mounted porcelain water closets, porcelain wall hung urinals, and enameled cast iron wall hung lavatories. Water closets and urinals have exposed flush valves. Lavatories have separate hot and cold spigots with momentary valves. Several original water closets remain in service in the building, although the vitreous glaze is beginning to craze. Replacement fixtures span the past century and some are contemporary low flow. Flush valves show green corrosion through their chrome plate. Visible copper and bronze supply and drain pipes and fittings are also green with surface corrosion. In general the building does not have enough toilet rooms. The boys' and girls' gang toilets on the basement floor have been unused since 1940, according to the principal. Upstairs there is only a single boys' toilet on the third floor, and only a single girls' toilet on the second floor. The second floor women's water closet does not flush or drain. The third floor boys' toilet has a water closet with a broken tail piece. The first floor has toilets for both boys and girls in the 1970 built addition. Kindergarten rooms, the nurse office, and the school office on the first floor also have individual toilets. The areas of the second and third floors above the school office (where the second floor women's and girls' currently are) should be remodeled into child and adult, male and female toilets on both floors. The district should also budget to replace 20% of the water closets and all of the flush valves.

The cafeteria kitchen has a 2 basin, single drain-board, floor standing, stainless steel, commercial sink with one mixing faucet and a stainless steel, wall mounted lavatory with lever handles. There is a grease trap, but no disposal, and no sanitization chemical injection system. The second floor faculty lunchroom has an enameled cast iron, single basin, floor standing sink with single drain board. The first floor has a two basin, stainless steel, residential kitchen sink in the classroom across from the school office. Its faucet is removed, supply and drain pipes disconnected, and the supply lines plugged and labeled "do not use". The basement has a former life skills room with a single basin, stainless steel, rim mounted, residential kitchen sink with single lever faucet. Kitchen sinks are in good condition and will not need maintenance for 5 years or more.

There is a clothes washer and dryer connection including hot and cold water lines, drain pipe, and electrical receptacle but no appliances in the former life skills room in the basement. The plumbing connections are in good condition and could be returned to service if needed.

Service sinks are located in corridors on each floor. They are enamel on cast iron with integral backsplash and trap and stainless steel rim with short neck faucets with vacuum breakers. They are unstained. Multiple service sinks have damaged vacuum breakers or clogged drain pipes. Drainage problems should be fixed when sanitary drains are inspected and repaired.

There are boys and girls shower rooms in the gymnasium addition. These rooms are currently used as storage for lunch room equipment and supplies. The shower heads are removed and were too short for 8th grade students when they existed. Showers may be left as is or completely demolished to increase storage capacity.

Drinking fountains located in hallways are stainless steel, non-accessible, without chillers. These should be replaced with accessible fountains. Similar fountains are installed in kindergarten rooms.

Municipal water service enters the building in the basement maintenance storage room along Porter St. through a 4 inch line. There is a 4 inch compound water meter with bypass line, then a 4 inch backflow preventer. These and the associated gate valves are in good condition. Makeup water for the steam system has a backflow preventer in the boiler room. Domestic water distribution pipe is mostly soldered copper but threaded fittings exist in some areas. It is in poor condition with many areas of surface corrosion. Domestic water distribution pipe should be inspected in detail and repaired as needed. There is a pressure booster system with two 10 HP pumps, hydro-pneumatic storage tank, and controller, but it was not running the day of the inspection. The booster was installed in 2000. Water flow on upper floors was sufficient without the booster running. Domestic hot water is provided by a Bradford-White, 75 gallon, natural gas burning, vertical tank water heater manufactured in 1988. It has exceeded it 10 service life by 17 years, and should be replaced due to age. A 1/12 HP circulation pump provides hot water to lavatories in approximately 10 seconds, which is sufficient.

Sanitary drain piping is threaded galvanized steel with cast iron pieces for repairs and additions in some areas. There are many areas where sanitary drains do not flow sufficiently, so pipes are probably clogged internally. Sanitary drain pipes should be inspected in detail and repaired where needed. The building does not have a sewage ejector. Toilet rooms on second and third floors do not have floor drains. Floor drains should be added during the sanitary drain pipe remediation (or toilet room remodeling).

Rain water drain pipes are threaded galvanized steel with cast iron strainers on roof top inlets. Pipes are internal to the building and visible via pipe chase access panels on each floor. Rooftop strainers are surrounded by fibrous plastic pads to prevent infiltration of sand (from masons repointing the brick parapets and replacing capstones). There are no overflow drains. The weather was raining the day of the assessment and the drains were working with no rooftop ponding or interior visible. The basement level formerly flooded by rains but district plumbers went into outside manhole and cleaned it out and fixed the problem. The building does not have any ground water sumps.

The building was originally heated and ventilated by forced air from a single basement air handler. Currently only steam radiators heat the original construction, and fan coil units supply the gym addition.

Two Weil-McLain brand, model 94, 25 section, 5,412 MBH (162 HP) capacity boilers provide steam for the building. Their age is unknown as it is not marked on the data plates and the certificates could not be located. Visual appearance indicates the boilers are approaching the end of their useful service life but should not need immediate replacement. Boilers are equipped with Power Flame burners manufactured in 2014 for pressure atomized #2 oil. The oil tank is under the yard with 10,000 gallon capacity. There are two oil pumps, and they were running well during the inspection. Steam and electric oil heaters for #5 oil are still installed but unused, and there is an unused condensate return pump for the steam heater. Gas service for boiler pilot (and domestic water heating) enters the building along Porter St. in a 1.5 inch line. There is still a coal cart with a load of coal in the corner of the coal storage room. Boiler feed water is supplied by two pumps from the condensate collection tank in the boiler room through separate feed lines. The chemical injection system for the boiler is located next to the tank. Steam traps were surveyed and repaired in 2013, and spare repair parts are stored in the mechanical room by the AHU. The boiler exhaust ducts have constant draft dampers, but both of them do not function correctly and are black with soot. These should be repaired to ensure proper discharge of boiler exhaust fumes.

There is no central cooling generating equipment in the building. There are 31 window unit air conditioners with approximately 60 ton capacity installed in offices, classrooms, and the IMC in the original construction. Not all classrooms have an air conditioner, nor is there any for the gym addition. A 165 ton capacity cooling system should be installed to serve the entire school.

The original air handler is still installed in the basement mechanical room. It has primary and secondary steam coils, approximately 14

feet wide and 9 feet tall. The air washer spray pipes have been removed and the pump and motor abandoned in place. The fan motor is 20 HP, 2 phase, 240 VAC. AHU intake is 100% outside air. The building engineer said he was told not to run the fan and has never run it. The AHU is obsolete and should be replaced with a modern unit including heating, cooling, and humidity control. Air distribution throughout the original construction is typical of early 20th century buildings. Large uninsulated sheet metal ducts running horizontally through the basement connect the AHU to vertical built-in plaster finished clay block ducts leading to each classroom. Stale air then exhausts from each classroom up to the attic where they are ducted together to gravity vents on the roof. Roof top vents are low profile replacements made of aluminum or stainless steel. The attic does not serve as an exhaust plenum. There is no internal air recirculation. Basement ducts should be replaced with insulated ducts when the building is upgraded to include cooling. Some duct openings in classrooms have been boarded shut or covered with air filters, presumable to stop drafts.

Gym ventilation is provided by a ducted 2 HP fan coil unit located above the gym girls locker room ceiling. The unit is original (1970) but it has a replacement motor. It has surpassed its expected service life and should be replaced when the HVAC is upgraded with air conditioning.

The cafeteria kitchen has an exhaust hood without a fire suppression system. There are no fuel burning appliances in the kitchen, and there is no equipment installed under the exhaust hood. Its age is unknown, but it is in good condition and does not need repair or replacement.

Toilet room exhausts are natural draft throughout the building (because the house fan does not run) up to 3 chimneys on the roof. An odor was noticeable upon entering the building. Roof top exhaust fans should be installed to ventilate toilet rooms and eliminate odors.

Steam and condensate pipe is threaded steel of unknown age. The building engineer did not reports any problems.

Radiators throughout the entire building are cast iron. Some units have wire mesh or pierced sheet metal guards, while others are bare. Radiators have exceeded their service life should be replaced with more efficient finned tube units.

Pneumatic valves control steam flow to building radiators and to steam coils in the AHU. Many air lines are no longer connected to control elements. A duplex 3 HP (each) air compressor including tank and refrigerated filter-dryer is located in the mechanical room. It was not operating at the time of the inspection, i.e. the air tank gauge showed zero pressure. Controls are obsolete and should be replaced with modern digital control when other HVAC upgrades are completed.

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

ELECTRICAL SYSTEMS

Most probably an underground lateral service from a pole mounted transformer on Vollmer Street serves this school. The electrical equipment is located in basement. The basement houses the utility main disconnect switch, utility metering 219MU, PECO 309426960 and 600A 120/240V distribution section. The existing service has no extra capacity for expansion or new Heating, Ventilation, Air Conditioning (HVAC) system. The electrical service needs to be upgraded. The new service will be 277/480V, 3 phase power, and approximate 1000A and will be located in the vicinity of the existing electrical service. The new electrical service would feed a 480V Motor Control Center (MCC) and HVAC (Heating, Ventilation and Air Conditioning) equipment, and a 480V 3 phase to 120/208V 3 phase, 225KVA step-down transformer to feed receptacles, lighting and other smaller loads.

There are 120/240V panel-boards in each floor for lighting and receptacles. These panel-boards and associated wiring have exceeded the end of their useful life and are undersized to absorb additional loads. They need to be replaced. There is (1) 75KVA phase converter from 240V to 120/208V which normally feeds newest mechanical equipment.

The number of receptacles in 80% of the classrooms are inadequate. Teachers use extension cords. The teacher's whiteboard wall and the opposite of it need to be provided with double compartment surface raceways, the other two walls with minimum two duplex outlets each, when feasible.

Most of the classrooms, corridors, stairways and play area are illuminated with fluorescent fixtures. Fixtures are provided with T-8 lamps. Fixtures look old but lighting levels are adequate.

The Fire Alarm system is manufactured by S.H. Couch Co Inc. The system is approximately 30 years old. The present Fire Alarm system does not meet current code and needs to be replaced. Fire alarm system is tested every day in the morning.

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

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

The present clocks and control panel are manufactured by Simplex Time Control Center. Clock system is old and difficult to find parts and repair. Replace clock system with wireless, battery operated system.

There is not television system.

The security system consists of CCTV cameras at third and second floor. Provide CCTV cameras for a complete coverage of the building interior.

The emergency power system consists of a gas powered generator, manufactured by Generac, rated 20KW/20KVA, 120/240V. The present emergency power system serves the corridor, exit signs, stair ways, and boiler room. The gas powered generator was installed in 1999 and has 10 more years of useful service life. Present emergency system does not have the capacity to carry future emergency loads. Provide 70KW, outdoor, diesel powered generator

There is adequate UPS in the IT room.

The emergency lighting is obtained with dedicated fixtures connected to the emergency generator. Exit signs are located at each exit door and corridors and are connected to the school emergency system.

The lightning protection is obtained with air terminals at the school chimney. A study should be conducted to determine if the existing lightning system provide the proper protection to the school building.

GROUNDS SYSTEMS

The site surrounds the building on all four sides which is set back from the street. Yard area on west side is asphalt paving with parking for staff vehicles on northeast corner accessible via Porter St. All paving is in fair condition with some cracks developed. Chain link fence surrounding and separating site and parking is in fair condition. Landscaping is limited to small shrubs and grass on north side in fair condition.

Accessibility: the building does not have accessible entrances, and accessible routes. Toilets are not equipped with accessible fixtures, partitions and accessories, such as grab bars and accessible partitions. Doors in the building do not have pull type door handles.

The school perimeter is illuminated with wall mounted fixtures providing total perimeter coverage.

Two CCTV cameras are provided on the building exterior. Add more CCTV cameras to provide a complete coverage of the building perimeter.

RECOMMENDATIONS

- Replace built-up roofing system on main building – beyond service life
- Replace interior doors and hardware – beyond service life
- Provide new toilet partitions and toilet accessories including grab bars for accessibility
- Replace railing in stairways to meet building code
- Refinish hardwood flooring (50% of hardwood flooring area)
- Replace suspended ceiling system – beyond service life (30% of suspended ceiling area)
- Install elevator for accessibility (location TBD)
- Replace water closets due to age and damage, 5
- Replace flush valves due to visible surface corrosion, 15
- Remodel 2nd and 3rd floors to install male and female toilet rooms on both floors
- Replace aged non-accessible fountains in hallways
- Perform detailed inspection of domestic water distribution pipe and repair as needed due to age
- Replace domestic water heater due to age
- Inspect and repair sanitary drain pipes due to clogs including installing floor drains in upper level toilet rooms
- Repair boiler constant draft dampers to improve exhaust flow

- Install 165 ton capacity cooling system to serve the entire school and replace window units
- Replace obsolete original AHU to add cooling coils and restore humidity control
- Replace gymnasium HVAC to include cooling coils
- Install rooftop exhaust fans to ventilate toilet room and eliminate odors
- Replace radiators due to age
- Convert obsolete pneumatic controls to digital
- Install fire suppression sprinkler system with pump if needed.
- Provide a new electrical service 277/480V, 3 phase power, approximate 1000 Amperes and will be located in the vicinity of the existing electrical service.
- Replace the entire distribution system with new panels and new wiring/conduits. Approximate (12) 208/120V panel boards.
- Provide (2)25FT of surface raceways with receptacles spaced 24" on center/classroom and 4 wall mount receptacles/classroom. Approximate 320 receptacles.
- Replace old fire alarm system with addressable type with audio/visual devices at corridors and classrooms. Approximate 90 devices
- Replace clock and bell system with wireless, battery operated, clock system. Approximate 45 clocks.
- Provide 70KW, outdoor, diesel powered generator.
- Prepare a study to determine if the existing lightning system provide the proper protection to the school building.
- Provide CCTV cameras to the building exterior for full coverage of the perimeter. Approximate 12 CCTV cameras.

Attributes:

General Attributes:

Active:	Open	Bldg Lot Tm:	Lot 3 / Tm 3
Status:	Accepted by SDP	Team:	Tm 3
Site ID:	S269001		

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	21.00 %	0.00 %	$0.00
A20 - Basement Construction	21.00 %	0.00 %	$0.00
B10 - Superstructure	21.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	32.97 %	0.00 %	$0.00
B30 - Roofing	110.00 %	63.75 %	$667,475.63
C10 - Interior Construction	39.18 %	59.80 %	$900,292.89
C20 - Stairs	21.00 %	33.62 %	$28,398.77
C30 - Interior Finishes	87.76 %	7.96 %	$268,816.02
D10 - Conveying	105.71 %	273.97 %	$1,012,601.25
D20 - Plumbing	47.95 %	31.25 %	$838,886.88
D30 - HVAC	107.77 %	80.84 %	$5,935,183.30
D40 - Fire Protection	94.10 %	158.77 %	$944,159.46
D50 - Electrical	110.11 %	29.46 %	$1,142,756.79
E10 - Equipment	54.29 %	0.00 %	$0.00
E20 - Furnishings	60.00 %	0.00 %	$0.00
G20 - Site Improvements	41.16 %	0.00 %	$0.00
G40 - Site Electrical Utilities	54.54 %	67.83 %	$214,217.64
Totals:	**61.50 %**	**30.60 %**	**$11,952,788.63**

Condition Deficiency Priority

Facility Name	Gross Area (S.F.)	FCI %	1 - Response Time (< 2 yr)	2 - Response Time (2-3 yrs)	3 - Response Time (3-4 yrs)	4 - Response Time (4-5 yrs)	5 - Response Time (> 5 yrs)
B269001;Taggart	66,000	31.03	$2,286,548.19	$4,254,106.61	$2,931,102.46	$112,560.22	$2,154,253.51
G269001;Grounds	66,000	17.47	$0.00	$0.00	$214,217.64	$0.00	$0.00
Total:		**30.60**	**$2,286,548.19**	**$4,254,106.61**	**$3,145,320.10**	**$112,560.22**	**$2,154,253.51**

Deficiencies By Priority

- 1 - Response Time (< 2 yr) - $2,286,548.19
- 2 - Response Time (2-3 yrs) - $4,254,106.61
- 3 - Response Time (3-4 yrs) - $3,145,320.10
- 4 - Response Time (4-5 yrs) - $112,560.22
- 5 - Response Time (> 5 yrs) - $2,154,253.51

Budget Estimate Total: $11,952,788.63

Executive Summary

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

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

Function:	Elementary School
Gross Area (SF):	66,000
Year Built:	1916
Last Renovation:	1970
Replacement Value:	$37,831,540
Repair Cost:	$11,738,570.99
Total FCI:	31.03 %
Total RSLI:	62.05 %

Description:

Attributes:

General Attributes:

Active:	Open	Bldg ID:	B269001
Sewage Ejector:	No	Status:	Accepted by SDP
Site ID:	S269001		

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	21.00 %	0.00 %	$0.00
A20 - Basement Construction	21.00 %	0.00 %	$0.00
B10 - Superstructure	21.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	32.97 %	0.00 %	$0.00
B30 - Roofing	110.00 %	63.75 %	$667,475.63
C10 - Interior Construction	39.18 %	59.80 %	$900,292.89
C20 - Stairs	21.00 %	33.62 %	$28,398.77
C30 - Interior Finishes	87.76 %	7.96 %	$268,816.02
D10 - Conveying	105.71 %	273.97 %	$1,012,601.25
D20 - Plumbing	47.95 %	31.25 %	$838,886.88
D30 - HVAC	107.77 %	80.84 %	$5,935,183.30
D40 - Fire Protection	94.10 %	158.77 %	$944,159.46
D50 - Electrical	110.11 %	29.46 %	$1,142,756.79
E10 - Equipment	54.29 %	0.00 %	$0.00
E20 - Furnishings	60.00 %	0.00 %	$0.00
Totals:	**62.05 %**	**31.03 %**	**$11,738,570.99**

Condition Detail

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

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

System Listing

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

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

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

System Code	System Description	Unit Price $	UoM	Qty	Life	Year Installed	Calc Next Renewal Year	Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency $	Replacement Value $
A1010	Standard Foundations	$24.32	S.F.	66,000	100	1916	2016	2036	21.00 %	0.00 %	21			$1,605,120
A1030	Slab on Grade	$15.51	S.F.	66,000	100	1916	2016	2036	21.00 %	0.00 %	21			$1,023,660
A2010	Basement Excavation	$13.07	S.F.	66,000	100	1916	2016	2036	21.00 %	0.00 %	21			$862,620
A2020	Basement Walls	$23.02	S.F.	66,000	100	1916	2016	2036	21.00 %	0.00 %	21			$1,519,320
B1010	Floor Construction	$92.20	S.F.	66,000	100	1916	2016	2036	21.00 %	0.00 %	21			$6,085,200
B1020	Roof Construction	$24.11	S.F.	66,000	100	1916	2016	2036	21.00 %	0.00 %	21			$1,591,260
B2010	Exterior Walls	$31.22	S.F.	66,000	100	1916	2016	2036	21.00 %	0.00 %	21			$2,060,520
B2020	Exterior Windows	$13.63	S.F.	66,000	40	1999	2039		60.00 %	0.00 %	24			$899,580
B2030	Exterior Doors	$1.67	S.F.	66,000	25	1999	2024		36.00 %	0.00 %	9			$110,220
B3010105	Built-Up	$37.76	S.F.	26,538	20	1993	2013	2037	110.00 %	66.61 %	22		$667,475.63	$1,002,075
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.	66,000	20	1993	2013	2037	110.00 %	0.00 %	22			$44,880
C1010	Partitions	$14.93	S.F.	66,000	100	1916	2016	2036	21.00 %	65.68 %	21		$647,214.40	$985,380
C1020	Interior Doors	$3.76	S.F.	66,000	40	1970	2010	2057	105.00 %	98.04 %	42		$243,299.94	$248,160
C1030	Fittings	$4.12	S.F.	66,000	40	1993	2033		45.00 %	3.60 %	18		$9,778.55	$271,920
C2010	Stair Construction	$1.28	S.F.	66,000	100	1916	2016	2036	21.00 %	33.62 %	21		$28,398.77	$84,480

Site Assessment Report - B269001;Taggart

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	$14.29	S.F.	66,000	10	2012	2022		70.00 %	0.00 %	7			$943,140
C3010231	Vinyl Wall Covering	$0.00	S.F.	66,000	15				0.00 %	0.00 %				$0
C3010232	Wall Tile	$2.52	S.F.	66,000	30	1970	2000	2030	50.00 %	0.00 %	15			$166,320
C3020411	Carpet	$7.30	S.F.	1,320	10	1993	2003	2027	120.00 %	0.00 %	12			$9,636
C3020412	Terrazzo & Tile	$75.52	S.F.	1,320	50	1970	2020		10.00 %	0.00 %	5			$99,686
C3020413	Vinyl Flooring	$9.68	S.F.	17,160	20	2003	2023		40.00 %	0.00 %	8			$166,109
C3020414	Wood Flooring	$22.27	S.F.	26,400	25	1993	2018	2042	108.00 %	24.17 %	27		$142,123.61	$587,928
C3020415	Concrete Floor Finishes	$0.97	S.F.	19,800	50	1970	2020		10.00 %	0.00 %	5			$19,206
C3030	Ceiling Finishes	$20.97	S.F.	66,000	25	1993	2018	2042	108.00 %	9.15 %	27		$126,692.41	$1,384,020
D1010	Elevators and Lifts	$5.60	S.F.	66,000	35			2052	105.71 %	273.97 %	37		$1,012,601.25	$369,600
D2010	Plumbing Fixtures	$31.58	S.F.	66,000	35	1917	1952	2030	42.86 %	6.05 %	15		$126,054.84	$2,084,280
D2020	Domestic Water Distribution	$2.90	S.F.	66,000	25	1917	1942	2030	60.00 %	203.27 %	15		$389,052.49	$191,400
D2030	Sanitary Waste	$2.90	S.F.	66,000	25	1917	1942	2042	108.00 %	169.16 %	27		$323,779.55	$191,400
D2040	Rain Water Drainage	$3.29	S.F.	66,000	30	1917	1947	2025	33.33 %	0.00 %	10			$217,140
D3020	Heat Generating Systems	$18.67	S.F.	66,000	35	1970	2005	2052	105.71 %	82.57 %	37		$1,017,428.35	$1,232,220
D3030	Cooling Generating Systems	$24.48	S.F.	66,000	30			2047	106.67 %	49.20 %	32		$794,939.99	$1,615,680
D3040	Distribution Systems	$42.99	S.F.	66,000	25	1917	1942	2042	108.00 %	95.41 %	27		$2,706,976.95	$2,837,340
D3050	Terminal & Package Units	$11.60	S.F.	66,000	20	1917	1937	2037	110.00 %	0.00 %	22			$765,600
D3060	Controls & Instrumentation	$13.50	S.F.	66,000	20	1960	1980	2037	110.00 %	158.90 %	22		$1,415,838.01	$891,000
D4010	Sprinklers	$8.02	S.F.	66,000	35			2052	105.71 %	178.37 %	37		$944,159.46	$529,320
D4020	Standpipes	$0.99	S.F.	66,000	35				0.00 %	0.00 %				$65,340
D5010	Electrical Service/Distribution	$9.70	S.F.	66,000	30	1917	1947	2047	106.67 %	92.06 %	32		$589,390.59	$640,200
D5020	Lighting and Branch Wiring	$34.68	S.F.	66,000	20	1917	1937	2037	110.00 %	5.14 %	22		$117,558.72	$2,288,880
D5030	Communications and Security	$12.99	S.F.	66,000	15	1917	1932	2032	113.33 %	32.07 %	17		$274,975.44	$857,340
D5090	Other Electrical Systems	$1.41	S.F.	66,000	30	1917	1947	2047	106.67 %	172.83 %	32		$160,832.04	$93,060
E1020	Institutional Equipment	$4.82	S.F.	66,000	35	1999	2034		54.29 %	0.00 %	19			$318,120
E1090	Other Equipment	$11.10	S.F.	66,000	35	1999	2034		54.29 %	0.00 %	19			$732,600
E2010	Fixed Furnishings	$2.13	S.F.	66,000	40	1999	2039		60.00 %	0.00 %	24			$140,580
								Total	**62.05 %**	**31.03 %**			**$11,738,570.99**	**$37,831,540**

System Notes

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

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

Note: 85% - Paint & Covering
15% - Wall Tile (glazed brick)

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

Note: 2% - Carpet
2% - Terrazzo & Tile
26% - Vinyl Flooring
40% - Wood Flooring
30% - Concrete Floor Finishes

System: D5010 - Electrical Service/Distribution

Note: 75KVA 240V -120/208V phase converter manufactured by PMI (Power Magnetics Inc)

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:	**$11,738,571**	**$0**	**$0**	**$0**	**$0**	**$151,612**	**$0**	**$1,275,938**	**$231,464**	**$158,193**	**$321,000**	**$13,876,778**
*** A - Substructure**	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
*** A10 - Foundations**	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A1010 - Standard Foundations	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A1030 - Slab on Grade	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
*** A20 - Basement Construction**	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A2010 - Basement Excavation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A2020 - Basement Walls	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B - Shell	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B10 - Superstructure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B1010 - Floor Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B1020 - Roof Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B20 - Exterior Enclosure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B2010 - Exterior Walls	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B2020 - Exterior Windows	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B2030 - Exterior Doors	$0	$0	$0	$0	$0	$0	$0	$0	$0	$158,193	$0	**$158,193**
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	$667,476	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$667,476**
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	$647,214	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$647,214**

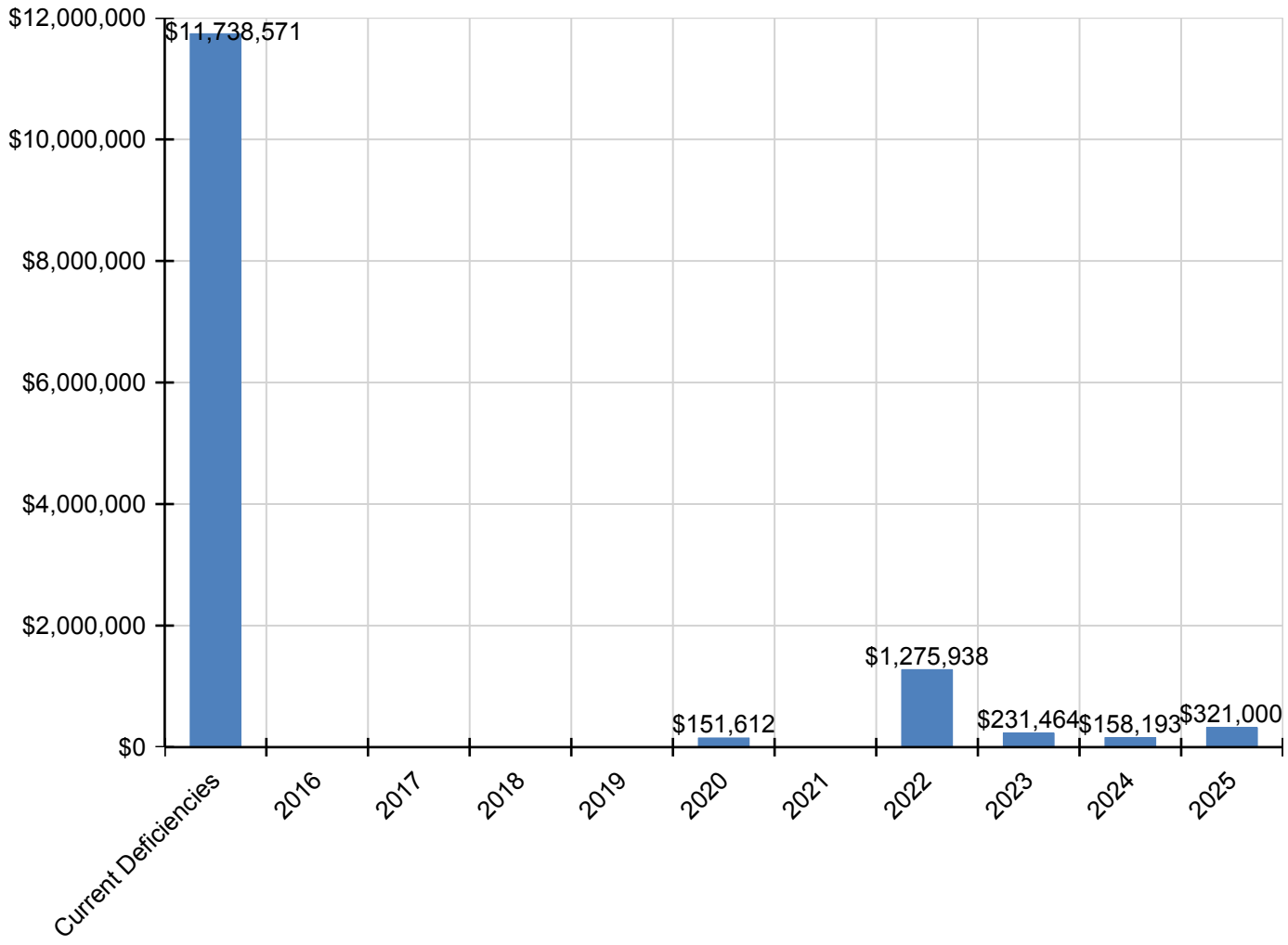
C1020 - Interior Doors	$243,300	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$243,300**
C1030 - Fittings	$9,779	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$9,779**
C20 - Stairs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C2010 - Stair Construction	$28,399	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$28,399**
C30 - Interior Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010 - Wall Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010230 - Paint & Covering	$0	$0	$0	$0	$0	$0	$0	$1,275,938	$0	$0	$0	**$1,275,938**
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	$0	$0	$0	$0	$0	$0	**$0**
C3020412 - Terrazzo & Tile	$0	$0	$0	$0	$0	$127,120	$0	$0	$0	$0	$0	**$127,120**
C3020413 - Vinyl Flooring	$0	$0	$0	$0	$0	$0	$0	$0	$231,464	$0	$0	**$231,464**
C3020414 - Wood Flooring	$142,124	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$142,124**
C3020415 - Concrete Floor Finishes	$0	$0	$0	$0	$0	$24,492	$0	$0	$0	$0	$0	**$24,492**
C3030 - Ceiling Finishes	$126,692	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$126,692**
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	$126,055	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$126,055**
D2020 - Domestic Water Distribution	$389,052	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$389,052**
D2030 - Sanitary Waste	$323,780	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$323,780**
D2040 - Rain Water Drainage	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$321,000	**$321,000**
D30 - HVAC	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3020 - Heat Generating Systems	$1,017,428	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,017,428**
D3030 - Cooling Generating Systems	$794,940	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$794,940**
D3040 - Distribution Systems	$2,706,977	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$2,706,977**
D3050 - Terminal & Package Units	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3060 - Controls & Instrumentation	$1,415,838	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,415,838**
D40 - Fire Protection	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D4010 - Sprinklers	$944,159	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$944,159**
D4020 - Standpipes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

D50 - Electrical	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D5010 - Electrical Service/Distribution	$589,391	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$589,391**
D5020 - Lighting and Branch Wiring	$117,559	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$117,559**
D5030 - Communications and Security	$274,975	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$274,975**
D5090 - Other Electrical Systems	$160,832	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$160,832**
E - Equipment & Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E10 - Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E1020 - Institutional Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E1090 - Other Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E20 - Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E2010 - Fixed Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

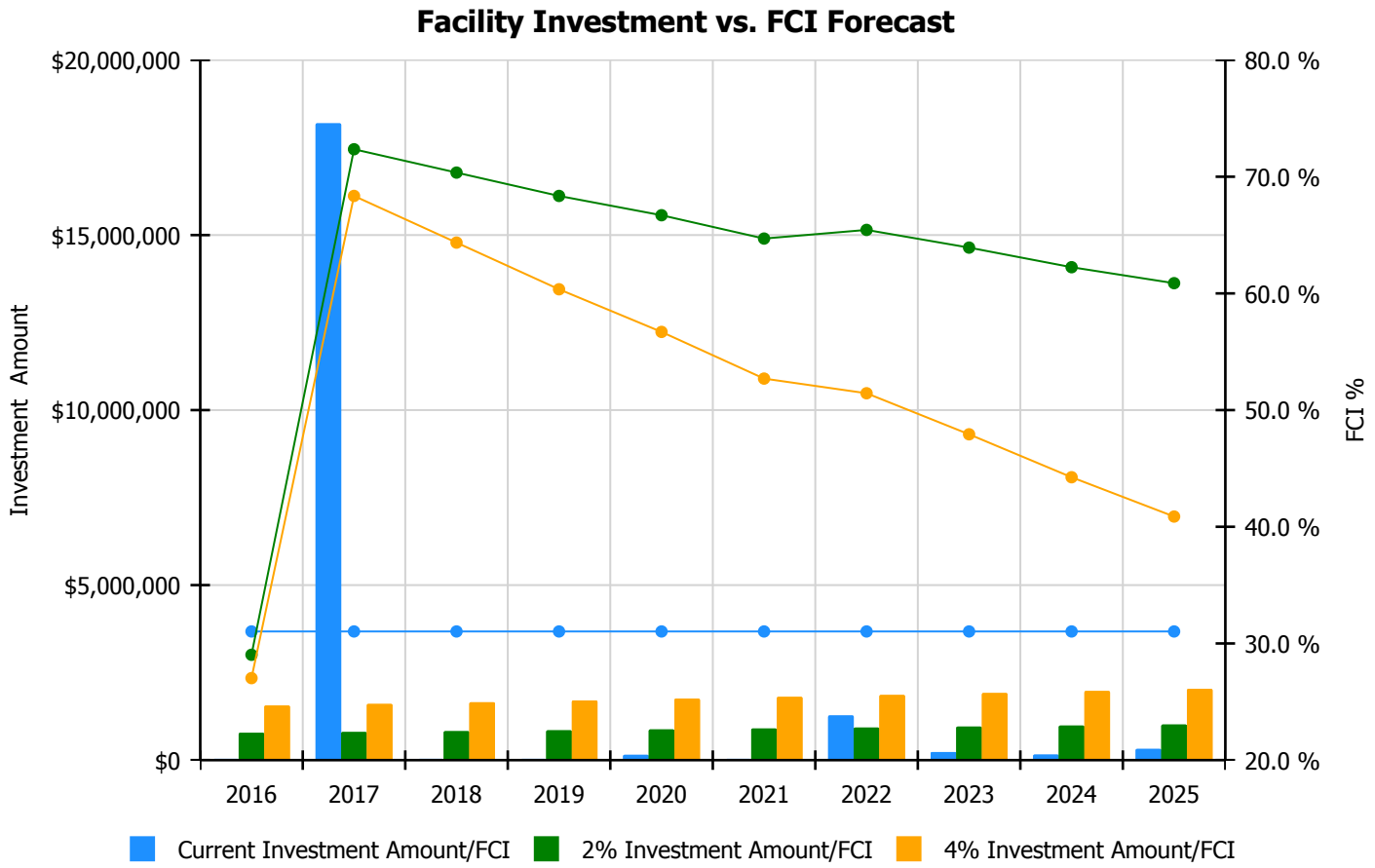
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



10 Year FCI Forecast by Investment Scenario

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

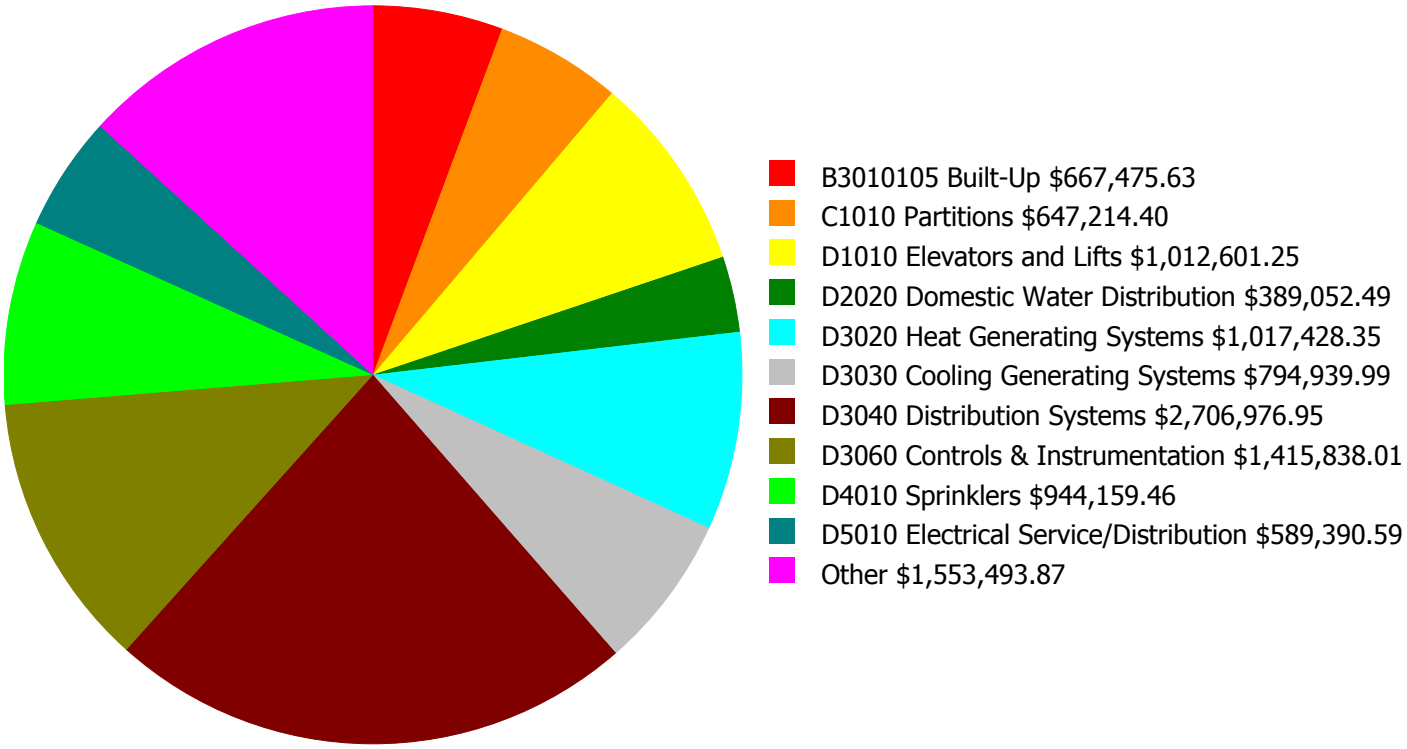
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 31.03%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$779,330.00	29.03 %	$1,558,659.00	27.03 %
2017	$18,191,436	$802,710.00	72.35 %	$1,605,419.00	68.35 %
2018	$0	$826,791.00	70.35 %	$1,653,582.00	64.35 %
2019	$0	$851,595.00	68.35 %	$1,703,189.00	60.35 %
2020	$151,612	$877,142.00	66.70 %	$1,754,285.00	56.70 %
2021	$0	$903,457.00	64.70 %	$1,806,913.00	52.70 %
2022	$1,275,938	$930,560.00	65.44 %	$1,861,121.00	51.44 %
2023	$231,464	$958,477.00	63.92 %	$1,916,955.00	47.92 %
2024	$158,193	$987,232.00	62.25 %	$1,974,463.00	44.25 %
2025	$321,000	$1,016,849.00	60.88 %	$2,033,697.00	40.88 %
Total:	**$20,329,643**	**$8,934,143.00**		**$17,868,283.00**	

Deficiency Summary by System

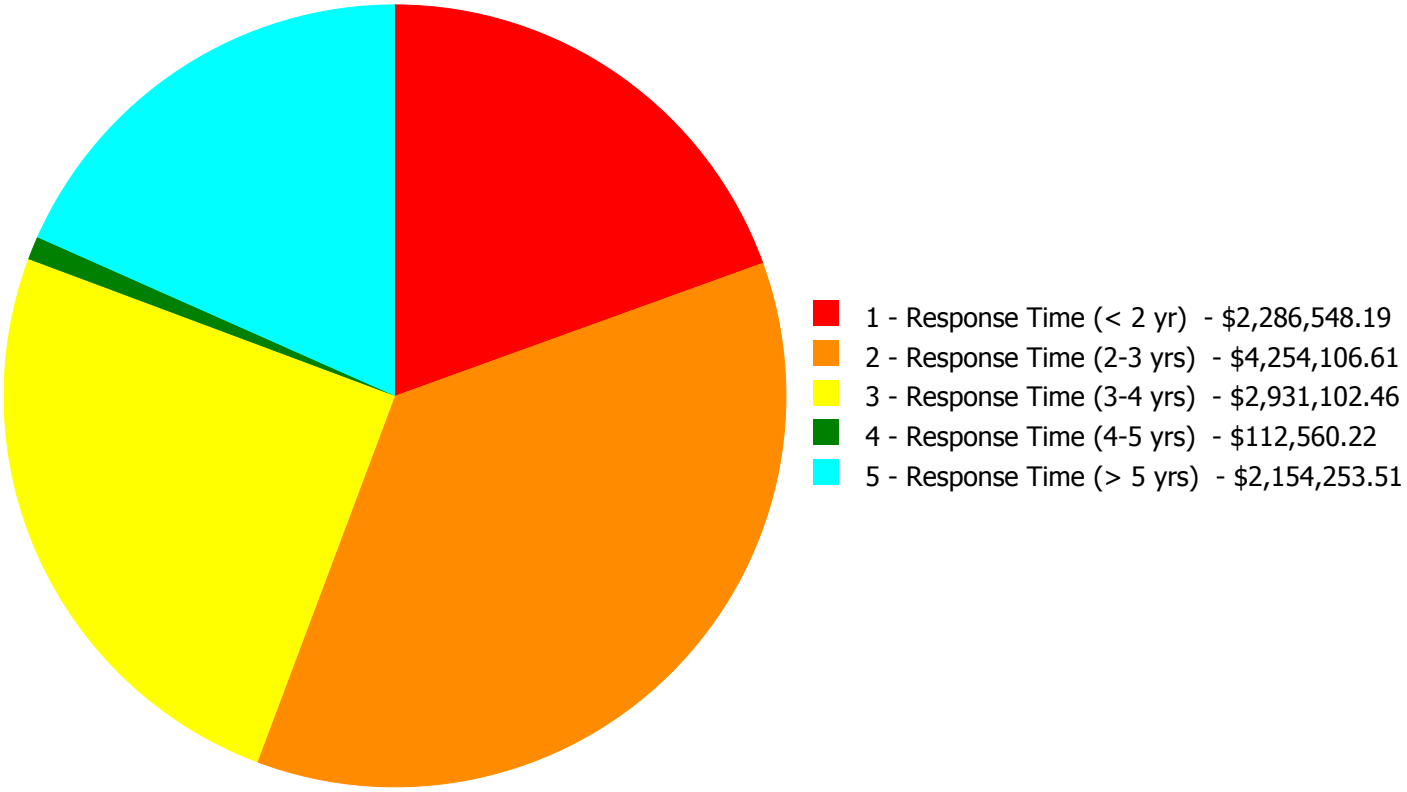
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $11,738,570.99

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: $11,738,570.99

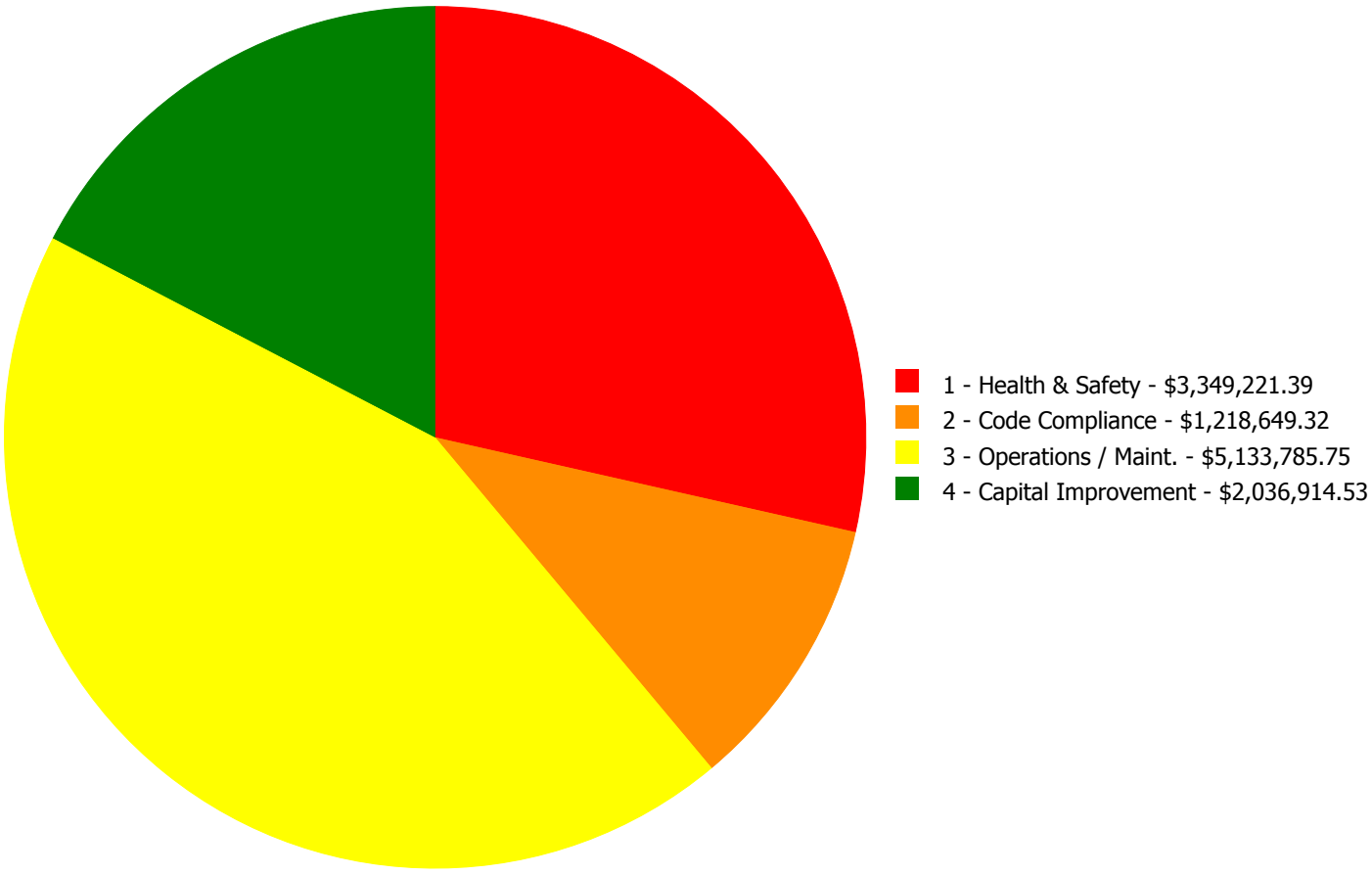
Deficiency By Priority Investment Table

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
B3010105	Built-Up	$0.00	$667,475.63	$0.00	$0.00	$0.00	$667,475.63
C1010	Partitions	$0.00	$647,214.40	$0.00	$0.00	$0.00	$647,214.40
C1020	Interior Doors	$0.00	$243,299.94	$0.00	$0.00	$0.00	$243,299.94
C1030	Fittings	$0.00	$9,778.55	$0.00	$0.00	$0.00	$9,778.55
C2010	Stair Construction	$28,398.77	$0.00	$0.00	$0.00	$0.00	$28,398.77
C3020414	Wood Flooring	$0.00	$142,123.61	$0.00	$0.00	$0.00	$142,123.61
C3030	Ceiling Finishes	$0.00	$0.00	$126,692.41	$0.00	$0.00	$126,692.41
D1010	Elevators and Lifts	$0.00	$1,012,601.25	$0.00	$0.00	$0.00	$1,012,601.25
D2010	Plumbing Fixtures	$10,279.62	$115,775.22	$0.00	$0.00	$0.00	$126,054.84
D2020	Domestic Water Distribution	$0.00	$0.00	$54,606.72	$0.00	$334,445.77	$389,052.49
D2030	Sanitary Waste	$0.00	$0.00	$323,779.55	$0.00	$0.00	$323,779.55
D3020	Heat Generating Systems	$5,223.09	$0.00	$1,012,205.26	$0.00	$0.00	$1,017,428.35
D3030	Cooling Generating Systems	$0.00	$0.00	$0.00	$0.00	$794,939.99	$794,939.99
D3040	Distribution Systems	$2,242,646.71	$0.00	$383,621.95	$0.00	$80,708.29	$2,706,976.95
D3060	Controls & Instrumentation	$0.00	$1,415,838.01	$0.00	$0.00	$0.00	$1,415,838.01
D4010	Sprinklers	$0.00	$0.00	$0.00	$0.00	$944,159.46	$944,159.46
D5010	Electrical Service/Distribution	$0.00	$0.00	$589,390.59	$0.00	$0.00	$589,390.59
D5020	Lighting and Branch Wiring	$0.00	$0.00	$117,558.72	$0.00	$0.00	$117,558.72
D5030	Communications and Security	$0.00	$0.00	$162,415.22	$112,560.22	$0.00	$274,975.44
D5090	Other Electrical Systems	$0.00	$0.00	$160,832.04	$0.00	$0.00	$160,832.04
	Total:	$2,286,548.19	$4,254,106.61	$2,931,102.46	$112,560.22	$2,154,253.51	$11,738,570.99

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: $11,738,570.99

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: C2010 - Stair Construction

Location: Stairs

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 1 - Response Time (< 2 yr)

Correction: Replace inadequate or install proper stair railing - select appropriate material

Qty: 250.00

Unit of Measure: L.F.

Estimate: $28,398.77

Assessor Name: System

Date Created: 11/23/2015

Notes: Replace railing in stairways to meet building code

System: D2010 - Plumbing Fixtures

Location: Toilet rooms

Distress: Appearance

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Replace flush valves (enter qty of WC or Urinals in estimate)

Qty: 15.00

Unit of Measure: Ea.

Estimate: $10,279.62

Assessor Name: System

Date Created: 01/06/2016

Notes: Replace flush valves due to visible surface corrosion

System: D3020 - Heat Generating Systems

Location: Boiler room

Distress: Failing

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Repair boiler

Qty: 2.00

Unit of Measure: Ea.

Estimate: $5,223.09

Assessor Name: System

Date Created: 01/06/2016

Notes: Repair boiler constant draft dampers to improve exhaust flow

System: D3040 - Distribution Systems

Location: classrooms

Distress: Health Hazard / Risk

Category: 1 - Health & Safety

Priority: 1 - Response Time (< 2 yr)

Correction: Provide classroom FC units and dedicated OA ventilation system. (20 clsrms)

Qty: 27.00

Unit of Measure: Room

Estimate: $2,242,646.71

Assessor Name: System

Date Created: 01/06/2016

Notes: Replace the central air handling unit with fan coil units and dedicated OA units to serve the classrooms.

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

System: B3010105 - Built-Up

Location: Main building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and Replace Built Up Roof

Qty: 19,700.00

Unit of Measure: S.F.

Estimate: $667,475.63

Assessor Name: System

Date Created: 11/23/2015

Notes: Replace built-up roofing system on main building – beyond service life

System: C1010 - Partitions

Location: 2nd and 3rd floors

Distress: Inadequate

Category: 4 - Capital Improvement

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

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

Qty: 4.00

Unit of Measure: Ea.

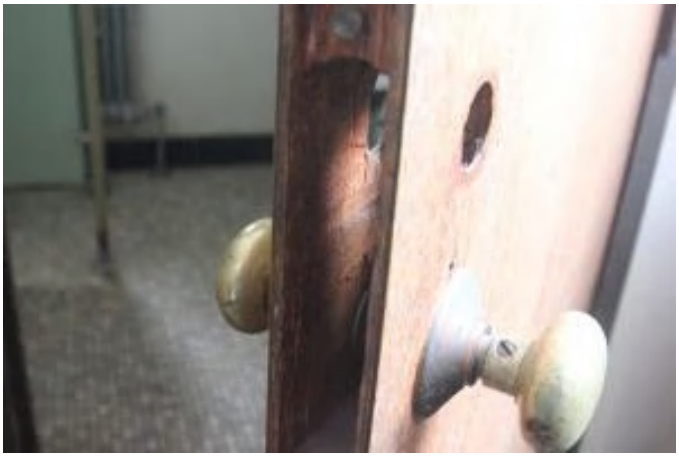
Estimate: $647,214.40

Assessor Name: System

Date Created: 01/06/2016

Notes: Remodel 2nd and 3rd floor to install male and female toilet rooms on both floors

System: C1020 - Interior Doors



Location: Throughout

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 51.00

Unit of Measure: Ea.

Estimate: $243,299.94

Assessor Name: System

Date Created: 11/23/2015

Notes: Replace interior doors and hardware – beyond service life

System: C1030 - Fittings

Location: Toilets

Distress: Accessibility

Category: 2 - Code Compliance

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

Correction: Remove and replace damaged toilet paritions - handicap units

Qty: 10.00

Unit of Measure: Ea.

Estimate: $9,778.55

Assessor Name: System

Date Created: 11/23/2015

Notes: Provide new toilet partitions and toilet accessories including grab bars for accessibility

System: C3020414 - Wood Flooring

Location: Various

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Refinish wood floors

Qty: 13,200.00

Unit of Measure: S.F.

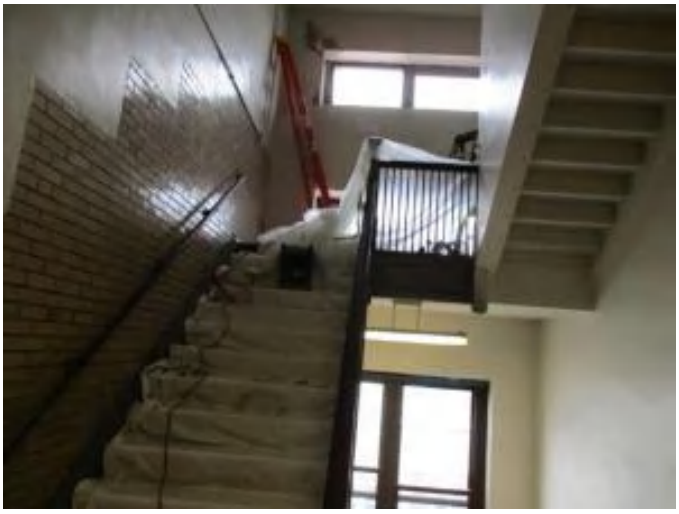
Estimate: $142,123.61

Assessor Name: System

Date Created: 11/23/2015

Notes: Refinish hardwood flooring (50% of hardwood flooring area)

System: D1010 - Elevators and Lifts



Location: TBD

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: 11/23/2015

Notes: Install elevator for accessibility (location TBD)

System: D2010 - Plumbing Fixtures

Location: Corridors

Distress: Accessibility

Category: 2 - Code Compliance

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

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

Qty: 5.00

Unit of Measure: Ea.

Estimate: $78,464.48

Assessor Name: System

Date Created: 01/06/2016

Notes: Replace fountains with accessible type

System: D2010 - Plumbing Fixtures

Location: Toilet rooms

Distress: Failing

Category: 3 - Operations / Maint.

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

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

Qty: 5.00

Unit of Measure: Ea.

Estimate: $37,310.74

Assessor Name: System

Date Created: 01/06/2016

Notes: Replace water closets due to age and damage

System: D3060 - Controls & Instrumentation

Location:	Entire building
Distress:	Obsolete
Category:	3 - Operations / Maint.
Priority:	2 - Response Time (2-3 yrs)
Correction:	Replace pneumatic controls with DDC (75KSF)
Qty:	66,000.00
Unit of Measure:	S.F.
Estimate:	$1,415,838.01
Assessor Name:	System
Date Created:	01/07/2016

Notes: Convert obsolete pneumatic controls to digital

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

System: C3030 - Ceiling Finishes

Location: Various

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 8,400.00

Unit of Measure: S.F.

Estimate: $126,692.41

Assessor Name: System

Date Created: 11/23/2015

Notes: Replace suspended ceiling system – beyond service life (30% of suspended ceiling area)

System: D2020 - Domestic Water Distribution

Location: Boiler room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace vertical tank type gas-fired water heater (75 gal)

Qty: 1.00

Unit of Measure: Ea.

Estimate: $54,606.72

Assessor Name: System

Date Created: 01/06/2016

Notes: Replace domestic water heater due to age

System: D2030 - Sanitary Waste

Location: Entire building

Distress: Failing

Category: 3 - Operations / Maint.

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

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

Qty: 66,000.00

Unit of Measure: S.F.

Estimate: $323,779.55

Assessor Name: System

Date Created: 01/06/2016

Notes: Inspect and repair sanitary drain pipes due to clogs including installing floor drains in upper level toilet rooms

System: D3020 - Heat Generating Systems

Location: Boiler room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace boiler, cast iron sectional (150 HP)

Qty: 2.00

Unit of Measure: Ea.

Estimate: $1,012,205.26

Assessor Name: System

Date Created: 01/05/2016

Notes: Replace boilers due to age

System: D3040 - Distribution Systems

Location: Gym addition

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace HVAC unit for Gymnasium (single station)

Qty: 8,400.00

Unit of Measure: S.F.

Estimate: $318,465.50

Assessor Name: System

Date Created: 01/06/2016

Notes: Replace gymnasium HVAC to include cooling coils

System: D3040 - Distribution Systems

Location: Toilet rooms

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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

Correction: Replace power roof ventilator (24" dia.)

Qty: 3.00

Unit of Measure: Ea.

Estimate: $65,156.45

Assessor Name: System

Date Created: 01/06/2016

Notes: Install rooftop exhaust fans to ventilate toilet room and remove odors

System: D5010 - Electrical Service/Distribution

Location: Basement Fan Room

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Replace Switchboard

Qty: 1.00

Unit of Measure: Ea.

Estimate: $340,619.20

Assessor Name: System

Date Created: 12/21/2015

Notes: Provide a new electrical service 277/480V, 3 phase power, approximate 1000 Amperes and will be located in the vicinity of the existing electrical service.

System: D5010 - Electrical Service/Distribution

Location: Entire Building

Distress: Obsolete

Category: 3 - Operations / Maint.

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

Correction: Replace Electrical Distribution System (U)

Qty: 1.00

Unit of Measure: Ea.

Estimate: $248,771.39

Assessor Name: System

Date Created: 12/21/2015

Notes: Replace the entire distribution system with new panels and new wiring/conduits. Approximate (12) 208/120V panel boards.

System: D5020 - Lighting and Branch Wiring

Location: Entire Building

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Add wiring device

Qty: 320.00

Unit of Measure: Ea.

Estimate: $117,558.72

Assessor Name: System

Date Created: 12/21/2015

Notes: Provide (2)25FT of surface raceways with receptacles spaced 24” on center/classroom and 4 wall mount receptacles/classroom. Approximate 320 receptacles.

System: D5030 - Communications and Security

Location: Entire Building

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

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

Correction: Replace fire alarm system

Qty: 1.00

Unit of Measure: S.F.

Estimate: $162,415.22

Assessor Name: System

Date Created: 12/21/2015

Notes: Replace old fire alarm system with addressable type with audio/visual devices at corridors and classrooms. Approximate 90 devices

System: D5090 - Other Electrical Systems

Location: Outdoor

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Add Standby Generator System

Qty: 1.00

Unit of Measure: Ea.

Estimate: $136,582.22

Assessor Name: System

Date Created: 12/21/2015

Notes: Provide 70KW, outdoor, diesel powered generator.

System: D5090 - Other Electrical Systems

Location: Roof

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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

Correction: Repair Lightning Protection System

Qty: 1.00

Unit of Measure: Job

Estimate: $24,249.82

Assessor Name: System

Date Created: 12/21/2015

Notes: Prepare a study to determine if the existing lightning system provide the proper protection to the school building.

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

System: D5030 - Communications and Security

Location: Entire Building

Distress: Obsolete

Category: 3 - Operations / Maint.

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

Correction: Add/Replace Clock System or Components

Qty: 45.00

Unit of Measure: Ea.

Estimate: $112,560.22

Assessor Name: System

Date Created: 12/21/2015

Notes: Replace clock and bell system with wireless, battery operated, clock system. Approximate 45 clocks.

Priority 5 - Response Time (> 5 yrs):

System: D2020 - Domestic Water Distribution

Location: Entire building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Replace domestic water piping (75 KSF)

Qty: 66,000.00

Unit of Measure: S.F.

Estimate: $334,445.77

Assessor Name: System

Date Created: 01/06/2016

Notes: Perform detailed inspection of domestic water distribution pipe and repair as needed due to age

System: D3030 - Cooling Generating Systems

Location: Entire school

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 49,500.00

Unit of Measure: S.F.

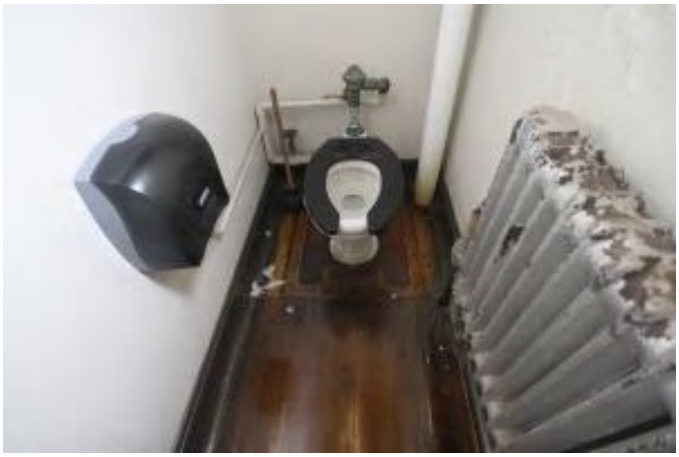
Estimate: $794,939.99

Assessor Name: System

Date Created: 01/06/2016

Notes: Install 165 ton capacity cooling system to serve the entire school and replace window units

System: D3040 - Distribution Systems



Location: Classrooms

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Replace finned tube radiation terminals (per 100 LF)

Qty: 200.00

Unit of Measure: L.F.

Estimate: $80,708.29

Assessor Name: System

Date Created: 01/07/2016

Notes: Replace radiators due to age

System: D4010 - Sprinklers

Location: Entire building

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

Priority: 5 - Response Time (> 5 yrs)

Correction: Install a fire protection sprinkler system

Qty: 66,000.00

Unit of Measure: S.F.

Estimate: $944,159.46

Assessor Name: System

Date Created: 01/07/2016

Notes: Install fire suppression sprinkler system with pump if needed

Equipment Inventory

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

Subsystem	Inventory	Qty	UoM	Location	Manufacturer	Model Number	Serial Number	Barcode	Life	Install Date	Next Renewal	Raw Cost	Inventory Cost
D2020 Domestic Water Distribution	Pump, pressure booster system, 10 HP pump, includes diaphragm tank, control and pressure switch	1.00	Ea.	Boiler room					25	2000	2025	$12,768.00	$14,044.80
D3020 Heat Generating Systems	Boiler, oil fired, flame retention burner, cast iron, steam, gross output, 5520 MBH, includes standard controls and insulated flush jacket, packaged	2.00	Ea.	Boiler room					35	1970	2052	$118,960.50	$261,713.10
D3040 Distribution Systems	AHU, field fabricated, built up, cool/heat coils, filters, constant volume, 40,000 CFM	1.00	Ea.	Mechanical room					25	1917	2042	$151,511.80	$166,662.98
D5010 Electrical Service/Distribution	Panelboard, 4 wire w/conductor & conduit, NEHB, 277/480 V, 400 A, 0 stories, 0' horizontal	1.00	Ea.	Fan room					30	1917	2047	$13,413.60	$14,754.96
												Total:	**$457,175.84**

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):	66,000
Year Built:	1916
Last Renovation:	1970
Replacement Value:	$1,226,436
Repair Cost:	$214,217.64
Total FCI:	17.47 %
Total RSLI:	44.61 %

Description:

Attributes:

General Attributes:

Bldg ID:	S269001	Site ID:	S269001

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	41.16 %	0.00 %	$0.00
G40 - Site Electrical Utilities	54.54 %	67.83 %	$214,217.64
Totals:	**44.61 %**	**17.47 %**	**$214,217.64**

Condition Detail

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

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

System Listing

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

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

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

System Code	System Description	Unit Price $	UoM	Qty	Life	Year Installed	Calc Next Renewal Year	Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency $	Replacement Value $
G2010	Roadways	$11.52	S.F.		30				0.00 %	0.00 %				$0
G2020	Parking Lots	$7.65	S.F.	35,000	30	1993	2023		26.67 %	0.00 %	8			$267,750
G2030	Pedestrian Paving	$11.52	S.F.	23,800	40	1993	2033		45.00 %	0.00 %	18			$274,176
G2040	Site Development	$4.36	S.F.	72,600	25	1999	2024		36.00 %	0.00 %	9			$316,536
G2050	Landscaping & Irrigation	$3.78	S.F.	13,800	15	1999	2014	2034	126.67 %	0.00 %	19			$52,164
G4020	Site Lighting	$3.58	S.F.	72,600	30	1917	1947	2028	43.33 %	0.00 %	13			$259,908
G4030	Site Communications & Security	$0.77	S.F.	72,600	30	1917	1947	2047	106.67 %	383.20 %	32		$214,217.64	$55,902
								Total	**44.61 %**	**17.47 %**			**$214,217.64**	**$1,226,436**

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.

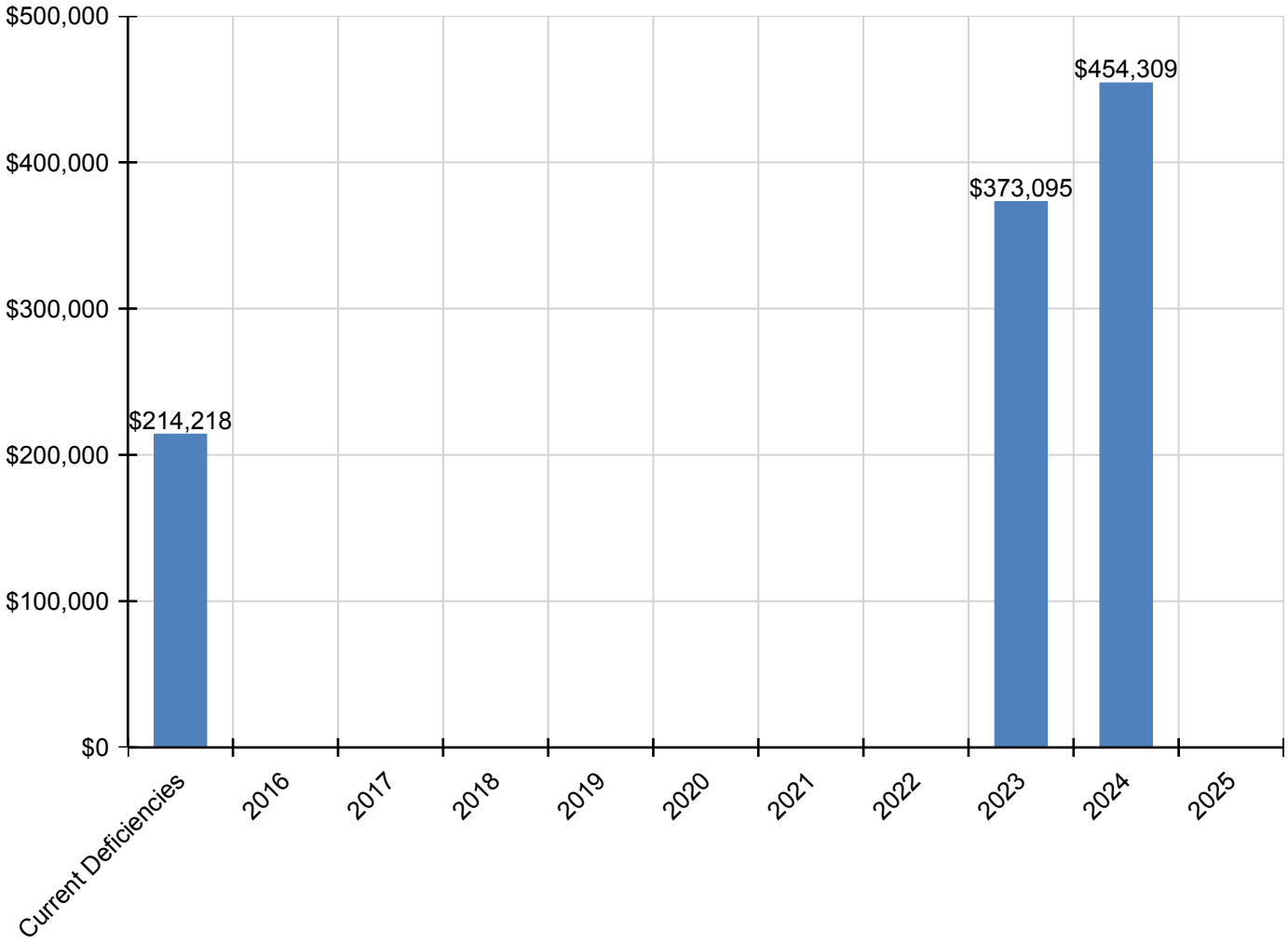
Inflation Rate: 3%

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Total:	**$214,218**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$373,095**	**$454,309**	**$0**	**$1,041,622**
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	$373,095	$0	$0	**$373,095**
G2030 - Pedestrian Paving	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G2040 - Site Development	$0	$0	$0	$0	$0	$0	$0	$0	$0	$454,309	$0	**$454,309**
G2050 - Landscaping & Irrigation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G40 - Site Electrical Utilities	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G4020 - Site Lighting	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G4030 - Site Communications & Security	$214,218	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$214,218**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

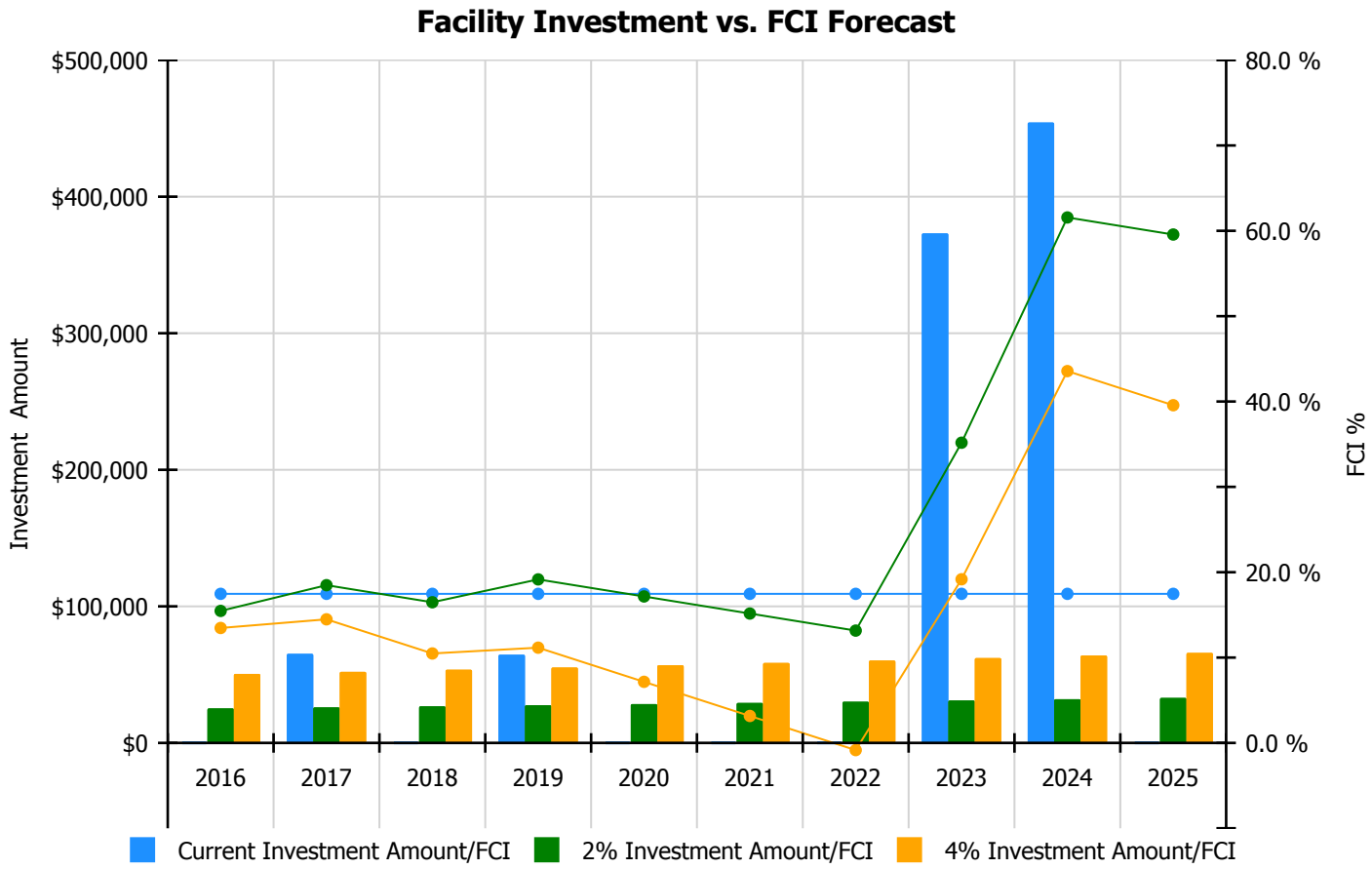
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



10 Year FCI Forecast by Investment Scenario

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

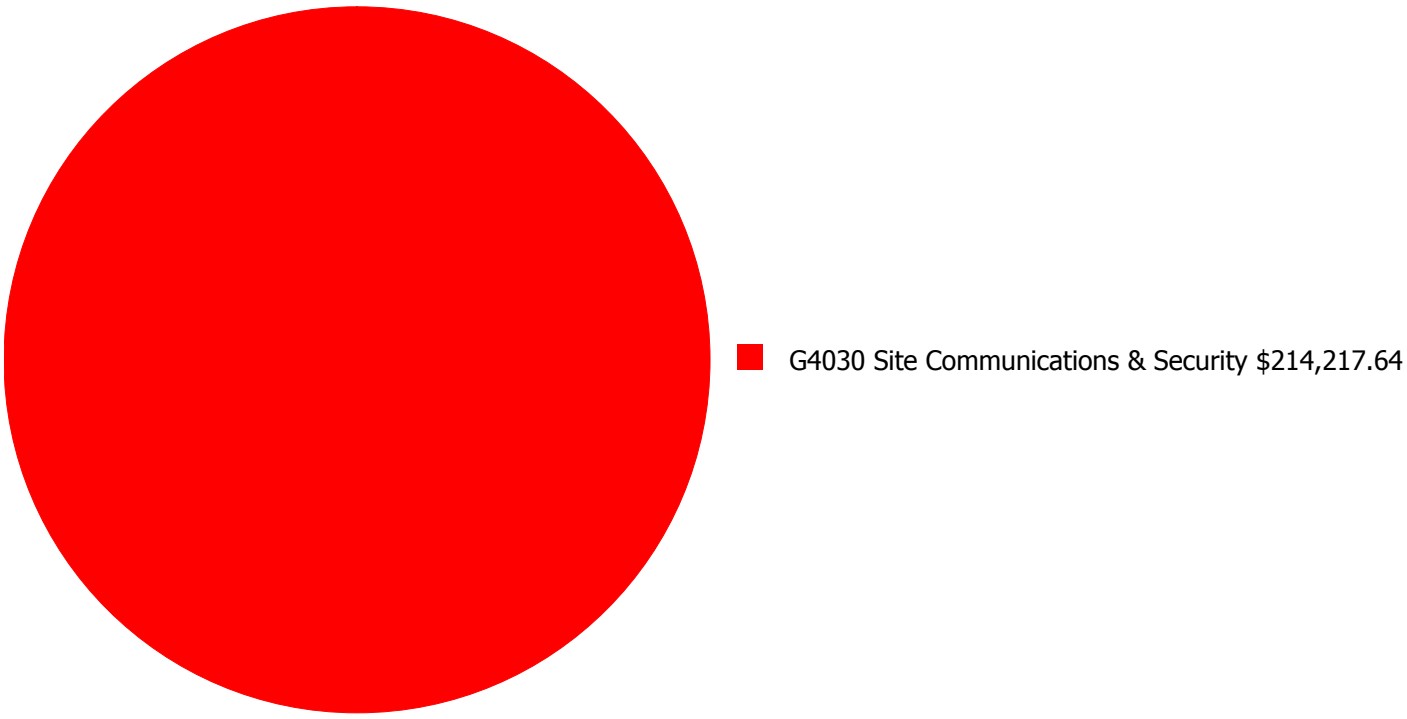
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 17.47%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$25,265.00	15.47 %	$50,529.00	13.47 %
2017	$65,237	$26,023.00	18.48 %	$52,045.00	14.48 %
2018	$0	$26,803.00	16.48 %	$53,606.00	10.48 %
2019	$64,582	$27,607.00	19.16 %	$55,215.00	11.16 %
2020	$0	$28,436.00	17.16 %	$56,871.00	7.16 %
2021	$0	$29,289.00	15.16 %	$58,577.00	3.16 %
2022	$0	$30,167.00	13.16 %	$60,334.00	-0.84 %
2023	$373,095	$31,072.00	35.17 %	$62,144.00	19.17 %
2024	$454,309	$32,004.00	61.56 %	$64,009.00	43.56 %
2025	$0	$32,965.00	59.56 %	$65,929.00	39.56 %
Total:	**$957,223**	**$289,631.00**		**$579,259.00**	

Deficiency Summary by System

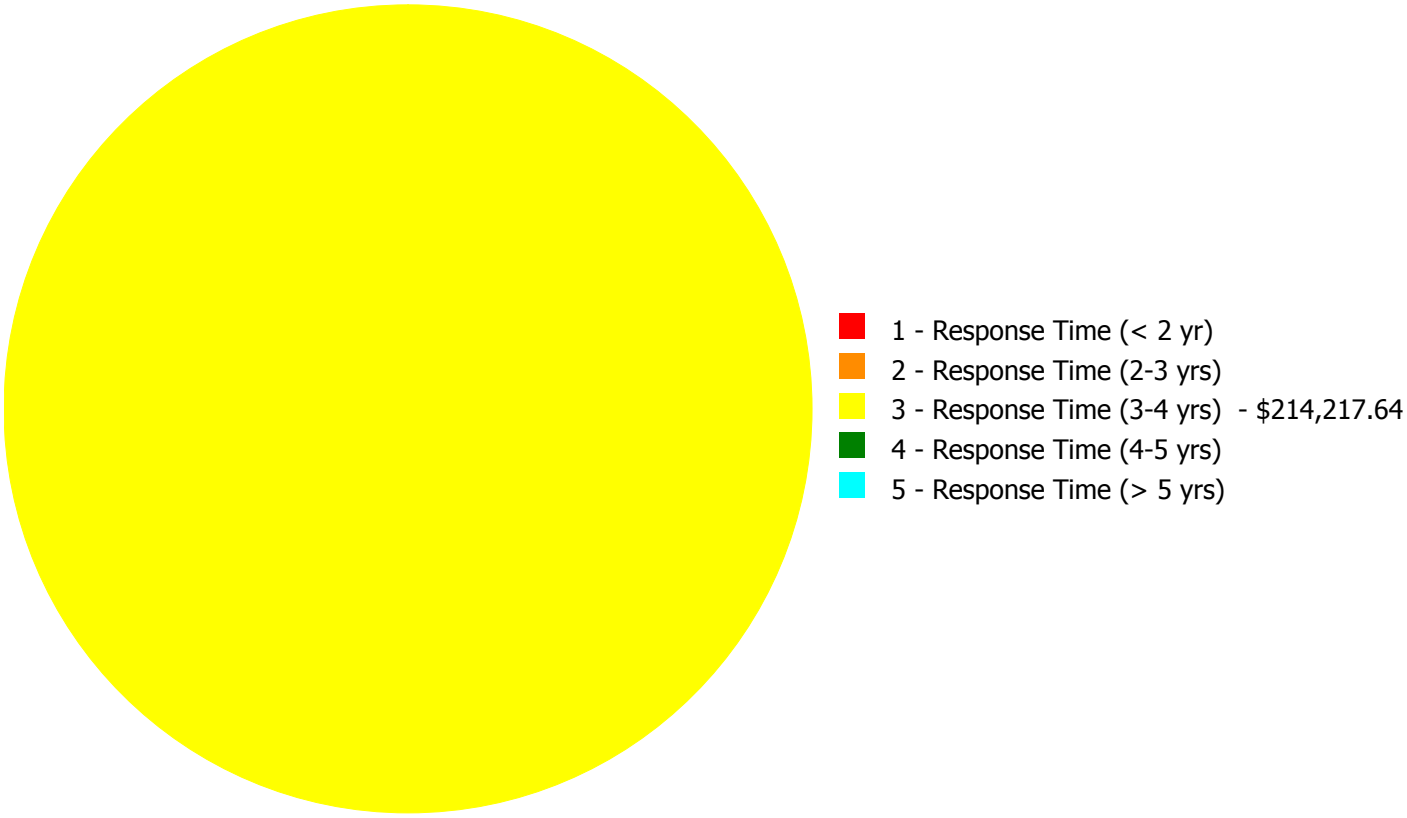
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $214,217.64

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: $214,217.64

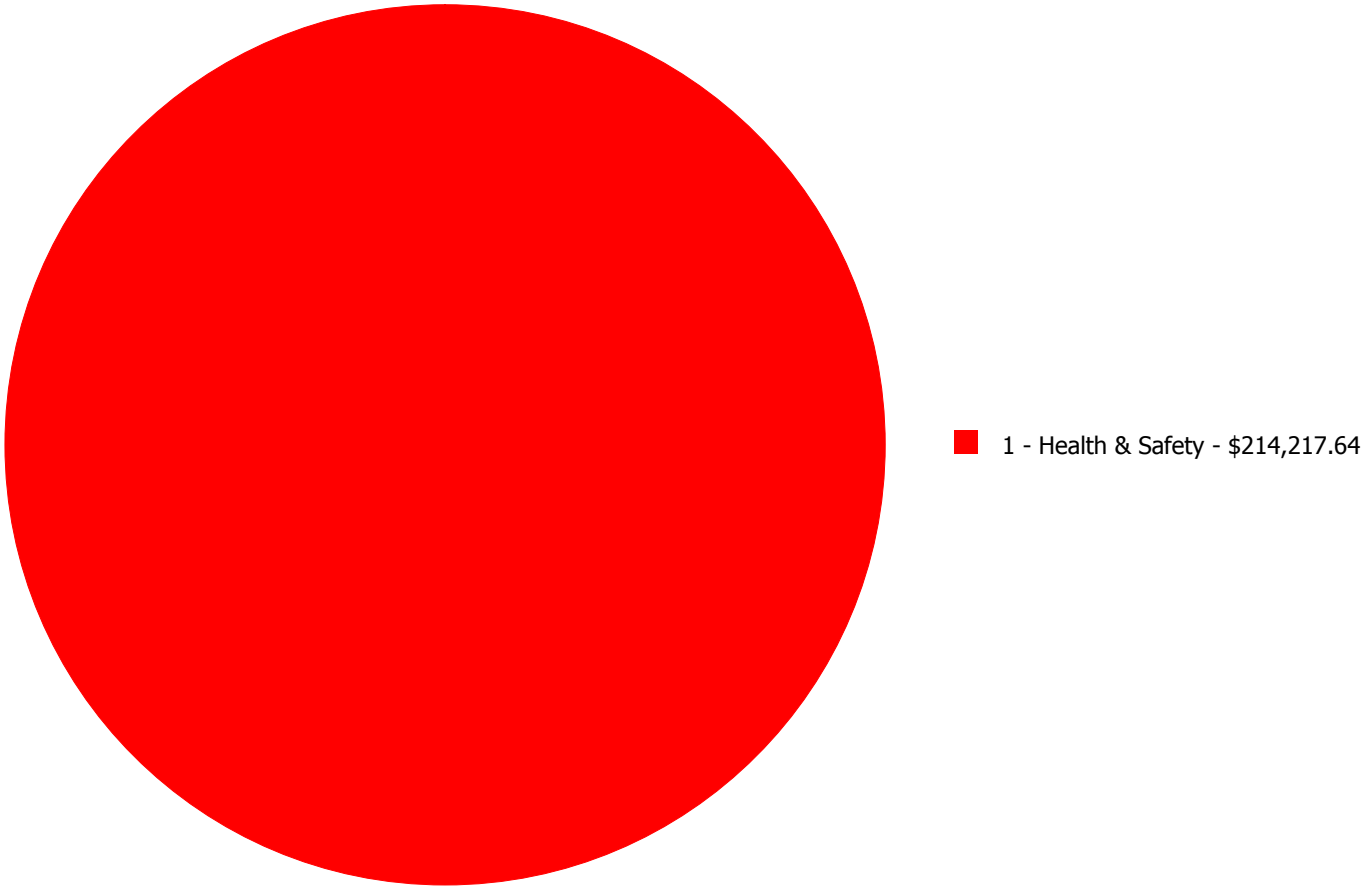
Deficiency By Priority Investment Table

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

System Code	System Description	1 - Response Time (< 2 yr)	2 - Response Time (2-3 yrs)	3 - Response Time (3-4 yrs)	4 - Response Time (4-5 yrs)	5 - Response Time (> 5 yrs)	Total
G4030	Site Communications & Security	$0.00	$0.00	$214,217.64	$0.00	$0.00	$214,217.64
	Total:	$0.00	$0.00	$214,217.64	$0.00	$0.00	$214,217.64

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: $214,217.64

Deficiency Details by Priority

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

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

System: G4030 - Site Communications & Security

Location: Building Perimeter

Distress: Security Issue

Category: 1 - Health & Safety

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

Correction: Add Video Surveillance System

Qty: 12.00

Unit of Measure: Ea.

Estimate: $214,217.64

Assessor Name: Craig Anding

Date Created: 12/21/2015

Notes: Provide CCTV cameras to the building exterior for full coverage of the perimeter. Approximate 12 CCTV cameras.

Equipment Inventory

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

No data found for this asset

Glossary

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

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

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

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

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

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

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

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

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

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

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