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.

Allen, Ethel School

Governance	DISTRICT	Report Type	Elementarymiddle
Address	3200 W. Lehigh Ave.	Enrollment	519
	Philadelphia, Pa 19132	Grade Range	'00-08'
Phone/Fax	215-227-4404 / 215-227-2971	Admissions Category	Neighborhood
Website	Www.Philasd.Org/Schools/Ethelallen	Turnaround Model	Turnaround

Building/System FCI Tiers

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

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

Building and Grounds

	FCI	Repair Costs	Replacement Cost
Overall	**09.04%**	**$4,002,157**	**$44,284,672**
Building	09.10 %	$3,757,425	$41,291,437
Grounds	08.18 %	$244,732	$2,993,235

Major Building Systems

Building System	System FCI	Repair Costs	Replacement Cost
Roof (Shows physical condition of roof)	00.00 %	$0	$1,590,912
Exterior Walls (Shows condition of the structural condition of the exterior facade)	03.15 %	$96,868	$3,070,801
Windows (Shows functionality of exterior windows)	00.00 %	$0	$1,498,378
Exterior Doors (Shows condition of exterior doors)	00.00 %	$0	$120,636
Interior Doors (Classroom doors)	32.67 %	$95,412	$292,021
Interior Walls (Paint and Finishes)	00.00 %	$0	$1,099,032
Plumbing Fixtures	00.00 %	$0	$1,124,823
Boilers	00.00 %	$0	$1,553,288
Chillers/Cooling Towers	00.00 %	$0	$2,036,663
Radiators/Unit Ventilators/HVAC	00.00 %	$0	$3,576,639
Heating/Cooling Controls	00.00 %	$0	$1,123,160
Electrical Service and Distribution	132.04 %	$1,065,563	$807,011
Lighting	08.55 %	$246,563	$2,885,272
Communications and Security (Cameras, Pa System and Fire Alarm)	05.76 %	$62,274	$1,080,729

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

S444001;Allen, Ethel

Final

Site Assessment Report

February 1, 2017

PARSONS

Table of Contents

Site Executive Summary

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

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

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

Gross Area (SF):	83,197
Year Built:	1971
Last Renovation:	2006
Replacement Value:	$44,284,672
Repair Cost:	$4,002,157.26
Total FCI:	9.04 %
Total RSLI:	59.43 %

Description:

Facility Assessment
November 2015

School District of Philadelphia
Ethel Allen Elementary School
3200 W Lehigh Ave.
Philadelphia, PA 19132

83,197 SF / 676 Students / LN 04

GENERAL

The Dr. Ethel D. Allen Promise Academy School is located at 3200 W Lehigh Ave., originally constructed with a modern design, is one of a kind for the school district. The circular-shaped, concrete and steel-framed building includes brick facades with a concrete foundation. The main entrance faces eastern exterior and connects directly with the parking lot. Identified as B444001 and was originally designated Ethel Allen School.

Constructed in 1971 this school serves students in grades PK to 6th grade and is a two story school with a total of 83,197 GSF.

This school has several classrooms, a dedicated library (The Catharine S. Draper Memorial), kitchen and student commons, Gym, Auditorium and cafeteria, with supporting administrative spaces, science, Music and Art Department.

The information for this report was collected during a site visit on November 6, 2015.

Mr. Phil Burton, Building Engineer, accompanied the assessment team on a tour of the school and provided detailed information on the building systems and maintenance history. Ms. Stefan F. Eberhardt, Principal, also participated in the interview and shared information about the school with the assessment team.

Architectural / Structural Systems

Foundations are concrete and appear to be in good condition. The steel framed superstructure is good condition. The slab on grade floor construction is in good condition and the pitched roofing system is in good condition.

The exterior brick surfaces are generally in good condition for their age. In a few locations, bricks have cracked or spalled and should be replaced. The repointing of deteriorated mortar joints is also recommended, using mortar of a similar color and consistency as the original. Following the detailed examination of the brick and repair of mortar construction joints, the entire building should be pressure washed to remove stains and embedded pollutants. If moisture is found to be penetrating the masonry facade, the application of a spray sealant to the suspected exterior masonry surface is recommended.

Exterior windows are custom aluminum framed applications and are in good condition. Exterior doors are typically metal doors and frames with glazing. Doors are in generally good condition and are ADA compliant. There is at least one ADA entrance.

Interior partitions include CMU, gypsum wallboard on metal studs. Interior partitions are in very good condition. Interior doors are typically wood in wood frames with wooden transom and wired glass glazing. Other interior doors include hollow metal in hollow metal frames at the stairwells and exit ways and access doors. Doors are generally in fair condition and is a mix of ADA compliant and non-complaint doors with both non-rated and fire rated. Several of the classroom doors are aging at a faster than normal rate for this application. Numerous repairs to locksets and door hardware have advanced the deterioration of the doors. This deficiency provides a budgetary consideration to replace a portion of the interior doors and frames with consideration for the physically challenged.

Fittings include: marker boards; tack boards; interior signage; wooden lockers; toilet accessories and toilet partitions; fixed storage shelving. The fittings are in very good condition and expected to have a normal life cycle that extends beyond the outlook of this report.

Special consideration for those that may be physically challenged was not a main factor in the design of this school. The main entrance serves as the exterior ADA entrance complete with automated access controlled from the front desk. The path of travel is very clear from that entrance of the school and from the access points. The interior path of travel has limited support by some ADA lever actuated door hardware and guard rails, signage, ADA restroom accommodation that meet the needs of the physically challenged. Future consideration should include an overall ADA review and renovation.

Interior wall finishes are typically painted CMU. Wall finishes are generally in very good condition. Interior floor finishes are typically VCT in classrooms and corridors. Other floor finishes include: Sealed concrete and a tile floor finish in the kitchen area. Interior ceilings are typically 2 x 4 acoustical tile in metal grid. Other ceiling finishes include: exposed/painted structure with gypsum wallboard. There are no deficiencies required at this time.

There is no directional signage and room signage is a custom design in places and scarce or painted with no consistency in others. Accessibility signage criteria have been established for the physically challenged. These include mounting heights, contrast and finish, raised and Braille characters and pictograms, and character proportions and heights. It is recommended that compliant signage be installed throughout the building.

Current requirements for stairs indicate that they have graspable handrails on both sides, that the rails have a specific end geometry, and that the handrails continue horizontally at the landings. In addition, guardrails must prevent the passage of a 4 inch diameter sphere (6 inches in the triangle formed by the lower rail and tread/riser angle). Although the stairs are compliant with the code enforced at the time of construction until a major renovation occurs, they are deficient in handrail and guardrail design relative to current standards. Future efforts should include comprehensive stair railing removal and replacement upgrades.

The school stage has a stage curtain assembly that appears to be from the original construction. Modern applications are typically fire

-proof applications with adjustable tracks and electric support for operation. The curtains are torn in a few section and the track is not functioning properly, overall the system is in poor condition. It is recommended that the curtain and track system be upgraded to a new system. Special care should be considered in regards to modern fire proofing for the new installation.

The fixed seating for this school is from the original construction. The systems are in fair condition considering the age and usage. This project provides a budgetary consideration for universal upgrades for the fixed seating and furnishing of this school. Ensure that ADA requirements are followed with the new seating layout.

Furnishings include: fixed casework and fixed benches with shelves all in like new condition. There were no issues that surfaced during the time of the inspection therefore no recommendations are required at this time.

The Catharine S. Draper Memorial Library is center to the schools activities and is well used. Care should be taken to address the interior stairs as they present a safety issue to those that may be physically challenged. The under stair area has no barrier to prevent a possible head injury. A low cost no cost solution would be to add a bench or interior planter thus preventing the possible injury.

MECHANICAL SYSTEMS

PLUMBING- Plumbing fixtures are standard china commercial quality with wall mounted lavatories, urinals and water closets. Lavatories have dual lever or wheel handle faucets and urinals and water closets have recessed manual flush valves with lever operators. Water coolers are stainless steel high/low type and custodial closets have cast iron service sinks. There are a few counter top stainless steel sinks and some laboratory stations with integral sinks. Fixtures are from a 2006 renovation.

Hot water is provided by two Paloma gas water heaters in the mechanical room. The heaters have individual pumps and a central circulating pump. A Tornatech duplex booster pump system maintains domestic water pressure.

Sanitary, waste and vent piping is hub and spigot cast iron with some hubless piping with banded couplings. Domestic hot and cold water is insulated rigid copper piping. There is a four inch water service with a backflow preventer. Gas service is an eight inch line. Gas and water services are from Huntington Ave. Gas piping is either welded or screwed fitting black steel, depending on size. The roof has drains piped to horizontal and vertical rainwater piping.

The plumbing system was renovated in 2006 including fixtures, water heaters and supply piping. Sanitary, waste and vent piping is from 1971 installation. Fixtures should have remaining service life of twenty five years. Water heater and piping should be serviceable fifteen more years. Cast iron piping should be inspected for damage and replaced or repaired as required.

HVAC- The building is heated by hot water generated by two Buderus cast iron sectional gas boilers in the mechanical room. The boilers are one hundred hp with Powerflame burner installed in 2015. Hot water is circulated to the dual temperature heating/ cooling system and cabinet radiation units throughout the building by two B&G Series 1510 ten hp end suction pumps installed in 2006. Water is treated by an automatic chemical feed system.

Boilers and water heaters are connected to a stainless steel double wall factory manufactured vent system through an existing chimney to a roof cap.

There is a central water cooled chilled water system with a Mcquay centrifugal chiller located in the mechanical room and an Evapco single cell induced draft cooling tower on the roof. The chilled and hot water are piped to a dual temperature system connected to unit ventilators and air handling units. There is one 15 hp condenser water, one 5 hp chilled water and two 15 hp dual temperature water pumps. All are B&G end suction type, located in the mechanical room. The two dual temperature pumps are controlled by variable frequency drives. This equipment was installed in 2006.

Classrooms, corridors and other areas have Mcquay unit ventilators with water coils, filters, blowers and motors, valves and controls. In some classrooms the units are located on the interior wall built into cabinets and ducted to a sidewall grill. Ducted fan coil units are located above the first and second floor ceilings with six on the first floor and four on the second floor, serving the corridor and interior spaces. A second floor mechanical room inside the music area contains a multizone air handling unit that serves the cafeteria and interior classrooms on that level. A mechanical space above the auditorium stage has an air handling unit that serves the auditorium. Three small horizontal air handling units are in a crawl space accessed from the basement corridor, serving the main office, counselor's office and nursing area. The gymnasium has two heating and ventilating units on a platform adjacent to the gymnasium connected to sidewall grills. Toilet and building exhaust is ducted to nine roof ventilators and there are several gravity roof ventilators. There are combustion air louvers with motorized dampers in the mechanical room. A wall mounted propeller fan in the electrical room ventilates that space and the mechanical room, and a refrigerant exhaust system is ducted to the chiller area.

Chilled, condenser, heating, and dual temperature water piping is welded insulated black steel.

There is a Honeywell building automation system with a computer terminal.

The air handling units, unit ventilators, pumps, distribution piping and air distribution are from the 2006 installation and should have remaining service life of fifteen years. When the air side equipment is replaced it is recommended that four pipe units be installed with hot and chilled water coils. The cooling tower and chiller should be serviceable twenty more years. The boilers were installed in 2015 and have remaining service life of thirty five years.

FIRE PROTECTION-The building does not have a sprinkler or standpipe system.

ELECTRICAL SYSTEMS

Electrical Service--The building is served by a 13.2 kV underground service from PECO Energy Company to a Zinsco 500 kVA, 1600A, 208/120V, 3 phase, 4 wire unit substation located in Electrical Room 001B adjacent to the Boiler Room. The substation is original equipment and has exceeded its useful life. The 1600A switchboard feeds an 800A motor control center in the chiller room, the elevator and nine (9) panelboards in the buildings. The motor control center and all panelboards have also exceeded their useful life and need to be replaced. There is also an 800A, 480/277V, 3 phase, 4 wire service that feeds a Siemens switchboard for the chiller. This switchboard was installed in 2006 and has an estimated remaining life of 21 years.

Receptacles-- All rooms are typically provided with an adequate number of receptacles, except for classrooms. It is recommended that 4 to 6 additional duplex receptacles be provided in 31 classrooms using a metal surface raceway system. A budgetary allowance is also included in this report for 20 duplex receptacles to be replaced because of their age/condition.

Lighting—Except for a few rooms, such as storage rooms, coat room, and wall mounted uplighting fixtures in the IMC, all fluorescent lighting fixtures have been upgraded to T8 lamps. Fluorescent wraparound fixtures are provided in classrooms and rooms without ceilings. The corridors and rooms with acoustic ceiling tile have 2x4 recessed fluorescent grid troffers. All fixtures are in good condition with a remaining life extending beyond this report. The IMC has suspended direct/indirect, 3 lamp, fluorescent fixtures with parabolic louvers. Classroom lighting is controlled by two light switches.

The gymnasium is illuminated with (16) 400W mercury vapor industrial fixtures and four (4) incandescent industrial fixtures used for emergency lighting. The fixtures have reached the end of their useful life. Replacement with LED fixtures is recommended for improved energy efficiency and reduced maintenance cost.

The auditorium is illuminated with (22) 250W recessed mercury vapor downlights. Replacement with LED fixtures is recommended for improved energy efficiency and reduced maintenance cost. There are also eight (8) incandescent wall mounted cylinders with up and down lighting that should have lamps replaced with LED type.

The auditorium has track lighting in front of the platform and fluorescent worklights and one row of theatrical batten lighting above the platform. Lighting is controlled by wall dimmers. There is no dimming system.

Wall pack fixtures are mounted on the exterior of the building at entrances and exit discharges. There is no lighting at the roof. A budgetary allowance is included in this report to provide lighting on the roof at the access door and at HVAC equipment for personnel safety and to service/maintain equipment.

Fire Alarm System-- The fire alarm system control panel (FACP) is an addressable type by Siemens FireFinder and located in Boiler Room 001. Remote annunciator panels are located at the Custodial Office and at the main entrance. The fire alarm system includes pull stations, smoke and heat detectors, duct detectors, audible and visual notification appliances, control panels, elevator recall operation and interface with fire suppression system. Smoke detectors are located in corridors and throughout the building. The fire alarm system was installed in 2011 and is expected to have at least 15 years of useful life remaining.

Telephone/LAN-- The telephone service demarcation point is located in the Boiler Room adjacent to the fire alarm control panel. Each classroom is provided with a telephone. Data outlets are also provided in each classroom. Wireless access points are located to provide Wi-Fi service throughout the entire school. The Main IT Distribution Frame/Telecom equipment is located on the First Floor. Intermediate Distribution Frames (IDFs) are located as needed to limit station cabling to the maximum allowable length.

Public Address/Paging/Intercom Systems-- The paging system is accessed through the telephone system. The paging system interface equipment, volume attenuators and 250W amplifier are located in the Main IT Distribution Frame/Telecom room. There is a separate sound system cabinet for the auditorium.

Recessed ceiling mounted paging speakers are provided in corridors and rooms with acoustical ceiling tile. Wall mounted speakers and clock/speakers are located in classrooms. The paging system has an estimated remaining useful life of 10 years.

An Aiphone intercom station is located at the Visitor Entrance.

Clock and Program System-- A Primex wireless GPS synchronized clock system is provided in this school. Battery operated clocks are provided in each classroom. The ceiling and wall speakers are used for announcements and program system. The clock system was installed in 2014.

Television Distribution System-- There is no television distribution system in this school.

Video Surveillance and Security Systems-- Interior video surveillance cameras provide coverage of entrances and corridors. There are a total of 16 cameras, including two (2) exterior cameras. The system includes two monitors and a digital video recorder (DVR). The cameras and equipment are reported to be more than 10 years old and are near end of life and should be replaced.

Building security includes security motion sensors in corridors.

Emergency/Standby Power System-- A 15 kW/15 kVA, 120/240V, 1 phase Generac standby generator with natural gas fuel supply is located in the Boiler Room. The generator was installed in 1991 and has reached the end of its useful life. The generator, Zenith Controls 75A, 240V, automatic transfer switch (ATS) is original equipment and has exceeded its useful life.

Emergency Lighting System / Exit Lighting-- Emergency egress lighting fixtures and exit signs are connected to emergency power and fed from the emergency lighting panelboard. Some of the exit signs are not properly supported from the ceiling or have been damaged and need to be maintained or replaced.

Lightning Protection System-- There is no lightning protection system for this facility.

Conveying Systems-- There is one 15 HP, 208V, 3 phase hydraulic elevator. Smoke and heat detectors are installed as required to provide elevator recall on fire alarm. The elevator is in good condition and is estimated to have 20 years of useful life remaining.

GROUNDS

The site is partially surrounded by a picket and chain link fence. In both cases the fencing will require some trimming back of the landscaping but otherwise is in good condition and expected to have a life that extends beyond the purview of this report.

The landscaping is in good condition and well maintained but with no irrigation system. The landscaping is generally located near the parking / play area of the site with limited turf sections around the general exterior of the school. This deficiency provides a budgetary consideration for the installation of an irrigation system for this site.

The trash dumpster is located in the parking lot open to the students and to the public. The exterior services are not protected. Upgrades to protect the exterior services and trash area is necessary for the safety of the students and the general public. Construction of a secure lockable dumpster area is recommended.

The parking area was reported to have been resurfaced within the past ten years and is in good condition. With this in mind there are no deficiencies required at this time.

The sidewalk system and brick retaining wall that surrounds the school provides a positive feature to the schools modern design. The sidewalks are in good condition and there are no recommendations required at this time. However, one minor issue exist for the exterior retaining wall facing the main road as a small section has moved two inches away from the expansion joint. This is a minor issue and a low cost no cost solution is to simply excavate near the join and reset this section of the wall.

Site Lighting-- There is a total of seven (7) light poles fixtures that illuminate the front of the site, parking lot and playing fields. The aluminum poles have multiple metal halide floodlighting fixtures per pole. The Building Engineer reported that some luminaires are starting to fail. Replacement of 22 metal halide floodlighting fixtures with LED floodlights is recommended. Poles and concrete bases are in good condition.

Site video surveillance-- two cameras are mounted on the exterior of the building to provide surveillance of the playing field and site and have served their useful life. The Building Engineer reported that an additional camera needs to be provided at the dumpster

area.

RECOMMENDATIONS

- Brick point and tuck repair
- Select interior door upgrades
- Signage upgrade
- Hand and guard rail upgrades
- Stage curtain upgrade
- Fixed seating upgrade
- Landscaping upgrade
- Install NFPA wet pipe automatic sprinkler system in entire building, including fire service, piping sprinkler heads, standpipes and fire pump if required.
- Inspect old cast iron sanitary piping including camera observation and replace damaged sections.
- Replace the 500 kVA, 1600A, 208/120V, 3 phase, 4 wire substation.
- Replace the 800A, 208/120V, 3 phase, three section motor control center located in the chiller room and nine (9) panelboards located throughout the building.
- Provide surface metal raceway system with 4 to 6 duplex receptacles in each of 31 classrooms. This deficiency includes a budgetary allowance for replacement 20 duplex receptacles because of their age/condition.
- Provide budgetary allowance for replacement of fluorescent lighting fixtures with T12 lamps in storage rooms, coat room, wall mounted uplighting fixtures in the IMC and a few other locations (estimate 15 fixtures).
- Replace (16) mercury vapor lighting fixtures in the gymnasium with LED industrial fixtures.
- Replace (22) 250W recessed mercury vapor downlights in the auditorium with LED downlights. Replace lamps in eight (8) incandescent wall mounted cylinders with up and down lighting with LED lamps.
- Provide budgetary allowance add lighting on the roof at the access door and at HVAC equipment for personnel safety and to service/maintain equipment.
- Replace video surveillance system equipment, including 14 interior cameras, two (2) monitors and one (1) digital video recorder (DVR). Add a second DVR.
- Replace 15 kW standby generator, automatic transfer switch (ATS) and emergency lighting panelboard. Increase generator size to 50 kW minimum to supply the hydraulic elevator.
- Repair/replace exit signs that are not properly supported from the ceiling or are damaged (estimate 10 exit signs).
- Replace a total of (22) pole mounted, metal halide floodlighting luminaires on site lighting poles.
- Replace two (2) exterior video surveillance cameras and provide one (1) additional camera at the dumpster location.

Attributes:

General Attributes:

Active:	Open	Bldg Lot Tm:	Lot 4 / Tm 1
Status:	Accepted by SDP	Team:	Tm 1
Site ID:	S444001		

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.

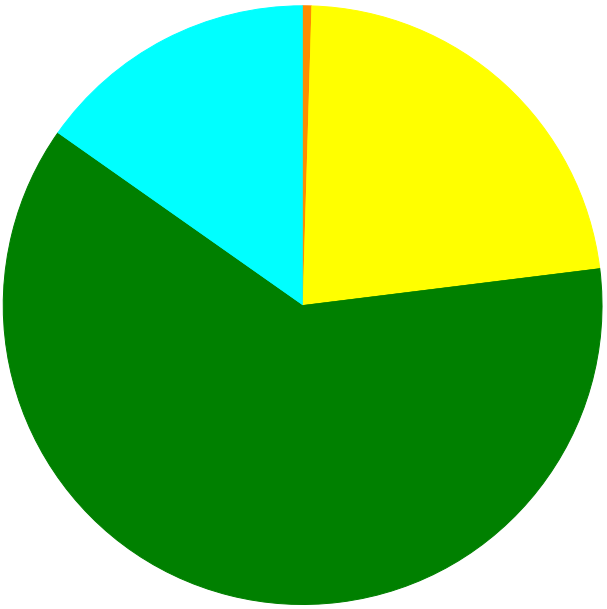
Current Investment Requirement and Condition by Uniformat Classification

UNIFORMAT Classification	RSLI%	FCI %	Current Repair
A10 - Foundations	56.00 %	0.00 %	$0.00
A20 - Basement Construction	56.00 %	0.00 %	$0.00
B10 - Superstructure	56.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	42.62 %	2.07 %	$96,868.42
B30 - Roofing	70.00 %	0.00 %	$0.00
C10 - Interior Construction	44.25 %	6.00 %	$122,502.99
C20 - Stairs	56.00 %	165.54 %	$194,192.22
C30 - Interior Finishes	51.66 %	0.00 %	$0.00
D10 - Conveying	57.14 %	0.00 %	$0.00
D20 - Plumbing	73.25 %	20.80 %	$353,304.94
D30 - HVAC	63.60 %	0.00 %	$0.00
D40 - Fire Protection	92.47 %	177.49 %	$1,190,169.53
D50 - Electrical	82.09 %	30.08 %	$1,470,888.33
E10 - Equipment	82.86 %	0.00 %	$0.00
E20 - Furnishings	12.50 %	185.94 %	$329,498.48
G20 - Site Improvements	19.64 %	4.32 %	$93,872.53
G40 - Site Electrical Utilities	96.64 %	18.38 %	$150,859.82
Totals:	**59.43 %**	**9.04 %**	**$4,002,157.26**

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)
B444001;Allen, Ethel	83,197	9.10	$0.00	$0.00	$884,724.13	$2,337,662.44	$535,038.34
G444001;Grounds	188,700	8.18	$0.00	$18,852.52	$18,382.38	$132,477.44	$75,020.01
Total:		**9.04**	**$0.00**	**$18,852.52**	**$903,106.51**	**$2,470,139.88**	**$610,058.35**

Deficiencies By Priority



Budget Estimate Total: $4,002,157.26

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):	83,197
Year Built:	1971
Last Renovation:	2009
Replacement Value:	$41,291,437
Repair Cost:	$3,757,424.91
Total FCI:	9.10 %
Total RSLI:	60.78 %

Description:

Attributes:

General Attributes:

Active:	Open	Bldg ID:	B444001
Sewage Ejector:	No	Status:	Accepted by SDP
Site ID:	S444001		

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	56.00 %	0.00 %	$0.00
A20 - Basement Construction	56.00 %	0.00 %	$0.00
B10 - Superstructure	56.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	42.62 %	2.07 %	$96,868.42
B30 - Roofing	70.00 %	0.00 %	$0.00
C10 - Interior Construction	44.25 %	6.00 %	$122,502.99
C20 - Stairs	56.00 %	165.54 %	$194,192.22
C30 - Interior Finishes	51.66 %	0.00 %	$0.00
D10 - Conveying	57.14 %	0.00 %	$0.00
D20 - Plumbing	73.25 %	20.80 %	$353,304.94
D30 - HVAC	63.60 %	0.00 %	$0.00
D40 - Fire Protection	92.47 %	177.49 %	$1,190,169.53
D50 - Electrical	82.09 %	30.08 %	$1,470,888.33
E10 - Equipment	82.86 %	0.00 %	$0.00
E20 - Furnishings	12.50 %	185.94 %	$329,498.48
Totals:	**60.78 %**	**9.10 %**	**$3,757,424.91**

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.

Site Assessment Report - B444001;Allen, Ethel

System Code	System Description	Unit Price $	UoM	Qty	Life	Year Installed	Calc Next Renewal Year	Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency $	Replacement Value $
A1010	Standard Foundations	$18.40	S.F.	83,197	100	1971	2071		56.00 %	0.00 %	56			$1,530,825
A1030	Slab on Grade	$7.73	S.F.	83,197	100	1971	2071		56.00 %	0.00 %	56			$643,113
A2010	Basement Excavation	$6.55	S.F.	83,197	100	1971	2071		56.00 %	0.00 %	56			$544,940
A2020	Basement Walls	$12.70	S.F.	83,197	100	1971	2071		56.00 %	0.00 %	56			$1,056,602
B1010	Floor Construction	$75.10	S.F.	83,197	100	1971	2071		56.00 %	0.00 %	56			$6,248,095
B1020	Roof Construction	$13.88	S.F.	42,000	100	1971	2071		56.00 %	0.00 %	56			$582,960
B2010	Exterior Walls	$36.91	S.F.	83,197	100	1971	2071		56.00 %	3.15 %	56		$96,868.42	$3,070,801
B2020	Exterior Windows	$18.01	S.F.	83,197	40	1971	2011	2020	12.50 %	0.00 %	5			$1,498,378
B2030	Exterior Doors	$1.45	S.F.	83,197	25	2009	2034		76.00 %	0.00 %	19			$120,636
B3010105	Built-Up	$37.76	S.F.	42,000	20	2009	2029		70.00 %	0.00 %	14			$1,585,920
B3020	Roof Openings	$0.06	S.F.	83,197	20	2009	2029		70.00 %	0.00 %	14			$4,992
C1010	Partitions	$17.91	S.F.	83,197	100	1971	2071		56.00 %	0.00 %	56			$1,490,058
C1020	Interior Doors	$3.51	S.F.	83,197	40	1971	2011	2020	12.50 %	32.67 %	5		$95,411.74	$292,021
C1030	Fittings	$3.12	S.F.	83,197	40	1971	2011	2020	12.50 %	10.44 %	5		$27,091.25	$259,575
C2010	Stair Construction	$1.41	S.F.	83,197	100	1971	2071		56.00 %	165.54 %	56		$194,192.22	$117,308
C3010230	Paint & Covering	$13.21	S.F.	83,197	10	2010	2020		50.00 %	0.00 %	5			$1,099,032
C3020412	Terrazzo & Tile	$75.52	S.F.	8,197	50	1971	2021		12.00 %	0.00 %	6			$619,037
C3020413	Vinyl Flooring	$9.68	S.F.	65,000	20	2006	2026	2027	60.00 %	0.00 %	12			$629,200
C3020415	Concrete Floor Finishes	$0.97	S.F.	10,000	50	1971	2021		12.00 %	0.00 %	6			$9,700
C3030	Ceiling Finishes	$20.97	S.F.	83,197	25	2006	2031		64.00 %	0.00 %	16			$1,744,641
D1010	Elevators and Lifts	$1.53	S.F.	83,197	35	1971	2006	2035	57.14 %	0.00 %	20			$127,291
D2010	Plumbing Fixtures	$13.52	S.F.	83,197	35	2006	2041		74.29 %	0.00 %	26			$1,124,823
D2020	Domestic Water Distribution	$1.68	S.F.	83,197	25	2005	2030		60.00 %	0.00 %	15			$139,771
D2030	Sanitary Waste	$2.90	S.F.	83,197	25	1971	1996	2042	108.00 %	146.43 %	27		$353,304.94	$241,271
D2040	Rain Water Drainage	$2.32	S.F.	83,197	30	1971	2001	2025	33.33 %	0.00 %	10			$193,017
D3020	Heat Generating Systems	$18.67	S.F.	83,197	35	2015	2050		100.00 %	0.00 %	35			$1,553,288
D3030	Cooling Generating Systems	$24.48	S.F.	83,197	30	2006	2036		70.00 %	0.00 %	21			$2,036,663
D3040	Distribution Systems	$42.99	S.F.	83,197	25	2006	2031		64.00 %	0.00 %	16			$3,576,639
D3050	Terminal & Package Units	$11.60	S.F.	83,197	20				0.00 %	0.00 %				$965,085
D3060	Controls & Instrumentation	$13.50	S.F.	83,197	20	2006	2026		55.00 %	0.00 %	11			$1,123,160
D4010	Sprinklers	$7.05	S.F.	83,197	35			2052	105.71 %	202.91 %	37		$1,190,169.53	$586,539
D4020	Standpipes	$1.01	S.F.	83,197	35				0.00 %	0.00 %				$84,029
D5010	Electrical Service/Distribution	$9.70	S.F.	83,197	30	1971	2001	2047	106.67 %	132.04 %	32		$1,065,562.83	$807,011
D5020	Lighting and Branch Wiring	$34.68	S.F.	83,197	20	1971	1991	2030	75.00 %	8.55 %	15		$246,562.63	$2,885,272
D5030	Communications and Security	$12.99	S.F.	83,197	15	1971	1986	2027	80.00 %	5.76 %	12		$62,274.24	$1,080,729
D5090	Other Electrical Systems	$1.41	S.F.	83,197	30	1971	2001	2047	106.67 %	82.25 %	32		$96,488.63	$117,308
E1020	Institutional Equipment	$4.82	S.F.	83,197	35	2009	2044		82.86 %	0.00 %	29			$401,010
E1090	Other Equipment	$11.10	S.F.	83,197	35	2009	2044		82.86 %	0.00 %	29			$923,487
E2010	Fixed Furnishings	$2.13	S.F.	83,197	40	1971	2011	2020	12.50 %	185.94 %	5		$329,498.48	$177,210
								Total	**60.78 %**	**9.10 %**			**$3,757,424.91**	**$41,291,437**

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:	Painted CMU 95% Brick 5%	
System:	C3020 - Floor Finishes	This system contains no images
Note:	Terrazzo and Tile 10% Vinyl 78% Concrete 12%	
System:	D5010 - Electrical Service/Distribution	This system contains no images
Note:	There is one (1) unit substation transformer and no secondary transformers.	

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:	**$3,757,425**	**$0**	**$0**	**$0**	**$0**	**$4,241,597**	**$825,820**	**$0**	**$0**	**$0**	**$285,339**	**$9,110,181**
*** 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	$96,868	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$96,868**
B2020 - Exterior Windows	$0	$0	$0	$0	$0	$1,910,734	$0	$0	$0	$0	$0	**$1,910,734**
B2030 - Exterior Doors	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B30 - Roofing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3010 - Roof Coverings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3010105 - Built-Up	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3020 - Roof Openings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C - Interiors	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C10 - Interior Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C1010 - Partitions	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C1020 - Interior Doors	$95,412	$0	$0	$0	$0	$372,387	$0	$0	$0	$0	$0	**$467,798**
C1030 - Fittings	$27,091	$0	$0	$0	$0	$331,010	$0	$0	$0	$0	$0	**$358,101**
C20 - Stairs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

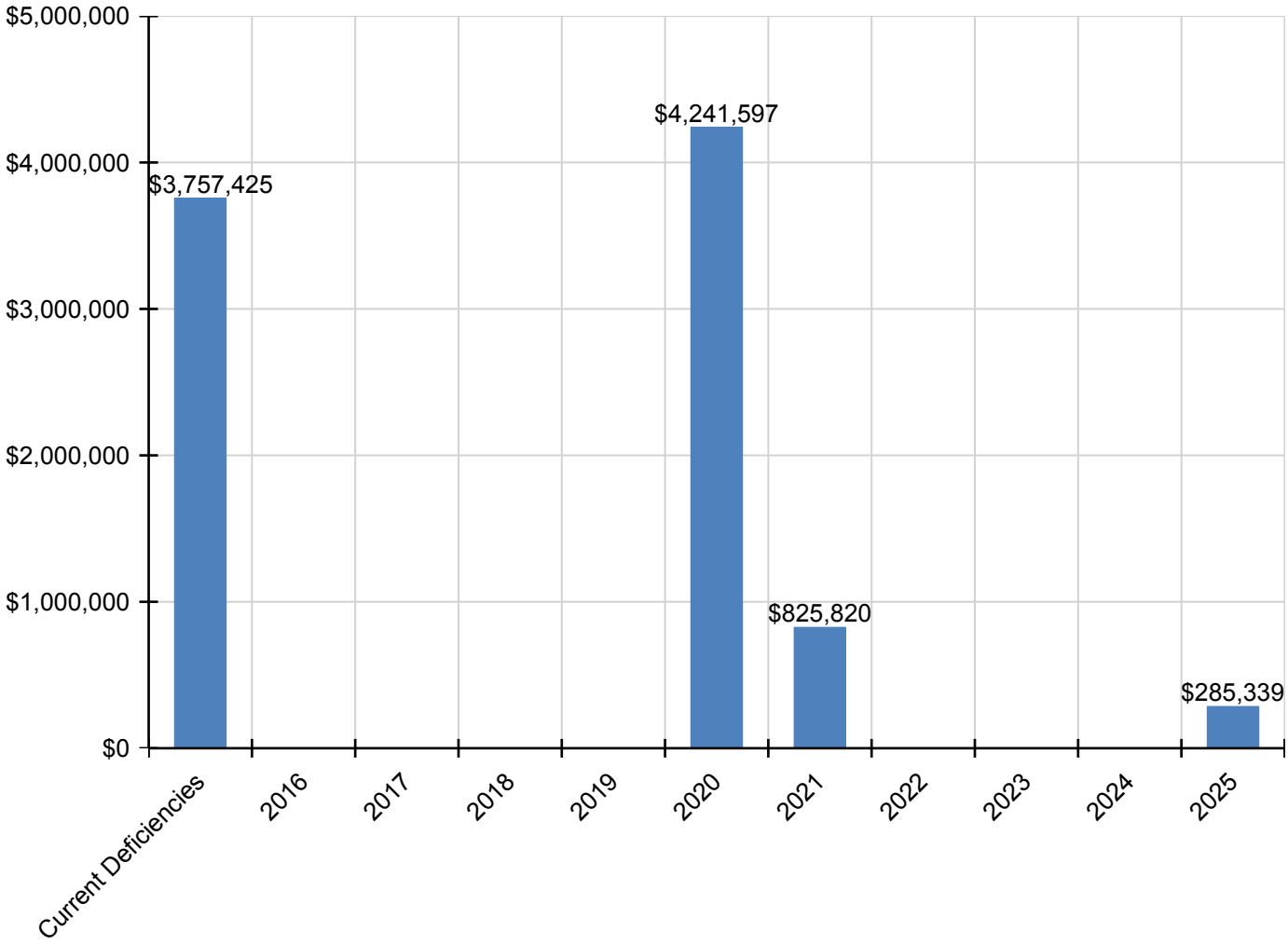
C2010 - Stair Construction	$194,192	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$194,192**
C30 - Interior Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010 - Wall Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010230 - Paint & Covering	$0	$0	$0	$0	$0	$1,401,488	$0	$0	$0	$0	$0	**$1,401,488**
C3020 - Floor Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020412 - Terrazzo & Tile	$0	$0	$0	$0	$0	$0	$813,079	$0	$0	$0	$0	**$813,079**
C3020413 - Vinyl Flooring	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020415 - Concrete Floor Finishes	$0	$0	$0	$0	$0	$0	$12,741	$0	$0	$0	$0	**$12,741**
C3030 - Ceiling Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D - Services	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D10 - Conveying	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D1010 - Elevators and Lifts	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D20 - Plumbing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2010 - Plumbing Fixtures	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2020 - Domestic Water Distribution	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2030 - Sanitary Waste	$353,305	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$353,305**
D2040 - Rain Water Drainage	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$285,339	**$285,339**
D30 - HVAC	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3020 - Heat Generating Systems	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3030 - Cooling Generating Systems	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3040 - Distribution Systems	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3050 - Terminal & Package Units	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3060 - Controls & Instrumentation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D40 - Fire Protection	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D4010 - Sprinklers	$1,190,170	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,190,170**
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	$1,065,563	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,065,563**
D5020 - Lighting and Branch Wiring	$246,563	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$246,563**
D5030 - Communications and Security	$62,274	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$62,274**
D5090 - Other Electrical Systems	$96,489	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$96,489**
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	$329,498	$0	$0	$0	$0	$225,978	$0	$0	$0	$0	$0	**$555,477**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

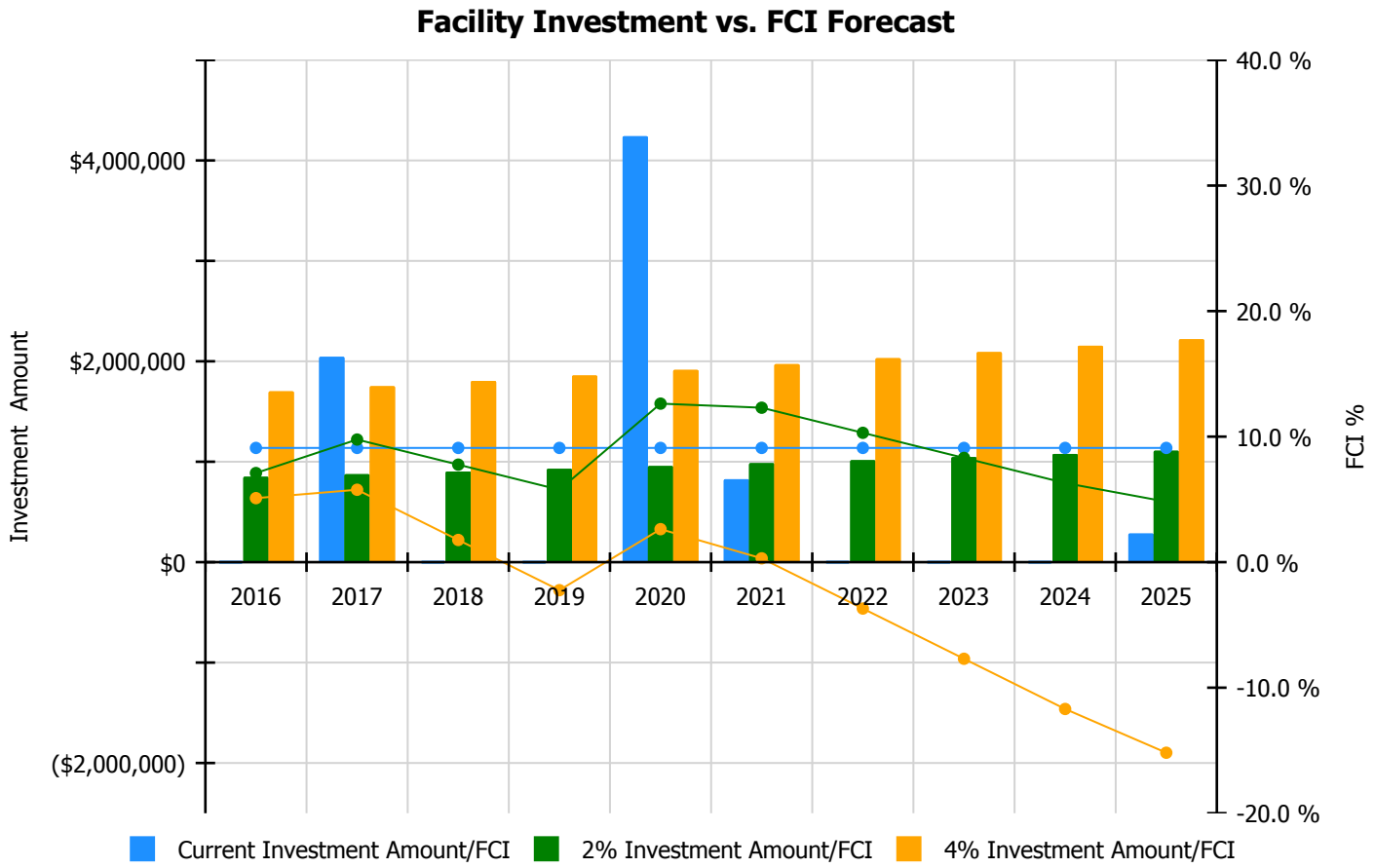
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



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:

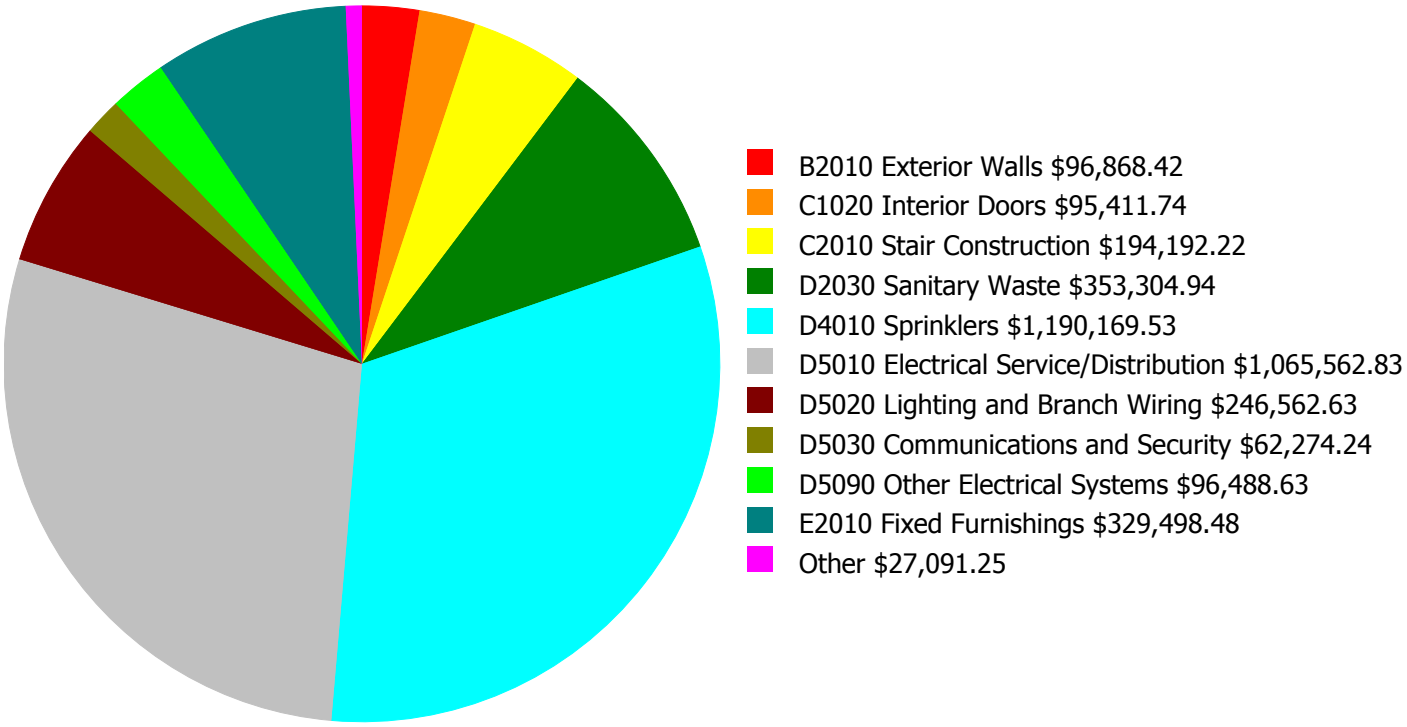
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 9.1%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$850,604.00	7.10 %	$1,701,207.00	5.10 %
2017	$2,044,717	$876,122.00	9.77 %	$1,752,243.00	5.77 %
2018	$0	$902,405.00	7.77 %	$1,804,811.00	1.77 %
2019	$0	$929,478.00	5.77 %	$1,858,955.00	-2.23 %
2020	$4,241,597	$957,362.00	12.63 %	$1,914,724.00	2.63 %
2021	$825,820	$986,083.00	12.30 %	$1,972,165.00	0.30 %
2022	$0	$1,015,665.00	10.30 %	$2,031,330.00	-3.70 %
2023	$0	$1,046,135.00	8.30 %	$2,092,270.00	-7.70 %
2024	$0	$1,077,519.00	6.30 %	$2,155,038.00	-11.70 %
2025	$285,339	$1,109,845.00	4.82 %	$2,219,690.00	-15.18 %
Total:	**$7,397,473**	**$9,751,218.00**		**$19,502,433.00**	

Deficiency Summary by System

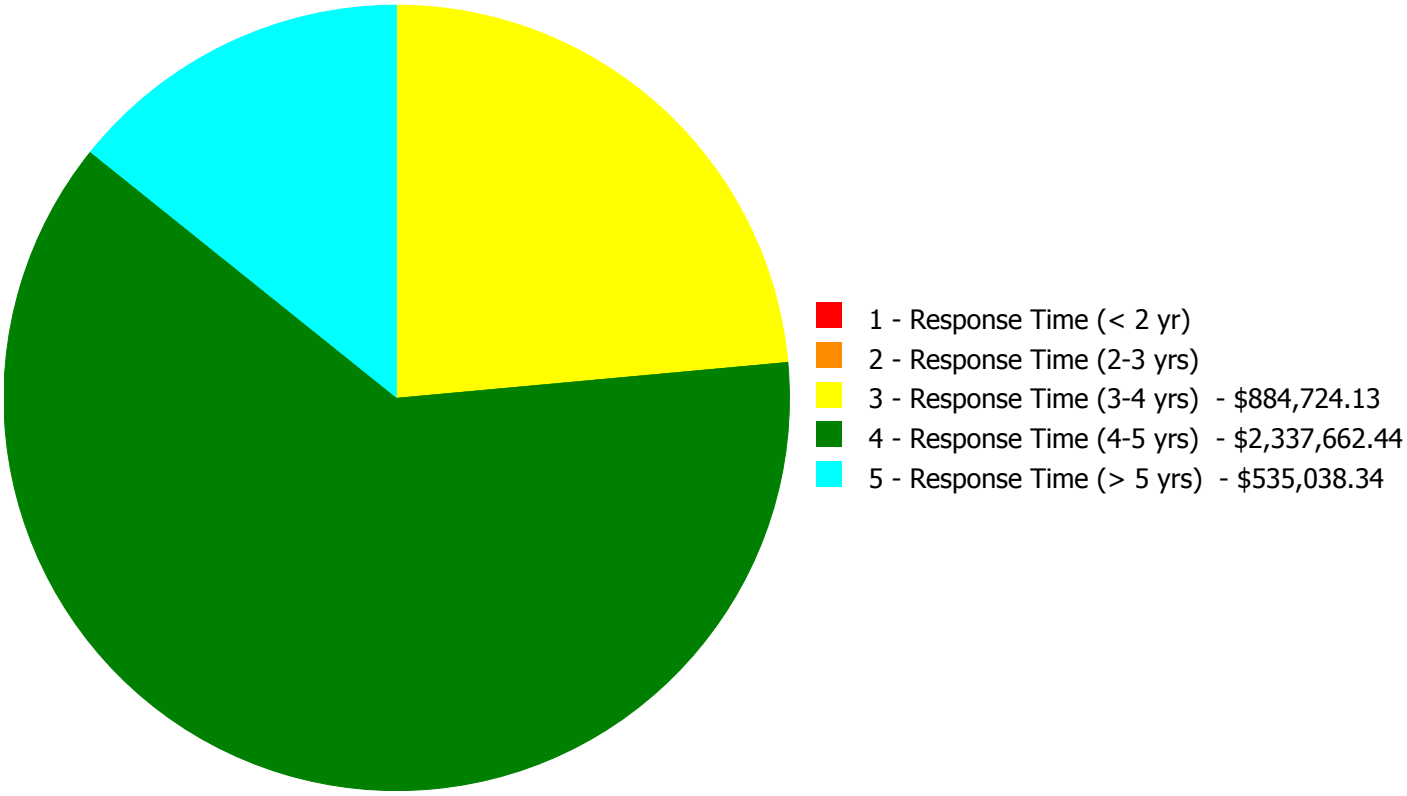
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $3,757,424.91

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: $3,757,424.91

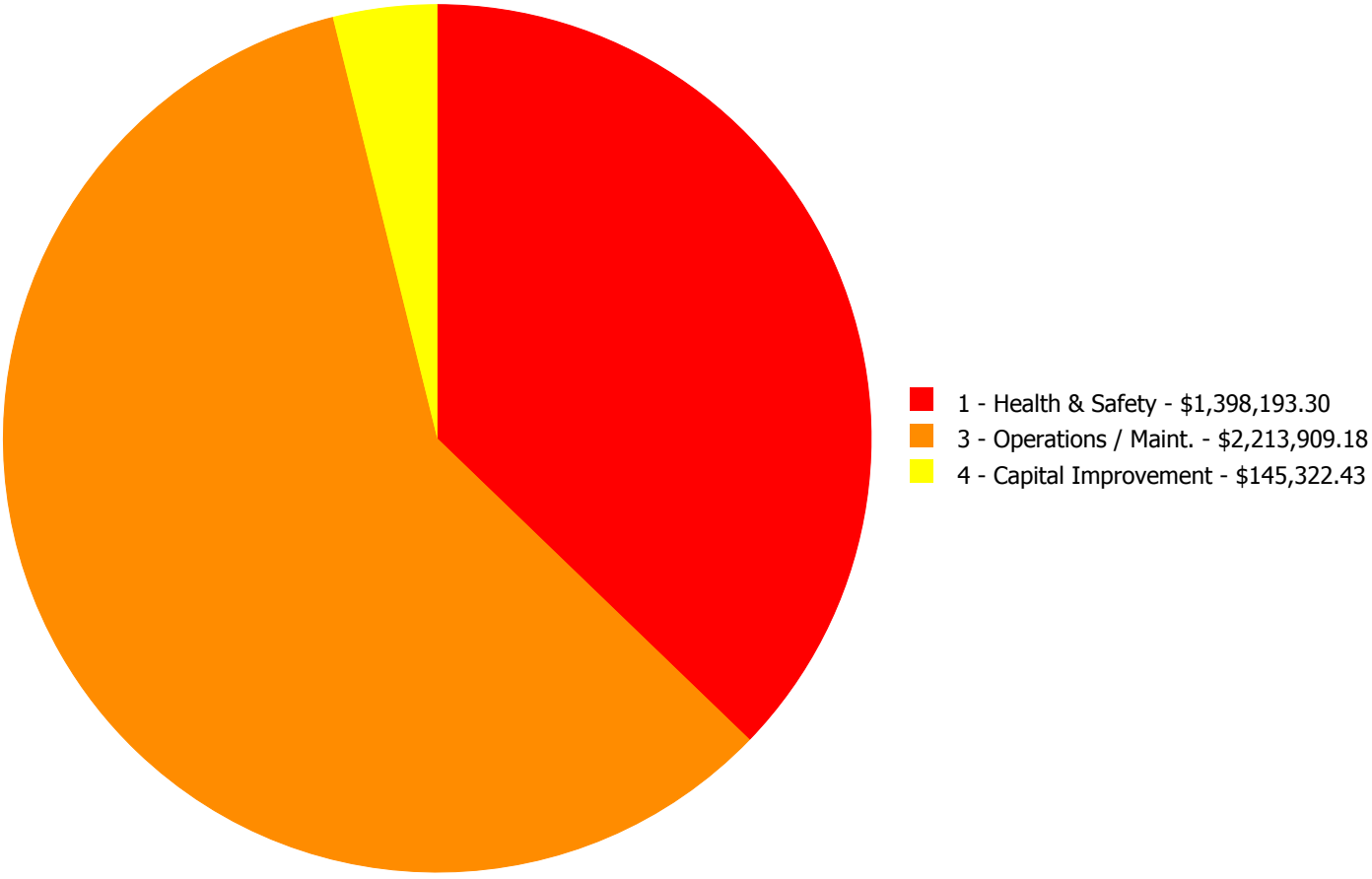
Deficiency By Priority Investment Table

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
B2010	Exterior Walls	$0.00	$0.00	$0.00	$0.00	$96,868.42	$96,868.42
C1020	Interior Doors	$0.00	$0.00	$0.00	$0.00	$95,411.74	$95,411.74
C1030	Fittings	$0.00	$0.00	$0.00	$0.00	$27,091.25	$27,091.25
C2010	Stair Construction	$0.00	$0.00	$194,192.22	$0.00	$0.00	$194,192.22
D2030	Sanitary Waste	$0.00	$0.00	$0.00	$353,304.94	$0.00	$353,304.94
D4010	Sprinklers	$0.00	$0.00	$0.00	$1,190,169.53	$0.00	$1,190,169.53
D5010	Electrical Service/Distribution	$0.00	$0.00	$483,499.01	$582,063.82	$0.00	$1,065,562.83
D5020	Lighting and Branch Wiring	$0.00	$0.00	$34,438.48	$212,124.15	$0.00	$246,562.63
D5030	Communications and Security	$0.00	$0.00	$62,274.24	$0.00	$0.00	$62,274.24
D5090	Other Electrical Systems	$0.00	$0.00	$96,488.63	$0.00	$0.00	$96,488.63
E2010	Fixed Furnishings	$0.00	$0.00	$13,831.55	$0.00	$315,666.93	$329,498.48
	Total:	$0.00	$0.00	$884,724.13	$2,337,662.44	$535,038.34	$3,757,424.91

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: $3,757,424.91

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: C2010 - Stair Construction

Location: Stiars

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

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

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

Qty: 1,150.00

Unit of Measure: L.F.

Estimate: $194,192.22

Assessor Name: Hayden Collins

Date Created: 02/02/2016

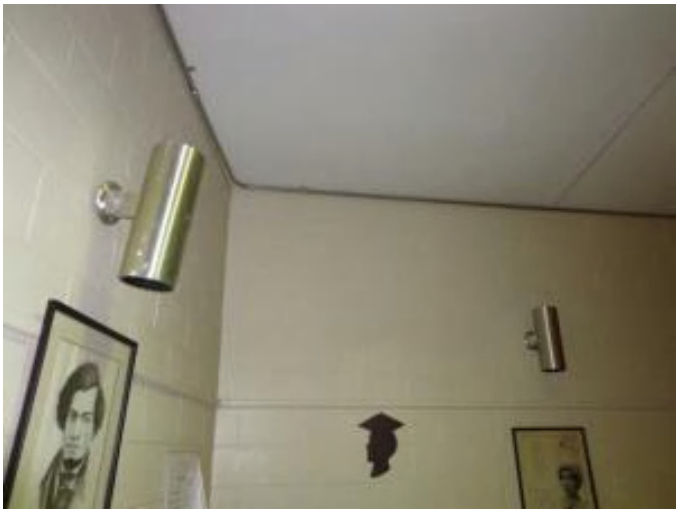
Notes: Current requirements for stairs indicate that they have graspable handrails on both sides, that the rails have a specific end geometry, and that the handrails continue horizontally at the landings. In addition, guardrails must prevent the passage of a 4 inch diameter sphere (6 inches in the triangle formed by the lower rail and tread/riser angle). Although the stairs are compliant with the code enforced at the time of construction until a major renovation occurs, they are deficient in handrail and guardrail design relative to current standards. Future efforts should include comprehensive stair railing removal and replacement upgrades.

System: D5010 - Electrical Service/Distribution

Location: Electrical Room 001B
Distress: Building / MEP Codes
Category: 3 - Operations / Maint.
Priority: 3 - Response Time (3-4 yrs)
Correction: Replace unit substation
Qty: 1.00
Unit of Measure: Ea.
Estimate: $483,499.01
Assessor Name: Hayden Collins
Date Created: 01/18/2016

Notes: Replace the 500 kVA, 1600A, 208/120V, 3 phase, 4 wire substation.

System: D5020 - Lighting and Branch Wiring



Location: Auditorium
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 3 - Response Time (3-4 yrs)
Correction: Replace lighting fixtures
Qty: 22.00
Unit of Measure: Ea.
Estimate: $34,438.48
Assessor Name: Hayden Collins
Date Created: 01/18/2016

Notes: Replace (22) 250W recessed mercury vapor downlights in the auditorium with LED downlights. Replace lamps in eight (8) incandescent wall mounted cylinders with up and down lighting with LED lamps.

System: D5030 - Communications and Security

Location: Building wide

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Add/Replace Video Surveillance System

Qty: 18.00

Unit of Measure: Ea.

Estimate: $62,274.24

Assessor Name: Hayden Collins

Date Created: 01/18/2016

Notes: Replace video surveillance system equipment, including 14 interior cameras, two (2) monitors and one (1) digital video recorder (DVR). Add a second DVR.

System: D5090 - Other Electrical Systems

Location: Boiler Room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace standby generator system

Qty: 1.00

Unit of Measure: Ea.

Estimate: $88,010.44

Assessor Name: Hayden Collins

Date Created: 01/18/2016

Notes: Replace 15 kW standby generator, automatic transfer switch (ATS) and emergency lighting panelboard. Increase generator size to 50 kW minimum to supply the hydraulic elevator.

System: D5090 - Other Electrical Systems

Location: Corridors

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Replace Emergency/Exit Lighting

Qty: 10.00

Unit of Measure: Ea.

Estimate: $8,478.19

Assessor Name: Hayden Collins

Date Created: 01/18/2016

Notes: Repair/replace exit signs that are not properly supported from the ceiling or are damaged (estimate 10 exit signs).

System: E2010 - Fixed Furnishings

Location: Stage

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

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

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

Qty: 1.00

Unit of Measure: Ea.

Estimate: $13,831.55

Assessor Name: Hayden Collins

Date Created: 02/02/2016

Notes: The school stage has a stage curtain assembly that appears to be from the original construction. Modern applications are typically fire-proof applications with adjustable tracks and electric support for operation. The curtains are torn in a few section and the track is not functioning properly, overall the system is in poor condition. It is recommended that the curtain and track system be upgraded to a new system. Special care should be considered in regards to modern fire proofing for the new installation

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

System: D2030 - Sanitary Waste

Location: entire building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Inspect sanitary waste piping and replace damaged sections. (+100KSF)

Qty: 83,197.00

Unit of Measure: S.F.

Estimate: $353,304.94

Assessor Name: Hayden Collins

Date Created: 02/02/2016

Notes: Inspect old cast iron sanitary piping including camera observation and replace damaged sections.

System: D4010 - Sprinklers

Location: entire building

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

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

Correction: Install a fire protection sprinkler system

Qty: 83,197.00

Unit of Measure: S.F.

Estimate: $1,190,169.53

Assessor Name: Hayden Collins

Date Created: 02/02/2016

Notes: Install NFPA wet pipe automatic sprinkler system in entire building, including fire service, piping sprinkler heads, standpipes and fire pump if required.

System: D5010 - Electrical Service/Distribution

Location: Building wide

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace Panelboard

Qty: 10.00

Unit of Measure: Ea.

Estimate: $582,063.82

Assessor Name: Hayden Collins

Date Created: 01/18/2016

Notes: Replace the 800A, 208/120V, 3 phase, three section motor control center located in the chiller room and nine (9) panelboards located throughout the building.

System: D5020 - Lighting and Branch Wiring

Location: Classrooms

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Provide surface raceway system and wiring devices

Qty: 930.00

Unit of Measure: L.F.

Estimate: $124,999.02

Assessor Name: Hayden Collins

Date Created: 01/18/2016

Notes: Provide surface metal raceway system with 4 to 6 duplex receptacles in each of 31 classrooms. This deficiency includes a budgetary allowance for replacement 20 duplex receptacles because of their age/condition.

System: D5020 - Lighting and Branch Wiring

Location: Gymnasium

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace lighting fixtures

Qty: 16.00

Unit of Measure: Ea.

Estimate: $55,966.52

Assessor Name: Hayden Collins

Date Created: 01/18/2016

Notes: Replace (16) mercury vapor lighting fixtures in the gymnasium with LED industrial fixtures.

System: D5020 - Lighting and Branch Wiring

Location: Roof

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Add Exterior Lighting

Qty: 1.00

Unit of Measure: Ea.

Estimate: $20,323.41

Assessor Name: Hayden Collins

Date Created: 01/18/2016

Notes: Provide budgetary allowance add lighting on the roof at the access door and at HVAC equipment for personnel safety and to service/maintain equipment.

System: D5020 - Lighting and Branch Wiring

Location: Various locations

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace lighting fixtures

Qty: 15.00

Unit of Measure: Ea.

Estimate: $10,835.20

Assessor Name: Hayden Collins

Date Created: 01/18/2016

Notes: Provide budgetary allowance for replacement of fluorescent lighting fixtures with T12 lamps in storage rooms, coat room, wall mounted uplighting fixtures in the IMC and a few other locations (estimate 15 fixtures).

Priority 5 - Response Time (> 5 yrs):

System: B2010 - Exterior Walls

Location: Exterior Elevation

Distress: Damaged

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Repair cracks in masonry - replace missing mortar and repoint - SF of wall area

Qty: 3,000.00

Unit of Measure: S.F.

Estimate: $96,868.42

Assessor Name: Hayden Collins

Date Created: 02/02/2016

Notes: The exterior brick surfaces are generally in good condition for their age. In a few locations, bricks have cracked or spalled and should be replaced. The repointing of deteriorated mortar joints is also recommended, using mortar of a similar color and consistency as the original. Following the detailed examination of the brick and repair of mortar construction joints, the entire building should be pressure washed to remove stains and embedded pollutants. If moisture is found to be penetrating the masonry facade, the application of a spray sealant to the suspected exterior masonry surface is recommended.

System: C1020 - Interior Doors

Location: Building Wide

Distress: Damaged

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 20.00

Unit of Measure: Ea.

Estimate: $95,411.74

Assessor Name: Hayden Collins

Date Created: 02/02/2016

Notes: Interior doors are typically wood in wood frames with wooden transom and wired glass glazing. Other interior doors include hollow metal in hollow metal frames at the stairwells and exit ways and access doors. Doors are generally in fair condition and is a mix of ADA compliant and non-complaint doors with both non-rated and fire rated. Several of the classroom doors are aging at a faster than normal rate for this application. Numerous repairs to locksets and door hardware have advanced the deterioration of the doors. This deficiency provides a budgetary consideration to replace a portion of the interior doors and frames with consideration for the physically challenged.

System: C1030 - Fittings

Location: Building Wide

Distress: Damaged

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 100.00

Unit of Measure: Ea.

Estimate: $27,091.25

Assessor Name: Hayden Collins

Date Created: 02/02/2016

Notes: There is no directional signage and room signage is a custom design in places and scarce or painted with no consistency in others. Accessibility signage criteria have been established for the physically challenged. These include mounting heights, contrast and finish, raised and Braille characters and pictograms, and character proportions and heights. It is recommended that compliant signage be installed throughout the building.

System: E2010 - Fixed Furnishings

Location: Auditorium

Distress: Damaged

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Replace auditorium seating - add tablet arms if required. Veneer seating is an option.

Qty: 350.00

Unit of Measure: Ea.

Estimate: $315,666.93

Assessor Name: Hayden Collins

Date Created: 02/02/2016

Notes: The fixed seating for this school is from the original construction. The systems are in fair condition considering the age and usage. This project provides a budgetary consideration for universal upgrades for the fixed seating and furnishing of this school. Ensure that ADA requirements are followed with the new seating layout.

Equipment Inventory

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

Subsystem	Inventory	Qty	UoM	Location	Manufacturer	Model Number	Serial Number	Barcode	Life	Install Date	Next Renewal	Raw Cost	Inventory Cost
D1010 Elevators and Lifts	Elevators/Lifts, residential, wheelchair lift, max	1.00	Ea.	Auditorium Lift	Kinnear	NA	0-23-0772-03		35			$23,653.40	$26,018.74
D1010 Elevators and Lifts	Hydraulic, passenger elevator, 1500 lb, 2 floors, 100 FPM	1.00	Ea.	Elevator Machine Room 007	Elevator Control	H-900	13563		30			$68,985.00	$75,883.50
D2020 Domestic Water Distribution	Pump, pressure booster system, 5 HP pump, includes diaphragm tank, control and pressure switch	1.00	Ea.	mechanaical room	Tornatech				25	2006	2031	$10,972.50	$12,069.75
D3020 Heat Generating Systems	Boiler, gas fired, natural or propane, cast iron, hot water, gross output, 3808 MBH, includes standard controls and insulated jacket, packaged	1.00	Ea.	mechanical room	buderus	logano 615	63130080520 20023		35	2015	2050	$62,552.00	$68,807.20
D3020 Heat Generating Systems	Boiler, gas fired, natural or propane, cast iron, hot water, gross output, 3808 MBH, includes standard controls and insulated jacket, packaged	1.00	Ea.	mechanical room	buderus	logano 615	63130080520 20024		35	2015	2050	$62,552.00	$68,807.20
D3040 Distribution Systems	Pump, circulating, cast iron, base mounted, coupling guard, bronze impeller, flanged joints, 15 H.P., to 1000 GPM, 5" size	2.00	Ea.	mechanical room	b&g	1510			25	2006	2031	$21,432.00	$47,150.40
D3040 Distribution Systems	Pump, circulating, cast iron, base mounted, coupling guard, bronze impeller, flanged joints, 15 H.P., to 1000 GPM, 5" size	1.00	Ea.	mechanical room	b&g	1510			25	2006	2031	$21,432.00	$23,575.20
D5010 Electrical Service/Distribution	Load interrupter switch, 2 position, 400 kVA & above, 13.8 kV, 600 amp w/CLF fuses, NEMA 1	1.00	Ea.	Electrical Room 001B	Zinsco Electrical Products	Type LI	Cat. No. 2651 D 1595		30			$42,849.00	$47,133.90
D5010 Electrical Service/Distribution	Motor control center, starters, class 1, type B, combination MCP, FVNR, with control XFMR, size 2, 25 HP, 18" high, incl starters & structures	31.00	Ea.	Boiler Room 001	General Electric	NA			30			$3,073.95	$104,821.70
D5010 Electrical Service/Distribution	Switchgear installation, incl switchboard, panels & circuit breaker, 120/208 V, 1600 A	1.00	Ea.	Electrical Room 001B	Zinsco Electrical Products	NA	NA		30			$40,458.15	$44,503.97
D5010 Electrical Service/Distribution	Switchgear installation, incl switchboard, panels & circuit breaker, 277/480 V, 800 A	1.00	Ea.	Electrical Room 001B	Siemens	Type SB Rev.-A	S.O. 86-30977-B00010		30	2006	2036	$31,205.25	$34,325.78
D5010 Electrical Service/Distribution	Transformer, dry-type, 3 phase 15 kV primary 277/480 volt secondary, 500 kVA	1.00	Ea.	Electrical Room 001B	Olsun Electrics Corp.	NA	A61827 12		30			$74,520.00	$81,972.00
												Total:	**$635,069.34**

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):	188,700
Year Built:	1971
Last Renovation:	
Replacement Value:	$2,993,235
Repair Cost:	$244,732.35
Total FCI:	8.18 %
Total RSLI:	40.75 %

Description:

Attributes:

General Attributes:

Bldg ID:	S444001	Site ID:	S444001

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	19.64 %	4.32 %	$93,872.53
G40 - Site Electrical Utilities	96.64 %	18.38 %	$150,859.82
Totals:	**40.75 %**	**8.18 %**	**$244,732.35**

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.	7,000	30	1990	2020		16.67 %	0.00 %	5			$80,640
G2020	Parking Lots	$7.65	S.F.	28,200	30	1990	2020		16.67 %	0.00 %	5			$215,730
G2030	Pedestrian Paving	$11.52	S.F.	57,700	40	1971	2011	2020	12.50 %	0.00 %	5			$664,704
G2040	Site Development	$4.36	S.F.	188,700	25	1971	1996	2020	20.00 %	2.29 %	5		$18,852.52	$822,732
G2050	Landscaping & Irrigation	$3.78	S.F.	102,800	15	1971	1986	2020	33.33 %	19.31 %	5		$75,020.01	$388,584
G4020	Site Lighting	$3.58	S.F.	188,700	30	1971	2001	2047	106.67 %	19.61 %	32		$132,477.44	$675,546
G4030	Site Communications & Security	$0.77	S.F.	188,700	30	1971	2001	2030	50.00 %	12.65 %	15		$18,382.38	$145,299
								Total	**40.75 %**	**8.18 %**			**$244,732.35**	**$2,993,235**

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.

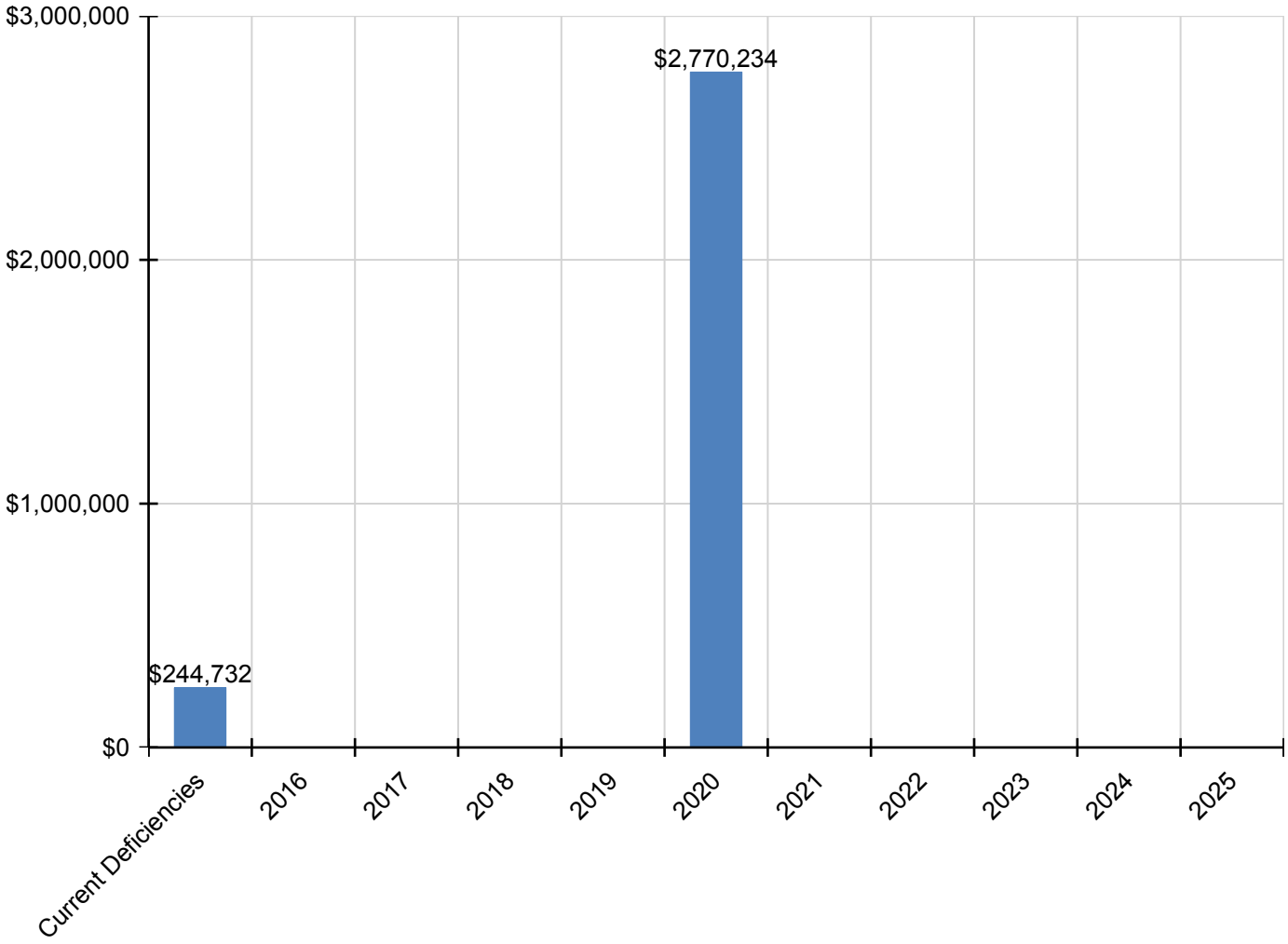
Inflation Rate: 3%

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Total:	**$244,732**	**$0**	**$0**	**$0**	**$0**	**$2,770,234**	**$0**	**$0**	**$0**	**$0**	**$0**	**$3,014,966**
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	$102,832	$0	$0	$0	$0	$0	**$102,832**
G2020 - Parking Lots	$0	$0	$0	$0	$0	$275,099	$0	$0	$0	$0	$0	**$275,099**
G2030 - Pedestrian Paving	$0	$0	$0	$0	$0	$847,631	$0	$0	$0	$0	$0	**$847,631**
G2040 - Site Development	$18,853	$0	$0	$0	$0	$1,049,149	$0	$0	$0	$0	$0	**$1,068,001**
G2050 - Landscaping & Irrigation	$75,020	$0	$0	$0	$0	$495,522	$0	$0	$0	$0	$0	**$570,542**
G40 - Site Electrical Utilities	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G4020 - Site Lighting	$132,477	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$132,477**
G4030 - Site Communications & Security	$18,382	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$18,382**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

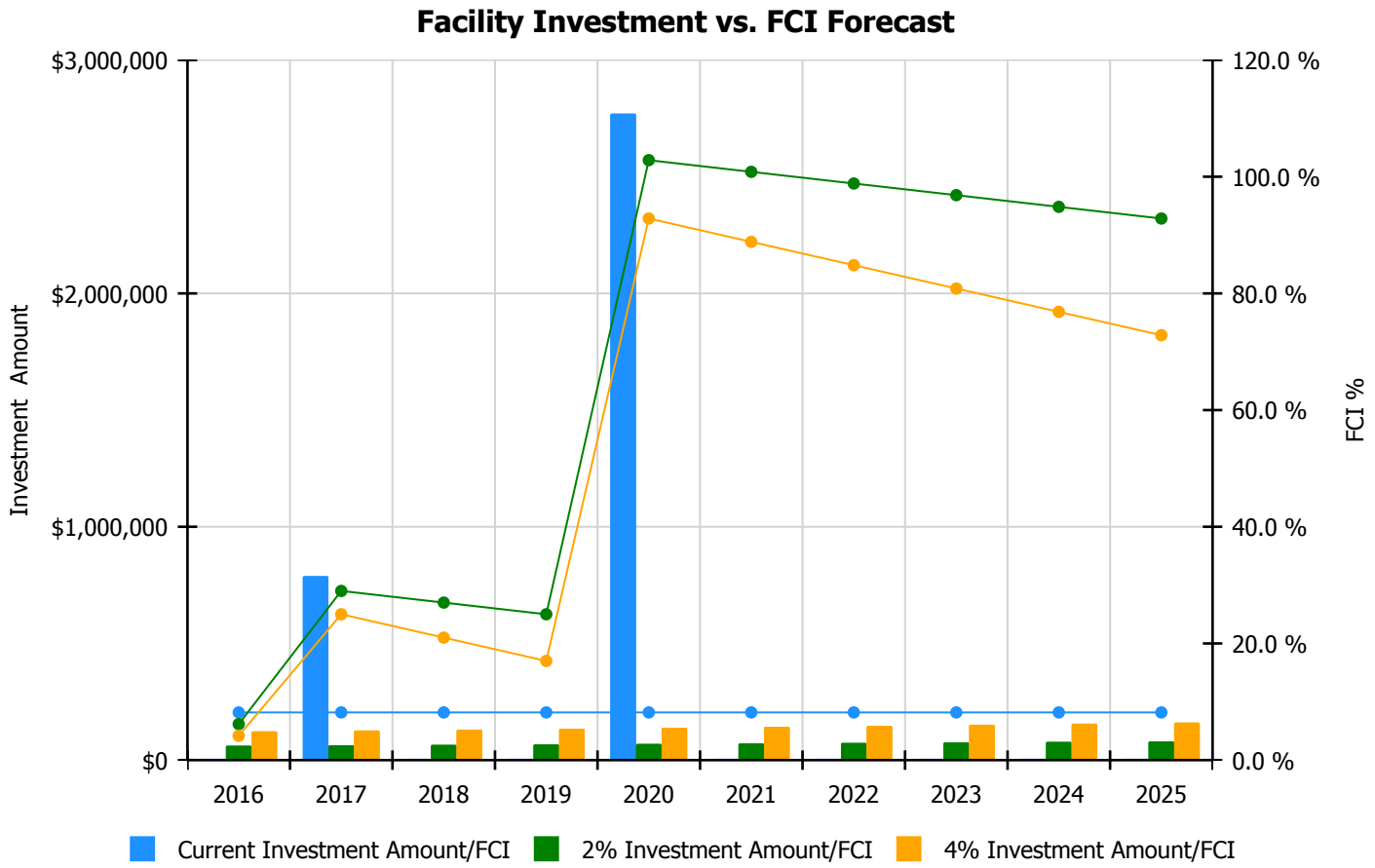
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



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:

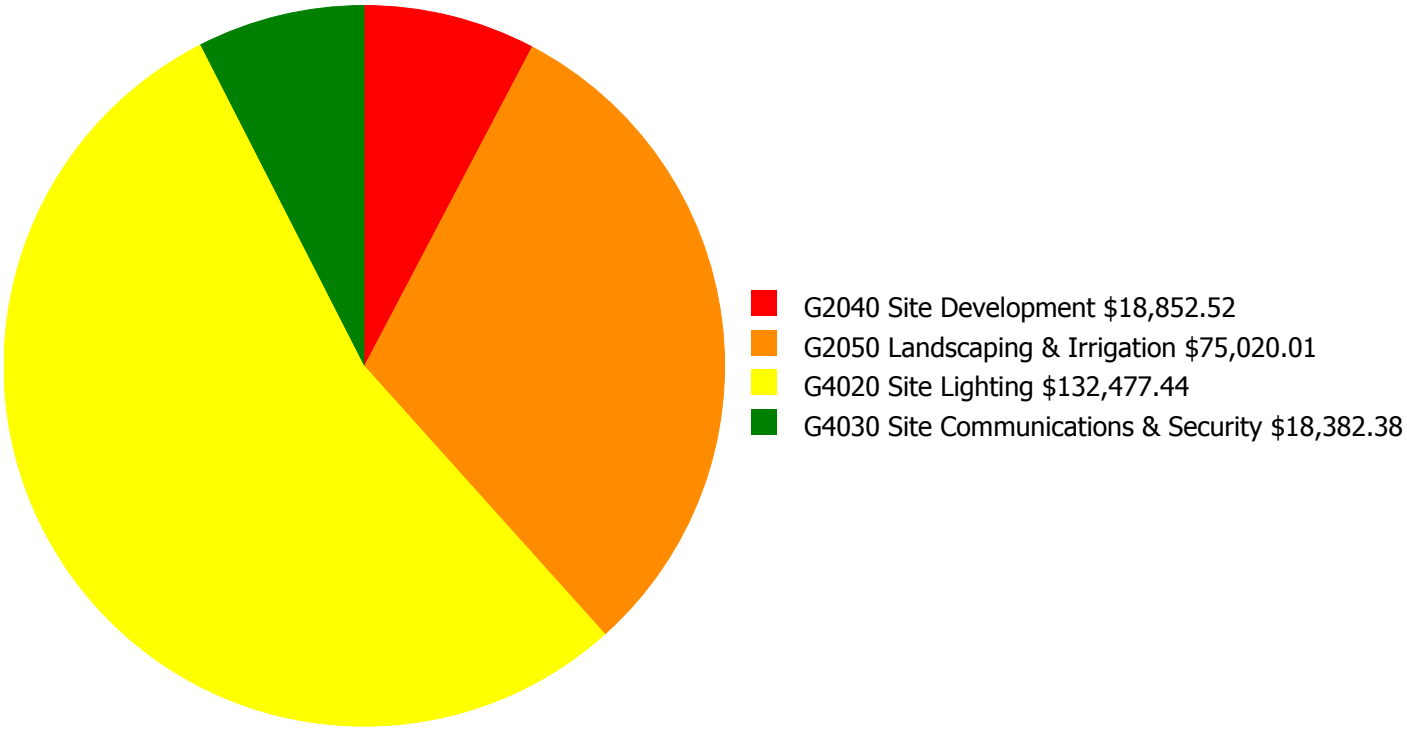
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 8.18%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$61,661.00	6.18 %	$123,321.00	4.18 %
2017	$788,356	$63,510.00	29.00 %	$127,021.00	25.00 %
2018	$0	$65,416.00	27.00 %	$130,832.00	21.00 %
2019	$0	$67,378.00	25.00 %	$134,756.00	17.00 %
2020	$2,770,234	$69,400.00	102.84 %	$138,799.00	92.84 %
2021	$0	$71,482.00	100.84 %	$142,963.00	88.84 %
2022	$0	$73,626.00	98.84 %	$147,252.00	84.84 %
2023	$0	$75,835.00	96.84 %	$151,670.00	80.84 %
2024	$0	$78,110.00	94.84 %	$156,220.00	76.84 %
2025	$0	$80,453.00	92.84 %	$160,906.00	72.84 %
Total:	**$3,558,590**	**$706,871.00**		**$1,413,740.00**	

Deficiency Summary by System

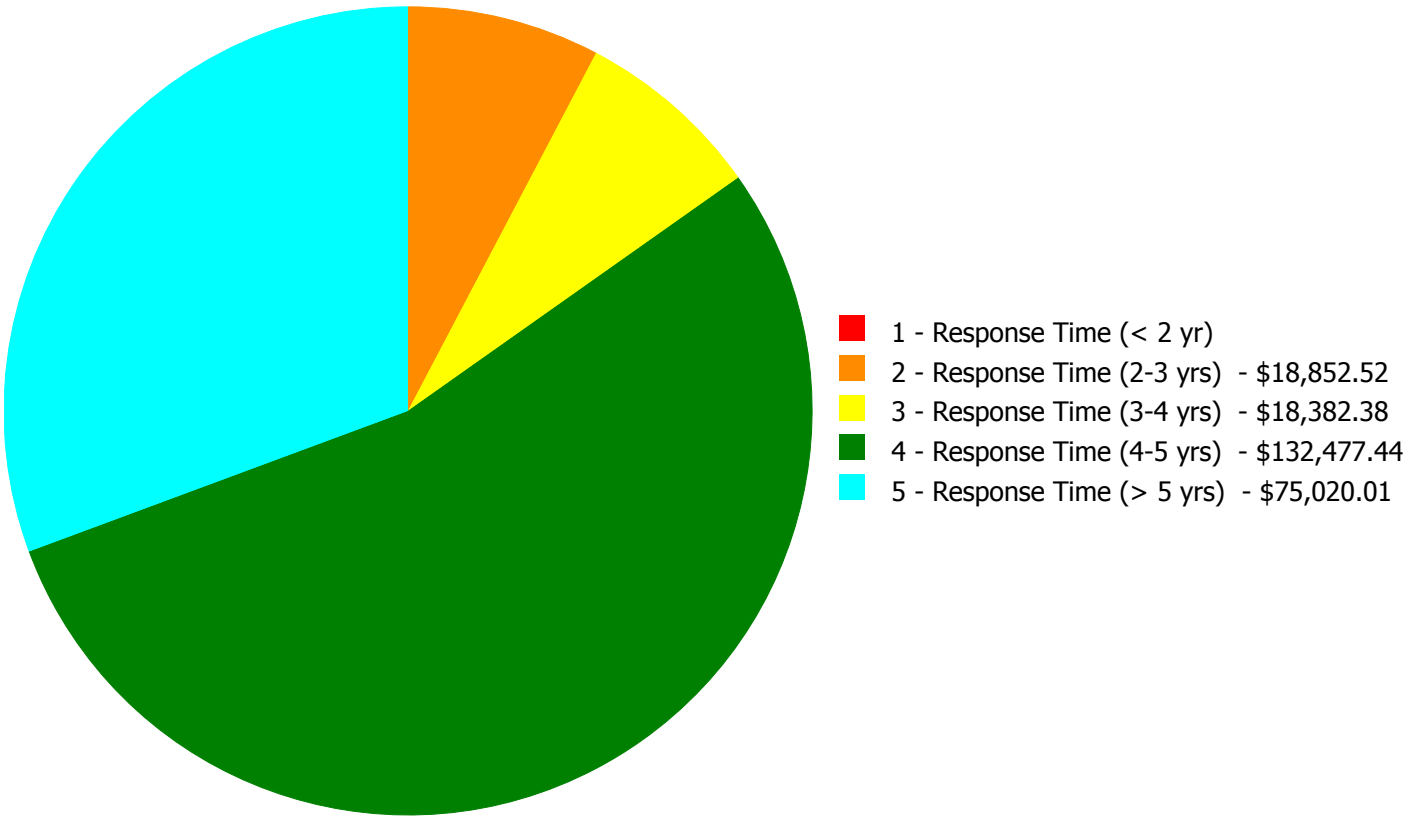
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $244,732.35

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: $244,732.35

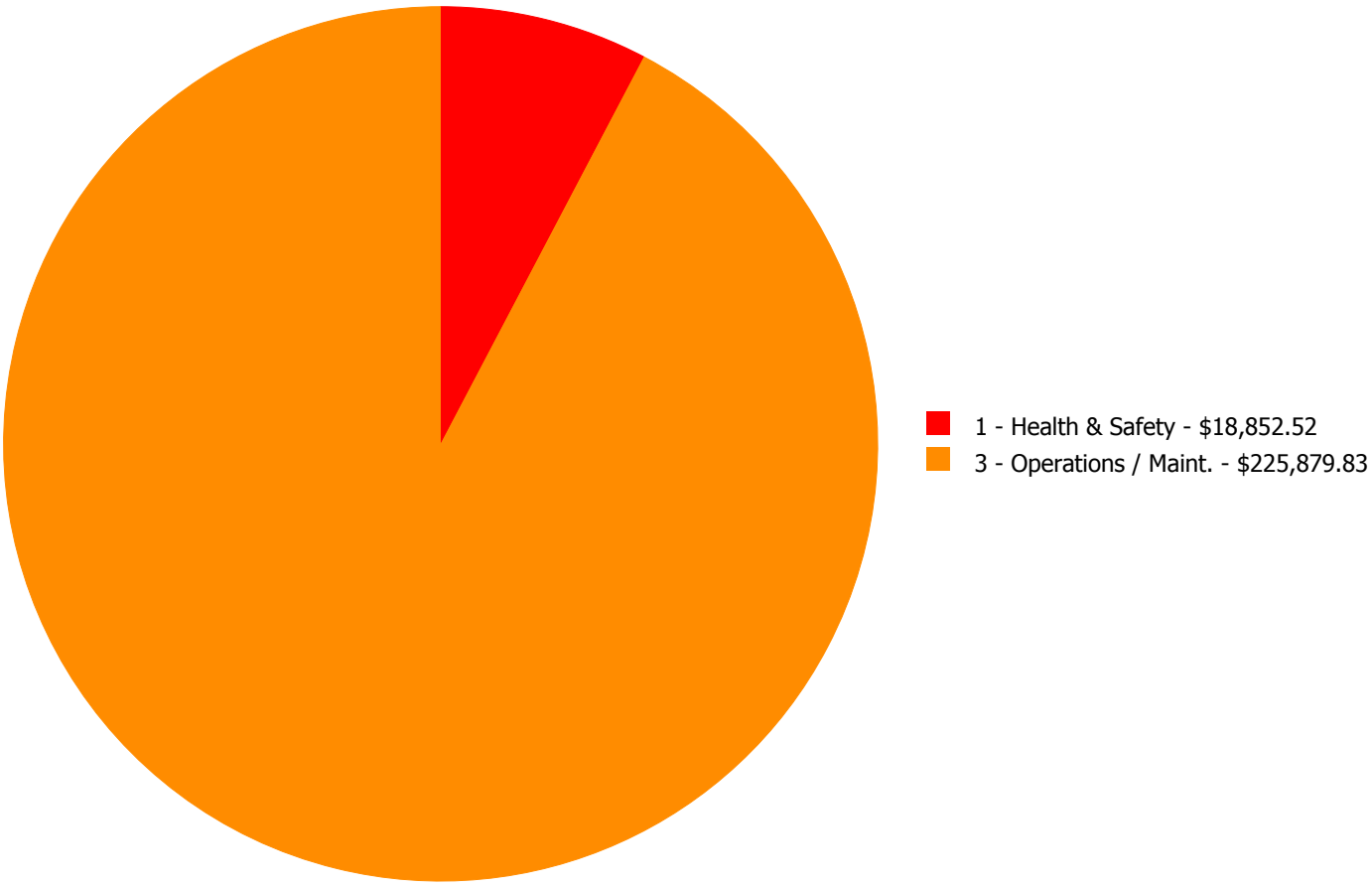
Deficiency By Priority Investment Table

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
G2040	Site Development	$0.00	$18,852.52	$0.00	$0.00	$0.00	$18,852.52
G2050	Landscaping & Irrigation	$0.00	$0.00	$0.00	$0.00	$75,020.01	$75,020.01
G4020	Site Lighting	$0.00	$0.00	$0.00	$132,477.44	$0.00	$132,477.44
G4030	Site Communications & Security	$0.00	$0.00	$18,382.38	$0.00	$0.00	$18,382.38
	Total:	$0.00	$18,852.52	$18,382.38	$132,477.44	$75,020.01	$244,732.35

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: $244,732.35

Deficiency Details by Priority

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

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

System: G2040 - Site Development

Location: Site

Distress: Health Hazard / Risk

Category: 1 - Health & Safety

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

Correction: Build secure trash dumpster enclosure

Qty: 1.00

Unit of Measure: Ea.

Estimate: $18,852.52

Assessor Name: Hayden Collins

Date Created: 02/02/2016

Notes: The trash dumpster is located in the parking lot open to the students and to the public. The exterior services are not protected. Upgrades to protect the exterior services and trash area is necessary for the safety of the students and the general public. Construction of a secure lockable dumpster area is recommended.

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

System: G4030 - Site Communications & Security

Location: Site

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace video surveillance camera

Qty: 3.00

Unit of Measure: Ea.

Estimate: $18,382.38

Assessor Name: Hayden Collins

Date Created: 01/18/2016

Notes: Replace two (2) exterior video surveillance cameras and provide one (1) additional camera at the dumpster location.

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

System: G4020 - Site Lighting

Location: Site

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Replace site lighting fixture

Qty: 22.00

Unit of Measure: Ea.

Estimate: $132,477.44

Assessor Name: Hayden Collins

Date Created: 01/18/2016

Notes: • Replace a total of (22) pole mounted, metal halide floodlighting luminaires on site lighting poles.

Priority 5 - Response Time (> 5 yrs):

System: G2050 - Landscaping & Irrigation

Location: Site

Distress: Damaged

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Add landscape irrigation system to small area - insert SF of area and LF of pipe run to get to the area for pavement removal and restoration

Qty: 10,000.00

Unit of Measure: S.F.

Estimate: $75,020.01

Assessor Name: Hayden Collins

Date Created: 02/02/2016

Notes: The landscaping is in good condition and well maintained but with no irrigation system. The landscaping is generally located near the parking / play area of the site with limited turf sections around the general exterior of the school. This deficiency provides a budgetary consideration for the installation of an irrigation system for this site.

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