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.

Smedley School

Governance	CHARTER	Report Type	Elementary
Address	1790 Bridge St. Philadelphia, Pa 19124	Enrollment	772
		Grade Range	'00-06'
Phone/Fax	215-537-2523 / N/A	Admissions Category	Neighborhood
Website	Www.Masterycharter.Org/Schools/Smedley-Campus/	Turnaround Model	Renaissance Charter

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	**29.16%**	**$12,392,913**	**$42,506,909**
Building	28.09 %	$11,679,942	$41,573,922
Grounds	76.42 %	$712,971	$932,987

Major Building Systems

Building System	System FCI	Repair Costs	Replacement Cost
Roof (Shows physical condition of roof)	59.04 %	$439,619	$744,577
Exterior Walls (Shows condition of the structural condition of the exterior facade)	04.27 %	$129,158	$3,026,595
Windows (Shows functionality of exterior windows)	84.72 %	$1,251,506	$1,477,190
Exterior Doors (Shows condition of exterior doors)	26.13 %	$31,206	$119,405
Interior Doors (Classroom doors)	158.38 %	$465,434	$293,865
Interior Walls (Paint and Finishes)	02.56 %	$33,869	$1,324,895
Plumbing Fixtures	00.00 %	$0	$1,091,090
Boilers	00.00 %	$0	$1,506,505
Chillers/Cooling Towers	58.12 %	$1,148,233	$1,975,545
Radiators/Unit Ventilators/HVAC	53.60 %	$1,859,790	$3,469,895
Heating/Cooling Controls	140.76 %	$1,533,822	$1,089,660
Electrical Service and Distribution	22.60 %	$194,699	$861,575
Lighting	04.72 %	$145,377	$3,079,505
Communications and Security (Cameras, Pa System and Fire Alarm)	04.06 %	$46,871	$1,153,295

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

S742001;Smedley

Final

Site Assessment Report

February 1, 2017

PARSONS

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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):	71,500
Year Built:	1927
Last Renovation:	2011
Replacement Value:	$42,506,909
Repair Cost:	$12,392,913.07
Total FCI:	29.16 %
Total RSLI:	67.36 %

Description:

Facility Assessment

July 2015

School District of Philadelphia

Smedley Elementary School

1790 Bridge Street

Philadelphia, PA 19124

51,000 SF / 596 Students / LN 07

GENERAL

The Mastery Charter School Smedley Elementary Campus is identified as B742001 and was originally constructed in 1927 as the

Franklin Smedley Elementary School. This facility is located at 1790 Bridge St in Philadelphia, PA. The design of the square-shaped, concrete and steel-framed building includes brick facades with a concrete foundation, detailing, and ornamental molding.

The main entrance faces the northern exterior on Bridge Street. This School serves students in grades K-6. This school was originally constructed in 1927 and consists of a Basement level and three additional stories with a total gross square footage of 71,500 GSF.

This site has had several additions and however, only two of the additions remain as the 2011 renovation efforts removed structures from the site. Pod 1 and Pod 2 respectively are connected to the southern exterior of the main building via enclosed hallways.

This recent history of this school includes a remodeling effort that took place in 2011. This school has several classrooms, a gym, cafeteria and student commons and auditorium, with supporting administrative spaces. The information for this report was collected during a site visit on July 14, 2015.

Ms. Danielle Nicoletti, Director of Operations and Student Life, and Michael Thomas, Building Engineer, accompanied the assessment team on a tour of the school and provided detailed information on the building systems and maintenance history.

ARCHITECTURAL/STRUCTURAL SYSTEMS

Foundations are reinforced concrete and appear to be in good condition. Basement walls are reinforced concrete and appear to be in good condition. The superstructure is concrete, steel and wooden framed with masonry construction.

The exterior brick surfaces are generally in fair to good condition for their age. In some 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.

There are a number of roof sections and three different roof elevations ranging from the main, Gym roof and the POD roofs. Parapet heights, coping materials, and the height of the flashing also varies in different sections. The main roof is a built up application that was installed in the early 1980's, two small sections over the POD's and the PVC application over the Gym. Considering the age and condition of the main roofing and POD systems, universal upgrades are recommended.

Exterior windows are aluminum framed single pane windows. Windows are in fair condition based on the year of installation or last renovation. The exterior window system is recommended to be replaced with units that retain their dimensions and profiles, but that incorporate updated energy-efficient features.

The exterior doors are metal applications with metal frames. There is a storefront system at the main entrance with a metal-framed metal door application. The exterior door system for this school is a very high traffic system. The doors are in fair condition but are aging at a faster rate than expected based on traffic and condition. The exterior door system, store front and service doors are recommended for upgrade.

Special consideration for those that may be physically challenged was a main factor in the 2011 re-construction effort for this school. The Charles Street entrance has been upgraded with an exterior ADA ramp. The path of travel is not very clear from that entrance of the school and from the access point. The interior path of travel is partially supported by an elevator, wheelchair lift, some door hardware, hand rails and guard rails. However, most of the building has received no upgrades and does not support a path of travel for those that may be physically challenged.

Interior partitions include marble CMU, plaster on brick with both wood and metal framing. The finish block, gypsum wallboard on wood or metal studs, moveable partitions, and glazed openings are in fair condition. There are painted walls, trim, and some painted ceilings in this building. In the older sections of the building, some textured concrete surfaces have been painted, while in the new section they are not. The interior finishes in the older sections are in good condition and will require an almost continuous program of renewal of the applied finishes to maintain an acceptable appearance. The finishes in the new section are in excellent to good condition. Cyclical painting should be considered for a standard approach to maintaining the quality of the interior finishes. It is recommended that all previously painted surfaces be repainted according to established cycles for this occupancy and use type. Minor repairs should be completed before work begins. The damaged staff restrooms and other minor damaged areas are expected to require major repairs and additional efforts to restore the finishes.

The movable partition that has been modified and no longer functions as originally designed in room 209 is a good example for a universal correction. This wall has been modified to suite the classroom needs however does not reflect the most recent code

requirements. This deficiency recommends universal removal of the existing movable partitions and upgrades to a permeate wall systems.

Interior doors are typically wood in wood frames with transom lites, sidelights, wired glass glazing. Other interior doors include wooden glass pane doors with original wooden pane frames, hollow metal in hollow metal frames at the new classrooms, Gym and some stairwells and exit ways, access doors. Doors are generally in good to poor condition and are a mix of ADA compliant and non-complaint doors with both non-rated and fire rated. Doors swing in the direction of exit and do not obstruct hallways. . This building is expected to require major repairs and additional efforts to restore the door finishes, universal upgrades are required however, limited upgrades will be required for the newly renovated section of this school.

Fittings include: chalkboards; marker boards; tack boards; interior signage; toilet accessories and wood, plastic and marble toilet partitions; fixed wooden storage shelving. While using similar materials, the interior finishes vary significantly between the older and newer sections of the building. School laboratory, classrooms, and office space, most of its corridor floors are concrete, wooden or vinyl tile, with marble, plaster or painted masonry block walls in the older sections. The restrooms have a painted and 12x12 floor tile finish respectfully. The cafeteria and kitchen has a 12x12 vinyl floor finish in good condition. Carpet is located in some of the administrative, study areas, library and office suites. The carpet is in good condition. Many of the wood doors have a single glazed panel. Some are large panes, some narrow and vertically-oriented, and some of the older ones have textured glass. The ceiling finishes are a mix of acoustical tile ceilings, 12x12 glue on tiles and painted finishes in good condition. In the older sections of the building, the majority of the finishes are in fair condition considering the age of the application. The classrooms in this school have a wooden floor finish that appears to be from original construction. The system is showing signs of age such as the effects of sanding and refinishing with yearly cleaning and waxing with some repairs. The floor finish is in fair condition however, the finish is beyond its expected life cycle. It is recommended that the wooden floor finish be removed and replaced with an in kind finish.

The cafeteria, both educational pods and select areas such as the staff restrooms has a 12x12 vinyl floor tile finish. Some of the flooring was upgraded during the 2011 renovation effort and is in very good condition. There are some sections that were not a part of that effort and the finish is beyond the expected life cycle. The older finishes are in fair condition and upgrades are recommended within the next five years. Remove and replace 12x12 vinyl tile application.

The ceiling finish for this pod is a 12x12 glue on ceiling tile finish. The finish is damaged and several sections are missing and other sections are damaged from water stains. It is recommended that the ceiling finish be removed and replaced with an acoustical tile ceiling finish. The building is expected to require major upgrades and additional efforts to restore the fittings and general finishes, universal upgrades are required.

Stair construction is a mix of concrete and marble designs. The stair system at the main entrance is a very high end application with marble stairs and decorative walls. Other stair treads and landings are finished with a combination of rubber, marble and steel nosings with a mix of conditions ranging from good to fair. Handrails are a mix of wooden, metal and in some cases missing and do not have extensions and returns at landings. The stair systems are recommended for universal upgrades. Limited upgrades such as hand rails will be required for the stairs in the newly renovated sections.

There is a single elevator that serves all floors of this school and a wheelchair lift in the cafeteria. In both cases the units are in very good condition and expected to have a life cycle that extends beyond this report.

Institutional equipment includes: library equipment that includes shelving and media equipment. A majestic stage with original wooden finishes with upgraded equipment; instrumental equipment; A/V equipment; and gym equipment – basketball backstops. Furnishings include: fixed casework; window shades and original fixed auditorium seating. In each case the finishes are in good condition.

MECHANICAL SYSTEMS

PLUMBING—Plumbing fixtures consist of wall mounted lavatories with dual handle controls and wall mounted urinals and flush valves with concealed flush valves and remote push button or lever operator. There are porcelain non refrigerated drinking fountains and stainless steel water coolers with integral refrigeration. Service sinks are fiberglass free standing type. There is a ground water sump pump in the mechanical room with end suction pumps on top of the sump cover. The piping is copper supply and hub and spigot cast iron sanitary, waste, vent and rainwater.

There is a seventy five gallon Bradford White gas water heater in the basement mechanical room and a small inline circulating pump. The water service is a four inch line and four inch meter with backflow preventer from Charles St. The water enters in the basement mechanical room and the system includes a water softener. The gas service is a twelve inch line from Mulberry St. and there is a gas booster pump in the mechanical room. Gas piping in the mechanical room is welded black steel and exposed piping on the roof is

galvanized with screwed fittings. The main sewer reportedly exits to Charles St. There is no domestic booster pump.

The newer plumbing system from the 2007 renovation has substantial remaining service life, from twenty to twenty five years. There are no visual or reported problems with the system, however the drainage piping systems in the original building have been in service since 1927 and should inspected for damages and replaced in part. The water piping is copper and was replaced from the original installation, but based on age probably has lead solder and should be replaced.

HVAC—The original building area has a steam heating system with boilers, piping and radiators. There are three cast iron sectional Weil Mclain gas/oil fired low pressure steam boilers in the basement mechanical room, two installed in 2010 and one in 2013. One of the boilers serves as standby. There are exposed and concealed steam radiators with newer traps and manual control valves. The central house heating and ventilating system in the mechanical room was refurbished in 2010 and provides ducted warm air from a steam heating coil to most areas. The boilers are all seventy two hp Weil Mclain Model 88 Series 2 units with eight sections and fully modulating burner and separate oil pump. Boilers have a code compliant gas train. The boiler flues are combined to a single vertical factory manufactured double wall stack in an existing chimney, installed in 2013. There is a triplex Bell and Gossett boiler feed system and a duplex submerged sump pump condensate return system in the basement mechanical room. The oil tank is a ten thousand gallon fiberglass underground tank installed in 2010. A duplex oil pump system with control panel circulates fuel oil. There is an automatic and shot feed chemical treatment system. Combustion air is provided from high and low grills with motorized dampers connected to exterior louvers.

The gym and classroom addition built in 2011 has rooftop units with gas heat and some variable air volume boxes with electric heat. The two pods from 1970's construction have electric radiation for heat. There are no kitchen exhaust hoods and no cooking in the building.

The original portion of the building has approximately sixty window air conditioners for cooling as well as (2) four ton rooftop units on the addition roof. There is a Mitsubishi ductless split system for the IT room with a console indoor unit and the condensing unit mounted on an exterior wall. The pods also have window air conditioners. The gym and classroom addition roof houses four York rooftop units. There are two four ton units serving portions of the original building, one twenty ton unit for the gym and one thirty ton VAV unit serving new classrooms and hallways. There is no central cooling for the cafeteria or two pod areas.

Ductwork is sheet metal supplying air to ceiling diffusers and sidewall grills. Ductwork is rectangular and spiral construction in classrooms and inflatable duct system in the gym. There is a variable air volume unit with electric heating coil for each classroom in the addition area. The original area has no mechanical toilet exhaust system. Heating piping is welded black steel steam and return. New manual steam valves and traps were installed in 2013. Fuel oil piping is black steel with screwed fittings.

There is no central building control system. Boilers, rooftop units and VAV units all have individual controls. VAV units have individual room thermostats and rooftop unit controls are individual panels furnished with equipment.

Boilers and all equipment in the boiler room are fewer than five years old and have substantial remaining service life, from twenty five to thirty five years. Radiators and heating piping in the original building are from 1927 and should be replaced with new systems. The rooftop equipment and associated HVAC systems are from 2011 and have approximately fifteen to twenty years of remaining service life.

FIRE PROTECTION—The addition area has a fully automatic wet pipe sprinkler system with black steel Victaulic piping, semi recessed sprinkler heads, ITT forty hp five hundred gpm fire pump, jockey pump, and controller. Both the original building and addition have standpipes with fire hose connections. The fire service is six inch from Pratt St. entering the building in the fire pump room in the basement. The fire protection system has substantial remaining service life, approximately thirty to thirty five years. The original building area has no fire sprinkler system, only the standpipes.

ELECTRICAL SYSTEMS

Electrical Service-- The electrical service to the building is provided from a PECO Energy Company 300 kVA pad mounted transformer located on the northwest corner of the site at the intersection of Mulberry and Bridge Streets. Secondary service, rated at 208/120V, 3 phase, 4 wire, is routed underground to a Siemens 1600A, 208/120V switchboard located in the Basement. The switchboard is provided with 1600A fusible bolted pressure switch, surge protection device and one circuit breaker distribution section. The distribution section feeds panelboards, mechanical equipment, the automatic transfer switch and elevator. A separate feeder tap ahead of the main service disconnecting means feeds an 800A safety switch for the fire pump. The entire electrical service and distribution system was replaced in a 2011-2012 renovation project. Another distribution section with a 1000A main disconnecting means, and associated circuit breakers and feeders, would be needed when a central air conditioning system is added for this school.

Receptacles-- Classrooms are typically supplied with only 3 or 4 duplex receptacles. At least three duplex receptacles should be added in each classroom spaced along all walls to eliminate the use of extension cords to connect equipment.

Lighting-- The facility has a mixture of fixture types. Corridors on Floors 2 and 3 have two 2X4, surface mounted, modular fluorescent fixtures with (4) 32 watt T8 lamps, mounted side-by-side. Illumination levels in corridors were measured at 24 fc (footcandles). Classrooms generally have two rows of continuous 1x4, 2 lamp, surface mounted, or stem mounted, fluorescent wraparound fixtures with 32 watt, T8 lamps with acrylic prismatic lenses. Lighting is controlled by a two light switches. Most classrooms also have occupancy sensors for lighting control. The illumination level in Classroom 302 was measured and ranged from 37 to 41 fc. Some classroom, such as Room 303, has mostly fixtures with T12 lamps.

Restrooms are typically provided with 2x4, 2 lamp, lay-in grid recessed troffers with prismatic lenses. Stairwells typically have 1x4, 2 lamp surface mounted wraparound fluorescent fixtures.

Lighting in the gymnasium consists of (30) 1x4, 4-lamp, fluorescent fixtures with guards. The illumination level in the gym was measured, and ranged from 40 to 47 fc. Lighting in the cafeteria consists of 2x4, 4 lamp, recessed fluorescent grid troffers with T8 lamps.

The lighting fixtures in the 1968 POD 1 addition have been replaced and have an expected remaining useful life that exceeds the outlook of this report. Lighting fixtures in the POD 2 addition are beyond their useful life.

There are a few offices and rooms on Floors 1 and 2 that have obsolete 2x4 surface mounted modular fluorescent fixtures with T12 lamps that need to be replaced with new fixtures. An allowance is included in this report to replace obsolete fixtures.

Other than the main entrance door, the other egress exits are not provided with lighting fixtures above the exit discharge.

Fire Alarm System-- The fire alarm system is an addressable type by General Electric installed in 2012. The system consists of manual pull stations at egress doors, audio and visual notification appliances in corridors, classrooms and restrooms, and smoke detectors installed at elevator landings. The main fire alarm control panel (FACP) is a GE Model EST located in the Basement. There is a remote fire alarm annunciator panel located at the main entrance.

Telephone/LAN—A telephone, data outlet and A/V outlet is provided in each classroom. Wireless access points are located in corridors and classrooms to provide wireless access throughout the building.

Public Address/Paging-- The paging system is accessed through the telephone system. Each classroom has a recessed ceiling speaker for announcements. There are also flush mounted paging speakers in corridor ceilings. This system is estimated to have 17 years of useful life remaining.

Clock and Program System-- The recessed ceiling speakers in the classrooms are used for the program system. The obsolete wall mounted speakers have been abandoned in place. The clocks are not operational. A new clock system is needed.

Television System-- There are television outlets in each classroom, but no televisions located within the classrooms.

Video Surveillance and Security Systems –video cameras are generally ceiling mounted in each corridor on each floor and on the exterior of the building. There are a total of 25 cameras that are monitored on a single monitor with a 16 channel multiplexer and 24 hour digital video recorder located in the Conference Room behind the Main Reception area. The school is currently upgrading their video surveillance system with new central equipment and two additional cameras. The system has a combination of analog and digital cameras. A security panel, which is maintained by Keystone Fire and Security, is located adjacent to the Main Reception area.

Emergency Power System—There is a pad mounted Onsite Energy 125 kW/156 kVA, 208/120 volt, 3 phase, 4 wire standby generator with weather-proof enclosure located on the west side of the site along Mulberry Street. The generator is provided with a 240 gallon sub-base fuel oil storage tank with secondary containment. The generator was installed in 2011 and has at least 16 years of useful life remaining before replacement. The generator supplies standby power to an ASCO Series 300, 104A, 208/120V, 3 phase, 4 wire automatic transfer switch and to the fire pump.

Emergency Lighting System / Exit Lighting-- Selected lighting fixtures are connected to the standby power system. Battery powered emergency lighting units provide supplemental emergency lighting in the corridors and stairwells. The exit lights are provided at all means of egress. There are only a few locations where additional directional exit signs are needed, such as in the corridor on the southeast side on Floor 2. An allowance for adding three (3) exit signs is included in this report. Emergency lighting needs to be provided at all exit discharges on Floor 1.

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

Conveying Systems--There is one elevator in this facility that is located in the 2011 classroom and gymnasium addition. The elevator is a Schindler Elevator Corporation, 25HP hydraulic type with 3500 pound capacity. The machine room is located on Floor 2. The elevator has an expected remaining useful life of 26 years.

GROUNDS

The parking lots are in poor condition, the harsh environmental conditions associated with snow removal have taken its toll on the asphalt surface. Also, there is no marked path of ingress to the main entrance. This project provides a budgetary consideration for a parking lot renewal program that includes all aspects of the current ADA legislation. Universal upgrades are recommended.

This school has a perimeter fence surrounding the parking / playground area. The fence has several areas of repairs and the mounting posts are damaged in several areas, overall the fence is in fair condition. This fence system is recommended to be removed and replaced with a new system within the next five to ten years

The sidewalk system is original to the buildings construction. There are a several areas of cracking concrete but no tripping hazards. The sidewalk system is expected to expire in the near future. Removal of the entire system is recommended. Universal upgrades are required.

The landscaping is in good condition and well maintained but with no irrigation system. The landscaping is generally located on the northern and eastern sides of the site. This deficiency provides a budgetary consideration for the installation of an irrigation system for this site.

The wooden hand rails to the basement level entrance are not current with requirements that the hand rails be graspable and continuous. Remove the wooden application and replace with a metal hand and guard rail system.

Site Lighting—Site lighting is provided by wall mounted HID lighting fixtures around the perimeter of the building that are aimed to illuminate the site. The site lighting fixtures have approximately 16 years of useful life remaining before replacement. There are no pole mounted lighting fixtures on the site.

RECOMMENDATIONS

- The ceiling finish for this pod is a 12x12 glue on ceiling tile finish. The finish is damaged and several sections are missing and other sections are damaged from water stains. It is recommended that the ceiling finish be removed and replaced with an acoustical tile ceiling finish.
- The cafeteria, both educational pods and select areas such as the staff restrooms has a 12x12 vinyl floor tile finish. Some of the flooring was upgraded during the 2011 renovation effort and is in very good condition. There are some sections that were not a part of that effort and the finish is beyond the expected life cycle. The older finishes are in fair condition and upgrades are recommended within the next five years. Remove and replace 12x12 vinyl tile application.
- It is recommended that the wooden floor finish be removed and replaced with an in kind finish.
- The interior carpet finish was installed in 2011 and is in fair condition considering the age and high traffic conditions. This finish will exceed its expected life within the next five years and is recommended for upgrade.
- There are several minor areas of wall damage that ranges from serious to minor. Although the school is on a cyclical program of renewal and each painted surface is renewed at year's end this system is at the point in which repairs are necessary. Remove damaged wall finishes and repair areas then apply primer and paint finish.
- Present code and legislation regarding building accessibility by the handicapped requires that stairs have graspable handrails on both sides, that the rails have specific end geometry, and that the handrails continue past the newel posts. To comply with this legislation, the reinstallation of wall-mounted handrails and replacement center well handrails, including balustrades, on interior stairs throughout the building is recommended.
- There are several tack boards in the hallways for student displays. The systems are beyond the expected service life for this application. Remove and replace tack boards is recommended.
- The interior directional and identification signage package consist of paper signs hung over doors in a very temporary manor. This deficiency provides a budgetary consideration to install permeate directional and identification signage throughout the facility.
- The classroom chalk boards are original to the buildings construction. This system is beyond its expected life and universal upgrades are warranted. Remove and upgrade chalkboards to new marker board systems.
- The restroom partitions are a mix of marble, plastic and wooden finishes. The marble finish partitions are in good condition however, the plastic and wooden restroom partitions are in fair condition considering the age and high traffic use. The wooden

and plastic partitions are recommended for universal removal and replacement.

- The interior door system is a mix of the newly installed fire rated metal doors and frames and the original interior doors that include wooden glass pane doors with original wooden pane frames. This deficiency recommends the removal and replacement of the non-rated interior doors.
- The movable partition that has been modified and no longer functions as originally designed in room 209 is a good example for a universal correction. This wall has been modified to suite the classroom needs however does not reflect the most recent code requirements. This deficiency recommends universal removal of the existing movable partitions and upgrades to a permeate wall systems.
- Interior doors are typically wood in wood frames with transom lites, sidelights, wired glass glazing. Other interior doors include solid wooden glass pane doors with original wooden pane frames, hollow metal in hollow metal frames at some of the stairwells and exit ways, access doors, and folding closet doors. Doors are generally in good to poor condition depending on location and date of installation and are a mix of ADA compliant and non-complaint doors with both non-rated and fire rated. The deficiency provides a budgetary consideration to correct the hallway, transoms, wooden doors and frames with consideration for the exit stair doors and construction.
- As indicated in the photos this roof has been coated, repaired and re-coated several times. The roofing system is beyond its expected life and universal removal and replacement is recommended.
- Replace damaged exterior doors.
- Upgrade exterior window systems to new double pane aluminum framed weather guard applications.
- In select locations, bricks have cracked or spalled and should be replaced. The repointing of deteriorated mortar joints is recommended.
- Install complete wet pipe automatic sprinkler system in original building.
- Provide HVAC system for cafeteria including four thousand cfm indoor single zone package central station air handling unit and ducted air distribution system. Unit should have chilled and hot water coils, filters, blower, motor, outside and return air dampers, hydronic valves and digital controls.
- Provide HVAC system for the two pods including (2) three ton single zone package rooftop heat pump units for each pod. Remove existing window air conditioners, leave existing electric baseboard radiation. Provide new exposed spiral duct system with sidewall grilles.
- Install HVAC system in non air conditioned portions of original building including 130 ton air cooled chiller on roof, two chilled water pumps, four pipe fan coil unit for each classroom and other separate area, piping and controls. Install pumps in basement mechanical room. Provide a roof mounted outside air system to provide conditioned fresh air ducted to each fan coil unit.
- Inspect existing sanitary piping and replace damaged sections.
- Replace domestic hot and cold water supply piping, fittings, valves, hangars and insulation in original building
- Provide hot water heating for original area of building including steam to water heat exchanger, two pumps, piping and controls. Connect piping to fan coil units. Install pumps and heat exchanger in mechanical room.
- Provide mechanical toilet exhaust system in original portion of building including inline or exterior wall centrifugal ventilator at each level, ductwork and exhaust registers.
- Provide a 1200A distribution section with 1000A main circuit breaker, distribution feeder circuit breakers and feeder circuits for central air conditioning equipment.
- Add surface raceway system with three duplex receptacles each in 27 classrooms.
- Replace all lighting fixtures in the POD 2 addition.
- Replace obsolete lighting fixtures with T12 lamps in offices and other rooms on Floors 1 and 2.
- Provide lighting fixtures wired on emergency power above all egress doors on Floor 1.
- Provide new clock system in all classrooms and offices.
- Provide three (3) additional exit signs in corridors.

Attributes:

General Attributes:

Active:	Open	Bldg Lot Tm:	Lot 1 / Tm 1
Status:	Accepted by SDP	Team:	Tm 1
Site ID:	S742001		

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.

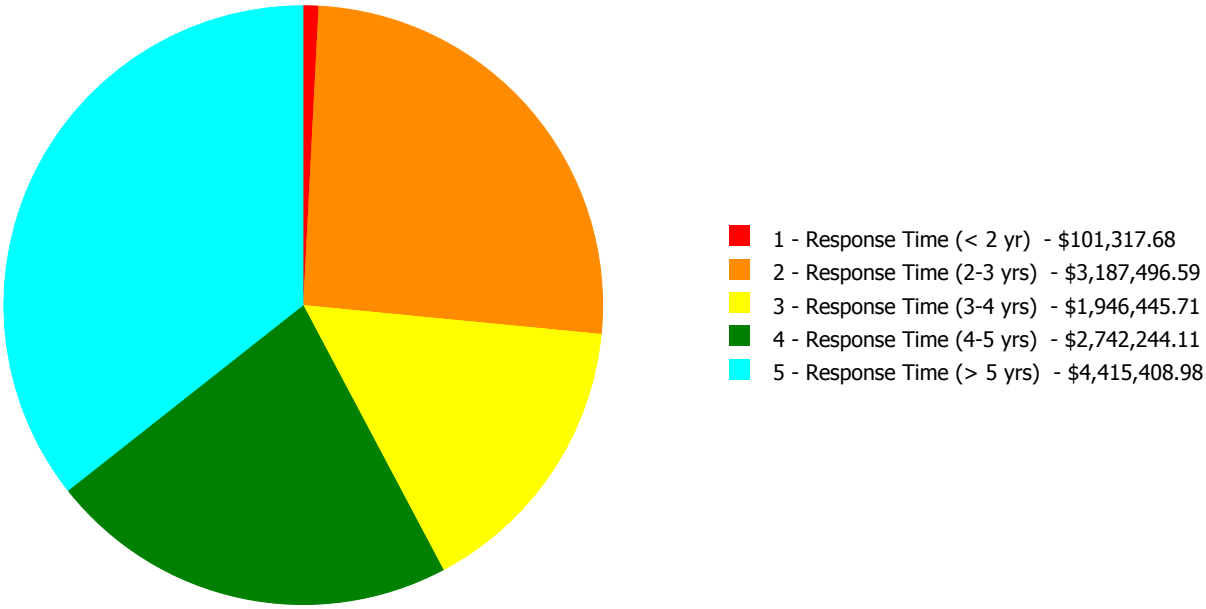
Current Investment Requirement and Condition by Uniformat Classification

UNIFORMAT Classification	RSLI%	FCI %	Current Repair
A10 - Foundations	62.00 %	0.00 %	$0.00
A20 - Basement Construction	62.00 %	0.00 %	$0.00
B10 - Superstructure	62.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	53.40 %	30.54 %	$1,411,870.09
B30 - Roofing	37.89 %	59.04 %	$439,619.10
C10 - Interior Construction	61.88 %	77.66 %	$1,593,567.43
C20 - Stairs	62.00 %	86.93 %	$101,317.68
C30 - Interior Finishes	46.50 %	25.86 %	$1,308,498.11
D10 - Conveying	88.57 %	0.00 %	$0.00
D20 - Plumbing	86.67 %	37.45 %	$616,924.25
D30 - HVAC	88.85 %	56.36 %	$5,059,376.95
D40 - Fire Protection	88.57 %	114.36 %	$742,452.67
D50 - Electrical	84.84 %	7.78 %	$406,315.69
E10 - Equipment	14.29 %	0.00 %	$0.00
E20 - Furnishings	12.50 %	0.00 %	$0.00
G20 - Site Improvements	87.00 %	103.23 %	$712,971.10
G40 - Site Electrical Utilities	16.67 %	0.00 %	$0.00
Totals:	**67.36 %**	**29.16 %**	**$12,392,913.07**

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)
B742001;Smedley	71,500	28.09	$101,317.68	$3,187,496.59	$1,936,828.08	$2,295,004.38	$4,159,295.24
G742001;Grounds	55,700	76.42	$0.00	$0.00	$9,617.63	$447,239.73	$256,113.74
Total:		**29.16**	**$101,317.68**	**$3,187,496.59**	**$1,946,445.71**	**$2,742,244.11**	**$4,415,408.98**

Deficiencies By Priority



Budget Estimate Total: $12,392,913.07

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):	71,500
Year Built:	1927
Last Renovation:	2011
Replacement Value:	$41,573,922
Repair Cost:	$11,679,941.97
Total FCI:	28.09 %
Total RSLI:	67.33 %

Description:

Attributes:

General Attributes:

Active:	Open	Bldg ID:	B742001
Sewage Ejector:	No	Status:	Accepted by SDP
Site ID:	S742001		

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	62.00 %	0.00 %	$0.00
A20 - Basement Construction	62.00 %	0.00 %	$0.00
B10 - Superstructure	62.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	53.40 %	30.54 %	$1,411,870.09
B30 - Roofing	37.89 %	59.04 %	$439,619.10
C10 - Interior Construction	61.88 %	77.66 %	$1,593,567.43
C20 - Stairs	62.00 %	86.93 %	$101,317.68
C30 - Interior Finishes	46.50 %	25.86 %	$1,308,498.11
D10 - Conveying	88.57 %	0.00 %	$0.00
D20 - Plumbing	86.67 %	37.45 %	$616,924.25
D30 - HVAC	88.85 %	56.36 %	$5,059,376.95
D40 - Fire Protection	88.57 %	114.36 %	$742,452.67
D50 - Electrical	84.84 %	7.78 %	$406,315.69
E10 - Equipment	14.29 %	0.00 %	$0.00
E20 - Furnishings	12.50 %	0.00 %	$0.00
Totals:	**67.33 %**	**28.09 %**	**$11,679,941.97**

Condition Detail

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

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

System Listing

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

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

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

System Code	System Description	Unit Price $	UoM	Qty	Life	Year Installed	Calc Next Renewal Year	Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency $	Replacement Value $
A1010	Standard Foundations	$21.50	S.F.	71,500	100	1927	2027	2077	62.00 %	0.00 %	62			$1,537,250
A1030	Slab on Grade	$9.04	S.F.	71,500	100	1927	2027	2077	62.00 %	0.00 %	62			$646,360
A2010	Basement Excavation	$7.65	S.F.	71,500	100	1927	2027	2077	62.00 %	0.00 %	62			$546,975
A2020	Basement Walls	$14.83	S.F.	71,500	100	1927	2027	2077	62.00 %	0.00 %	62			$1,060,345
B1010	Floor Construction	$85.69	S.F.	71,500	100	1927	2027	2077	62.00 %	0.00 %	62			$6,126,835
B1020	Roof Construction	$15.84	S.F.	71,500	100	1927	2027	2077	62.00 %	0.00 %	62			$1,132,560
B2010	Exterior Walls	$42.33	S.F.	71,500	100	1927	2027	2077	62.00 %	4.27 %	62		$129,157.89	$3,026,595
B2020	Exterior Windows	$20.66	S.F.	71,500	40	1990	2030		37.50 %	84.72 %	15		$1,251,505.73	$1,477,190
B2030	Exterior Doors	$1.67	S.F.	71,500	25	1990	2015	2023	32.00 %	26.13 %	8		$31,206.47	$119,405
B3010105	Built-Up	$43.61	S.F.	12,975	20	1985	2005	2020	25.00 %	77.69 %	5		$439,619.10	$565,840
B3010120	Single Ply Membrane	$44.73	S.F.	3,900	20	2011	2031		80.00 %	0.00 %	16			$174,447
B3020	Roof Openings	$0.06	S.F.	71,500	20	1985	2005	2020	25.00 %	0.00 %	5			$4,290
C1010	Partitions	$20.95	S.F.	71,500	100	1927	2027	2077	62.00 %	59.88 %	62		$896,929.48	$1,497,925
C1020	Interior Doors	$4.11	S.F.	71,500	40	1927	1967	2057	105.00 %	158.38 %	42		$465,433.90	$293,865
C1030	Fittings	$3.64	S.F.	71,500	40	1927	1967	2020	12.50 %	88.84 %	5		$231,204.05	$260,260
C2010	Stair Construction	$1.63	S.F.	71,500	100	1927	2027	2077	62.00 %	86.93 %	62		$101,317.68	$116,545
C3010230	Paint & Covering	$15.45	S.F.	71,500	10	1927	1937	2020	50.00 %	3.07 %	5		$33,869.39	$1,104,675
C3010232	Wall Tile	$3.08	S.F.	71,500	30	1927	1957	2025	33.33 %	0.00 %	10			$220,220

Site Assessment Report - B742001;Smedley

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 $
C3020411	Carpet	$8.54	S.F.	2,000	10	2011	2021	2027	120.00 %	137.59 %	12		$23,500.61	$17,080
C3020412	Terrazzo & Tile	$88.36	S.F.	9,000	50	1927	1977	2025	20.00 %	0.00 %	10			$795,240
C3020413	Vinyl Flooring	$11.33	S.F.	10,000	20	2011	2031	2027	60.00 %	53.03 %	12		$60,087.66	$113,300
C3020414	Wood Flooring	$26.07	S.F.	40,000	25	1927	1952	2042	108.00 %	111.82 %	27		$1,166,082.84	$1,042,800
C3020415	Concrete Floor Finishes	$1.14	S.F.	10,000	50	1927	1977	2025	20.00 %	0.00 %	10			$11,400
C3030	Ceiling Finishes	$24.54	S.F.	71,500	25	2011	2036	2020	20.00 %	1.42 %	5		$24,957.61	$1,754,610
D1010	Elevators and Lifts	$1.61	S.F.	71,500	35	2011	2046		88.57 %	0.00 %	31			$115,115
D2010	Plumbing Fixtures	$15.26	S.F.	71,500	35	2011	2046		88.57 %	0.00 %	31			$1,091,090
D2020	Domestic Water Distribution	$1.90	S.F.	71,500	25			2042	108.00 %	266.70 %	27		$362,315.86	$135,850
D2030	Sanitary Waste	$3.27	S.F.	71,500	25			2042	108.00 %	108.90 %	27		$254,608.39	$233,805
D2040	Rain Water Drainage	$2.61	S.F.	71,500	30	1927	1957	2025	33.33 %	0.00 %	10			$186,615
D3020	Heat Generating Systems	$21.07	S.F.	71,500	35	2011	2046		88.57 %	0.00 %	31			$1,506,505
D3030	Cooling Generating Systems	$27.63	S.F.	71,500	30			2047	106.67 %	58.12 %	32		$1,148,232.94	$1,975,545
D3040	Distribution Systems	$48.53	S.F.	71,500	25	2011	2036		84.00 %	53.60 %	21		$1,859,790.43	$3,469,895
D3050	Terminal & Package Units	$13.09	S.F.	71,500	20	2011	2031		80.00 %	55.30 %	16		$517,531.56	$935,935
D3060	Controls & Instrumentation	$15.24	S.F.	71,500	20	2011	2031		80.00 %	140.76 %	16		$1,533,822.02	$1,089,660
D4010	Sprinklers	$7.94	S.F.	71,500	35	2011	2046		88.57 %	130.78 %	31		$742,452.67	$567,710
D4020	Standpipes	$1.14	S.F.	71,500	35	2011	2046		88.57 %	0.00 %	31			$81,510
D5010	Electrical Service/Distribution	$12.05	S.F.	71,500	30	2012	2042		90.00 %	22.60 %	27		$194,699.29	$861,575
D5020	Lighting and Branch Wiring	$43.07	S.F.	71,500	20	2012	2032		85.00 %	4.72 %	17		$145,376.85	$3,079,505
D5030	Communications and Security	$16.13	S.F.	71,500	15	2012	2027		80.00 %	4.06 %	12		$46,871.14	$1,153,295
D5090	Other Electrical Systems	$1.76	S.F.	71,500	30	2012	2042		90.00 %	15.39 %	27		$19,368.41	$125,840
E1020	Institutional Equipment	$4.92	S.F.	71,500	35	1927	1962	2020	14.29 %	0.00 %	5			$351,780
E1090	Other Equipment	$11.35	S.F.	71,500	35	1927	1962	2020	14.29 %	0.00 %	5			$811,525
E2010	Fixed Furnishings	$2.17	S.F.	71,500	40	1927	1967	2020	12.50 %	0.00 %	5			$155,155
								Total	**67.33 %**	**28.09 %**			**$11,679,941.97**	**$41,573,922**

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 wall finish 55%
Ceramic Marble wall finish 45%

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

Note: Est.
Carpet floor finish 4%
Tile floor finish 12%
Vinyl floor finish 14%
Wood floor finish 56%
Concrete floor finish 14%

System: D5010 - Electrical Service/Distribution — This system contains no images

Note: 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:	**$11,679,942**	**$0**	**$0**	**$0**	**$0**	**$6,386,383**	**$0**	**$0**	**$166,385**	**$0**	**$1,793,890**	**$20,026,601**
*** 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	$129,158	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$129,158**
B2020 - Exterior Windows	$1,251,506	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,251,506**
B2030 - Exterior Doors	$31,206	$0	$0	$0	$0	$0	$0	$0	$166,385	$0	$0	**$197,592**
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	$439,619	$0	$0	$0	$0	$721,560	$0	$0	$0	$0	$0	**$1,161,179**
B3010120 - Single Ply Membrane	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3020 - Roof Openings	$0	$0	$0	$0	$0	$5,471	$0	$0	$0	$0	$0	**$5,471**
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	$896,929	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$896,929**
C1020 - Interior Doors	$465,434	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$465,434**
C1030 - Fittings	$231,204	$0	$0	$0	$0	$331,884	$0	$0	$0	$0	$0	**$563,088**

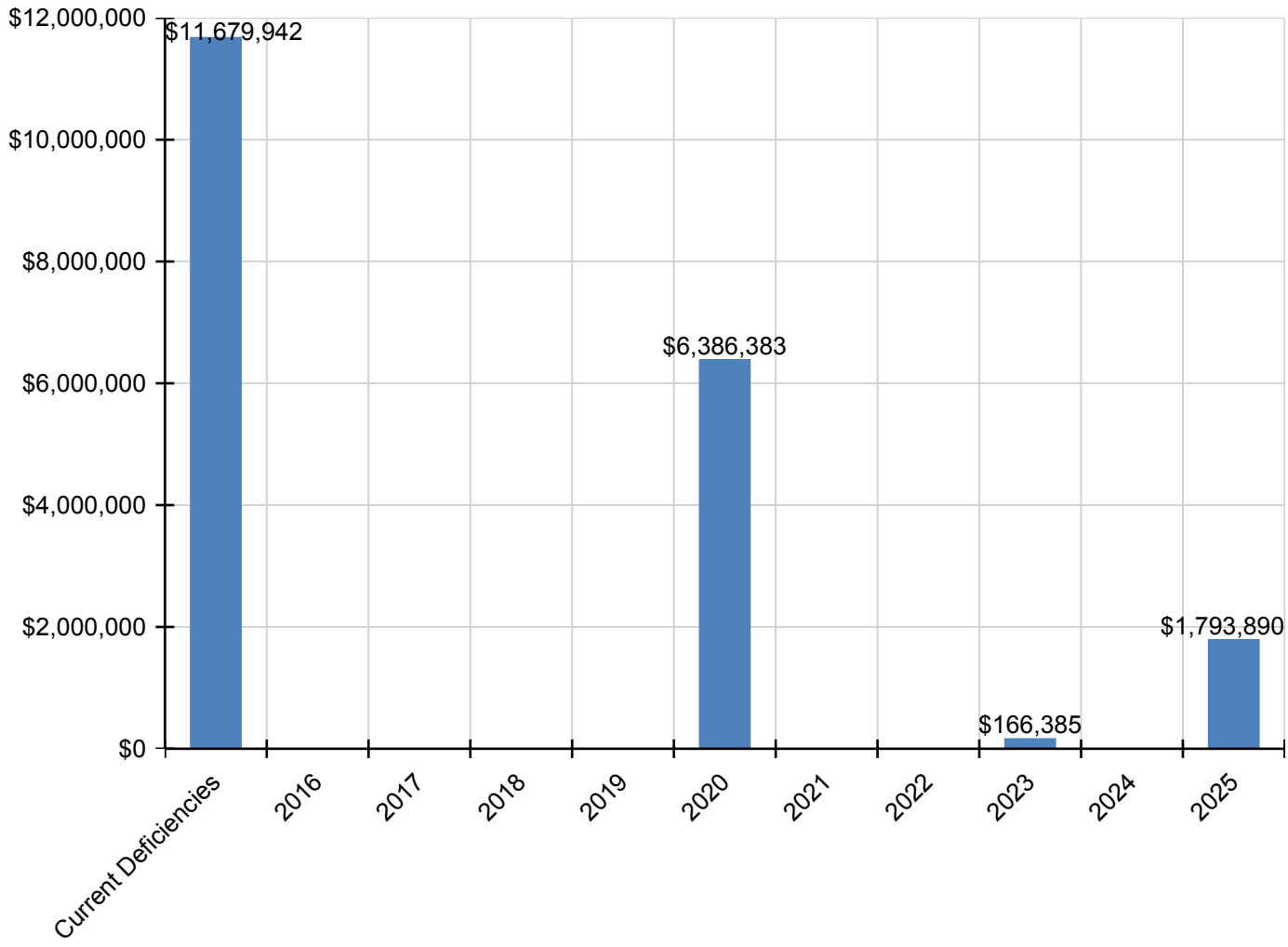
C20 - Stairs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C2010 - Stair Construction	$101,318	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$101,318**
C30 - Interior Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010 - Wall Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010230 - Paint & Covering	$33,869	$0	$0	$0	$0	$1,408,684	$0	$0	$0	$0	$0	**$1,442,553**
C3010232 - Wall Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$325,553	**$325,553**
C3020 - Floor Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020411 - Carpet	$23,501	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$23,501**
C3020412 - Terrazzo & Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,175,610	**$1,175,610**
C3020413 - Vinyl Flooring	$60,088	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$60,088**
C3020414 - Wood Flooring	$1,166,083	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,166,083**
C3020415 - Concrete Floor Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$16,853	**$16,853**
C3030 - Ceiling Finishes	$24,958	$0	$0	$0	$0	$2,237,481	$0	$0	$0	$0	$0	**$2,262,439**
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	$362,316	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$362,316**
D2030 - Sanitary Waste	$254,608	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$254,608**
D2040 - Rain Water Drainage	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$275,875	**$275,875**
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	$1,148,233	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,148,233**
D3040 - Distribution Systems	$1,859,790	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,859,790**
D3050 - Terminal & Package Units	$517,532	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$517,532**
D3060 - Controls & Instrumentation	$1,533,822	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,533,822**
D40 - Fire Protection	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D4010 - Sprinklers	$742,453	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$742,453**
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	$194,699	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$194,699**
D5020 - Lighting and Branch Wiring	$145,377	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$145,377**

D5030 - Communications and Security	$46,871	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$46,871**
D5090 - Other Electrical Systems	$19,368	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$19,368**
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	$448,590	$0	$0	$0	$0	$0	**$448,590**
E1090 - Other Equipment	$0	$0	$0	$0	$0	$1,034,858	$0	$0	$0	$0	$0	**$1,034,858**
E20 - Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E2010 - Fixed Furnishings	$0	$0	$0	$0	$0	$197,854	$0	$0	$0	$0	$0	**$197,854**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

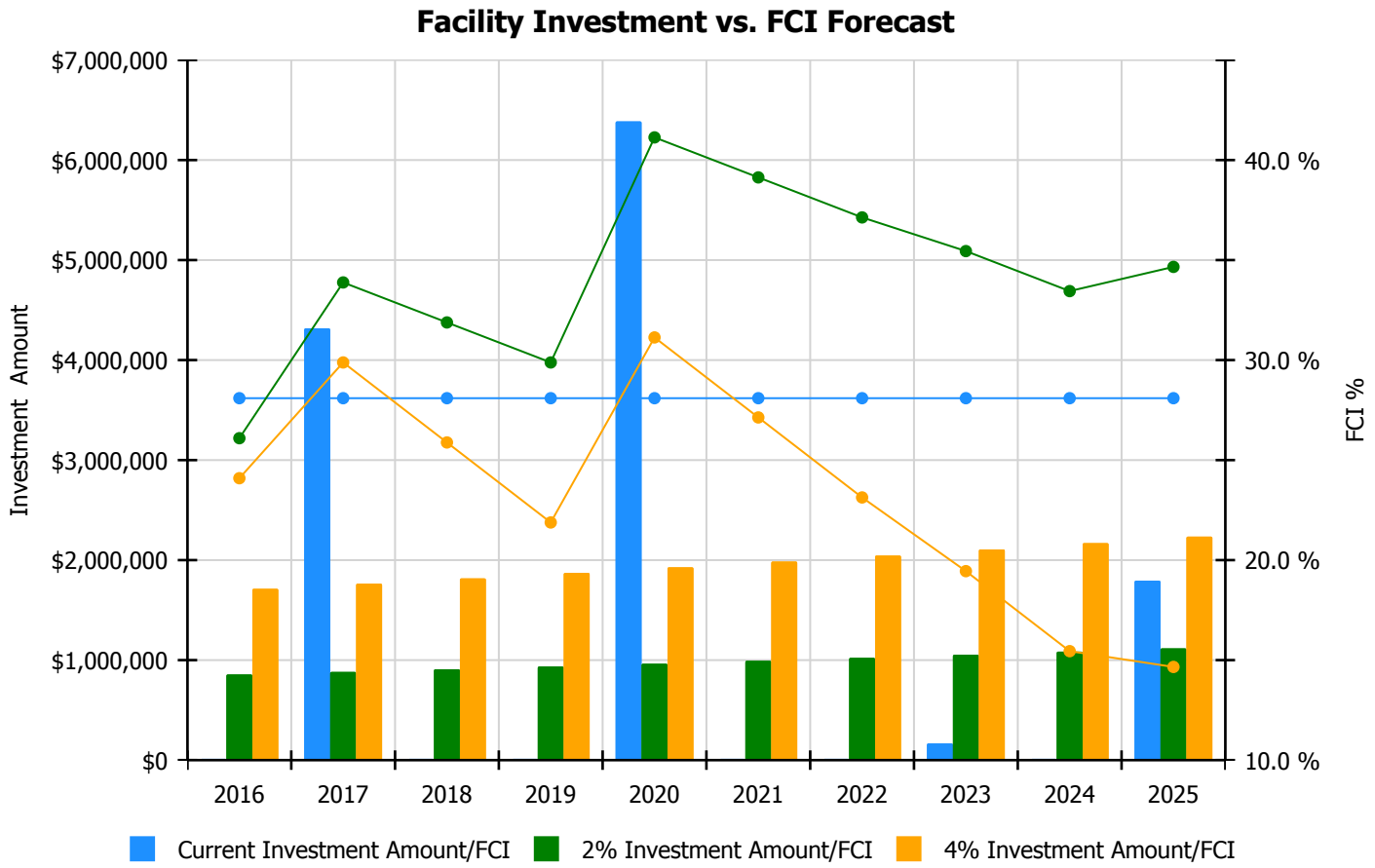
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



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:

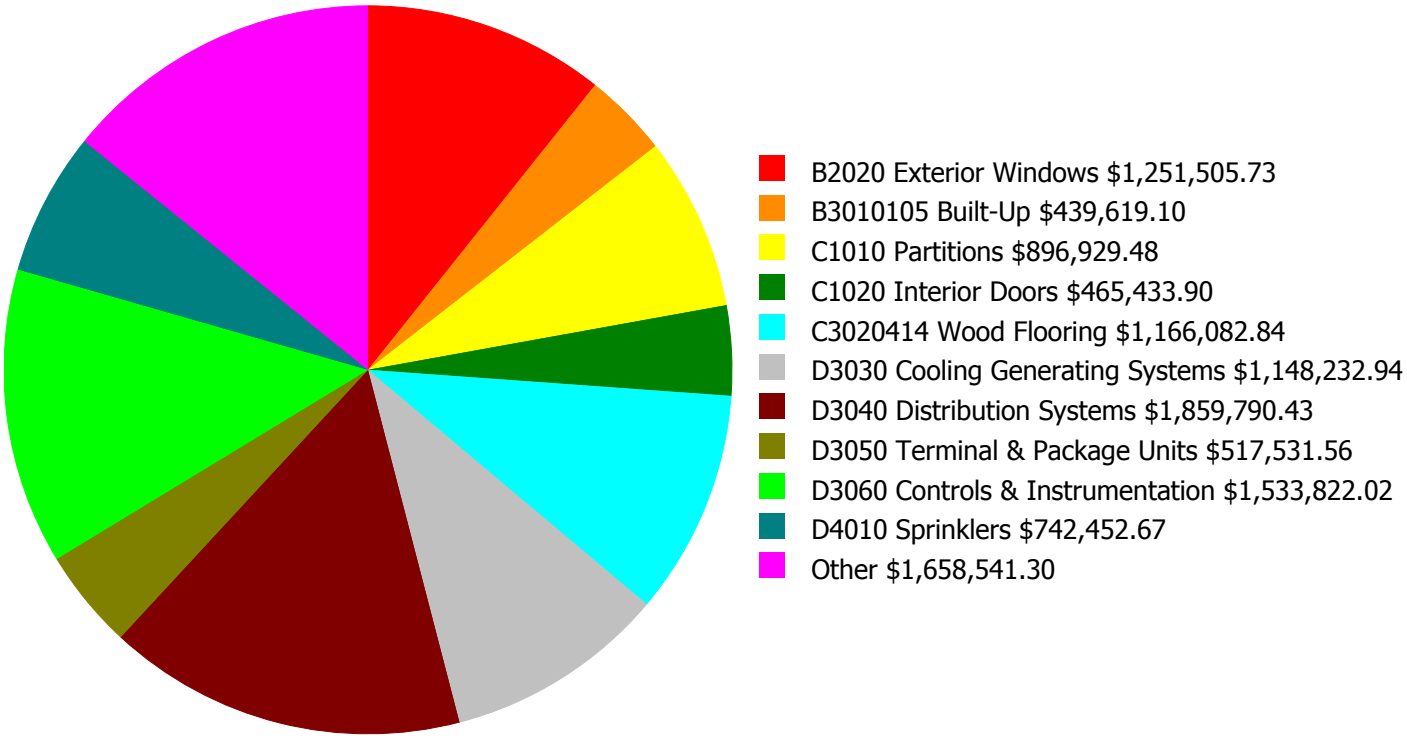
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 28.09%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$856,423.00	26.09 %	$1,712,846.00	24.09 %
2017	$4,316,633	$882,115.00	33.88 %	$1,764,231.00	29.88 %
2018	$0	$908,579.00	31.88 %	$1,817,158.00	25.88 %
2019	$0	$935,836.00	29.88 %	$1,871,673.00	21.88 %
2020	$6,386,383	$963,911.00	41.13 %	$1,927,823.00	31.13 %
2021	$0	$992,829.00	39.13 %	$1,985,657.00	27.13 %
2022	$0	$1,022,614.00	37.13 %	$2,045,227.00	23.13 %
2023	$166,385	$1,053,292.00	35.45 %	$2,106,584.00	19.45 %
2024	$0	$1,084,891.00	33.45 %	$2,169,782.00	15.45 %
2025	$1,793,890	$1,117,437.00	34.66 %	$2,234,875.00	14.66 %
Total:	**$12,663,292**	**$9,817,927.00**		**$19,635,856.00**	

Deficiency Summary by System

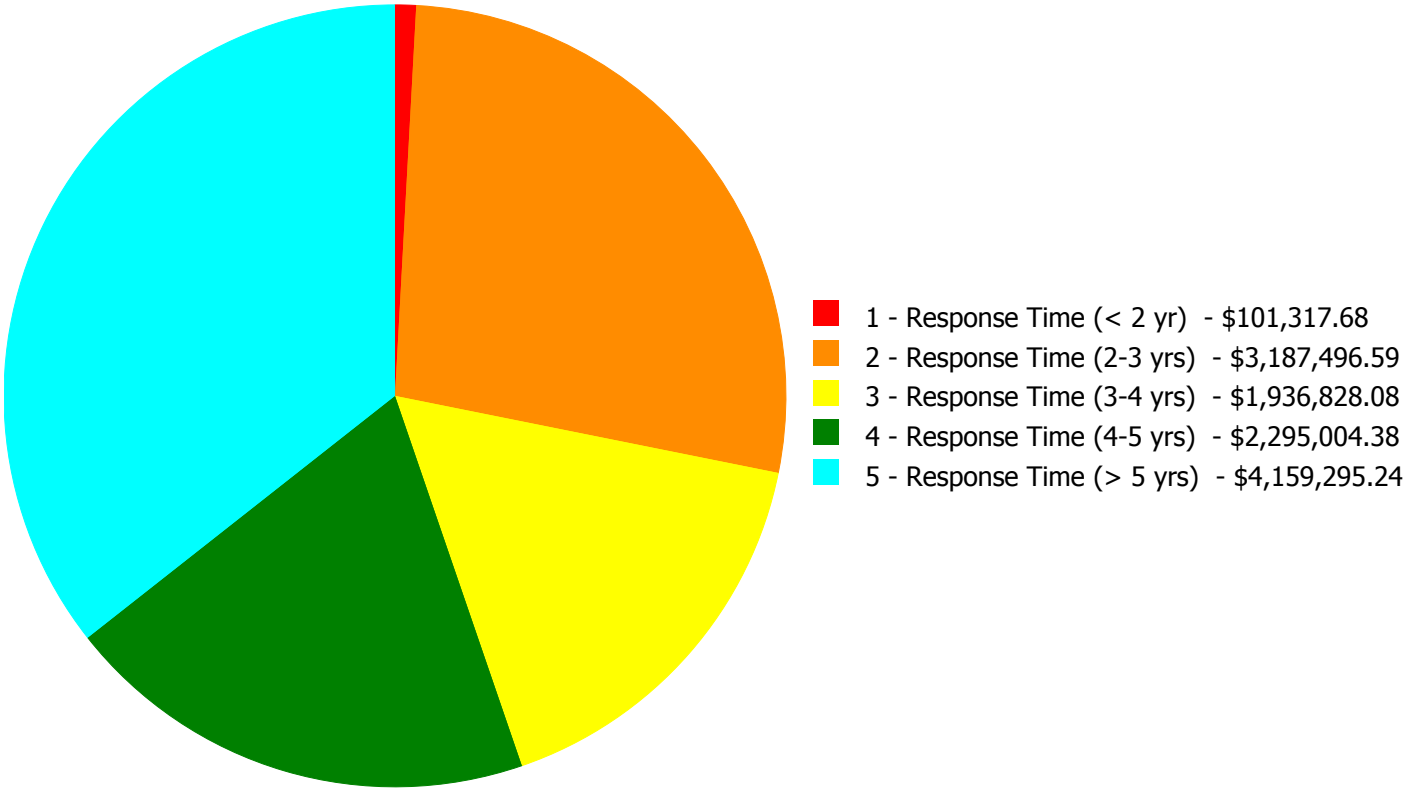
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $11,679,941.97

Deficiency Summary by Priority

The following chart shows the total repair costs broken down by priority. Assessors assigned deficiencies within eCOMET to one of the following priority categories:



Budget Estimate Total: $11,679,941.97

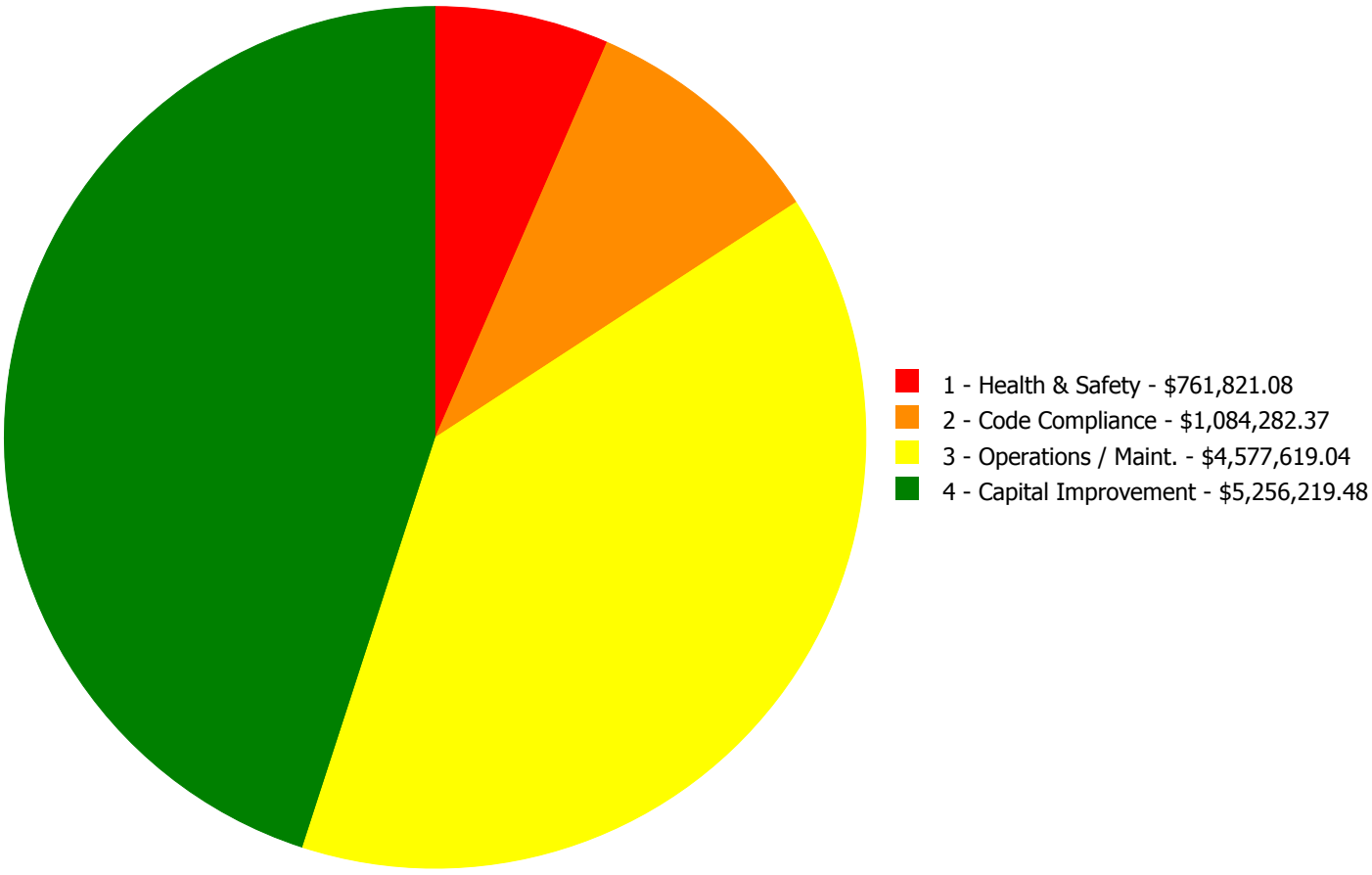
Deficiency By Priority Investment Table

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

System Code	System Description	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	$129,157.89	$0.00	$129,157.89
B2020	Exterior Windows	$0.00	$0.00	$0.00	$0.00	$1,251,505.73	$1,251,505.73
B2030	Exterior Doors	$0.00	$0.00	$31,206.47	$0.00	$0.00	$31,206.47
B3010105	Built-Up	$0.00	$0.00	$0.00	$439,619.10	$0.00	$439,619.10
C1010	Partitions	$0.00	$896,929.48	$0.00	$0.00	$0.00	$896,929.48
C1020	Interior Doors	$0.00	$0.00	$0.00	$465,433.90	$0.00	$465,433.90
C1030	Fittings	$0.00	$0.00	$68,683.39	$146,666.15	$15,854.51	$231,204.05
C2010	Stair Construction	$101,317.68	$0.00	$0.00	$0.00	$0.00	$101,317.68
C3010230	Paint & Covering	$0.00	$0.00	$0.00	$33,869.39	$0.00	$33,869.39
C3020411	Carpet	$0.00	$0.00	$0.00	$23,500.61	$0.00	$23,500.61
C3020413	Vinyl Flooring	$0.00	$0.00	$0.00	$0.00	$60,087.66	$60,087.66
C3020414	Wood Flooring	$0.00	$0.00	$0.00	$0.00	$1,166,082.84	$1,166,082.84
C3030	Ceiling Finishes	$0.00	$0.00	$24,957.61	$0.00	$0.00	$24,957.61
D2020	Domestic Water Distribution	$0.00	$0.00	$0.00	$362,315.86	$0.00	$362,315.86
D2030	Sanitary Waste	$0.00	$0.00	$254,608.39	$0.00	$0.00	$254,608.39
D3030	Cooling Generating Systems	$0.00	$0.00	$0.00	$0.00	$1,148,232.94	$1,148,232.94
D3040	Distribution Systems	$0.00	$0.00	$1,495,097.83	$364,692.60	$0.00	$1,859,790.43
D3050	Terminal & Package Units	$0.00	$0.00	$0.00	$0.00	$517,531.56	$517,531.56
D3060	Controls & Instrumentation	$0.00	$1,533,822.02	$0.00	$0.00	$0.00	$1,533,822.02
D4010	Sprinklers	$0.00	$742,452.67	$0.00	$0.00	$0.00	$742,452.67
D5010	Electrical Service/Distribution	$0.00	$0.00	$0.00	$194,699.29	$0.00	$194,699.29
D5020	Lighting and Branch Wiring	$0.00	$0.00	$57,198.40	$88,178.45	$0.00	$145,376.85
D5030	Communications and Security	$0.00	$0.00	$0.00	$46,871.14	$0.00	$46,871.14
D5090	Other Electrical Systems	$0.00	$14,292.42	$5,075.99	$0.00	$0.00	$19,368.41
	Total:	$101,317.68	$3,187,496.59	$1,936,828.08	$2,295,004.38	$4,159,295.24	$11,679,941.97

Deficiency Summary by Category

The following chart shows the total repair costs broken down by deficiency categories. Assessors assigned deficiencies to one of the following categories:



Budget Estimate Total: $11,679,941.97

Deficiency Details by Priority

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

Priority 1 - Response Time (< 2 yr):

System: C2010 - Stair Construction

Location: Building Wide

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 1 - Response Time (< 2 yr)

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

Qty: 600.00

Unit of Measure: L.F.

Estimate: $101,317.68

Assessor Name: System

Date Created: 08/04/2015

Notes: Present code and legislation regarding building accessibility by the handicapped requires that stairs have graspable handrails on both sides, that the rails have specific end geometry, and that the handrails continue past the newel posts. To comply with this legislation, the reinstallation of wall-mounted handrails and replacement center well handrails, including balustrades, on interior stairs throughout the building is recommended.

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

System: C1010 - Partitions

Location: Building Wide

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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

Correction: Install fire rated walls and door where required - insert number of doors

Qty: 20.00

Unit of Measure: S.F.

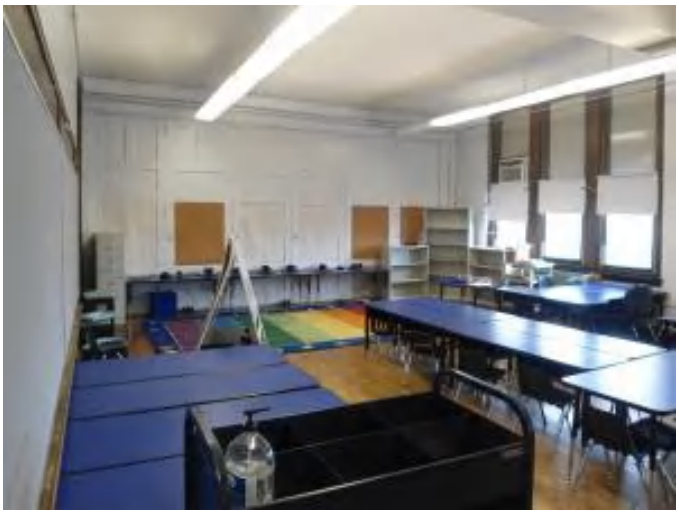
Estimate: $486,226.88

Assessor Name: System

Date Created: 08/04/2015

Notes: Interior doors are typically wood in wood frames with transom lites, sidelights, wired glass glazing. Other interior doors include solid wooden glass pane doors with original wooden pane frames, hollow metal in hollow metal frames at some of the stairwells and exit ways, access doors, and folding closet doors. Doors are generally in good to poor condition depending on location and date of installation and is a mix of ADA compliant and non-complaint doors with both non-rated and fire rated. The deficiency provides a budgetary consideration to correct the hallway, transoms, wooden doors and frames with consideration for the exit stair doors and construction.

System: C1010 - Partitions



Location: Room 209

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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

Correction: Folding partition inoperable - remove and replace - select quality

Qty: 1,500.00

Unit of Measure: S.F.

Estimate: $410,702.60

Assessor Name: System

Date Created: 08/04/2015

Notes: The movable partition that has been modified and no longer functions as originally designed in room 209 is a good example for a universal correction. This wall has been modified to suite the classroom needs however does not reflect the most recent code requirements. This deficiency recommends universal removal of the existing movable partitions and upgrades to a permeate wall systems.

System: D3060 - Controls & Instrumentation

Location: entire building

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Replace pneumatic controls with DDC (75KSF)

Qty: 71,500.00

Unit of Measure: S.F.

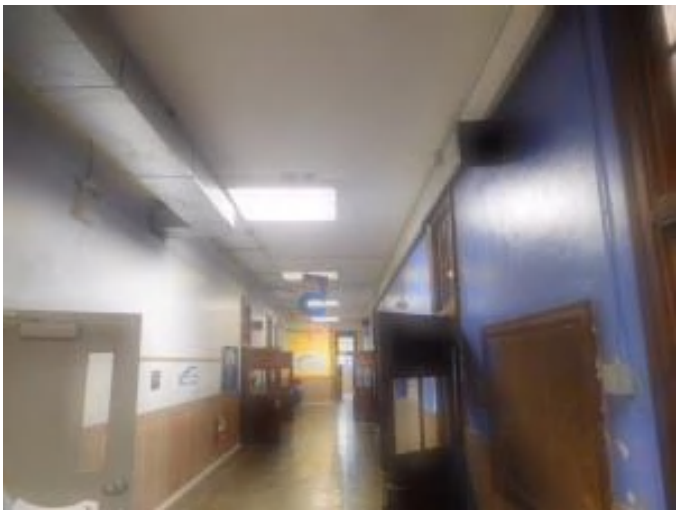
Estimate: $1,533,822.02

Assessor Name: System

Date Created: 08/12/2015

Notes: Install new direct digital control system and building automation system with remote computer control capability and graphics package

System: D4010 - Sprinklers



Location: original building
Distress: Life Safety / NFPA / PFD
Category: 1 - Health & Safety
Priority: 2 - Response Time (2-3 yrs)
Correction: Install a fire protection sprinkler system
Qty: 51,900.00
Unit of Measure: S.F.
Estimate: $742,452.67
Assessor Name: System
Date Created: 08/03/2015

Notes: Install complete wet pipe automatic sprinkler system in original building.

System: D5090 - Other Electrical Systems

Location: Exterior doors
Distress: Life Safety / NFPA / PFD
Category: 1 - Health & Safety
Priority: 2 - Response Time (2-3 yrs)
Correction: Add Emergency/Exit Lighting
Qty: 6.00
Unit of Measure: Ea.
Estimate: $14,292.42
Assessor Name: System
Date Created: 07/29/2015

Notes: Provide lighting fixtures wired on emergency power above all egress doors on Floor 1.

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

System: B2030 - Exterior Doors

Location: Exterior Elevation

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace exterior doors - per leaf

Qty: 8.00

Unit of Measure: Ea.

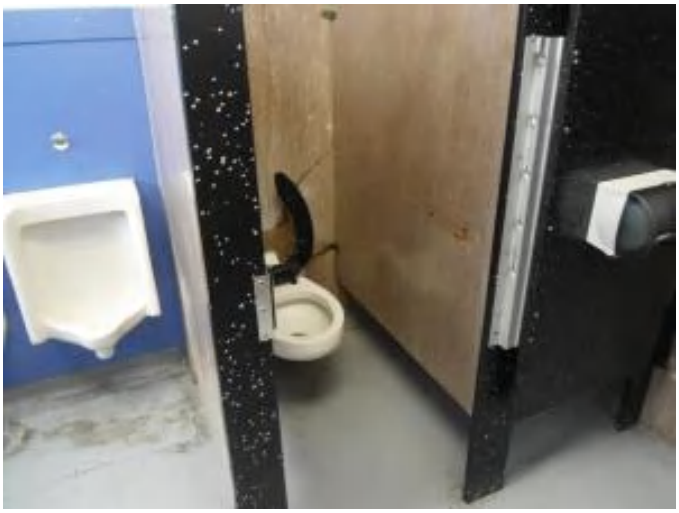
Estimate: $31,206.47

Assessor Name: System

Date Created: 08/04/2015

Notes: Exterior doors are aging at a faster than normal rate and several are damaged. This deficiency provides a budgetary consideration for universal replacement. Replace damaged exterior doors.

System: C1030 - Fittings



Location: Restrooms

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace damaged toilet paritions - handicap units

Qty: 30.00

Unit of Measure: Ea.

Estimate: $68,683.39

Assessor Name: System

Date Created: 08/04/2015

Notes: The restroom partitions are a mix of marble, plastic and wooden finishes. The marble finish partitions are in good condition however, the plastic and wooden restroom partitions are in fair condition considering the age and high traffic use. The wooden
and plastic partitions are recommended for universal removal and replacement.

System: C3030 - Ceiling Finishes

Location: POD 2

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace glued on or mechanically attached acoustical ceiling tiles

Qty: 2,000.00

Unit of Measure: S.F.

Estimate: $24,957.61

Assessor Name: System

Date Created: 08/04/2015

Notes: The ceiling finish for this pod is a 12x12 glue on ceiling tile finish. The finish is damaged and several sections are missing and other sections are damaged from water stains. It is recommended that the ceiling finish be removed and replaced with an acoustical tile ceiling finish.

System: D2030 - Sanitary Waste

Location: original building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 51,900.00

Unit of Measure: S.F.

Estimate: $254,608.39

Assessor Name: System

Date Created: 07/31/2015

Notes: Inspect existing sanitary piping and replace damaged sections

System: D3040 - Distribution Systems

Location: classrooms

Distress: Inadequate

Category: 4 - Capital Improvement

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

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

Qty: 18.00

Unit of Measure: C

Estimate: $1,495,097.83

Assessor Name: System

Date Created: 08/04/2015

Notes: Provide new four pipe fan coil system for original classrooms with ducted supply and return air, outside air system on roof ducted to each fan coil, steam to water heat exchanger to provide hot water, pumps, piping, and controls.

System: D5020 - Lighting and Branch Wiring

Location: POD 2

Distress: Obsolete

Category: 3 - Operations / Maint.

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

Correction: Replace lighting fixtures

Qty: 30.00

Unit of Measure: Ea.

Estimate: $34,319.04

Assessor Name: System

Date Created: 07/29/2015

Notes: Replace all lighting fixtures in the POD 2 addition.

System: D5020 - Lighting and Branch Wiring

Location: Offices

Distress: Obsolete

Category: 3 - Operations / Maint.

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

Correction: Replace lighting fixtures

Qty: 20.00

Unit of Measure: Ea.

Estimate: $22,879.36

Assessor Name: System

Date Created: 07/29/2015

Notes: Replace obsolete lighting fixtures with T12 lamps in offices and other rooms on Floors 1 and 2.

System: D5090 - Other Electrical Systems

Location: Corridors - Missing Exit Signs

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

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

Correction: Add Emergency/Exit Lighting

Qty: 3.00

Unit of Measure: Ea.

Estimate: $5,075.99

Assessor Name: System

Date Created: 07/29/2015

Notes: Provide three (3) additional exit signs in corridors.

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

System: B2010 - Exterior Walls

Location: Exterior Elevation

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 4,000.00

Unit of Measure: S.F.

Estimate: $129,157.89

Assessor Name: System

Date Created: 08/04/2015

Notes: In select locations, bricks have cracked or spalled and should be replaced. The repointing of deteriorated mortar joints is recommended.

System: B3010105 - Built-Up

Location: Roof

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and Replace Built Up Roof

Qty: 12,975.00

Unit of Measure: S.F.

Estimate: $439,619.10

Assessor Name: System

Date Created: 08/04/2015

Notes: As indicated in the photos this roof has been coated, repaired and re-coated several times. The roofing system is beyond its expected life and universal removal and replacement is recommended.

System: C1020 - Interior Doors

Location: Building Wide

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace interior doors - wood doors with wood frame - per leaf

Qty: 100.00

Unit of Measure: Ea.

Estimate: $465,433.90

Assessor Name: System

Date Created: 08/04/2015

Notes: The interior door system is a mix of the newly installed fire rated metal doors and frames and the original interior doors that include wooden glass pane doors with original wooden pane frames. This deficiency recommends the removal and replacement of the non-rated interior doors.

System: C1030 - Fittings

Location: Building Wide Signage

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 300.00

Unit of Measure: Ea.

Estimate: $77,842.94

Assessor Name: System

Date Created: 08/04/2015

Notes: The interior directional and identification signage package consist of paper signs hung over doors in a very temporary manor. This deficiency provides a budgetary consideration to install permeate directional and identification signage throughout the facility.

System: C1030 - Fittings

Location: Classrooms

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace blackboards with marker boards - pick the appropriate size and insert the quantities

Qty: 100.00

Unit of Measure: Ea.

Estimate: $68,823.21

Assessor Name: System

Date Created: 08/04/2015

Notes: The classroom chalk boards are original to the buildings construction. This system is beyond its expected life and universal upgrades are warranted. Remove and upgrade chalkboards to new marker board systems.

System: C3010230 - Paint & Covering

Location: Building Wide

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Repair and repaint all interior walls - SF of wall surface

Qty: 5,000.00

Unit of Measure: S.F.

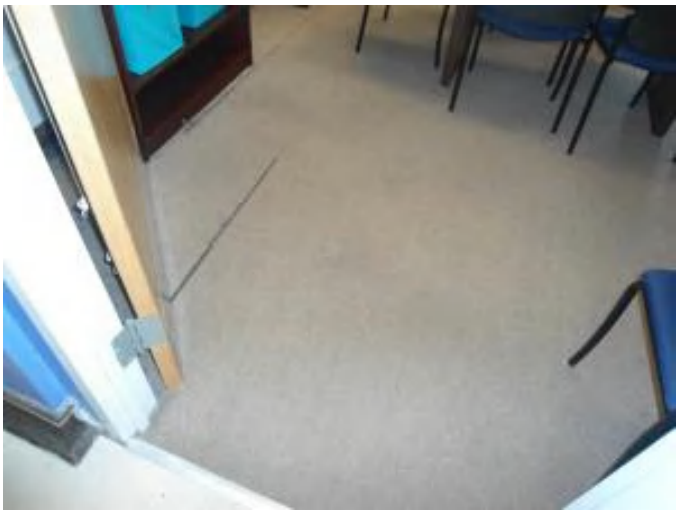
Estimate: $33,869.39

Assessor Name: System

Date Created: 08/04/2015

Notes: There are several minor areas of wall damage that ranges from serious to minor. Although the school is on a cyclical program of renewal and each painted surface is renewed at years end this system is at the point in which repairs are necessary. Remove damaged wall finishes and repair areas then apply primer and paint finish.

System: C3020411 - Carpet



Location: Administration Area

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace carpet

Qty: 2,100.00

Unit of Measure: S.F.

Estimate: $23,500.61

Assessor Name: System

Date Created: 08/04/2015

Notes: The interior carpet finish was installed in 2011 and is in fair condition considering the age and high traffic conditions. This finish will exceeded its expected life within the next five years and is recommended for upgrade.

System: D2020 - Domestic Water Distribution

Location: original building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace domestic water piping (75 KSF)

Qty: 71,500.00

Unit of Measure: S.F.

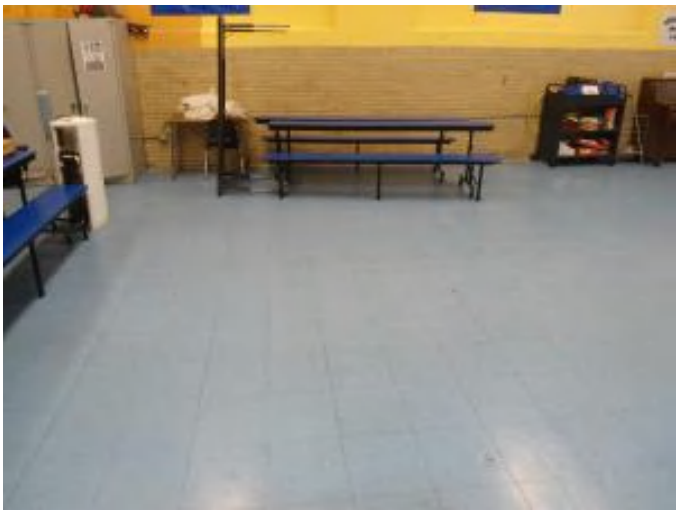
Estimate: $362,315.86

Assessor Name: System

Date Created: 08/03/2015

Notes: Replace domestic hot and cold water supply piping, fittings, valves, hangars and insulation in original building

System: D3040 - Distribution Systems



Location: cafeteria

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Install HVAC unit for Cafeteria (850 students).

Qty: 596.00

Unit of Measure: Pr.

Estimate: $278,657.39

Assessor Name: System

Date Created: 08/03/2015

Notes: Provide HVAC system for cafeteria including indoor single zone package central station air handling unit and ducted air distribution system. Unit should have chilled and hot water coils, filters, blower, motor, outside and return air dampers, hydronic valves and digital controls.

System: D3040 - Distribution Systems

Location: toilet rooms

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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

Correction: Provide inline centrifugal fan and wall outlet louver for restroom exhaust (4 plbg fixtures)

Qty: 5.00

Unit of Measure: Ea.

Estimate: $86,035.21

Assessor Name: System

Date Created: 08/04/2015

Notes: Provide mechanical toilet exhaust system in original portion of building including inline or exterior wall centrifugal ventilator at each level, ductwork and exhaust registers.

System: D5010 - Electrical Service/Distribution

Location: Main Electrical Room

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Add Electrical Switchgear and Distribution System

Qty: 1.00

Unit of Measure: Ea.

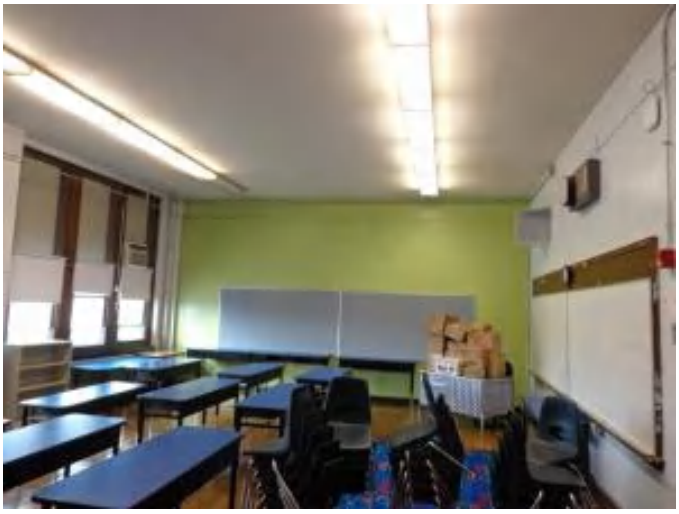
Estimate: $194,699.29

Assessor Name: System

Date Created: 07/28/2015

Notes: Provide a 1200A distribution section with 1000A main circuit breaker, distribution feeder circuit breakers and feeder circuits for central air conditioning equipment.

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: 1,350.00

Unit of Measure: L.F.

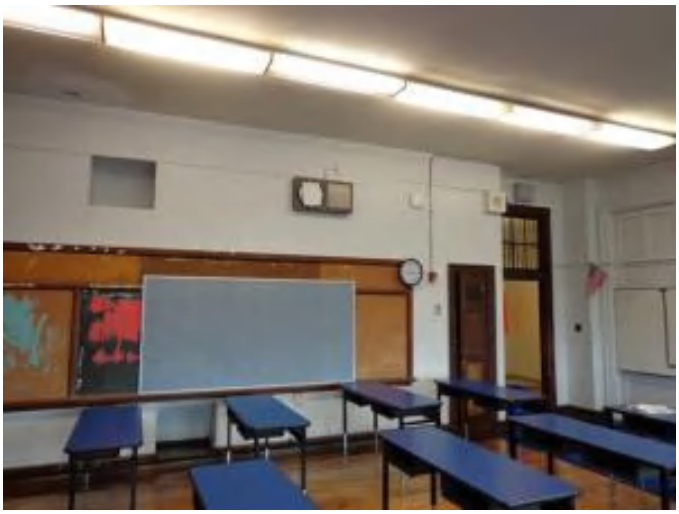
Estimate: $88,178.45

Assessor Name: System

Date Created: 07/29/2015

Notes: Add surface raceway system with three duplex receptacles each in 27 classrooms.

System: D5030 - Communications and Security



Location:	Classrooms/Offices
Distress:	Beyond Service Life
Category:	3 - Operations / Maint.
Priority:	4 - Response Time (4-5 yrs)
Correction:	Add/Replace Clock System or Components
Qty:	1.00
Unit of Measure:	Ea.
Estimate:	$46,871.14
Assessor Name:	System
Date Created:	07/29/2015

Notes: Provide new clock system in all classrooms and offices.

Priority 5 - Response Time (> 5 yrs):

System: B2020 - Exterior Windows

Location: Exterior Elevation

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Remove and replace aluminum windows - pick the appropriate size and style and insert the number of units

Qty: 300.00

Unit of Measure: Ea.

Estimate: $1,251,505.73

Assessor Name: System

Date Created: 08/04/2015

Notes: Upgrade exterior window systems to new double pane aluminum framed weather guard applications.

System: C1030 - Fittings

Location: Building Wide

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Remove and replace tackboards - select size

Qty: 20.00

Unit of Measure: Ea.

Estimate: $15,854.51

Assessor Name: System

Date Created: 08/04/2015

Notes: There are several tack boards in the hallways for student displays. The systems are beyond the expected service life for this application. Remove and replace tack boards is recommended.

System: C3020413 - Vinyl Flooring

Location: Building Wide

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Remove and replace VCT

Qty: 5,000.00

Unit of Measure: S.F.

Estimate: $60,087.66

Assessor Name: System

Date Created: 08/04/2015

Notes: The cafeteria, both educational pods and select areas such as the staff restrooms has a 12x12 vinyl floor tile finish. Some of the flooring was upgraded during the 2011 renovation effort and is in very good condition. There are some sections that were not a part of that effort and the finish is beyond the expected life cycle. The older finishes are in fair condition and upgrades are recommended within the next five years. Remove and replace 12x12 vinyl tile application..

System: C3020414 - Wood Flooring

Location: Classrooms

Distress: Damaged

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Remove and replace wood flooring

Qty: 40,000.00

Unit of Measure: S.F.

Estimate: $1,166,082.84

Assessor Name: System

Date Created: 08/04/2015

Notes: . It is recommended that the wooden floor finish be removed and replaced with an in kind finish.

System: D3030 - Cooling Generating Systems

Location: roof, mechanical room

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 71,500.00

Unit of Measure: S.F.

Estimate: $1,148,232.94

Assessor Name: System

Date Created: 08/22/2015

Notes: Install new chilled water system for non air conditioned portions of original building including 130 ton air cooled chiller on roof, two chilled water pumps, chemical treatment, piping and controls. Install pumps in basement mechanical room.

System: D3050 - Terminal & Package Units

Location: two pod additions

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 5 - Response Time (> 5 yrs)

Correction: Install HP RTU for Classroom (30 students).

Qty: 4.00

Unit of Measure: C

Estimate: $517,531.56

Assessor Name: System

Date Created: 08/05/2015

Notes: Provide HVAC system for the two pods including (2) five ton single zone package rooftop heat pump units for each pod. Remove existing window air conditioners, leave existing electric baseboard radiation. Provide new exposed spiral duct system with sidewall grilles.

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	Traction geared elevators, passenger, 2500 lb., 5 floors, 200 FPM	1.00	Ea.	South Side	Schindler Elevator Corp.	No. 6993C01G02	G.O. G2756-01		30	2007	2037	$179,550.00	$197,505.00
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, steam, gross output, 2040 MBH, includes burners, controls and insulated jacket, packaged	1.00	Ea.	mechanical room	weil mclain	888			35	2011	2046	$43,116.20	$47,427.82
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, steam, gross output, 2040 MBH, includes burners, controls and insulated jacket, packaged	1.00	Ea.	mechanical	weil mclain	888			35	2011	2046	$43,116.20	$47,427.82
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, steam, gross output, 2040 MBH, includes burners, controls and insulated jacket, packaged	1.00	Ea.	mechanical room	weil mclain	888			35	2013	2048	$43,116.20	$47,427.82
D3050 Terminal & Package Units	A/C packaged, DX, air cooled, hot water heat, VAV, 30 ton	1.00	Ea.	roof	york	z33an32n5kaval0001a	n11389987		20	2011	2031	$65,820.70	$72,402.77
D4010 Sprinklers	Fire pumps, electric, 500 GPM, 50 psi, 27 HP, 1,770 RPM, 4" pump, including controller, fittings and relief valve	1.00	Ea.	mechanical room	itt	4x4x9,5f	1106179001		35	2012	2047	$22,805.80	$25,086.38
D5010 Electrical Service/Distribution	Switchgear installation, incl switchboard, panels & circuit breaker, 120/208 V, 1600 A	2.00	Ea.	Basement Electrical Room	Siemens	Model SB3 Rev. A	S.O. 3003460941-020050-04		30	2012	2042	$40,458.15	$89,007.93
												Total:	**$526,285.54**

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):	55,700
Year Built:	1927
Last Renovation:	
Replacement Value:	$932,987
Repair Cost:	$712,971.10
Total FCI:	76.42 %
Total RSLI:	68.74 %

Description:

Attributes:

General Attributes:

Bldg ID:	S742001	Site ID:	S742001

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	87.00 %	103.23 %	$712,971.10
G40 - Site Electrical Utilities	16.67 %	0.00 %	$0.00
Totals:	**68.74 %**	**76.42 %**	**$712,971.10**

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 $
G2020	Parking Lots	$7.65	S.F.	30,000	30	1985	2015	2047	106.67 %	184.85 %	32		$424,227.18	$229,500
G2030	Pedestrian Paving	$11.52	S.F.	16,000	40	1950	1990	2027	30.00 %	12.49 %	12		$23,012.55	$184,320
G2040	Site Development	$4.36	S.F.	55,700	25	1925	1950	2042	108.00 %	96.19 %	27		$233,593.22	$242,852
G2050	Landscaping & Irrigation	$3.78	S.F.	9,000	15	1925	1940	2032	113.33 %	94.47 %	17		$32,138.15	$34,020
G4020	Site Lighting	$3.58	S.F.	55,700	30	1990	2020		16.67 %	0.00 %	5			$199,406
G4030	Site Communications & Security	$0.77	S.F.	55,700	30	1990	2020		16.67 %	0.00 %	5			$42,889
								Total	**68.74 %**	**76.42 %**			**$712,971.10**	**$932,987**

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.

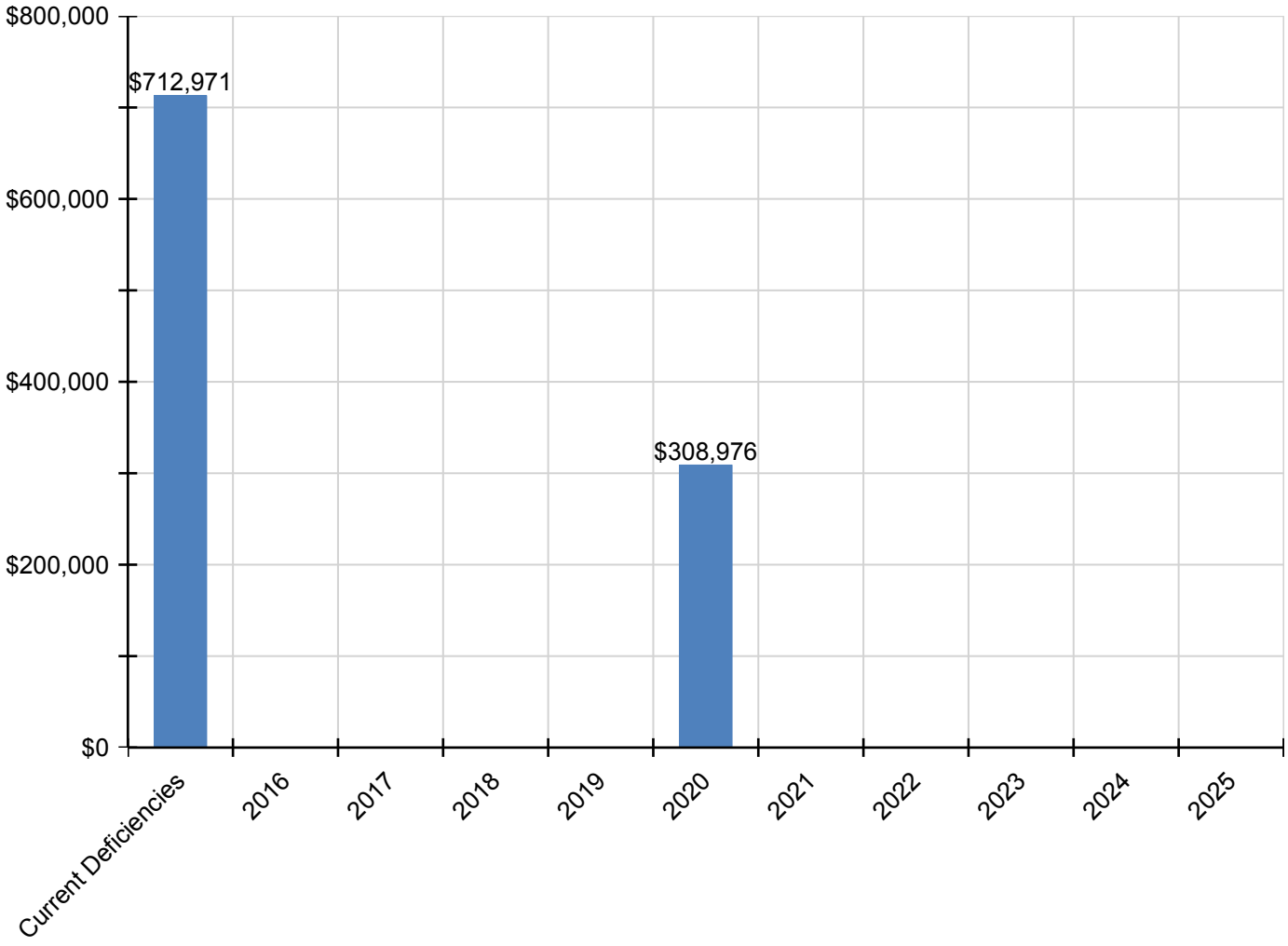
Inflation Rate: 3%

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Total:	**$712,971**	**$0**	**$0**	**$0**	**$0**	**$308,976**	**$0**	**$0**	**$0**	**$0**	**$0**	**$1,021,947**
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**
G2020 - Parking Lots	$424,227	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$424,227**
G2030 - Pedestrian Paving	$23,013	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$23,013**
G2040 - Site Development	$233,593	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$233,593**
G2050 - Landscaping & Irrigation	$32,138	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$32,138**
G40 - Site Electrical Utilities	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G4020 - Site Lighting	$0	$0	$0	$0	$0	$254,283	$0	$0	$0	$0	$0	**$254,283**
G4030 - Site Communications & Security	$0	$0	$0	$0	$0	$54,692	$0	$0	$0	$0	$0	**$54,692**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

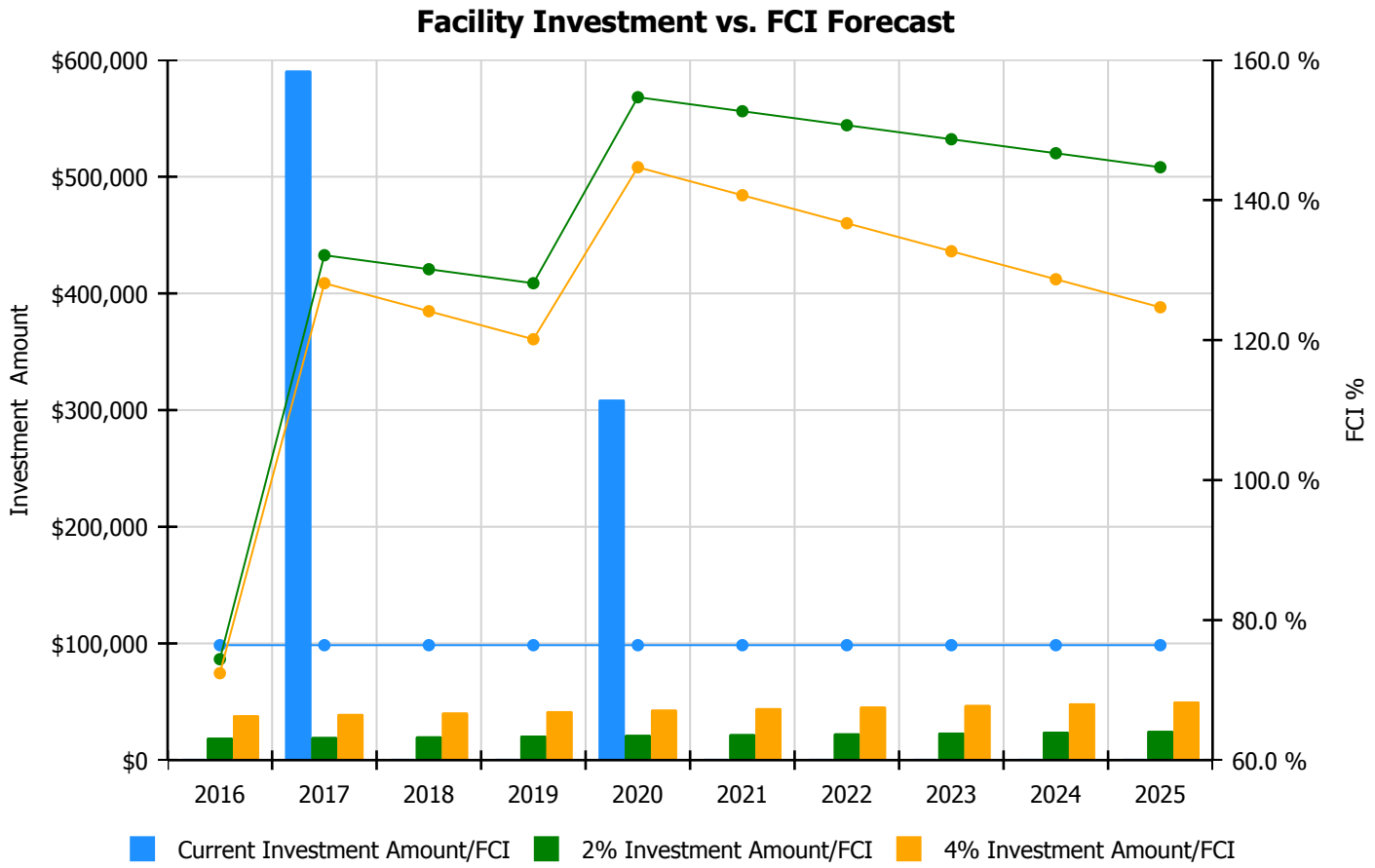
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



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:

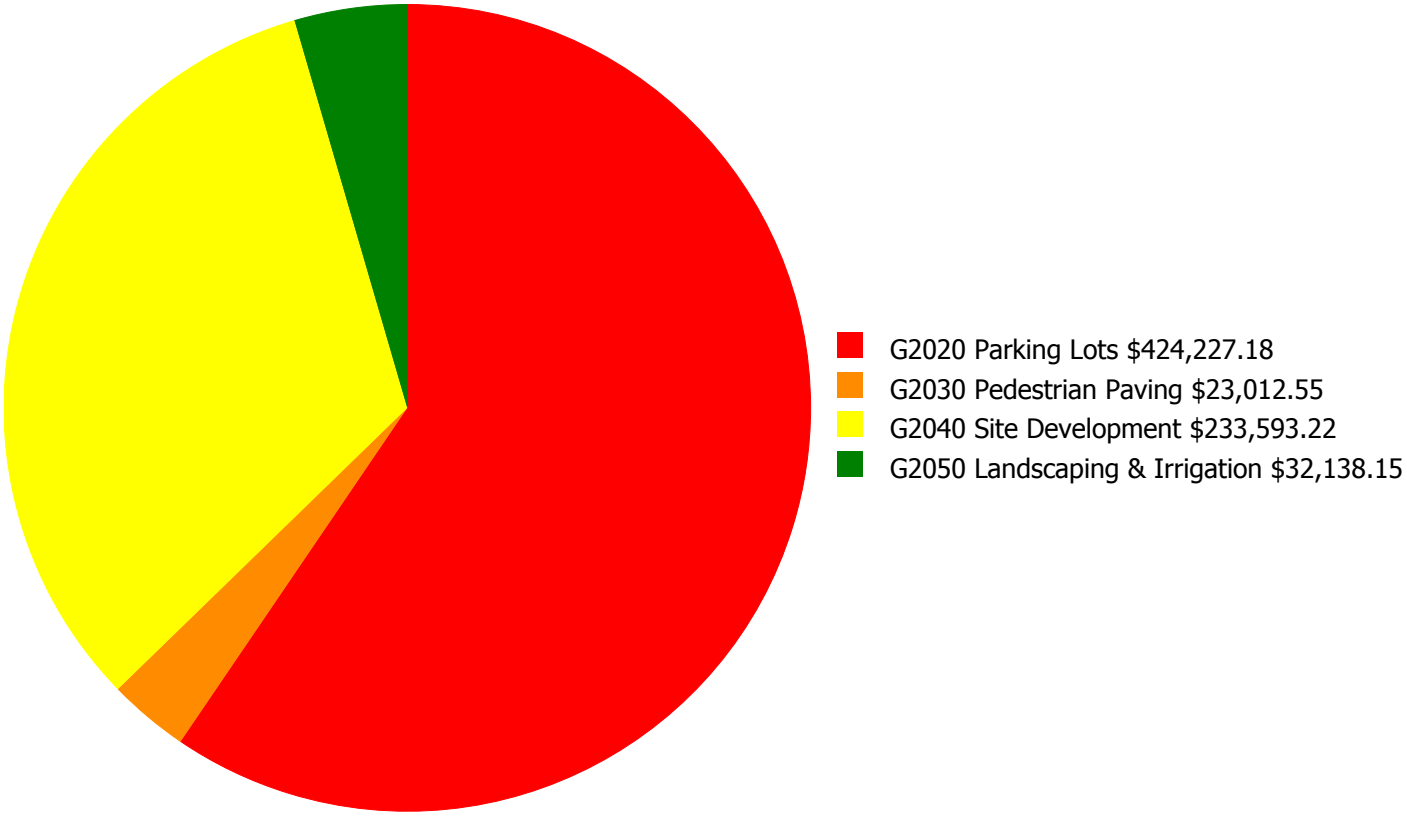
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 76.42%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$19,220.00	74.42 %	$38,439.00	72.42 %
2017	$590,931	$19,796.00	132.12 %	$39,592.00	128.12 %
2018	$0	$20,390.00	130.12 %	$40,780.00	124.12 %
2019	$0	$21,002.00	128.12 %	$42,003.00	120.12 %
2020	$308,976	$21,632.00	154.69 %	$43,264.00	144.69 %
2021	$0	$22,281.00	152.69 %	$44,561.00	140.69 %
2022	$0	$22,949.00	150.69 %	$45,898.00	136.69 %
2023	$0	$23,638.00	148.69 %	$47,275.00	132.69 %
2024	$0	$24,347.00	146.69 %	$48,693.00	128.69 %
2025	$0	$25,077.00	144.69 %	$50,154.00	124.69 %
Total:	**$899,906**	**$220,332.00**		**$440,659.00**	

Deficiency Summary by System

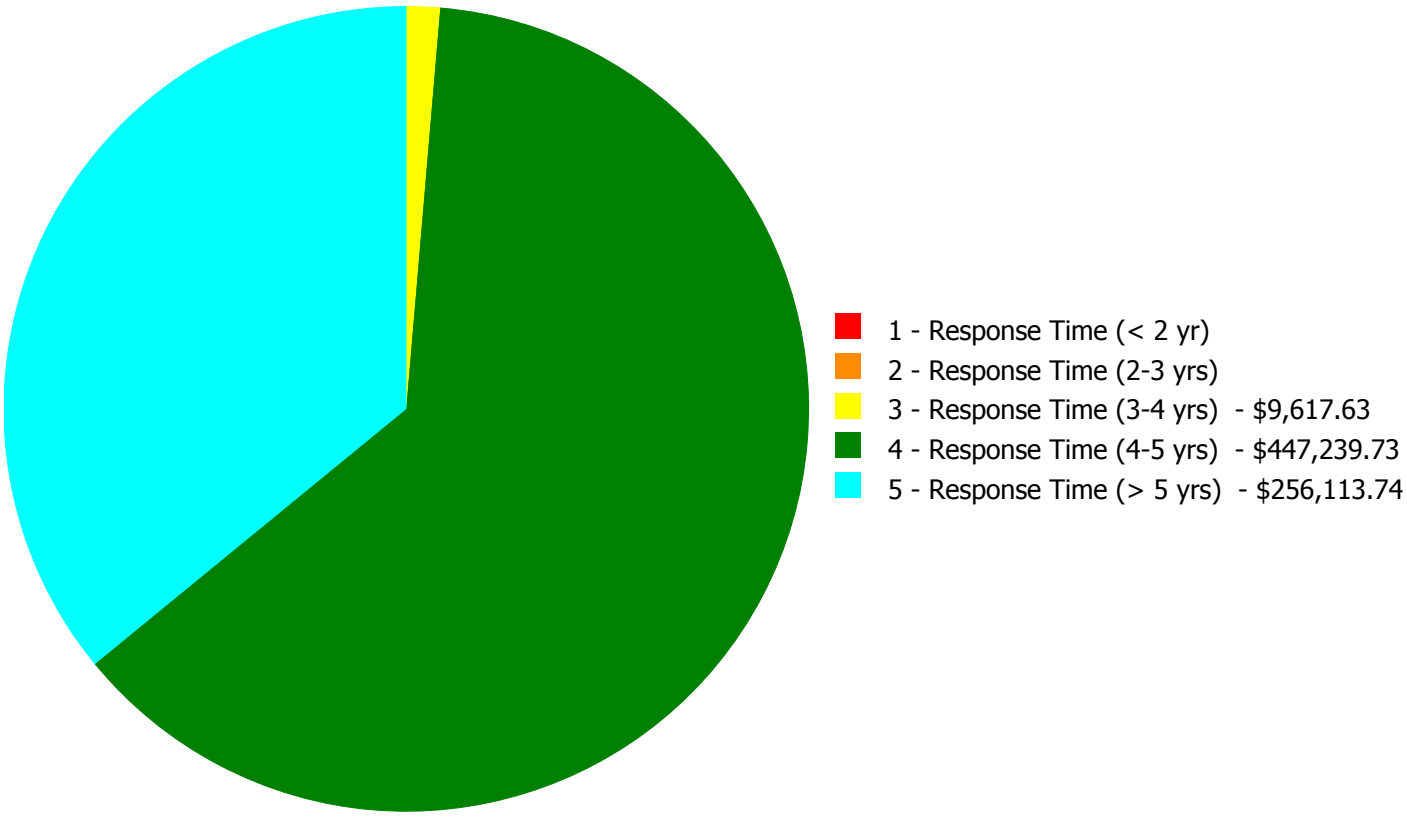
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $712,971.10

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: $712,971.10

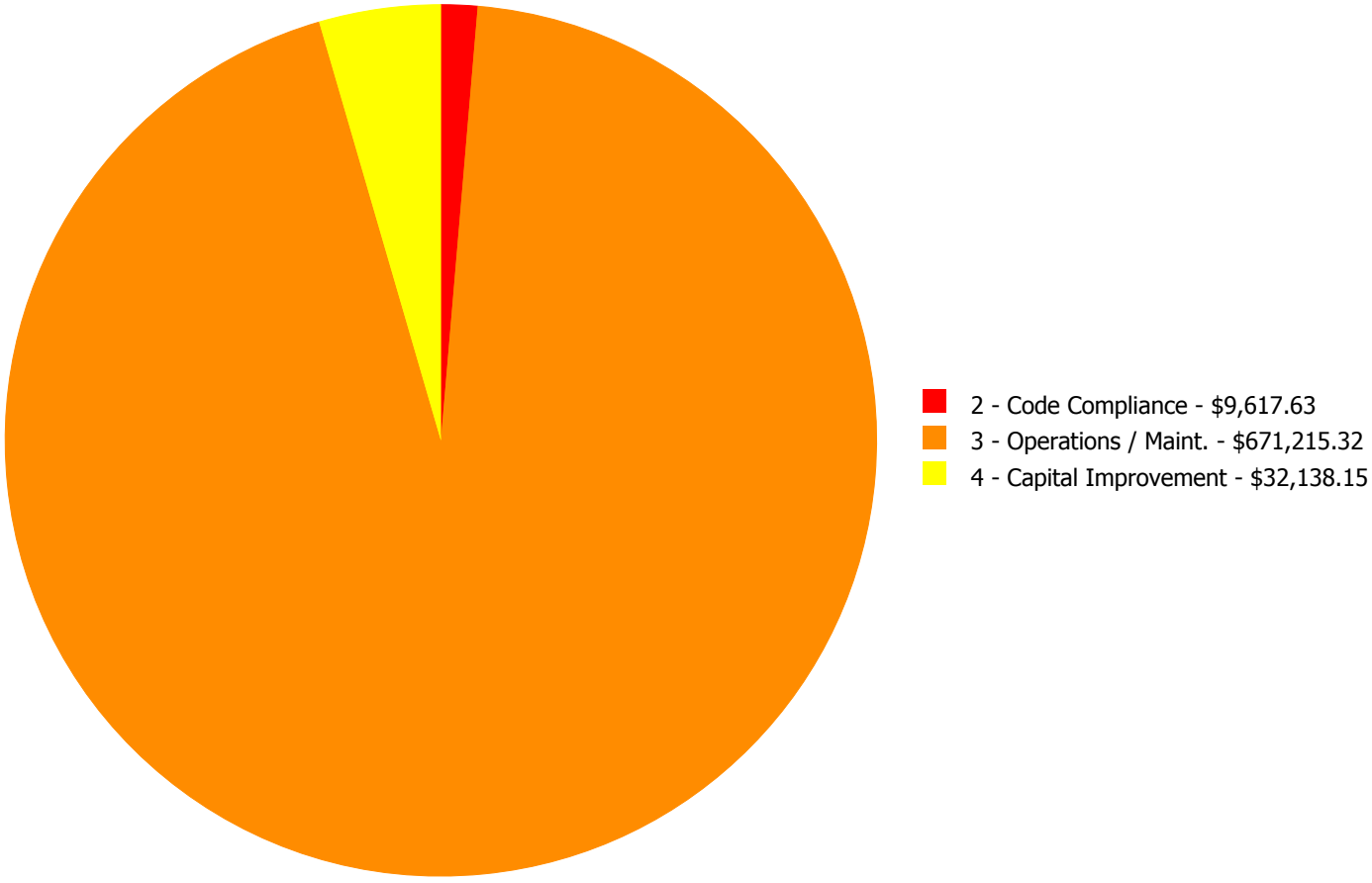
Deficiency By Priority Investment Table

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
G2020	Parking Lots	$0.00	$0.00	$0.00	$424,227.18	$0.00	$424,227.18
G2030	Pedestrian Paving	$0.00	$0.00	$0.00	$23,012.55	$0.00	$23,012.55
G2040	Site Development	$0.00	$0.00	$9,617.63	$0.00	$223,975.59	$233,593.22
G2050	Landscaping & Irrigation	$0.00	$0.00	$0.00	$0.00	$32,138.15	$32,138.15
	Total:	$0.00	$0.00	$9,617.63	$447,239.73	$256,113.74	$712,971.10

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: $712,971.10

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: G2040 - Site Development

Location: Site

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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

Correction: Replace or install exterior guardrails

Qty: 50.00

Unit of Measure: L.F.

Estimate: $9,617.63

Assessor Name: Ben Nixon

Date Created: 08/04/2015

Notes: The wooden hand rails to the basement level entrance are not current with requirements that the hand rails be graspable and continuous. Remove the wooden application and replace with a metal hand and guard rail system.

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

System: G2020 - Parking Lots

Location: Site

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace AC paving parking lot

Qty: 30,000.00

Unit of Measure: S.F.

Estimate: $424,227.18

Assessor Name: Ben Nixon

Date Created: 08/04/2015

Notes: The parking lot is in poor condition, the harsh environmental conditions associated with snow removal have taken its toll on the asphalt surface. Also, there is no marked path of ingress to the main entrance. This project provides a budgetary consideration for a parking lot renewal program that includes all aspects of the current ADA legislation. Universal upgrades are recommended. Remove and replace parking lot.

System: G2030 - Pedestrian Paving

Location: Site

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace concrete sidewalk or concrete paving - 4" concrete thickness

Qty: 1,600.00

Unit of Measure: S.F.

Estimate: $23,012.55

Assessor Name: Ben Nixon

Date Created: 08/04/2015

Notes: The sidewalk system is original to the buildings construction. There are a several areas of cracking concrete but no tripping hazards. The sidewalk system is expected to expire in the near future. Removal of the entire system is recommended. Universal upgrades are required.

Priority 5 - Response Time (> 5 yrs):

System: G2040 - Site Development

Location: Site

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Replace chain link fence - 8' high

Qty: 2,000.00

Unit of Measure: L.F.

Estimate: $223,975.59

Assessor Name: Ben Nixon

Date Created: 08/04/2015

Notes: This school has a perimeter fence surrounding the parking / playground area. The fence has several areas of repairs and the mounting post are damaged in several areas, overall the fence is in fair condition. This fence system is recommended to be removed and replaced with a new system within the next five to ten years.

System: G2050 - Landscaping & Irrigation

Location: Site

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 5 - Response Time (> 5 yrs)

Correction: Remove and replace defective irrigation system - pop up spray system

Qty: 9,000.00

Unit of Measure: S.F.

Estimate: $32,138.15

Assessor Name: Ben Nixon

Date Created: 08/04/2015

Notes: The landscaping is in good condition and well maintained but with no irrigation system. The landscaping is generally located on the northern and eastern sides of the site. 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