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.

Clymer School

Governance	CHARTER	Report Type	Elementary
Address	1201 W. Rush St. Philadelphia, Pa 19133	Enrollment	543
		Grade Range	'00-06'
Phone/Fax	215-227-8610 / N/A	Admissions Category	Neighborhood
Website	Www.Masterycharter.Org/Schools/Clymer-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	**40.66%**	**$14,812,216**	**$36,427,971**
Building	39.48 %	$14,046,720	$35,581,925
Grounds	90.48 %	$765,496	$846,046

Major Building Systems

Building System	System FCI	Repair Costs	Replacement Cost
Roof (Shows physical condition of roof)	89.59 %	$779,286	$869,860
Exterior Walls (Shows condition of the structural condition of the exterior facade)	00.00 %	$0	$2,681,253
Windows (Shows functionality of exterior windows)	84.07 %	$1,099,882	$1,308,300
Exterior Doors (Shows condition of exterior doors)	302.62 %	$318,756	$105,332
Interior Doors (Classroom doors)	65.48 %	$166,971	$254,977
Interior Walls (Paint and Finishes)	00.00 %	$0	$952,811
Plumbing Fixtures	57.28 %	$562,549	$982,133
Boilers	00.00 %	$0	$1,356,245
Chillers/Cooling Towers	65.60 %	$1,166,613	$1,778,301
Radiators/Unit Ventilators/HVAC	126.18 %	$3,940,466	$3,122,923
Heating/Cooling Controls	00.00 %	$0	$980,681
Electrical Service and Distribution	92.51 %	$651,833	$704,637
Lighting	38.10 %	$959,824	$2,519,259
Communications and Security (Cameras, Pa System and Fire Alarm)	00.00 %	$0	$943,633

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

S522001;Clymer

Final

Site Assessment Report

February 1, 2017

PARSONS

Table of Contents

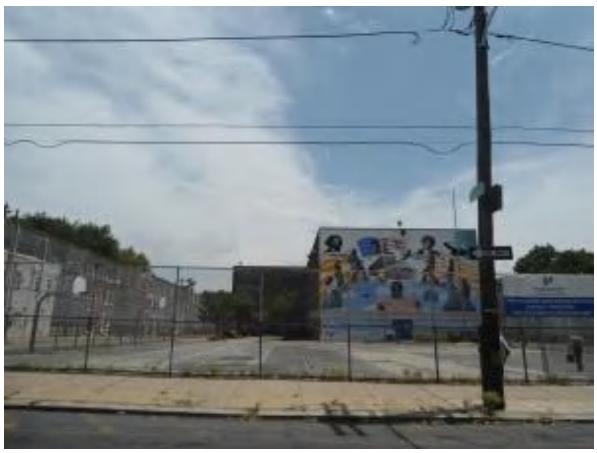
Site Executive Summary

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

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

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

Gross Area (SF):	72,643
Year Built:	1964
Last Renovation:	
Replacement Value:	$36,427,971
Repair Cost:	$14,812,215.98
Total FCI:	40.66 %
Total RSLI:	72.93 %



Description:

Facility Assessment

July 2015

School District of Philadelphia

Clymer Elementary School

1201 W Rush Street

Philadelphia, PA 19133

72,643 SF / 795 Students / LN 04

GENERAL

The Mastery Charter School Clymer Elementary Campus is identified as B522001 and was originally constructed in 1964 as the Clymer

George Elementary School and later used as the Clymer George Accelerated Learning Community School. This facility is located at 1201 W Rush St. in Philadelphia, PA. The design of the L-shaped, concrete and steel-framed building includes brick facades with a concrete foundation, detailing, and ornamental molding.

The main entrance faces the southern exterior on Rush Street. This School serves students in grades K-6. This school was originally constructed in 1964 and consists of a Basement level and four additional stories with a total gross square footage of 72,643 GSF.

This recent history of this school includes a minor remodeling effort. There were no records to indicate the date of completion. This school has several classrooms, a library, science labs, 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.

Mr. Ben Kohler, Director of Operations, and Cesar Garcia, 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

This school's concrete foundations appear to be in good condition considering the age of the facility. There were no reported issues during the time of the inspection. Basement walls are in good condition with no reported issues. The superstructure is sound consisting of reinforced concrete and masonry construction. The floor construction is reinforced concrete in good condition.

There two different levels of roof for this school however they are both the same built up application with the same date of installation. The upper section of the roof has been reported to have several minor leaks and is showing signs of age. During the time of the inspection evidence of water infiltration was evident as the surface of the roof was floating. This deficiency recommends removal and replacement of the roof system.

The exterior finish consists of either a painted brick surface recently completed in 2014 or a typical brick surface. In either case only one minor issue was reported on the northern exterior. This minor issue may have been previously corrected as indicated from the interior work completed in the classrooms where the damage was reported. Although no issues surfaced during the time of the inspection care should be taken to observe this minor issue to determine if the recent repairs have solved the water infiltration issue. There were no other issues with the exterior brick finish therefore no recommendations are required at this time.

Exterior windows are a mix of single pane industrial grade metal, aluminum framed single pane windows. The single pane and metal-framed windows have been replaced in the last twenty years. Windows are in good 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 last re-construction effort for this school. The Thirteenth Street fenced in entrance and the side entrance facing the West William Street has been upgraded with an exterior ADA ramp or appropriate doors. The path of travel is not very clear from that entrance of the school and from the access points. The interior path of travel is partially supported by an elevator, Interior access ramps, wheelchair lift, some door hardware, hand rails and guard rails. In addition to the path of travel modifications the main office has been upgraded at the reception desk to include dual level access. However, the building has received limited upgrades and does not fully support a path of travel for those that may be physically challenged.

Interior partitions mainly consist of painted concrete or CMU finish. Interior partitions are in good condition. Interior doors are typically wood in metal 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 stairwells and exit ways, access doors, and closet doors. Doors are generally in good 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. Remove and replace transoms and doors.

Other interior doors include hollow metal in hollow metal frames at stairwells and exit ways, access doors, and folding closet doors. Corridor doors are not fire-rated and should be replaced. To prevent doors from being improperly held open, magnetic door holders should be installed and tied to the building fire alarm system to ensure that the door can function as designed in the event of a fire.

Fittings include: chalkboards; tack boards; interior signage; toilet accessories and metal toilet partitions; fixed storage shelving. The restroom partitions are in good condition and there were no reported issues during the time of the inspection.

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.

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 lab casework and working desk with countertop have been upgraded from the original construction however the installation date is unknown. The system is in fair condition but showing signs of age and high usage. This deficiency provides a budgetary consideration for new casework and countertops for the lab spaces. Remove and replace casework.

Stair construction is concrete. Stair treads and landings are finished with vinyl tile or concrete and nosings are rubber. Handrails are industrial grade and do not have extensions and returns at landings. Current requirements for stairs indicate that they have graspable handrails on both sides, that the rails have a specific end geometry, and that the handrails continue horizontally at the landings. In addition, guardrails must prevent the passage of a 4 inch diameter sphere (6 inches in the triangle formed by the lower rail and tread/riser angle). Although the stairs are compliant with the code enforced at the time of construction until a major renovation occurs, they are deficient in handrail and guardrail design relative to current standards. Future efforts should include comprehensive stair railing removal and replacement upgrades.

Interior wall finishes are typically painted CMU or concrete. Other wall finishes include: ceramic tile at the staff restrooms. Wall finishes are generally in very good condition. Interior floor finishes are typically VCT and VAT in classrooms and corridors. Other floor finishes include: carpet in the administrative and library with sealed concrete in the student restrooms and mechanical spaces.

The ceiling finish is a mix of 12 x 12 ceiling grid, painted and exposed concrete decking. The ceiling finish has been repaired in several areas and is in good condition considering the age of the application. The ceiling finish is expected to required upgrades within the next five to ten years. This deficiency provides a budgetary consideration for removal and replacement of the current ceiling finish to a new acoustical tile finish. Considering the recommended mechanical and electrical upgrades this effort should be completed as part of an overall renewal program for the school.

Much of the vinyl floor tile finishes in this building have been removed and replaced with a 12x12 vinyl floor finish. There a few remaining areas such as the hallway and select classrooms still have older 9x9 vinyl flooring. It is recommended that all of the remaining vinyl flooring be removed and upgraded to a 12x12 floor tile finish.

The interior carpet finish was installed in 2000 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 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 stage with original vinyl tile finishes with upgraded flyway equipment; instrumental equipment; A/V equipment; with exterior basketball backstops and playground. 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 are standard china commercial quality with wall mounted lavatories, urinals and water closets. Lavatories have dual lever faucets and water closets and urinals have flush valves with lever handles. There are surface mounted and recessed stainless steel drinking fountains. Custodial closets have fiberglass mop basins.

Hot water is generated from two sources, a gas fired AO Smith seventy gallon water heater installed in 2008 and a horizontal, insulated storage tank with a hot water bundle installed in 1964. Both are in the basement mechanical room and have small circulating pumps.

Domestic water service is a four inch line and four inch meter with backflow preventer from W. Rush St. Service enters in the basement mechanical room and an Armstrong duplex booster system with control panel, two five hp pumps, and pressurization tank maintains building system pressure. Water piping in the building is copper. Soil, waste, vent and rainwater piping are hub and spigot

cast iron, with some PVC and hubless cast iron where repairs have been made. There is a groundwater issue in the mechanical room, reportedly from an underground stream and elevation issues with the city rainwater system. The main rainwater line exits the building to N. Twelfth St. The main sewer line exits to W. Rush St. A six inch gas service from W. Rush St. enters the building in the mechanical room and is connected to a gas booster system. Gas piping is welded black steel. There is a duplex sump pump in the mechanical room and one of the pumps has been replaced with an end suction pump on top of the sump.

The plumbing fixtures are well beyond anticipated service life and are recommended to be replaced, including water closets, urinals, lavatories and drinking fountains. Fittings and trim should be replaced as well. The domestic water piping is from 1964, has exceeded normal life, may contain lead solder and should be replaced. The cast iron rainwater and sanitary and vent piping are also original. The cast iron sanitary piping should be inspected with cameras and damaged sections replaced. Rainwater and vent piping should be serviceable for ten to fifteen more years. The gas water heater should be serviceable for ten to fifteen more years.

HVAC—Heating hot water is generated by three 84 hp gas/oil fired Burderus Logano GE615 natural draft boilers with Powerflame modulating burners and separate oil pumps. A code compliant gas train is connected to the gas piping. Boilers, installed in 2006, are located in the basement mechanical room. A combustion air louver with motorized damper is in the room with half of the area ducted near the boilers. A common factory fabricated double wall vent connects the boilers and extends to a roof cap. The oil storage tank is underground in a paved area and is reportedly ten thousand gallons, construction details unknown. There is a tank monitoring system and a duplex oil pump system with strainer and control panel in the mechanical room. No problems were reported nor obvious with the boiler system.

Corridors, toilet rooms and entry areas have exposed or concealed hot water radiation units. Classrooms have Nesbitt unit ventilators with outside air damper, hot water coil, filter, blower and controls. There is a mechanical room on the first level adjacent to the auditorium with two single zone heating and ventilating units serving the auditorium and cafeteria. Both units are functional and are ducted to ceiling diffusers in each area. The auditorium also has under window hot water radiation.

There is no central air conditioning. There are approximately fifty window air conditioners for cooling and the classroom unit ventilators and two air handling units for ventilation. There are transfer air grills from classrooms to corridors to relieve ventilation air from the unit ventilators to roof mounted relief hoods. There are no fire dampers in the grills. Two centrifugal roof ventilators provide ducted exhaust from toilet rooms and custodial closets. A roof mounted general exhaust fan over the cafeteria is not operable.

Heating piping in the mechanical room is welded black steel, with smaller piping black steel with screwed fittings and piping at unit ventilators is copper. Hot water is circulated by two Armstrong base mounted end suction ten hp pumps in the mechanical room. An expansion tank is connected to the system. Ductwork from the two heating and ventilating units to the cafeteria and auditorium is uninsulated sheet metal. Fuel oil piping is black steel with screwed fittings.

Controls consist of hydronic valves at unit ventilators and two air handling unit coils. There are control functions for exhaust fans and space temperature monitoring. Unit ventilator valves have been replaced as required upon failure. Control devices are connected to a Temperature Automatic Control building automation system with central computer and graphic displays. This system was reportedly installed in 2011 and is functioning satisfactorily.

The boilers were installed in 2006 and should have twenty to twenty five years remaining life. Control systems have no reported problems and have ten to fifteen years remaining service. Cooling and distribution systems including unit ventilator, two air handling units and piping are recommended to be replaced.

FIRE PROTECTION—There is no fire protection system, neither sprinklers nor standpipes, which should be rectified with a new system.

ELECTRICAL SYSTEMS

Electrical Service-- Electrical service to the building is provided by PECO Energy Company. An underground service is routed to a 1600A, 208/120V, 3 phase, 4 wire Square D Main Switchboard located in the electrical room in the Basement. The main electrical service equipment was replaced in a 2013 upgrade project. The switchboard has a 1600A MCB, surge protective device, power circuit monitor and one distribution section with feeder circuit breakers. There is a wall mounted, main grounding bus located adjacent to the switchboard. Another distribution section with a 1200A main disconnecting means, and associated circuit breakers and feeders, would be needed when a central air conditioning system and fire pump is added for this school.

Panelboards for receptacles and air conditioning units were added in the 2013 upgrade project. Panelboards throughout the remainder of the building have not been replaced. There are eight (8) panelboards throughout the building that have reached the end of their useful life and need to be replaced. There are also five (5) panelboards with exposed bus, with knife blade switches and cartridge type fuses that need are obsolete, have safety concerns, and need to be replaced.

Receptacles-- Classrooms are typically supplied with 3 or 4 duplex receptacles. Additional receptacles were added as needed in classrooms using surface mounted conduit. Receptacles within 6 feet of the sinks in Classroom 110 and Art Room 405 need to be replaced with ground-fault circuit-interrupting type receptacles for protection of personnel, as required by National Electrical Code (NEC) Article 210.8.

Lighting-- The facility has a mixture of fixture types. Corridors and classrooms typically have original surface mounted wraparound fluorescent fixtures with acrylic lenses. Classroom lighting is controlled by two switches; there are no occupancy sensors. Illumination levels in classroom ranged from 25 to 36 footcandles (fc). Fixtures in Art Room 410 and in the corridor on Floor 1 have been upgraded with T8 fluorescent lamps. Fixtures in all other classrooms and other areas have obsolete T12 fluorescent lamps and have reached the end of their useful life. Lighting fixtures need to be replaced in approximately 37,000 SF of the building.

The auditorium has 16 recessed incandescent lensed fixtures, with measured light levels ranging from 2.8 to 9.2 footcandles. Lighting is controlled by branch circuit breakers and a lighting contactor. A new lighting system and dimming control system needs to be provided for the auditorium.

The cafeteria is illuminated with 16 metal halide ceiling mounted fixtures that are switch controlled.

Restrooms and stairwells are typically provided with 1x4, 2 lamp, fluorescent fixtures with prismatic lenses.

The Boiler Room has 25 incandescent dome fixtures. The lighting level is inadequate, with readings measured ranging from 2.5 to 7 fc. The lighting in the Main Electrical Room has incandescent downlights, and is also inadequate, with light level readings measured a between 8 to 10 fc.

Exit discharges have wall or surface mounted lighting fixtures.

Fire Alarm System-- The fire alarm system was replaced in 2012 with an addressable type by General Electric. 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 and mechanical and electrical rooms. The main fire alarm control panel (FACP) is a GE Model EST2 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. The main IT equipment is located in the Technology Room on Floor 1.

Public Address/Paging/Sound Systems-- The paging system is accessed through the telephone system. Each classroom has a wall mounted speaker for announcements. Speakers from the original paging system have been abandoned in place. There are also surface mounted paging speakers in all corridors. The zoned paging system has two Bogen TPU250 amplifiers with telephone interface. The equipment is located in the Technology Room on Floor 1. This system is estimated to have 15 years of useful life remaining.

There are separate sound systems for the cafeteria and auditorium. The cafeteria system has a Rauland 60W amplifier. The sound cabinet for the auditorium was locked. Wall mounted Rauland speakers are located on each side of the platform. Equipment is in good condition.

Clock and Program System-- There is no clock system. Individual clocks are located in classrooms. The speakers in the classrooms are used for the program system.

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. An Inovonics security panel to monitor magnetic door contacts on exterior doors and motion sensors in the Auditorium is located in the Technology Room on Floor 1.

Emergency Power System-- There is no standby generator in this school. A standby generator system needs to be provided, and sized for emergency lighting, elevator and a fire pump.

Emergency Lighting System / Exit Lighting-- Emergency lighting is provided by wall mounted emergency lighting units with battery backup that are located in corridors and stairwells. There are no emergency lighting fixtures in classrooms. Exit signs are provided with battery backup. Exit signs are missing on each floor at the east end of the east-west corridor and at the west stairwell on Floor 2.

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

Conveying Systems-- There is one 9000 pound capacity, electric traction passenger elevator in this facility that is located opposite the Main Office. The elevator is original and has reached the end of its useful life. There is also a Harmar 750 pound capacity wheelchair lift that was installed in 2014 that provides access to the cafeteria.

GROUNDS

There are no paved driveways however there is a playground and parking lot on the eastern side of the site. The parking play area has no assigned parking and limited markers for approved activity areas. No curb cuts for access to the sidewalks that lead to the ADA main entrance. The parking play lot is in fair 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 play, parking lot renewal program that includes all aspects of the current ADA legislation. Asphalt removal and replacement is recommended.

Pedestrian pavements are concrete pavers in poor condition. 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 chain link fence that extends from the northern exterior, surrounds the eastern playground and ends and the southeastern wall of the school is in good condition. This fence was reported to have been recently upgraded. There were no issues during the time of the inspection therefore no recommendations are required at this time.

The playground has limited landscaping and a recently installed pre-fabricated playground. The landscaping is in good condition and well maintained but with no irrigation system. The landscaping is generally located near the play area of the site. This deficiency provides a budgetary consideration for the installation of an irrigation system for this site.

Site Lighting—Site lighting for the paved play area on the west side of the building is provided by a single HID lighting fixture mounted high on the west side of the building. There are no other pole mounted lighting fixtures on the site.

Site Video Surveillance-- exterior mounted video surveillance cameras are mounted on the exterior of the building to monitor to the site and ingress to the building.

RECOMMENDATIONS

- Replace auditorium seating
- Replace book cases / lab Casework
- Remove and replace suspended acoustic ceilings
- Remove VAT and replace with VCT
- Remove and replace carpet
- Replace inadequate or install proper stair railing
- Remove and replace tackboards
- Replace missing or damaged signage
- Install fire rated walls and door where required
- Remove non-rated interior glass panels and replace with studs, gypsum board, paint (E) wall
- Remove and Replace Built Up Roof
- Remove and replace aluminum windows
- Replace chain link fence - 8' high
- Build secure trash dumpster enclosure
- Remove and replace defective irrigation system - pop up spray system
- Remove and replace concrete sidewalk or paving
- Remove and replace parking lot
- Replace the existing unit ventilators with new units designed for quiet operation and equipped with hot water and chilled water coils, hydronic control valves with digital controls and integral heat exchangers to provide code required fresh air quantities. Connect to new chilled and hot water piping systems and building automation control system.
- Remove the existing window air conditioning units and install a 190 ton air-cooled chiller on the roof with chilled water distribution piping, two pumps, chemical treatment and controls located in a mechanical room on the basement level.
- Install complete NFPA wet pipe automatic sprinkler system and standpipes. If required provide fire pump and jockey pump with controller.

- Install new single zone horizontal central station air handling unit in auditorium mechanical room to serve cafeteria. Connect to existing ductwork. Provide adequate outside air louver and ductwork to furnish code required fresh air. Unit to have hot and chilled water coils, filters, blower and motor. Include hydronic control valves with digital controls. Connect to building automation control system and hot and chilled water piping systems.
- Install new single zone horizontal central station air handling unit in auditorium mechanical room to serve auditorium. Connect to existing ductwork. Provide adequate outside air louver and ductwork to furnish code required fresh air. Unit to have hot and chilled water coils, filters, blower and motor. Include hydronic control valves with digital controls. Connect to building automation control system and hot and chilled water piping systems.
- Inspect existing sanitary piping and replace damaged sections.
- Replace inoperable exhaust fan on roof of cafeteria.
- Replace domestic hot and cold water piping, fittings, valves, insulation and hangars.
- Replace plumbing fixtures including water closets, lavatories, urinals, and drinking fountains including valves, fittings, faucets and trim.
- Provide a 1200A distribution section with 1200A main circuit breaker, distribution feeder circuit breakers and feeder circuits for central air conditioning equipment and fire pump.
- Replace eight (8) 225A panelboards and one (1) 400A and four (4) 225A obsolete exposed bus, knife blade switch fusible panelboards with circuit breaker panelboards.
- Replace six (6) receptacles located within 6 feet of the sinks in Classroom 110 and Art Room 405 with ground-fault circuit-interrupting type receptacles.
- Replace obsolete fluorescent lighting fixtures in approximately 37,000 SF of the building.
- Replace lighting system and provide dimming system in the auditorium.
- Replace energy inefficient incandescent lighting fixtures in the Boiler Room and Main Electrical Room with 1x4 industrial fluorescent fixtures, and increase illumination level. Total of 28 fixtures.
- Provide standby generator, sized to serve emergency lighting, elevator and possible fire pump.
- Provide five (5) exit signs missing in corridors on Floors 1 through 4. Total of five (5) exit signs.
- Provide upgrade and modernization of elevator cab, controls and machine room.

Attributes:

General Attributes:

Active:	Open	Bldg Lot Tm:	Lot 1 / Tm 1
Status:	Accepted by SDP	Team:	Tm 1
Site ID:	S522001		

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.

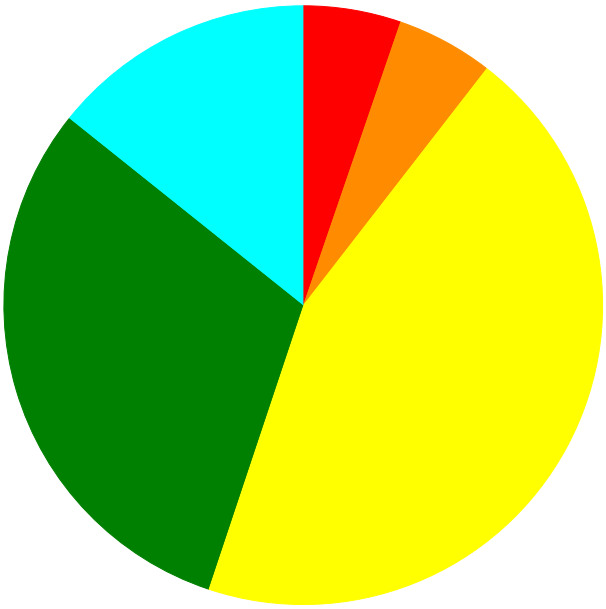
Current Investment Requirement and Condition by Uniformat Classification

UNIFORMAT Classification	RSLI%	FCI %	Current Repair
A10 - Foundations	49.00 %	0.00 %	$0.00
A20 - Basement Construction	49.00 %	0.00 %	$0.00
B10 - Superstructure	49.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	67.79 %	34.64 %	$1,418,637.88
B30 - Roofing	75.00 %	89.59 %	$779,286.25
C10 - Interior Construction	60.08 %	24.50 %	$436,662.64
C20 - Stairs	49.00 %	98.92 %	$101,317.68
C30 - Interior Finishes	44.61 %	39.37 %	$1,232,345.45
D10 - Conveying	105.71 %	178.31 %	$198,176.47
D20 - Plumbing	98.00 %	86.76 %	$1,287,026.02
D30 - HVAC	95.82 %	63.38 %	$5,121,719.56
D40 - Fire Protection	105.71 %	177.49 %	$1,039,189.80
D50 - Electrical	102.01 %	46.27 %	$1,975,613.85
E10 - Equipment	88.57 %	16.10 %	$186,172.82
E20 - Furnishings	12.50 %	174.87 %	$270,571.65
G20 - Site Improvements	62.83 %	107.64 %	$765,495.91
G40 - Site Electrical Utilities	43.33 %	0.00 %	$0.00
Totals:	**72.93 %**	**40.66 %**	**$14,812,215.98**

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)
B522001;Clymer	72,643	39.48	$779,286.25	$773,217.28	$6,611,045.04	$4,514,719.31	$1,368,452.19
G522001;Grounds	31,000	90.48	$0.00	$1,785.45	$0.00	$18,852.52	$744,857.94
Total:		**40.66**	**$779,286.25**	**$775,002.73**	**$6,611,045.04**	**$4,533,571.83**	**$2,113,310.13**

Deficiencies By Priority



1 - Response Time (< 2 yr) - $779,286.25
2 - Response Time (2-3 yrs) - $775,002.73
3 - Response Time (3-4 yrs) - $6,611,045.04
4 - Response Time (4-5 yrs) - $4,533,571.83
5 - Response Time (> 5 yrs) - $2,113,310.13

Budget Estimate Total: $14,812,215.98

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):	72,643
Year Built:	1964
Last Renovation:	2011
Replacement Value:	$35,581,925
Repair Cost:	$14,046,720.07
Total FCI:	39.48 %
Total RSLI:	73.24 %

Description:

Attributes:

General Attributes:

Active:	Open	Bldg ID:	B522001
Sewage Ejector:	No	Status:	Accepted by SDP
Site ID:	S522001		

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	49.00 %	0.00 %	$0.00
A20 - Basement Construction	49.00 %	0.00 %	$0.00
B10 - Superstructure	49.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	67.79 %	34.64 %	$1,418,637.88
B30 - Roofing	75.00 %	89.59 %	$779,286.25
C10 - Interior Construction	60.08 %	24.50 %	$436,662.64
C20 - Stairs	49.00 %	98.92 %	$101,317.68
C30 - Interior Finishes	44.61 %	39.37 %	$1,232,345.45
D10 - Conveying	105.71 %	178.31 %	$198,176.47
D20 - Plumbing	98.00 %	86.76 %	$1,287,026.02
D30 - HVAC	95.82 %	63.38 %	$5,121,719.56
D40 - Fire Protection	105.71 %	177.49 %	$1,039,189.80
D50 - Electrical	102.01 %	46.27 %	$1,975,613.85
E10 - Equipment	88.57 %	16.10 %	$186,172.82
E20 - Furnishings	12.50 %	174.87 %	$270,571.65
Totals:	**73.24 %**	**39.48 %**	**$14,046,720.07**

Condition Detail

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

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

System Listing

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

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

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

System Code	System Description	Unit Price $	UoM	Qty	Life	Year Installed	Calc Next Renewal Year	Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency $	Replacement Value $
A1010	Standard Foundations	$18.40	S.F.	72,643	100	1964	2064		49.00 %	0.00 %	49			$1,336,631
A1030	Slab on Grade	$7.73	S.F.	72,643	100	1964	2064		49.00 %	0.00 %	49			$561,530
A2010	Basement Excavation	$6.55	S.F.	72,643	100	1964	2064		49.00 %	0.00 %	49			$475,812
A2020	Basement Walls	$12.70	S.F.	72,643	100	1964	2064		49.00 %	0.00 %	49			$922,566
B1010	Floor Construction	$75.10	S.F.	72,643	100	1964	2064		49.00 %	0.00 %	49			$5,455,489
B1020	Roof Construction	$13.88	S.F.	72,643	100	1964	2064		49.00 %	0.00 %	49			$1,008,285
B2010	Exterior Walls	$36.91	S.F.	72,643	100	1964	2064		49.00 %	0.00 %	49			$2,681,253
B2020	Exterior Windows	$18.01	S.F.	72,643	40	1964	2004	2057	105.00 %	84.07 %	42		$1,099,881.65	$1,308,300
B2030	Exterior Doors	$1.45	S.F.	72,643	25	2011	2036		84.00 %	302.62 %	21		$318,756.23	$105,332
B3010105	Built-Up	$37.76	S.F.	23,000	20	2001	2021	2030	75.00 %	89.73 %	15		$779,286.25	$868,480
B3020	Roof Openings	$0.06	S.F.	23,000	20	1964	1984	2030	75.00 %	0.00 %	15			$1,380
C1010	Partitions	$17.91	S.F.	72,643	100	1964	2064		49.00 %	12.73 %	49		$165,598.73	$1,301,036
C1020	Interior Doors	$3.51	S.F.	72,643	40	2011	2051		90.00 %	65.48 %	36		$166,970.55	$254,977
C1030	Fittings	$3.12	S.F.	72,643	40	2011	2051		90.00 %	45.93 %	36		$104,093.36	$226,646
C2010	Stair Construction	$1.41	S.F.	72,643	100	1964	2064		49.00 %	98.92 %	49		$101,317.68	$102,427
C3010230	Paint & Covering	$13.21	S.F.	72,000	10	2011	2021		60.00 %	0.00 %	6			$951,120
C3010232	Wall Tile	$2.63	S.F.	643	30	2011	2041		86.67 %	0.00 %	26			$1,691
C3020411	Carpet	$7.30	S.F.	2,000	10	2000	2010	2020	50.00 %	153.30 %	5		$22,381.52	$14,600

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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 $
C3020412	Terrazzo & Tile	$75.52	S.F.	643	50	2011	2061		92.00 %	0.00 %	46			$48,559
C3020413	Vinyl Flooring	$9.68	S.F.	60,000	20	2011	2031		80.00 %	104.45 %	16		$606,666.72	$580,800
C3020415	Concrete Floor Finishes	$0.97	S.F.	10,000	50	1964	2014	2030	30.00 %	0.00 %	15			$9,700
C3030	Ceiling Finishes	$20.97	S.F.	72,643	25	1964	1989	2020	20.00 %	39.60 %	5		$603,297.21	$1,523,324
D1010	Elevators and Lifts	$1.53	S.F.	72,643	35	2011	2046	2052	105.71 %	178.31 %	37		$198,176.47	$111,144
D2010	Plumbing Fixtures	$13.52	S.F.	72,643	35			2052	105.71 %	57.28 %	37		$562,549.15	$982,133
D2020	Domestic Water Distribution	$1.68	S.F.	72,643	25			2042	108.00 %	301.63 %	27		$368,108.45	$122,040
D2030	Sanitary Waste	$2.90	S.F.	72,643	25	1964	1989	2042	108.00 %	169.16 %	27		$356,368.42	$210,665
D2040	Rain Water Drainage	$2.32	S.F.	72,643	30	1964	1994	2025	33.33 %	0.00 %	10			$168,532
D3020	Heat Generating Systems	$18.67	S.F.	72,643	35	2006	2041		74.29 %	0.00 %	26			$1,356,245
D3030	Cooling Generating Systems	$24.48	S.F.	72,643	30			2047	106.67 %	65.60 %	32		$1,166,612.65	$1,778,301
D3040	Distribution Systems	$42.99	S.F.	72,643	25			2042	108.00 %	126.18 %	27		$3,940,465.50	$3,122,923
D3050	Terminal & Package Units	$11.60	S.F.	72,643	20			2037	110.00 %	1.74 %	22		$14,641.41	$842,659
D3060	Controls & Instrumentation	$13.50	S.F.	72,643	20	2006	2026		55.00 %	0.00 %	11			$980,681
D4010	Sprinklers	$7.05	S.F.	72,643	35			2052	105.71 %	202.91 %	37		$1,039,189.80	$512,133
D4020	Standpipes	$1.01	S.F.	72,643	35			2052	105.71 %	0.00 %	37			$73,369
D5010	Electrical Service/Distribution	$9.70	S.F.	72,643	30	2013	2043		93.33 %	92.51 %	28		$651,832.85	$704,637
D5020	Lighting and Branch Wiring	$34.68	S.F.	72,643	20	1964	1984	2037	110.00 %	38.10 %	22		$959,823.55	$2,519,259
D5030	Communications and Security	$12.99	S.F.	72,643	15	1964	1979	2028	86.67 %	0.00 %	13			$943,633
D5090	Other Electrical Systems	$1.41	S.F.	72,643	30	1964	1994	2047	106.67 %	355.33 %	32		$363,957.45	$102,427
E1020	Institutional Equipment	$4.82	S.F.	72,643	35	2011	2046		88.57 %	53.17 %	31		$186,172.82	$350,139
E1090	Other Equipment	$11.10	S.F.	72,643	35	2011	2046		88.57 %	0.00 %	31			$806,337
E2010	Fixed Furnishings	$2.13	S.F.	72,643	40	1964	2004	2020	12.50 %	174.87 %	5		$270,571.65	$154,730
								Total	**73.24 %**	**39.48 %**			**$14,046,720.07**	**$35,581,925**

System Notes

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

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

Note: Painted CMU 90
Ceramic 5
Unfinished CMU Concrete 5

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

Note: Carpet 3%
Ceramic floor tile 1%
Vinyl floor tile 82%
Concrete 14%

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

Note: There are no transformers to enter.

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:	**$14,046,720**	**$0**	**$0**	**$0**	**$0**	**$2,158,474**	**$1,249,256**	**$0**	**$0**	**$0**	**$249,142**	**$17,703,592**
*** A - Substructure**	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A10 - Foundations	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A1010 - Standard Foundations	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A1030 - Slab on Grade	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A20 - Basement Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A2010 - Basement Excavation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A2020 - Basement Walls	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B - Shell	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B10 - Superstructure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B1010 - Floor Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B1020 - Roof Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B20 - Exterior Enclosure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B2010 - Exterior Walls	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B2020 - Exterior Windows	$1,099,882	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,099,882**
B2030 - Exterior Doors	$318,756	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$318,756**
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	$779,286	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$779,286**
B3020 - Roof Openings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C - Interiors	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C10 - Interior Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C1010 - Partitions	$165,599	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$165,599**
C1020 - Interior Doors	$166,971	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$166,971**
C1030 - Fittings	$104,093	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$104,093**
C20 - Stairs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

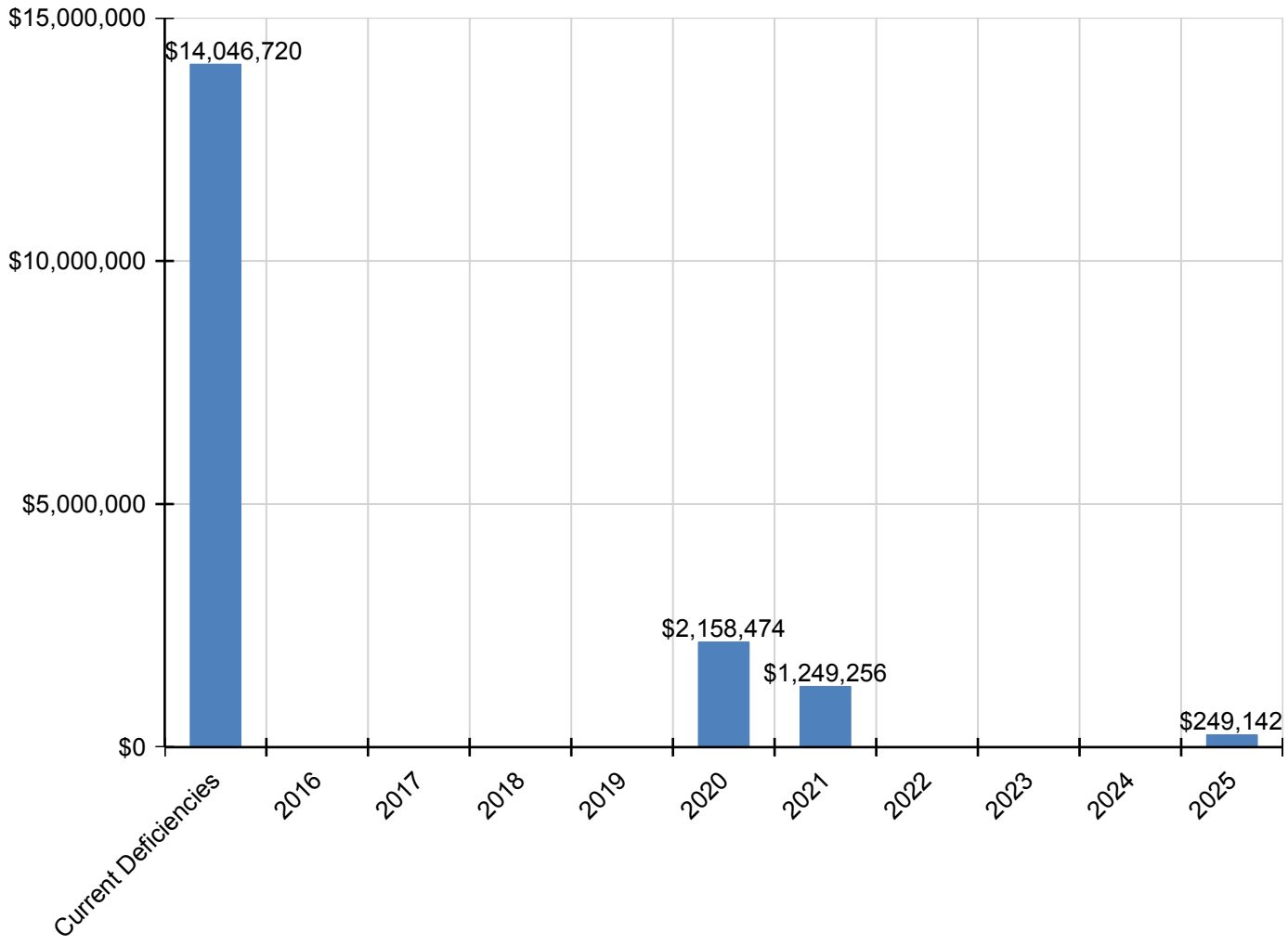
C2010 - Stair Construction	$101,318	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$101,318**
C30 - Interior Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010 - Wall Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010230 - Paint & Covering	$0	$0	$0	$0	$0	$0	$1,249,256	$0	$0	$0	$0	**$1,249,256**
C3010232 - Wall Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020 - Floor Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020411 - Carpet	$22,382	$0	$0	$0	$0	$18,618	$0	$0	$0	$0	$0	**$40,999**
C3020412 - Terrazzo & Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020413 - Vinyl Flooring	$606,667	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$606,667**
C3020415 - Concrete Floor Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3030 - Ceiling Finishes	$603,297	$0	$0	$0	$0	$1,942,545	$0	$0	$0	$0	$0	**$2,545,842**
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	$198,176	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$198,176**
D20 - Plumbing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2010 - Plumbing Fixtures	$562,549	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$562,549**
D2020 - Domestic Water Distribution	$368,108	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$368,108**
D2030 - Sanitary Waste	$356,368	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$356,368**
D2040 - Rain Water Drainage	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$249,142	**$249,142**
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	$1,166,613	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,166,613**
D3040 - Distribution Systems	$3,940,466	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$3,940,466**
D3050 - Terminal & Package Units	$14,641	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$14,641**
D3060 - Controls & Instrumentation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D40 - Fire Protection	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D4010 - Sprinklers	$1,039,190	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,039,190**
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	$651,833	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$651,833**
D5020 - Lighting and Branch Wiring	$959,824	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$959,824**
D5030 - Communications and Security	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D5090 - Other Electrical Systems	$363,957	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$363,957**

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	$186,173	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$186,173**
E1090 - Other Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E20 - Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E2010 - Fixed Furnishings	$270,572	$0	$0	$0	$0	$197,312	$0	$0	$0	$0	$0	**$467,884**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

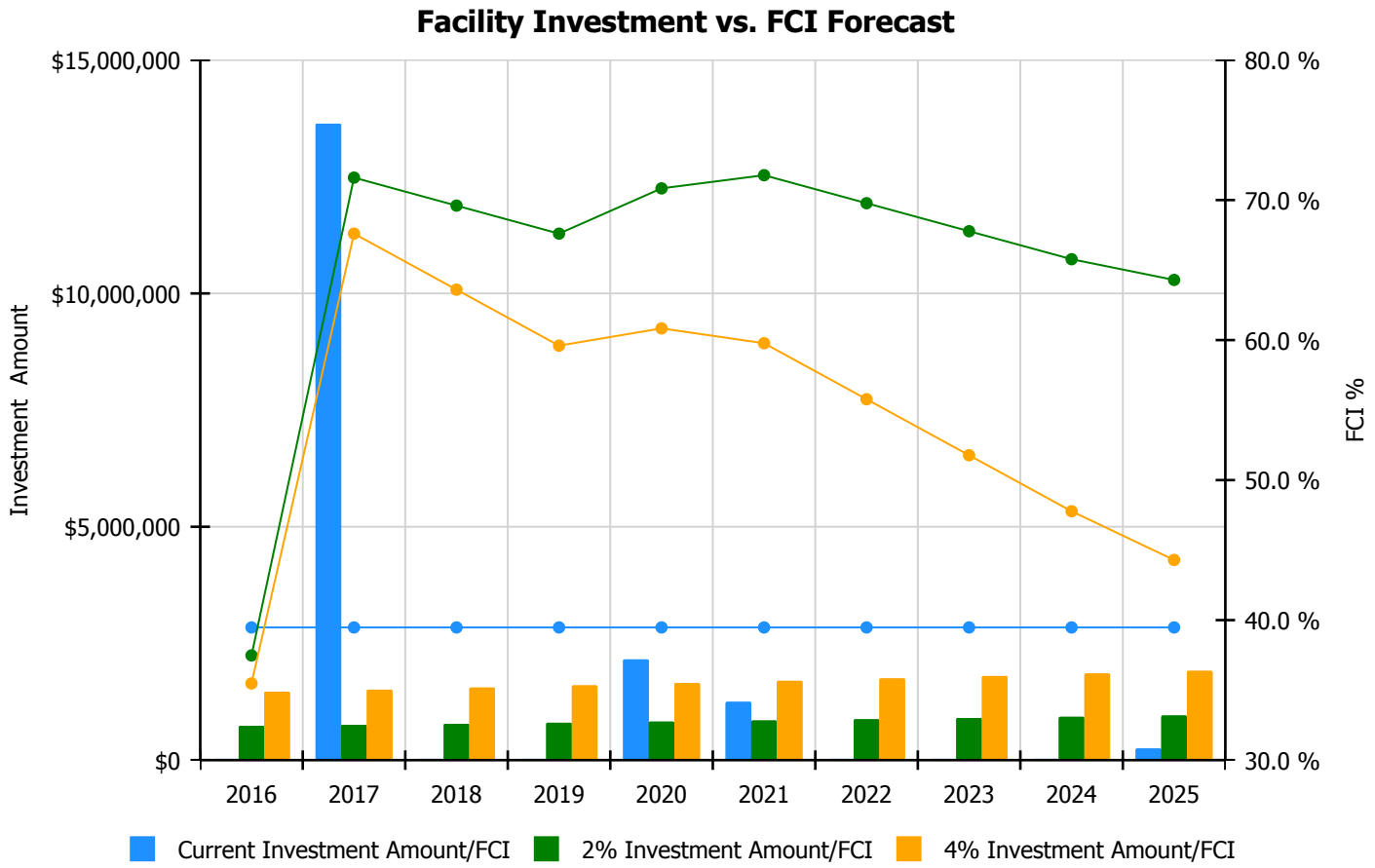
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



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:

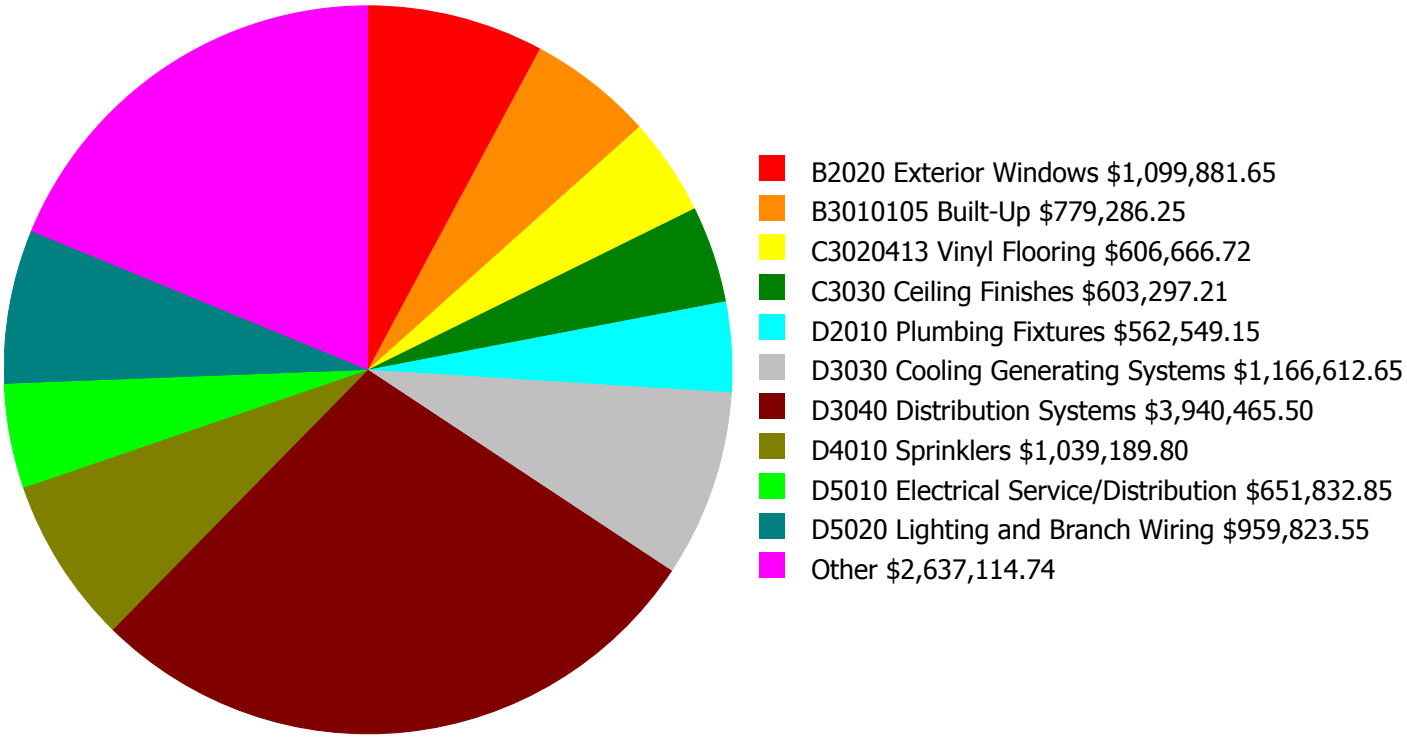
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 39.48%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$732,988.00	37.48 %	$1,465,975.00	35.48 %
2017	$13,636,689	$754,977.00	71.60 %	$1,509,955.00	67.60 %
2018	$0	$777,627.00	69.60 %	$1,555,253.00	63.60 %
2019	$0	$800,955.00	67.60 %	$1,601,911.00	59.60 %
2020	$2,158,474	$824,984.00	70.83 %	$1,649,968.00	60.83 %
2021	$1,249,256	$849,734.00	71.78 %	$1,699,467.00	59.78 %
2022	$0	$875,226.00	69.78 %	$1,750,451.00	55.78 %
2023	$0	$901,482.00	67.78 %	$1,802,965.00	51.78 %
2024	$0	$928,527.00	65.78 %	$1,857,054.00	47.78 %
2025	$249,142	$956,383.00	64.30 %	$1,912,765.00	44.30 %
Total:	**$17,293,561**	**$8,402,883.00**		**$16,805,764.00**	

Deficiency Summary by System

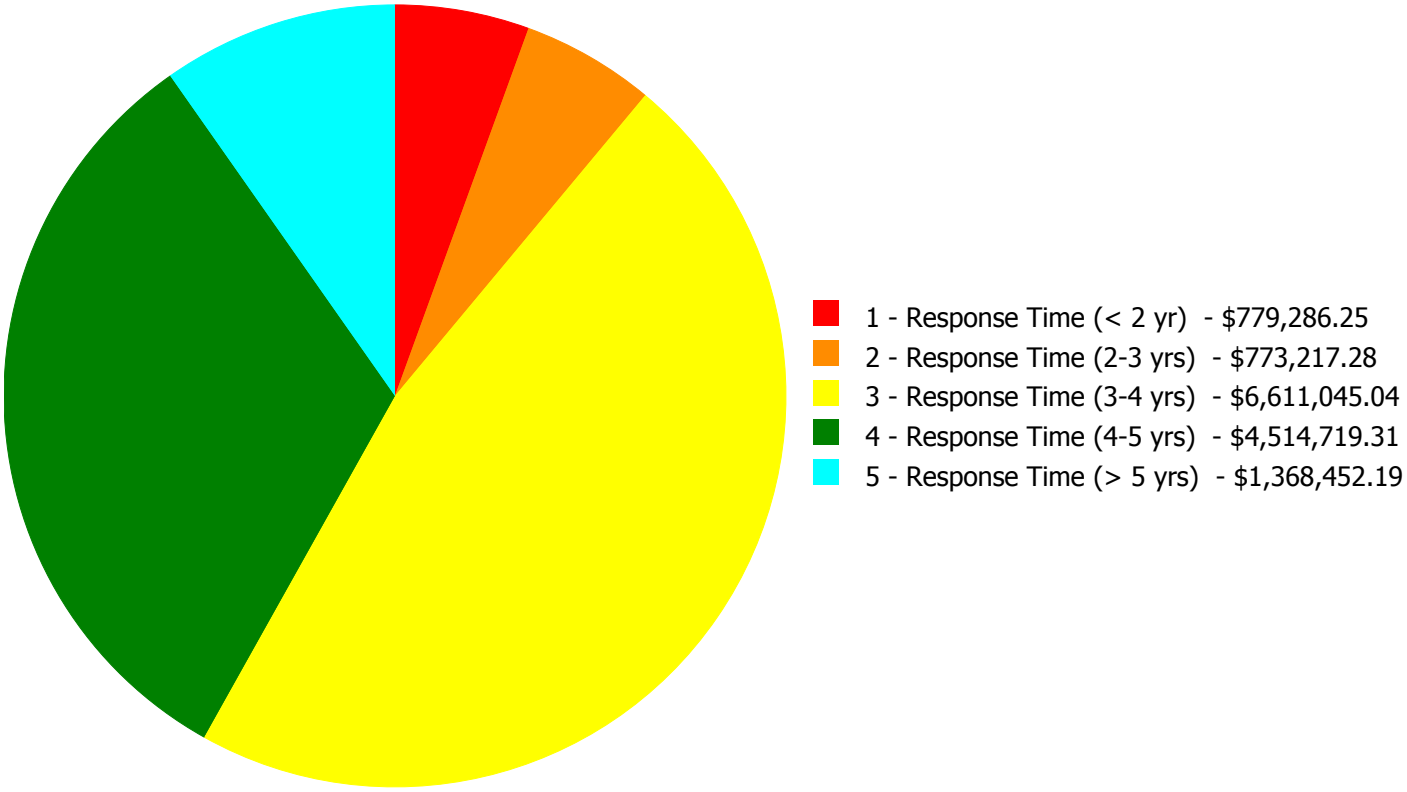
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $14,046,720.07

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: $14,046,720.07

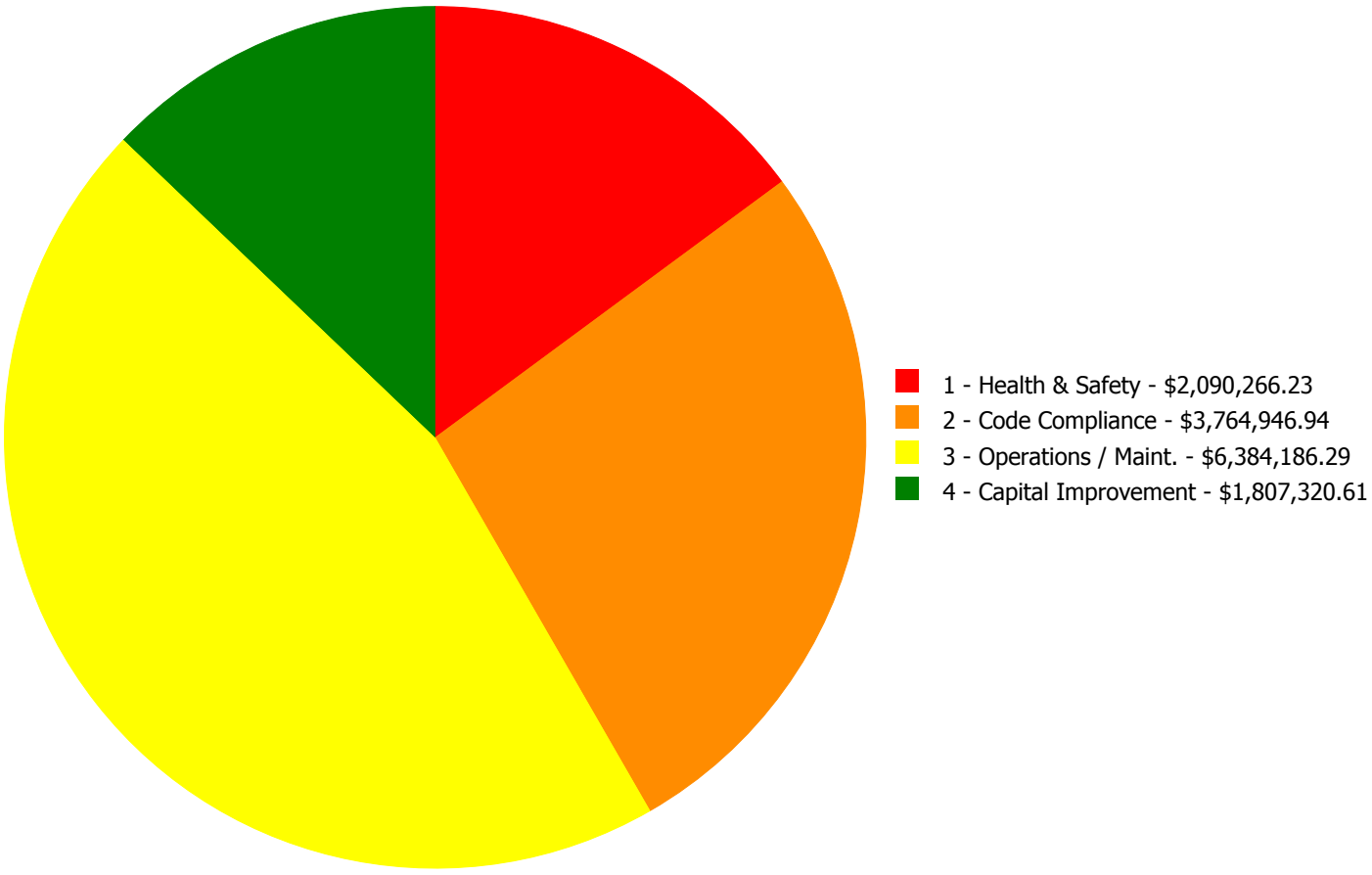
Deficiency By Priority Investment Table

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

System Code	System Description	1 - Response Time (< 2 yr)	2 - Response Time (2-3 yrs)	3 - Response Time (3-4 yrs)	4 - Response Time (4-5 yrs)	5 - Response Time (> 5 yrs)	Total
B2020	Exterior Windows	$0.00	$0.00	$0.00	$1,099,881.65	$0.00	$1,099,881.65
B2030	Exterior Doors	$0.00	$318,756.23	$0.00	$0.00	$0.00	$318,756.23
B3010105	Built-Up	$779,286.25	$0.00	$0.00	$0.00	$0.00	$779,286.25
C1010	Partitions	$0.00	$0.00	$165,598.73	$0.00	$0.00	$165,598.73
C1020	Interior Doors	$0.00	$166,970.55	$0.00	$0.00	$0.00	$166,970.55
C1030	Fittings	$0.00	$0.00	$0.00	$0.00	$104,093.36	$104,093.36
C2010	Stair Construction	$0.00	$101,317.68	$0.00	$0.00	$0.00	$101,317.68
C3020411	Carpet	$0.00	$0.00	$0.00	$0.00	$22,381.52	$22,381.52
C3020413	Vinyl Flooring	$0.00	$0.00	$0.00	$606,666.72	$0.00	$606,666.72
C3030	Ceiling Finishes	$0.00	$0.00	$0.00	$0.00	$603,297.21	$603,297.21
D1010	Elevators and Lifts	$0.00	$0.00	$198,176.47	$0.00	$0.00	$198,176.47
D2010	Plumbing Fixtures	$0.00	$0.00	$0.00	$562,549.15	$0.00	$562,549.15
D2020	Domestic Water Distribution	$0.00	$0.00	$0.00	$0.00	$368,108.45	$368,108.45
D2030	Sanitary Waste	$0.00	$0.00	$0.00	$356,368.42	$0.00	$356,368.42
D3030	Cooling Generating Systems	$0.00	$0.00	$0.00	$1,166,612.65	$0.00	$1,166,612.65
D3040	Distribution Systems	$0.00	$0.00	$3,481,009.92	$459,455.58	$0.00	$3,940,465.50
D3050	Terminal & Package Units	$0.00	$0.00	$0.00	$14,641.41	$0.00	$14,641.41
D4010	Sprinklers	$0.00	$0.00	$1,039,189.80	$0.00	$0.00	$1,039,189.80
D5010	Electrical Service/Distribution	$0.00	$0.00	$405,343.94	$246,488.91	$0.00	$651,832.85
D5020	Lighting and Branch Wiring	$0.00	$0.00	$957,768.73	$2,054.82	$0.00	$959,823.55
D5090	Other Electrical Systems	$0.00	$0.00	$363,957.45	$0.00	$0.00	$363,957.45
E1020	Institutional Equipment	$0.00	$186,172.82	$0.00	$0.00	$0.00	$186,172.82
E2010	Fixed Furnishings	$0.00	$0.00	$0.00	$0.00	$270,571.65	$270,571.65
	Total:	$779,286.25	$773,217.28	$6,611,045.04	$4,514,719.31	$1,368,452.19	$14,046,720.07

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: $14,046,720.07

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: B3010105 - Built-Up

Location: Roof

Distress: Damaged

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Remove and Replace Built Up Roof

Qty: 23,000.00

Unit of Measure: S.F.

Estimate: $779,286.25

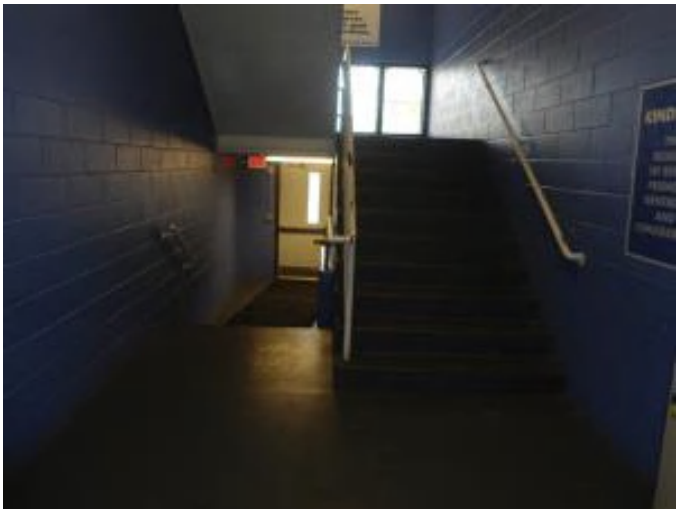
Assessor Name: System

Date Created: 08/06/2015

Notes: There two different levels of roof for this school however they are both the same built up application with the same date of installation. The upper section of the roof has been reported to have several minor leaks and is showing signs of age. During the time of the inspection evidence of water infiltration was evident as the surface of the roof was floating. This deficiency recommends removal and replacement of the roof system.

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

System: B2030 - Exterior Doors



Location: Exterior Elevaiton

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace exterior doors - per leaf

Qty: 35.00

Unit of Measure: Ea.

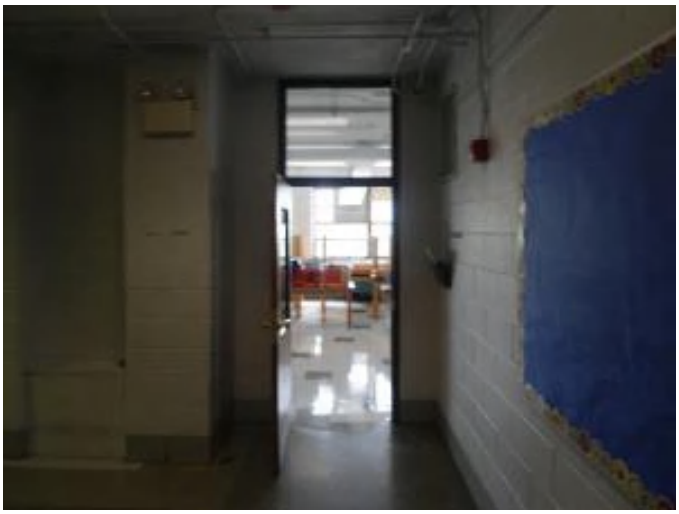
Estimate: $318,756.23

Assessor Name: System

Date Created: 08/06/2015

Notes: 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.

System: C1020 - Interior Doors



Location: Classroom Doors

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

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

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

Qty: 35.00

Unit of Measure: Ea.

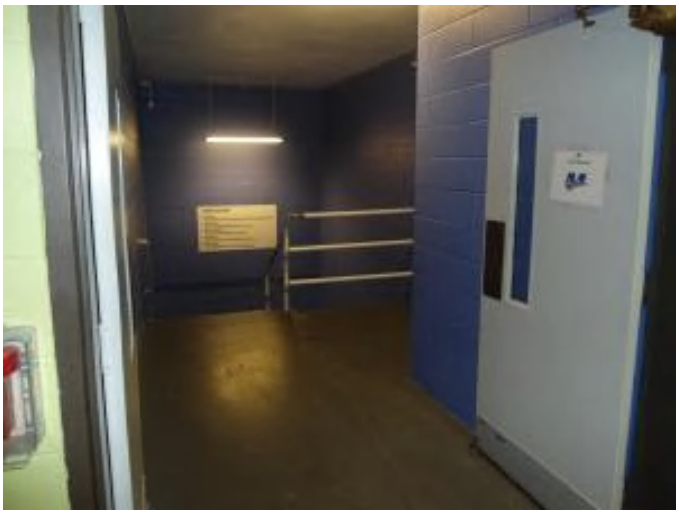
Estimate: $166,970.55

Assessor Name: System

Date Created: 08/06/2015

Notes: Interior doors are typically wood in metal 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 stairwells and exit ways, access doors, and closet doors. Doors are generally in good condition and is 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. Remove and replace transoms and doors where required.

System: C2010 - Stair Construction



Location: Stairs

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

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

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: 08/06/2015

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

System: E1020 - Institutional Equipment

Location: Classroom Labs

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace lab base cabinets and countertops - per LF - add sinks in plumbing fixtures if required

Qty: 106.00

Unit of Measure: L.F.

Estimate: $186,172.82

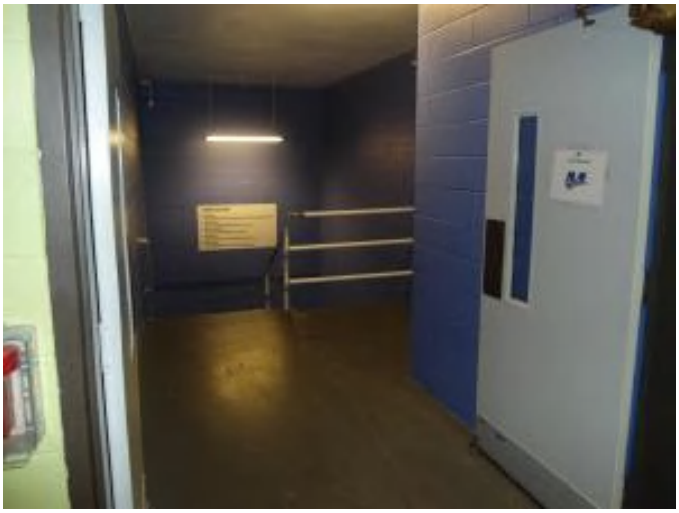
Assessor Name: System

Date Created: 08/06/2015

Notes: The lab casework and working desk with countertop have been upgraded from the original construction however the installation date is unknown. The system is in fair condition but showing signs of age and high usage. This deficiency provides a budgetary consideration for new casework and countertops for the lab spaces. Remove and replace casework.

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

System: C1010 - Partitions



Location: Building Wide

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

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

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

Qty: 35.00

Unit of Measure: S.F.

Estimate: $165,598.73

Assessor Name: System

Date Created: 08/06/2015

Notes: Corridor doors are not fire-rated and should be replaced. To prevent doors from being improperly held open, magnetic door holders should be installed and tied to the building fire alarm system to ensure that the door can function as designed in the event of a fire.

System: D1010 - Elevators and Lifts

Location: Elevator cab, machine room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Upgrade elevator cab and machinery - based on 3 stops, change the stops if required

Qty: 1.00

Unit of Measure: Ea.

Estimate: $198,176.47

Assessor Name: System

Date Created: 10/15/2015

Notes: Provide upgrade and modernization of elevator cab, controls and machine room.

System: D3040 - Distribution Systems

Location: classrooms

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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

Correction: Replace the existing unit ventilators with new units designed to provide adequate ventilation per ASHRAE Std 62 - insert the SF of bldg. in the qty.

Qty: 60,000.00

Unit of Measure: S.F.

Estimate: $2,894,351.11

Assessor Name: System

Date Created: 08/04/2015

Notes: Replace the existing unit ventilators with new units designed for quiet operation and equipped with hot water and chilled water coils, hydronic control valves with digital controls and integral heat exchangers to provide code required fresh air quantities. Connect to new chilled and hot water piping systems and building automation control system.

System: D3040 - Distribution Systems

Location: auditorium

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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

Correction: Install HVAC unit for Auditorium (200 seat).

Qty: 350.00

Unit of Measure: Seat

Estimate: $498,899.53

Assessor Name: System

Date Created: 08/22/2015

Notes: Install new single zone horizontal central station air handling unit in auditorium mechanical room to serve auditorium. Connect to existing ductwork. Provide adequate outside air louver and ductwork to furnish code required fresh air. Unit to have hot and chilled water coils, filters, blower and motor. Include hydronic control valves with digital controls. Connect to building automation control system and hot and chilled water piping systems

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System: D3040 - Distribution Systems

Location: cafeteria roof

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Replace power roof ventilator (36" dia.)

Qty: 1.00

Unit of Measure: Ea.

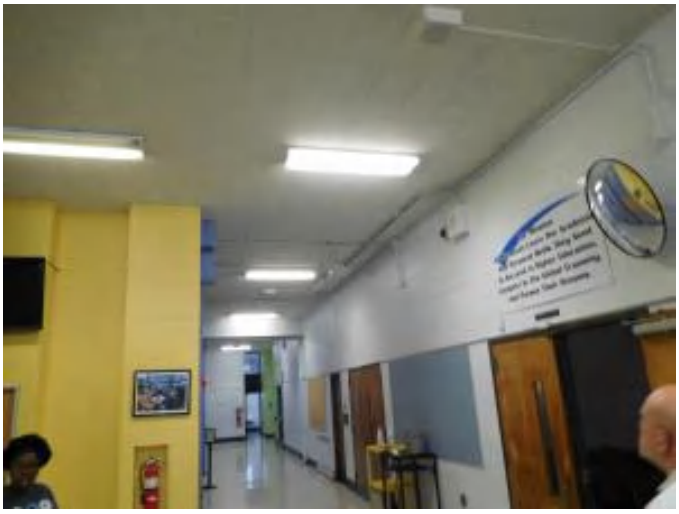
Estimate: $87,759.28

Assessor Name: System

Date Created: 08/04/2015

Notes: Replace inoperable exhaust fan on roof of cafeteria.

System: D4010 - Sprinklers



Location: entire building

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

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

Correction: Install a fire protection sprinkler system

Qty: 72,643.00

Unit of Measure: S.F.

Estimate: $1,039,189.80

Assessor Name: System

Date Created: 08/22/2015

Notes: Install complete NFPA wet pipe automatic sprinkler system and standpipes. If required provide fire pump and jockey pump with controller.

System: D5010 - Electrical Service/Distribution

Location: Building wide

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace Panelboard

Qty: 13.00

Unit of Measure: Ea.

Estimate: $405,343.94

Assessor Name: System

Date Created: 10/15/2015

Notes: Replace eight (8) 225A panelboards and one (1) 400A and four (4) 225A obsolete exposed bus, knife blade switch fusible panelboards with circuit breaker panelboards.

System: D5020 - Lighting and Branch Wiring

Location: Building wide

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace Lighting Fixtures (SF)

Qty: 37,000.00

Unit of Measure: S.F.

Estimate: $821,778.25

Assessor Name: System

Date Created: 10/15/2015

Notes: Replace obsolete fluorescent lighting fixtures in approximately 37,000 SF of the building.

System: D5020 - Lighting and Branch Wiring

Location: Auditorium
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 3 - Response Time (3-4 yrs)
Correction: Replace lighting fixtures
Qty: 32.00
Unit of Measure: Ea.
Estimate: $119,356.80
Assessor Name: System
Date Created: 10/15/2015

Notes: Replace lighting system and provide dimming system in the auditorium.

System: D5020 - Lighting and Branch Wiring

Location: Boiler Room, Main Electrical Room
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 3 - Response Time (3-4 yrs)
Correction: Replace lighting fixtures
Qty: 28.00
Unit of Measure: Ea.
Estimate: $16,633.68
Assessor Name: System
Date Created: 10/15/2015

Notes: Replace energy inefficient incandescent lighting fixtures in the Boiler Room and Main Electrical Room with 1x4 industrial fluorescent fixtures, and increase illumination level. Total of 28 fixtures.

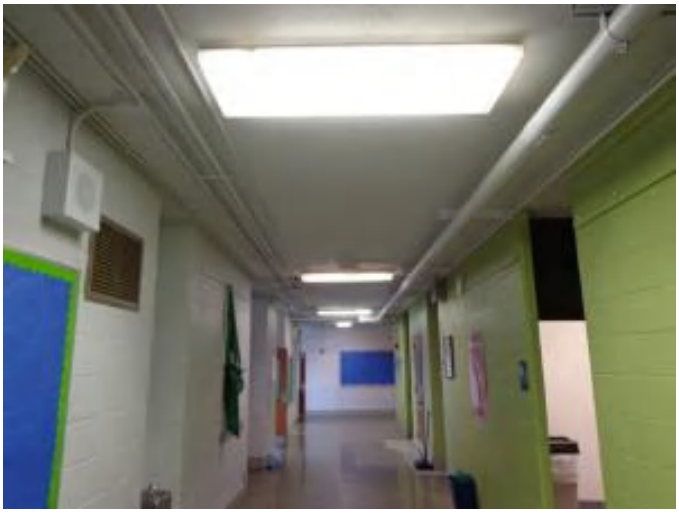
System: D5090 - Other Electrical Systems

This deficiency has no image.

Location: Basement
Distress: Inadequate
Category: 4 - Capital Improvement
Priority: 3 - Response Time (3-4 yrs)
Correction: Add Standby Generator System
Qty: 1.00
Unit of Measure: Ea.
Estimate: $355,489.52
Assessor Name: System
Date Created: 10/15/2015

Notes: Provide standby generator, sized to serve emergency lighting, elevator and possible fire pump.

System: D5090 - Other Electrical Systems



Location: Floors 1 -4 Corridors
Distress: Life Safety / NFPA / PFD
Category: 1 - Health & Safety
Priority: 3 - Response Time (3-4 yrs)
Correction: Add Emergency/Exit Lighting
Qty: 5.00
Unit of Measure: Ea.
Estimate: $8,467.93
Assessor Name: System
Date Created: 10/15/2015

Notes: Provide five (5) exit signs missing in corridors on Floors 1 through 4. Total of five (5) exit signs.

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

System: B2020 - Exterior Windows

Location: Building Wide

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 200.00

Unit of Measure: Ea.

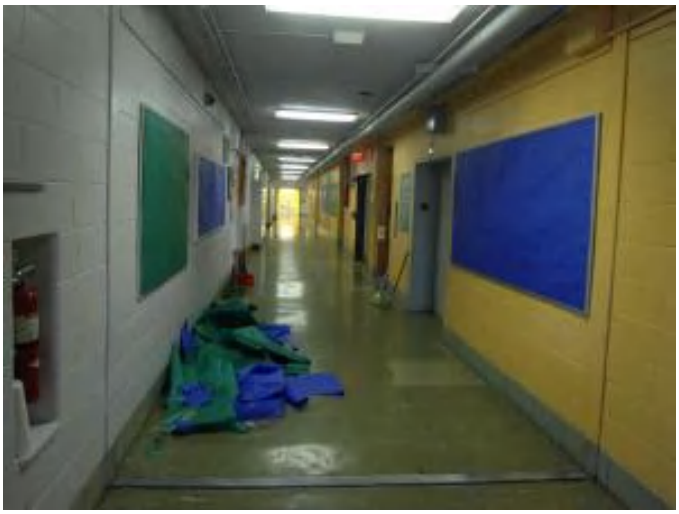
Estimate: $1,099,881.65

Assessor Name: System

Date Created: 08/06/2015

Notes: Exterior windows are a mix of single pane industrial grade metal, aluminum framed single pane windows. Windows are in good condition based on the year of installation or last renovation. The single pane and metal-framed windows have been replaced in the last twenty years. The exterior window system is recommended to be replaced with units that retain their dimensions and profiles, but that incorporate updated energy-efficient features.

System: C3020413 - Vinyl Flooring



Location: Building Wide

Distress: Health Hazard / Risk

Category: 1 - Health & Safety

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

Correction: Remove VAT and replace with VCT - SF of area

Qty: 40,000.00

Unit of Measure: S.F.

Estimate: $606,666.72

Assessor Name: System

Date Created: 08/06/2015

Notes: Much of the vinyl floor tile finishes in this building have been removed and replaced with a 12x12 vinyl floor finish. There a few remaining areas such as the hallway and select classrooms still have older 9x9 vinyl flooring. It is recommended that all of the remaining vinyl flooring be removed and upgraded to a 12x12 floor tile finish.

System: D2010 - Plumbing Fixtures

Location: entire building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 42.00

Unit of Measure: Ea.

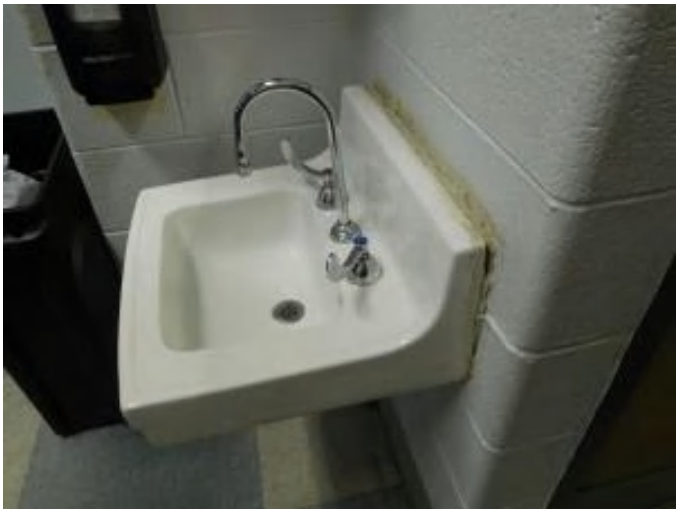
Estimate: $313,410.21

Assessor Name: System

Date Created: 08/05/2015

Notes: Replace plumbing fixtures including water closets, lavatories, urinals, and drinking fountains including valves, fittings, faucets and trim.

System: D2010 - Plumbing Fixtures



Location: entire building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace or replace lavatory - quantify accessible if required

Qty: 40.00

Unit of Measure: Ea.

Estimate: $152,440.51

Assessor Name: System

Date Created: 08/05/2015

Notes: Replace plumbing fixtures including water closets, lavatories, urinals, and drinking fountains including valves, fittings, faucets and trim.

System: D2010 - Plumbing Fixtures

Location: entire building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace or replace wall hung urinals

Qty: 20.00

Unit of Measure: Ea.

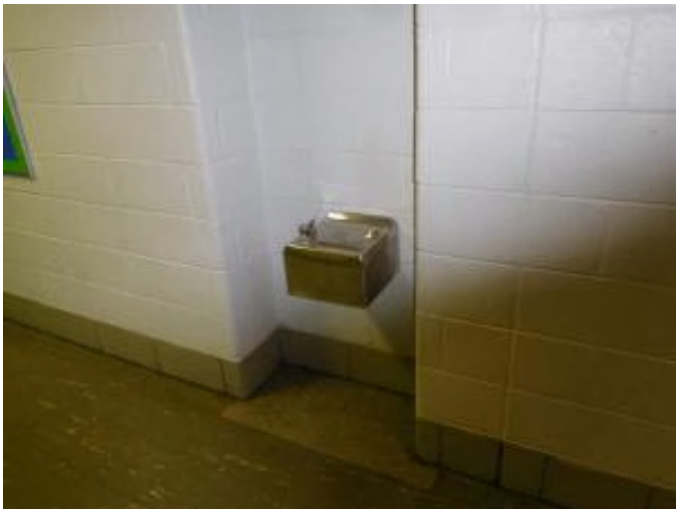
Estimate: $66,381.67

Assessor Name: System

Date Created: 08/05/2015

Notes: Replace plumbing fixtures including water closets, lavatories, urinals, and drinking fountains including valves, fittings, faucets and trim.

System: D2010 - Plumbing Fixtures



Location: entire building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and Replace Water Fountains - without ADA new recessed alcove

Qty: 4.00

Unit of Measure: Ea.

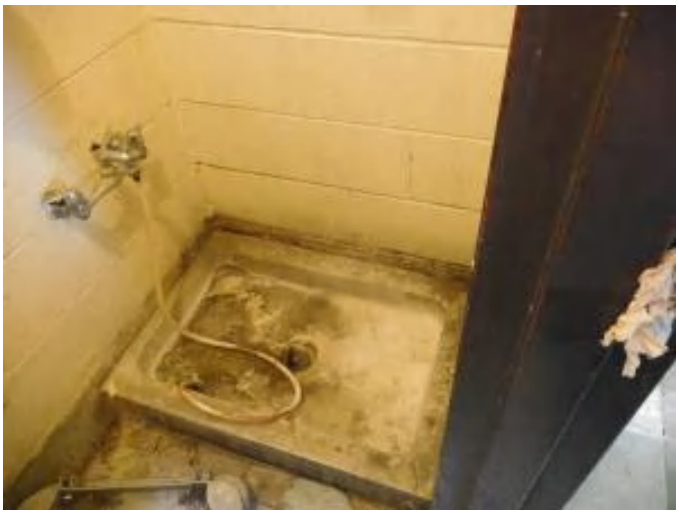
Estimate: $30,316.76

Assessor Name: System

Date Created: 08/05/2015

Notes: Replace plumbing fixtures including water closets, lavatories, urinals, and drinking fountains including valves, fittings, faucets and trim.

System: D2030 - Sanitary Waste



Location: entire building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 72,643.00

Unit of Measure: S.F.

Estimate: $356,368.42

Assessor Name: System

Date Created: 08/05/2015

Notes: Inspect existing sanitary piping and replace damaged sections.

System: D3030 - Cooling Generating Systems

Location: roof, mechanical room

Distress: Inadequate

Category: 4 - Capital Improvement

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

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

Qty: 72,643.00

Unit of Measure: S.F.

Estimate: $1,166,612.65

Assessor Name: System

Date Created: 08/11/2015

Notes: Remove the existing window air conditioning units and install a 190 ton air-cooled chiller on the roof with chilled water distribution piping, two pumps, chemical treatment and controls located in a mechanical room on the basement level.

System: D3040 - Distribution Systems

Location: cafeteria

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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

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

Qty: 795.00

Unit of Measure: Pr.

Estimate: $371,696.30

Assessor Name: System

Date Created: 08/22/2015

Notes: Install new single zone horizontal central station air handling unit in auditorium mechanical room to serve cafeteria. Connect to existing ductwork. Provide adequate outside air louver and ductwork to furnish code required fresh air. Unit to have hot and chilled water coils, filters, blower and motor. Include hydronic control valves with digital controls. Connect to building automation control system and hot and chilled water piping systems.

System: D3040 - Distribution Systems

Location: cafeteria roof

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Replace power roof ventilator (36" dia.)

Qty: 1.00

Unit of Measure: Ea.

Estimate: $87,759.28

Assessor Name: System

Date Created: 08/22/2015

Notes: Replace inoperable exhaust fan on cafeteria roof.

System: D3050 - Terminal & Package Units

Location: roof

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Install ductless split system for equipment room

Qty: 1.00

Unit of Measure: Ea.

Estimate: $14,641.41

Assessor Name: System

Date Created: 08/13/2015

Notes: Install one ton ductless DX split system to cool elevator equipment penthouse. Locate condensing unit on adjacent roof. Include refrigerant line set and drain line.

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: $246,488.91

Assessor Name: System

Date Created: 07/30/2015

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

System: D5020 - Lighting and Branch Wiring

Location: Classroom 110, Art Room 405

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

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

Correction: Replace Wiring Device

Qty: 6.00

Unit of Measure: Ea.

Estimate: $2,054.82

Assessor Name: System

Date Created: 10/15/2015

Notes: Replace six (6) receptacles located within 6 feet of the sinks in Classroom 110 and Art Room 405 with ground-fault circuit-interrupting type receptacles.

Priority 5 - Response Time (> 5 yrs):

System: C1030 - Fittings

Location: Building Wide Signage

Distress: Damaged

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 250.00

Unit of Measure: Ea.

Estimate: $64,150.73

Assessor Name: System

Date Created: 08/06/2015

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

System: C1030 - Fittings

Location: Building Wide

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 35.00

Unit of Measure: Ea.

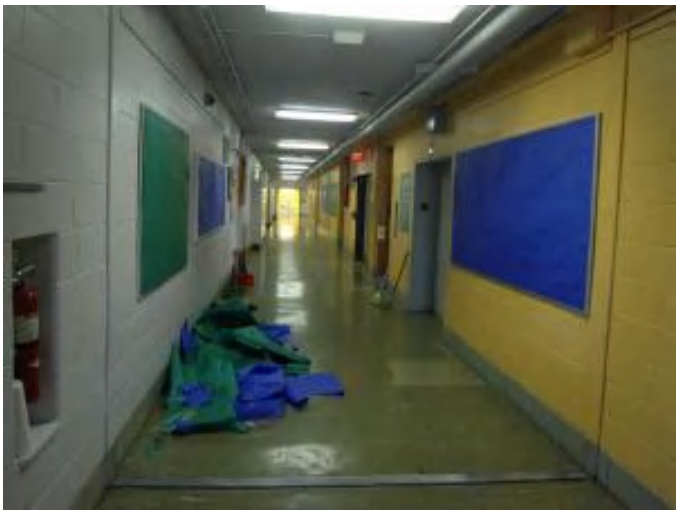
Estimate: $24,088.12

Assessor Name: System

Date Created: 08/06/2015

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: 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: 08/06/2015

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: C3020411 - Carpet

Location: Library and Administration

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Remove and replace carpet

Qty: 2,000.00

Unit of Measure: S.F.

Estimate: $22,381.52

Assessor Name: System

Date Created: 08/06/2015

Notes: The interior carpet finish was installed in 2000 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. Remove existing carpet finish and replace with in-kind application.

System: C3030 - Ceiling Finishes

Location: Building Wide

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 40,000.00

Unit of Measure: S.F.

Estimate: $603,297.21

Assessor Name: System

Date Created: 08/06/2015

Notes: The ceiling finish is a mix of 12 x 12 ceiling grid, painted and exposed concrete decking. The ceiling finish has been repaired in several areas and is in good condition considering the age of the application. The ceiling finish is expected to required upgrades within the next five to ten years. This deficiency provides a budgetary consideration for removal and replacement of the current ceiling finish to a new acoustical tile finish. Considering the recommended mechanical and electrical upgrades this effort should be completed as part of an overall renewal program for the school.

System: D2020 - Domestic Water Distribution

Location: entire building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Replace domestic water piping (75 KSF)

Qty: 72,643.00

Unit of Measure: S.F.

Estimate: $368,108.45

Assessor Name: System

Date Created: 08/05/2015

Notes: replace domestic not and cold water piping, valves, fittings, insulation, and hangars

System: E2010 - Fixed Furnishings

Location: Building Wide

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 300.00

Unit of Measure: Ea.

Estimate: $270,571.65

Assessor Name: System

Date Created: 08/06/2015

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

Equipment Inventory

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

Subsystem	Inventory	Qty	UoM	Location	Manufacturer	Model Number	Serial Number	Barcode	Life	Install Date	Next Renewal	Raw Cost	Inventory Cost
D1010 Elevators and Lifts	Elevators/Lifts, residential, wheelchair lift, max	1.00	Ea.	Corridor at Cafeteria	Harmar	CPL Series AC Model	None		35	1998	2033	$23,653.40	$26,018.74
D1010 Elevators and Lifts	Traction geared elevators, freight, 8000 lb, 5 floors, 50 FPM class'B'	1.00	Ea.	Elevator Machine Room	United	NA	NA		30	2015	2045	$234,780.00	$258,258.00
D2020 Domestic Water Distribution	Pump, pressure booster system, 5 HP pump, includes diaphragm tank, control and pressure switch	1.00	Ea.	mechanical room	armstrong				25	2006	2031	$10,972.50	$12,069.75
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, hot water, gross output, 2044 MBH, includes burners, controls and insulated jacket, packaged	1.00	Ea.	mechanical room	buderus	ge615			35	2006	2041	$62,552.00	$68,807.20
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, hot water, gross output, 2044 MBH, includes burners, controls and insulated jacket, packaged	1.00	Ea.	mechanical room	buderus	ge615			35	2006	2041	$62,552.00	$68,807.20
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, hot water, gross output, 2044 MBH, includes burners, controls and insulated jacket, packaged	1.00	Ea.	mechanical room	buderus	ge615			35	2006	2041	$62,552.00	$68,807.20
D5010 Electrical Service/Distribution	Switchgear installation, incl switchboard, panels & circuit breaker, 120/208 V, 1 phase, 400 A	1.00	Ea.	Main Electrical Room	Eaton C-H	PRL3A			30	2013	2043	$13,848.30	$15,233.13
D5010 Electrical Service/Distribution	Switchgear installation, incl switchboard, panels & circuit breaker, 120/208 V, 1600 A	2.00	Ea.	Main Electrical Room	Square D	QED	31675611-001		20	2013	2033	$40,458.15	$89,007.93
												Total:	**$607,009.15**

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):	31,000
Year Built:	1964
Last Renovation:	
Replacement Value:	$846,046
Repair Cost:	$765,495.91
Total FCI:	90.48 %
Total RSLI:	59.73 %

Description:

Attributes:

General Attributes:

Bldg ID:	S522001	Site ID:	S522001

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	62.83 %	107.64 %	$765,495.91
G40 - Site Electrical Utilities	43.33 %	0.00 %	$0.00
Totals:	**59.73 %**	**90.48 %**	**$765,495.91**

Condition Detail

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

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

System Listing

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

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

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

System Code	System Description	Unit Price $	UoM	Qty	Life	Year Installed	Calc Next Renewal Year	Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency $	Replacement Value $
G2010	Roadways	$11.52	S.F.	8,250	30				0.00 %	0.00 %				$95,040
G2020	Parking Lots	$7.65	S.F.	15,600	30	1990	2020	2027	40.00 %	184.85 %	12		$220,598.12	$119,340
G2030	Pedestrian Paving	$11.52	S.F.	31,000	40	1990	2030	2052	92.50 %	124.85 %	37		$445,868.36	$357,120
G2040	Site Development	$4.36	S.F.	31,000	25	1990	2015	2027	48.00 %	71.95 %	12		$97,243.98	$135,160
G2050	Landscaping & Irrigation	$3.78	S.F.	1,200	15	2011	2026	2028	86.67 %	39.36 %	13		$1,785.45	$4,536
G4020	Site Lighting	$3.58	S.F.	31,000	30	1964	1994	2028	43.33 %	0.00 %	13			$110,980
G4030	Site Communications & Security	$0.77	S.F.	31,000	30	1964	1994	2028	43.33 %	0.00 %	13			$23,870
								Total	**59.73 %**	**90.48 %**			**$765,495.91**	**$846,046**

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.

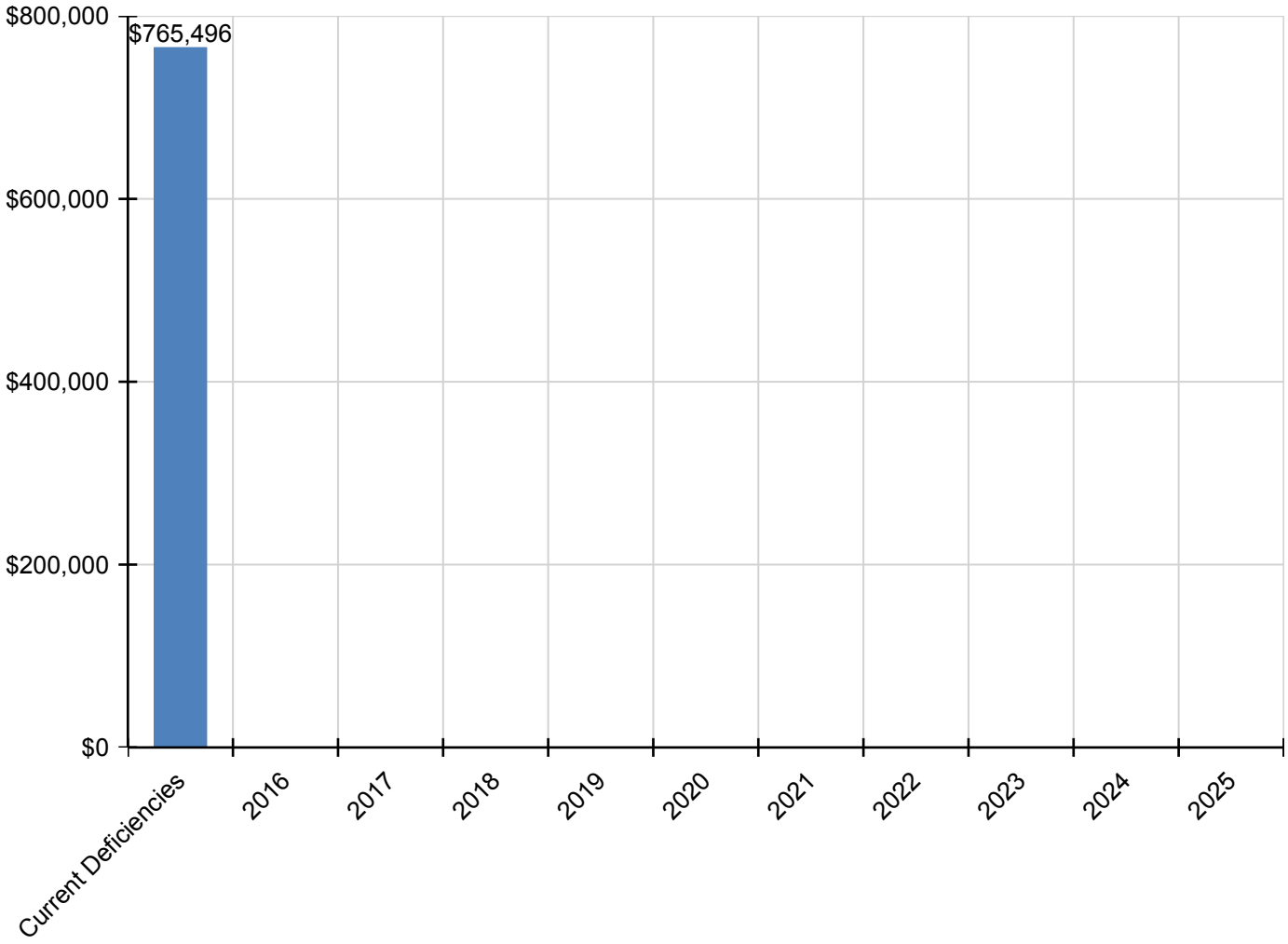
Inflation Rate: 3%

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Total:	**$765,496**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$765,496**
G - Building Sitework	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G20 - Site Improvements	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G2010 - Roadways	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G2020 - Parking Lots	$220,598	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$220,598**
G2030 - Pedestrian Paving	$445,868	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$445,868**
G2040 - Site Development	$97,244	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$97,244**
G2050 - Landscaping & Irrigation	$1,785	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,785**
G40 - Site Electrical Utilities	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G4020 - Site Lighting	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G4030 - Site Communications & Security	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

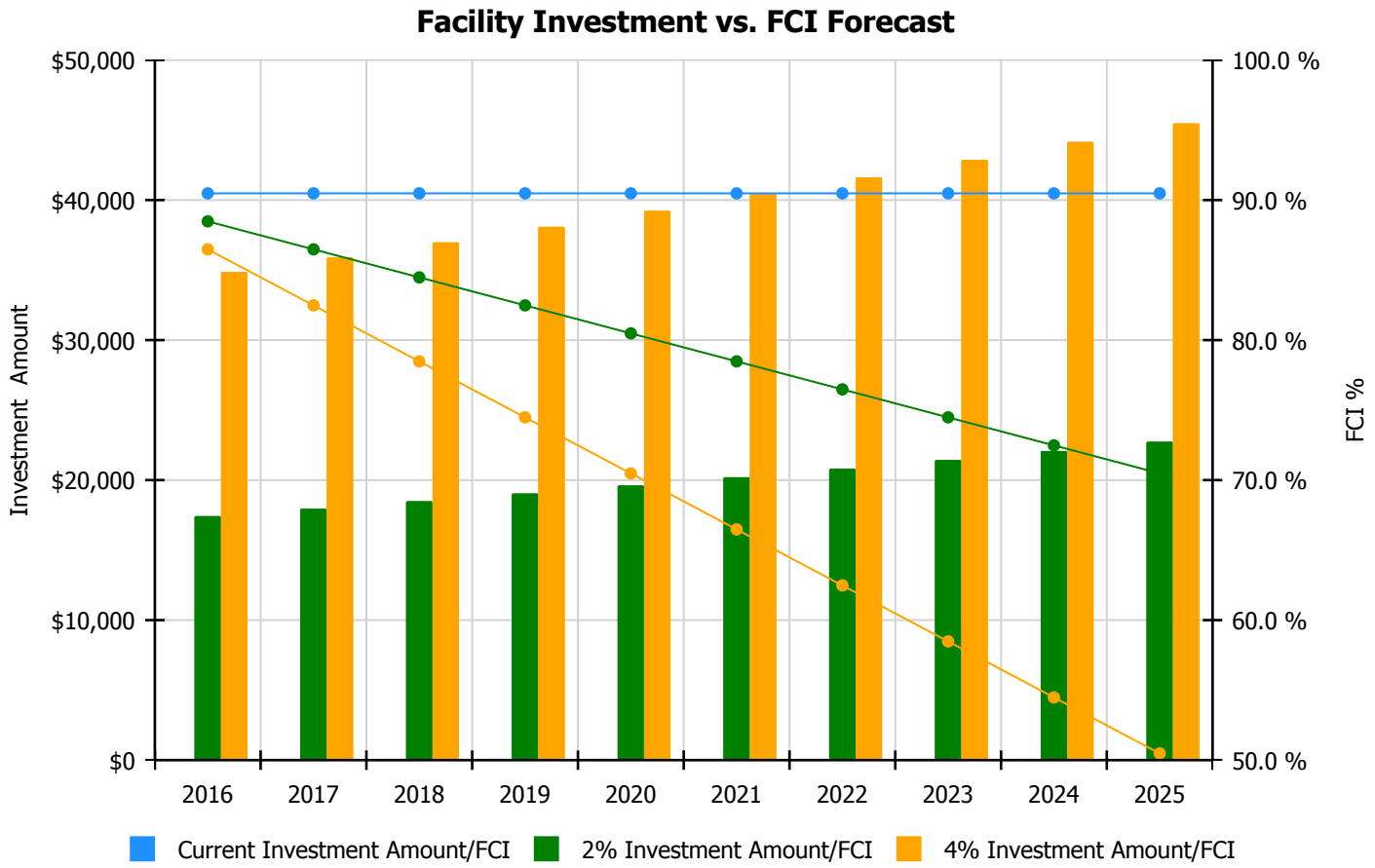
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



10 Year FCI Forecast by Investment Scenario

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

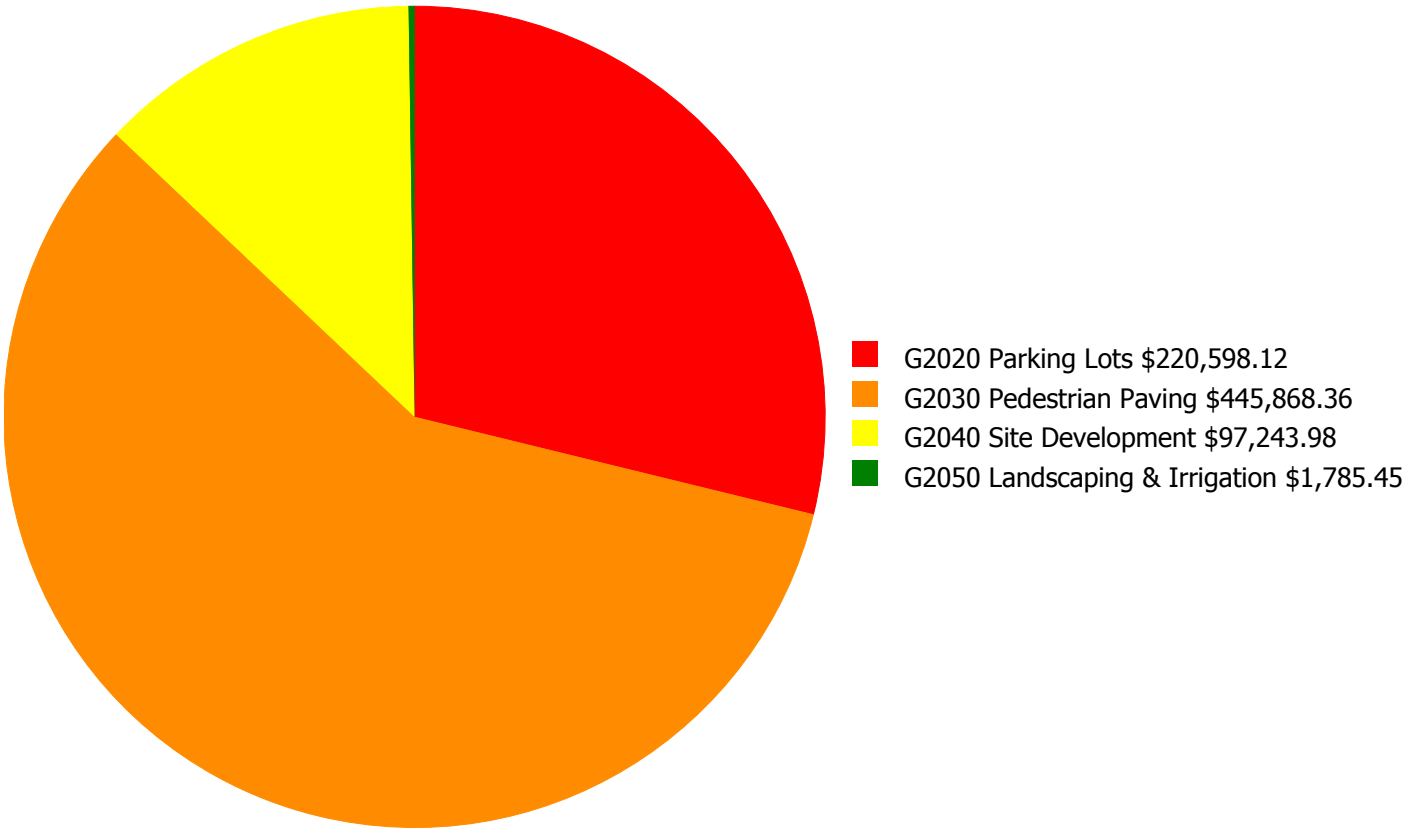
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 90.48%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$17,429.00	88.48 %	$34,857.00	86.48 %
2017	$0	$17,951.00	86.48 %	$35,903.00	82.48 %
2018	$0	$18,490.00	84.48 %	$36,980.00	78.48 %
2019	$0	$19,045.00	82.48 %	$38,089.00	74.48 %
2020	$0	$19,616.00	80.48 %	$39,232.00	70.48 %
2021	$0	$20,204.00	78.48 %	$40,409.00	66.48 %
2022	$0	$20,811.00	76.48 %	$41,621.00	62.48 %
2023	$0	$21,435.00	74.48 %	$42,870.00	58.48 %
2024	$0	$22,078.00	72.48 %	$44,156.00	54.48 %
2025	$0	$22,740.00	70.48 %	$45,481.00	50.48 %
Total:	**$0**	**$199,799.00**		**$399,598.00**	

Deficiency Summary by System

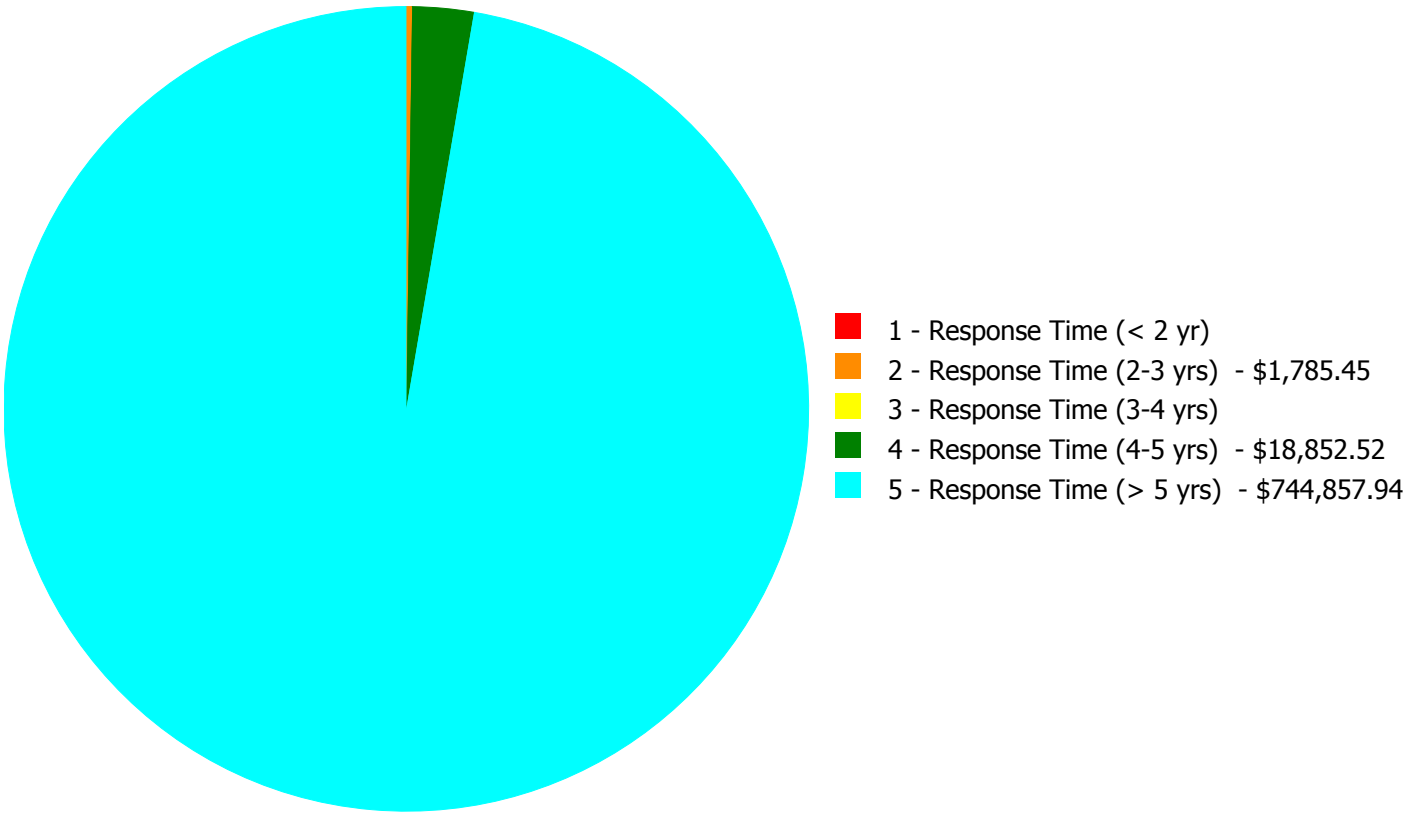
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $765,495.91

Deficiency Summary by Priority

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



Budget Estimate Total: $765,495.91

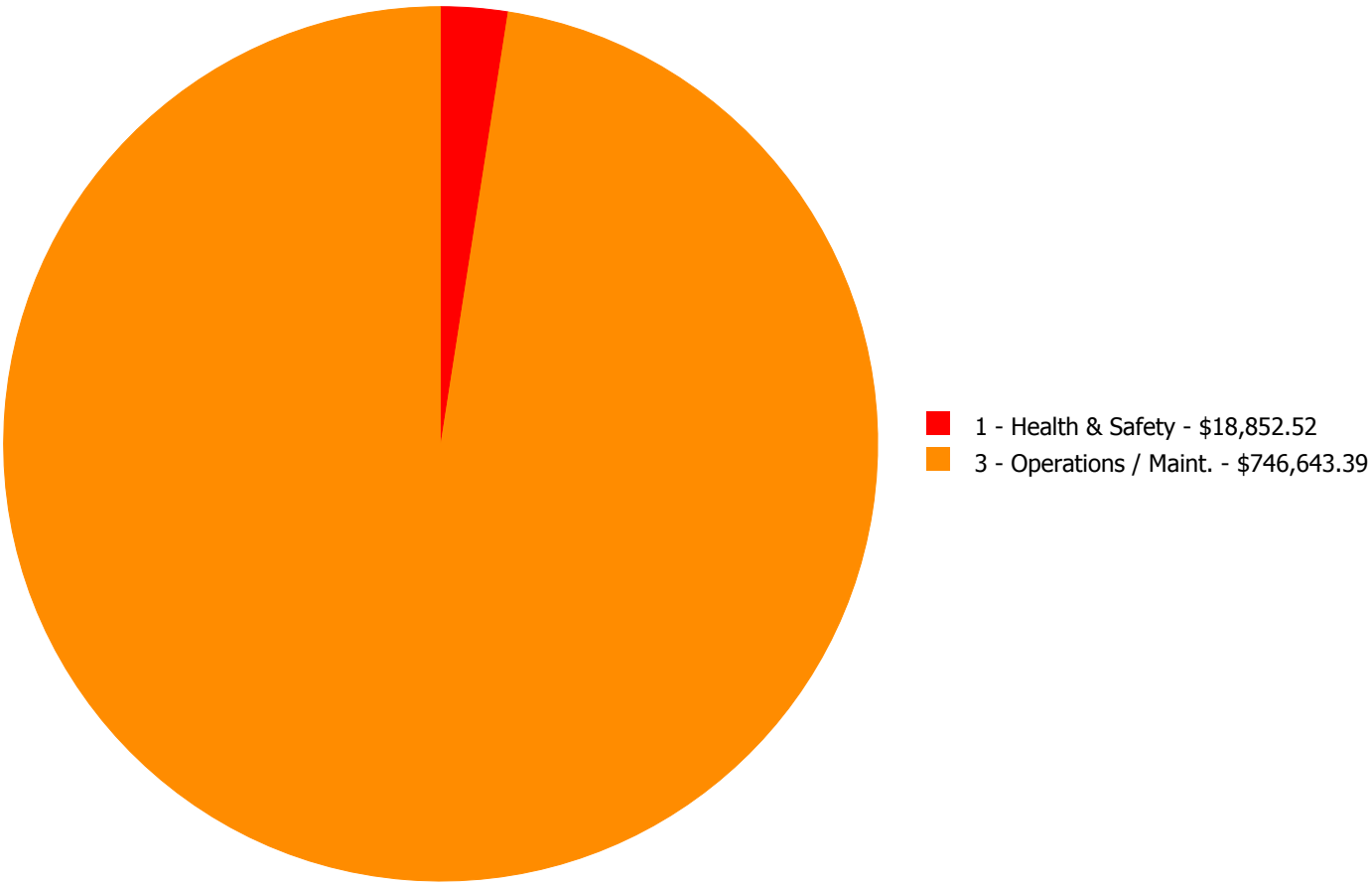
Deficiency By Priority Investment Table

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

System Code	System Description	1 - Response Time (< 2 yr)	2 - Response Time (2-3 yrs)	3 - Response Time (3-4 yrs)	4 - Response Time (4-5 yrs)	5 - Response Time (> 5 yrs)	Total
G2020	Parking Lots	$0.00	$0.00	$0.00	$0.00	$220,598.12	$220,598.12
G2030	Pedestrian Paving	$0.00	$0.00	$0.00	$0.00	$445,868.36	$445,868.36
G2040	Site Development	$0.00	$0.00	$0.00	$18,852.52	$78,391.46	$97,243.98
G2050	Landscaping & Irrigation	$0.00	$1,785.45	$0.00	$0.00	$0.00	$1,785.45
	Total:	$0.00	$1,785.45	$0.00	$18,852.52	$744,857.94	$765,495.91

Deficiency Summary by Category

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



Budget Estimate Total: $765,495.91

Deficiency Details by Priority

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

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

System: G2050 - Landscaping & Irrigation

Location: Play Ground

Distress: Appearance

Category: 3 - Operations / Maint.

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

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

Qty: 500.00

Unit of Measure: S.F.

Estimate: $1,785.45

Assessor Name: Craig Anding

Date Created: 08/06/2015

Notes: The landscaping is in good condition and well maintained but with no irrigation system. The landscaping is generally located near the play area of the site. This deficiency provides a budgetary consideration for the installation of an irrigation system for this site.

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

System: G2040 - Site Development

Location: Site

Distress: Health Hazard / Risk

Category: 1 - Health & Safety

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

Correction: Build secure trash dumpster enclosure

Qty: 1.00

Unit of Measure: Ea.

Estimate: $18,852.52

Assessor Name: Craig Anding

Date Created: 08/06/2015

Notes: Build secure trash dumpster enclosure

Priority 5 - Response Time (> 5 yrs):

System: G2020 - Parking Lots

Location: Parking Play Area

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Remove and replace AC paving parking lot

Qty: 15,600.00

Unit of Measure: S.F.

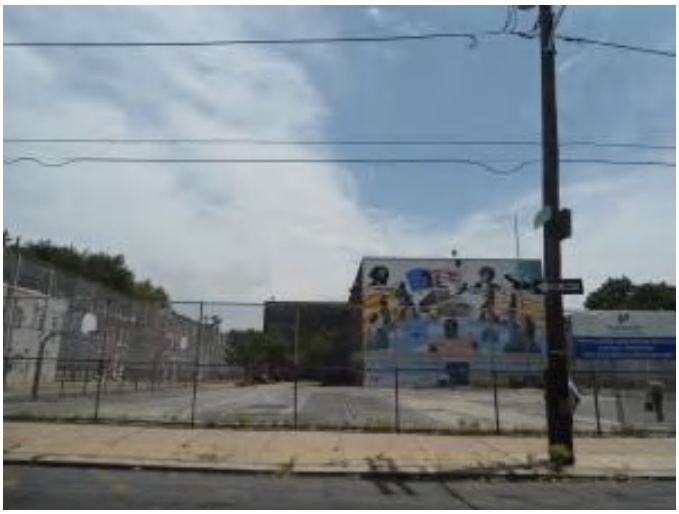
Estimate: $220,598.12

Assessor Name: Craig Anding

Date Created: 08/06/2015

Notes: The parking play area has no assigned parking and limited markers for approved activity areas. No curb cuts for access to the sidewalks that lead to the ADA main entrance. The parking play lot is in fair 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 play, parking lot renewal program that includes all aspects of the current ADA legislation. Asphalt removal and replacement is recommended.

System: G2030 - Pedestrian Paving



Location: Site

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 31,000.00

Unit of Measure: S.F.

Estimate: $445,868.36

Assessor Name: Craig Anding

Date Created: 08/06/2015

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.

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: 700.00

Unit of Measure: L.F.

Estimate: $78,391.46

Assessor Name: Craig Anding

Date Created: 08/06/2015

Notes:

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