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.

MLK High School

Governance	DISTRICT	Report Type	High
Address	6100 Stenton Ave.	Enrollment	790
	Philadelphia, Pa 19138	Grade Range	'09-12'
Phone/Fax	215-276-5253 / 215-276-5844	Admissions Category	Neighborhood
Website	Www.Philasd.Org/Schools/Mlking	Turnaround Model	Turnaround

Building/System FCI Tiers

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

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

Building and Grounds

	FCI	Repair Costs	Replacement Cost
Overall	**39.81%**	**$82,498,630**	**$207,234,719**
Building	42.86 %	$79,132,710	$184,609,230
Grounds	14.88 %	$3,365,920	$22,625,489

Major Building Systems

Building System	System FCI	Repair Costs	Replacement Cost
Roof (Shows physical condition of roof)	89.59 %	$4,167,487	$4,651,860
Exterior Walls (Shows condition of the structural condition of the exterior facade)	00.61 %	$96,868	$15,984,000
Windows (Shows functionality of exterior windows)	14.25 %	$1,451,171	$10,182,400
Exterior Doors (Shows condition of exterior doors)	148.54 %	$637,512	$429,200
Interior Doors (Classroom doors)	102.87 %	$1,431,176	$1,391,200
Interior Walls (Paint and Finishes)	00.00 %	$0	$4,676,100
Plumbing Fixtures	00.00 %	$0	$5,002,400
Boilers	25.40 %	$1,754,290	$6,907,900
Chillers/Cooling Towers	69.19 %	$6,266,622	$9,057,600
Radiators/Unit Ventilators/HVAC	197.89 %	$31,477,448	$15,906,300
Heating/Cooling Controls	136.47 %	$6,816,675	$4,995,000
Electrical Service and Distribution	128.45 %	$4,610,111	$3,589,000
Lighting	11.57 %	$1,484,053	$12,831,600
Communications and Security (Cameras, Pa System and Fire Alarm)	02.56 %	$123,152	$4,806,300

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

S606001;King HS and Field

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):	370,000
Year Built:	1970
Last Renovation:	
Replacement Value:	$207,234,719
Repair Cost:	$82,498,630.33
Total FCI:	39.81 %
Total RSLI:	66.76 %

Description:

Facility Assessment
October 2015

School District of Philadelphia
Martin Luther King High School
6100 Stenton Ave.
Philadelphia, PA 19138

370,000 SF / 2,543 Students / LN 06

GENERAL

The Martin Luther King High School or Promise Academy at Martin Luther King High School Technical High School is one of the newer schools in service to the Philadelphia communities originally constructed in 1970 in the Germantown section of Philadelphia at the intersection of Stenton Avenue and Haines Street. The school is currently being run by the Philadelphia School System and is identified as B606001.

Located at 6100 Stenton Ave., Philadelphia, PA, this unconventional rectangular-shaped, concrete and steel-framed building includes brick and concrete facades with a concrete foundation.

The main entrance faces the Northern exterior facing Stenton Ave. drop off area. General parking extends from the main entrance leading to the most eastern section of the site. This School serves students in grades 9 to 12 and has a three stories consisting of a total gross square footage of 370,000 GSF.

This school has several classrooms, a library, kitchen and student commons, two Gyms, Auditorium and cafeteria, with supporting administrative spaces. Science, vocational programs, Art Department, culinary, JROTC and Business and Computers Technology. This school is highlighted in a 2014 documentary "We Could Be King."

Special note to the existing paintings around the exterior of the school and in the main lobby dedicated to those who provided a future through sacrifice. Other wall paintings are depicted to the local community and dedications to people who support the school.

The information for this report was collected during a site visit on October 28, 2015.

Mr. Jeff Ford, Building Engineer, accompanied the assessment team on a tour of the school and provided detailed information on the building systems and maintenance history. Ms. Keisha Wilkins, Principal, also participated in the interview and shared information about the school with the assessment team.

Architectural / Structural Systems

Foundations are concrete and appear to be in sound condition. The superstructure is supported with a steel and masonry construction. Floor construction is concrete with metal decking supports.

The existing built up roofing system has clear signs of ponding and there reportedly has been an increase of roofing maintenance on this single ply roofing system. Reported leaks were verified in room 206 and room 342 as well as obvious stains in ceiling tiles near the edges of the exterior walls of several classrooms. This roof is expected to required replacement within the next ten years as the repairs and maintenance outweighs the effort and requires upgrade. It is recommended that a new built-up roofing system be installed within the next ten years.

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

Exterior window systems are a mix of single pane industrial grade metal, hopper and fixed aluminum framed single pane. Windows are in fair to poor condition based on the year of installation. The single pane metal-framed windows have been repaired, or have had single replacements because of damage or abuse. As indicated in the photos several of the windows are boarded up and no longer function as designed. The window systems have exceeded their useful service life. 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. 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 not a main factor in the last re-construction effort for this school. The exterior ADA ramp on the southwestern exterior of the school is the only option the physically challenged has to enter the school unless escorted through the main entrance. 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 three passenger elevators and one mini freight elevator supporting the three levels of dining rooms, one normal freight elevator, Interior access ramps, some door hardware, hand rails and guard rails. However, the building has received limited upgrades and does not fully support a path of travel for those that may be physically challenged. Included in this report are modification that allow for considerations to enhance the upgrades required to support the physically challenged.

Interior partitions are mainly painted CMU with limited section of gypsum wallboard. Interior partitions are in good condition. The mechanical room has several penetrations and as indicted in the photos an industrial window that has been compromised with several

holes for equipment. Also, note the electrical modifications recently completed at this school has left several closet penetrations open. This deficiency provides a budgetary consideration to properly enclose the areas and to meet the current fire life safety requirements for mechanical spaces.

The corridor doors in this school have had some additions that are not designed as part of the original construction. This effort was designed for student containment and class separation. The corridor doors are typically metal in metal frames with glass glazing. The separation doors are wooden doors in metal frames. The doors are generally in fair to poor condition considering the age and high traffic usage of the application. To restore the door finishes, universal upgrades are required for the older door applications. Remove and replace original corridor door systems with new code compliant fire rated door system.

Interior doors are typically wood in metal frames with glass glazing. Other interior doors include modern wooden doors with original metal frames, hollow metal in hollow metal frames. Doors are generally in fair condition considering the age of the application. Several interior doors have been replaced with modern applications that meet current ADA standards however, several doors are damaged and a few are no longer functional and ready for upgrade. Universal upgrades are required for the interior door systems, it is recommended that the interior doors system be removed and replaced with a new modern metal framed wooden door system with consideration for ADA compliance.

Fittings include: chalkboards; marker boards; tack boards; interior signage; metal lockers; toilet accessories and metal toilet partitions; fixed storage shelving. Most of the systems are in good condition and the following deficiencies are recommended to correct issues that currently exist.

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

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

Stair construction is concrete with either metal or concrete finishes treads. 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 a painted CMU wall finish. Other wall finishes include: ceramic tile at restrooms and in the Nurses office and culinary school. Wall finishes are generally in very good condition.

Interior floor finishes are typically VCT/VAT in classrooms and corridors. Other floor finishes include: carpet; wood flooring for the stage and gym; sealed concrete for the vocational and common areas.

Typical carpeting in the un-renovated portion (Music Hall) of the building is in poor condition, and it can be expected to degrade over time. Generally, the carpet is located in offices, medical instruction classrooms, conference areas and the main auditorium. To anticipate these life cycle expenditures, schedule these floor finishes for low priority replacement with new commercial-grade, roll carpeting over the next ten-year period. Carpet upgrades are warranted within the next ten year as an overall effort and sooner in the Music Hall section of the school.

The vinyl floor finish in most of this school is in very good condition and appears to have part of an isolated upgrade. However, some of the original flooring that was not a part of that effort consist of a 9x9 finish. This finish is suspect to contain asbestos and is recommended for upgrade. The vinyl tile finish is a 9 x 9 application and is suspect to contain asbestos. Suspected asbestos containing materials (ACM) are believed to be limited to the original vinyl floor tile and mastic. While currently sound and manageable in place, future renovation efforts should include provision to test and abate any and all ACM.

The ceiling finish is a 2 x 4 Acoustical tile finish. Ceilings have been repaired in several areas and is in good condition considering the age of the application and the current condition of the school. The ceiling finish is expected to require upgrades to support the recommended efforts in this report prior to re-opening. 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. No work should be considered until

after the recommended exterior efforts are complete.

Institutional equipment includes: library equipment, instrumental equipment; A/V equipment; and gym equipment – basketball backstops, scoreboards, etc. Other equipment includes kitchen equipment; loading dock bumpers/levelers. These systems are in good condition with no issues that surfaced during the time of the inspection, therefore no recommendations are required at this time.

This schools science labs have been upgraded from the original construction. The installation consist of an instruction demonstration desk with sink. Wall mounted storage cabinets and cabinets with sinks for student use. The system is showing signs of age and lack of maintenance such as broken sink fixtures missing cabinet doors and damaged shelves. This deficiency provides a budgetary consideration for the universal upgrade of the science teaching labs to include new counter tops, sink, cabinets, shelves and fixtures required to support a conducive level of education.

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

The loading dock is located just off the parking area between the dumpsters and the access point for students entering the school. The existing recommendation to enclose and move the dumpsters to a new location is related to this effort. After the dumpster correction is complete it is recommended that the loading dock area be clearly marked and safety barriers be placed to protect pedestrian traffic and mitigate possible issues related to loading and unloading materials and supplies.

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

MECHANICAL SYSTEMS

PLUMBING- Plumbing fixtures are standard china commercial quality with wall mounted lavatories, urinals and water closets. Most lavatories have dual wheel handle faucets and urinals and water closets have recessed manual flush valves with push button operators. The third level has science classrooms with some integral lab equipment sinks. Some classrooms have gas and water utilities. Custodial closets have cast iron service sinks. There are single level stainless steel water coolers with integral refrigeration. The main kitchen waste and culinary school kitchen waste is piped through grease traps above the floor at each location. Three Paloma instantaneous gas water heaters are in the mechanical room, each with a small inline circulating pump and type B gas vents. A storage room in the culinary arts area contains a Bradford White gas water heater with direct vent and combustion. This unit is two hundred fifty gallons and has a circulating pump. There is an abandoned horizontal domestic water tank with a steam bundle in the mechanical room and an older domestic water booster pump system with two newer fifteen hp vertical pumps.

Domestic water piping is original installation with insulated rigid copper tubing. Sanitary, waste, vent and rainwater piping is original installation hub and spigot cast iron, with some hubless cast iron where additions or damage have occurred. The water service is a six inch line and meter from Stenton Ave. located in the basement mechanical room and includes two parallel backflow preventers. A six inch gas line is also from Stenton Ave.

Domestic water piping has exceeded the service life and should be replaced. Sanitary and waste cast iron piping should be inspected for damage and repaired or replaced as required. Plumbing fixtures are newer and should have remaining service life of twenty years. The water heaters should be functional up to fifteen more years. The domestic booster pump system appears to be original and should be replaced.

HVAC-The building was originally heated by steam and hot water generated by three Weil Mclain Series 3 model 94 cast iron sectional boilers. One boiler has been removed and one boiler is currently undergoing an asbestos abatement and has been enclosed with a temporary plywood structure with mechanical ventilation, leaving one boiler operational. The boilers are gas fired three hundred hp each, reportedly installed in 1970. Each unit has a Weil Mclain burner and control panel and is connected to a common factory fabricated vent system routed to an existing chimney. The vent has external insulation with aluminum jacketing. The boilers have code compliant gas trains. There is an older horizontal condensate return tank and boiler feed unit with four pumps serving the boilers. A shell and tube steam/hot water heat exchanger suspended overhead provides hot water for heating coils, circulated by two end suction hot water pumps. Steam and hot water piping is insulated welded black steel with some leaks and some damaged insulation.

Exterior classrooms and some other areas have older Nesbitt unit ventilators installed in 1970 with hot water coil, outside air damper,

filter, blower and motor, control valve and controls. Hot water radiation is located at entrances, toilet rooms, corridors, gym and other areas requiring heat.

Six original roof mounted exterior air handling units serve interior building areas. A second floor mechanical room contains an air handling unit for the main kitchen. Two third floor mechanical rooms contain six air handling units. Units AC-1, AC-2, HV-1 and HV-2 are in one room and AC-3 and AC-4 are in the other room. All are single zone units. The AC units have a hot water and dual temperature water coil and the HV units have only a heating coil. The units serve areas as follows: AC-1 office area, AC-2 nursing area, AC-3 music area, AC-4 auditorium, HV-1 and 2 gymnasium. AC- 3 has a broken fan shaft, AC-2 has a damaged coil and HV-1 and 2 are inoperable. AC-3 and 4 have separate return air fans. The automotive shop area has an inoperable suspended heating and ventilating unit. The roof mounted units are SEMCO custom manufactured units with hot and chilled water coils. One of these units has a coil that was removed and not replaced. All the indoor and outdoor air handling units are from the 1970 installation. The outdoor units serve interior areas of the building with duct mounted reheat coils for zoning. Areas served include the IMC, corridors, lobby and cafeteria on each level. The gymnasium is divided into four sections, each with a reheat coil.

The building had a water cooled chilled water system installed in 1970 with an Evapco cooling tower on the roof and a Carrier centrifugal chiller in the mechanical room. The cooling tower is a galvanized steel three cell blow through type and has probably been replaced since the 1970 installation. This system was abandoned and a temporary rental chiller was reportedly in place during 2014 but was removed before this inspection. A project to replace the entire system is apparently out for bid but was not under construction during this inspection. There are several abandoned double suction pumps for this system including three chilled water, two condenser water and two dual temperature water. Most of these pumps have been dissembled and disconnected.

In 2013 a renovation project was completed including the culinary arts area and graphic arts area. This project included six York package rooftop HVAC units with gas heat. These units range from four to fifteen tons. Four units serve the culinary kitchen, dining and classroom area and two units serve the graphic arts area. A Greenheck roof mounted gas makeup air unit was installed to serve the kitchen hood. The security office has four Sanyo ductless split systems with exterior wall mounted condensing units.

There are no functional central control systems. There is a duplex controls air compressor in the mechanical room and old control panels, most of which are abandoned. The boilers are operated by the burner control panels.

There are approximately twelve centrifugal roof ventilators, six upblast fans and ten utility fan sets on the roof. These fans exhaust toilet and locker rooms, kitchen hoods and science classroom fume hoods. The main kitchen has two canopy hoods with fire suppression system. The culinary kitchen has a dishwasher hood, a heat removal hood and a grease exhaust hood with fire suppression system and gas shut off valve. The mechanical room has combustion air louvers and motorized dampers and a propeller wall exhaust fan.

The unit ventilators have exceed the service life and do not comply with ventilation codes, and should be replaced. The two boilers, steam and hot water systems have exceeded anticipated life and should be replaced. The indoor and exterior air handling units are original installation and should be replaced.

FIRE PROTECTION- There is a partial sprinkler system serving the automotive and carpentry shop areas. A seventy five hp Worthington electric fire pump is located in the third level AC-3 and 4 mechanical room with a six inch fire service line. There is an external fire department connection.

ELECTRICAL SYSTEMS

Electrical Service--The building is served at 13.2 kV from PECO Energy Company to a double-ended substation located in Main Electrical Room M127B. The substation consists of a utility line circuit breaker section and metering cabinet, two load interrupter switches, two 1500/2000 kVA, 13.2 kV-480/277V, 3 phase, 4 wire dry type transformers, two 2500A main circuit breaker sections, a tie circuit breaker section and two distribution sections. This substation feeds several step-down transformers and distribution panelboards and motor control centers in mechanical and electrical rooms throughout the building. Except for Panelboard MDP-CTE and the 300 kVA transformer that supplies this panelboard, most of the electrical service distribution equipment is now obsolete, manufactured by Federal Pacific Electric, and beyond its useful service life. The equipment includes five (5) motor control centers, three (3) distribution panelboards, eight (8) step-down transformers, ranging in size from 30 kVA to 500 kVA. Replacement is recommended within the next 3 to 5 years.

Except for panelboards in the culinary kitchen on Floor 3, most of the panelboards throughout the building are original and have exceeded their useful life expectancy. This report includes replacement of 30 panelboards and their feeder conductors.

Receptacles-- Most classrooms are provided with only 4 to 5 duplex receptacles, which is not adequate for today’s classrooms. This

report includes a budget to add 4 to 6 duplex receptacles using a surface metal raceway system in most of the classrooms.

Receptacles located in the kitchen on Floor 1 and the culinary kitchen on Floor 3 need to be replaced with ground-fault circuit-interrupting (GFCI) type duplex receptacles to comply with NFPA 70, National Electrical Code (NEC) Article 210.8 (B). Also, all duplex receptacles located within 6 feet of wet locations in the three science labs on Floor 3 need to be replaced with GFCI type. An estimate for replacement of 60 duplex receptacles is included in this report.

Lighting—Most of the lighting fixtures in classrooms, learning centers, corridors, offices, IMC, kitchens, cafeterias, and restrooms are 2x4 recessed fluorescent grid troffers with acrylic prismatic lenses and either 2 or 4 lamps. Most of the fixtures are in good condition with an estimated remaining useful life of 10 years. However, there are many fixtures throughout the building that need to be maintained. An allowance for replacement of lamps and/or lenses for 150 2x4 fluorescent fixtures is included in this report. There are also some classrooms and areas, such as Manufacturing Technology T131, Special Education T138 and First Floor corridor, that have 2x4 fluorescent lighting fixtures with T12 lamps.

Most of the lighting fixtures in the gymnasium locker rooms have 4 foot, 2 lamp surface mounted vapor-tight fluorescent fixtures with T12 lamps.

Lighting fixtures in the Boiler Room and Main Electrical Room are 4 foot industrial with T12 lamps. Mechanical Room G376 has 4 foot, fluorescent wall bracket fixtures with T12 lamps; lighting level is inadequate.

The auditorium is illuminated with a combination of LED and 500W halogen downlights. Lighting is in good condition with life expectancy beyond this report. Consideration should be given to replacing the halogen lamps with LED lamps when fixtures need to be replaced.

The stage has three rows of theatrical batten lighting and worklights on the sides of the stage. The recommendation is to replace the stage lighting and add a fourth row of batten lighting. The dimmer control board is by Lighting Methods, Inc. There are three cabinets with 100 dimmer modules, for a total of 200 dimmer circuits. The dimming control board is beyond its useful life and in poor condition. Replacement is recommended.

The four section divided gymnasium has a total of 96 industrial fixtures, a combination of 400W metal halide and mercury vapor, that are nearing the end of their useful life. Replacement is recommended.

Choral Hall A267, Music Hall A268 and Music Instrument A269 are illuminated with recessed square mercury vapor lighting fixtures. Recommend fixture replacement with LED type for improved energy efficiency and reduced maintenance costs.

Recessed fluorescent and metal halide downlights are located in the circulation areas around the auditorium and in the main entrance lobby. Several of these fixtures have missing trim rings. Fixtures also have lamps of different color temperatures, which is quite noticeable. Lamp replacement is recommended for all downlights for consistent lamp color and appearance.

Lighting in most rooms is controlled by a single switch. Key type switches are used in the gymnasiums. There are no occupancy sensors for lighting control.

Wall pack high intensity charge lighting fixtures are located on the exterior of the building above exit discharges around the perimeter of the building. Fixtures are estimated to have a remaining life of 6 to 8 years. No recommendation is made at this time.

Fire Alarm System-- The fire alarm system was replaced in 2011 with a Siemens addressable system. The Siemens FireFinder fire alarm control panel is located in Room 114. The system includes manual pull stations, audible/visual notification appliances, ceiling mounted smoke detectors in corridors, smoke and heat detectors for elevator recall, and a remote annunciator panel located in the main lobby vestibule. The system is expected to have a remaining life of 15 years.

Telephone/LAN-- The telephone system demarcation point is located in Main Electrical Room M127B. The Telephone Distribution equipment and Main Distribution Frame (IDF) is located in Room A257. There are also Intermediate Distribution Frames (IDFs) located on each floor as necessary to stay within the maximum length allowable for station cabling. Each classroom is provided with a telephone. Data outlets are also provided in each classroom. Wireless access points are located to provide Wi-Fi service throughout the entire school.

Public Address/Paging/Sound Systems-- The paging system is accessed through the telephone system. The paging system amplifiers and telephone system interface is located in Telephone Distribution Room A257. Clock speaker assemblies are provided in classrooms and other rooms, as needed. Recessed ceiling paging speakers are provided in corridors and rooms with ceilings. Horn type speakers

are provided in the gymnasiums and on the exterior of the building.

The auditorium has a separate sound system cabinet with Rauland and Dukane system component. The system is reported to be in good working order.

Clock and Program System--There is a Rauland Master Clock System panel in Main Office A252. The program system is reported to be in good working order, but the clock system is not functional. This report includes replacement of all clocks with a wireless GPS clock system with battery operated synchronized clocks. The ceiling speakers are used for announcements and program system.

Television Distribution System-- The original television system is obsolete and no longer used. Many rooms still have wall mounted television sets left abandoned in place. Removal of these sets is considered a maintenance item and not included in this report as a capital cost.

Video Surveillance and Security System--The video surveillance system was replaced in 2010. There are a total of 100 cameras throughout the building, including nine (9) exterior cameras. The control cabinet is located in School Police Room 226K. The system includes eight (8) monitors and seven (7), 16 channel digital video recorders (DVRs). The system is in good condition and has an estimated remaining service life of 10 years.

Security motion sensors are located in corridors at stairwell locations. There is no intercom system at the Visitor Entrance

Emergency Power System-- A Kohler 100 kW/125 kVA, 480/277V, 3 phase, 4 wire standby, diesel fueled generator is located in Main Electrical Room M127B. The inspection tag on the generator was dated 1989. It has 318 hours of operation at the time of this site visit. The generator supplies 225A Emergency Panelboard EML via a Kohler 150A automatic transfer switch. The standby power system includes two (2) 30 kVA step-down transformers and five (5) other emergency panelboards. All of this equipment has reached the end of its useful life and needs to be replaced.

There is also a Cummins generator on the exterior of the building at southwest corner that serves Core IT equipment.

Emergency Lighting System / Exit Lighting-- Emergency egress lighting fixtures and exit signs are connected to emergency panelboards. Exit signs are generally in poor condition. Many of the exit signs were damaged or not illuminated. It was observed that exit signs were missing in several locations, mainly in corridors in the classroom wings and locker rooms. Several additional exit signs are required to meet NFPA 101, Life Safety Code. All existing exit signs should be replaced with LED type.

Lightning Protection System-- Lightning protection is provided on the mechanical penthouse; the entire building is not protected. The system was damaged, with approximately 200 feet of roof conductor missing system.

Conveying Systems-- There is one passenger and one freight electric traction elevator. Both Motion Control Engineering elevator controllers where replaced in approximately 2000. Smoke detectors are provided in elevator lobbies and machine rooms. Heat detectors are located in machine rooms. Elevators are expected to have a remaining service life of 15 years before replacement/upgrade.

GROUNDS

There are four main parking areas and an overflow parking area for this school. The parking areas have 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 lot is in poor condition, the harsh environmental conditions associated with snow removal have taken its toll on the asphalt surface. Also, there is no marked path of ingress to the main entrance. This project provides a budgetary consideration for a play, parking lot renewal program that includes all aspects of the current ADA legislation. Asphalt removal and replacement is recommended.

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 and should include all aspects of current ADA legislation.

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

The existing Football field is from the schools original construction. The field has several holes and the goal post no longer carry the

safety equipment to prevent injury during practice or games. The poor condition of the field presents a safety issue as well as a maintenance issue. This field is recommended to be upgraded. This deficiency is expected to be completed as part of a site effort to upgrade the Track and Field areas and the bleachers.

The existing Track and Field is from the schools original construction. The field has several holes and the long jump, shot-put and other activity centers are in poor condition. This area presents a safety issue as well as a maintenance issue. This field is recommended to be upgraded. This deficiency is expected to be completed as part of a site effort to upgrade the Football field and the bleachers.

As indicated in the photos the original bleacher system is the only system providing public seating to events at the Football and Track and Field area. This system has a metal and wooden frame with wooden seats. This system was reported to have been repaired several times in its service to the school. This system is in very poor condition and replacement is recommended. The new system is expected to have a concrete sidewalk access area and also include all aspects of the current ADA legislation.

There is evidence of a major collapse on the Northwestern exterior of the school. It appears that the correction was to add a fence redirecting students from a major egress away from the hazard. This area is recommended for correction. Excavation and waterproofing system upgrades are recommended. Improve the slope of the grade away from the foundation prior to restoring the sidewalk system and fire egress system.

There are several different site elevations from the Football field to the general parking. The access for this system is supported by the sidewalk system and cast in place concrete stairs that were compliant during the time of construction however are no longer compliant. Present legislation regarding building accessibility by the handicapped requires that stairs have graspable handrails on both sides, that the rails have specific end geometry, and that the handrails continue past the newel posts. To comply with this legislation, the reinstallation of wall-mounted and extension handrails and addition of center well handrails, including balustrades, on concrete stairs is recommended. The ADA access ramp located near the loading dock is in need of upgrades as well. The installation of additional guardrails and handrails is recommended at this location.

Site Lighting-- Other than the building mounted lighting fixtures, site lighting is provided under the covered walkway at the main entrance and along the sidewalks with post-top HID luminaires mounted on 10’-12’ high concrete poles. There are also several aluminum poles with 2, 3 or 4 HID floodlighting fixtures per pole to illuminate the parking areas on sides and front of the building. Site lighting was reported to have been replaced in 2012. Exterior lighting is in good condition with an estimated 17 to 20 years of remaining service life.

Site video surveillance—there are nine (9) exterior cameras that provide video surveillance of the site and parking areas. Cameras were reported to have been replaced in 2010, with an estimated remaining service life of 10 years.

RECOMMENDATIONS

- Science Lab Upgrades
- Upgrade Auditorium Seating
- Upgrade Stage curtains
- Upgrade Loading Dock
- Upgrade Acoustical Tile Ceiling
- Upgrade vinyl floor
- Remove and replace carpet selective
- Upgrade stair railing
- Install signage
- Replace chalk boards
- Remove and replace interior doors
- Remove and replace corridor doors
- Add firestopping
- Repair exterior brick finishes
- Replace roof
- Replace exterior doors
- Replace exterior windows
- Replace chain link fence - 6' high
- Replace or install exterior guardrails
- Repair depressed areas in parking or pedestrian paving caused by sub-grade subsidence
- Remove and replace small bleacher structures
- Refurbish running track

- Refurbish football field
- Build secure trash dumpster enclosure
- Add safety barriers and guide lines at parking and loading dock areas
- Sidewalk Upgrade
- Remove and replace asphalt parking
- 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 chiller and associated pumps and install air-cooled chillers on the roof with chilled water distribution piping, pumps, chemical treatment and controls located in the mechanical room. Include electrical connections. Total cooling capacity 1000 tons.
- Install complete NFPA wet pipe automatic sprinkler system and standpipes in unprotected area of building. If required upgrade fire pump and jockey pump.
- Replace unit for auditorium with new central station air handling unit with hot and chilled water coils, filters, outside and return air dampers, hydronic valves and controls, blower and motor. Connect to hot and chilled water systems, control system and existing ductwork. Include electrical connections.
- Replace unit for cafeteria with new central station air handling unit with hot and chilled water coils, filters, outside and return air dampers, hydronic valves and controls, blower and motor. Connect to hot and chilled water systems, control system and existing duct work. Include electrical connections.
- Install new direct digital control system and building automation system with remote computer control capability and graphics package.
- Inspect old cast iron sanitary piping including camera observation and replace damaged sections
- Provide new domestic water booster pump system with two pumps, pressure tank, and controls. Connect to main domestic water line.
- Replace two existing boilers and one boiler that was removed with three new cast iron sectional boilers. Connect to piping systems, gas flue and controls. Include electrical connection.
- Replace unit for the gymnasium with new central station air handling unit with hot and chilled water coils, filters, outside and return air dampers, hydronic valves and controls, blower and motor. Connect to hot and chilled water systems, control system and existing duct work. Include electrical connections.
- Replace four pump condensate receiver/boiler feed system with new similar unit. Include electrical connection and controls.
- Replace domestic hot and cold water piping with insulated rigid copper tubing with valves, hangers and fittings.
- Replace unit for office area with new central station air handling unit with hot and chilled water coils, filters, outside and return air dampers, hydronic valves and controls, blower and motor. Connect to hot and chilled water systems, control system and existing ductwork. Include electrical connections.
- Replace unit for nursing area with new central station air handling unit with hot and chilled water coils, filters, outside and return air dampers, hydronic valves and controls, blower and motor. Connect to hot and chilled water systems, control system and existing ductwork. Include electrical connections.
- Replace unit for music area with new central station air handling unit with hot and chilled water coils, filters, outside and return air dampers, hydronic valves and controls, blower and motor. Connect to hot and chilled water systems, control system and existing ductwork. Include electrical connections.
- Replace six existing roof mounted air handling units with new outdoor central station units with hot and chilled water coils, filters, outside and return air dampers, hydronic valves and controls, blower and motor. Connect to hot and chilled water systems, control system and existing ductwork. Include electrical connections.
- Remove the 1500/2000 kVA, 13.2 kV-480/277V, 3 phase, 4 wire double-ended substation, which includes utility line circuit breaker and metering compartments, two load interrupter switches, two transformers, two 2500A main circuit breakers, tie breaker section and two distribution sections, and replace with a new double-ended substation.
- Replace the following distribution system equipment:

(5) 600A, 480V, 3 phase motor control centers

(1) 800A, 208/120V, 3 phase distribution panelboard

(2) 1600A, 208/120V, 3 phase distribution panelboards

(2) 500 kVA step-down transformers

(1) 225 kVA step-down transformer

(1) 150 kVA step-down transformer

(1) 45 kVA step-down transformer

(3) 30 kVA step-down transformers

- Replace approximately 30 panelboards throughout the building that have exceeded their useful life expectancy.
- Provide allowance for adding surface metal raceway system with six (6) receptacles in each of 83 classrooms.
- Replace all duplex receptacles in the kitchen on Floor 1 and the culinary kitchen on Floor 3 with ground-fault circuit-interrupting (GFCI) type duplex receptacles to comply with NFPA 70, National Electrical Code (NEC) Article 210.8 (B). Also, replace all duplex receptacles located within 6 feet of wet locations in the three science labs on Floor 3 with GFCI type. An estimate for replacement of 60 duplex receptacles is included in this report.
- Provide an allowance for replacement of lamps and/or lenses for 150 2x4 fluorescent fixtures that need maintenance.
- Provide an allowance for replacement of 2x4 recessed fluorescent grid troffers having T12 lamps with fixtures using T8 lamps for approximately 20,000 SF.
- Replace 4 foot, 2 lamp surface mounted vapor-tight fluorescent fixtures in the boy's and girl's gymnasium locker rooms and adjacent rooms with fixtures having T8 lamps (estimated 10,470 SF).
- Replace 4 foot industrial fluorescent fixtures in the Boiler Room and Main Electrical Room and 4 foot, fluorescent wall bracket fixtures in Mechanical Room G376 with fixtures having T8 lamps (estimated 7,080 SF).
- Replace three (3) rows of theatrical batten lighting on the stage and add a fourth row.
- Replace 800A, 200 dimmer control board for stage and auditorium.
- Replace 96 industrial HID fixtures in the four section gymnasium with LED industrial fixtures.
- Replace recessed mercury vapor lighting fixtures in Choral Hall A267, Music Hall A268 and Music Instrument A269 with LED fixtures for improved energy efficiency and reduced maintenance costs. Total of 33 fixtures.
- Replace lamps in all downlights in main entrance lobby and in the circulation areas around the auditorium for consistent lamp color and appearance (estimate 80 downlights).
- Replace existing clock system and clocks with a wireless GPS clock system with battery operated synchronized clocks. Replace stand-alone clocks and those mounted in clock speaker assemblies (estimate 225 clocks).
- Replace standby power system, including generator, automatic transfer switch, step-down transformers and emergency lighting panelboards. Generator size should be increased to connect the elevators on standby power. Budget for a 250 kW generator.
- Replace all exit signs with LED type. Add exit signs in locations that are required by code but missing. Estimate a total of 230 exit signs, with 195 replaced and 35 new exit signs.
- Replace approximately 200 feet of missing roof conductor for lightning protection on the penthouse mechanical room.

Attributes:

General Attributes:

Active:	Open	Bldg Lot Tm:	Lot 4 / Tm 1
Status:	Accepted by SDP	Team:	Tm 1
Site ID:	S606001		

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.

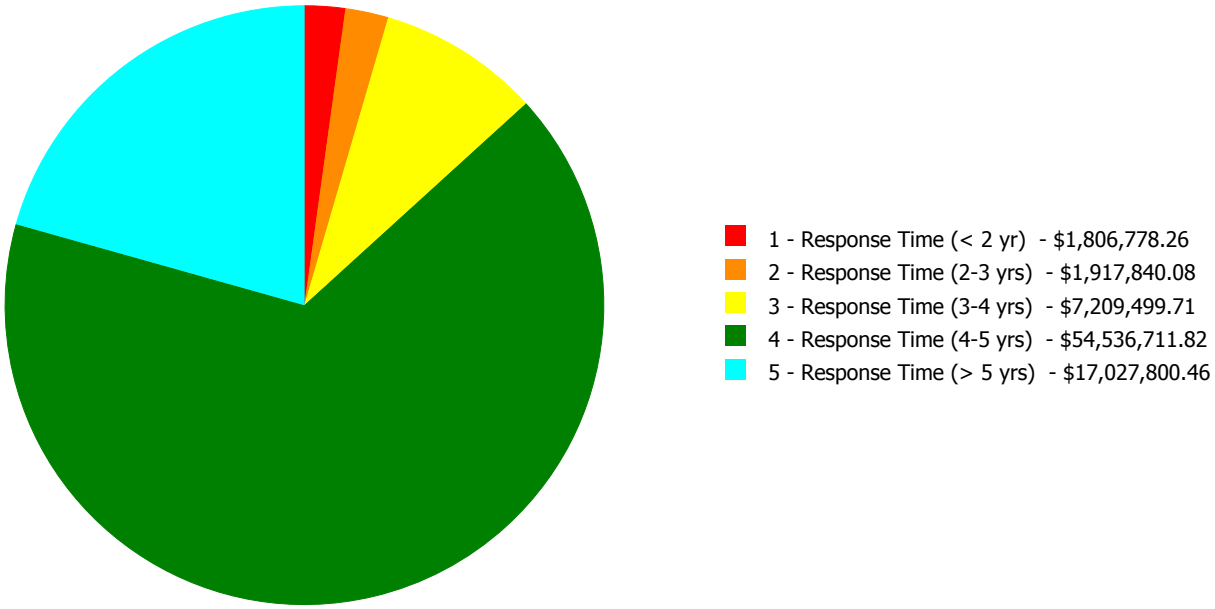
Current Investment Requirement and Condition by Uniformat Classification

UNIFORMAT Classification	RSLI%	FCI %	Current Repair
A10 - Foundations	55.00 %	0.00 %	$0.00
B10 - Superstructure	55.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	45.32 %	8.22 %	$2,185,551.37
B30 - Roofing	29.98 %	89.59 %	$4,167,487.35
C10 - Interior Construction	14.29 %	40.70 %	$4,172,569.11
C20 - Stairs	51.27 %	77.87 %	$452,366.40
C30 - Interior Finishes	67.41 %	26.57 %	$4,600,247.12
D10 - Conveying	42.86 %	0.00 %	$0.00
D20 - Plumbing	65.13 %	48.72 %	$3,500,562.25
D30 - HVAC	105.69 %	112.53 %	$46,315,035.10
D40 - Fire Protection	105.71 %	191.95 %	$5,006,904.81
D50 - Electrical	86.51 %	30.94 %	$6,729,859.73
E10 - Equipment	34.29 %	3.79 %	$223,002.54
E20 - Furnishings	30.00 %	225.75 %	$1,779,124.52
G20 - Site Improvements	53.97 %	21.76 %	$3,365,920.03
G40 - Site Electrical Utilities	83.23 %	0.00 %	$0.00
Totals:	**66.76 %**	**39.81 %**	**$82,498,630.33**

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)
B606001;King	370,000	42.86	$1,652,896.22	$861,913.76	$5,663,429.35	$54,427,160.33	$16,527,310.64
G606001;Grounds	1,645,100	14.88	$153,882.04	$1,055,926.32	$1,546,070.36	$109,551.49	$500,489.82
Total:		**39.81**	**$1,806,778.26**	**$1,917,840.08**	**$7,209,499.71**	**$54,536,711.82**	**$17,027,800.46**

Deficiencies By Priority



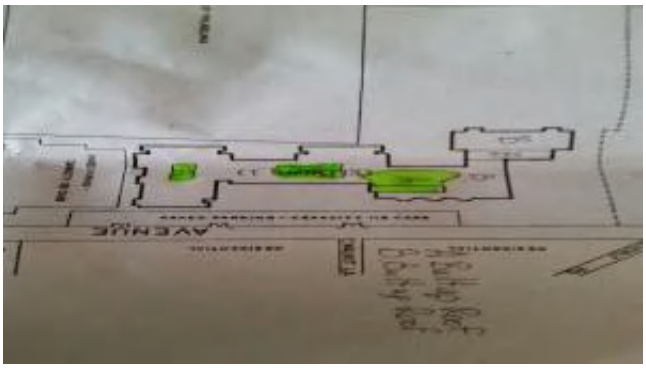
Budget Estimate Total: $82,498,630.33

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:	High School
Gross Area (SF):	370,000
Year Built:	1970
Last Renovation:	
Replacement Value:	$184,609,230
Repair Cost:	$79,132,710.30
Total FCI:	42.86 %
Total RSLI:	67.19 %



Description:

Attributes:

General Attributes:

Active:	Open	Bldg ID:	B606001
Sewage Ejector:	No	Status:	Accepted by SDP
Site ID:	S606001		

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	55.00 %	0.00 %	$0.00
B10 - Superstructure	55.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	45.32 %	8.22 %	$2,185,551.37
B30 - Roofing	29.98 %	89.59 %	$4,167,487.35
C10 - Interior Construction	14.29 %	40.70 %	$4,172,569.11
C20 - Stairs	51.27 %	77.87 %	$452,366.40
C30 - Interior Finishes	67.41 %	26.57 %	$4,600,247.12
D10 - Conveying	42.86 %	0.00 %	$0.00
D20 - Plumbing	65.13 %	48.72 %	$3,500,562.25
D30 - HVAC	105.69 %	112.53 %	$46,315,035.10
D40 - Fire Protection	105.71 %	191.95 %	$5,006,904.81
D50 - Electrical	86.51 %	30.94 %	$6,729,859.73
E10 - Equipment	34.29 %	3.79 %	$223,002.54
E20 - Furnishings	30.00 %	225.75 %	$1,779,124.52
Totals:	**67.19 %**	**42.86 %**	**$79,132,710.30**

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	$27.30	S.F.	370,000	100	1970	2070		55.00 %	0.00 %	55			$10,101,000
A1030	Slab on Grade	$5.17	S.F.	370,000	100	1970	2070		55.00 %	0.00 %	55			$1,912,900
B1010	Floor Construction	$85.34	S.F.	370,000	100	1970	2070		55.00 %	0.00 %	55			$31,575,800
B1020	Roof Construction	$14.39	S.F.	123,000	100	1970	2070		55.00 %	0.00 %	55			$1,769,970
B2010	Exterior Walls	$43.20	S.F.	370,000	100	1970	2070		55.00 %	0.61 %	55		$96,868.42	$15,984,000
B2020	Exterior Windows	$27.52	S.F.	370,000	40	1970	2010	2027	30.00 %	14.25 %	12		$1,451,170.50	$10,182,400
B2030	Exterior Doors	$1.16	S.F.	370,000	25	1970	1995	2027	48.00 %	148.54 %	12		$637,512.45	$429,200
B3010105	Built-Up	$37.76	S.F.	123,000	20	1970	1990	2021	30.00 %	89.73 %	6		$4,167,487.35	$4,644,480
B3020	Roof Openings	$0.06	S.F.	123,000	30	1970	2000	2021	20.00 %	0.00 %	6			$7,380
C1010	Partitions	$21.05	S.F.	370,000	100	1970	2070	2027	12.00 %	31.50 %	12		$2,453,649.61	$7,788,500
C1020	Interior Doors	$3.76	S.F.	370,000	40	1970	2010	2021	15.00 %	102.87 %	6		$1,431,176.13	$1,391,200
C1030	Fittings	$2.90	S.F.	370,000	40	1970	2010	2027	30.00 %	26.82 %	12		$287,743.37	$1,073,000
C2010	Stair Construction	$1.18	S.F.	370,000	100	1970	2070		55.00 %	103.61 %	55		$452,366.40	$436,600
C2020	Stair Finishes	$0.39	S.F.	370,000	30	1970	2000	2027	40.00 %	0.00 %	12			$144,300
C3010230	Paint & Covering	$13.21	S.F.	350,000	10	1970	1980	2027	120.00 %	0.00 %	12			$4,623,500
C3010232	Wall Tile	$2.63	S.F.	20,000	30	1970	2000	2027	40.00 %	0.00 %	12			$52,600
C3020411	Carpet	$7.30	S.F.	20,000	10	2012	2022	2027	120.00 %	153.30 %	12		$223,815.21	$146,000
C3020412	Terrazzo & Tile	$75.52	S.F.	20,000	50	1970	2020	2027	24.00 %	0.00 %	12			$1,510,400

Site Assessment Report - B606001;King

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 $
C3020413	Vinyl Flooring	$9.68	S.F.	260,000	20	1970	1990	2027	60.00 %	18.08 %	12		$455,000.04	$2,516,800
C3020414	Wood Flooring	$22.27	S.F.	30,000	25	1970	1995	2027	48.00 %	0.00 %	12			$668,100
C3020415	Concrete Floor Finishes	$0.97	S.F.	40,000	50	1970	2020	2027	24.00 %	0.00 %	12			$38,800
C3030	Ceiling Finishes	$20.97	S.F.	370,000	25	1990	2015	2027	48.00 %	50.54 %	12		$3,921,431.87	$7,758,900
D1010	Elevators and Lifts	$1.28	S.F.	370,000	35	1970	2005	2030	42.86 %	0.00 %	15			$473,600
D2010	Plumbing Fixtures	$13.52	S.F.	370,000	35	2000	2035		57.14 %	0.00 %	20			$5,002,400
D2020	Domestic Water Distribution	$1.68	S.F.	370,000	25	1970	1995	2042	108.00 %	301.62 %	27		$1,874,840.52	$621,600
D2030	Sanitary Waste	$2.32	S.F.	370,000	30	1970	2000	2047	106.67 %	189.39 %	32		$1,625,721.73	$858,400
D2040	Rain Water Drainage	$1.90	S.F.	370,000	30	1970	2000	2025	33.33 %	0.00 %	10			$703,000
D3020	Heat Generating Systems	$18.67	S.F.	370,000	35	1970	2005	2052	105.71 %	25.40 %	37		$1,754,290.39	$6,907,900
D3030	Cooling Generating Systems	$24.48	S.F.	370,000	30	1970	2000	2047	106.67 %	69.19 %	32		$6,266,621.96	$9,057,600
D3040	Distribution Systems	$42.99	S.F.	370,000	25	1970	1995	2042	108.00 %	197.89 %	27		$31,477,447.55	$15,906,300
D3050	Terminal & Package Units	$11.60	S.F.	370,000	20	2013	2033		90.00 %	0.00 %	18			$4,292,000
D3060	Controls & Instrumentation	$13.50	S.F.	370,000	20	1970	1990	2037	110.00 %	136.47 %	22		$6,816,675.20	$4,995,000
D4010	Sprinklers	$7.05	S.F.	370,000	35	1970	2005	2052	105.71 %	191.95 %	37		$5,006,904.81	$2,608,500
D4020	Standpipes	$0.00	S.F.		35				0.00 %	0.00 %				$0
D5010	Electrical Service/Distribution	$9.70	S.F.	370,000	30	1970	2000	2047	106.67 %	128.45 %	32		$4,610,111.41	$3,589,000
D5020	Lighting and Branch Wiring	$34.68	S.F.	370,000	20	1970	1990	2030	75.00 %	11.57 %	15		$1,484,053.08	$12,831,600
D5030	Communications and Security	$12.99	S.F.	370,000	15	1970	1985	2030	100.00 %	2.56 %	15		$123,151.72	$4,806,300
D5090	Other Electrical Systems	$1.41	S.F.	370,000	30	1970	2000	2047	106.67 %	98.24 %	32		$512,543.52	$521,700
E1020	Institutional Equipment	$4.82	S.F.	370,000	35	1970	2005	2027	34.29 %	12.42 %	12		$221,517.71	$1,783,400
E1090	Other Equipment	$11.10	S.F.	370,000	35	1970	2005	2027	34.29 %	0.04 %	12		$1,484.83	$4,107,000
E2010	Fixed Furnishings	$2.13	S.F.	370,000	40	1970	2010	2027	30.00 %	225.75 %	12		$1,779,124.52	$788,100
								Total	**67.19 %**	**42.86 %**			**$79,132,710.30**	**$184,609,230**

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 Finish 80%
Unfinished CMU 10%
Wall tile 10%

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

Note: 12x12 vinyl tile 70%
Wooden 8%
Tile 6%
Carpet 6%
Concrete 10%

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

Note: There are two (2) 1500/2000 kVA service transformers and (9) secondary transformers as follows:
(2) 500 kVA
(1) 300 kVA
(1) 225 kVA
(1) 150 kVA
(1) 45 kVA
(3) 30 kVA

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:	**$79,132,710**	**$0**	**$0**	**$0**	**$0**	**$0**	**$7,937,303**	**$0**	**$0**	**$0**	**$1,039,251**	**$88,109,263**
*** 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**
B - Shell	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B10 - Superstructure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B1010 - Floor Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B1020 - Roof Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B20 - Exterior Enclosure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B2010 - Exterior Walls	$96,868	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$96,868**
B2020 - Exterior Windows	$1,451,171	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,451,171**
B2030 - Exterior Doors	$637,512	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$637,512**
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	$4,167,487	$0	$0	$0	$0	$0	$6,100,327	$0	$0	$0	$0	**$10,267,815**
B3020 - Roof Openings	$0	$0	$0	$0	$0	$0	$9,693	$0	$0	$0	$0	**$9,693**
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	$2,453,650	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$2,453,650**
C1020 - Interior Doors	$1,431,176	$0	$0	$0	$0	$0	$1,827,282	$0	$0	$0	$0	**$3,258,458**
C1030 - Fittings	$287,743	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$287,743**
C20 - Stairs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C2010 - Stair Construction	$452,366	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$452,366**
C2020 - Stair Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C30 - Interior Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

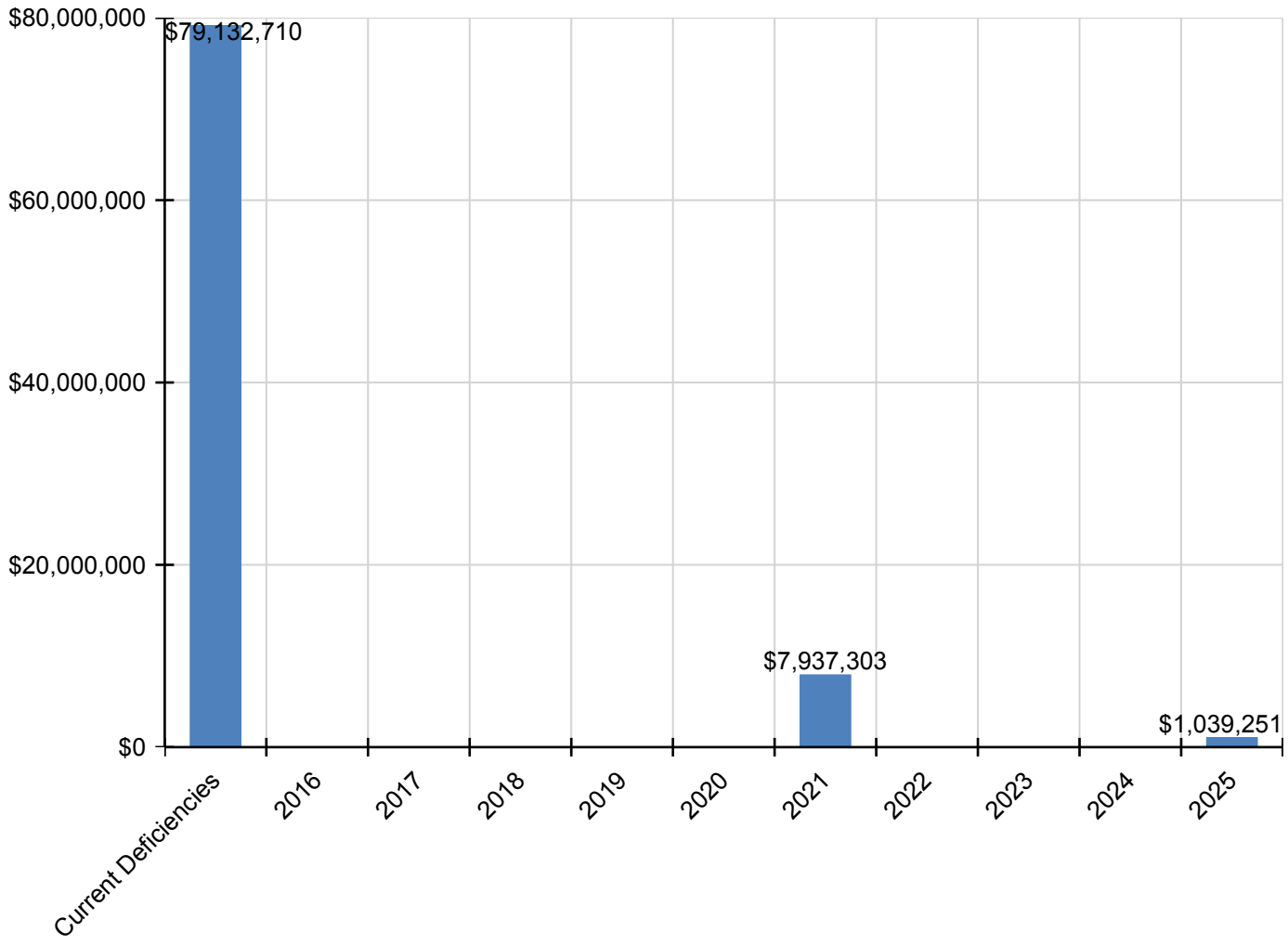
C3010 - Wall Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010230 - Paint & Covering	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010232 - Wall Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020 - Floor Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020411 - Carpet	$223,815	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$223,815**
C3020412 - Terrazzo & Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020413 - Vinyl Flooring	$455,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$455,000**
C3020414 - Wood Flooring	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020415 - Concrete Floor Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3030 - Ceiling Finishes	$3,921,432	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$3,921,432**
D - Services	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D10 - Conveying	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D1010 - Elevators and Lifts	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D20 - Plumbing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2010 - Plumbing Fixtures	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2020 - Domestic Water Distribution	$1,874,841	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,874,841**
D2030 - Sanitary Waste	$1,625,722	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,625,722**
D2040 - Rain Water Drainage	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,039,251	**$1,039,251**
D30 - HVAC	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3020 - Heat Generating Systems	$1,754,290	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,754,290**
D3030 - Cooling Generating Systems	$6,266,622	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$6,266,622**
D3040 - Distribution Systems	$31,477,448	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$31,477,448**
D3050 - Terminal & Package Units	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3060 - Controls & Instrumentation	$6,816,675	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$6,816,675**
D40 - Fire Protection	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D4010 - Sprinklers	$5,006,905	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$5,006,905**
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	$4,610,111	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$4,610,111**
D5020 - Lighting and Branch Wiring	$1,484,053	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,484,053**
D5030 - Communications and Security	$123,152	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$123,152**
D5090 - Other Electrical Systems	$512,544	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$512,544**
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	$221,518	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$221,518**
E1090 - Other Equipment	$1,485	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,485**
E20 - Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E2010 - Fixed Furnishings	$1,779,125	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,779,125**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

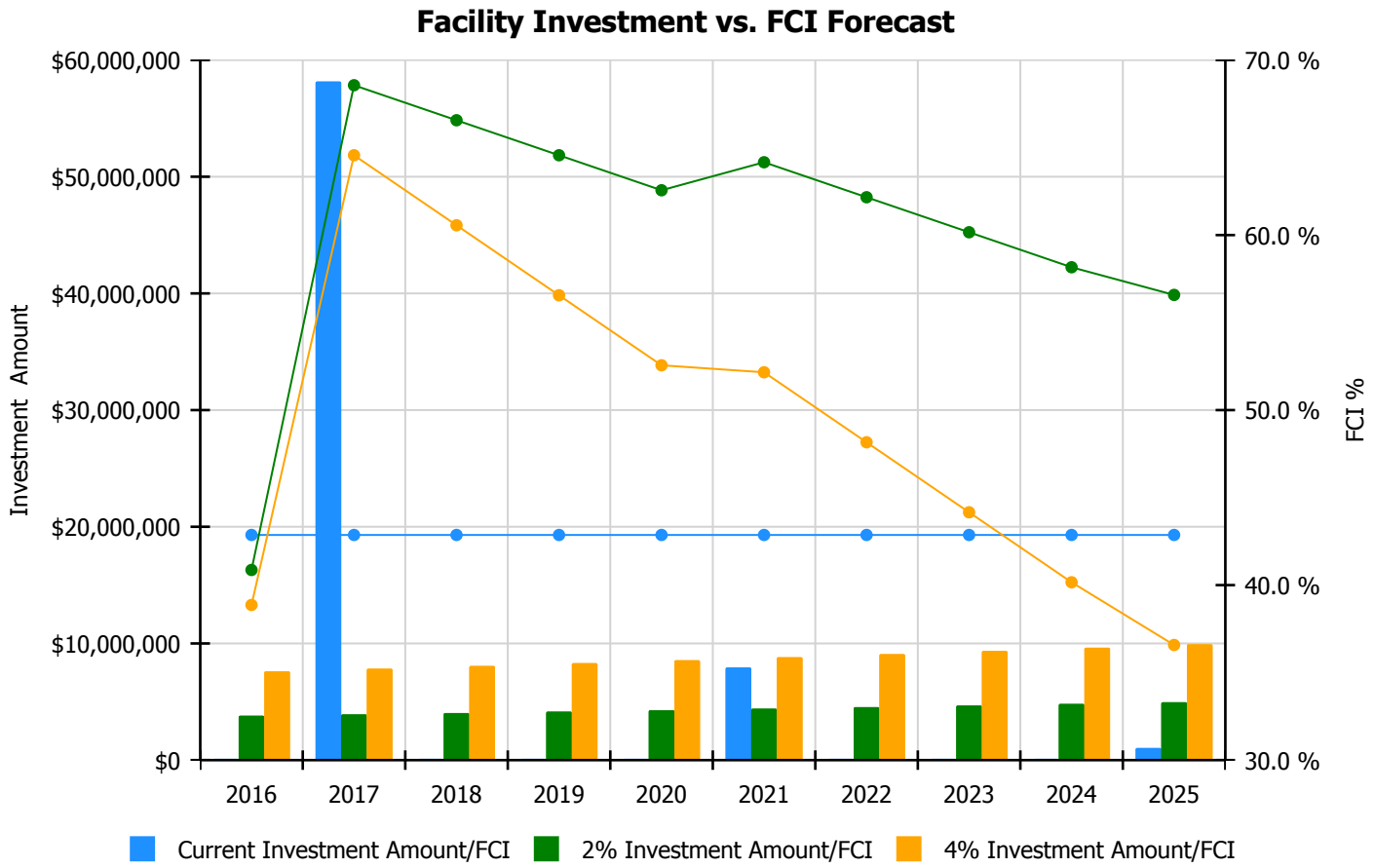
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



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:

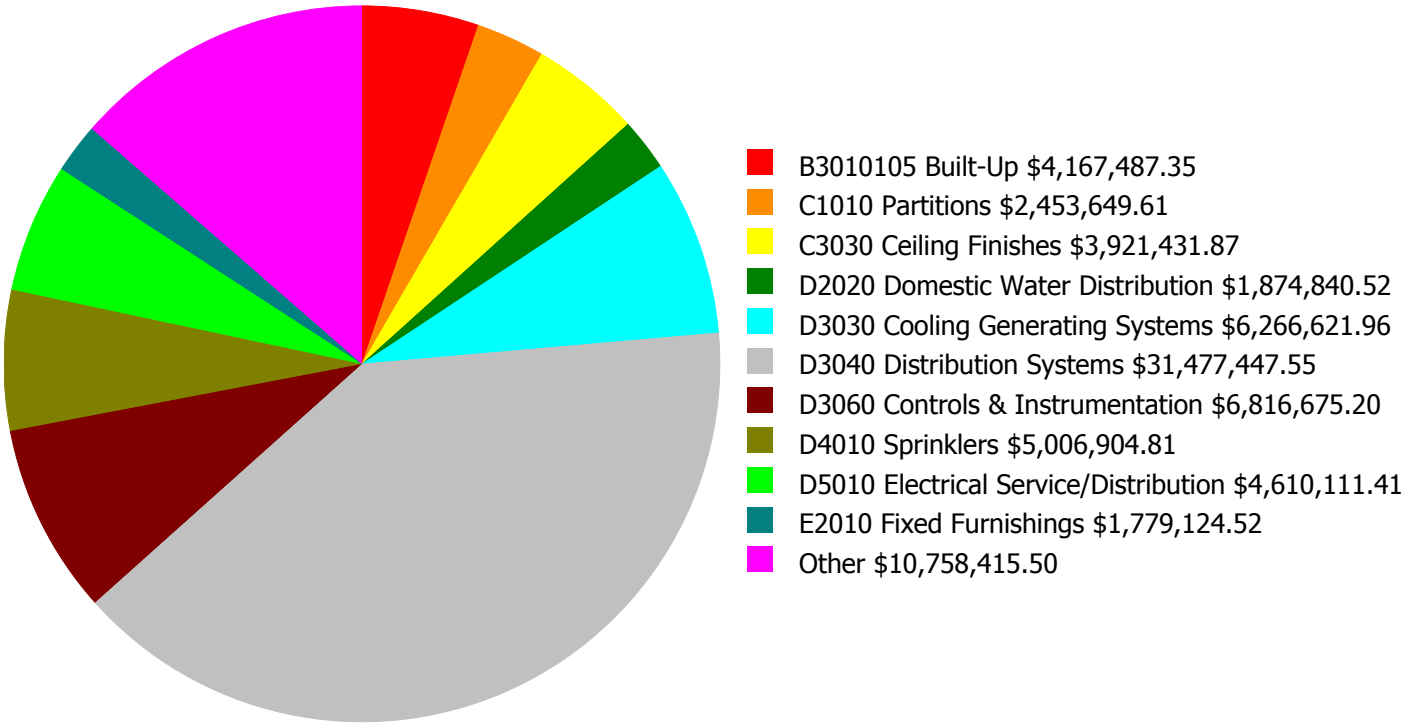
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 42.86%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$3,802,950.00	40.86 %	$7,605,900.00	38.86 %
2017	$58,157,530	$3,917,039.00	68.56 %	$7,834,077.00	64.56 %
2018	$0	$4,034,550.00	66.56 %	$8,069,100.00	60.56 %
2019	$0	$4,155,586.00	64.56 %	$8,311,173.00	56.56 %
2020	$0	$4,280,254.00	62.56 %	$8,560,508.00	52.56 %
2021	$7,937,303	$4,408,662.00	64.16 %	$8,817,323.00	52.16 %
2022	$0	$4,540,921.00	62.16 %	$9,081,843.00	48.16 %
2023	$0	$4,677,149.00	60.16 %	$9,354,298.00	44.16 %
2024	$0	$4,817,463.00	58.16 %	$9,634,927.00	40.16 %
2025	$1,039,251	$4,961,987.00	56.58 %	$9,923,975.00	36.58 %
Total:	**$67,134,083**	**$43,596,561.00**		**$87,193,124.00**	

Deficiency Summary by System

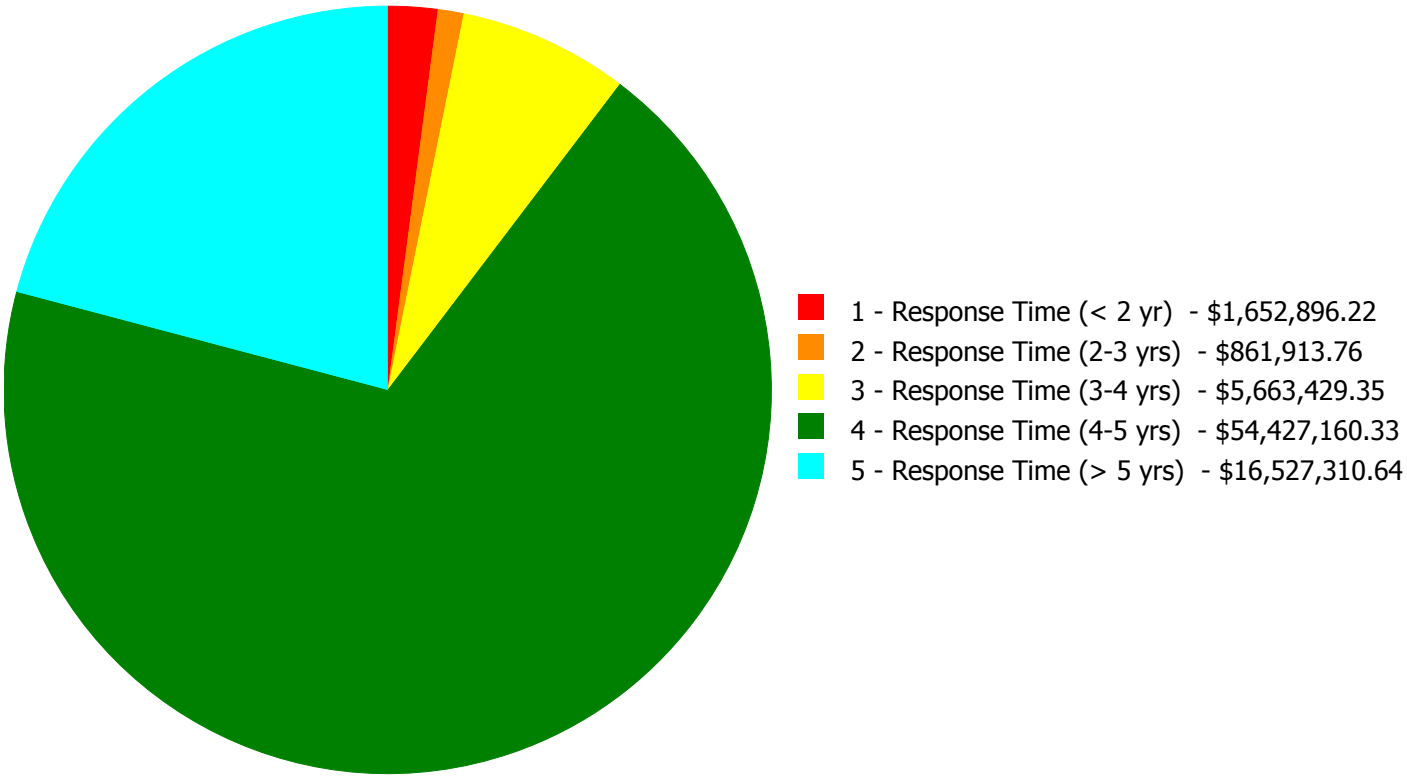
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $79,132,710.30

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: $79,132,710.30

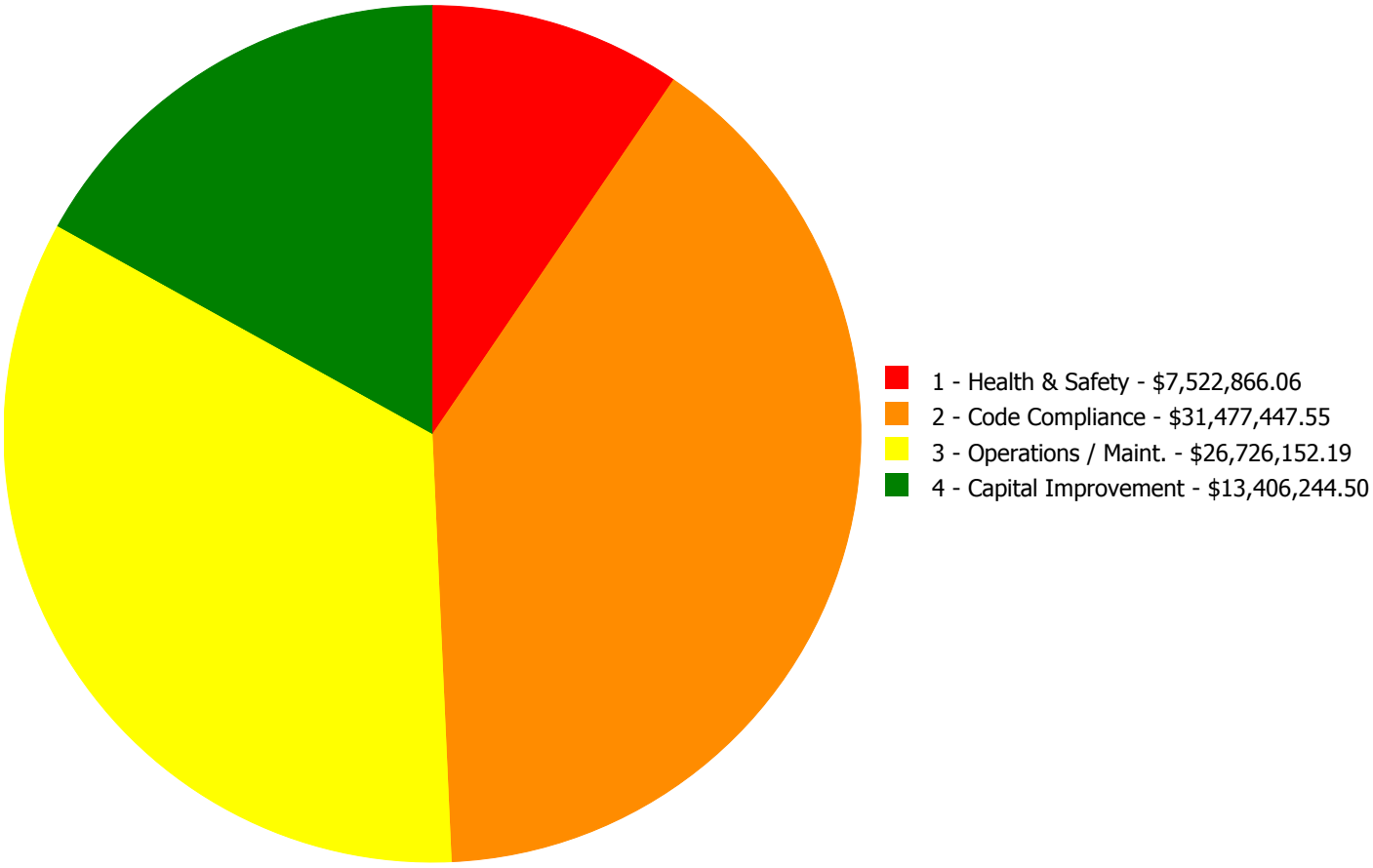
Deficiency By Priority Investment Table

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

System Code	System Description	1 - Response Time (< 2 yr)	2 - Response Time (2-3 yrs)	3 - Response Time (3-4 yrs)	4 - Response Time (4-5 yrs)	5 - Response Time (> 5 yrs)	Total
B2010	Exterior Walls	$0.00	$0.00	$0.00	$0.00	$96,868.42	$96,868.42
B2020	Exterior Windows	$0.00	$0.00	$0.00	$1,451,170.50	$0.00	$1,451,170.50
B2030	Exterior Doors	$0.00	$0.00	$0.00	$637,512.45	$0.00	$637,512.45
B3010105	Built-Up	$0.00	$0.00	$0.00	$0.00	$4,167,487.35	$4,167,487.35
C1010	Partitions	$0.00	$337,155.11	$2,116,494.50	$0.00	$0.00	$2,453,649.61
C1020	Interior Doors	$0.00	$0.00	$0.00	$1,431,176.13	$0.00	$1,431,176.13
C1030	Fittings	$0.00	$0.00	$0.00	$81,273.74	$206,469.63	$287,743.37
C2010	Stair Construction	$0.00	$0.00	$452,366.40	$0.00	$0.00	$452,366.40
C3020411	Carpet	$0.00	$0.00	$0.00	$0.00	$223,815.21	$223,815.21
C3020413	Vinyl Flooring	$0.00	$0.00	$0.00	$455,000.04	$0.00	$455,000.04
C3030	Ceiling Finishes	$0.00	$0.00	$0.00	$0.00	$3,921,431.87	$3,921,431.87
D2020	Domestic Water Distribution	$0.00	$0.00	$0.00	$1,874,840.52	$0.00	$1,874,840.52
D2030	Sanitary Waste	$0.00	$0.00	$0.00	$1,625,721.73	$0.00	$1,625,721.73
D3020	Heat Generating Systems	$1,652,896.22	$0.00	$0.00	$101,394.17	$0.00	$1,754,290.39
D3030	Cooling Generating Systems	$0.00	$0.00	$0.00	$0.00	$6,266,621.96	$6,266,621.96
D3040	Distribution Systems	$0.00	$0.00	$0.00	$31,477,447.55	$0.00	$31,477,447.55
D3060	Controls & Instrumentation	$0.00	$0.00	$0.00	$6,816,675.20	$0.00	$6,816,675.20
D4010	Sprinklers	$0.00	$0.00	$0.00	$5,006,904.81	$0.00	$5,006,904.81
D5010	Electrical Service/Distribution	$0.00	$0.00	$2,661,586.42	$1,948,524.99	$0.00	$4,610,111.41
D5020	Lighting and Branch Wiring	$0.00	$20,548.20	$423,164.13	$1,019,154.47	$21,186.28	$1,484,053.08
D5030	Communications and Security	$0.00	$0.00	$0.00	$123,151.72	$0.00	$123,151.72
D5090	Other Electrical Systems	$0.00	$504,210.45	$8,333.07	$0.00	$0.00	$512,543.52
E1020	Institutional Equipment	$0.00	$0.00	$0.00	$221,517.71	$0.00	$221,517.71
E1090	Other Equipment	$0.00	$0.00	$1,484.83	$0.00	$0.00	$1,484.83
E2010	Fixed Furnishings	$0.00	$0.00	$0.00	$155,694.60	$1,623,429.92	$1,779,124.52
	Total:	$1,652,896.22	$861,913.76	$5,663,429.35	$54,427,160.33	$16,527,310.64	$79,132,710.30

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:



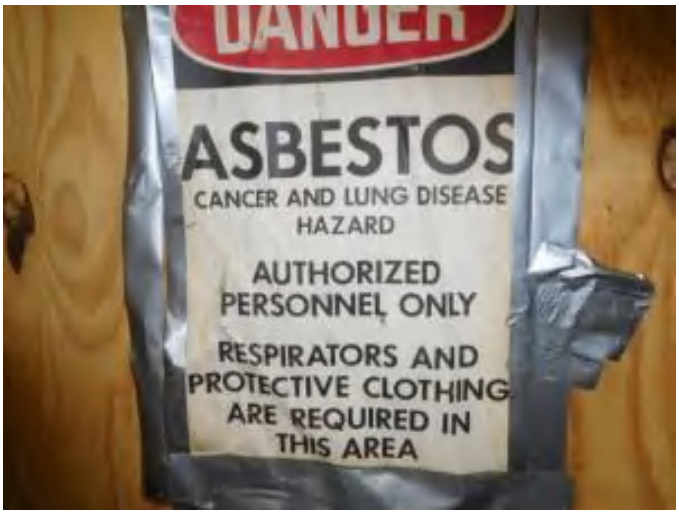
Budget Estimate Total: $79,132,710.30

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: D3020 - Heat Generating Systems



Location:	mechanical room
Distress:	Health Hazard / Risk
Category:	1 - Health & Safety
Priority:	1 - Response Time (< 2 yr)
Correction:	Replace boiler, fire tube (300 HP)
Qty:	3.00
Unit of Measure:	Ea.
Estimate:	$1,652,896.22
Assessor Name:	System
Date Created:	01/22/2016

Notes: Replace two existing boilers and one boiler that was removed with three new cast iron sectional boilers. Connect to piping systems, gas flue and controls. Include electrical connection.

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

System: C1010 - Partitions

Location: Stairs and Corridors

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 80.00

Unit of Measure: S.F.

Estimate: $321,189.44

Assessor Name: System

Date Created: 10/29/2015

Notes: The corridor doors in this school have had some additions that are not designed as part of the original construction. This effort was designed for student containment and class separation. The corridor doors are typically metal in metal frames with glass glazing. The separation doors are wooden doors in metal frames. The doors are generally in fair to poor condition considering the age and high traffic usage of the application. To restore the door finishes, universal upgrades are required for the older door applications. Remove and replace original corridor door systems with new code compliant fire rated door system.

System: C1010 - Partitions

Location: Mechanical Spaces

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Add firestopping - per penetration - pick the type of penetration and insert the quantities in the estimate including finish restoration

Qty: 1.00

Unit of Measure: Ea.

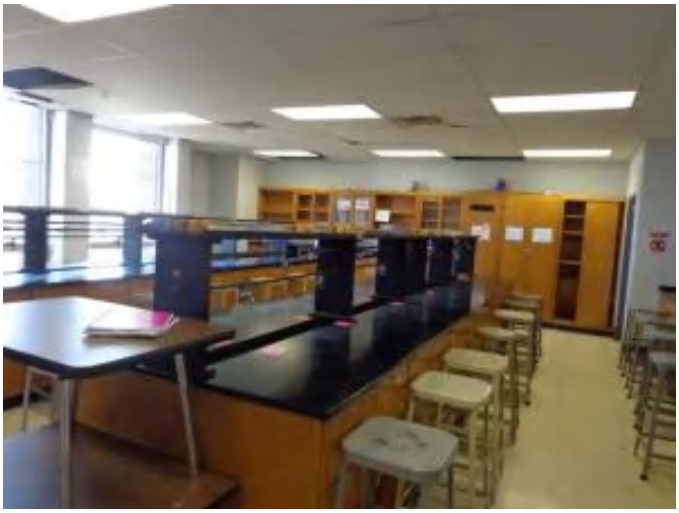
Estimate: $15,965.67

Assessor Name: System

Date Created: 10/29/2015

Notes: The mechanical room has several penetrations and as indicted in the photos an industrial window that has been compromised with several holes for equipment. Also, note the electrical modifications recently completed at this school has left several closet penetrations open. This deficiency provides a budgetary consideration to properly enclose the areas and to meet the current fire life safety requirements for mechanical spaces.

System: D5020 - Lighting and Branch Wiring



Location: Kitchens, wet locations

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

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

Correction: Replace Wiring Device

Qty: 60.00

Unit of Measure: Ea.

Estimate: $20,548.20

Assessor Name: System

Date Created: 01/19/2016

Notes: Replace all duplex receptacles in the kitchen on Floor 1 and the culinary kitchen on Floor 3 with ground-fault circuit-interrupting (GFCI) type duplex receptacles to comply with NFPA 70, National Electrical Code (NEC) Article 210.8 (B). Also, replace all duplex receptacles located within 6 feet of wet locations in the three science labs on Floor 3 with GFCI type. An estimate for replacement of 60 duplex receptacles is included in this report.

System: D5090 - Other Electrical Systems

Location: Main Electrical Room M127B

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace standby generator system

Qty: 1.00

Unit of Measure: Ea.

Estimate: $269,754.62

Assessor Name: System

Date Created: 01/19/2016

Notes: Replace standby power system, including generator, automatic transfer switch, step-down transformers and emergency lighting panelboards. Generator size should be increased to connect the elevators on standby power. Budget for a 250 kW generator.

System: D5090 - Other Electrical Systems

Location: Building wide

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

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

Correction: Replace Emergency/Exit Lighting

Qty: 230.00

Unit of Measure: Ea.

Estimate: $234,455.83

Assessor Name: System

Date Created: 01/19/2016

Notes: Replace all exit signs with LED type. Add exit signs in locations that are required by code but missing. Estimate a total of 230 exit signs, with 195 replaced and 35 new exit signs.

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

System: C1010 - Partitions

Location: Science Labs

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remodel existing classroom for lab use - approx 900 GSF - with chemical storage room, 15 tables + instructors table

Qty: 6.00

Unit of Measure: Ea.

Estimate: $2,116,494.50

Assessor Name: System

Date Created: 10/29/2015

Notes: This schools science labs have been upgraded from the original construction. The installation consist of an instruction demonstration desk with sink. Wall mounted storage cabinets and cabinets with sinks for student use. The system is showing signs of age and lack of maintenance such as broken sink fixtures missing cabinet doors and damaged shelves. This deficiency provides a budgetary consideration for the universal upgrade of the science teaching labs to include new counter tops, sink, cabinets, shelves and fixtures required to support a conducive level of education.

System: C2010 - Stair Construction

Location: Stairs

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

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

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

Qty: 2,500.00

Unit of Measure: L.F.

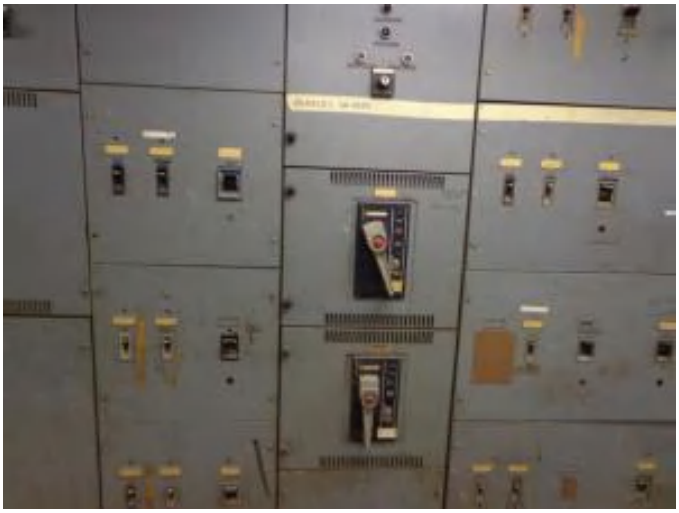
Estimate: $452,366.40

Assessor Name: System

Date Created: 10/29/2015

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: D5010 - Electrical Service/Distribution



Location: Main Electrical Room 127B

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace unit substation

Qty: 1.00

Unit of Measure: Ea.

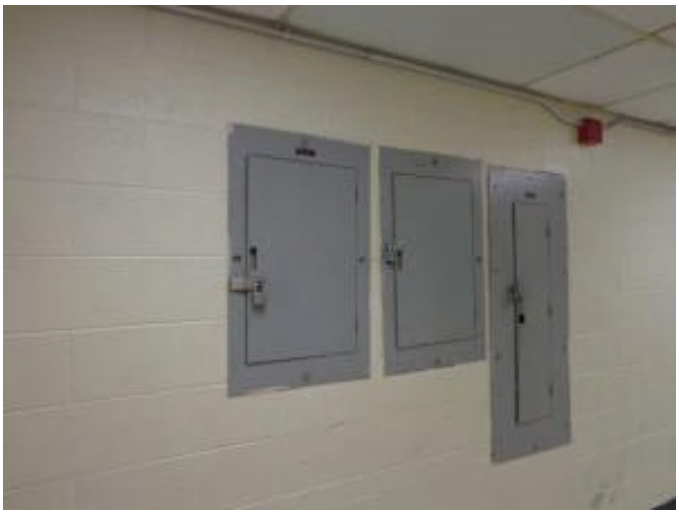
Estimate: $1,613,042.55

Assessor Name: System

Date Created: 01/19/2016

Notes: Remove the 1500/2000 kVA, 13.2 kV-480/277V, 3 phase, 4 wire double-ended substation, which includes utility line circuit breaker and metering compartments, two load interrupter switches, two transformers, two 2500A main circuit breakers, tie breaker section and two distribution sections, and replace with a new double-ended substation.

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: 30.00

Unit of Measure: Ea.

Estimate: $1,048,543.87

Assessor Name: System

Date Created: 01/19/2016

Notes: Replace approximately 30 panelboards throughout the building that have exceeded their useful life expectancy.

System: D5020 - Lighting and Branch Wiring

Location: Gymnasium

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace lighting fixtures

Qty: 96.00

Unit of Measure: Ea.

Estimate: $330,832.20

Assessor Name: System

Date Created: 01/19/2016

Notes: Replace 96 industrial HID fixtures in the four section gymnasium with LED industrial fixtures.

System: D5020 - Lighting and Branch Wiring

Location: Boiler, Mechanical and Electrical Rooms

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace Lighting Fixtures (SF)

Qty: 7,080.00

Unit of Measure: S.F.

Estimate: $50,089.64

Assessor Name: System

Date Created: 01/19/2016

Notes: Replace 4 foot industrial fluorescent fixtures in the Boiler Room and Main Electrical Room and 4 foot, fluorescent wall bracket fixtures in Mechanical Room G376 with fixtures having T8 lamps (estimated 7,080 SF).

System: D5020 - Lighting and Branch Wiring

Location: Choral Hall, Music Hall, Music Instrument

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace lighting fixtures

Qty: 33.00

Unit of Measure: Ea.

Estimate: $42,242.29

Assessor Name: System

Date Created: 01/19/2016

Notes: Replace recessed mercury vapor lighting fixtures in Choral Hall A267, Music Hall A268 and Music Instrument A269 with LED fixtures for improved energy efficiency and reduced maintenance costs. Total of 33 fixtures.

System: D5090 - Other Electrical Systems

Location: Roof

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Repair Lightning Protection System

Qty: 1.00

Unit of Measure: Job

Estimate: $8,333.07

Assessor Name: System

Date Created: 01/19/2016

Notes: Replace approximately 200 feet of missing roof conductor for lightning protection on the penthouse mechanical room.

System: E1090 - Other Equipment

Location: Loading Dock

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace dock bumpers

Qty: 4.00

Unit of Measure: Ea.

Estimate: $1,484.83

Assessor Name: System

Date Created: 10/29/2015

Notes: The loading dock is located just off the parking area between the dumpsters and the access point for students entering the school. The existing recommendation to enclose and move the dumpsters to a new location is related to this effort. After the dumpster correction is complete it is recommended that the loading dock area be clearly marked and safety barriers be placed to protect pedestrian traffic and mitigate possible issues related to loading and unloading materials and supplies.

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

System: B2020 - Exterior Windows

Location: Exterior Elevation

Distress: Damaged

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: 400.00

Unit of Measure: Ea.

Estimate: $1,451,170.50

Assessor Name: System

Date Created: 10/29/2015

Notes: Exterior window systems are a mix of single pane industrial grade metal, hopper and fixed aluminum framed single pane. Windows are in fair to poor condition based on the year of installation. The single pane metal-framed windows have been repaired, or have had single replacements because of damage or abuse. As indicated in the photos several of the windows are boarded up and no longer function as designed. The window systems have exceeded their useful service life. 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: B2030 - Exterior Doors

Location: Exterior Elevation

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace exterior doors - per leaf

Qty: 70.00

Unit of Measure: Ea.

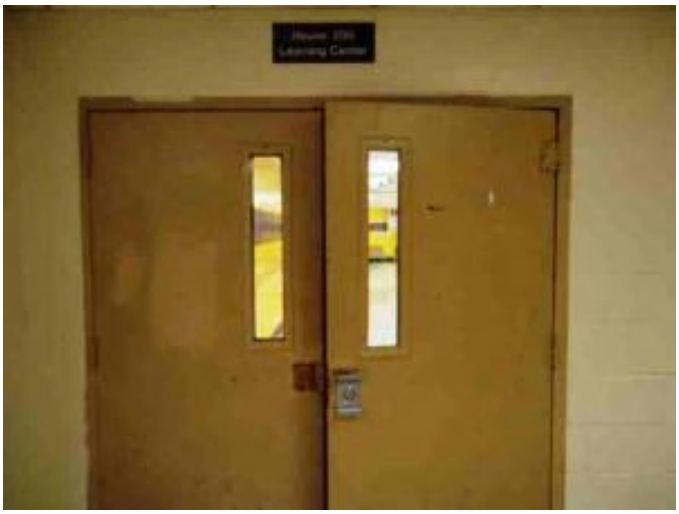
Estimate: $637,512.45

Assessor Name: System

Date Created: 10/29/2015

Notes: The exterior doors are metal applications with metal frames. 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: Classrooms

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 300.00

Unit of Measure: Ea.

Estimate: $1,431,176.13

Assessor Name: System

Date Created: 10/29/2015

Notes: Interior doors are typically wood in metal frames with glass glazing. Other interior doors include modern wooden doors with original metal frames, hollow metal in hollow metal frames. Doors are generally in fair condition considering the age of the application. Several interior doors have been replaced with modern applications that meet current ADA standards however, several doors are damaged and a few are no longer functional and ready for upgrade. Universal upgrades are required for the interior door systems, it is recommended that the interior doors system be removed and replaced with a new modern metal framed wooden door system with consideration for ADA compliance.

System: C1030 - Fittings

Location: Building Wide

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 300.00

Unit of Measure: Ea.

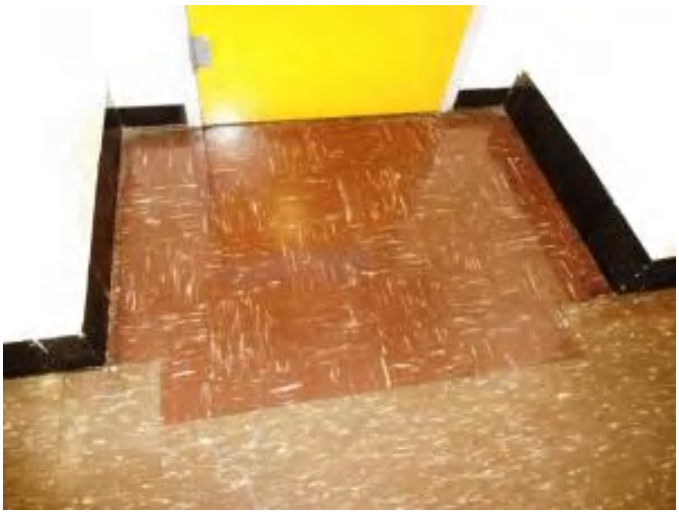
Estimate: $81,273.74

Assessor Name: System

Date Created: 10/29/2015

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

System: C3020413 - Vinyl Flooring



Location: Building Wide

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 30,000.00

Unit of Measure: S.F.

Estimate: $455,000.04

Assessor Name: System

Date Created: 10/29/2015

Notes: The vinyl floor finish in most of this school is in very good condition and appears to have part of an isolated upgrade. However, some of the original flooring that was not a part of that effort consist of a 9x9 finish. This finish is suspect to contain asbestos and is recommended for upgrade. The vinyl tile finish is a 9 x 9 application and is suspect to contain asbestos. Suspected asbestos containing materials (ACM) are believed to be limited to the original vinyl floor tile and mastic. While currently sound and manageable in place, future renovation efforts should include provision to test and abate any and all ACM.

System: D2020 - Domestic Water Distribution

Location: entire building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace domestic water piping (350 KSF)

Qty: 370,000.00

Unit of Measure: S.F.

Estimate: $1,824,306.66

Assessor Name: System

Date Created: 01/22/2016

Notes: Replace domestic hot and cold water piping with insulated rigid copper tubing with valves, hangers and fittings.

System: D2020 - Domestic Water Distribution

Location: mechanical room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace duplex domestic booster pump set (5 HP)

Qty: 1.00

Unit of Measure: Ea.

Estimate: $50,533.86

Assessor Name: System

Date Created: 01/22/2016

Notes: Provide new domestic water booster pump system with two pumps, pressure tank, and controls. Connect to main domestic water line.

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. (+300KSF)

Qty: 370,000.00

Unit of Measure: S.F.

Estimate: $1,625,721.73

Assessor Name: System

Date Created: 01/22/2016

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

System: D3020 - Heat Generating Systems

Location: mechanical room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace boiler feed pump (duplex) and surge tank

Qty: 1.00

Unit of Measure: Ea.

Estimate: $101,394.17

Assessor Name: System

Date Created: 01/22/2016

Notes: Replace four pump condensate receiver/boiler feed system with new similar unit. Include electrical connection and controls.

System: D3040 - Distribution Systems

Location: entire building

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 4 - Response Time (4-5 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: 370,000.00

Unit of Measure: S.F.

Estimate: $17,848,494.55

Assessor Name: System

Date Created: 01/22/2016

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: roof

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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

Correction: Replace Rooftop Unit (50T) and air terminals

Qty: 25,000.00

Unit of Measure: S.F.

Estimate: $1,840,712.32

Assessor Name: System

Date Created: 01/22/2016

Notes: Replace six existing roof mounted air handling units with new outdoor central station units with hot and chilled water coils, filters, outside and return air dampers, hydronic valves and controls, blower and motor. Connect to hot and chilled water systems, control system and existing ductwork. Include electrical connections.

System: D3040 - Distribution Systems

Location: roof

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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

Correction: Replace Rooftop Unit (50T) and air terminals

Qty: 25,000.00

Unit of Measure: S.F.

Estimate: $1,840,712.32

Assessor Name: System

Date Created: 01/27/2016

Notes: Replace six existing roof mounted air handling units with new outdoor central station units with hot and chilled water coils, filters, outside and return air dampers, hydronic valves and controls, blower and motor. Connect to hot and chilled water systems, control system and existing ductwork. Include electrical connections.

System: D3040 - Distribution Systems

Location: roof

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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

Correction: Replace Rooftop Unit (50T) and air terminals

Qty: 25,000.00

Unit of Measure: S.F.

Estimate: $1,840,712.32

Assessor Name: System

Date Created: 01/27/2016

Notes: Replace six existing roof mounted air handling units with new outdoor central station units with hot and chilled water coils, filters, outside and return air dampers, hydronic valves and controls, blower and motor. Connect to hot and chilled water systems, control system and existing ductwork. Include electrical connections.

System: D3040 - Distribution Systems

Location: roof

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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

Correction: Replace Rooftop Unit (50T) and air terminals

Qty: 25,000.00

Unit of Measure: S.F.

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System: D3040 - Distribution Systems

Location: roof

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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

Correction: Replace Rooftop Unit (50T) and air terminals

Qty: 25,000.00

Unit of Measure: S.F.

Estimate: $1,840,712.32

Assessor Name: System

Date Created: 01/27/2016

Notes: Replace six existing roof mounted air handling units with new outdoor central station units with hot and chilled water coils, filters, outside and return air dampers, hydronic valves and controls, blower and motor. Connect to hot and chilled water systems, control system and existing ductwork. Include electrical connections.

System: D3040 - Distribution Systems

Location: roof

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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

Correction: Replace Rooftop Unit (50T) and air terminals

Qty: 25,000.00

Unit of Measure: S.F.

Estimate: $1,840,712.32

Assessor Name: System

Date Created: 01/27/2016

Notes: Replace six existing roof mounted air handling units with new outdoor central station units with hot and chilled water coils, filters, outside and return air dampers, hydronic valves and controls, blower and motor. Connect to hot and chilled water systems, control system and existing ductwork. Include electrical connections.

System: D3040 - Distribution Systems

Location: office area

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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

Correction: Replace HVAC unit for Admin (2000 students).

Qty: 2,543.00

Unit of Measure: Student

Estimate: $1,062,111.15

Assessor Name: System

Date Created: 01/22/2016

Notes: Replace unit for office area with new central station air handling unit with hot and chilled water coils, filters, outside and return air dampers, hydronic valves and controls, blower and motor. Connect to hot and chilled water systems, control system and existing ductwork. Include electrical connections.

System: D3040 - Distribution Systems

Location: auditorium

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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

Correction: Replace HVAC unit for Auditorium (800 seat).

Qty: 1,800.00

Unit of Measure: Seat

Estimate: $920,285.92

Assessor Name: System

Date Created: 01/22/2016

Notes: Replace unit for auditorium with new central station air handling unit with hot and chilled water coils, filters, outside and return air dampers, hydronic valves and controls, blower and motor. Connect to hot and chilled water systems, control system and existing ductwork. Include electrical connections.

System: D3040 - Distribution Systems

Location: gymnasium

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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

Correction: Replace HVAC unit for Gymnasium (single station)

Qty: 6,000.00

Unit of Measure: S.F.

Estimate: $227,475.37

Assessor Name: System

Date Created: 01/22/2016

Notes: Replace unit for the gymnasium with new central station air handling unit with hot and chilled water coils, filters, outside and return air dampers, hydronic valves and controls, blower and motor. Connect to hot and chilled water systems, control system and existing duct work. Include electrical connections.

System: D3040 - Distribution Systems

Location: nursing area

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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

Correction: Replace indoor AHU, CV, DT (15T)

Qty: 10.00

Unit of Measure: TonAC

Estimate: $187,403.32

Assessor Name: System

Date Created: 01/22/2016

Notes: Replace unit for nursing area with new central station air handling unit with hot and chilled water coils, filters, outside and return air dampers, hydronic valves and controls, blower and motor. Connect to hot and chilled water systems, control system and existing ductwork. Include electrical connections.

System: D3040 - Distribution Systems

Location: music area

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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

Correction: Replace indoor AHU, CV, DT (15T)

Qty: 10.00

Unit of Measure: TonAC

Estimate: $187,403.32

Assessor Name: System

Date Created: 01/22/2016

Notes: Replace unit for music area with new central station air handling unit with hot and chilled water coils, filters, outside and return air dampers, hydronic valves and controls, blower and motor. Connect to hot and chilled water systems, control system and existing ductwork. Include electrical connections.

System: D3060 - Controls & Instrumentation

Location: entire building

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Replace pneumatic controls with DDC (350KSF)

Qty: 370,000.00

Unit of Measure: S.F.

Estimate: $6,816,675.20

Assessor Name: System

Date Created: 01/22/2016

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

System: D4010 - Sprinklers

Location: entire building
Distress: Life Safety / NFPA / PFD
Category: 1 - Health & Safety
Priority: 4 - Response Time (4-5 yrs)
Correction: Install a fire protection sprinkler system
Qty: 350,000.00
Unit of Measure: S.F.
Estimate: $5,006,904.81
Assessor Name: System
Date Created: 01/22/2016

Notes: Install complete NFPA wet pipe automatic sprinkler system and standpipes in unprotected area of building. If required upgrade fire pump and jockey pump.

System: D5010 - Electrical Service/Distribution

Location: Mechanical and Electrical Rooms
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 4 - Response Time (4-5 yrs)
Correction: Replace Electrical DIstribution System (U1)
Qty: 1.00
Unit of Measure: Ea.
Estimate: $1,948,524.99
Assessor Name: System
Date Created: 01/19/2016

Notes: Replace the following distribution system equipment:
(5) 600A, 480V, 3 phase motor control centers
(1) 800A, 208/120V, 3 phase distribution panelboard
(2) 1600A, 208/120V, 3 phase distribution panelboards
(2) 500 kVA step-down transformers
(1) 225 kVA step-down transformer
(1) 150 kVA step-down transformer
(1) 45 kVA step-down transformer
(3) 30 kVA step-down transformers

System: D5020 - Lighting and Branch Wiring

Location: Building wide

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace Lighting Fixtures (SF)

Qty: 20,000.00

Unit of Measure: S.F.

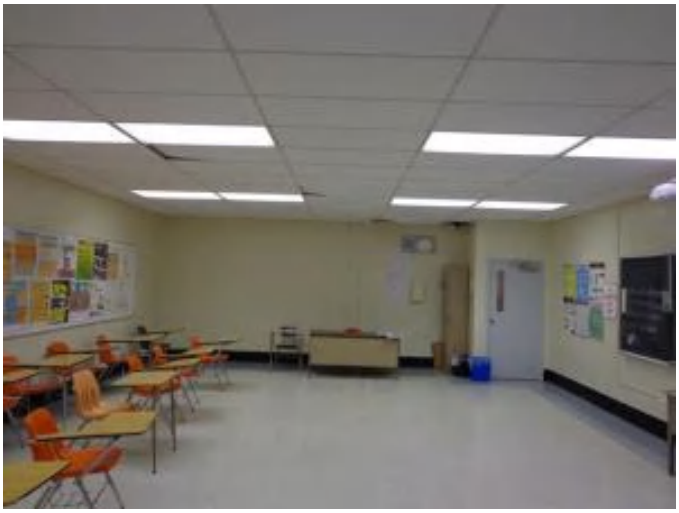
Estimate: $412,941.68

Assessor Name: System

Date Created: 01/19/2016

Notes: Provide an allowance for replacement of 2x4 recessed fluorescent grid troffers having T12 lamps with fixtures using T8 lamps for approximately 20,000 SF.

System: D5020 - Lighting and Branch Wiring



Location: Classrooms

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Provide surface raceway system and wiring devices

Qty: 2,490.00

Unit of Measure: L.F.

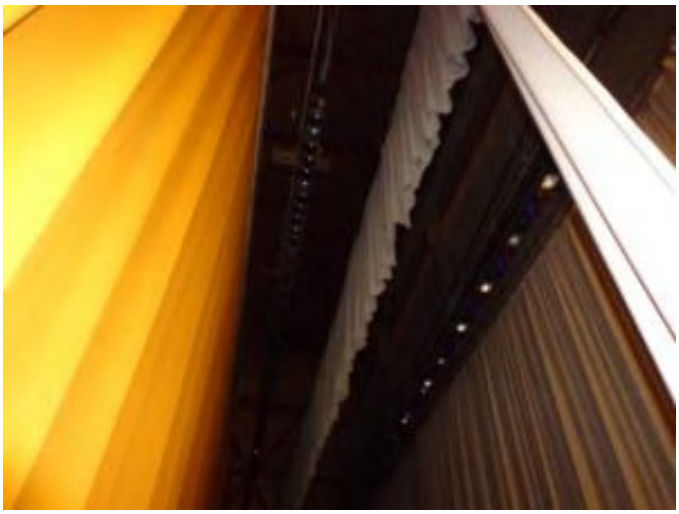
Estimate: $322,947.34

Assessor Name: System

Date Created: 01/19/2016

Notes: Provide allowance for adding surface metal raceway system with six (6) receptacles in each of 83 classrooms.

System: D5020 - Lighting and Branch Wiring



Location: Stage

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace lighting fixtures

Qty: 4.00

Unit of Measure: Ea.

Estimate: $137,080.38

Assessor Name: System

Date Created: 01/19/2016

Notes: Replace three (3) rows of theatrical batten lighting on the stage and add a fourth row.

System: D5020 - Lighting and Branch Wiring

Location: Gym Locker Rooms

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace Lighting Fixtures (SF)

Qty: 10,470.00

Unit of Measure: S.F.

Estimate: $125,259.25

Assessor Name: System

Date Created: 01/19/2016

Notes: Replace 4 foot, 2 lamp surface mounted vapor-tight fluorescent fixtures in the boy's and girl's gymnasium locker rooms and adjacent rooms with fixtures having T8 lamps (estimated 10,470 SF).

System: D5020 - Lighting and Branch Wiring

Location: Building wide

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Maintain Lighting Fixtures

Qty: 150.00

Unit of Measure: Ea.

Estimate: $20,925.82

Assessor Name: System

Date Created: 01/19/2016

Notes: Provide an allowance for replacement of lamps and/or lenses for 150 2x4 fluorescent fixtures that need maintenance.

System: D5030 - Communications and Security

Location: Building wide

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Provide wireless GPS clock system

Qty: 1.00

Unit of Measure: LS

Estimate: $123,151.72

Assessor Name: System

Date Created: 01/19/2016

Notes: Replace existing clock system and clocks with a wireless GPS clock system with battery operated synchronized clocks. Replace stand-alone clocks and those mounted in clock speaker assemblies (estimate 225 clocks).

System: E1020 - Institutional Equipment

Location: Stage

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace stage dimmer control board

Qty: 1.00

Unit of Measure: Ea.

Estimate: $221,517.71

Assessor Name: System

Date Created: 01/19/2016

Notes: Replace 800A, 200 dimmer control board for stage and auditorium.

System: E2010 - Fixed Furnishings

Location: Stage

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

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

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

Qty: 200.00

Unit of Measure: Ea.

Estimate: $155,694.60

Assessor Name: System

Date Created: 10/29/2015

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

Priority 5 - Response Time (> 5 yrs):

System: B2010 - Exterior Walls

Location: Exterior Elevation

Distress: Damaged

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 3,000.00

Unit of Measure: S.F.

Estimate: $96,868.42

Assessor Name: System

Date Created: 10/29/2015

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

System: B3010105 - Built-Up

Location: Roof

Distress: Damaged

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Remove and Replace Built Up Roof

Qty: 123,000.00

Unit of Measure: S.F.

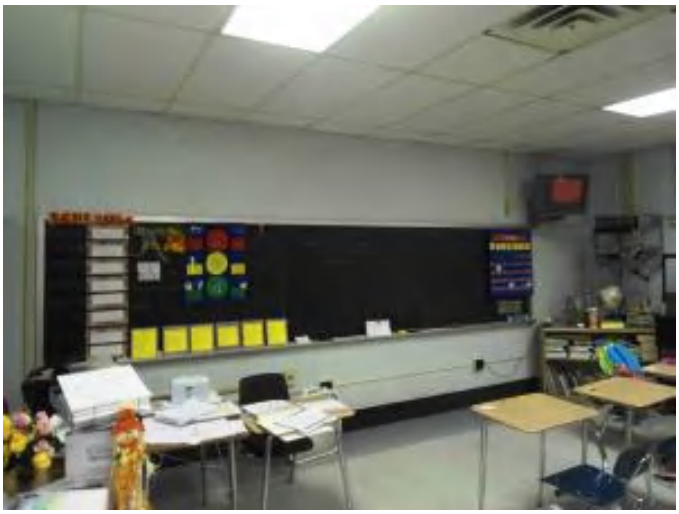
Estimate: $4,167,487.35

Assessor Name: System

Date Created: 10/29/2015

Notes: The existing built up roofing system has clear signs of ponding and there reportedly has been an increase of roofing maintenance on this single ply roofing system. Reported leaks were verified in room 206 and room 342 as well as obvious stains in ceiling tiles near the edges of the exterior walls of several classrooms. This roof is expected to required replacement within the next ten years as the repairs and maintenance outweighs the effort and requires upgrade. It is recommended that a new built-up roofing system be installed within the next ten years.

System: C1030 - Fittings



Location: Classroom

Distress: Damaged

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 300.00

Unit of Measure: Ea.

Estimate: $206,469.63

Assessor Name: System

Date Created: 10/29/2015

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

System: C3020411 - Carpet

Location: Music Hall

Distress: Damaged

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Remove and replace carpet

Qty: 20,000.00

Unit of Measure: S.F.

Estimate: $223,815.21

Assessor Name: System

Date Created: 10/29/2015

Notes: Typical carpeting in the un-renovated portion (Music Hall) of the building is in poor condition, and it can be expected to degrade over time. Generally, the carpet is located in offices, medical instruction classrooms, conference areas and the main auditorium. To anticipate these life cycle expenditures, schedule these floor finishes for low priority replacement with new commercial-grade, roll carpeting over the next ten-year period. Carpet upgrades are warranted within the next ten year as an overall effort and sooner in the Music Hall section of the school.

System: C3030 - Ceiling Finishes

Location: Building Wide

Distress: Damaged

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 260,000.00

Unit of Measure: S.F.

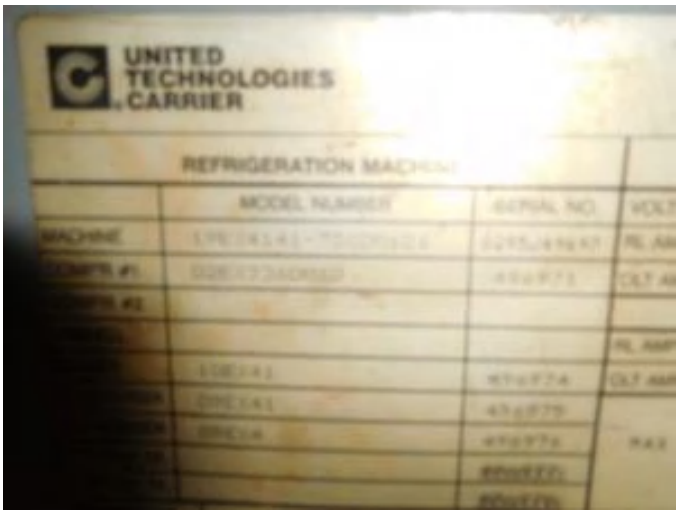
Estimate: $3,921,431.87

Assessor Name: System

Date Created: 10/29/2015

Notes: The ceiling finish is a 2 x 4 Acoustical tile finish. Ceilings have been repaired in several areas and is in good condition considering the age of the application and the current condition of the school. The ceiling finish is expected to require upgrades to support the recommended efforts in this report prior to re-opening. 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. No work should be considered until after the recommended exterior efforts are complete.

System: D3030 - Cooling Generating Systems



Location: roof, mechanical room

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 5 - Response Time (> 5 yrs)

Correction: Install chilled water system with distribution piping and pumps. (+350KSF)

Qty: 370,000.00

Unit of Measure: S.F.

Estimate: $6,266,621.96

Assessor Name: System

Date Created: 01/22/2016

Notes: Remove the existing chiller and associated pumps and install air-cooled chillers on the roof with chilled water distribution piping, pumps, chemical treatment and controls located in the mechanical room. Include electrical connections. Total cooling capacity 1000 tons

System: D5020 - Lighting and Branch Wiring

Location: Lobby

Distress: Appearance

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Replace lamp

Qty: 80.00

Unit of Measure: Ea.

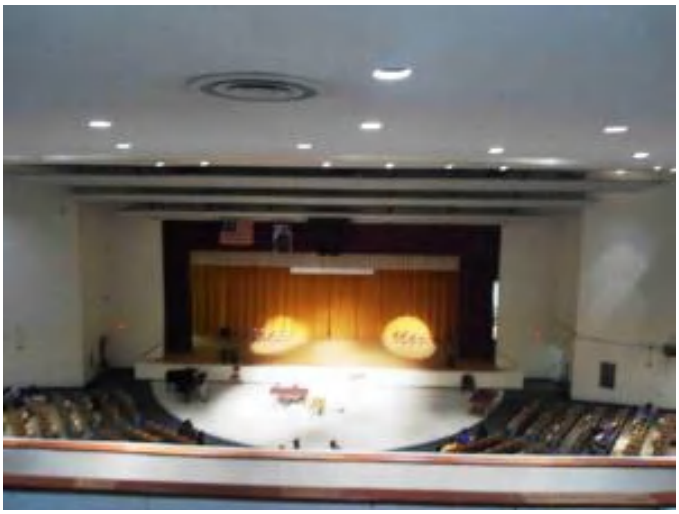
Estimate: $21,186.28

Assessor Name: System

Date Created: 01/19/2016

Notes: Replace lamps in all downlights in main entrance lobby and in the circulation areas around the auditorium for consistent lamp color and appearance (estimate 80 downlights).

System: E2010 - Fixed Furnishings



Location: Auditorium

Distress: Damaged

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 1,800.00

Unit of Measure: Ea.

Estimate: $1,623,429.92

Assessor Name: System

Date Created: 10/29/2015

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. Ensure that ADA requirements are followed with the new seating layout.

Equipment Inventory

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

Subsystem	Inventory	Qty	UoM	Location	Manufacturer	Model Number	Serial Number	Barcode	Life	Install Date	Next Renewal	Raw Cost	Inventory Cost
D1010 Elevators and Lifts	Traction geared elevators, freight, 4000 lb, 5 floors, 50 FPM class'B'	1.00	Ea.	Elevator Machine Room #2 (Rooftop	Digital Elevator	MCE Model VVMO-1000-PTC	MCE SN 3011772		30	2000	2030	$209,055.00	$229,960.50
D1010 Elevators and Lifts	Traction geared elevators, passenger, 2000 lb, 5 floors, 200 FPM	1.00	Ea.	Elevator Machine Room #1 (Rooftop)	Digital Elevator	MCE Model IMC-MG	MCE SN 3009803		30	1999	2029	$175,350.00	$192,885.00
D2020 Domestic Water Distribution	Pump, pressure booster system, 10 HP pump, includes diaphragm tank, control and pressure switch	1.00	Ea.	mechanical room					25	1970	1995	$12,768.00	$14,044.80
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, hot water, gross output, 10,900 MBH, 325.6 BHP, includes burners, controls and insulated jacket, packaged	2.00	Ea.	mechanical room	weil mclain	model 94 series 3			35	1970	2005	$250,766.50	$551,686.30
D3040 Distribution Systems	Air handling unit, packaged weatherproof, with cooling/heating coil section, filters, mixing box, constant volume, single zone, 20,000 CFM, cooling coils may be chilled water or DX, heating coils may be hot water, steam or electric	6.00	Ea.	roof	SEMCO				25	1970	1995	$136,570.50	$901,365.30
D4010 Sprinklers	Fire pumps, electric, 1250 GPM, 75 psi, 75 HP, 1770 RPM, 5" pump, including controller, fittings and relief valve	1.00	Ea.	third level mechanical room	worthington				35	1970	2005	$31,950.70	$35,145.77
D5010 Electrical Service/Distribution	Load interrupter switch, 2 position, 400 kVA & above, 13.8 kV, 600 amp w/CLF fuses, NEMA 1	2.00	Ea.	Electrical Room M127B	Federal Pacific Electric	Type LI	Cat. No. 2651D1595		30			$42,849.00	$94,267.80
D5010 Electrical Service/Distribution	Motor control center, starters, class 1, type B, combination MCP, FVNR, with control XFMR, size 2, 25 HP, 18" high, incl starters & structures	25.00	Ea.	Penthouse Mechanical Room	Federal Pacific Electric	NA			30			$3,073.95	$84,533.63
D5010 Electrical Service/Distribution	Motor control center, starters, class 1, type B, combination MCP, FVNR, with control XFMR, size 2, 25 HP, 18" high, incl starters & structures	12.00	Ea.	Motor Control and Mechanical Room A374	Federal Pacific Electric		S.O. No. 70.1.4A.3		30			$3,073.95	$40,576.14
D5010 Electrical Service/Distribution	Motor control center, starters, class 1, type B, combination MCP, FVNR, with control XFMR, size 2, 25 HP, 18" high, incl starters & structures	24.00	Ea.	Floor 3 Corridor Electrical Closet (10th Grade Academy wing)	Federal Pacific Electric		S.O. No. 70.1.4.45		30			$3,073.95	$81,152.28
D5010 Electrical Service/Distribution	Motor control center, starters, class 1, type B, combination MCP, FVNR, with control XFMR, size 2, 25 HP, 18" high, incl starters & structures	16.00	Ea.	Mechanical Room G371	Federal Pacific Electric		NA		30			$3,073.95	$54,101.52
D5010 Electrical Service/Distribution	Motor control center, starters, class 1, type B, combination MCP, FVNR, with control XFMR, size 2, 25 HP, 18" high, incl starters & structures	15.00	Ea.	Boiler Room	Federal Pacific Electric	NA	S.O. No. 70.1.4		30			$3,073.95	$50,720.18

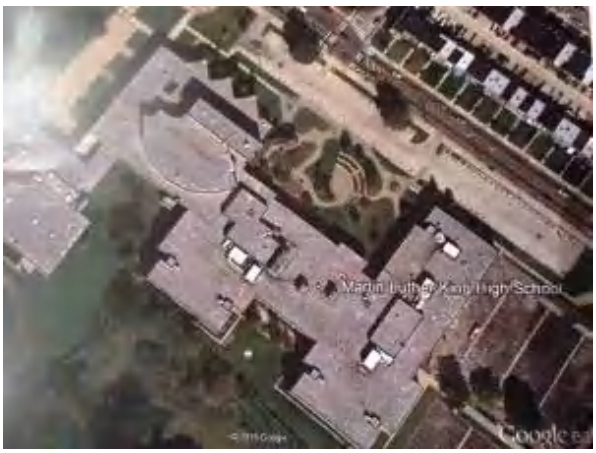
D5010 Electrical Service/Distribution	Switchgear installation, incl switchboard, panels & circuit breaker, 120/208 V, 1600 A	1.00	Ea.	Motor Control and Mechanical Room A374	Federal Pacific Electric	Type CDP			30			$40,458.15	$44,503.97
D5010 Electrical Service/Distribution	Switchgear installation, incl switchboard, panels & circuit breaker, 120/208 V, 1600 A	1.00	Ea.	Electrical Room T143	Federal Pacific Electric	Type CDP	AK-4.74.09		30			$40,458.15	$44,503.97
D5010 Electrical Service/Distribution	Switchgear installation, incl switchboard, panels & circuit breaker, 120/208 V, 800 A	1.00	Ea.	Electrical Room M127B	Federal Pacific Electric	NA	S.O. No. 18147-02		30			$21,766.05	$23,942.66
D5010 Electrical Service/Distribution	Switchgear installation, incl switchboard, panels & circuit breaker, 120/208 V, 800 A	1.00	Ea.	Electrical Room M127B	Eaton	NA	NA		30	2013	2043	$21,766.05	$23,942.66
D5010 Electrical Service/Distribution	Switchgear installation, incl switchboard, panels & circuit breaker, 277/480 V, 2000 A	4.00	Ea.	Electrical Room M127B	Federal Pacific Electric	NA	NA		30			$64,242.45	$282,666.78
D5010 Electrical Service/Distribution	Switchgear installation, incl switchboard, panels & circuit breaker, 277/480 V, 800 A	1.00	Ea.	Electrical Room M127B	Siemens	Type P4	S.O. 3003067408		30	2011	2041	$31,205.25	$34,325.78
D5010 Electrical Service/Distribution	Transformer, dry-type, 3 phase 15 kV primary 277/480 volt secondary, 3000 kVA	2.00	Ea.	Electrical Room M127B	Federal Pacific Electric		20590-001		30			$191,889.00	$422,155.80
D5010 Electrical Service/Distribution	Transformer, dry-type, 3 phase 15 kV primary 277/480 volt secondary, 3000 kVA	2.00	Ea.	Electrical Room M127B	Federal Pacific Electric		20589-001		30			$191,889.00	$422,155.80
												Total:	**$3,628,636.64**

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):	1,645,100
Year Built:	1970
Last Renovation:	
Replacement Value:	$22,625,489
Repair Cost:	$3,365,920.03
Total FCI:	14.88 %
Total RSLI:	63.23 %



Description:

Attributes:

General Attributes:

Bldg ID:	S606001	Site ID:	S606001

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	53.97 %	21.76 %	$3,365,920.03
G40 - Site Electrical Utilities	83.23 %	0.00 %	$0.00
Totals:	**63.23 %**	**14.88 %**	**$3,365,920.03**

Condition Detail

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

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

System Listing

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

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

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

System Code	System Description	Unit Price $	UoM	Qty	Life	Year Installed	Calc Next Renewal Year	Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency $	Replacement Value $
G2020	Parking Lots	$7.65	S.F.	107,800	30	1970	2000	2021	20.00 %	185.19 %	6		$1,527,217.84	$824,670
G2030	Pedestrian Paving	$11.52	S.F.	214,600	40	1970	2010	2027	30.00 %	1.75 %	12		$43,148.55	$2,472,192
G2040	Site Development	$4.36	S.F.	1,645,100	25	1970	1995	2027	48.00 %	25.03 %	12		$1,795,553.64	$7,172,636
G2050	Landscaping & Irrigation	$3.78	S.F.	1,322,700	15	1970	1985	2027	80.00 %	0.00 %	12			$4,999,806
G4020	Site Lighting	$3.58	S.F.	1,645,100	20	2012	2032		85.00 %	0.00 %	17			$5,889,458
G4030	Site Communications & Security	$0.77	S.F.	1,645,100	20	2010	2030		75.00 %	0.00 %	15			$1,266,727
								Total	**63.23 %**	**14.88 %**			**$3,365,920.03**	**$22,625,489**

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.

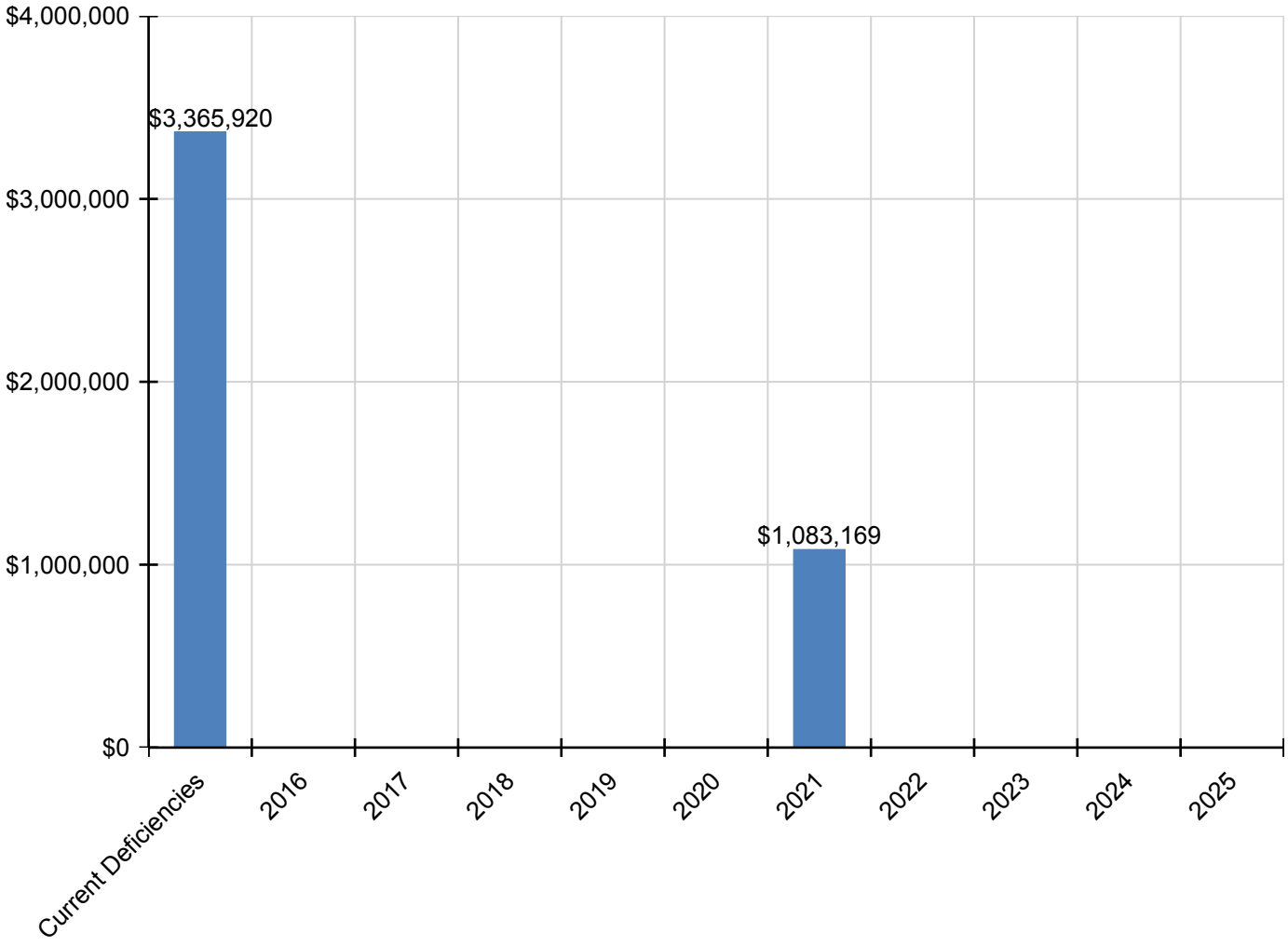
Inflation Rate: 3%

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Total:	**$3,365,920**	**$0**	**$0**	**$0**	**$0**	**$0**	**$1,083,169**	**$0**	**$0**	**$0**	**$0**	**$4,449,089**
G - Building Sitework	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G20 - Site Improvements	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G2020 - Parking Lots	$1,527,218	$0	$0	$0	$0	$0	$1,083,169	$0	$0	$0	$0	**$2,610,387**
G2030 - Pedestrian Paving	$43,149	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$43,149**
G2040 - Site Development	$1,795,554	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,795,554**
G2050 - Landscaping & Irrigation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G40 - Site Electrical Utilities	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G4020 - Site Lighting	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G4030 - Site Communications & Security	$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.

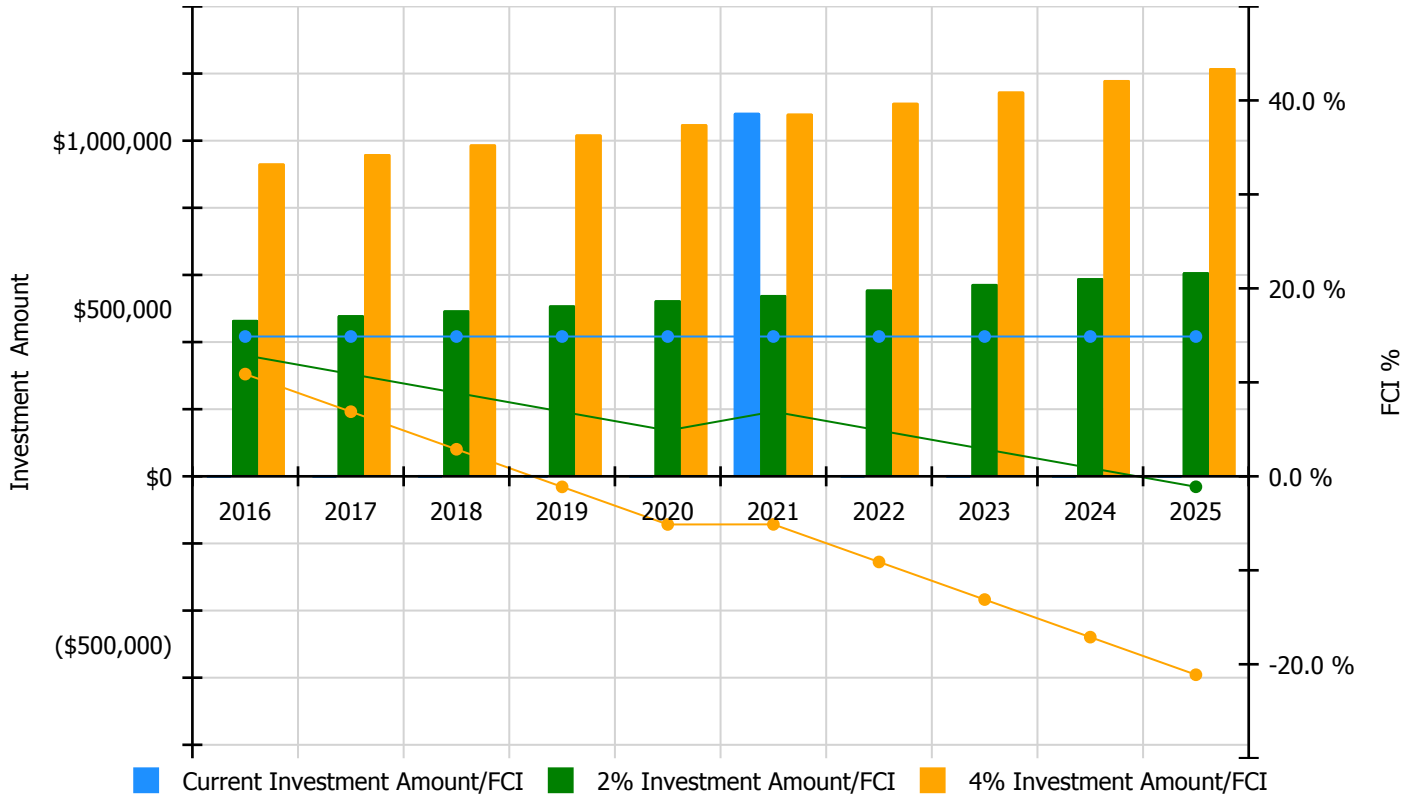


10 Year FCI Forecast by Investment Scenario

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

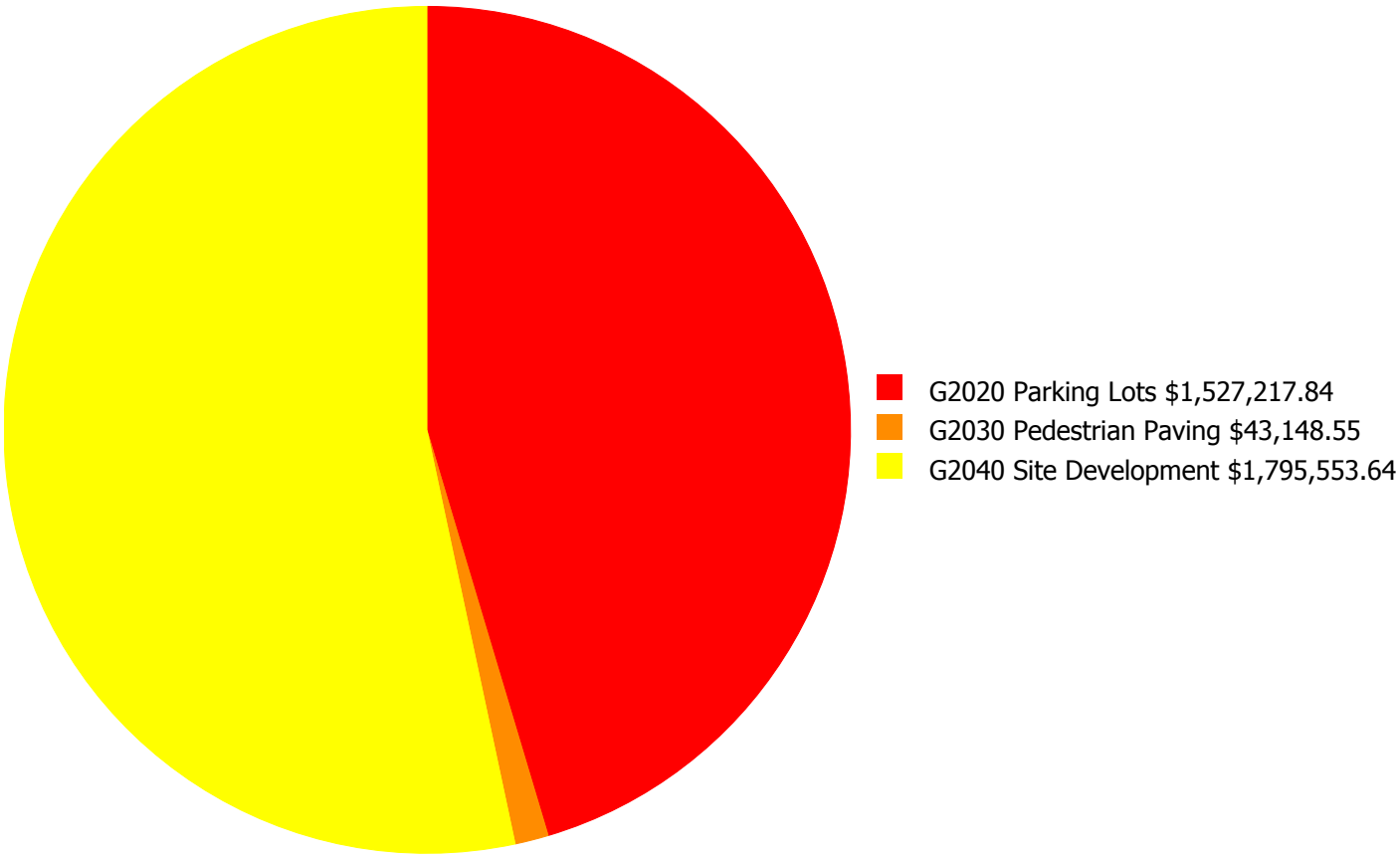
Facility Investment vs. FCI Forecast



Year	Investment Amount Current FCI - 14.88%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$466,085.00	12.88 %	$932,170.00	10.88 %
2017	$0	$480,068.00	10.88 %	$960,135.00	6.88 %
2018	$0	$494,470.00	8.88 %	$988,939.00	2.88 %
2019	$0	$509,304.00	6.88 %	$1,018,607.00	-1.12 %
2020	$0	$524,583.00	4.88 %	$1,049,166.00	-5.12 %
2021	$1,083,169	$540,320.00	6.89 %	$1,080,641.00	-5.11 %
2022	$0	$556,530.00	4.89 %	$1,113,060.00	-9.11 %
2023	$0	$573,226.00	2.89 %	$1,146,452.00	-13.11 %
2024	$0	$590,423.00	0.89 %	$1,180,845.00	-17.11 %
2025	$0	$608,135.00	-1.11 %	$1,216,271.00	-21.11 %
Total:	**$1,083,169**	**$5,343,144.00**		**$10,686,286.00**	

Deficiency Summary by System

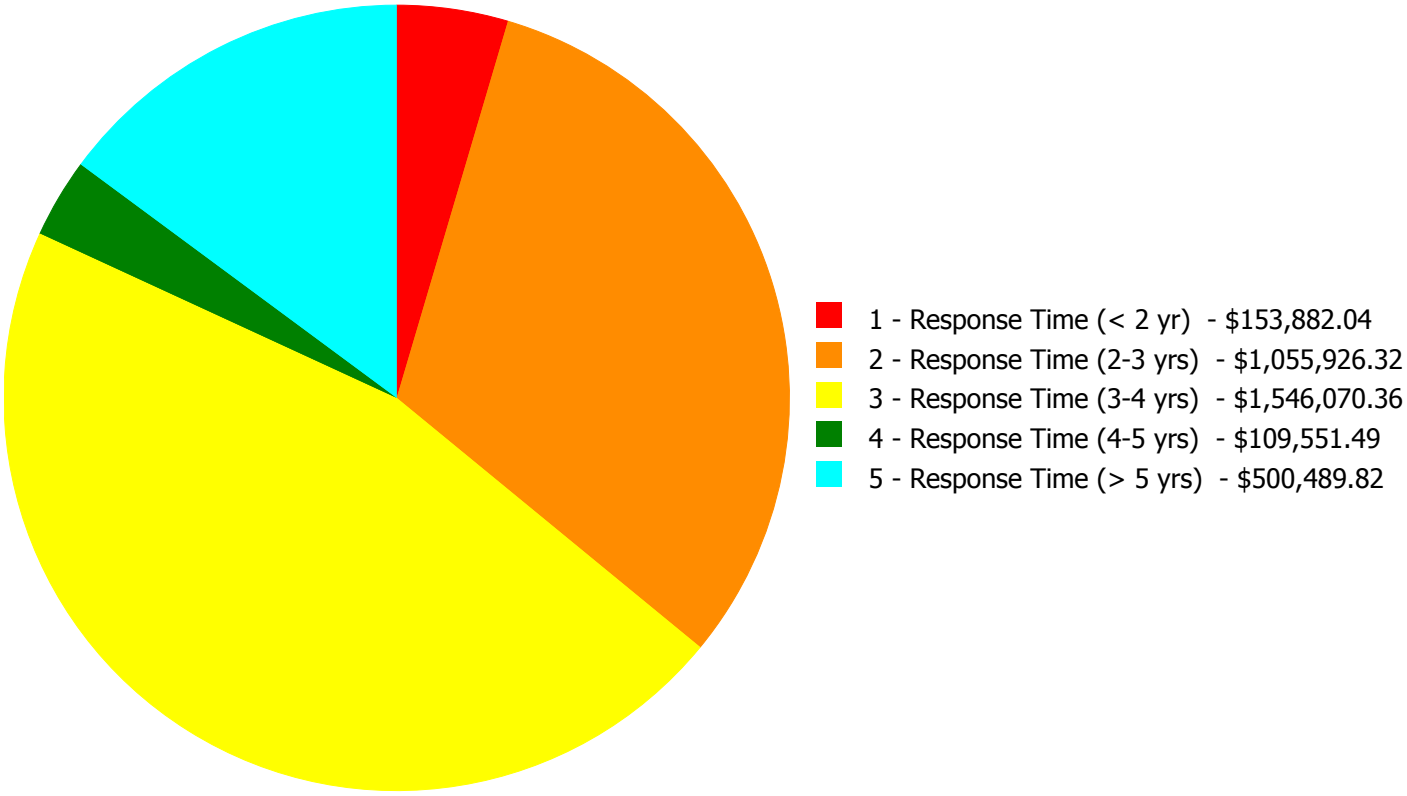
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $3,365,920.03

Deficiency Summary by Priority

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



Budget Estimate Total: $3,365,920.03

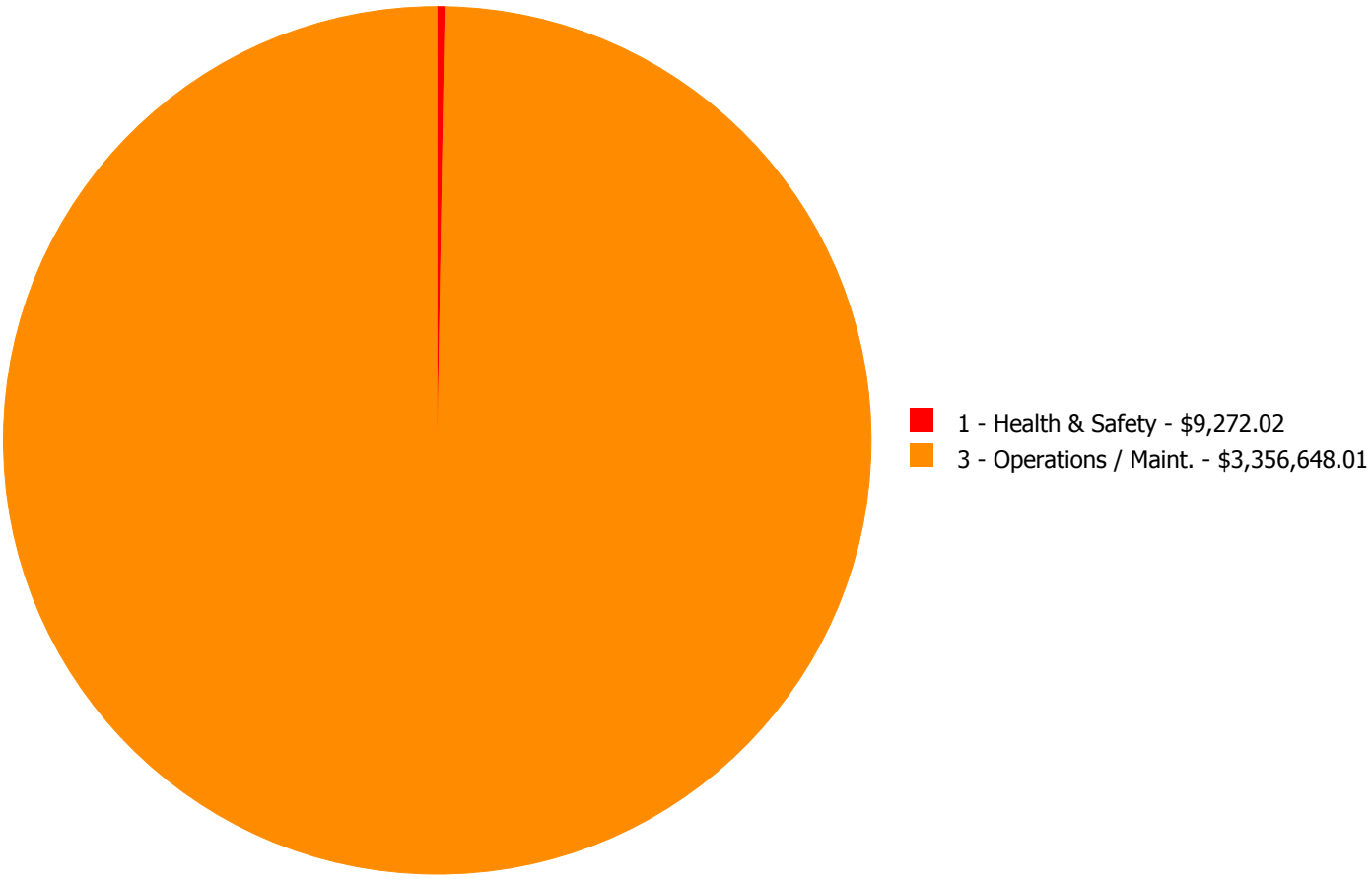
Deficiency By Priority Investment Table

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	$1,527,217.84	$0.00	$0.00	$1,527,217.84
G2030	Pedestrian Paving	$0.00	$0.00	$0.00	$0.00	$43,148.55	$43,148.55
G2040	Site Development	$153,882.04	$1,055,926.32	$18,852.52	$109,551.49	$457,341.27	$1,795,553.64
	Total:	$153,882.04	$1,055,926.32	$1,546,070.36	$109,551.49	$500,489.82	$3,365,920.03

Deficiency Summary by Category

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



Budget Estimate Total: $3,365,920.03

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: G2040 - Site Development

Location: Site

Distress: Damaged

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Replace or install exterior guardrails

Qty: 800.00

Unit of Measure: L.F.

Estimate: $153,882.04

Assessor Name: Gerald Petric

Date Created: 10/29/2015

Notes: There are several different site elevations from the Football field to the general parking. The access for this system is supported by the sidewalk system and cast in place concrete stairs that were compliant during the time of construction however are no longer compliant. Present legislation regarding building accessibility by the handicapped requires that stairs have graspable handrails on both sides, that the rails have specific end geometry, and that the handrails continue past the newel posts. To comply with this legislation, the reinstallation of wall-mounted and extension handrails and addition of center well handrails, including balustrades, on concrete stairs is recommended. The ADA access ramp located near the loading dock is in need of upgrades as well. The installation of additional guardrails and handrails is recommended at this location.

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

System: G2040 - Site Development

Location: Football Field

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Refurbish football field - based on approximate 90,000 SF grass field

Qty: 90,000.00

Unit of Measure: S.F.

Estimate: $1,046,654.30

Assessor Name: Gerald Petric

Date Created: 10/29/2015

Notes: The existing Football field is from the schools original construction. The field has several holes and the goal post no longer carry the safety equipment to prevent injury during practice or games. The poor condition of the field presents a safety issue as well as a maintenance issue. This field is recommended to be upgraded. This deficiency is expected to be completed as part of a site effort to upgrade the Track and Field areas and the bleachers.

System: G2040 - Site Development

Location: Northwestern Exterior Elevation

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

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

Correction: Repair drepressed areas in parking or pedestrian paving caused by subrade subsidence - per SF base on approximately 100 SF or more

Qty: 300.00

Unit of Measure: S.F.

Estimate: $9,272.02

Assessor Name: Gerald Petric

Date Created: 10/29/2015

Notes: There is evidence of a major collapse on the Northwestern exterior of the school. It appears that the correction was to add a fence redirecting students from a major egress away from the hazard. This area is recommended for correction. Excavation and waterproofing system upgrades are recommended. Improve the slope of the grade away from the foundation prior to restoring the sidewalk system and fire egress system.

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

System: G2020 - Parking Lots

Location: Site

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace AC paving parking lot

Qty: 108,000.00

Unit of Measure: S.F.

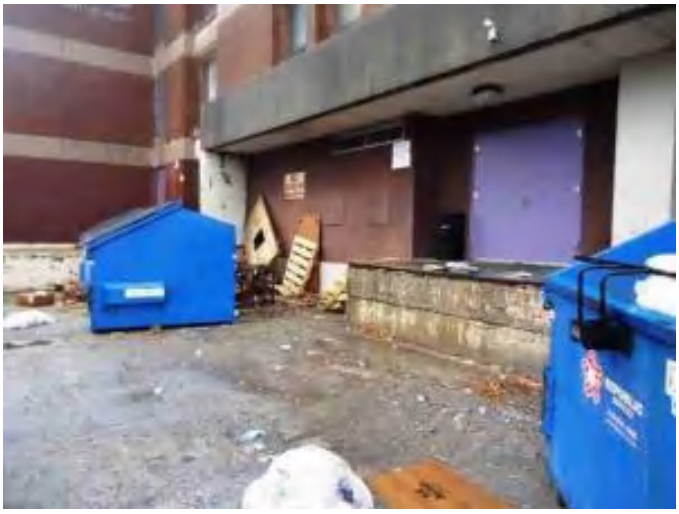
Estimate: $1,527,217.84

Assessor Name: Gerald Petric

Date Created: 10/29/2015

Notes: There are four main parking areas and an overflow parking area for this school. The parking areas have 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 lot is in poor condition, the harsh environmental conditions associated with snow removal have taken its toll on the asphalt surface. Also, there is no marked path of ingress to the main entrance. This project provides a budgetary consideration for a play, parking lot renewal program that includes all aspects of the current ADA legislation. Asphalt removal and replacement is recommended.

System: G2040 - Site Development



Location: Site

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Build secure trash dumpster enclosure

Qty: 1.00

Unit of Measure: Ea.

Estimate: $18,852.52

Assessor Name: Gerald Petric

Date Created: 10/29/2015

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

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

System: G2040 - Site Development

Location: Track

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Refurbish running track - replace AC paving with asphalt latex rubber system

Qty: 5,000.00

Unit of Measure: S.F.

Estimate: $102,068.00

Assessor Name: Gerald Petric

Date Created: 10/29/2015

Notes: The existing Track and Field is from the schools original construction. The field has several holes and the long jump, shot-put and other activity centers are in poor condition. This area presents a safety issue as well as a maintenance issue. This field is recommended to be upgraded. This deficiency is expected to be completed as part of a site effort to upgrade the Football field and the bleachers.

System: G2040 - Site Development

Location: Site

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Add safety barriers and guide lines at parking and loading dock areas

Qty: 1.00

Unit of Measure: Ea.

Estimate: $7,483.49

Assessor Name: Gerald Petric

Date Created: 10/29/2015

Notes: The loading dock is from original construction and in poor condition. The loading dock system is recommended for upgrade to include new concrete work and railing replacement. This deficiency is expected to be completed as part of an effort to upgrade this area and should be coordinated with other loading dock projects.

Priority 5 - Response Time (> 5 yrs):

System: G2030 - Pedestrian Paving

Location: Site

Distress: Damaged

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 3,000.00

Unit of Measure: S.F.

Estimate: $43,148.55

Assessor Name: Gerald Petric

Date Created: 10/29/2015

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 and should include all aspects of current ADA legislation.

System: G2040 - Site Development

Location: Site

Distress: Damaged

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Replace chain link fence - 6' high

Qty: 4,000.00

Unit of Measure: L.F.

Estimate: $358,872.18

Assessor Name: Gerald Petric

Date Created: 10/29/2015

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

System: G2040 - Site Development

Location: Football Field

Distress: Damaged

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Remove and replace small bleacher structures - pick the appropriate bleacher and insert the number of seats in both the qty and the estimate qty

Qty: 200.00

Unit of Measure: Seat

Estimate: $98,469.09

Assessor Name: Gerald Petric

Date Created: 10/29/2015

Notes: As indicated in the photos the original bleacher system is the only system providing public seating to events at the Football and Track and Field area. This system has a metal and wooden frame with wooden seats. This system was reported to have been repaired several times in its service to the school. This system is in very poor condition and replacement is recommended. The new system is expected to have a concrete sidewalk access area and also include all aspects of the current ADA legislation.

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