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.

Memphis Street Academy (Jones) School

Governance	CHARTER	Report Type	Middle
Address	2950 Memphis St. Philadelphia, Pa 19134	Enrollment	852
		Grade Range	'05-08'
Phone/Fax	215-291-4709 / 215-291-4754	Admissions Category	Neighborhood
Website	Www.Ap-Schools.Org/Memphisstreetacademy/	Turnaround Model	Renaissance Charter

Building/System FCI Tiers

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

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

Building and Grounds

	FCI	Repair Costs	Replacement Cost
Overall	**44.62%**	**$26,421,649**	**$59,211,595**
Building	45.58 %	$26,363,318	$57,842,410
Grounds	04.26 %	$58,331	$1,369,185

Major Building Systems

Building System	System FCI	Repair Costs	Replacement Cost
Roof (Shows physical condition of roof)	89.59 %	$982,578	$1,096,780
Exterior Walls (Shows condition of the structural condition of the exterior facade)	12.50 %	$645,789	$5,166,040
Windows (Shows functionality of exterior windows)	100.57 %	$2,539,658	$2,525,200
Exterior Doors (Shows condition of exterior doors)	106.46 %	$182,146	$171,100
Interior Doors (Classroom doors)	334.03 %	$1,383,470	$414,180
Interior Walls (Paint and Finishes)	05.86 %	$67,739	$1,156,740
Plumbing Fixtures	00.00 %	$0	$1,595,360
Boilers	00.00 %	$0	$2,203,060
Chillers/Cooling Towers	67.94 %	$1,962,508	$2,888,640
Radiators/Unit Ventilators/HVAC	123.56 %	$6,268,181	$5,072,820
Heating/Cooling Controls	132.68 %	$2,113,546	$1,593,000
Electrical Service and Distribution	114.55 %	$1,311,140	$1,144,600
Lighting	37.82 %	$1,547,810	$4,092,240
Communications and Security (Cameras, Pa System and Fire Alarm)	32.60 %	$499,718	$1,532,820

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

S510001;Jones

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):	118,000
Year Built:	1924
Last Renovation:	
Replacement Value:	$59,211,595
Repair Cost:	$26,421,649.03
Total FCI:	44.62 %
Total RSLI:	52.38 %

Description:

Facility Assessment

August 2015

School District of Philadelphia

John Paul Jones Junior High School / Memphis Street Academy Charter School

2950 Memphis Street

Philadelphia, PA 19134

118,000 SF / 1,155 Students / LN 05

GENERAL

The American Paradigm Memphis Street Academy Charter School is identified as B510001 and was originally constructed as the John

Paul Jones Junior High School a Philadelphia Public School. This facility is located at 2950 Memphis St, Philadelphia, PA. This is a Colonial Revival architecture design school with concrete and combination steel and wooden framed building that include brick and stone facades with concrete foundation and detailing.

The main entrance faces the eastern exterior on Memphis Street. This School serves students in grades K to 8. This school was reported to have been constructed in 1924 and consist of a Basement level and three additional stories with a total gross square footage of 118,000 GSF.

This school has several classrooms, a library, gyms, library, kitchen and student commons, Auditorium and cafeteria, with supporting administrative spaces.

As documented by the National Register: John Paul Jones Junior High School is a historic junior high school building located in the Port Richmond neighborhood of Philadelphia, Pennsylvania. It was designed by Irwin T. Catharine and built in 1923-1924. It is a three-story, 17-bay, brick building on a raised basement in the Colonial Revival style. It features a central projecting entrance pavilion of stone, brick pilasters, and stone cornice and brick parapet. It was named for Naval hero John Paul Jones (1747–1792). This school was added to the National Register of Historic Places in 1988.

The information for this report was collected during a site visit on August 24, 2015.

Mr. Andrew Hunter, Building Engineer, and Mr. Ray Casey, Facilities Director, accompanied the assessment team on a tour of the school and provided detailed information on the building systems and maintenance history.

Architectural / Structural Systems

Foundations are concrete and in very good condition. Although there is a minor water issue that is related to a mechanical sump pump overall there were no issues related to the basement walls or foundation that surfaced during the time of the inspection. Therefore no recommendations are required at this time.

The superstructure is a combination of masonry, steel and wooden supports. The floor and roof construction is in good condition and no recommendations are warranted at this time.

There are a number of roof sections and different roof elevations ranging from the main roof to the mechanical roof. Parapet heights, coping materials, and the height of the flashing also varies in different sections. The main roof is a built up application that was installed in the early 1990'S. The other built up roofs have not conclusive installation dates and have been seal coated several times to extend the life cycle of the application. Considering the age and condition of the roofing systems, universal upgrades are recommended. Remove and replace all roof sections.

The exterior brick surfaces are generally in fair to good condition for their age. As indicated in the photos major areas of the exterior brick finish has been painted. 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. During this effort the exterior painted surfaces are expected to be clean of previous painted materials. If moisture is found to be penetrating the masonry facade, the application of a spray sealant to the suspected exterior masonry surface is recommended.

The lower sections of the exterior brick finish have been coated with anti graffiti surface material. This area appears to be very effective as no graffiti was present and the surfaces are in very good condition.

Most of the exterior windows have been upgraded from the original applications. As indicated in the photos several of the windows appear to be original. A majority of the window system is estimated to have been installed in the 1990's. Several of the windows no longer work and will require attention prior to an overall effort. Overall, the windows are in fair condition based on the year of installation or last renovation. The entire 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. Also, there are several double door systems that have been upgraded from the original construction. As indicated in the photo the concrete step does not meet the length of the door thus allowing a trap hazard. Special consideration for a new door system is required and a modification to the exterior step removing the hazard.

Special consideration for those that may be physically challenged was not a main factor in the original construction of this school. Currently, there is one compliant entrance at grade. The path of travel is not clear from this access points as the interior path of travel lacks support by interior ramps, elevator, compliant signage, restrooms amities, compliant door hardware, hand rails and guard rails to meet the needs of the physically challenged. The school will require several upgrades to meet the needs of the physically challenged.

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

A large portion of the interior corridor, exit stair doors are not code compliant. Several doors are typically metal in metal frames with transom lites or sidelights, glass glazing. The older doors are generally in good condition considering the age of the application. To restore the door finishes, universal upgrades are required for the older door applications. Remove and replace original door systems with new code compliant fire rated door system.

The interior door system is original to the buildings construction. Interior doors are typically wood in wood frames with glass glazing. Several doors are damaged and replacement glass panes have been installed to replace damaged doors panes. Complaint during the time of the construction of this school the interior doors no longer compliant with today's standards. Doors are generally in fair condition considering the age of the application. 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.

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

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 chalkboards to new marker board systems.

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.

There are several minor areas of wall damage that ranges from serious to minor. As indicated in the photos the exterior walls appear to be the main source of the damage. The auditorium exterior hallway wall and walls that face the exterior will require immediate attention. Although the school is on a cyclical program of renewal and each painted surface is renewed at years end this system is at the point in which repairs are necessary. Remove damaged wall finishes and repair areas then apply primer and paint finish.

The marble wall finish in the lobby and first floor areas is in like new condition. This system is well maintained and very clean. The ceramic wall tile in the restrooms is likewise in very good condition and there were no issues for the marble or ceramic wall finishes therefore no recommendations are required at this time.

The floor finish for this school is a combination of carpet in the administrative area installed in 2015, tile in the kitchen and service line areas that appear to have been part of an interior effort. There are also concrete hallways and stairs finishes and a vinyl tile finish. The cafeteria and some of the classrooms have a newly installed 12 x 12 floor tile application in like new condition. There were no issues with the interior finishes with the exception of the vinyl tile finish 9 x 9 application in room 109 and is suspect to contain asbestos. This finish is recommended for upgrade to a new 12 x 12 vinyl tile application.

The older Gym floors appear to have 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 from the Gyms.

The classrooms and auditorium in this school have a wooden floor finish. Most of the classrooms appear to be from original construction. However, the auditorium is in like new condition. The classroom system is showing signs of age such as the effects of sanding and refinishing with yearly cleaning and waxing with some repairs. The floor finish is in fair condition however, the finish is beyond its expected life cycle. It is recommended that the wooden floor finish be removed and replaced with an in kind finish.

The ceiling finish is a mix of 12 x 12 ceiling grid, painted and 2 x 4 Acoustical tile finish. The ceilings are damaged from leaks and

abuse, several repairs have been completed in specific areas and are in good condition considering the age of the application and the current condition of the school. This deficiency provides a budgetary consideration for removal and replacement of the current ceiling finish in damaged areas and also to add 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.

There is no elevator that services this school. Goods, services, and amenities offered in public buildings are generally required to be available to all persons. To assist those that may be physically challenged and to meet current accessibility legislation to provide wheelchair access to the upper floors of this facility, the installation of a new hydraulic elevator has been recommended on the southern elevation of the building or at another suitable location. The new installation should blend as much as possible with the overall appearance of this historic structure and include all required ADA features, such as audible jewels and gongs, an accessible control panel, etc.

The boys and girls Gyms are the main areas as this schools indoor activities. The old Gyms are still used as either a student common area or practice court. The interior backboards and support equipment is beyond its service life. Damaged boards are recommended for removal and replacement.

The practice Gyms or Boy's and Girl's Gyms each have a single scoreboard that appears to be from the early 1950's and no longer functions. This deficiency provides a budgetary consideration for the removal and replacement of each scoreboard.

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.

The library equipment, theater and stage equipment and audio-visual equipment are from the original construction or latest renovation efforts of the school. The systems are in use and in fair condition however, the systems are beyond the expected life for this application and upgrades are warranted.

MECHANICAL SYSTEMS

PLUMBING- Plumbing fixtures are standard china commercial quality with wall mounted lavatories and urinals and both wall and floor mounted water closets. Lavatories have dual wheel handle, dual lever handle or single handle faucets. Urinals and water closets have manual flush valves, mostly concealed with pushbutton operators. Custodial closets have mop basins and there are a few stainless steel counter top sinks and larger china sinks. There are single level stainless steel water coolers with integral refrigeration. The kitchen waste is piped through an above floor grease trap in the kitchen. There is a forty gallon electric Bradford White water heater exposed in the kitchen to increase the water temperature for dish washing. A seventy five gallon Bradford White gas water heater installed in 2014 is in the mechanical room, with a small inline circulating pump and pressure tank. There is a water softener but no domestic water booster pump system. The mechanical room has two duplex sump pumps. One is older and located in a space adjacent to the boiler area and the other is recently installed and located near the boilers. Both are operational and there is some groundwater ponding in two rooms adjacent to the boiler area.

Water piping has been replaced since the original installation with copper. Sanitary, waste, vent and rainwater piping is original installation hub and spigot cast iron. Water service is a six inch line and three inch meter from E. Ann St. with a backflow preventer. This equipment is in the mechanical room. Rainwater and sanitary main lines connect at Memphis St. and Tulip St. The six inch gas service is from E. Ann St., and the meter assembly is in a closet in office 110A with a flexible partition separation.

Plumbing fixtures in toilet rooms were replaced in 2005 and should be serviceable twenty five more years. The water heaters should be serviceable for twenty or more years. The cast iron piping has exceeded the anticipated service life. Rainwater and vent piping should continue functioning, but the sanitary and waste piping should be inspected to determine condition and replace damaged portions. The domestic water piping may have lead solder based on age, and has periodic leaks where copper piping is in contact with galvanized trapeze hangers. This piping should be replaced.

HVAC-Heating is generated by two HB Smith two hundred sixty hp sectional cast iron low pressure steam gas/oil fired boilers in the basement mechanical room. The boilers are Model 650 with Powerflame burners and separate oil pumps. Gas service was never connected to the burners because reportedly there is not sufficient capacity available from the utility company at that location. Boilers were installed in 2006 with a Shipco triplex pump condensate return and boiler feed unit with three 3/4 hp pumps. There is a chemical feed system. There are combustion air louvers with motorized dampers with one ducted lower to the floor and an inline exhaust fan. A double wall insulated stainless steel factory fabricated boiler vent system connects the forced draft blowers to a brick chimney. Oil storage is two 6000 gallon underground tanks, age and condition unknown. A duplex fuel oil pump system in the mechanical room

provides circulation.

Building spaces are heated by steam radiators with control valves and F&T traps and some steam unit heaters. A steam trap replacement project for faulty traps was performed in spring 2015. No pneumatic control valves are functional. Replacement valves have been manual type. There are also three house fan systems in the basement and first level that provide heat and ventilation through central duct systems. The systems have been decontaminated and are operational. One system serves the auditorium and gymnasium and two units serve halves of the remaining building. The house fan systems are reportedly only used during heating season and not for ventilation for other times of the year. This operational change would improve conditions in the building.

There is no central air conditioning. Approximately thirty window units cool classrooms and other areas and four ductless split systems cool the office, library and IT room, with condensing units mounted in the exterior wall. There is a stainless steel single wall kitchen exhaust hood ducted to a roof fan. One piece of warming equipment is located under the hood. There is a fire suppression system, but the hood is not used and has a DO NOT USE sign. Six centrifugal roof ventilators provide toilet exhaust.

There are no remaining control systems. The boilers are controlled by the Powerflame control panels. There is no controls air compressor.

The boilers should remain serviceable twenty five to thirty more years. The steam piping and radiators are from original construction and should be replaced based on age and condition. The oil storage tanks have no record of testing or maintenance and should be inspected. The boiler feed/ condensate return system is newer and should have remaining service of about twenty years.

FIRE PROTECTION-There are no sprinklers nor standpipes in this building.

ELECTRICAL SYSTEMS

Electrical Service--The building is served by PECO Energy Company from a pad mounted transformer on the west side of building. Two 120/240V, 1 phase, 3 wire services are routed to the Main Switchboard located in the Main Electrical Room in the Basement via a current transformer cabinet and 800A fused service entrance switch. The Main Switchboard is manufactured by Frank Adam Electric Company, but is not identified with nameplate information. Based on the incoming service conductor size, the Main Switchboard appears to be rated 800A, 120/240V, 2 phase, 5 wire. It is an obsolete, exposed bus, knife blade switchboard with 25 switches and cartridge type fuses. In addition to the circuits in the switchboard, there are approximately 14 safety switches that are fed from the Main Switchboard that serve mechanical equipment, workshops, panelboards and other equipment.

The Main Switchboard has exceeded its useful life and is a safety concern because of its exposed bus. It needs to be replaced with a 208/120V, 3 phase, 4 wire switchboard, sized to accommodate central air conditioning, an elevator addition and a fire pump, if required. All of the existing safety switches would be replaced with feeder circuit breakers in the new switchboard.

There are four (4) 240V- 208/120V, 2 to 3 phase converter transformers in the Main Electric Room and Boiler Room that feed panelboards serving pumps, boilers, air compressors, exhaust fans and other mechanical equipment. The 15 kVA, 30 kVA, 75 kVA, and 100 kVA phase converter transformers would also be removed when the switchboard is replaced.

There are four (4) flush mounted Westinghouse panelboards located in corridors at the stairwells on Floors 1 through 3, two (2) panelboards in the Basement and one (1) panelboard in the kitchen that have served their useful life and need to be replaced along with their feeder conductors.

Receptacles—Classrooms are generally provided with 2 to 3 duplex receptacles. It is recommended that an additional 5 or 6 duplex receptacles be provided in each classroom using a surface metal raceway system.

The receptacles in the kitchen are not ground-fault circuit-interrupting (GFCI) type and need to be replaced with GFCI type to comply with NFPA 70, National Electrical Code (NEC) Article 210.8.

Lighting-- Fixtures in classrooms and most other rooms, including offices and library, are 2x4, 4 lamp recessed fluorescent troffers with acrylic prismatic lenses and T12 lamps and need to be replaced. Lighting fixtures in classrooms are typically controlled by two light switches. Lighting fixtures in the corridors on all floors have been upgraded with 2x4, 4 lamp, surface mounted or recessed fluorescent troffers with T8 lamps. The fluorescent lighting fixtures in the exit corridors on Floor 1 and in all the stairwells have T12 lamps. Restrooms and locker rooms have 1x4 fluorescent wraparound fixtures with T12 lamps. The Kitchen has stem-mounted modular and wraparound fluorescent fixtures with T12 lamps. The cafeteria has ceiling mounted modular fluorescent fixtures with T12 lamps.

A lighting system upgrade is recommended for all rooms having fixtures with T12 lamps.

Lighting in the gymnasiums are stem mounted low bay metal halide industrial fixtures of different styles that are key switched. There are 16 fixtures in each gym. Lighting fixtures in both gyms should be replaced with LED fixtures.

Lighting in the auditorium consists of ceiling mounted metal halide industrial type fixtures with glass refractors above the house floor and opal bowl type fixtures in the balcony. Lighting fixtures under the balcony are 1x4 ceiling mounted modular fluorescent. It is recommended that the lighting fixtures be replaced with a fixture type that is aesthetically appropriate for space and provided with dimmable LED lamps for reduced energy and maintenance costs.

The stage has only two rows of theatrical fixtures above the stage; there are no worklights above the stage. There is an obsolete dimmer control console, manufactured by Frank Adam Electric Company, located in the room off stage right, that needs to be replaced.

Lighting in the Main Electrical Room and Mechanical Rooms consists of 4 foot industrial fluorescent with wire guards and T8 lamps. The Boiler Room has metal halide industrial fixtures.

Exits to grade are illuminated by either wall mounted fixtures above the door or under the canopy, where applicable.

Fire Alarm System-- The fire alarm system is an obsolete 120V wired system that includes only manual pull stations and bell notification appliances and does not meet current code. Pull station mounting heights exceed ADA requirements and are not located within five (5) feet of exit doors. There are no visual notification appliances. The fire alarm control panel (FACP) is by S.H. Couch Company, located in the Main Electrical Room in the Basement. The system has exceeded its useful life and needs to be replaced with an addressable fire alarm system to meet current NFPA codes and ADA.

Telephone/LAN--The telephone service demarcation point is located in the main IT server room on Floor 2, adjacent to the main stairway. A telephone is provided in each classroom. Data outlets are not provided in all classrooms. Wireless access points are provided in the classrooms, corridors, gymnasium, auditorium and other rooms for Wi-Fi coverage throughout the school. Intermediate data hubs are provided in some classrooms. Smart boards are also provided in several classrooms.

Intercom/Paging/Sound Systems-- The paging system is accessed through the telephone system. There are ceiling recessed speakers in classrooms, and ceiling recessed or wall mounted speakers in corridors. The paging system equipment is located in the IT server room on Floor 2, adjacent to the main stairway. The system has a Lucent Technologies 250W amplifier and nine (9) paging zones. The auditorium also has a separate sound system with a Clear Sound cabinet located in the room off stage right, and speakers mounted on each side of the stage.

Clock and Program System-- There is no clock and program system. The obsolete clock/program controller by Standard Electric Time has been abandoned in place in the Main Office. Program changes are through the paging system. Clocks in the school are Primex wireless, battery operated type.

Television System--There are only a few classrooms that are provided with televisions. The television system head end equipment is located on Floor 2 in an office adjacent to the Literary Center. The system is in good condition.

Video Surveillance and Security Systems-- There are a total of 54 interior and exterior video surveillance cameras that have been installed within the last five years and are in good condition. Cameras are mounted in corridors, cafeterias, gymnasiums stairwells, exit discharges and on the exterior of the building. Surveillance cameras are monitored on three (3) monitors in the Main Office, Room 238. There is also an Aiphone video intercom station at the visitor entrance. Magnetic door contacts are provided on exterior doors. Access control is through use of key FOB's.

Emergency Power System--There is a Cummins 20 kW/25 kVA, 120/240, 1 phase, 3 wire standby generator with natural gas fuel supply that is mounted in an area well on the west side of the building that was installed in 2015 to replace the existing generator, which is abandoned in place in the Basement. There is a Cummins 200A automatic transfer switch that feeds emergency lighting loads.

When an elevator and fire pump (if required) is installed, the standby generator system would need to be replaced to pick these loads in addition to the emergency egress and exit lighting.

Emergency Lighting System / Exit Lighting-- Emergency egress and exit lighting is supplied from a Siemens 125A load center and Panel ELC located in the Basement. Emergency lighting fixtures are generally located at the intersection of corridors and one in the center of the corridor, which does not provide a minimum illumination level of at least 1 footcandle measured at the floor in the path of egress, as required by NFPA 101, Life Safety Code.

Emergency lighting needs to be provided in the gymnasiums and in the Boiler Room. Emergency lighting in the auditorium is provided by wall mounted fixtures on the sides of the auditorium.

There are several locations in corridors where exit signs are not visible from each direction and need to be added. Also, there are a few signs that are not illuminated or have reached the end of their useful life and need to be replaced. An allowance for adding or replacing (10) exit signs is included in this report.

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

Conveying Systems-- The building does not have an elevator. The addition of an elevator is recommended to meet ADA requirements.

GROUNDS

The paved parking area on the northern parking area appears to have been a part of the renovation effort to reopen the school. This drive and parking area is in good condition with very few minor issues and there are no recommendations required at this time.

The sidewalk system is original to the buildings construction in most areas. As indicated in the photos there is ongoing work in progress to replace sections of the sidewalk. However, there are a several areas of cracking concrete but no tripping hazards. This deficiency provides a budgetary consideration to upgrade the sidewalk system to eliminate existing issues that are not addressed by this current effort.

The perimeter Fencing has a few minor blemishes but overall is good condition and was recently repainted to extend the life of the system. There are no recommendations required at this time.

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

The trash dumpster is located in the parking lot open to the students and to the public. The exterior services are not protected. Upgrades to protect the exterior services and trash area are recommended.

Site Lighting--Site lighting is provided by metal halide floodlighting fixtures mounted along the roof on the north and south sides of the building. There are also a few wall pack floodlights on the west side of the building. All fixtures are in good condition with an estimated 10 years of useful life remaining. Other than the wall mounted fixtures at the egress doors, there are no other wall or pole mounted site lighting fixtures.

Site Video Surveillance System-- There are only two exterior video surveillance cameras on the building that cover the south and west sides of the building. It is recommended that three (3) exterior cameras be added to provide coverage for the east and north sides of the building.

RECOMMENDATIONS

- Remove and replace vinyl sheet flooring
- Replace auditorium seating
- Remove and replace stage curtain
- Remove and replace or install new scoreboard
- Remove and replace or install basketball backstop and hoop
- Add hydraulic elevator - 3 floors
- Remove and replace suspended acoustic ceilings
- Repair and repaint all interior walls
- Remove and replace wood flooring
- Remove and replace vinyl sheet flooring
- Remove VAT and replace with VCT
- Replace inadequate or install proper stair railing - select appropriate material
- Upgrade Signage
- Remove chalkboards upgrade to white boards
- Upgrade tackboards
- Upgrade interior doors

- Upgrade select corridor doors
- Remodel Science labs
- Remove temp walls and upgrade to perm
- Upgrade exterior door system
- Upgrade window systems
- Repair exterior brick surfaces
- Replace roof
- Sidewalk upgrade
- Dumpster enclosure
- Landscaping upgrade
- Provide a four pipe fan coil system with roof mounted outside air system ducted to each fan coil unit. Provide a fan coil unit for each classroom and main office area. Include new heat exchanger and pump for hot water, piping, control valves and controls, to replace steam heating system.
- Remove existing window air conditioners and provide a three hundred ton air cooled package chiller on the roof with pumps, piping and controls. Connect to new fan coil units and air handling units.
- Inspect fuel oil storage tanks for condition and damage.
- Install NFPA wet pipe automatic sprinkler system in entire building, including fire service, piping sprinkler heads, standpipes and fire pump if required.
- Inspect old cast iron sanitary piping including camera observation and replace damaged sections.
- Replace domestic hot and cold water pipe, fittings, valves, hangers and insulation.
- Provide a new central station air handling unit for the auditorium 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.
- Install new direct digital control system and building automation system with remote computer control capability and graphics package.
- Provide two new central station air handling units for the cafeteria sections A and B 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.
- Provide a new central station air handling unit for the gymnasium 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.
- Replace older duplex sump pump in space adjacent to boiler room.
- Provide a new pad mounted service transformer and service entrance. Replace existing Main Switchboard and service distribution equipment panelboards, safety switches and phase converter transformers with a 3000A, 208/120V, 3 phase, 4 wire service switchboard with associated feeder circuit breakers and feeders to serve added central air conditioning equipment, an elevator addition, and a fire pump (if required).
- Replace 120/240V, 1 phase panelboards in corridors on Floors B, 1, 2 and 3 and in the kitchen. Total of (15) panelboards.
- Provide an allowance to add surface metal raceway system and 5 to 6 duplex receptacles in each of 50 classrooms.
- Provide allowance to replace eight (8) duplex receptacles in the kitchen with ground-fault circuit-interrupting type.
- Replace lighting fixtures and wiring in 50 classrooms and library (approximately 40,900 SF).
- Replace (16) metal halide lighting industrial fixtures in each of the two gymnasiums in the Basement with LED lighting fixtures.
- Replace lighting fixtures in the auditorium with aesthetically appropriate dimmable LED fixtures (Approximately 5,837 SF).
- Replace stage dimmer control board.
- Replace fluorescent lighting fixtures in offices, restrooms, kitchen, cafeterias, locker rooms, and other miscellaneous rooms (approximately 19,200 SF).
- Replace fire alarm system with an addressable type system, including pull stations, smoke and heat detectors, and audible and visual notification appliances.
- Replace standby generator system to be sized for all emergency egress and exit lighting, elevator addition and fire pump (if required). Provide branch circuiting for additional emergency egress and exit lighting.
- Provide an allowance for adding or replacing (10) exit signs that are damaged or missing.
- Provide three (3) video surveillance cameras on the exterior of the building to provide coverage on the east and north sides.

Attributes:

General Attributes:

Active:	Open	Bldg Lot Tm:	Lot 2 / Tm 1
Status:	Accepted by SDP	Team:	Tm 1
Site ID:	S510001		

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.

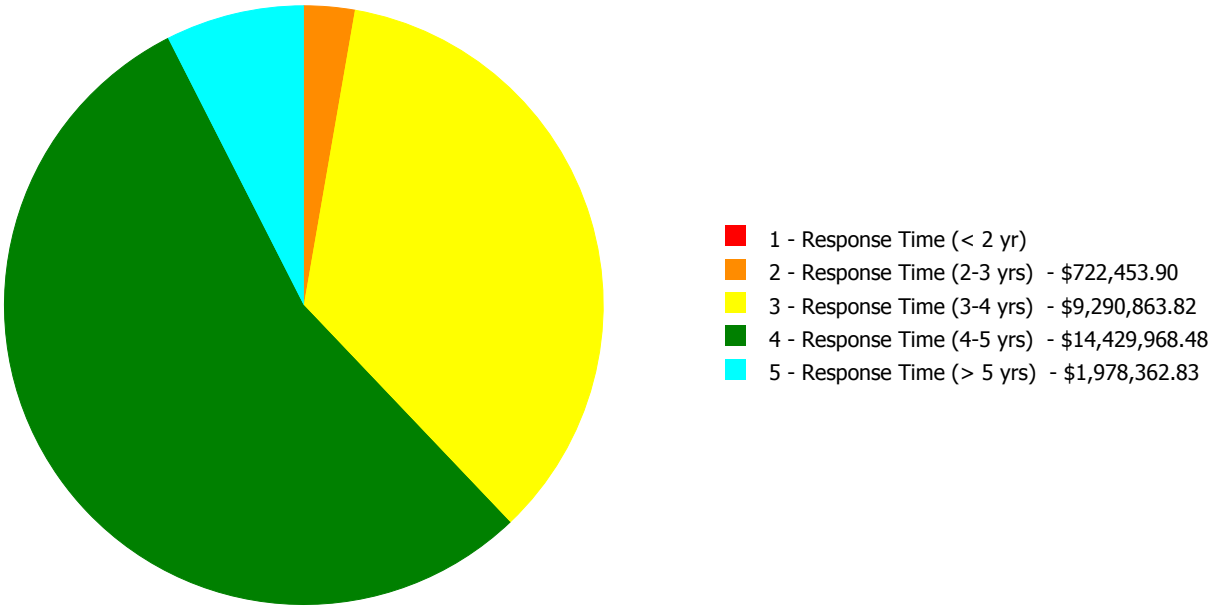
Current Investment Requirement and Condition by Uniformat Classification

UNIFORMAT Classification	RSLI%	FCI %	Current Repair
A10 - Foundations	12.00 %	0.00 %	$0.00
A20 - Basement Construction	12.00 %	0.00 %	$0.00
B10 - Superstructure	12.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	18.56 %	42.83 %	$3,367,593.64
B30 - Roofing	59.97 %	89.59 %	$982,578.32
C10 - Interior Construction	16.86 %	93.13 %	$2,696,786.97
C20 - Stairs	12.00 %	18.72 %	$31,138.92
C30 - Interior Finishes	58.77 %	20.15 %	$1,219,024.62
D10 - Conveying	100.00 %	275.70 %	$497,751.74
D20 - Plumbing	74.52 %	41.88 %	$990,453.83
D30 - HVAC	101.09 %	87.98 %	$10,344,234.88
D40 - Fire Protection	92.47 %	177.49 %	$1,688,044.11
D50 - Electrical	99.79 %	54.79 %	$3,800,540.56
E10 - Equipment	34.29 %	9.00 %	$169,140.91
E20 - Furnishings	30.00 %	229.18 %	$576,029.59
G20 - Site Improvements	35.55 %	5.78 %	$58,330.94
G40 - Site Electrical Utilities	75.00 %	0.00 %	$0.00
Totals:	**52.38 %**	**44.62 %**	**$26,421,649.03**

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)
B510001;Jones	118,000	45.58	$0.00	$722,453.90	$9,272,011.30	$14,390,490.06	$1,978,362.83
G510001;Grounds	62,100	4.26	$0.00	$0.00	$18,852.52	$39,478.42	$0.00
Total:		**44.62**	**$0.00**	**$722,453.90**	**$9,290,863.82**	**$14,429,968.48**	**$1,978,362.83**

Deficiencies By Priority



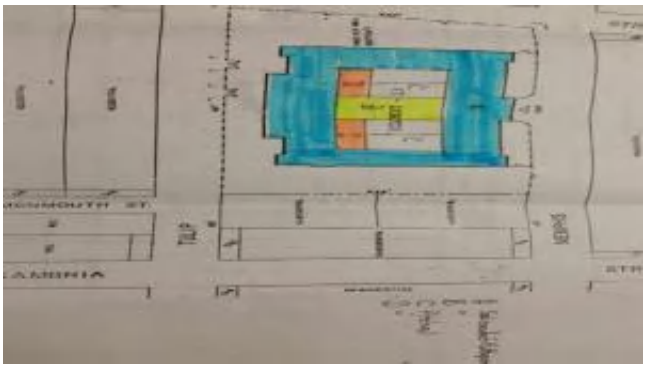
Budget Estimate Total: $26,421,649.03

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:	Middle School
Gross Area (SF):	118,000
Year Built:	1924
Last Renovation:	
Replacement Value:	$57,842,410
Repair Cost:	$26,363,318.09
Total FCI:	45.58 %
Total RSLI:	52.53 %



Description:

Attributes:

General Attributes:

Active:	Open	Bldg ID:	B510001
Sewage Ejector:	No	Status:	Accepted by SDP
Site ID:	S510001		

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	12.00 %	0.00 %	$0.00
A20 - Basement Construction	12.00 %	0.00 %	$0.00
B10 - Superstructure	12.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	18.56 %	42.83 %	$3,367,593.64
B30 - Roofing	59.97 %	89.59 %	$982,578.32
C10 - Interior Construction	16.86 %	93.13 %	$2,696,786.97
C20 - Stairs	12.00 %	18.72 %	$31,138.92
C30 - Interior Finishes	58.77 %	20.15 %	$1,219,024.62
D10 - Conveying	100.00 %	275.70 %	$497,751.74
D20 - Plumbing	74.52 %	41.88 %	$990,453.83
D30 - HVAC	101.09 %	87.98 %	$10,344,234.88
D40 - Fire Protection	92.47 %	177.49 %	$1,688,044.11
D50 - Electrical	99.79 %	54.79 %	$3,800,540.56
E10 - Equipment	34.29 %	9.00 %	$169,140.91
E20 - Furnishings	30.00 %	229.18 %	$576,029.59
Totals:	**52.53 %**	**45.58 %**	**$26,363,318.09**

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	$23.16	S.F.	118,000	100	1924	2024	2027	12.00 %	0.00 %	12			$2,732,880
A1030	Slab on Grade	$5.17	S.F.	118,000	100	1924	2024	2027	12.00 %	0.00 %	12			$610,060
A2010	Basement Excavation	$4.36	S.F.	118,000	100	1924	2024	2027	12.00 %	0.00 %	12			$514,480
A2020	Basement Walls	$10.05	S.F.	118,000	100	1924	2024	2027	12.00 %	0.00 %	12			$1,185,900
B1010	Floor Construction	$85.94	S.F.	118,000	100	1924	2024	2027	12.00 %	0.00 %	12			$10,140,920
B1020	Roof Construction	$9.26	S.F.	29,000	100	1924	2024	2027	12.00 %	0.00 %	12			$268,540
B2010	Exterior Walls	$43.78	S.F.	118,000	100	1924	2024	2027	12.00 %	12.50 %	12		$645,789.44	$5,166,040
B2020	Exterior Windows	$21.40	S.F.	118,000	40	1950	1990	2027	30.00 %	100.57 %	12		$2,539,657.78	$2,525,200
B2030	Exterior Doors	$1.45	S.F.	118,000	25	1995	2020	2027	48.00 %	106.46 %	12		$182,146.42	$171,100
B3010105	Built-Up	$37.76	S.F.	29,000	20	1990	2010	2027	60.00 %	89.73 %	12		$982,578.32	$1,095,040
B3020	Roof Openings	$0.06	S.F.	29,000	30	1990	2020	2027	40.00 %	0.00 %	12			$1,740
C1010	Partitions	$17.91	S.F.	118,000	100	1924	2024	2027	12.00 %	54.29 %	12		$1,147,365.25	$2,113,380
C1020	Interior Doors	$3.51	S.F.	118,000	40	1924	1964	2027	30.00 %	334.03 %	12		$1,383,470.26	$414,180
C1030	Fittings	$3.12	S.F.	118,000	40	1924	1964	2027	30.00 %	45.08 %	12		$165,951.46	$368,160
C2010	Stair Construction	$1.41	S.F.	118,000	100	1924	2024	2027	12.00 %	18.72 %	12		$31,138.92	$166,380
C3010230	Paint & Covering	$13.21	S.F.	80,000	10	1924	1934	2027	120.00 %	6.41 %	12		$67,738.77	$1,056,800
C3010232	Wall Tile	$2.63	S.F.	38,000	30	1924	1954	2027	40.00 %	0.00 %	12			$99,940
C3020411	Carpet	$7.30	S.F.	5,000	10	2015	2025	2027	120.00 %	0.00 %	12			$36,500

Site Assessment Report - B510001;Jones

System Code	System Description	Unit Price $	UoM	Qty	Life	Year Installed	Calc Next Renewal Year	Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency $	Replacement Value $
C3020412	Terrazzo & Tile	$75.52	S.F.	8,000	50	1924	1974	2027	24.00 %	0.00 %	12			$604,160
C3020413	Vinyl Flooring	$9.68	S.F.	20,000	20	2015	2035	2027	60.00 %	103.98 %	12		$201,311.57	$193,600
C3020414	Wood Flooring	$22.27	S.F.	70,000	25	1924	1949	2027	48.00 %	56.10 %	12		$874,562.13	$1,558,900
C3020415	Concrete Floor Finishes	$0.97	S.F.	25,000	50	1924	1974	2027	24.00 %	0.00 %	12			$24,250
C3030	Ceiling Finishes	$20.97	S.F.	118,000	25	1990	2015	2027	48.00 %	3.05 %	12		$75,412.15	$2,474,460
D1010	Elevators and Lifts	$1.53	S.F.	118,000	35	1924	1959	2050	100.00 %	275.70 %	35		$497,751.74	$180,540
D2010	Plumbing Fixtures	$13.52	S.F.	118,000	35	2005	2040		71.43 %	0.00 %	25			$1,595,360
D2020	Domestic Water Distribution	$1.68	S.F.	118,000	25			2042	108.00 %	246.85 %	27		$489,354.25	$198,240
D2030	Sanitary Waste	$2.52	S.F.	118,000	30			2047	106.67 %	168.52 %	32		$501,099.58	$297,360
D2040	Rain Water Drainage	$2.32	S.F.	118,000	30			2025	33.33 %	0.00 %	10			$273,760
D3020	Heat Generating Systems	$18.67	S.F.	118,000	35	2005	2040		71.43 %	0.00 %	25			$2,203,060
D3030	Cooling Generating Systems	$24.48	S.F.	118,000	30			2047	106.67 %	67.94 %	32		$1,962,508.32	$2,888,640
D3040	Distribution Systems	$42.99	S.F.	118,000	25			2042	108.00 %	123.56 %	27		$6,268,180.81	$5,072,820
D3050	Terminal & Package Units	$11.60	S.F.		20				0.00 %	0.00 %				$0
D3060	Controls & Instrumentation	$13.50	S.F.	118,000	20			2037	110.00 %	132.68 %	22		$2,113,545.75	$1,593,000
D4010	Sprinklers	$7.05	S.F.	118,000	35			2052	105.71 %	202.91 %	37		$1,688,044.11	$831,900
D4020	Standpipes	$1.01	S.F.	118,000	35				0.00 %	0.00 %				$119,180
D5010	Electrical Service/Distribution	$9.70	S.F.	118,000	30	1924	1954	2047	106.67 %	114.55 %	32		$1,311,140.07	$1,144,600
D5020	Lighting and Branch Wiring	$34.68	S.F.	118,000	20	1924	1944	2037	110.00 %	37.82 %	22		$1,547,810.08	$4,092,240
D5030	Communications and Security	$12.99	S.F.	118,000	15	1924	1939	2025	66.67 %	32.60 %	10		$499,717.50	$1,532,820
D5090	Other Electrical Systems	$1.41	S.F.	118,000	30	1924	1954	2047	106.67 %	265.58 %	32		$441,872.91	$166,380
E1020	Institutional Equipment	$4.82	S.F.	118,000	35	1924	1959	2027	34.29 %	29.74 %	12		$169,140.91	$568,760
E1090	Other Equipment	$11.10	S.F.	118,000	35	1924	1959	2027	34.29 %	0.00 %	12			$1,309,800
E2010	Fixed Furnishings	$2.13	S.F.	118,000	40	1924	1964	2027	30.00 %	229.18 %	12		$576,029.59	$251,340
								Total	**52.53 %**	**45.58 %**			**$26,363,318.09**	**$57,842,410**

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: Marble 10 %
Brick 20 %
Tile 10 %
Painted plaster 60%

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

Note: Carpet 5%
Terrazzo / Marble 7%
Vinyl 14%
Wood 54%
Concrete 20%

System: D1010 - Elevators and Lifts — This system contains no images

Note: There is no existing elevator in this building.

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

Note: There are four (4) phase converter transformers from 240V, 2 phase to 208/120V, 3 phase. Transformer sizes are 15, 30 75 and 100 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:	**$26,363,318**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$2,670,682**	**$29,034,000**
*** A - Substructure**	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
*** A10 - Foundations**	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A1010 - Standard Foundations	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A1030 - Slab on Grade	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
*** A20 - Basement Construction**	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A2010 - Basement Excavation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A2020 - Basement Walls	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B - Shell	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B10 - Superstructure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B1010 - Floor Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B1020 - Roof Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B20 - Exterior Enclosure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B2010 - Exterior Walls	$645,789	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$645,789**
B2020 - Exterior Windows	$2,539,658	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$2,539,658**
B2030 - Exterior Doors	$182,146	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$182,146**
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	$982,578	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$982,578**
B3020 - Roof Openings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C - Interiors	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C10 - Interior Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C1010 - Partitions	$1,147,365	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,147,365**
C1020 - Interior Doors	$1,383,470	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,383,470**
C1030 - Fittings	$165,951	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$165,951**
C20 - Stairs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

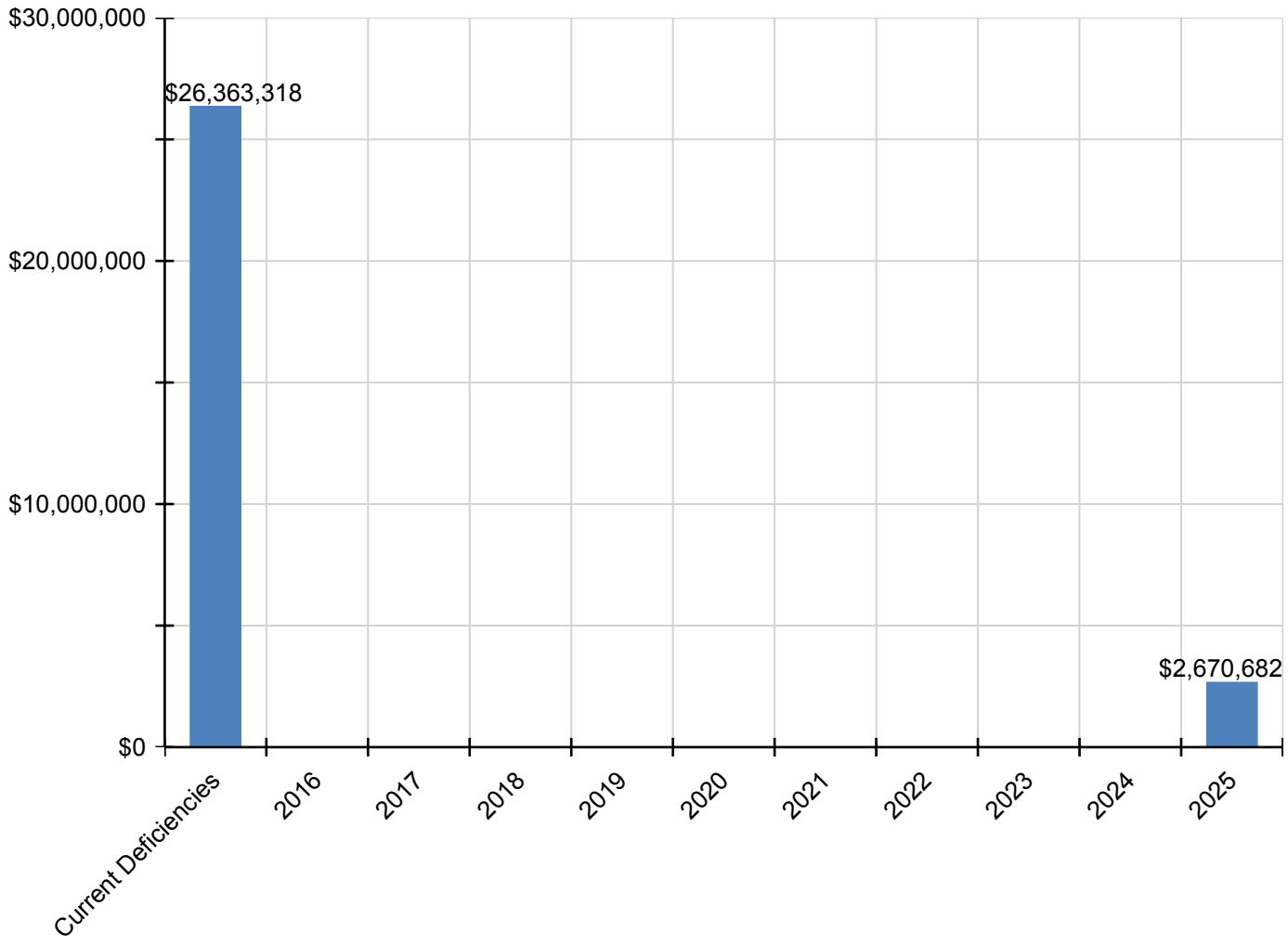
C2010 - Stair Construction	$31,139	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$31,139**
C30 - Interior Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010 - Wall Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010230 - Paint & Covering	$67,739	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$67,739**
C3010232 - Wall Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020 - Floor Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020411 - Carpet	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020412 - Terrazzo & Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020413 - Vinyl Flooring	$201,312	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$201,312**
C3020414 - Wood Flooring	$874,562	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$874,562**
C3020415 - Concrete Floor Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3030 - Ceiling Finishes	$75,412	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$75,412**
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	$497,752	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$497,752**
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	$489,354	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$489,354**
D2030 - Sanitary Waste	$501,100	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$501,100**
D2040 - Rain Water Drainage	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$404,702	**$404,702**
D30 - HVAC	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3020 - Heat Generating Systems	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3030 - Cooling Generating Systems	$1,962,508	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,962,508**
D3040 - Distribution Systems	$6,268,181	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$6,268,181**
D3050 - Terminal & Package Units	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3060 - Controls & Instrumentation	$2,113,546	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$2,113,546**
D40 - Fire Protection	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D4010 - Sprinklers	$1,688,044	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,688,044**
D4020 - Standpipes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D50 - Electrical	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D5010 - Electrical Service/Distribution	$1,311,140	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,311,140**
D5020 - Lighting and Branch Wiring	$1,547,810	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,547,810**
D5030 - Communications and Security	$499,718	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,265,980	**$2,765,698**

D5090 - Other Electrical Systems	$441,873	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$441,873**
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	$169,141	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$169,141**
E1090 - Other Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E20 - Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E2010 - Fixed Furnishings	$576,030	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$576,030**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

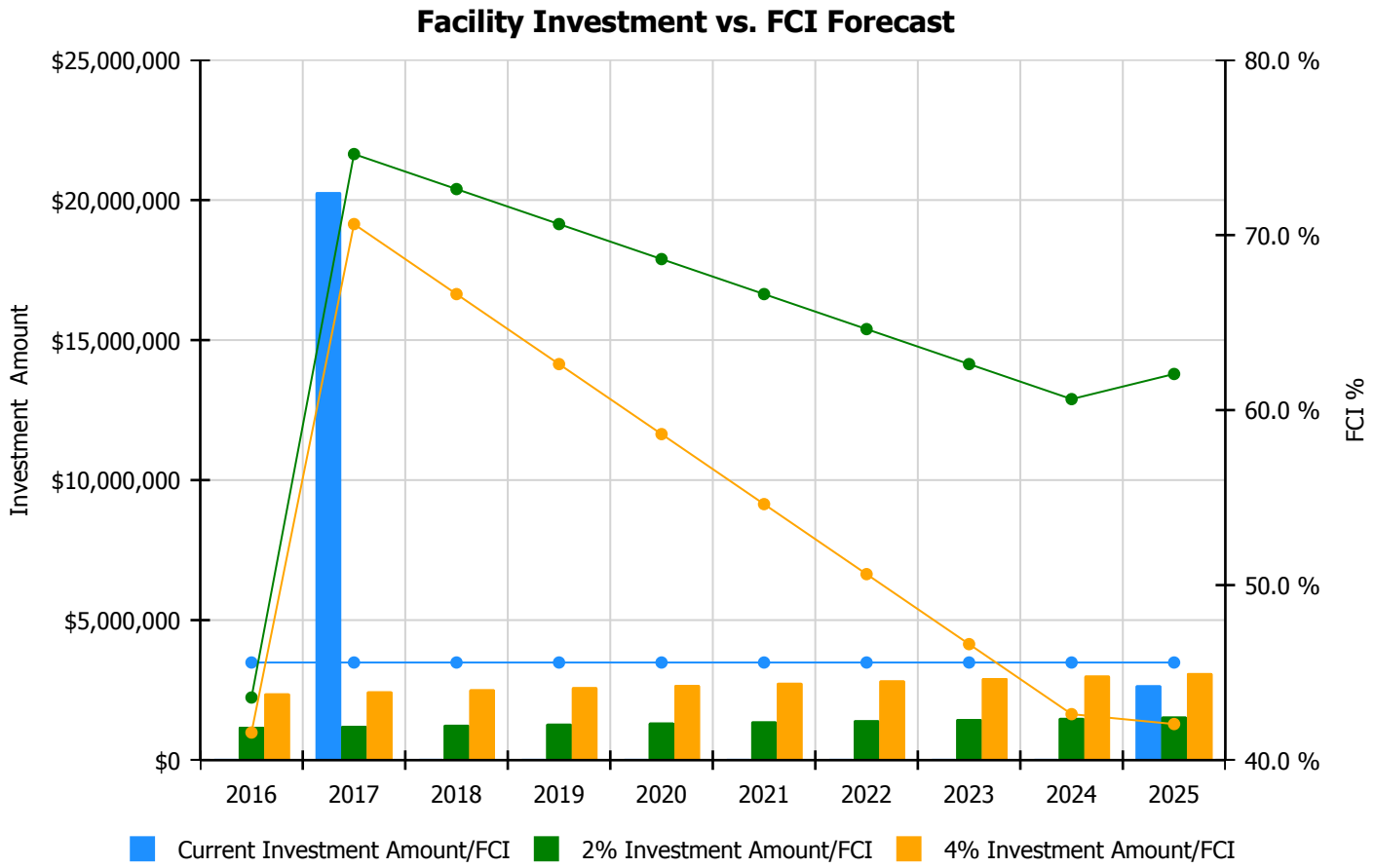
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



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:

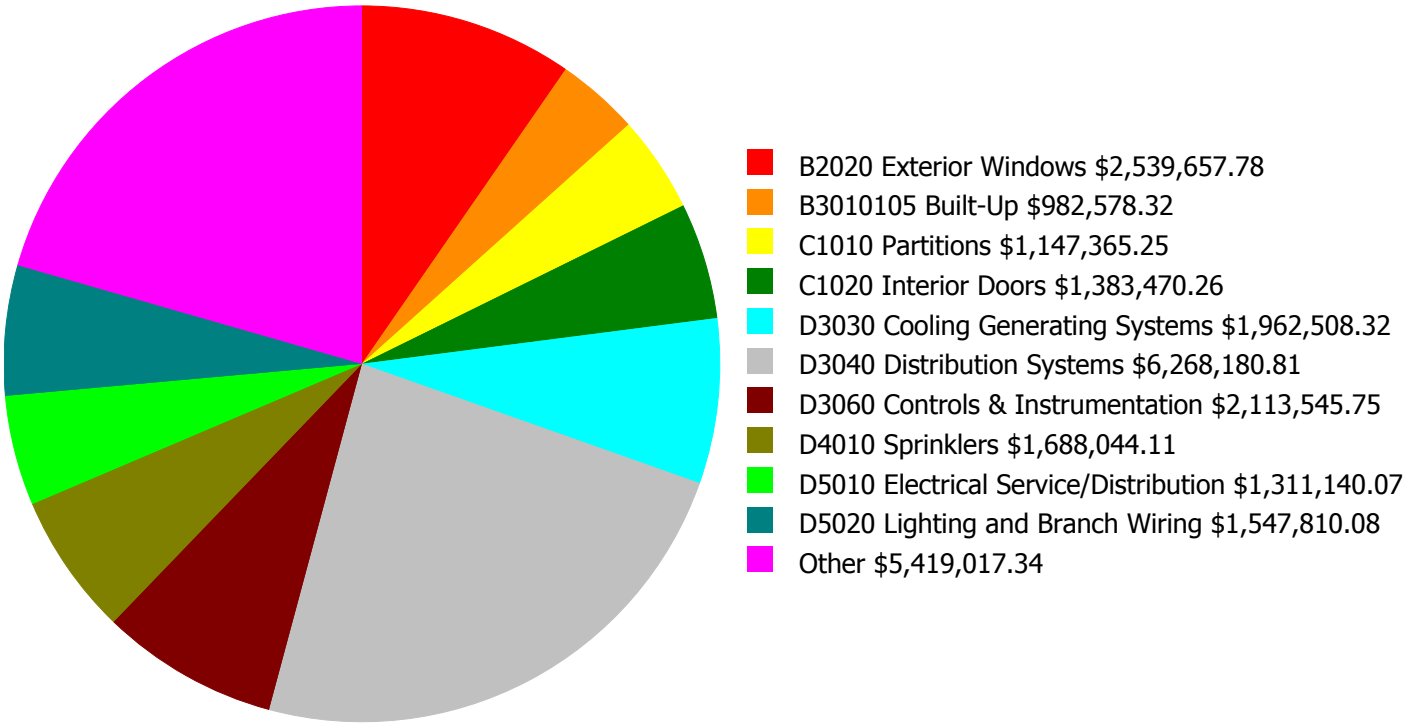
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 45.58%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$1,191,554.00	43.58 %	$2,383,107.00	41.58 %
2017	$20,280,512	$1,227,300.00	74.63 %	$2,454,601.00	70.63 %
2018	$0	$1,264,119.00	72.63 %	$2,528,239.00	66.63 %
2019	$0	$1,302,043.00	70.63 %	$2,604,086.00	62.63 %
2020	$0	$1,341,104.00	68.63 %	$2,682,208.00	58.63 %
2021	$0	$1,381,337.00	66.63 %	$2,762,674.00	54.63 %
2022	$0	$1,422,777.00	64.63 %	$2,845,555.00	50.63 %
2023	$0	$1,465,461.00	62.63 %	$2,930,921.00	46.63 %
2024	$0	$1,509,425.00	60.63 %	$3,018,849.00	42.63 %
2025	$2,670,682	$1,554,707.00	62.06 %	$3,109,414.00	42.06 %
Total:	**$22,951,194**	**$13,659,827.00**		**$27,319,654.00**	

Deficiency Summary by System

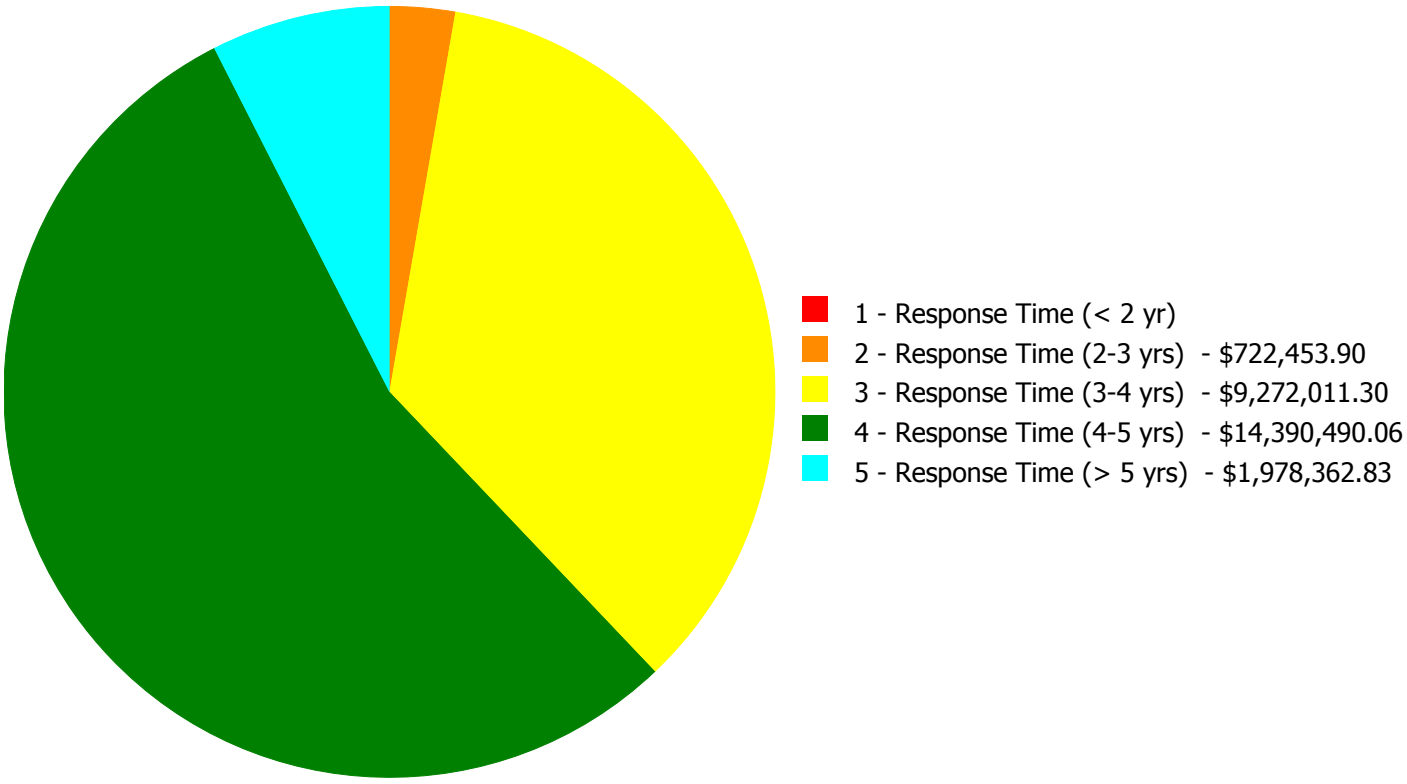
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $26,363,318.09

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: $26,363,318.09

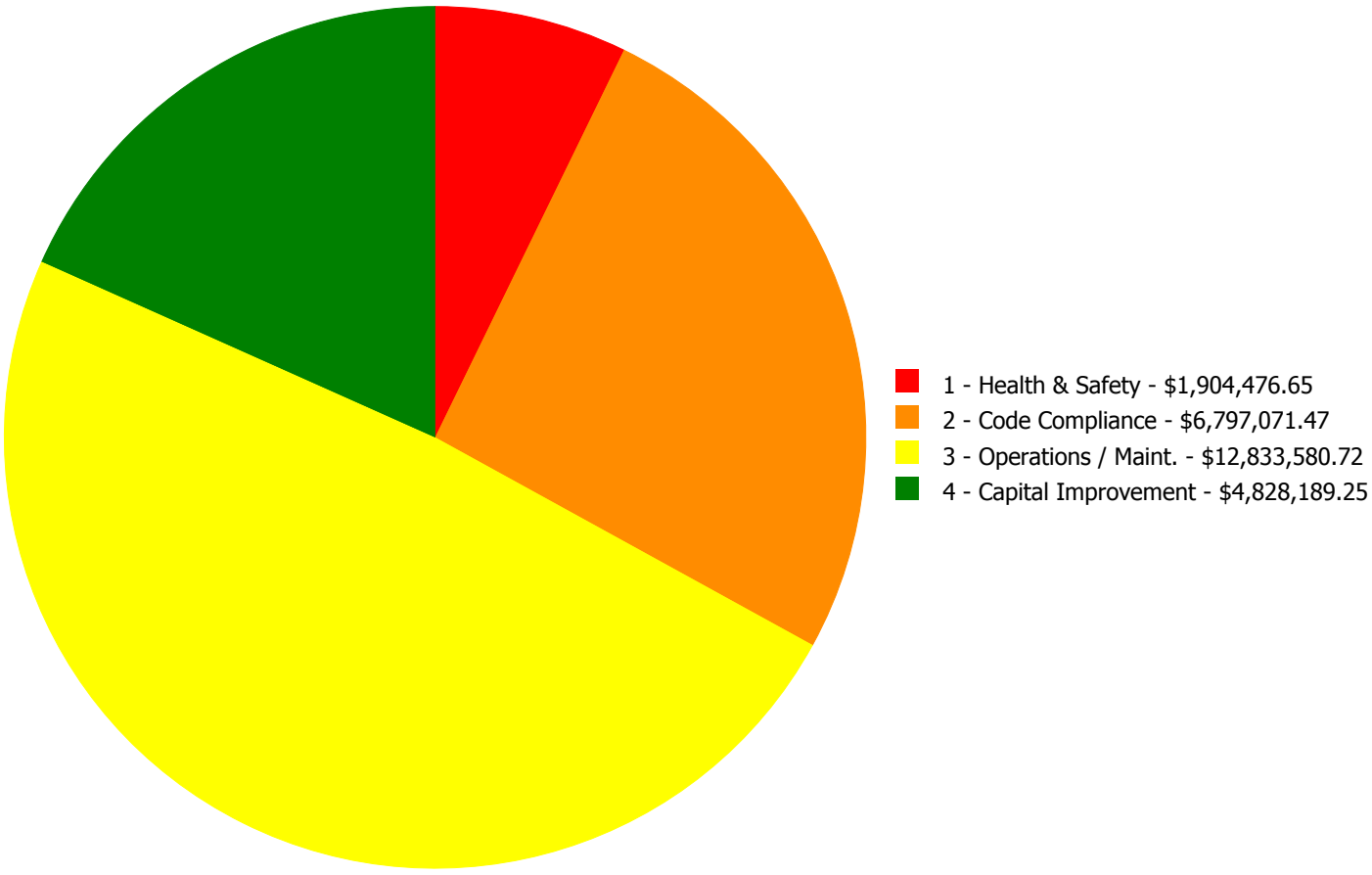
Deficiency By Priority Investment Table

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	$645,789.44	$0.00	$0.00	$645,789.44
B2020	Exterior Windows	$0.00	$0.00	$2,539,657.78	$0.00	$0.00	$2,539,657.78
B2030	Exterior Doors	$0.00	$0.00	$182,146.42	$0.00	$0.00	$182,146.42
B3010105	Built-Up	$0.00	$0.00	$982,578.32	$0.00	$0.00	$982,578.32
C1010	Partitions	$0.00	$0.00	$89,118.00	$1,058,247.25	$0.00	$1,147,365.25
C1020	Interior Doors	$0.00	$190,823.48	$1,192,646.78	$0.00	$0.00	$1,383,470.26
C1030	Fittings	$0.00	$0.00	$0.00	$150,096.95	$15,854.51	$165,951.46
C2010	Stair Construction	$0.00	$31,138.92	$0.00	$0.00	$0.00	$31,138.92
C3010230	Paint & Covering	$0.00	$0.00	$67,738.77	$0.00	$0.00	$67,738.77
C3020413	Vinyl Flooring	$0.00	$0.00	$0.00	$201,311.57	$0.00	$201,311.57
C3020414	Wood Flooring	$0.00	$0.00	$0.00	$874,562.13	$0.00	$874,562.13
C3030	Ceiling Finishes	$0.00	$0.00	$75,412.15	$0.00	$0.00	$75,412.15
D1010	Elevators and Lifts	$0.00	$497,751.74	$0.00	$0.00	$0.00	$497,751.74
D2020	Domestic Water Distribution	$0.00	$0.00	$0.00	$489,354.25	$0.00	$489,354.25
D2030	Sanitary Waste	$0.00	$0.00	$0.00	$501,099.58	$0.00	$501,099.58
D3030	Cooling Generating Systems	$0.00	$0.00	$0.00	$0.00	$1,962,508.32	$1,962,508.32
D3040	Distribution Systems	$0.00	$0.00	$0.00	$6,268,180.81	$0.00	$6,268,180.81
D3060	Controls & Instrumentation	$0.00	$0.00	$0.00	$2,113,545.75	$0.00	$2,113,545.75
D4010	Sprinklers	$0.00	$0.00	$0.00	$1,688,044.11	$0.00	$1,688,044.11
D5010	Electrical Service/Distribution	$0.00	$0.00	$1,311,140.07	$0.00	$0.00	$1,311,140.07
D5020	Lighting and Branch Wiring	$0.00	$2,739.76	$1,275,126.36	$269,943.96	$0.00	$1,547,810.08
D5030	Communications and Security	$0.00	$0.00	$456,403.09	$43,314.41	$0.00	$499,717.50
D5090	Other Electrical Systems	$0.00	$0.00	$441,872.91	$0.00	$0.00	$441,872.91
E1020	Institutional Equipment	$0.00	$0.00	$0.00	$169,140.91	$0.00	$169,140.91
E2010	Fixed Furnishings	$0.00	$0.00	$12,381.21	$563,648.38	$0.00	$576,029.59
	Total:	$0.00	$722,453.90	$9,272,011.30	$14,390,490.06	$1,978,362.83	$26,363,318.09

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: $26,363,318.09

Deficiency Details by Priority

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

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

System: C1020 - Interior Doors

Location: Building Wide

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 40.00

Unit of Measure: Ea.

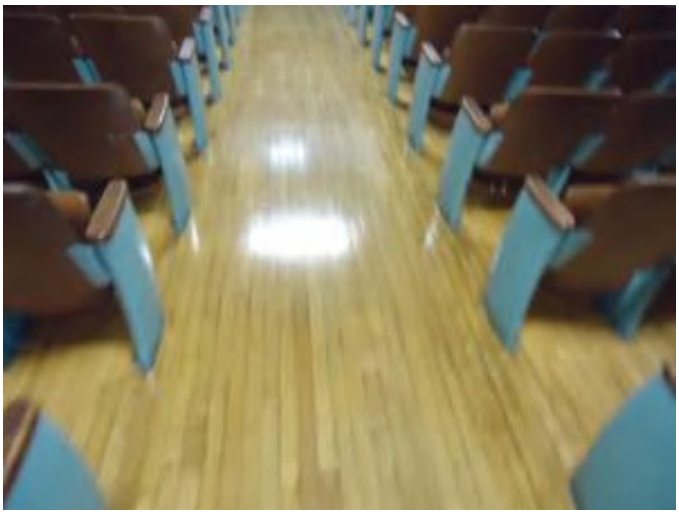
Estimate: $190,823.48

Assessor Name: System

Date Created: 10/15/2015

Notes: A large portion of the interior corridor, exit stair doors are not code compliant. Several doors are typically metal in metal frames with transom lites or sidelights, glass glazing. The older doors are generally in good condition considering the age of the application. To restore the door finishes, universal upgrades are required for the older door applications. Remove and replace original door systems with new code compliant fire rated door system.

System: C2010 - Stair Construction



Location: Stairs

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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

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

Qty: 2,000.00

Unit of Measure: L.F.

Estimate: $31,138.92

Assessor Name: System

Date Created: 10/15/2015

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: D1010 - Elevators and Lifts

Location: Building Wide

Distress: Accessibility

Category: 2 - Code Compliance

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

Correction: Add interior hydraulic elevator - 3 floors - adjust the electrical run lengths to hook up the elevator

Qty: 1.00

Unit of Measure: Ea.

Estimate: $497,751.74

Assessor Name: System

Date Created: 10/15/2015

Notes: There is no elevator that services this school. Goods, services, and amenities offered in public buildings are generally required to be available to all persons. To assist those that may be physically challenged and to meet current accessibility legislation to provide wheelchair access to the upper floors of this facility, the installation of a new hydraulic elevator has been recommended on the southern elevation of the building or at another suitable location. The new installation should blend as much as possible with the overall appearance of this historic structure and include all required ADA features, such as audible jewels and gongs, an accessible control panel, etc.

System: D5020 - Lighting and Branch Wiring

Location: Kitchen

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

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

Correction: Replace Wiring Device

Qty: 8.00

Unit of Measure: Ea.

Estimate: $2,739.76

Assessor Name: System

Date Created: 10/22/2015

Notes: Provide allowance to replace eight (8) duplex receptacles in the kitchen with ground-fault circuit-interrupting type.

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

System: B2010 - Exterior Walls

Location: Exterior Elevation

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 20,000.00

Unit of Measure: S.F.

Estimate: $645,789.44

Assessor Name: System

Date Created: 10/13/2015

Notes: The exterior brick surfaces are generally in fair to good condition for their age. As indicated in the photos major areas of the exterior brick finish has been painted. 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. During this effort the exterior painted surfaces are expected to be clean of previous painted materials. 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: B2020 - Exterior Windows

Location: Exterior Windows

Distress: Damaged

Category: 3 - Operations / Maint.

Priority: 3 - Response Time (3-4 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: $2,539,657.78

Assessor Name: System

Date Created: 10/13/2015

Notes: Most of the exterior windows have been upgraded from the original applications. As indicated in the photos several of the windows appear to be original. A majority of the window system is estimated to have been installed in the 1990's. Several of the windows
no longer work and will require attention prior to an overall effort. Overall, the windows are in fair condition based on the year of installation or last renovation. The entire 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: 3 - Response Time (3-4 yrs)

Correction: Remove and replace exterior doors - per leaf

Qty: 20.00

Unit of Measure: Ea.

Estimate: $182,146.42

Assessor Name: System

Date Created: 10/13/2015

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. Also, there are several double door systems that has been upgraded from the original construction. As indicated in the photo the concrete step does not meet the length of the door thus
allowing a trap hazard. Special consideration for a new door system is required and a modification to the exterior step removing the hazard.

System: B3010105 - Built-Up

Location: Roof

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and Replace Built Up Roof

Qty: 29,000.00

Unit of Measure: S.F.

Estimate: $982,578.32

Assessor Name: System

Date Created: 10/13/2015

Notes: There are a number of roof sections and different roof elevations ranging from the main roof to the mechanical roof. Parapet heights, coping materials, and the height of the flashing also varies in different sections. The main roof is a built up application
that was installed in the early 1990'S. The other built up roofs have not conclusive installation dates and have been seal coated several times to extend the life cycle of the application. Considering the age and condition of the roofing systems, universal
upgrades are recommended. Remove and replace all roof sections.

System: C1010 - Partitions

Location: Classrooms

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Remove folding wood partitions; replace with metal studs and gypsum board painted

Qty: 4,000.00

Unit of Measure: S.F.

Estimate: $89,118.00

Assessor Name: System

Date Created: 10/13/2015

Notes: There are several movable partitions that remain in classrooms. These wall systems are no longer used and in most cases cannot be used due to damage or wall modifications to support classroom needs. This deficiency provides a budgetary consideration to remove and replace the wall systems with universal removal of the existing movable partitions and upgrades to a permeate wall systems.

System: C1020 - Interior Doors

Location: Classrooms

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 250.00

Unit of Measure: Ea.

Estimate: $1,192,646.78

Assessor Name: System

Date Created: 10/15/2015

Notes: The interior door system is original to the buildings construction. Interior doors are typically wood in wood frames with glass glazing. Several doors are damaged and replacement glass panes have been installed to replace damaged doors panes. Complaint during the time of the construction of this school the interior doors no longer compliant with today's standards. Doors are generally in fair condition considering the age of the application. 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: C3010230 - Paint & Covering

Location: Building Wide

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 10,000.00

Unit of Measure: S.F.

Estimate: $67,738.77

Assessor Name: System

Date Created: 10/15/2015

Notes: There are several minor areas of wall damage that ranges from serious to minor. As indicated in the photos the exterior walls appear to be the main source of the damage. The auditorium exterior hallway wall and walls that face the exterior will require immediate attention. Although the school is on a cyclical program of renewal and each painted surface is renewed at years end this system is at the point in which repairs are necessary. Remove damaged wall finishes and repair areas then apply primer and paint finish.

System: C3030 - Ceiling Finishes

Location: Building Wide

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 5,000.00

Unit of Measure: S.F.

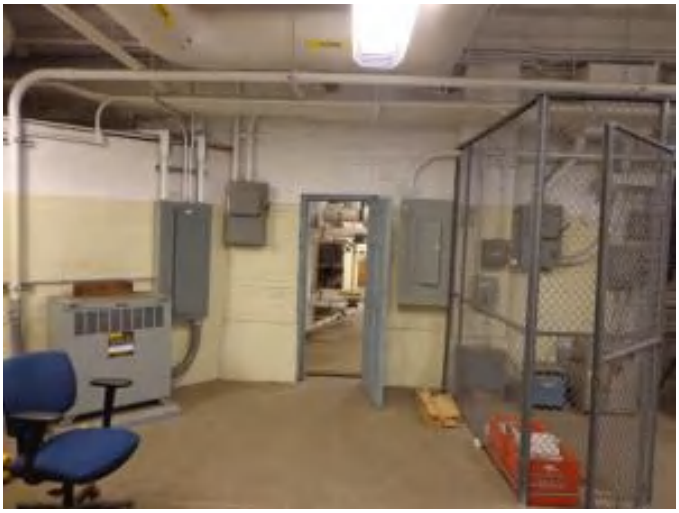
Estimate: $75,412.15

Assessor Name: System

Date Created: 10/15/2015

Notes: The ceiling finish is a mix of 12 x 12 ceiling grid, painted and 2 x 4 Acoustical tile finish. The ceilings are damaged from leaks and abuse, several repairs have been completed in specific areas and is in good condition considering the age of the application and the current condition of the school. This deficiency provides a budgetary consideration for removal and replacement of the current ceiling finish in damaged areas and also to add 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: D5010 - Electrical Service/Distribution



Location: Main Electrical Room

Distress: Obsolete

Category: 3 - Operations / Maint.

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

Correction: Replace Switchboard

Qty: 1.00

Unit of Measure: Ea.

Estimate: $851,415.84

Assessor Name: System

Date Created: 10/22/2015

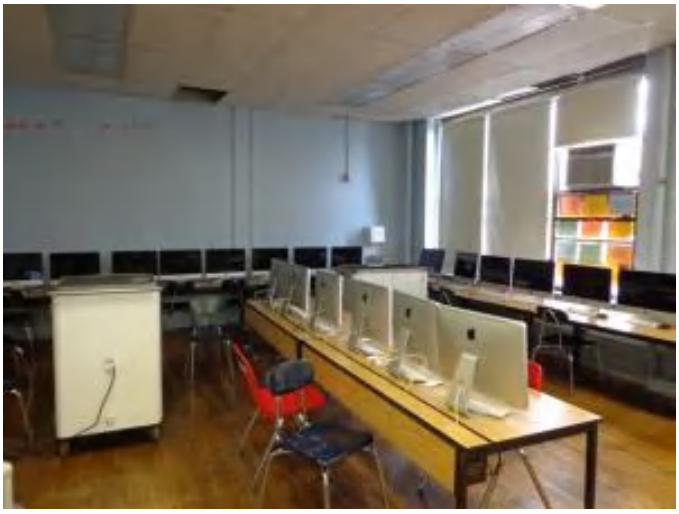
Notes: Provide a new pad mounted service transformer and service entrance. Replace existing Main Switchboard and service distribution equipment panelboards, safety switches and phase converter transformers with a 3000A, 208/120V, 3 phase, 4 wire service switchboard with associated feeder circuit breakers and feeders to serve added central air conditioning equipment, an elevator addition, and a fire pump (if required).

System: D5010 - Electrical Service/Distribution

Location: Corridors and Kitchen
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 3 - Response Time (3-4 yrs)
Correction: Replace Panelboard
Qty: 15.00
Unit of Measure: Ea.
Estimate: $459,724.23
Assessor Name: System
Date Created: 10/22/2015

Notes: Replace 120/240V, 1 phase panelboards in corridors on Floors B, 1, 2 and 3 and in the kitchen. Total of (15) panelboards.

System: D5020 - Lighting and Branch Wiring



Location: Classrooms
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 3 - Response Time (3-4 yrs)
Correction: Replace Lighting Fixtures (SF)
Qty: 40,900.00
Unit of Measure: S.F.
Estimate: $845,135.08
Assessor Name: System
Date Created: 10/22/2015

Notes: Replace lighting fixtures and wiring in 50 classrooms and library (approximately 40,900 SF).

System: D5020 - Lighting and Branch Wiring

Location: Various rooms
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 3 - Response Time (3-4 yrs)
Correction: Replace Lighting Fixtures (SF)
Qty: 19,200.00
Unit of Measure: S.F.
Estimate: $324,339.02
Assessor Name: System
Date Created: 10/22/2015

Notes: Replace fluorescent lighting fixtures in offices, restrooms, kitchen, cafeterias, locker rooms, and other miscellaneous rooms (approximately 19,200 SF).

System: D5020 - Lighting and Branch Wiring

Location: Gymnasiums
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 3 - Response Time (3-4 yrs)
Correction: Replace lighting fixtures
Qty: 32.00
Unit of Measure: Ea.
Estimate: $105,652.26
Assessor Name: System
Date Created: 10/22/2015

Notes: Replace (16) metal halide lighting industrial fixtures in each of the two gymnasiums in the Basement with LED lighting fixtures.

System: D5030 - Communications and Security

Location: Building wide

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace fire alarm system

Qty: 118,000.00

Unit of Measure: S.F.

Estimate: $456,403.09

Assessor Name: System

Date Created: 10/22/2015

Notes: Replace fire alarm system with an addressable type system, including pull stations, smoke and heat detectors, and audible and visual notification appliances.

System: D5090 - Other Electrical Systems

Location: Basement Electrical Room

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Replace standby generator system

Qty: 1.00

Unit of Measure: Ea.

Estimate: $430,015.72

Assessor Name: System

Date Created: 10/22/2015

Notes: Replace standby generator system to be sized for all emergency egress and exit lighting, elevator addition and fire pump (if required). Provide branch circuiting for additional emergency egress and exit lighting.

System: D5090 - Other Electrical Systems

Location: Building wide

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Replace Emergency/Exit Lighting

Qty: 10.00

Unit of Measure: Ea.

Estimate: $11,857.19

Assessor Name: System

Date Created: 10/22/2015

Notes: Provide an allowance for adding or replacing (10) exit signs that are damaged or missing.

System: E2010 - Fixed Furnishings

Location: Stage

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

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

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

Qty: 1.00

Unit of Measure: Ea.

Estimate: $12,381.21

Assessor Name: System

Date Created: 10/15/2015

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 4 - Response Time (4-5 yrs):

System: C1010 - Partitions

Location: Science Labs

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 3.00

Unit of Measure: Ea.

Estimate: $1,058,247.25

Assessor Name: System

Date Created: 10/15/2015

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

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: 10/15/2015

Notes: SIGNAGE
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: C1030 - Fittings

Location: Classrooms

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 100.00

Unit of Measure: Ea.

Estimate: $68,823.21

Assessor Name: System

Date Created: 10/15/2015

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 chalkboards to new marker board systems.

System: C3020413 - Vinyl Flooring

Location: Gym

Distress: Health Hazard / Risk

Category: 1 - Health & Safety

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

Correction: Remove and replace vinyl sheet flooring

Qty: 10,000.00

Unit of Measure: S.F.

Estimate: $183,111.57

Assessor Name: System

Date Created: 10/15/2015

Notes: The older Gym floors appear to have 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 from the Gyms.

System: C3020413 - Vinyl Flooring

Location: Room 109

Distress: Health Hazard / Risk

Category: 1 - Health & Safety

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

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

Qty: 1,200.00

Unit of Measure: S.F.

Estimate: $18,200.00

Assessor Name: System

Date Created: 10/15/2015

Notes: The floor finish for this school is a combination of carpet in the administrative area, tile in the kitchen and service line areas, wooden classrooms with concrete hallways and stirs finishes and a vinyl tile or concrete finish. The vinyl tile finish 9 x 9 application in room 109 and is suspect to contain asbestos. This finish is recommended for upgrade to a new 12 x 12 vinyl tile application.

System: C3020414 - Wood Flooring

Location: Classrooms

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace wood flooring

Qty: 30,000.00

Unit of Measure: S.F.

Estimate: $874,562.13

Assessor Name: System

Date Created: 10/15/2015

Notes: The classrooms and auditorium in this school have a wooden floor finish. Most of the classrooms appears to be from original construction. However, the auditorium is in like new condition. The classroom system is showing signs of age such as the effects of sanding and refinishing with yearly cleaning and waxing with some repairs. The floor finish is in fair condition however, the finish is beyond its expected life cycle. It is recommended that the wooden floor finish be removed and replaced with an in kind finish.

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 (150 KSF)

Qty: 118,000.00

Unit of Measure: S.F.

Estimate: $489,354.25

Assessor Name: System

Date Created: 10/22/2015

Notes: Replace domestic hot and cold water pipe, fittings, valves, hangers and insulation.

System: D2030 - Sanitary Waste

Location: entire building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 118,000.00

Unit of Measure: S.F.

Estimate: $501,099.58

Assessor Name: System

Date Created: 10/22/2015

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

System: D3040 - Distribution Systems

Location: entire building

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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

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

Qty: 64.00

Unit of Measure: C

Estimate: $5,315,903.25

Assessor Name: System

Date Created: 10/22/2015

Notes: Provide a four pipe fan coil system with roof mounted outside air system ducted to each fan coil unit. Provide a fan coil unit for each classroom and main office area. Include new heat exchanger and pump for hot water, piping, control valves and controls, to replace steam heating system.

System: D3040 - Distribution Systems

Location: auditorium

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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

Correction: Install / replace HVAC unit for Auditorium (800 seat).

Qty: 738.00

Unit of Measure: Seat

Estimate: $412,740.30

Assessor Name: System

Date Created: 10/22/2015

Notes: Provide a new central station air handling unit for the auditorium 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.

System: D3040 - Distribution Systems

Location: cafeterias a,b

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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

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

Qty: 577.00

Unit of Measure: Pr.

Estimate: $269,768.63

Assessor Name: System

Date Created: 10/22/2015

Notes: Provide two new central station air handling units for the cafeteria sections A and B 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.

System: D3040 - Distribution Systems

Location: cafeterias a,b

Distress: Building / MEP Codes

Category: 2 - Code Compliance

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

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

Qty: 577.00

Unit of Measure: Pr.

Estimate: $269,768.63

Assessor Name: System

Date Created: 10/23/2015

Notes: Provide two new central station air handling units for the cafeteria sections A and B 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.

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 (150KSF)

Qty: 118,000.00

Unit of Measure: S.F.

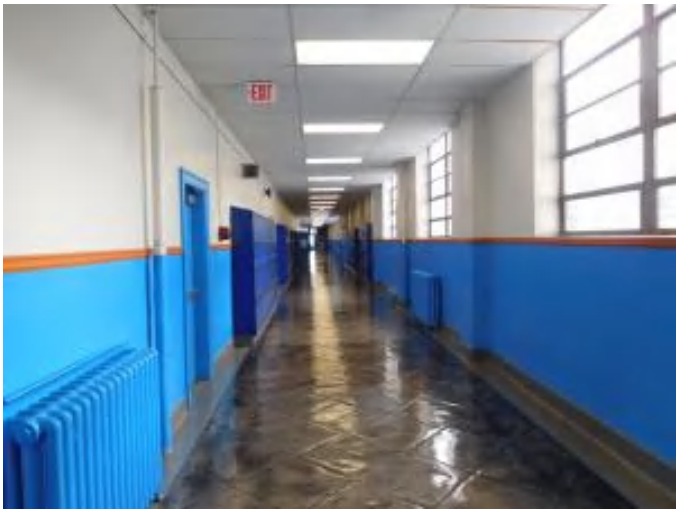
Estimate: $2,113,545.75

Assessor Name: System

Date Created: 10/22/2015

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: 118,000.00

Unit of Measure: S.F.

Estimate: $1,688,044.11

Assessor Name: System

Date Created: 10/22/2015

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

System: D5020 - Lighting and Branch Wiring

Location: Classrooms

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Provide surface raceway system and wiring devices

Qty: 1,500.00

Unit of Measure: L.F.

Estimate: $189,687.05

Assessor Name: System

Date Created: 10/22/2015

Notes: Provide an allowance to add surface metal raceway system and 5 to 6 duplex receptacles in each of 50 classrooms.

System: D5020 - Lighting and Branch Wiring

Location: Auditorium

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Replace Lighting Fixtures (SF)

Qty: 5,837.00

Unit of Measure: S.F.

Estimate: $80,256.91

Assessor Name: System

Date Created: 10/22/2015

Notes: Replace lighting fixtures in the auditorium with aesthetically appropriate dimmable LED fixtures (Approximately 5,837 SF).

System: D5030 - Communications and Security

Location: Building exterior

Distress: Inadequate

Category: 4 - Capital Improvement

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

Correction: Add/Replace Video Surveillance System

Qty: 3.00

Unit of Measure: Ea.

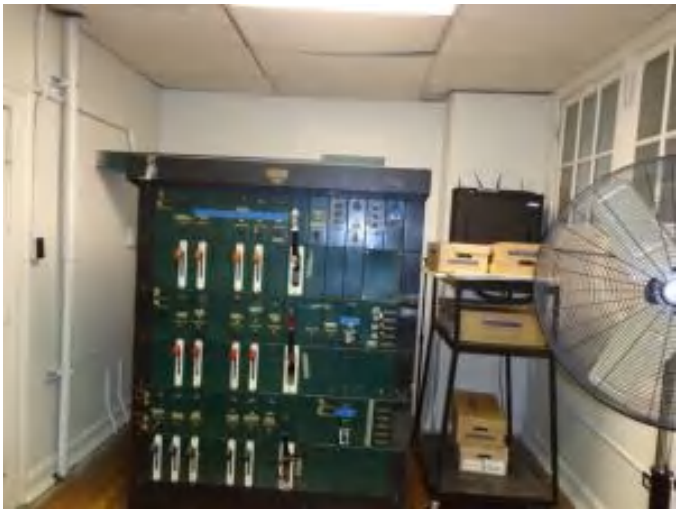
Estimate: $43,314.41

Assessor Name: System

Date Created: 10/22/2015

Notes: Provide three (3) video surveillance cameras on the exterior of the building to provide coverage on the east and north sides.

System: E1020 - Institutional Equipment



Location: Stage Dimmer Board

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Add/Replace Stage Theatrical Lighting System

Qty: 1.00

Unit of Measure: Ea.

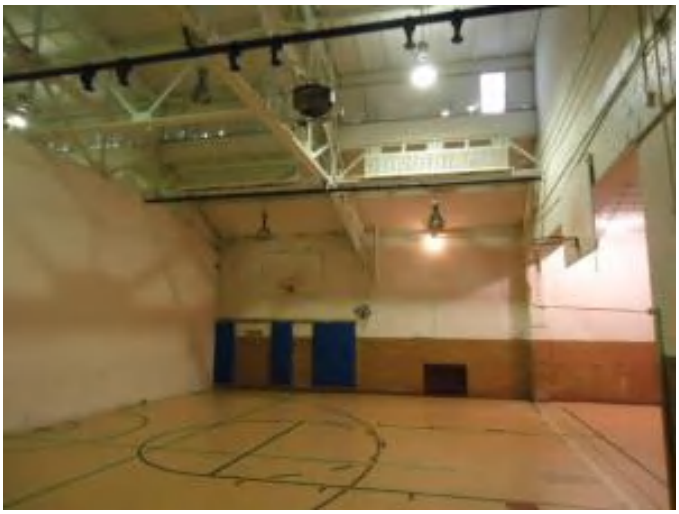
Estimate: $92,124.17

Assessor Name: System

Date Created: 10/22/2015

Notes: Replace stage dimmer control board.

System: E1020 - Institutional Equipment



Location: Gyms

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace or install basketball backstop and hoop - pick the appropriate style of backstop

Qty: 4.00

Unit of Measure: Ea.

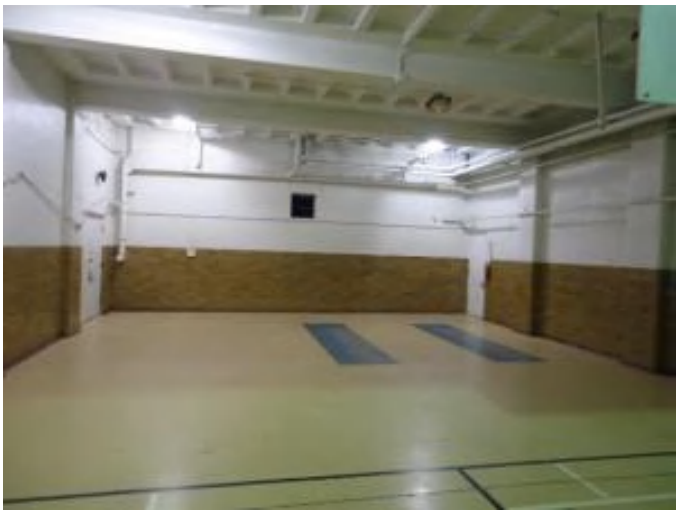
Estimate: $58,733.43

Assessor Name: System

Date Created: 10/15/2015

Notes: The boys and girls Gyms are the main areas as this schools indoor activities. The old Gyms are still used as either a student common area or practice court. The interior backboards and support equipment is beyond its service life. Damaged boards are recommended for removal and replacement.

System: E1020 - Institutional Equipment



Location: Gyms

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace or install new scoreboard - pick the appropriate scoreboard

Qty: 2.00

Unit of Measure: Ea.

Estimate: $18,283.31

Assessor Name: System

Date Created: 10/15/2015

Notes: The practice Gyms or Boy's and Girl's Gyms each have a single scoreboard that appears to be from the early 1950's and no longer functions. This deficiency provides a budgetary consideration for the removal and replacement of each scoreboard.

System: E2010 - Fixed Furnishings

Location: Auditorium

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 600.00

Unit of Measure: Ea.

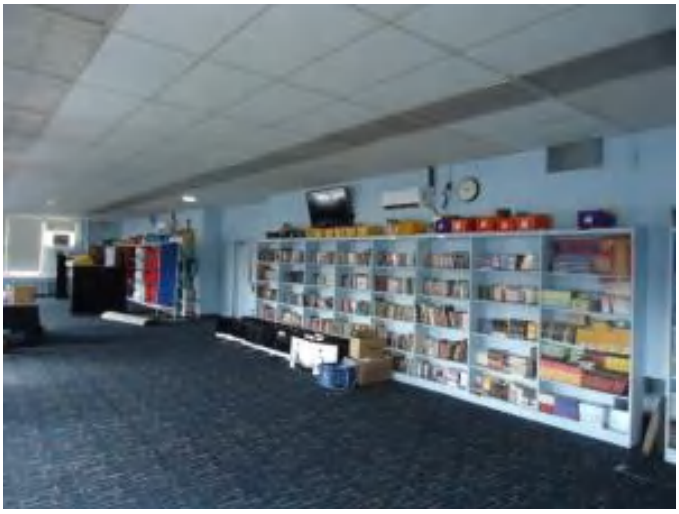
Estimate: $541,143.31

Assessor Name: System

Date Created: 10/15/2015

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.

System: E2010 - Fixed Furnishings



Location: Library

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Replace book cases - pick the closest book case size and number

Qty: 4.00

Unit of Measure: Ea.

Estimate: $22,505.07

Assessor Name: System

Date Created: 10/15/2015

Notes: The library equipment, theater and stage equipment and audio-visual equipment is from the original construction or latest renovation efforts of the school. The systems are in use and in fair condition however, the systems are beyond the expected life for this application and upgrades are warranted.

Priority 5 - Response Time (> 5 yrs):

System: C1030 - Fittings

Location: Hallways

Distress: Damaged

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Remove and replace tackboards - select size

Qty: 20.00

Unit of Measure: Ea.

Estimate: $15,854.51

Assessor Name: System

Date Created: 10/15/2015

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

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. (+150KSF)

Qty: 118,000.00

Unit of Measure: S.F.

Estimate: $1,962,508.32

Assessor Name: System

Date Created: 10/22/2015

Notes: Remove existing window air conditioners and provide a three hundred ton air cooled package chiller on the roof with pumps, piping and controls. Connect to new fan coil units and air handling units.

Equipment Inventory

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

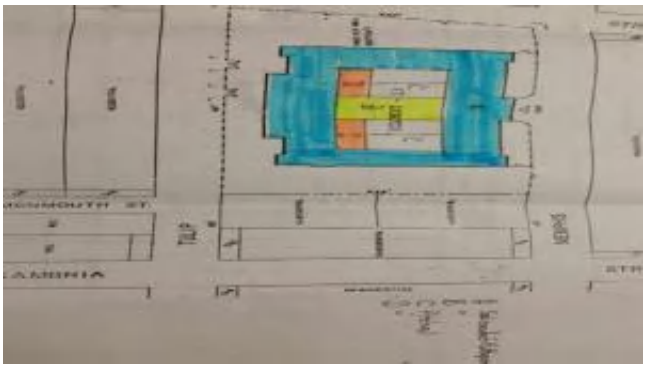
Subsystem	Inventory	Qty	UoM	Location	Manufacturer	Model Number	Serial Number	Barcode	Life	Install Date	Next Renewal	Raw Cost	Inventory Cost
D3020 Heat Generating Systems	Boiler, oil fired, flame retention burner, cast iron, steam, gross output, 6970 MBH, includes standard controls and insulated flush jacket, packaged	1.00	Ea.	mechanical	hb smith	650			35	2005	2040	$158,614.00	$174,475.40
D3020 Heat Generating Systems	Boiler, oil fired, flame retention burner, cast iron, steam, gross output, 6970 MBH, includes standard controls and insulated flush jacket, packaged	1.00	Ea.	mechanical	hb smith	650			35	2005	2040	$158,614.00	$174,475.40
D5010 Electrical Service/Distribution	Panelboard, 4 wire w/conductor & conduit, NQOD, 120/208 V, 400 A, 0 stories, 0' horizontal	1.00	Ea.	Boiler Room	Square D	Type NQOD	Cat. No. 12243533350 020001		30			$7,824.60	$8,607.06
D5010 Electrical Service/Distribution	Switchgear installation, incl switchboard, panels & circuit breaker, 120/208 V, 800 A	3.00	Ea.	Main Electric Room	Frank Adam Electric Co.	None	None		30			$21,766.05	$71,827.97
												Total:	**$429,385.83**

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):	62,100
Year Built:	1924
Last Renovation:	
Replacement Value:	$1,369,185
Repair Cost:	$58,330.94
Total FCI:	4.26 %
Total RSLI:	45.94 %



Description:

Attributes:

General Attributes:

Bldg ID:	S510001	Site ID:	S510001

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	35.55 %	5.78 %	$58,330.94
G40 - Site Electrical Utilities	75.00 %	0.00 %	$0.00
Totals:	**45.94 %**	**4.26 %**	**$58,330.94**

Condition Detail

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

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

System Listing

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

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

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

System Code	System Description	Unit Price $	UoM	Qty	Life	Year Installed	Calc Next Renewal Year	Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency $	Replacement Value $
G2010	Roadways	$11.52	S.F.		30				0.00 %	0.00 %				$0
G2020	Parking Lots	$8.50	S.F.		30				0.00 %	0.00 %				$0
G2030	Pedestrian Paving	$12.30	S.F.	58,800	40	1970	2010	2027	30.00 %	3.98 %	12		$28,765.70	$723,240
G2040	Site Development	$4.36	S.F.	62,100	25	1970	1995	2027	48.00 %	6.96 %	12		$18,852.52	$270,756
G2050	Landscaping & Irrigation	$4.36	S.F.	3,300	15	2015	2030	2027	80.00 %	74.46 %	12		$10,712.72	$14,388
G4020	Site Lighting	$4.84	S.F.	62,100	20			2030	75.00 %	0.00 %	15			$300,564
G4030	Site Communications & Security	$0.97	S.F.	62,100	20			2030	75.00 %	0.00 %	15			$60,237
								Total	**45.94 %**	**4.26 %**			**$58,330.94**	**$1,369,185**

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.

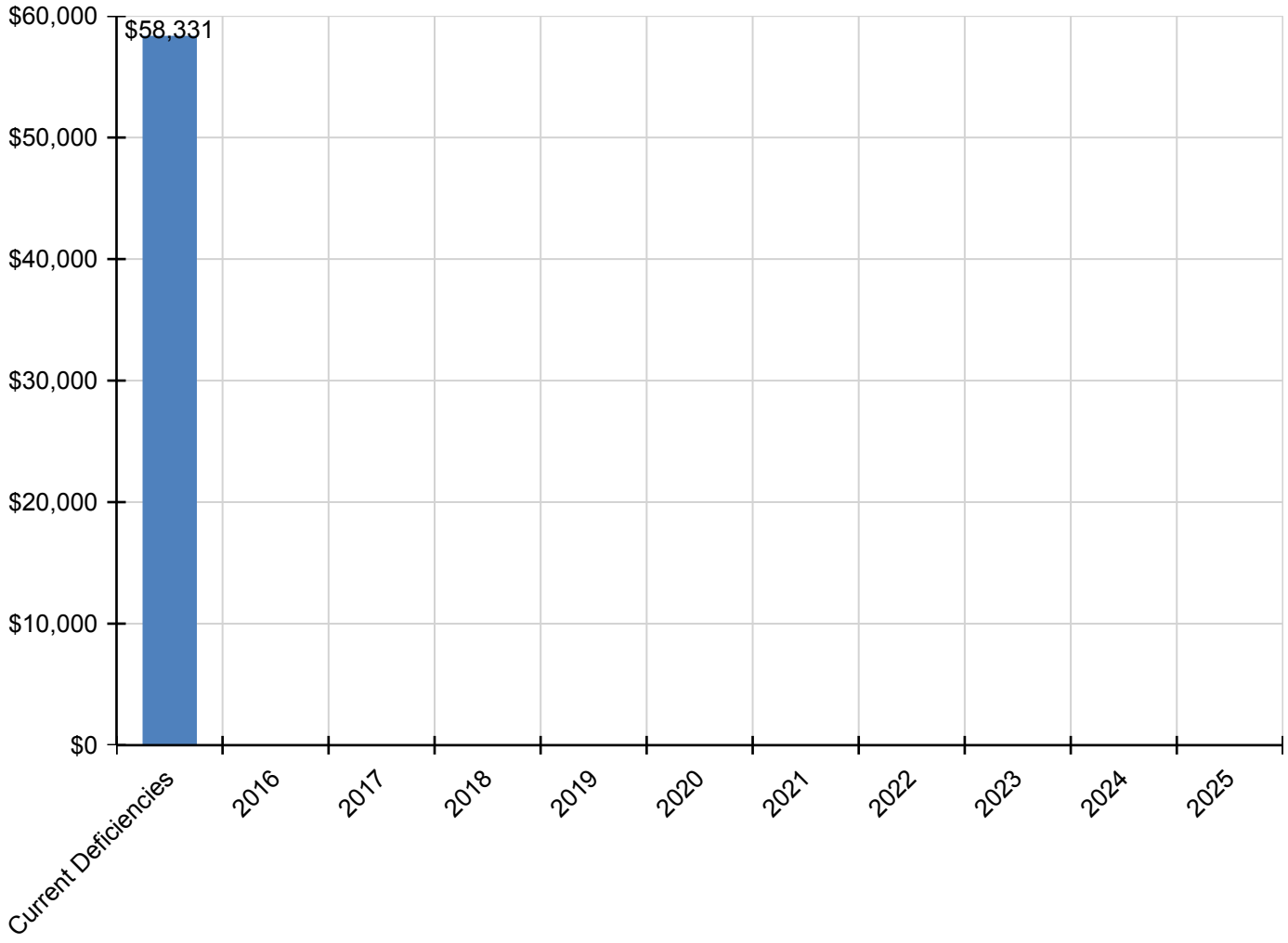
Inflation Rate: 3%

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Total:	**$58,331**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$58,331**
G - Building Sitework	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G20 - Site Improvements	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G2010 - Roadways	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G2020 - Parking Lots	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G2030 - Pedestrian Paving	$28,766	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$28,766**
G2040 - Site Development	$18,853	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$18,853**
G2050 - Landscaping & Irrigation	$10,713	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$10,713**
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.

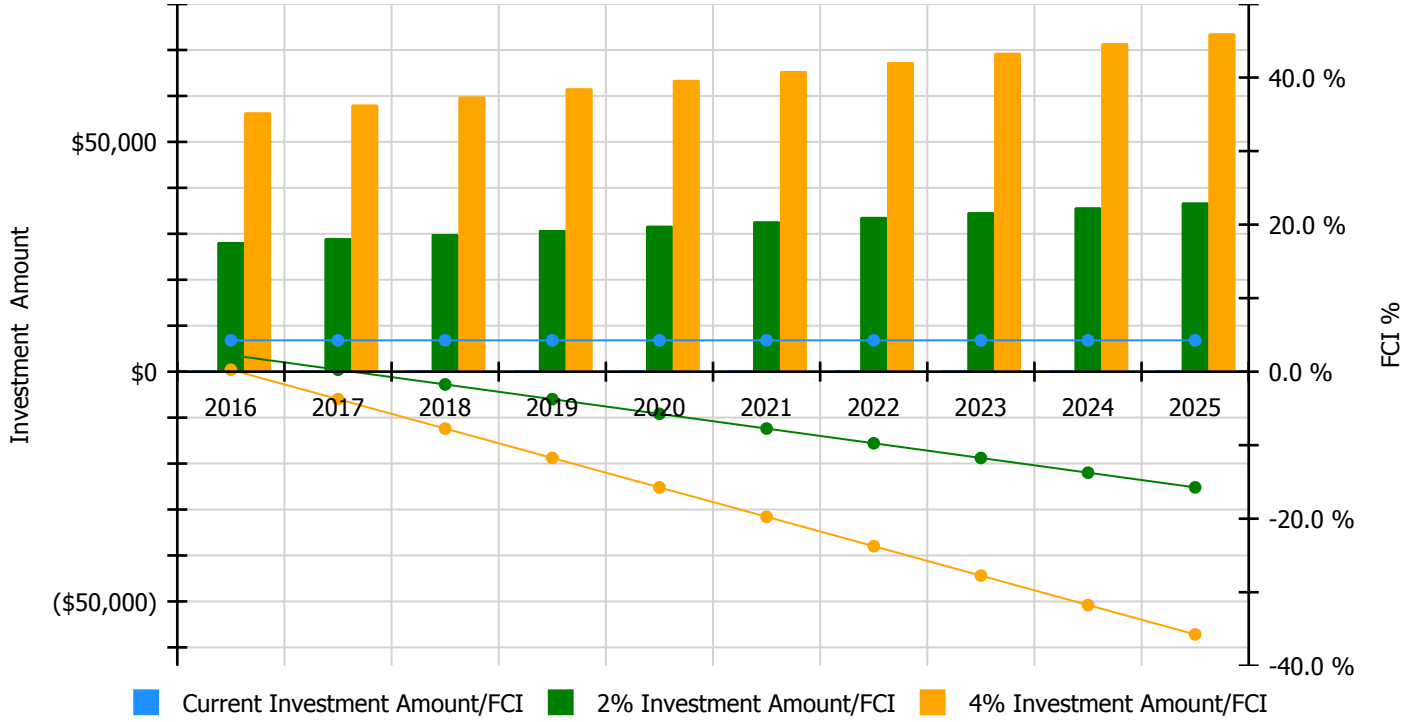


10 Year FCI Forecast by Investment Scenario

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

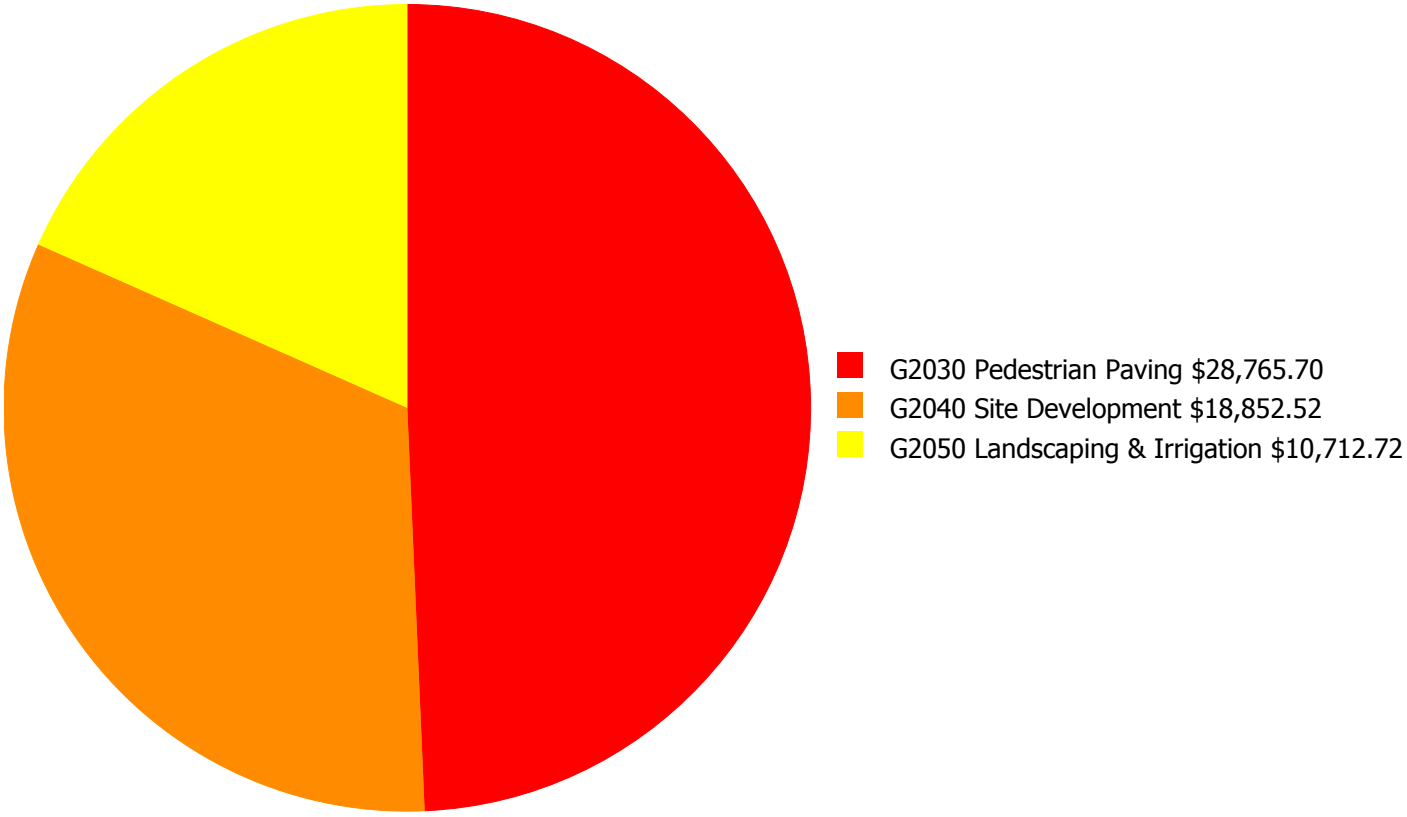
Facility Investment vs. FCI Forecast



Year	Investment Amount Current FCI - 4.26%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$28,205.00	2.26 %	$56,410.00	0.26 %
2017	$0	$29,051.00	0.26 %	$58,103.00	-3.74 %
2018	$0	$29,923.00	-1.74 %	$59,846.00	-7.74 %
2019	$0	$30,821.00	-3.74 %	$61,641.00	-11.74 %
2020	$0	$31,745.00	-5.74 %	$63,490.00	-15.74 %
2021	$0	$32,698.00	-7.74 %	$65,395.00	-19.74 %
2022	$0	$33,678.00	-9.74 %	$67,357.00	-23.74 %
2023	$0	$34,689.00	-11.74 %	$69,378.00	-27.74 %
2024	$0	$35,730.00	-13.74 %	$71,459.00	-31.74 %
2025	$0	$36,801.00	-15.74 %	$73,603.00	-35.74 %
Total:	**$0**	**$323,341.00**		**$646,682.00**	

Deficiency Summary by System

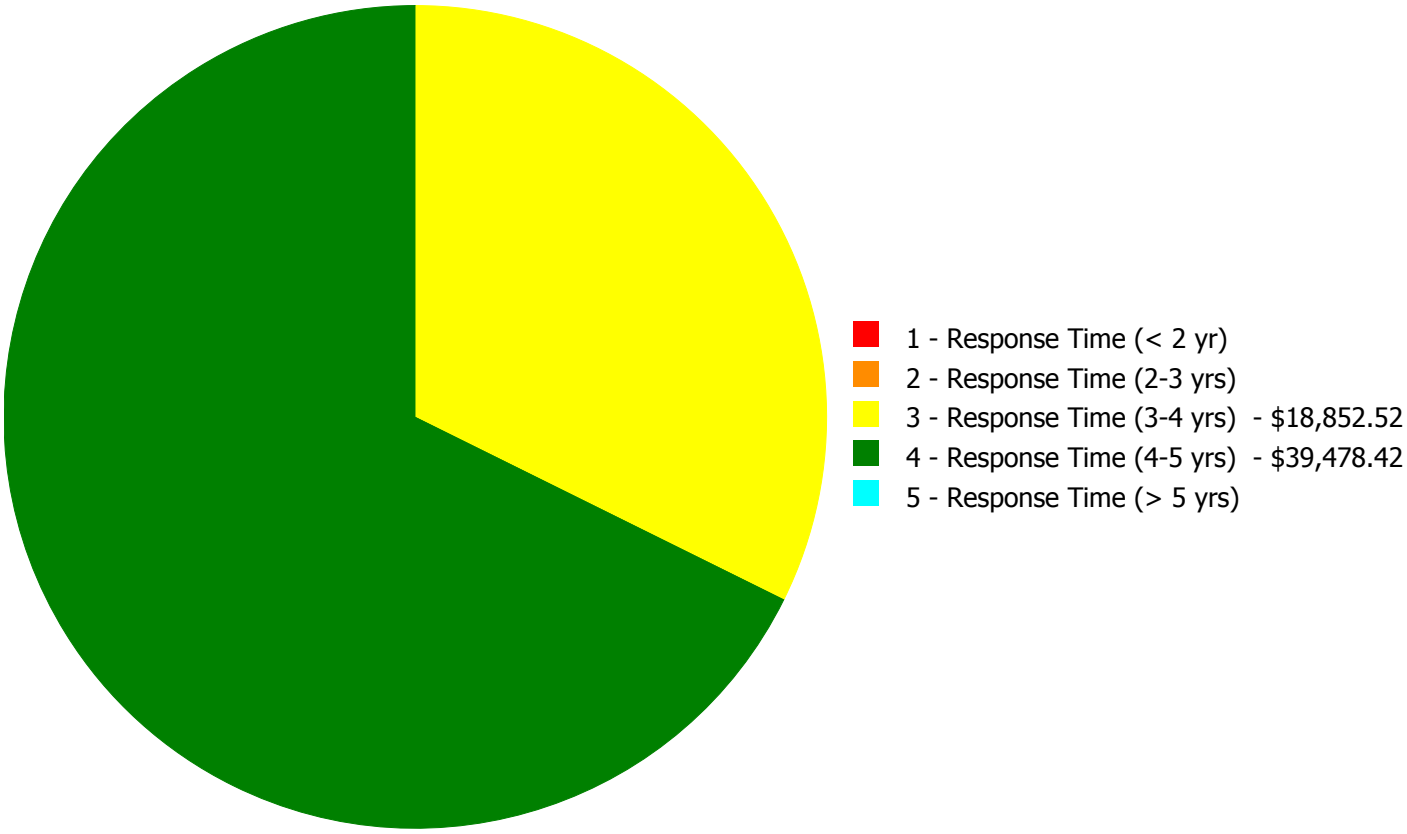
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $58,330.94

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: $58,330.94

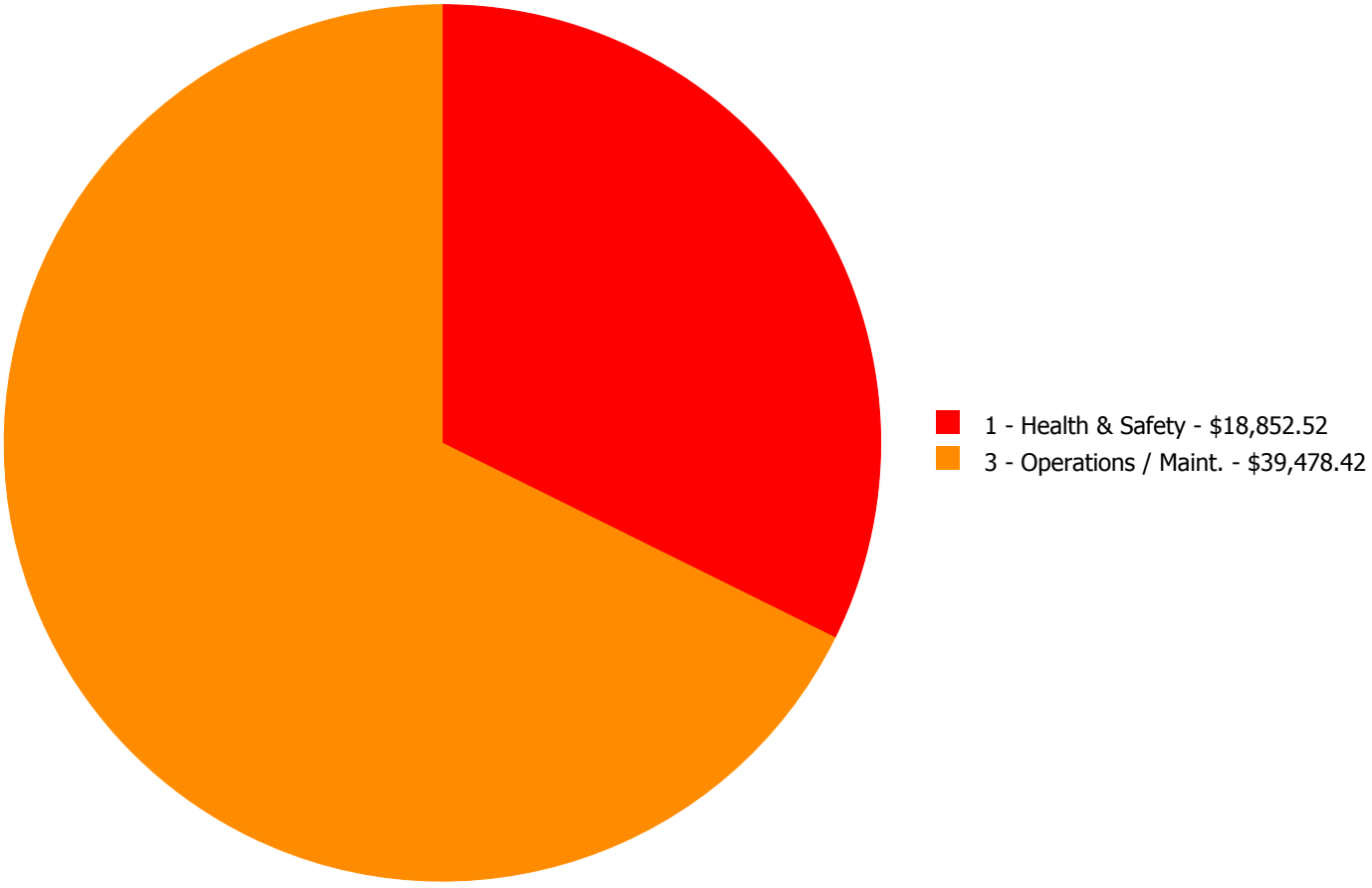
Deficiency By Priority Investment Table

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
G2030	Pedestrian Paving	$0.00	$0.00	$0.00	$28,765.70	$0.00	$28,765.70
G2040	Site Development	$0.00	$0.00	$18,852.52	$0.00	$0.00	$18,852.52
G2050	Landscaping & Irrigation	$0.00	$0.00	$0.00	$10,712.72	$0.00	$10,712.72
	Total:	$0.00	$0.00	$18,852.52	$39,478.42	$0.00	$58,330.94

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: $58,330.94

Deficiency Details by Priority

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

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

System: G2040 - Site Development

Location: Site

Distress: Health Hazard / Risk

Category: 1 - Health & Safety

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: Ben Nixon

Date Created: 10/15/2015

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 are recommended.

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

System: G2030 - Pedestrian Paving

Location: Site

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 2,000.00

Unit of Measure: S.F.

Estimate: $28,765.70

Assessor Name: Ben Nixon

Date Created: 10/15/2015

Notes: The sidewalk system is original to the buildings construction in most areas. As indicated in the photos there is ongoing work in progress to replace sections of the sidewalk. However, there are a several areas of cracking concrete but no tripping hazards. This deficiency provides a budgetary consideration to upgrade the sidewalk system to eliminate existing issues that are not addressed by this current effort.

System: G2050 - Landscaping & Irrigation

Location: Site

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 3,000.00

Unit of Measure: S.F.

Estimate: $10,712.72

Assessor Name: Ben Nixon

Date Created: 10/15/2015

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

Equipment Inventory

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

No data found for this asset

Glossary

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

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

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

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

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

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

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

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

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

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

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