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.

Feltonville Intermediate School

Governance	DISTRICT	Report Type	Elementary
Address	238 E. Wyoming Ave. Philadelphia, Pa 19120	Enrollment Grade Range	769 '03-05'
Phone/Fax	215-456-3012 / 215-456-0122	Admissions Category	Neighborhood
Website	Www.Philasd.Org/Schools/Feltonville-Intermediate	Turnaround Model	N/A

Building/System FCI Tiers

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

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

Building and Grounds

	FCI	Repair Costs	Replacement Cost
Overall	**40.14%**	**$17,133,237**	**$42,683,473**
Building	40.57 %	$16,925,121	$41,721,754
Grounds	21.64 %	$208,117	$961,719

Major Building Systems

Building System	System FCI	Repair Costs	Replacement Cost
Roof (Shows physical condition of roof)	89.44 %	$1,412,609	$1,579,330
Exterior Walls (Shows condition of the structural condition of the exterior facade)	09.85 %	$305,414	$3,100,440
Windows (Shows functionality of exterior windows)	60.40 %	$913,792	$1,512,840
Exterior Doors (Shows condition of exterior doors)	149.55 %	$182,146	$121,800
Interior Doors (Classroom doors)	181.73 %	$535,826	$294,840
Interior Walls (Paint and Finishes)	05.03 %	$55,819	$1,109,640
Plumbing Fixtures	02.96 %	$33,660	$1,135,680
Boilers	00.00 %	$0	$1,568,280
Chillers/Cooling Towers	121.19 %	$2,492,130	$2,056,320
Radiators/Unit Ventilators/HVAC	164.74 %	$5,948,957	$3,611,160
Heating/Cooling Controls	00.00 %	$0	$1,134,000
Electrical Service and Distribution	00.00 %	$0	$814,800
Lighting	00.00 %	$0	$2,913,120
Communications and Security (Cameras, Pa System and Fire Alarm)	59.37 %	$647,863	$1,091,160

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

S731001;Feltonville Intermediate

Final

Site Assessment Report

January 31, 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):	84,000
Year Built:	1936
Last Renovation:	
Replacement Value:	$42,683,473
Repair Cost:	$17,133,237.19
Total FCI:	40.14 %
Total RSLI:	68.36 %

Description:

Facility Condition Assessment
November 2015

School District of Philadelphia
Feltonville Intermediate School
238 East Wyoming Avenue
Philadelphia, PA 19120

84,000sf / 725 students / LN 07

Feltonville Intermediate School is located at 238 East Wyoming Avenue. The main entrance faces East Wyoming Avenue. This building appears to be constructed over a period of years, because the floor plan of the building is somewhat rambling and the exterior is constructed of different materials which seem to be assembled in ad-hoc ways, although there is no photographic or written proof of this assumption. The oldest available on-line aerial photograph of the site from 1948 shows the structure with all components as they are today. The rambling layout has internal classrooms with no outside windows and long, internal corridors also without any daylight, signs of a building not designed as a school; the layout is not a bright and child-friendly layout. It is thought that after being

converted from a paper mill to a school, the building was used as the Olney High School Annex, then the Central Middle School, before becoming the Feltonville Intermediate School for grades 3, 4, and 5. The total size of the facility is 84,000sf. Duane Dotson, the Assistant Building Engineer, accompanied the team during the building inspection.

At the time of the site visitation, the inspection team met with Principal Donald Anticoli and Marcy, the Director of Education, who expressed the following concerns. Faculty and staff must park on the street because there is no off-street parking for the school. All toilet rooms have leaky plumbing; when it rains, the toilet room drains back-up and cause flooding. Some classrooms have no exterior windows, due to the wide footprint of the converted factory building layout. There is a central airconditioning system, but it is not always working and controls do not function properly. Interior and exterior lighting is inadequate. There are roof leaks and window leaks. There are no outside speakers. There is a rodent problem in the building.

ARCHITECTURAL/STRUCTURAL SYSTEMS

Foundations appear to be constructed of poured concrete and brick. Joints are in good condition with no major settlement cracks observed. Paint on the basement walls and ceilings, is in good condition as it appears to have been recently repainted. Exposed structural steel columns and beams are fireproofed. Footings were not seen and their construction type or condition could not be ascertained.

Floor slabs in the boiler room in the original building basement and the new addition are constructed of concrete which is in good condition although covered with a layer of ground in dirt. Upper floor slabs are concrete on either steel beams with metal deck or concrete beams and a concrete plank structure. There was no observed cracking and spalling of the concrete slabs. .

Roof construction over the is a flat deck; the structural system was exposed only over the gym, where steel beams and columns (encased in block) support an exposed wood deck with wood joists. It is not known what type of structural system is used over other areas of the building. Internal roof drains are used to drain the roof. There are some roof areas which have overflow scuppers cut into the low parapet; these might have been added at some point in the past. Other sections of roof deck are flat with no parapet, allowing water to flow over the edge if roof drains become blocked. Roof construction over the gymnasium. All roof decks are nearly dead-level flat with minimum overall slope. There is one roof penthouse with a door to the roof; access to other roof levels are from windows or grade level portable ladders. One of the low roofs has two air handlers, but neither are in operation. All roof decks have soft spots and flat spots that accumulate water. Perimeter flashing is cracked and leaking and couter flashing is loose in many locations. The entire roof membrane is worn and needs to be replaced

Exterior walls on the new addition are constructed of brick, flat metal panels, painted terra cotta tiles and cement covered columns. Many joints in many areas of the old building brickwork are losing grout, in need of repointing. Some areas have already been repointed as evident from the lighter grout and brick color. Walls around the building up to the top of the first floor have been painted with brown paint (on walls) or white paint on cement pilasters along street; the color is fading and has blotchy-patched areas and needs to be properly reapplied. EIFS (Exterior insulation and finish system, also known as "Dryvit") is used on the walls of a second floor section in the rear. The rear one-story section of the building housing the gymnasium has what appears to be a terra cotta or ceramic tile exterior wall system, painted brown. These blocks have holes in the exterior face. Furthermore, this material appears to be utilized in a single wythe construction without any insulation or other wythe of blocks on the inside the exterior blocks. This creates a very poor and porous wall system providing very little protection from the cold exterior during winter and moisture or water during warmer months. The District should consider adding another skin to the outside of the blocks by utilizing a cost effective solution such as EIFS to provide better weather protection, a layer of insulation on the exterior of the wall, and more interior comfort with better heat retention to that section of the building.

Exterior windows are made of bronze anodized aluminum frames with operable single hung units and single thickness clear plexi glass vision panel glazing. These windows are in poor condition with oxidized frames and severely scratched single-pane plexi glass vision panels. Operable units are difficult to operate up and down, due to broken internal counterbalance weights. Single pane plexiglass units do not meet today's energy code requirements and are large sources of heat loss; they should be replaced. First floor and basement windows in the old building facing the street have external galvanized steel security screens. Some steel lintels in brick walls over these windows are rusted and causing joint damage in need of replacement. First floor windows have heavy duty galvanized steel security screens. Many windows leak with water damage evident on the walls around the windows. Windows are in poor condition and in need of replacement.

Exterior doors providing emergency exit from stairways (with and without narrow vision panels) are flush, painted hollow metal doors with painted steel frames. These steel doors and frames are rusted, damaged, lack weather stripping, have hardware that is old/damaged, and need to be replaced. The gymnasium in the rear of the building has grade-level access from the exterior, but there are stairs in the corridor leading up to the other first floor spaces and stairs leading up from grade to the exit doors in the other first floor areas. The entrance to the main lobby from the street is through a pair of hollow metal doors at the top of an aging and crumbling 12 riser stair. Accessibility can be provided by constructing ramps at a side exit and a ramp or chair lift in the corridor

leading to the gym.

Roof coverings on all roofs consist of a naturally colored (black) fully adhered rolled asphalt sheet system without granules or gravel. Brick wall structures and mechanical equipment are flashed with similar asphaltic membranes with aluminum or copper counterflashing overlapping top edges. The roof membranes on all roofs are aging with many soft and cracked areas; flashing and counterflashing is damaged and worn. Roof leaks throughout the building have been reported and repairs have been attempted. The masonry flashing and counterflashing on many areas of roof over appears bent and losing integrity with the brick. Aluminum coping on all walls appear to be in good condition. In light of the leaks reported and the worn condition of the membrane of the new roof, full replacement is required.

Partitions in classrooms, offices corridors, cafeteria, multipurpose room, gymnasium, and stairways are constructed of painted concrete block. Toilet rooms also have glazed block, painted brick and painted block; all toilet rooms are old with a mix of old fixtures and finishes. The gymnasium interior partitions are block. All partitions are generally adequate; they have been repainted in the past by maintenance or under other small contracts, but many need to be refreshed with a new coat of paint or patched and repainted.

Interior doors into classrooms, offices, toilet rooms, and the cafeteria are solid core wood with oak veneer and mostly hollow metal frames. Most doors have narrow vertical vision panels. Mechanical room doors, auditorium doors, and stairway doors are hollow metal doors and frames; they are scratched, dented and do not latch closed as required by code and hardware is in poor condition. Doors do not have lever handle hardware and are not ADA compliant. Doors do not have security locks, which allow for locking from inside the room; these are required to meet new school security guidelines. Due to the poor condition and lack of code compliant working hardware, all doors and hardware need to be replaced.

Interior fittings/hardware include white boards, blackboards, and green boards. Some classrooms have working or broken smart boards. Toilet room partitions are mostly plastic (HDPE- high density polyethylene) in fair condition with most of the necessary accessories such as toilet paper dispensers, soap, paper towel or dryers, and grab bars for accessibility in selected toilet rooms. Toilet room partitions are different in different toilet rooms, but at least are somewhat functional and upgrades from the original partitions. There are no toilet rooms that are fully compliant with ADA; grab bars and fixtures should be added to selected toilet rooms to provide accessible rest room facilities.

Stair construction consists of steel pan and riser stair systems with concrete-filled treads. Stairways all have 30” high handrails and 36” high guards at platforms and steel vertical balusters with 3” maximum spacing. All stair railings are painted steel in worn condition. None of the stair railing and guard systems comply with today’s codes, which require 36” handrails, 42” guards on open sides of stairs and platforms; baluster spacing is 4”, thus existing 3” spaced baluster, where used, comply. Stairway railing and guard systems do not comply with today’s codes and need to be upgraded.

Wall finishes in the old building are painted block or painted brick in good condition. This includes classrooms, auditorium, cafeteria, toilet rooms, and stairways. Some walls have been repainted by maintenance or faculty which has improved their appearance.

Floor finishes in corridors, most classrooms, most offices, auditorium, cafeteria, and stairway landings consist of 12”x12” vinyl composition tiles (VCT). This material is has not been adequately maintained and cleaned; many tiles are cracked and broken. Some third floor classrooms and some offices have VAT (vinyl asbestos tile), which needs to be replaced. Toilet rooms have painted concrete floor finishes. The gymnasium has a high-build painted floor system, cracked in a number of locations.

Ceiling finishes in the new addition are mostly 2’x4’ suspended acoustical tile ceilings with recessed or pendant mounted fluorescent lighting fixtures, all in good condition. Toilet rooms have plaster or 2x4 ceilings with surface mounted fluorescent lighting. The ceiling of the gymnasium is open with exposed painted steel beams, wood joists and wood roof deck with surface mounted industrial-type fluorescent lighting. Ceilings are worn, discolored, water stained, and need to be replaced.

A four-stop, 3500lb capacity, traction elevator is provided in the building. It appears to have been upgraded to provide audible, visual, and tactile notifications as required by ADA. New controls also appear to have been recently installed in the elevator control room located on the roof.

Fixed furnishings consist of oak and chemical resistant resin countertop laboratory casework in science rooms that are worn, scratched, and need to be replaced. Stainless steel kitchen service counters and equipment are used for food warming and service are still in adequate usable condition. The IMC (library), classrooms, and offices have loose wood, met and plastic laminate bookcases laminate and metal storage casework and storage cabinets are utilized throughout the building. The Multi-Purpose Room has a portable stage and loose, stackable chairs. The cafeteria and auditorium have foldable table/chair units and a portable stage; there is no fixed seating and no fixed stage in this building.

MECHANICAL

Plumbing Fixtures – The building is equipped with wall hung urinals (flush valve type), a combination of floor mount and wall hung water closets (flush valve type), and wall hung lavatories with wheel handle faucets. Many of the original plumbing fixtures remain in service, however, these fixtures have reached the end of their service life and should be replaced. New fixtures will provide lower water consumption and provide savings on water heating costs. The bathrooms are also equipped with floor drains.

Original drinking fountains in the corridors and at the restrooms are wall hung electric water coolers. There is a combination of wall hung and floor set electric water coolers throughout the remainder of the school. Most of the fixtures do not appear to be original, however they do appear to have exceeded their service life so they should be replaced.

Floor set mop sinks are available throughout the building for use by the janitorial staff. Service sinks are typically located in the vicinity of the bathroom groups. Floor set mop sinks appear to have been replaced in the past, however the sinks appear have exceeded their service life, and should be replaced. The Cafeteria's food prep/kitchen is equipped with one, three compartment stainless steel sink with wheel handle operated faucets and its sanitary connection is served by a floor mounted grease trap. The kitchen is also equipped with a hand sink. The triple wash sink (with wheel handles) and hand sink (with lever handles) show signs of normal usage. A grease interceptor could not be located, therefore one should be installed.. Chemicals are injected manually into the sanitizing basin.

Domestic Water Distribution – It appears that the 2" domestic water service piping is mostly soldered copper. Water service enters without a double check backflow preventer (RPZA – reduced pressure zone assembly) but has a 2" water meter on the main line upon entering the building. The water meter appears to be new. There is a dedicated cold water make up with a RPZA BFP for the boiler. The piping is copper with soldered joints. The distribution piping appears to be original and is at the end of its service life and is recommended to be inspected and repaired as needed.

There is one natural gas fired vertical, 100 gallon, tank type water heater, American Standard, Dura Glass model D100-199 AS, at this facility which are located in the boiler mechanical room. The heater is rated for a gas input of 199,000 btuh, the hot water system is equipped with a recirculation pump and expansion tank. The water heater was manufactured in 2010 and appears to be in satisfactory condition and should not need replacement within the next 10 years. A water softener was located in the boiler room for treating the boiler make up water system. The water softener system appears to be relatively new. Domestic water piping should be checked and inspected by a contractor.

Sanitary Waste - The sanitary waste piping system in the original building is extra heavy cast iron with lead and oakum seals and appears to be the original piping installed in the building. It is therefore recommended to inspect this piping and repair or replace sections as needed. The sanitary system leaves the building by gravity.

Rain Water Drainage - The rain water drains from the roof are routed through mechanical chases in the building and connect to the underground site drainage system. The original building roof has a parapet, while the two additions' roofs are downspout and gutters. There are no overflow scuppers or other overflow systems for any of the building's roof systems. There is a sump pump in the main boiler mechanical equipment room.

Energy Supply - Duplex fuel oil supply pumps provide the required fuel to the boilers when operating on fuel oil. The 7,000 gallon fuel storage tank is located underground beneath the concrete pavement toward the rear of the building. The fuel pumps and level monitoring controls have been recently replaced in the past 5 – 7 years and should not need to be replaced for 20 years as long as preventative maintenance is performed as required. The 8" natural gas enters the building in the basement into the main boiler mechanical equipment room and is equipped with a gas booster system. The gas service splits into two branches, a 3" line and a 1-1/2" line, both are metered. The natural gas main is welded, black steel piping while the branches are threaded, black steel.

Heat Generating Systems – Low pressure steam is generated at 15 lbs. /sq. in. or less by two 4,070 MBH (IBR steam) Weil McLain model 94 series 1594 steam boilers with dual fuel burners. Both boilers are equipped with Webster dual fuel burners, natural gas and number 2 fuel oil, model Cyclonetic JB2C-30-VB110-M25-MP-UL-IRI-CSD-1CR5-GO-30. The boilers appear to have been installed in 2010 and should not need to be replaced for 25 – 30 years as long as preventative maintenance is performed as required. There is draft control on both of the boiler flues. Combustion air louvers serve the boiler room to provide combustion air for the boiler operation. Burner controls provide full modulation with electronic ignition and digital flame sensing. Burner oil pumps are driven by independent motors. The gas train serving each boiler appears to have code required venting of the regulators and dual solenoid valves with venting of the chamber between. The oil supply to the burner is equipped with dual solenoid valves and strainer/disposable media filter.

Steam is delivered to a skid mounted packaged shell and tube heat exchanger and pumps, manufactured by Bell & Gossett, which provide heating water to the building's heating water sources. This serves hot water systems in the addition.

Cooling Systems – The building cooling system consist of a Carrier model 30HXC106RZ-661BA, package screw chiller, 104 nominal tons, with R134a as the refrigerant. The chiller is served by two, of which only one is operation, Evapco model LSTA 4-121, forced draft, counter flow cooling tower. Further investigation is recommended of the pairing of the tower and the chiller. The chiller and cooling tower appear to be approximately 10 years in age. The cooling towers are housed inside the mechanical equipment room with the discharge of the tower ducted to the atmosphere. Nameplate data was illegible on the chilled water and condenser water pumps, however the pumps are manufactured by Bell & Gossett and are base mounted end suction centrifugal type.

Distribution Systems – The building steam distribution piping is black steel with welded fittings. The condensate piping is Schedule 80 black steel with threaded fittings. The piping has been in use beyond its service life, with the exception of the piping which was replaced during the 2010 boiler replacement project, and will require more frequent attention from the maintenance staff to address pipe/valve failures as time passes. The District should hire a qualified contractor to examine the distribution piping and perform additional testing to locate and replace any damaged piping and to further quantify the extent of potential failures. This should be performed for the steam and condensate system as well as the heating water supply and return system. The District should budget for replacing this piping over the next 5 years.

The boiler feed water is collected by a boiler feed water pad mounted system, which was installed in 2010, manufactured by Bell & Gossett model 1-50-CHLD-4-0-635, 22 GPM and is treated with a combination of chemicals by a water treatment controller. The condensate return piping is black steel with threaded joints. A duplex condensate receiver system, installed in 2010, returns condensate to the boiler feed water system for water treatment and storage. The boiler feed water assembly is equipped with three pumps and a pump control panel. The steam traps are in good condition throughout the building according to the building engineer. However, it is recommended that the District conduct a steam trap survey to determine the quantity and condition of all steam taps. The boiler feed tank, pumps and associated components are were replaced in 2010 as part of the boiler plant renovation and should not need to be replaced for 25 – 30 years as long as preventative maintenance is performed as required.

Fresh air is admitted into the building through the air handling units and by opening windows for some spaces such as the cafeteria and gymnasium. . The new air handlers should be designed for quiet operation and equipped with steam and chilled water coils. The building uses original York indoor package air handlers and Carrier modular units for the classrooms. The York units of which there are 5 total serve the areas as follows; three units serve the second floor classrooms or which the unit for classroom 201 works, the unit near classroom 206 and by classroom 202A do not work, two units serve the first floor of which one does not work that serves a classroom and the one serving classroom 100 does function. The two Carrier units, which are five years old, one serves portions of the second floor and the other serves the third floor. These units have steam coils and chilled water coils. They are models 39L modular air handlers. A horizontally suspended air handler next to room 114 serve part of the first floor and is equipped with heating and cooling. Steam coils radiators serve the classrooms, cast iron radiators in the hallways, steam radiators serve areas near stairwells and wall or ceiling mount radiators for bathrooms. This equipment currently is the sole source of heat for these areas. During our survey we noted radiators with and without guards or enclosures. Any steam radiators in service without guards or enclosures should be replaced with finned tube convectors to protect students from exposure to the hot surfaces or guards should be added.

The gymnasium is served by horizontally ceiling suspended heating and ventilating units with steam coils and operable windows for ventilation. . The gym lockers are not in use and are being used for storage. It is recommended to replace these systems with a roof top mounted unit with a similar overhead supply air distribution system and return air ductwork and low return intake grilles which would be protected from damage as the existing system is

The multipurpose room is served by steam radiators and an air handling unit capable of providing heating and ventilation via overhead supply ductwork system. It is recommended to replace these systems with an air handling unit with a similar overhead supply air distribution system and return air ductwork and low return intake grilles.

The cafeteria is served three split system Goodman units, each with five tons of cooling capacity. Heat is provided to the cafeteria by vertical suspended unit heaters with steam coils. The convection heaters are part of the original building equipment, have exceeded their life expectancy and should be removed. The split systems which provide cooling should be replaced as well since they use R22 refrigerant. A ducted supply system is recommended to provide better air distribution instead of the current supply plenum with diffusers arrangement. The kitchen is not provided with a hood exhaust system. It is recommended that a hood exhaust system be implemented for any equipment which generates heat. This system should be coupled with a make-up air heating and ventilating supply air system for the kitchen hoods. Proper air flow pressurization and balancing should be performed for the seating area with respect to the kitchen to maintain the kitchen under negative pressurization.

Terminal & Package Units - There are a few which have window air conditioning units however most of the school is served by air handling equipment which is connected to the chilled water system.. There are roof mounted exhaust fans of which serve the restrooms.. The two restroom exhaust fans should be replaced. Entryways are served by convective heaters or fan coil units.

Controls & Instrumentation - The controls are DDC.

Sprinklers - The school building is partially covered by an automatic sprinkler system with the exception of the gymnasium, lunchroom, kitchen and stairwell. Installing a sprinkler system with quick response type heads should reduce insurance costs by providing protection for the property investment. A fire pump may be required depending on the available city water pressure.

ELECTRICAL

Site Electrical Service comes from medium voltage overhead lines on wooden poles along Wyoming Ave. The main service substation located in the Main Electrical Room in ground floor and receives power from an overhead pole via an underground raceway. The service substation is consisting of a 600A, 4160V load interrupter section, a section for current and potential transformers, a section for protection relays, 1000KVA 4160V to 480/277VAC, 3PH, 4 wire power transformer section and a 1600A rated, 480/277V distribution switchboard. Utility meter is installed in a separate enclosure adjacent to the switchgear assembly. 50KVAR capacitor bank is installed for the system power factor correction. There is one step down transformers rated at 225KVA, 480V to 208/120V is provided in same room. This transformer in turn feeds an 800A distribution power panel named MDP-1. Service substation is 21 years old and still is in good condition. It could be in service for 10 more years.

Power distribution is achieved through several lighting/receptacle panels. Panel boards, two or three in each floor, one in the kitchen, two in gymnasium and one in auditorium. Our observation shows that about 90 present the panel boards are exceed their useful life and should be replaced. Our suggestion is to provide also more power panels for future expansion.

Classrooms, corridors, offices, and other areas typically have an adequate number of duplex receptacles on each wall. No major deficiencies with respect to receptacle number and location were observed.

Majority of lighting fixtures have been upgraded last summer. In general interior lighting fixtures are in a good condition and building illumination is sufficient. However some lighting fixtures still need to be repaired to make the system fully operational.

Building is equipped with 120V manual fire alarm system. The system does not meet current fire alarm codes and should be replaced with an automatic fire alarm system.

The school telephone and data systems are new and working adequately. A main distribution frame (MDF) along whit a telephone PBX system (telephone within an enterprise that switches calls between enterprise users on local lines while allowing all users to share a certain number of external phone lines) located in IT room servicing the communication system of the building. School also equipped with wifi system.

Separate PA system does not exist. School uses the telephone systems for public announcement. This system is working adequately.

Each classroom is provided by intercom telephone service. The system is permit paging and intercom communication between main office phone to classroom phones, and classroom to main office, classroom to classroom, and to office. Outside line access from a classroom phone through the PBX is blocked. The system is interfaces with master clock system for class change signaling utilizing paging speakers. The system also equipped with a tone generator and input from program/clock controller.

Present clock system is not working. School is provided with time system controller consisting of 12" electric round clock installed on the wall in each classrooms and offices and a master time programmer manufactured by "STANDARD" located in the main office. The clocks are not controlled properly with the central master controller. System is old and has exceeded its useful service life thus requiring replacement. The present bell system is working adequately.

Television System is not provided in the school.

Video surveillance system is not provided in the school. School provided only with access control system such a door contacts on IMC, and main entrance doors and motion security sensors in corridors. The school desires a complete video surveillance system with cameras located in critical areas, such as exit doors, corridors, and building exterior areas. The cameras should be controlled by a Closed Circuit Television (CCTV) system.

Emergency Power System is provided in the school. A 10KW, 240/120V, single phase, 3W is installed in Boiler room for emergency lighting. The system is old and exceeds its useful service life and required to be replaced.

Uninterruptible Power System (UPS) is provided for Local Area Network in the main IT room.

Emergency lighting system, including exit lights are provided in the buildings. Numbers of lighting fixtures in corridors, and egress

ways are fed by backup power generator. Exit signs are also fed by emergency pack up power and 80 percent of them are in good condition.

Lightning Protection System is accomplished with a few air terminals mounted on the chimney on the roof and connected to the ground system. Further study is needed to verify that the air terminals provide the proper coverage.

There is one 12.5HP hydraulic type elevator manufactured by Imperial Electric Company, is in operation at the school. The elevator appears to be working properly.

Sound System in multipurpose room is old and not comply with modern multipurpose/auditorium sound system requirements recommended by ECE40020 (standard for reinforcement system design) and required to be replaced.

Site Lighting is provided in the school; however some lighting fixtures need to be repaired to make the system fully operational as designed.

Site Lighting System is adequate. Numbers of flood lights are provided on exterior walls around the building where required. Minority of the lights need to be repaired for making the system fully operational as designed. Building engineer also indicated that they do not have any major issues with the exterior lighting system.

Exterior building is not monitored by video surveillance camera.

Site Paging System is not provided in the school.

GROUNDS

Paving and parking is constructed of asphalt and is very limited on this site. There is no faculty parking on site and also no handicap parking on site. Driveway access to East Wyoming Avenue allows for delivery, fuel oil, and waste management trucks to enter and leave the site. The asphalt paving and concrete entrance apron is broken up and disintegrating from the heavy truck traffic; the roadway is also settling around the filling ports to the underground fuel oil tanks. The asphalt area to the rear has access to East Courtland Street but is blocked since it is used as the children's playground; this area also needs to be repaved. A low concrete retaining wall with a chain link fence mounted to the top forms the east side of the property, which borders a cemetery on the east. The retaining wall is cracking and spalling and needs to be repaired.

A wrought iron fence lines the East Wyoming Avenue sidewalk and forms the railing to the entry stairway up to the front door. The fence is rusted and needs to be repainted.

There are no handicap accessible ramps into the building, however there is a grade-level entrance into the rear gymnasium door which allows for access into the gym. Since this is quite far from the street entrance, a second ramp should be constructed to provide handicap access into the main building first floor where there is access to the elevator.

RECOMMENDATIONS

- Strip, clean and reseal concrete floors in mechanical rooms, toilet rooms and stairways. (8,400 s.f.)
- Repoint brick on chimney, penthouse and other building walls; repair brick at lintel bearing (700 s.f.)
- Replaster front and side exterior cement pilasters and beams (2,500 s.f.)
- Remove vegetation attached to building; power wash brick on front and front sides (6,000 s.f.)
- Repaint brown on front and east side foundation walls (6000sf)
- Provide new EIFS (exterior insulation and finish system) on three exterior walls on gym (4,000 s.f.)
- Replace all exterior windows with insulated single hung units (200) 3.5x6
- Repaint lintels over windows in brick walls (200 ft)
- Replace exterior hollow metal doors on old building (20 3x7)
- Replace all roofing (41,692sf)
- Replace all interior wood doors, hollow metal frames, and hardware (88 3x7)
- Replace interior hollow metal doors and frames – fire rated (20 3x7)
- Provide security hardware for classrooms and offices, locking from inside classroom (63 each)
- Replace old 2x4 ceilings with new ceiling systems (60,000 s.f.)
- Repair walls damaged by water leaks; repaint walls in old building (10,000 s.f.)
- Replace VCT (40,000 s.f.)
- Replace VAT with VCT (12,600 s.f.)

- Remove existing gym floor finish and provide new gymnasium floor (6,000 s.f.)
- Construct new ramp 50" tall, 50ft long in corridor to gymnasium
- Provide new toilet room partitions where old partitions are damaged (4)
- Provide new ADA toilet room partitions and accessories (4 sets)
- Provide new science lab furniture (100lf)
- Repaint rusted underside of stairway risers/treads (200sf)
- Remove and replace stairway handrails and guards with code compliant systems in stairway 1 - 3 stories = 14 stairway/levels for all stairways x 50ft/floor (2 half runs) = 700ft

MECHANICAL

- Replace all lavatories in the building with lower flow fixtures, as the fixtures are original.
- Replace all water closets in the building with lower flow fixtures, as the fixtures are original.
- Replace all urinals in the building with lower flow fixtures, as the fixtures are original.
- Replace the wall hung drinking fountains and integral refrigerated coolers in the corridors and at the restrooms. These units are well beyond their service life and most are NOT accessible type.
- Replace service sinks (janitor sinks) in the building.
- Hire a qualified contractor to perform a detailed examination of the sanitary waste piping using visual inspection and video cameras to locate and replace any damaged piping and to further quantify the extent of potential failures.
- Add automatic sanitizing chemicals to the stainless steel sink in the cafeteria.
- Inspect and replace the original as needed the domestic water piping in the building

ELECTRICAL

- Provide an adequate video surveillance system including camera and Closed Circuit Television (CCTV) for monitoring the system. Cameras should install in the corridors, school entrance.
- Provide lightning protection studies to ascertain adequacy of existing systems.
- Provide speakers on exterior walls to adequately cover the area. Estimated 5 in total.
- Replace existing emergency generator with a 30KW, 120/208V generator along with respective Automatic Transfer Switch. Replace existing emergency distribution panel board.

GROUNDS

- Repave asphalt driveway/delivery and playground area (22,000sf)
- Repair and repaint chain link fence on retaining wall (200sf)
- Repave broken sidewalk (200sf)
- New concrete apron to street, vehicle rated (100sf)
- Reconstruct entrance stairs (12 risers)
- New handrails for entrance stairs (24ft)
- Repair cracked and spalling retaining wall (150sf)
- Provide new handicap ramp and railing system into east entrance (40ft.)

Attributes:

General Attributes:

Active:	Open	Bldg Lot Tm:	Lot 4 / Tm 2
Status:	Accepted by SDP	Team:	Tm 2
Site ID:	S731001		

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	21.00 %	0.00 %	$0.00
A20 - Basement Construction	21.00 %	0.00 %	$0.00
B10 - Superstructure	21.00 %	1.34 %	$100,369.76
B20 - Exterior Enclosure	49.05 %	29.60 %	$1,401,351.71
B30 - Roofing	110.00 %	89.44 %	$1,412,608.80
C10 - Interior Construction	34.48 %	26.68 %	$550,002.95
C20 - Stairs	21.00 %	199.25 %	$235,987.70
C30 - Interior Finishes	90.43 %	49.44 %	$1,791,145.24
D10 - Conveying	14.29 %	0.00 %	$0.00
D20 - Plumbing	115.84 %	50.80 %	$871,400.78
D30 - HVAC	119.44 %	90.34 %	$8,441,087.65
D40 - Fire Protection	105.71 %	177.49 %	$1,201,657.51
D50 - Electrical	80.03 %	15.07 %	$743,873.77
E10 - Equipment	28.99 %	13.13 %	$175,634.74
E20 - Furnishings	32.50 %	0.00 %	$0.00
G20 - Site Improvements	48.22 %	30.35 %	$208,116.58
G40 - Site Electrical Utilities	46.67 %	0.00 %	$0.00
Totals:	**68.36 %**	**40.14 %**	**$17,133,237.19**

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)
B731001;Feltonville Intermediate	84,000	40.57	$2,668,083.52	$3,951,794.25	$7,425,694.28	$432,060.47	$2,447,488.09
G731001;Grounds	47,500	21.64	$56,580.06	$73,006.33	$78,530.19	$0.00	$0.00
Total:		**40.14**	**$2,724,663.58**	**$4,024,800.58**	**$7,504,224.47**	**$432,060.47**	**$2,447,488.09**

Deficiencies By Priority

- 1 - Response Time (< 2 yr) - $2,724,663.58
- 2 - Response Time (2-3 yrs) - $4,024,800.58
- 3 - Response Time (3-4 yrs) - $7,504,224.47
- 4 - Response Time (4-5 yrs) - $432,060.47
- 5 - Response Time (> 5 yrs) - $2,447,488.09

Budget Estimate Total: $17,133,237.19

Executive Summary

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

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

Function:	Elementary School
Gross Area (SF):	84,000
Year Built:	1936
Last Renovation:	
Replacement Value:	$41,721,754
Repair Cost:	$16,925,120.61
Total FCI:	40.57 %
Total RSLI:	68.84 %

Description:

Attributes:

General Attributes:

Active:	Open	Bldg ID:	B731001
Sewage Ejector:	No	Status:	Accepted by SDP
Site ID:	S731001		

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	21.00 %	0.00 %	$0.00
A20 - Basement Construction	21.00 %	0.00 %	$0.00
B10 - Superstructure	21.00 %	1.34 %	$100,369.76
B20 - Exterior Enclosure	49.05 %	29.60 %	$1,401,351.71
B30 - Roofing	110.00 %	89.44 %	$1,412,608.80
C10 - Interior Construction	34.48 %	26.68 %	$550,002.95
C20 - Stairs	21.00 %	199.25 %	$235,987.70
C30 - Interior Finishes	90.43 %	49.44 %	$1,791,145.24
D10 - Conveying	14.29 %	0.00 %	$0.00
D20 - Plumbing	115.84 %	50.80 %	$871,400.78
D30 - HVAC	119.44 %	90.34 %	$8,441,087.65
D40 - Fire Protection	105.71 %	177.49 %	$1,201,657.51
D50 - Electrical	80.03 %	15.07 %	$743,873.77
E10 - Equipment	28.99 %	13.13 %	$175,634.74
E20 - Furnishings	32.50 %	0.00 %	$0.00
Totals:	**68.84 %**	**40.57 %**	**$16,925,120.61**

Condition Detail

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

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

System Listing

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

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

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

System Code	System Description	Unit Price $	UoM	Qty	Life	Year Installed	Calc Next Renewal Year	Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency $	Replacement Value $
A1010	Standard Foundations	$18.40	S.F.	84,000	100	1936	2036		21.00 %	0.00 %	21			$1,545,600
A1030	Slab on Grade	$7.73	S.F.	84,000	100	1936	2036		21.00 %	0.00 %	21			$649,320
A2010	Basement Excavation	$6.55	S.F.	84,000	100	1936	2036		21.00 %	0.00 %	21			$550,200
A2020	Basement Walls	$12.70	S.F.	84,000	100	1936	2036		21.00 %	0.00 %	21			$1,066,800
B1010	Floor Construction	$75.10	S.F.	84,000	100	1936	2036		21.00 %	1.59 %	21		$100,369.76	$6,308,400
B1020	Roof Construction	$13.88	S.F.	84,000	100	1936	2036		21.00 %	0.00 %	21			$1,165,920
B2010	Exterior Walls	$36.91	S.F.	84,000	100	1936	2036		21.00 %	9.85 %	21		$305,413.54	$3,100,440
B2020	Exterior Windows	$18.01	S.F.	84,000	40	1936	1976	2057	105.00 %	60.40 %	42		$913,791.75	$1,512,840
B2030	Exterior Doors	$1.45	S.F.	84,000	25	1936	1961	2032	68.00 %	149.55 %	17		$182,146.42	$121,800
B3010105	Built-Up	$37.76	S.F.	41,692	20	1936	1956	2037	110.00 %	89.73 %	22		$1,412,608.80	$1,574,290
B3010120	Single Ply Membrane	$38.73	S.F.		20				0.00 %	0.00 %				$0
B3010130	Preformed Metal Roofing	$54.22	S.F.		30				0.00 %	0.00 %				$0
B3010140	Shingle & Tile	$38.73	S.F.		25				0.00 %	0.00 %				$0
B3020	Roof Openings	$0.06	S.F.	84,000	20	1936	1956	2037	110.00 %	0.00 %	22			$5,040
C1010	Partitions	$17.91	S.F.	84,000	100	1936	2036		21.00 %	0.00 %	21			$1,504,440
C1020	Interior Doors	$3.51	S.F.	84,000	40	1936	1976	2057	105.00 %	181.73 %	42		$535,825.91	$294,840
C1030	Fittings	$3.12	S.F.	84,000	40	1936	1976	2028	32.50 %	5.41 %	13		$14,177.04	$262,080
C2010	Stair Construction	$1.41	S.F.	84,000	100	1936	2036		21.00 %	199.25 %	21		$235,987.70	$118,440

Site Assessment Report - B731001;Feltonville Intermediate

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 $
C3010230	Paint & Covering	$13.21	S.F.	84,000	10	1936	1946	2020	50.00 %	5.03 %	5		$55,819.23	$1,109,640
C3010231	Vinyl Wall Covering	$0.97	S.F.		15				0.00 %	0.00 %				$0
C3010232	Wall Tile	$2.63	S.F.		30				0.00 %	0.00 %				$0
C3020411	Carpet	$7.30	S.F.		10				0.00 %	0.00 %				$0
C3020412	Terrazzo & Tile	$75.52	S.F.		50				0.00 %	0.00 %				$0
C3020413	Vinyl Flooring	$9.68	S.F.	75,600	20	1936	1956	2037	110.00 %	106.81 %	22		$781,668.23	$731,808
C3020414	Wood Flooring	$22.27	S.F.		25				0.00 %	0.00 %				$0
C3020415	Concrete Floor Finishes	$2.34	S.F.	8,400	50	1936	1986	2050	70.00 %	247.82 %	35		$48,711.96	$19,656
C3030	Ceiling Finishes	$20.97	S.F.	84,000	25	1936	1961	2042	108.00 %	51.37 %	27		$904,945.82	$1,761,480
D1010	Elevators and Lifts	$1.53	S.F.	84,000	35	1936	1971	2020	14.29 %	0.00 %	5			$128,520
D2010	Plumbing Fixtures	$13.52	S.F.	84,000	35	1936	1971	2055	114.29 %	2.96 %	40		$33,659.61	$1,135,680
D2020	Domestic Water Distribution	$1.68	S.F.	84,000	25	1936	1961	2045	120.00 %	301.63 %	30		$425,658.17	$141,120
D2030	Sanitary Waste	$2.90	S.F.	84,000	25	1936	1961	2045	120.00 %	169.16 %	30		$412,083.00	$243,600
D2040	Rain Water Drainage	$2.32	S.F.	84,000	30	1936	1966	2050	116.67 %	0.00 %	35			$194,880
D3020	Heat Generating Systems	$18.67	S.F.	84,000	35	1936	1971	2055	114.29 %	0.00 %	40			$1,568,280
D3030	Cooling Generating Systems	$24.48	S.F.	84,000	30	1936	1966	2050	116.67 %	121.19 %	35		$2,492,130.43	$2,056,320
D3040	Distribution Systems	$42.99	S.F.	84,000	25	1936	1961	2045	120.00 %	164.74 %	30		$5,948,957.22	$3,611,160
D3050	Terminal & Package Units	$11.60	S.F.	84,000	20	1936	1956	2040	125.00 %	0.00 %	25			$974,400
D3060	Controls & Instrumentation	$13.50	S.F.	84,000	20	1936	1956	2040	125.00 %	0.00 %	25			$1,134,000
D4010	Sprinklers	$7.05	S.F.	84,000	35			2052	105.71 %	202.91 %	37		$1,201,657.51	$592,200
D4020	Standpipes	$1.01	S.F.	84,000	35			2052	105.71 %	0.00 %	37			$84,840
D5010	Electrical Service/Distribution	$9.70	S.F.	84,000	30	1936	1966	2025	33.33 %	0.00 %	10			$814,800
D5020	Lighting and Branch Wiring	$34.68	S.F.	84,000	20	1936	1956	2035	100.00 %	0.00 %	20			$2,913,120
D5030	Communications and Security	$12.99	S.F.	84,000	15	1936	1951	2025	66.67 %	59.37 %	10		$647,863.43	$1,091,160
D5090	Other Electrical Systems	$1.41	S.F.	84,000	30	1936	1966	2025	33.33 %	81.06 %	10		$96,010.34	$118,440
E1020	Institutional Equipment	$4.82	S.F.	84,000	35	1936	1971	2037	62.86 %	43.38 %	22		$175,634.74	$404,880
E1090	Other Equipment	$11.10	S.F.	84,000	35	1936	1971	2020	14.29 %	0.00 %	5			$932,400
E2010	Fixed Furnishings	$2.13	S.F.	84,000	40	1936	1976	2028	32.50 %	0.00 %	13			$178,920
								Total	**68.84 %**	**40.57 %**			**$16,925,120.61**	**$41,721,754**

System Notes

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

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

Note: Painted 95%
Glazed brick/block 5%

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

Note: Concrete – 8,400 10%
VCT - 63,000 75%
VAT 12,600 15%

System: C3030 - Ceiling Finishes — This system contains no images

Note: painted concrete, plaster, or wood deck 8,400 10%
acoustical tile 75,600 90% (replace 60,000sf)

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

Note: 1-225KVA, 480VAC to 208/120VAC

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:	**$16,925,121**	**$0**	**$0**	**$0**	**$0**	**$2,767,901**	**$0**	**$0**	**$0**	**$0**	**$2,992,687**	**$22,685,709**
*** 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	$100,370	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$100,370**
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	$305,414	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$305,414**
B2020 - Exterior Windows	$913,792	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$913,792**
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	$1,412,609	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,412,609**
B3010120 - Single Ply Membrane	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3010130 - Preformed Metal Roofing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3010140 - Shingle & Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B3020 - Roof Openings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C - Interiors	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C10 - Interior Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C1010 - Partitions	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

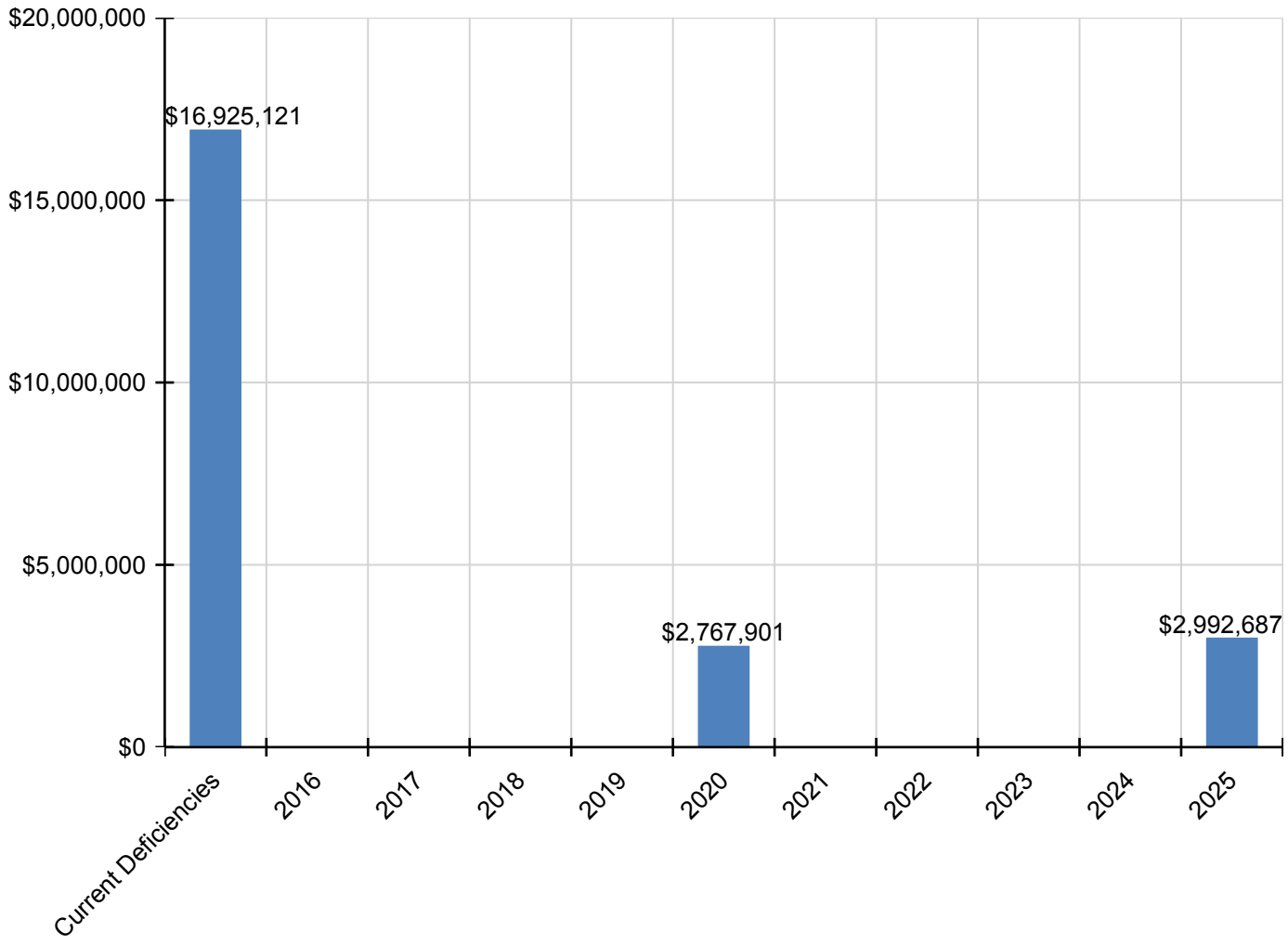
C1020 - Interior Doors	$535,826	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$535,826**
C1030 - Fittings	$14,177	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$14,177**
C20 - Stairs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C2010 - Stair Construction	$235,988	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$235,988**
C30 - Interior Finishes	$0	$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	$55,819	$0	$0	$0	$0	$1,415,015	$0	$0	$0	$0	$0	**$1,470,834**
C3010231 - Vinyl Wall Covering	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010232 - Wall Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020 - Floor Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020411 - Carpet	$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	$781,668	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$781,668**
C3020414 - Wood Flooring	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020415 - Concrete Floor Finishes	$48,712	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$48,712**
C3030 - Ceiling Finishes	$904,946	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$904,946**
D - Services	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D10 - Conveying	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D1010 - Elevators and Lifts	$0	$0	$0	$0	$0	$163,889	$0	$0	$0	$0	$0	**$163,889**
D20 - Plumbing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2010 - Plumbing Fixtures	$33,660	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$33,660**
D2020 - Domestic Water Distribution	$425,658	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$425,658**
D2030 - Sanitary Waste	$412,083	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$412,083**
D2040 - Rain Water Drainage	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
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	$2,492,130	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$2,492,130**
D3040 - Distribution Systems	$5,948,957	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$5,948,957**
D3050 - Terminal & Package Units	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3060 - Controls & Instrumentation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D40 - Fire Protection	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D4010 - Sprinklers	$1,201,658	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,201,658**
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	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,204,525	**$1,204,525**
D5020 - Lighting and Branch Wiring	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D5030 - Communications and Security	$647,863	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,613,071	**$2,260,934**
D5090 - Other Electrical Systems	$96,010	$0	$0	$0	$0	$0	$0	$0	$0	$0	$175,091	**$271,101**
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	$175,635	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$175,635**
E1090 - Other Equipment	$0	$0	$0	$0	$0	$1,188,998	$0	$0	$0	$0	$0	**$1,188,998**
E20 - Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E2010 - Fixed Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

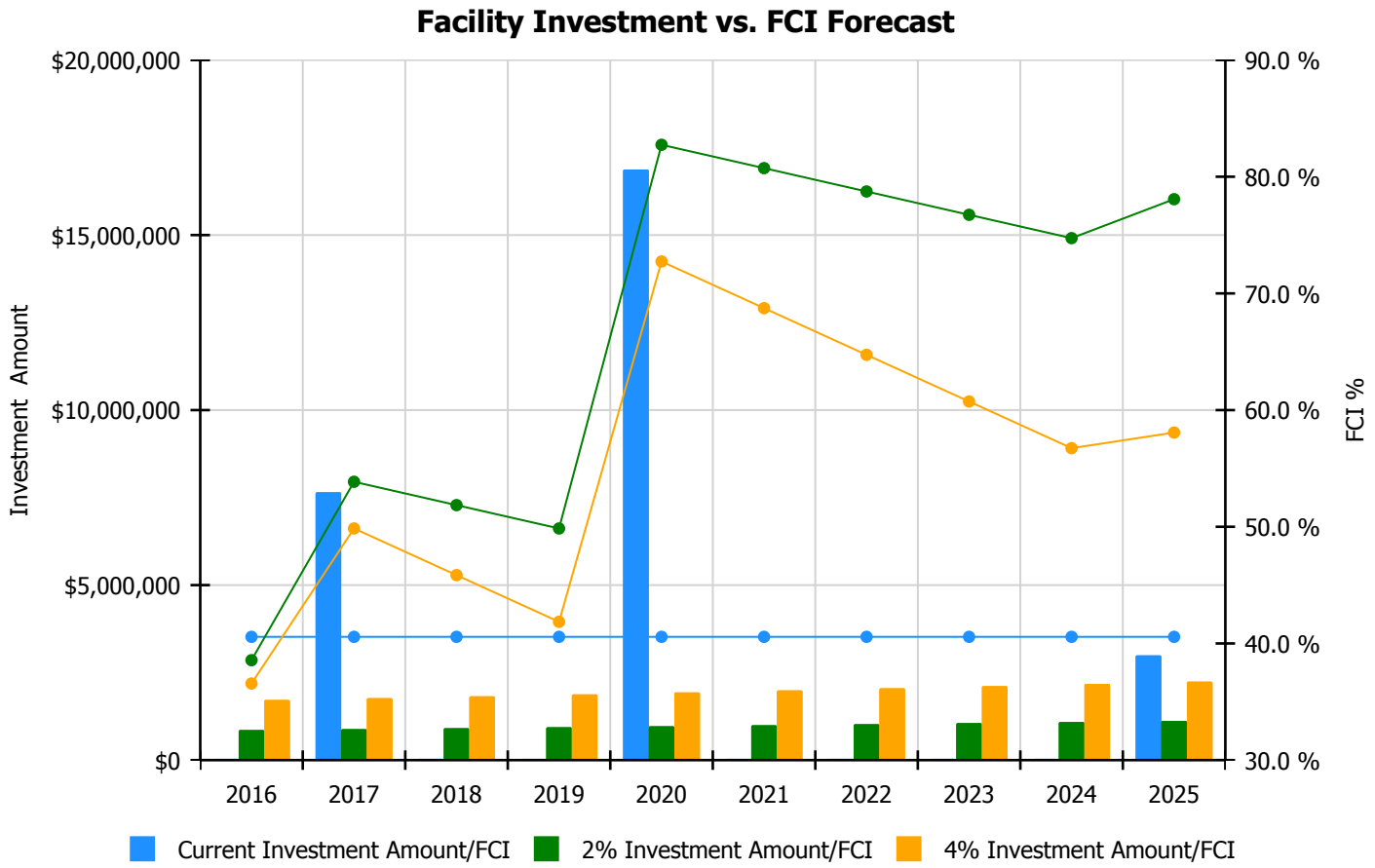
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



10 Year FCI Forecast by Investment Scenario

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

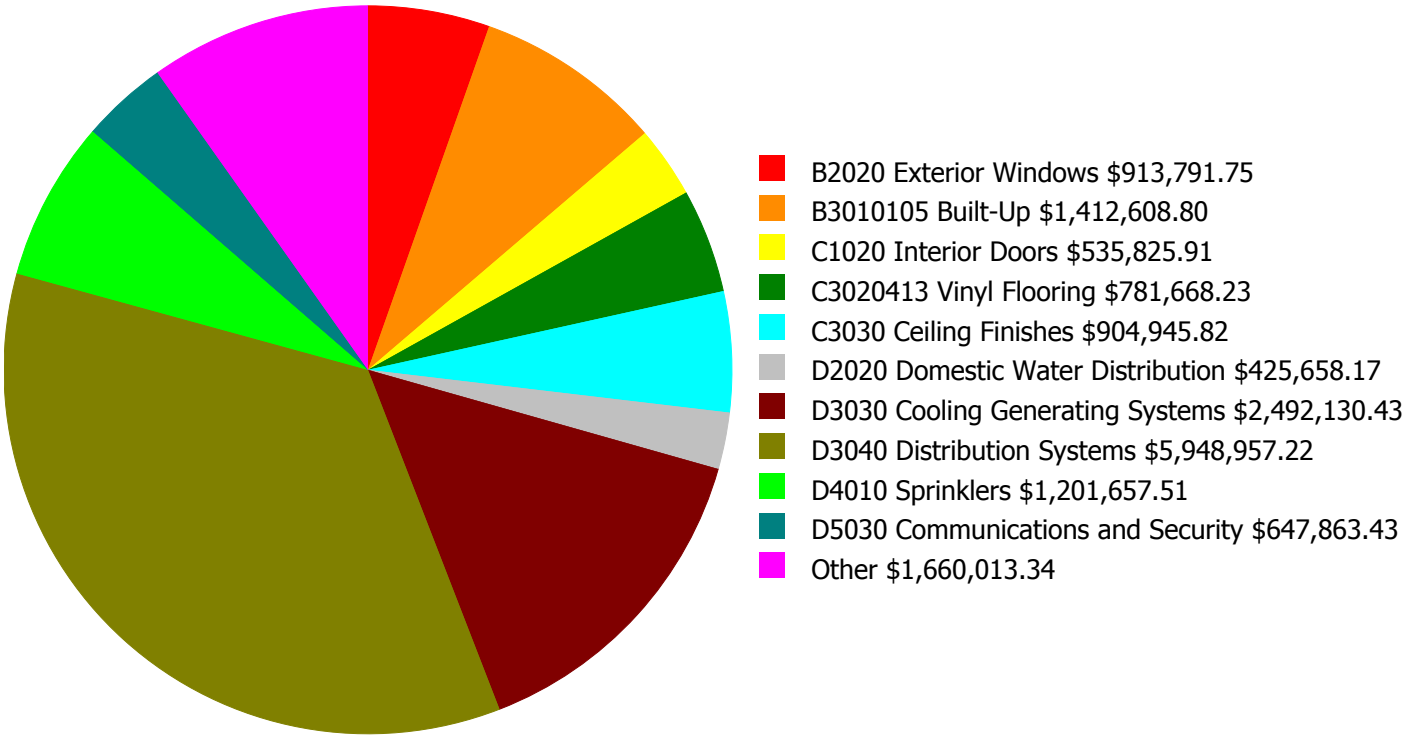
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 40.57%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$859,468.00	38.57 %	$1,718,936.00	36.57 %
2017	$7,652,348	$885,252.00	53.86 %	$1,770,504.00	49.86 %
2018	$0	$911,810.00	51.86 %	$1,823,619.00	45.86 %
2019	$0	$939,164.00	49.86 %	$1,878,328.00	41.86 %
2020	$16,870,916	$967,339.00	82.74 %	$1,934,678.00	72.74 %
2021	$0	$996,359.00	80.74 %	$1,992,718.00	68.74 %
2022	$0	$1,026,250.00	78.74 %	$2,052,500.00	64.74 %
2023	$0	$1,057,037.00	76.74 %	$2,114,075.00	60.74 %
2024	$0	$1,088,749.00	74.74 %	$2,177,497.00	56.74 %
2025	$2,992,687	$1,121,411.00	78.07 %	$2,242,822.00	58.07 %
Total:	**$27,515,950**	**$9,852,839.00**		**$19,705,677.00**	

Deficiency Summary by System

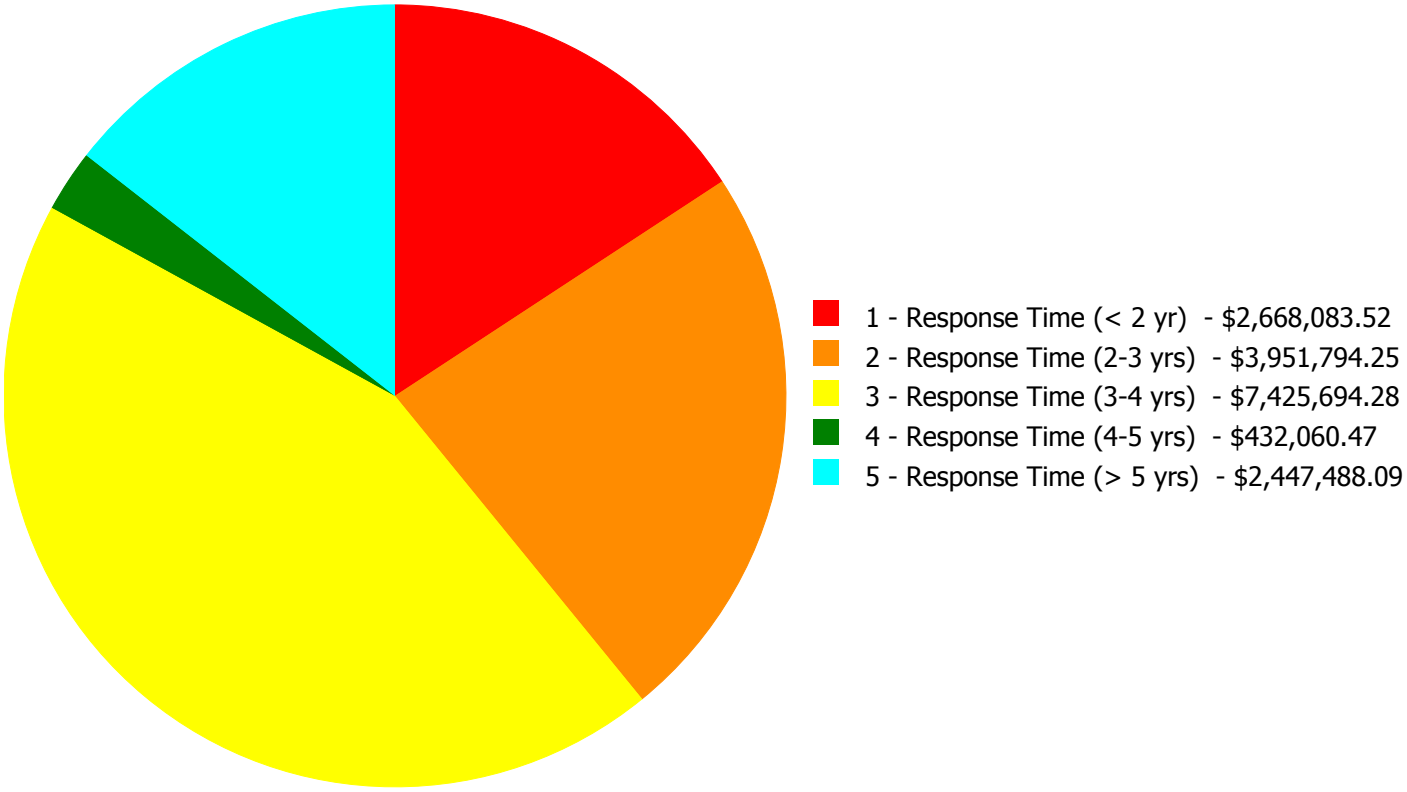
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $16,925,120.61

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: $16,925,120.61

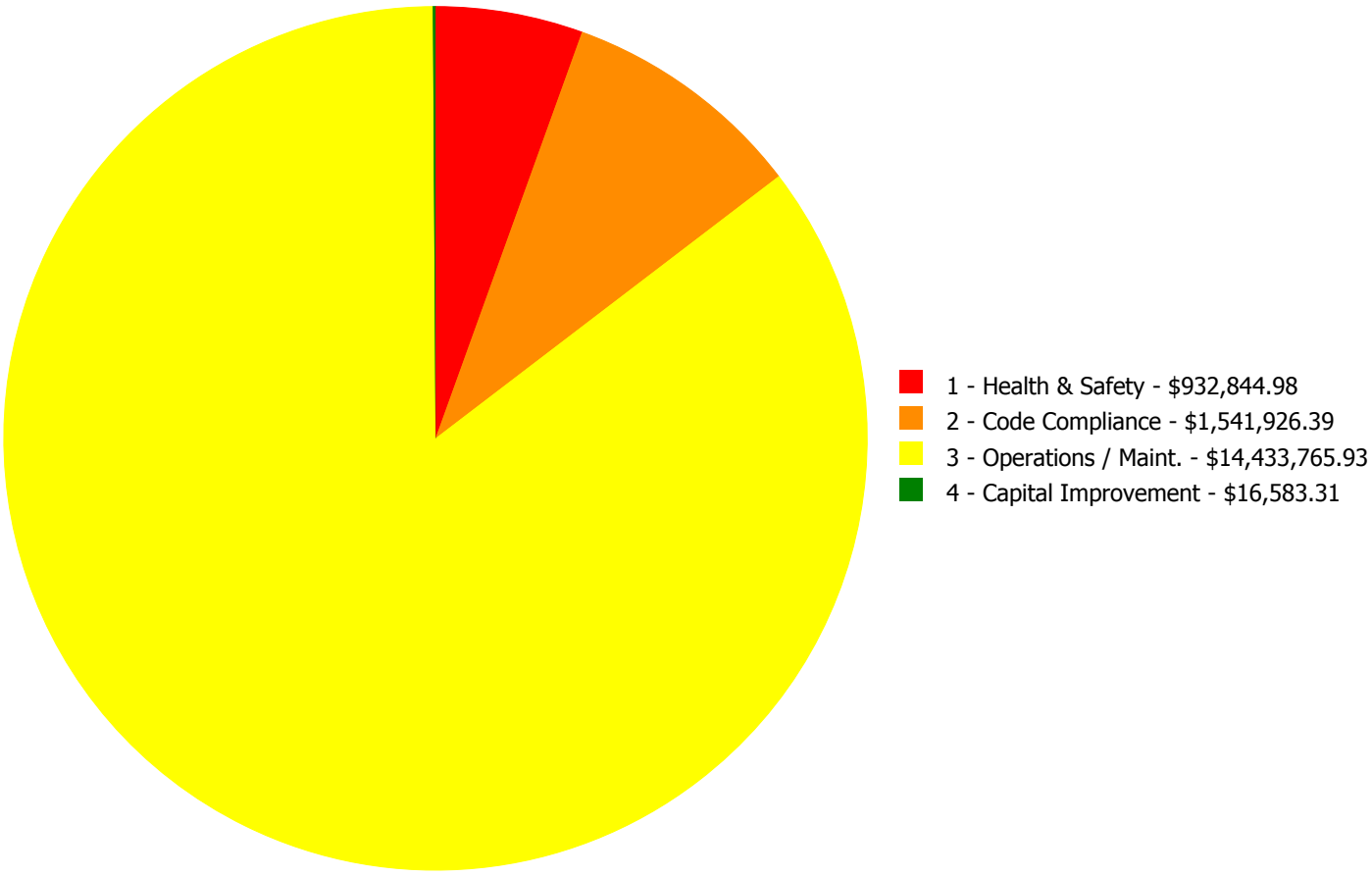
Deficiency By Priority Investment Table

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
B1010	Floor Construction	$0.00	$0.00	$100,369.76	$0.00	$0.00	$100,369.76
B2010	Exterior Walls	$0.00	$305,413.54	$0.00	$0.00	$0.00	$305,413.54
B2020	Exterior Windows	$0.00	$913,791.75	$0.00	$0.00	$0.00	$913,791.75
B2030	Exterior Doors	$0.00	$182,146.42	$0.00	$0.00	$0.00	$182,146.42
B3010105	Built-Up	$1,412,608.80	$0.00	$0.00	$0.00	$0.00	$1,412,608.80
C1020	Interior Doors	$0.00	$535,825.91	$0.00	$0.00	$0.00	$535,825.91
C1030	Fittings	$0.00	$14,177.04	$0.00	$0.00	$0.00	$14,177.04
C2010	Stair Construction	$235,987.70	$0.00	$0.00	$0.00	$0.00	$235,987.70
C3010230	Paint & Covering	$0.00	$55,819.23	$0.00	$0.00	$0.00	$55,819.23
C3020413	Vinyl Flooring	$0.00	$781,668.23	$0.00	$0.00	$0.00	$781,668.23
C3020415	Concrete Floor Finishes	$0.00	$48,711.96	$0.00	$0.00	$0.00	$48,711.96
C3030	Ceiling Finishes	$0.00	$904,945.82	$0.00	$0.00	$0.00	$904,945.82
D2010	Plumbing Fixtures	$0.00	$33,659.61	$0.00	$0.00	$0.00	$33,659.61
D2020	Domestic Water Distribution	$0.00	$0.00	$0.00	$0.00	$425,658.17	$425,658.17
D2030	Sanitary Waste	$0.00	$0.00	$412,083.00	$0.00	$0.00	$412,083.00
D3030	Cooling Generating Systems	$0.00	$0.00	$2,060,069.96	$432,060.47	$0.00	$2,492,130.43
D3040	Distribution Systems	$275,613.25	$0.00	$4,853,171.56	$0.00	$820,172.41	$5,948,957.22
D4010	Sprinklers	$0.00	$0.00	$0.00	$0.00	$1,201,657.51	$1,201,657.51
D5030	Communications and Security	$647,863.43	$0.00	$0.00	$0.00	$0.00	$647,863.43
D5090	Other Electrical Systems	$96,010.34	$0.00	$0.00	$0.00	$0.00	$96,010.34
E1020	Institutional Equipment	$0.00	$175,634.74	$0.00	$0.00	$0.00	$175,634.74
	Total:	$2,668,083.52	$3,951,794.25	$7,425,694.28	$432,060.47	$2,447,488.09	$16,925,120.61

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: $16,925,120.61

Deficiency Details by Priority

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

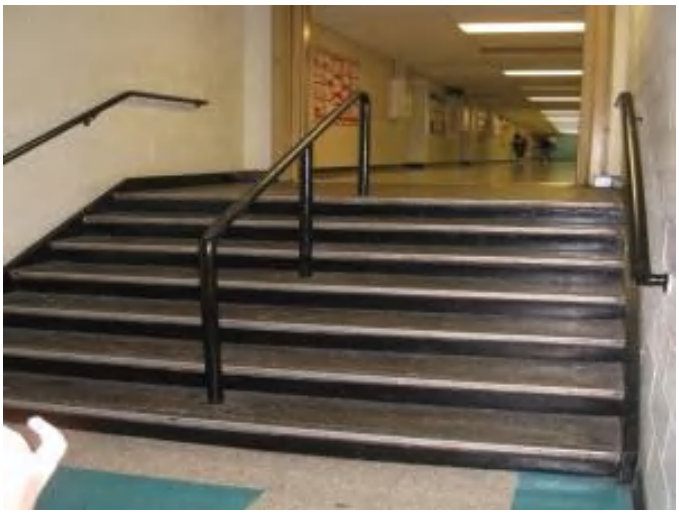
Priority 1 - Response Time (< 2 yr):

System: B3010105 - Built-Up

Location: roof
Distress: Failing
Category: 3 - Operations / Maint.
Priority: 1 - Response Time (< 2 yr)
Correction: Remove and Replace Built Up Roof
Qty: 41,692.00
Unit of Measure: S.F.
Estimate: $1,412,608.80
Assessor Name: Craig Anding
Date Created: 01/19/2016

Notes: Replace all roofing (41,692sf)

System: C2010 - Stair Construction



Location: stairways
Distress: Building / MEP Codes
Category: 2 - Code Compliance
Priority: 1 - Response Time (< 2 yr)
Correction: Replace inadequate or install proper stair railing - select appropriate material
Qty: 700.00
Unit of Measure: L.F.
Estimate: $235,987.70
Assessor Name: Craig Anding
Date Created: 01/19/2016

Notes: Remove and replace stairway handrails and guards with code compliant systems in stairway 1 - 3 stories = 14 stairway/levels for all stairways x 50ft/floor (2 half runs) = 700ft

---

System: D3040 - Distribution Systems

Location: Throughout the school

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Conduct a steam trap survey and replace failed units.

Qty: 84,000.00

Unit of Measure: S.F.

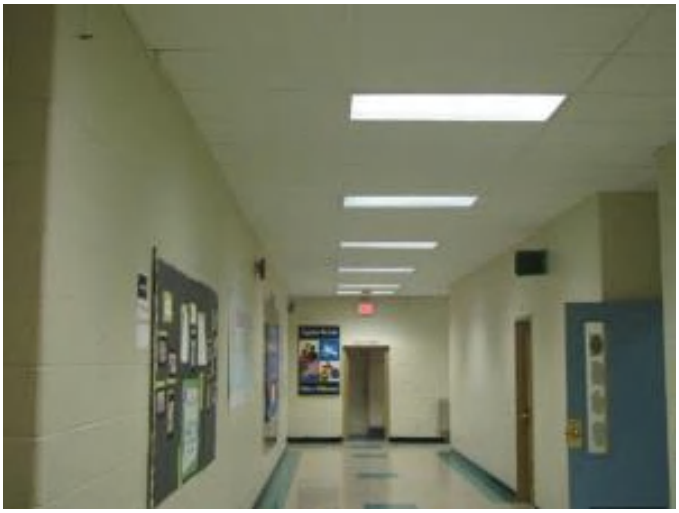
Estimate: $275,613.25

Assessor Name: Craig Anding

Date Created: 02/09/2016

Notes: Conduct a steam trap survey to identify and replace failed traps passing live steam into the condensate piping system.

System: D5030 - Communications and Security



Location: Entire Building

Distress: Security Issue

Category: 1 - Health & Safety

Priority: 1 - Response Time (< 2 yr)

Correction: Add/Replace Video Surveillance System

Qty: 1.00

Unit of Measure: Ea.

Estimate: $631,280.12

Assessor Name: Craig Anding

Date Created: 11/24/2015

Notes: Provide an adequate video surveillance system including camera and Closed Circuit Television (CCTV) for monitoring the system. Cameras should install in the corridors, school entrance.

System: D5030 - Communications and Security

Location: Exterior Building
Distress: Inadequate
Category: 4 - Capital Improvement
Priority: 1 - Response Time (< 2 yr)
Correction: Add/Replace Paging System
Qty: 1.00
Unit of Measure: Ea.
Estimate: $16,583.31
Assessor Name: Craig Anding
Date Created: 11/24/2015

Notes: Provide speakers on exterior walls to adequately cover the area. Estimated 5 in total.

System: D5090 - Other Electrical Systems

Location: Mechanical Room
Distress: Life Safety / NFPA / PFD
Category: 1 - Health & Safety
Priority: 1 - Response Time (< 2 yr)
Correction: Replace standby generator system
Qty: 1.00
Unit of Measure: Ea.
Estimate: $73,428.23
Assessor Name: Craig Anding
Date Created: 12/24/2015

Notes: Replace existing emergency generator with a 30KW, 120/208V generator along with respective Automatic Transfer Switch. Replace existing emergency distribution panel board.

System: D5090 - Other Electrical Systems

Location: Roof

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

Priority: 1 - Response Time (< 2 yr)

Correction: Repair Lightning Protection System

Qty: 1.00

Unit of Measure: Job

Estimate: $22,582.11

Assessor Name: Craig Anding

Date Created: 11/24/2015

Notes: Provide lightning protection studies to ascertain adequacy of existing systems.

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

System: B2010 - Exterior Walls

Location: exterior gymnasium walls

Distress: Building Envelope Integrity

Category: 3 - Operations / Maint.

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

Correction: Remove and replace exterior insulating finish system (EIFS)

Qty: 4,000.00

Unit of Measure: S.F.

Estimate: $186,341.82

Assessor Name: Craig Anding

Date Created: 01/19/2016

Notes: Provide new EIFS (exterior insulation and finish system) on three exterior walls on gym (4,000sf)

System: B2010 - Exterior Walls

Location: first floor front and east side walls

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Repaint exterior walls - CMU

Qty: 6,000.00

Unit of Measure: S.F.

Estimate: $52,634.07

Assessor Name: Craig Anding

Date Created: 01/19/2016

Notes: Repaint brown foundation up to first floor windows (6000sf)

System: B2010 - Exterior Walls

Location: front and side elevations

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Exterior plaster or stucco repair and refinishing - based on SF of wall surface

Qty: 2,500.00

Unit of Measure: S.F.

Estimate: $35,754.39

Assessor Name: Craig Anding

Date Created: 01/19/2016

Notes: Replaster front and side exterior cement pilasters and beams (2,500sf)

System: B2010 - Exterior Walls

Location: exterior walls, chimney

Distress: Building Envelope Integrity

Category: 3 - Operations / Maint.

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

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

Qty: 700.00

Unit of Measure: S.F.

Estimate: $22,602.63

Assessor Name: Craig Anding

Date Created: 01/19/2016

Notes: Repoint brick on chimney, penthouse and other building walls (700sf)

System: B2010 - Exterior Walls

Location: exterior walls front and side brick

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Sooty and dirty walls - powerwash

Qty: 6,000.00

Unit of Measure: S.F.

Estimate: $6,562.41

Assessor Name: Craig Anding

Date Created: 01/19/2016

Notes: Remove vegetation attached to building; powerwash brick on front and front sides (6,000sf)

System: B2010 - Exterior Walls

Location: lintels in brick walls

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Prepare and paint exterior steel beams or steel surfaces

Qty: 200.00

Unit of Measure: S.F.

Estimate: $1,518.22

Assessor Name: Craig Anding

Date Created: 01/19/2016

Notes: Repaint lintels over windows in brick walls (200 sf)

System: B2020 - Exterior Windows

Location: exterior windows

Distress: Failing

Category: 3 - Operations / Maint.

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

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

Qty: 200.00

Unit of Measure: Ea.

Estimate: $913,791.75

Assessor Name: Craig Anding

Date Created: 01/19/2016

Notes: Replace all exterior windows with insulated single hung units (200)3.5x6

System: B2030 - Exterior Doors

Location: exterior doors

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Remove and replace exterior doors - per leaf

Qty: 20.00

Unit of Measure: Ea.

Estimate: $182,146.42

Assessor Name: Craig Anding

Date Created: 01/19/2016

Notes: Replace exterior hollow metal doors on old building (20 3x7)

System: C1020 - Interior Doors

Location: interior doors

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: 88.00

Unit of Measure: Ea.

Estimate: $419,811.67

Assessor Name: Craig Anding

Date Created: 01/19/2016

Notes: Replace all interior wood doors, hollow metal frames, and hardware (88 3x7)

System: C1020 - Interior Doors

Location: interior doors

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace hollow metal frames and doors

Qty: 20.00

Unit of Measure: Ea.

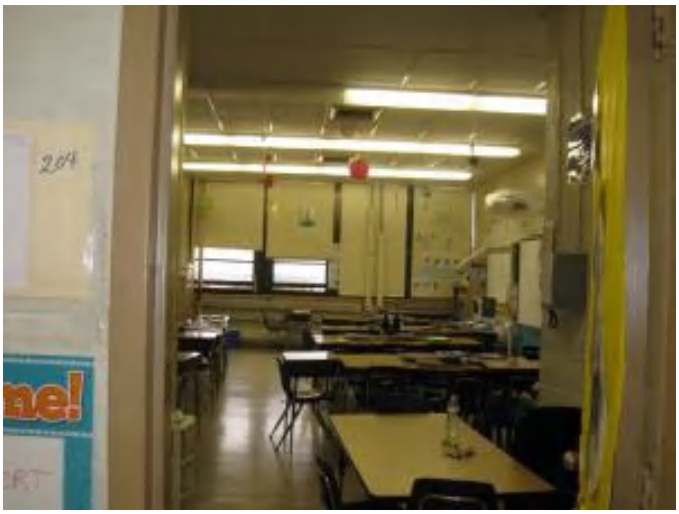
Estimate: $101,559.74

Assessor Name: Craig Anding

Date Created: 01/19/2016

Notes: Replace interior hollow metal doors and frames – fire rated (20 3x7)

System: C1020 - Interior Doors



Location: corridor doors to classrooms and offices

Distress: Security Issue

Category: 1 - Health & Safety

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

Correction: Provide security hardware for classroom and office doors

Qty: 63.00

Unit of Measure: Ea.

Estimate: $14,454.50

Assessor Name: Craig Anding

Date Created: 01/19/2016

Notes: Provide security hardware for classrooms and offices, locking from inside classroom (63 each)

System: C1030 - Fittings

Location: toilet rooms

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace toilet partitions

Qty: 4.00

Unit of Measure: Ea.

Estimate: $10,265.62

Assessor Name: Craig Anding

Date Created: 01/19/2016

Notes: Provide new toilet room partitions where old partitions are damaged (4)

System: C1030 - Fittings

Location: toilet rooms

Distress: Accessibility

Category: 2 - Code Compliance

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

Correction: Remove and replace damaged toilet paritions - handicap units

Qty: 4.00

Unit of Measure: Ea.

Estimate: $3,911.42

Assessor Name: Craig Anding

Date Created: 01/19/2016

Notes: Provide new ADA toilet room partitions and accessories (4 sets)

System: C3010230 - Paint & Covering

Location: walls, water damaged

Distress: Appearance

Category: 3 - Operations / Maint.

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

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

Qty: 10,000.00

Unit of Measure: S.F.

Estimate: $54,105.81

Assessor Name: Craig Anding

Date Created: 01/19/2016

Notes: Repair walls damaged by water leaks; repaint walls in old building (10,000sf)

System: C3010230 - Paint & Covering

Location: stairways

Distress: Failing

Category: 3 - Operations / Maint.

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

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

Qty: 200.00

Unit of Measure: S.F.

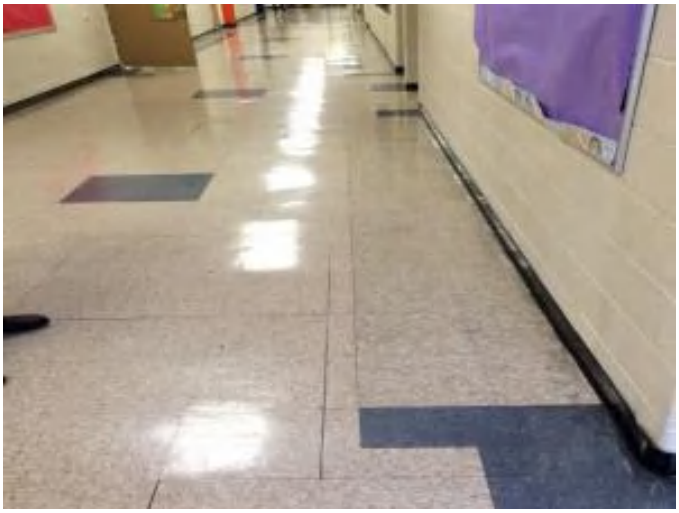
Estimate: $1,713.42

Assessor Name: Craig Anding

Date Created: 01/19/2016

Notes: Repaint rusted underside of stairway risers/treads (200sf)

System: C3020413 - Vinyl Flooring



Location: floors

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace VCT

Qty: 40,000.00

Unit of Measure: S.F.

Estimate: $480,701.27

Assessor Name: Craig Anding

Date Created: 01/19/2016

Notes: Replace VCT (40,000sf)

System: C3020413 - Vinyl Flooring

Location: floors - VAT

Distress: Health Hazard / Risk

Category: 1 - Health & Safety

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

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

Qty: 12,600.00

Unit of Measure: S.F.

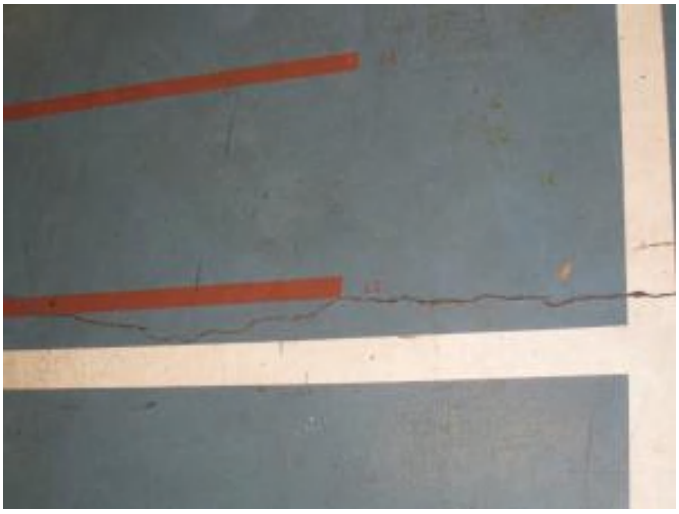
Estimate: $191,100.02

Assessor Name: Craig Anding

Date Created: 01/19/2016

Notes: Replace VAT with VCT (12,600sf)

System: C3020413 - Vinyl Flooring



Location: gym floor

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace vinyl sheet flooring

Qty: 6,000.00

Unit of Measure: S.F.

Estimate: $109,866.94

Assessor Name: Craig Anding

Date Created: 01/19/2016

Notes: Remove existing gym floor finish and provide new gymnasium floor (6,000sf)

System: C3020415 - Concrete Floor Finishes

Location: mech rooms, toilet rooms, stairways

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Prepare and repaint concrete floor

Qty: 8,400.00

Unit of Measure: S.F.

Estimate: $48,711.96

Assessor Name: Craig Anding

Date Created: 01/19/2016

Notes: Strip, clean and reseal/repaint concrete floors in mechanical rooms, toilet rooms and stairways. (8,400sf)

System: C3030 - Ceiling Finishes

Location: ceilings

Distress: Failing

Category: 3 - Operations / Maint.

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

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

Qty: 60,000.00

Unit of Measure: S.F.

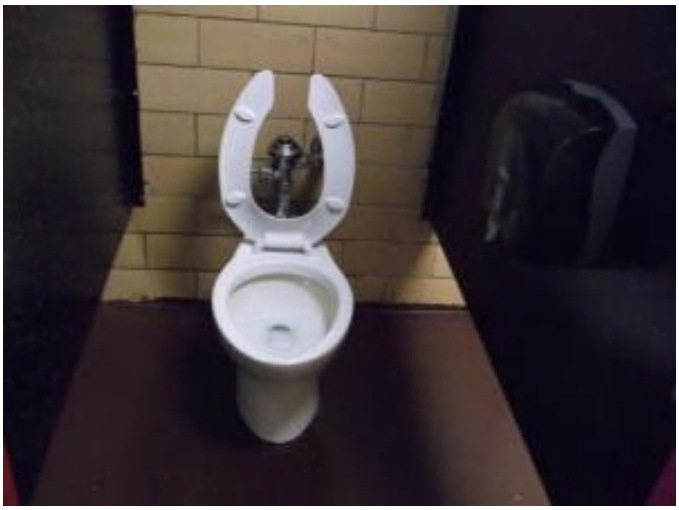
Estimate: $904,945.82

Assessor Name: Craig Anding

Date Created: 01/19/2016

Notes: Replace old 2x4 ceilings with new ceiling systems (60,000sf)

System: D2010 - Plumbing Fixtures



Location: Throughout the school

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 1.00

Unit of Measure: Ea.

Estimate: $7,462.15

Assessor Name: Craig Anding

Date Created: 02/09/2016

Notes: Replace all water closets in the building with lower flow fixtures, as the fixtures are original.

System: D2010 - Plumbing Fixtures

Location: Throughout the school

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 1.00

Unit of Measure: Ea.

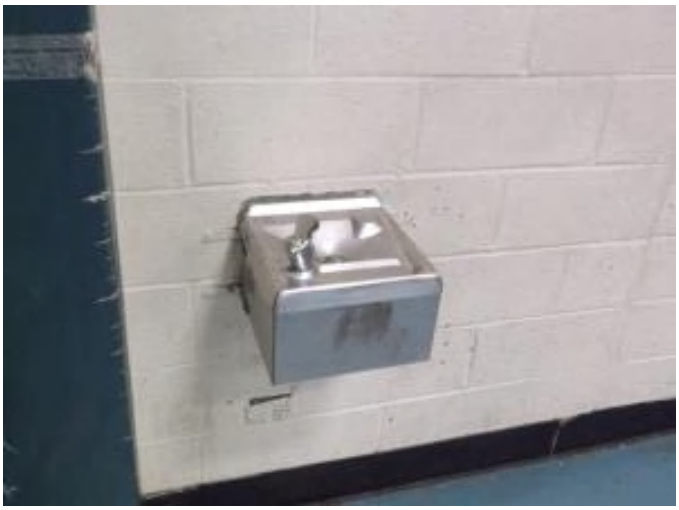
Estimate: $7,462.15

Assessor Name: Craig Anding

Date Created: 02/09/2016

Notes: Replace all urinals in the building with lower flow fixtures, as the fixtures are original.

System: D2010 - Plumbing Fixtures



Location: Throughout the school

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 1.00

Unit of Measure: Ea.

Estimate: $7,462.15

Assessor Name: Craig Anding

Date Created: 02/09/2016

Notes: Replace the wall hung drinking fountains and integral refrigerated coolers in the corridors and at the restrooms. These units are well beyond their service life and most are NOT accessible type.

System: D2010 - Plumbing Fixtures

Location: Throughout the school

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 1.00

Unit of Measure: Ea.

Estimate: $7,462.15

Assessor Name: Craig Anding

Date Created: 02/09/2016

Notes: Replace service sinks (janitor sinks) in the building

System: D2010 - Plumbing Fixtures

Location: Throughout the school

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 1.00

Unit of Measure: Ea.

Estimate: $3,811.01

Assessor Name: Craig Anding

Date Created: 02/09/2016

Notes: Replace all lavatories in the building with lower flow fixtures, as the fixtures are original

System: E1020 - Institutional Equipment

Location: science rooms

Distress: Failing

Category: 3 - Operations / Maint.

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

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

Qty: 100.00

Unit of Measure: L.F.

Estimate: $175,634.74

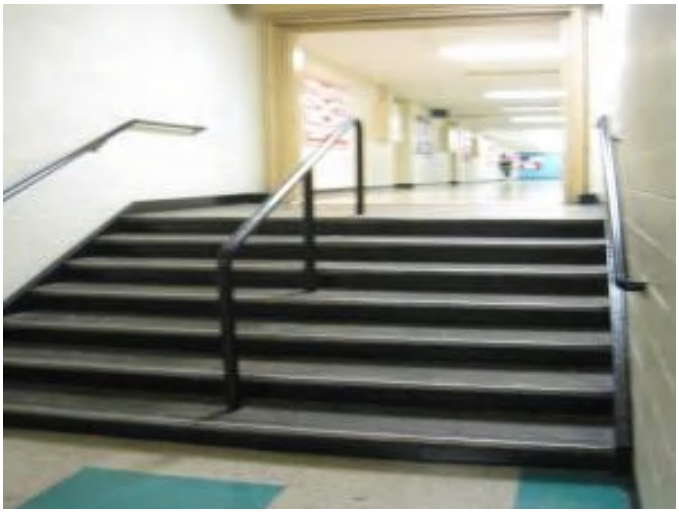
Assessor Name: Craig Anding

Date Created: 01/19/2016

Notes: Provide new science lab furniture (100lf)

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

System: B1010 - Floor Construction



Location: ramp in corridor to gym

Distress: Accessibility

Category: 2 - Code Compliance

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

Correction: Install interior handicap ramp - per LF 5' wide - insert the LF in the quantity

Qty: 50.00

Unit of Measure: L.F.

Estimate: $100,369.76

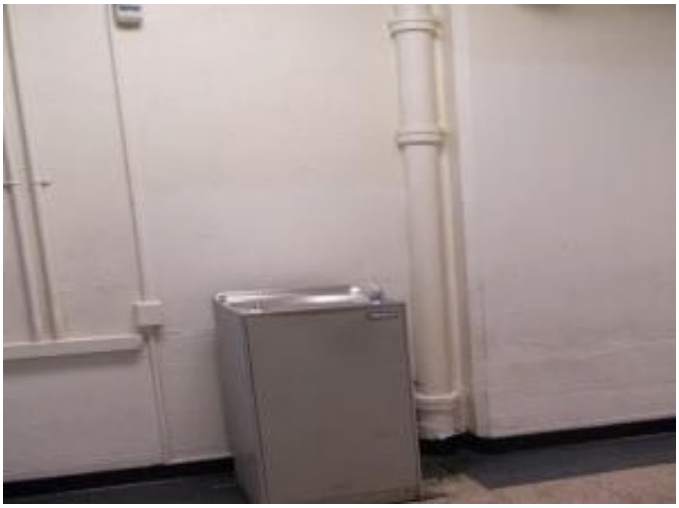
Assessor Name: Craig Anding

Date Created: 01/19/2016

Notes: Construct new ramp 50" tall, 50ft long in corridor to gymnasium

---

System: D2030 - Sanitary Waste



Location: Throughout the school

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 84,000.00

Unit of Measure: S.F.

Estimate: $412,083.00

Assessor Name: Craig Anding

Date Created: 02/09/2016

Notes: Hire a qualified contractor to perform a detailed examination of the sanitary waste piping using visual inspection and video cameras to locate and replace any damaged piping and to further quantify the extent of potential failures

---

System: D3030 - Cooling Generating Systems

Location: Chiller mechanical equipment room
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 3 - Response Time (3-4 yrs)
Correction: Replace cooling tower, ID, galv. (250 tons)
Qty: 2.00
Unit of Measure: Ea.
Estimate: $1,204,670.00
Assessor Name: Craig Anding
Date Created: 02/09/2016

Notes: Replace cooling towers.

System: D3030 - Cooling Generating Systems

Location: Chiller mechanical equipment room
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 3 - Response Time (3-4 yrs)
Correction: Replace chiller, water-cooled (500 tons)
Qty: 1.00
Unit of Measure: Ea.
Estimate: $855,399.96
Assessor Name: Craig Anding
Date Created: 02/09/2016

Notes: Replace chiller.

System: D3040 - Distribution Systems

Location: Throughout the school

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 15.00

Unit of Measure: TonAC

Estimate: $3,600,167.72

Assessor Name: Craig Anding

Date Created: 02/09/2016

Notes: Replace the existing York air handling units with package indoor units with heating and cooling coils and outside air for ventilation to provide adequate ventilation per ASHRAE Std 62.

System: D3040 - Distribution Systems

Location: Throughout the school

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Perform testing to identify and replace damaged steam and condensate piping.

Qty: 84,000.00

Unit of Measure: S.F.

Estimate: $794,671.28

Assessor Name: Craig Anding

Date Created: 02/09/2016

Notes: Hire a qualified contractor to examine the steam and condensate piping in service for 80 years and perform additional testing to locate and replace any damaged piping and to further quantify the extent of potential failures. The District should budget for replacing this piping over the next 10 years

---

System: D3040 - Distribution Systems

Location: Roof

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 15.00

Unit of Measure: TonAC

Estimate: $281,099.01

Assessor Name: Craig Anding

Date Created: 02/09/2016

Notes: Replace split systems with a supply duct distributed split system air handling system with outside air ventilation for the Cafeteria

System: D3040 - Distribution Systems

Location: Roof

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace power roof ventilator (24" dia.)

Qty: 4.00

Unit of Measure: Ea.

Estimate: $177,233.55

Assessor Name: Craig Anding

Date Created: 02/09/2016

Notes: Replace restroom exhaust fans.

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

System: D3030 - Cooling Generating Systems

Location: Chiller mechanical equipment room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace base mounted, end suction CHW pump (5" size, 15 HP, to 1000 GPM)

Qty: 2.00

Unit of Measure: Ea.

Estimate: $262,097.10

Assessor Name: Craig Anding

Date Created: 02/09/2016

Notes: Replace chilled water pumps.

System: D3030 - Cooling Generating Systems

Location: Chiller mechanical equipment room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace base mounted, end suction CHW pump (6" size, 25 HP, to 1550 GPM)

Qty: 1.00

Unit of Measure: Ea.

Estimate: $169,963.37

Assessor Name: Craig Anding

Date Created: 02/09/2016

Notes: Replace condenser water pumps.

Priority 5 - Response Time (> 5 yrs):

System: D2020 - Domestic Water Distribution

Location: Throughout the school
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 5 - Response Time (> 5 yrs)
Correction: Replace domestic water piping (75 KSF)
Qty: 84,000.00
Unit of Measure: S.F.
Estimate: $425,658.17
Assessor Name: Craig Anding
Date Created: 02/09/2016

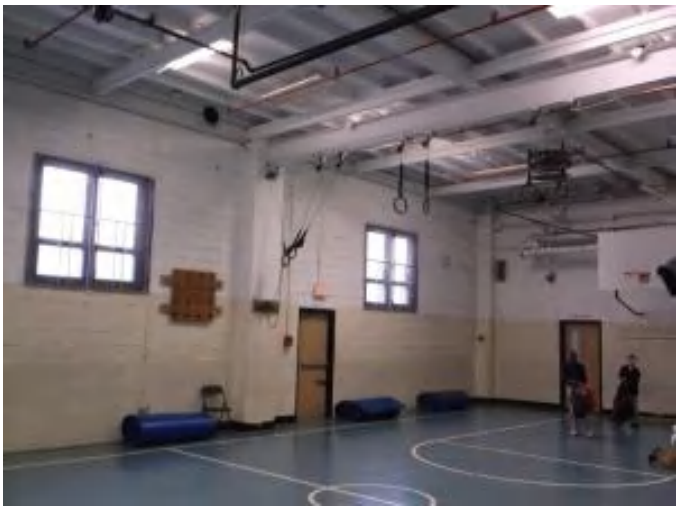
Notes: Inspect and replace the original as needed the domestic water piping in the building

System: D3040 - Distribution Systems

Location: Roof
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 5 - Response Time (> 5 yrs)
Correction: Install HVAC unit for Cafeteria (850 students).
Qty: 850.00
Unit of Measure: Student
Estimate: $434,958.00
Assessor Name: Craig Anding
Date Created: 02/09/2016

Notes: Provide ventilation, heating and cooling for the Multipurpose Room by installing a packaged roof top unit.

System: D3040 - Distribution Systems



Location: Roof

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Install HVAC unit for Gymnasium (single station).

Qty: 6,000.00

Unit of Measure: S.F.

Estimate: $344,860.27

Assessor Name: Craig Anding

Date Created: 02/09/2016

Notes: Provide ventilation, heating and cooling for the gymnasium by installing a packaged roof top unit.

System: D3040 - Distribution Systems

Location: Throughout the school

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 5 - Response Time (> 5 yrs)

Correction: Replace finned tube radiation terminals (per 100 LF)

Qty: 100.00

Unit of Measure: L.F.

Estimate: $40,354.14

Assessor Name: Craig Anding

Date Created: 02/09/2016

Notes: Replace the steam convection units and any of the original radiant heating (manifold) terminals fashioned from welded piping still present in the building with finned tube elements to protect students from exposure to the hot surfaces.

System: D4010 - Sprinklers

Location: Throughout the building

Distress: Life Safety / NFPA / PFD

Category: 2 - Code Compliance

Priority: 5 - Response Time (> 5 yrs)

Correction: Install a fire protection sprinkler system

Qty: 84,000.00

Unit of Measure: S.F.

Estimate: $1,201,657.51

Assessor Name: Craig Anding

Date Created: 02/09/2016

Notes: Install a fire protection sprinkler system for the areas which are currently not protected with quick response type heads to reduce insurance costs by providing protection for the property. A fire pump may be required depending on the available city water pressure.

Equipment Inventory

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

Subsystem	Inventory	Qty	UoM	Location	Manufacturer	Model Number	Serial Number	Barcode	Life	Install Date	Next Renewal	Raw Cost	Inventory Cost
D1010 Elevators and Lifts	Hydraulic, passenger elevator, 1500 lb, 2 floors, 100 FPM	1.00	Ea.	Building Interior					30	1936	2023	$68,985.00	$75,883.50
D3020 Heat Generating Systems	Boiler, cast iron, gas, steam, 4720 MBH	2.00	Ea.	Main boiler mechnaical equipment room	Weil McLain				35			$150,947.30	$332,084.06
D3020 Heat Generating Systems	Boiler, cast iron, gas, steam, 4720 MBH	2.00	Ea.	Main boiler mechnaical equipment room	Weil McLain	1594			35			$150,947.30	$332,084.06
D3030 Cooling Generating Systems	Chiller, reciprocating, air cooled, standard controls, 80 ton	1.00	Ea.	Main mechanical room	Carrier	30HXC106RZ-661BA			30			$90,207.10	$99,227.81
D3030 Cooling Generating Systems	Cooling tower, galvanized steel, packaged unit, draw thru, 110 ton	2.00	Ea.	Main mechanical room	Evapco	LSTA 4-121			30			$51,369.50	$113,012.90
D5010 Electrical Service/Distribution	Load interrupter switch, 2 position, 400 kVA & above w/CLF fuses, 4.8 kV, 600 amp, NEMA 1	1.00	Ea.	Electrical Room					30	1936	2025	$38,502.00	$42,352.20
D5010 Electrical Service/Distribution	Switchboards, pressure switch, 4 wire, with ground fault, 120/208 V, 1600 amp, incl CT compartment, excl CT's or PT's	1.00	Ea.	Electrical Room					30	1936	2025	$35,024.40	$38,526.84
D5010 Electrical Service/Distribution	Transformer, liquid-filled, 5 kV or 15 kV primary, 277/480 V secondary, 3 phase, 1000 kVA, pad mounted	1.00	Ea.	Electrical Room					30	1936	2025	$50,425.20	$55,467.72
												Total:	**$1,088,639.09**

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):	47,500
Year Built:	1936
Last Renovation:	
Replacement Value:	$961,719
Repair Cost:	$208,116.58
Total FCI:	21.64 %
Total RSLI:	47.77 %

Description:

Attributes:

General Attributes:

Bldg ID:	S731001	Site ID:	S731001

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	48.22 %	30.35 %	$208,116.58
G40 - Site Electrical Utilities	46.67 %	0.00 %	$0.00
Totals:	**47.77 %**	**21.64 %**	**$208,116.58**

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.	8,500	30	1936	1966	2047	106.67 %	108.69 %	32		$78,530.19	$72,250
G2030	Pedestrian Paving	$12.30	S.F.	25,100	40	1936	1976	2027	30.00 %	18.61 %	12		$57,467.52	$308,730
G2040	Site Development	$4.36	S.F.	47,500	25	1936	1961	2025	40.00 %	34.82 %	10		$72,118.87	$207,100
G2050	Landscaping & Irrigation	$4.36	S.F.	22,400	15	1936	1951	2027	80.00 %	0.00 %	12			$97,664
G4020	Site Lighting	$4.84	S.F.	47,500	30	1936	1966	2029	46.67 %	0.00 %	14			$229,900
G4030	Site Communications & Security	$0.97	S.F.	47,500	30	1936	1966	2029	46.67 %	0.00 %	14			$46,075
								Total	**47.77 %**	**21.64 %**			**$208,116.58**	**$961,719**

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.

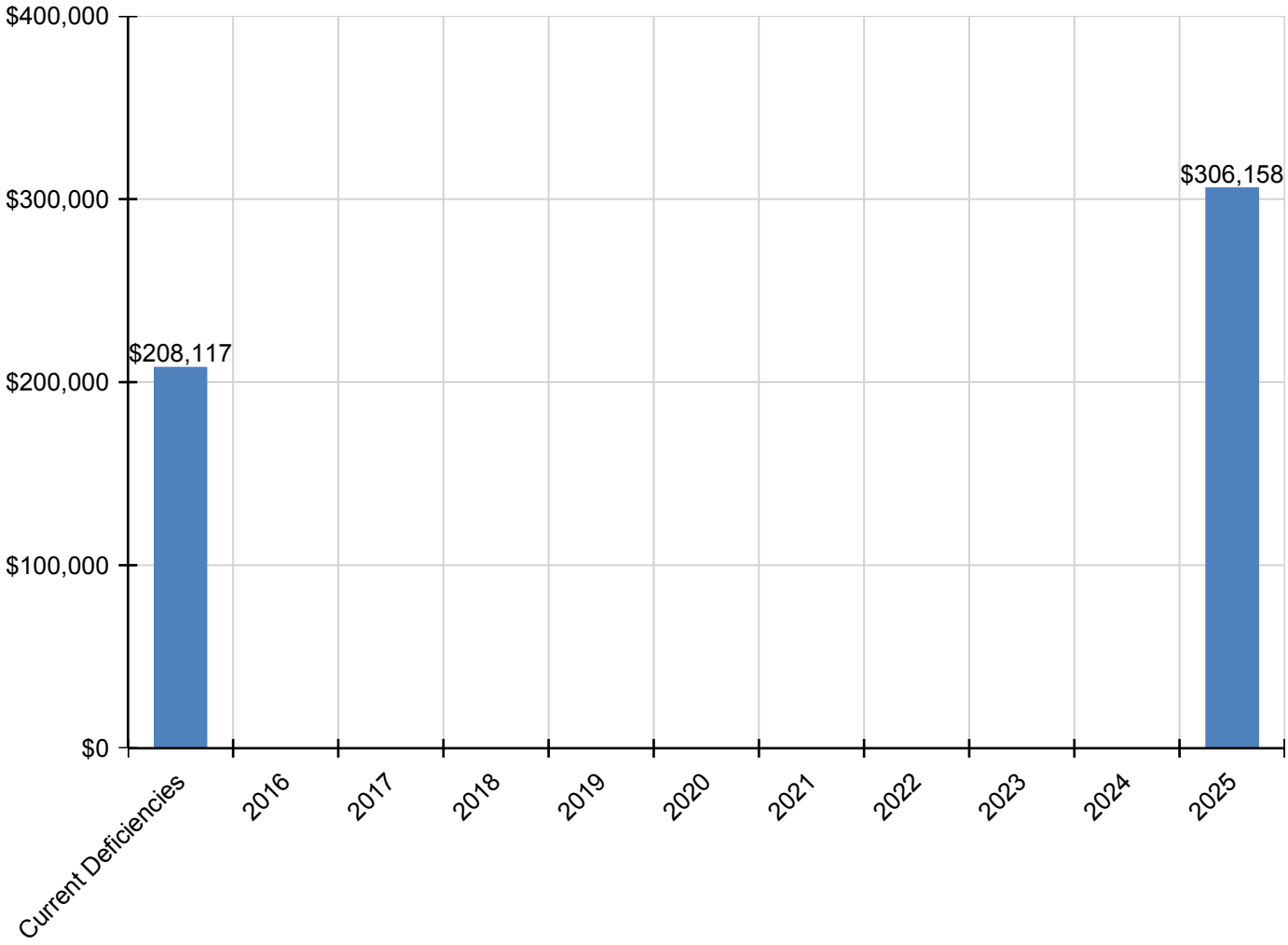
Inflation Rate: 3%

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Total:	**$208,117**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$306,158**	**$514,274**
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	$78,530	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$78,530**
G2030 - Pedestrian Paving	$57,468	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$57,468**
G2040 - Site Development	$72,119	$0	$0	$0	$0	$0	$0	$0	$0	$0	$306,158	**$378,276**
G2050 - Landscaping & Irrigation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G40 - Site Electrical Utilities	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G4020 - Site Lighting	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G4030 - Site Communications & Security	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

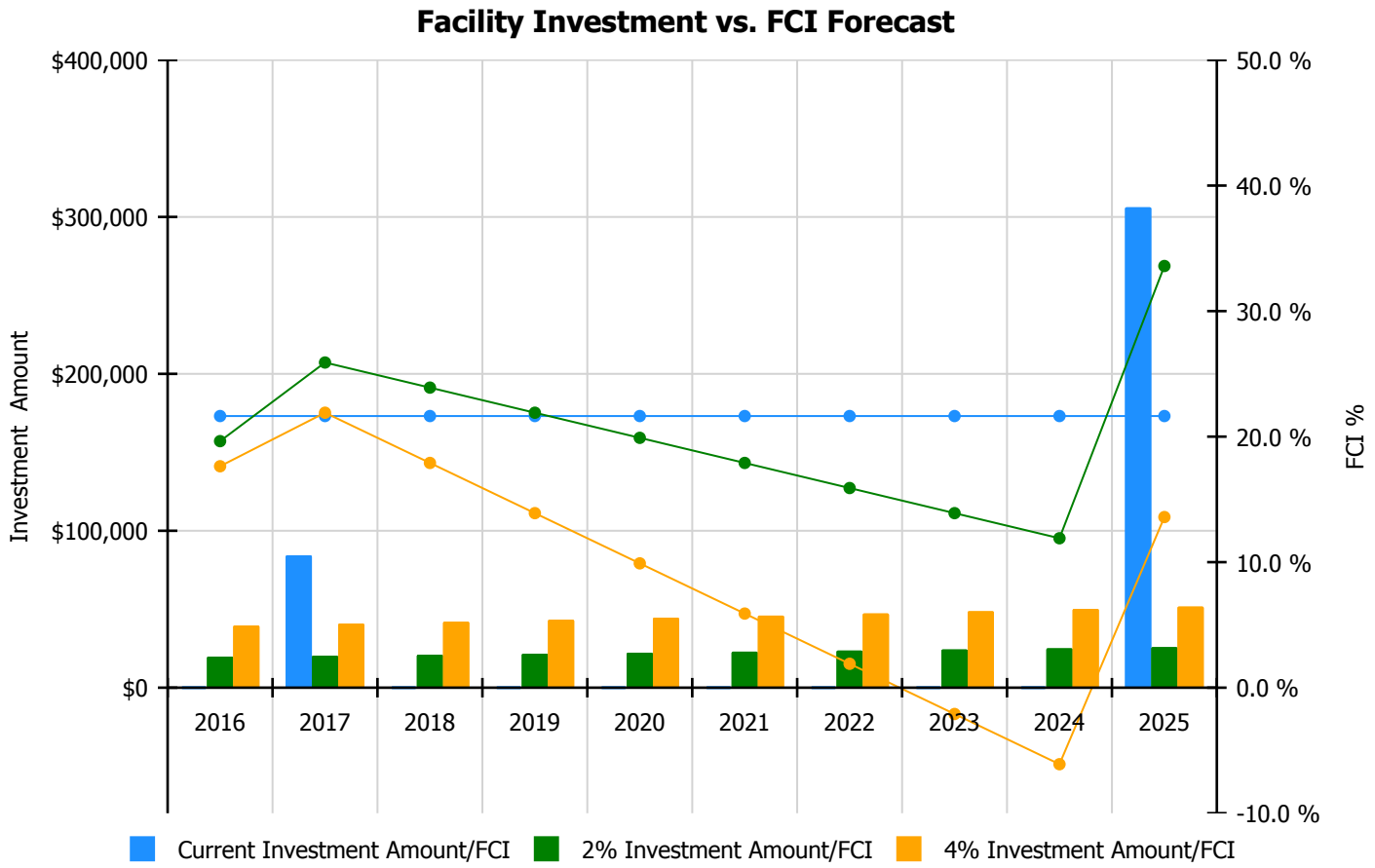
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



10 Year FCI Forecast by Investment Scenario

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

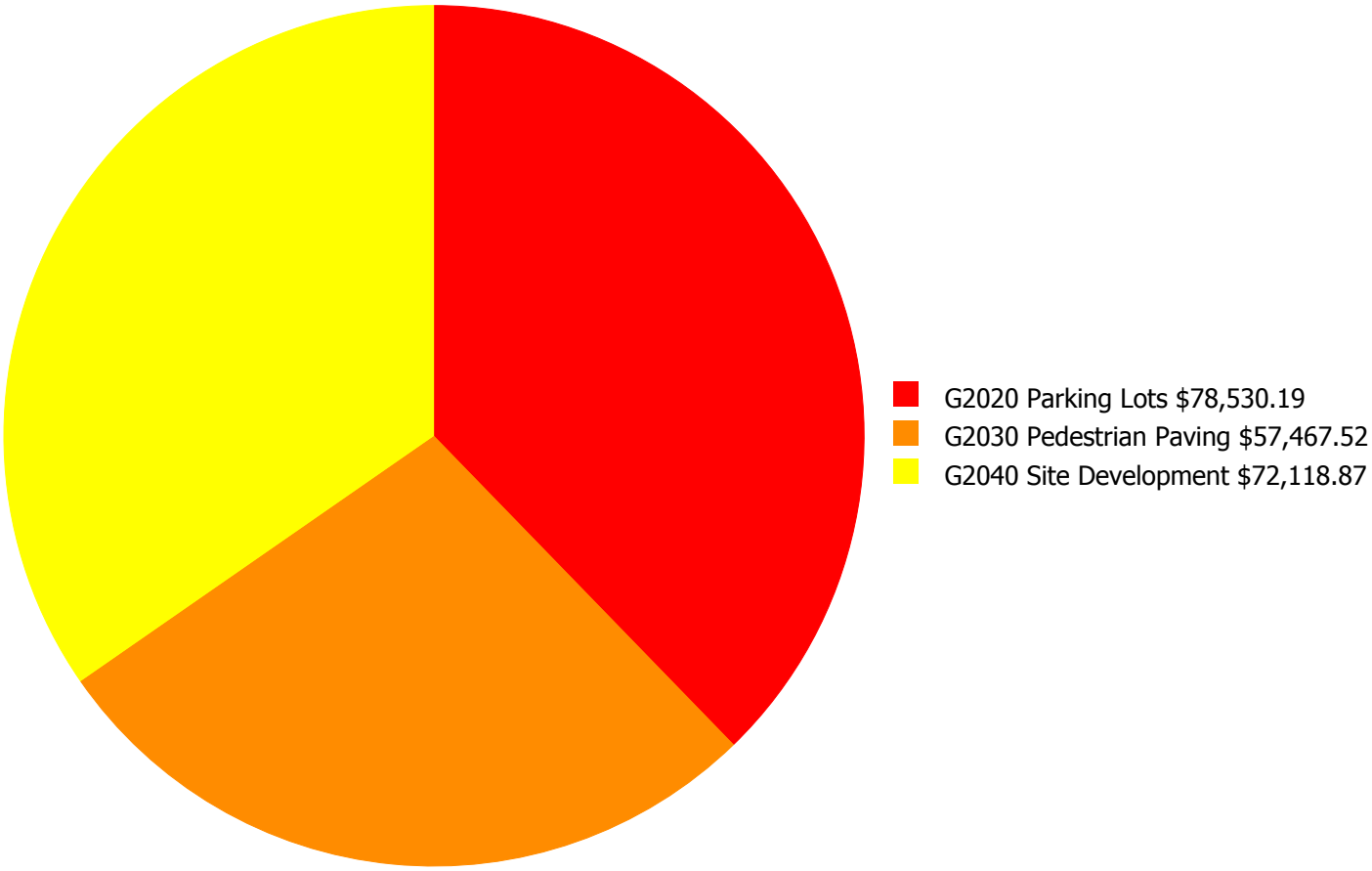
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 21.64%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$19,811.00	19.64 %	$39,623.00	17.64 %
2017	$84,315	$20,406.00	25.90 %	$40,812.00	21.90 %
2018	$0	$21,018.00	23.90 %	$42,036.00	17.90 %
2019	$0	$21,648.00	21.90 %	$43,297.00	13.90 %
2020	$0	$22,298.00	19.90 %	$44,596.00	9.90 %
2021	$0	$22,967.00	17.90 %	$45,934.00	5.90 %
2022	$0	$23,656.00	15.90 %	$47,312.00	1.90 %
2023	$0	$24,366.00	13.90 %	$48,731.00	-2.10 %
2024	$0	$25,097.00	11.90 %	$50,193.00	-6.10 %
2025	$306,158	$25,849.00	33.59 %	$51,699.00	13.59 %
Total:	**$390,473**	**$227,116.00**		**$454,233.00**	

Deficiency Summary by System

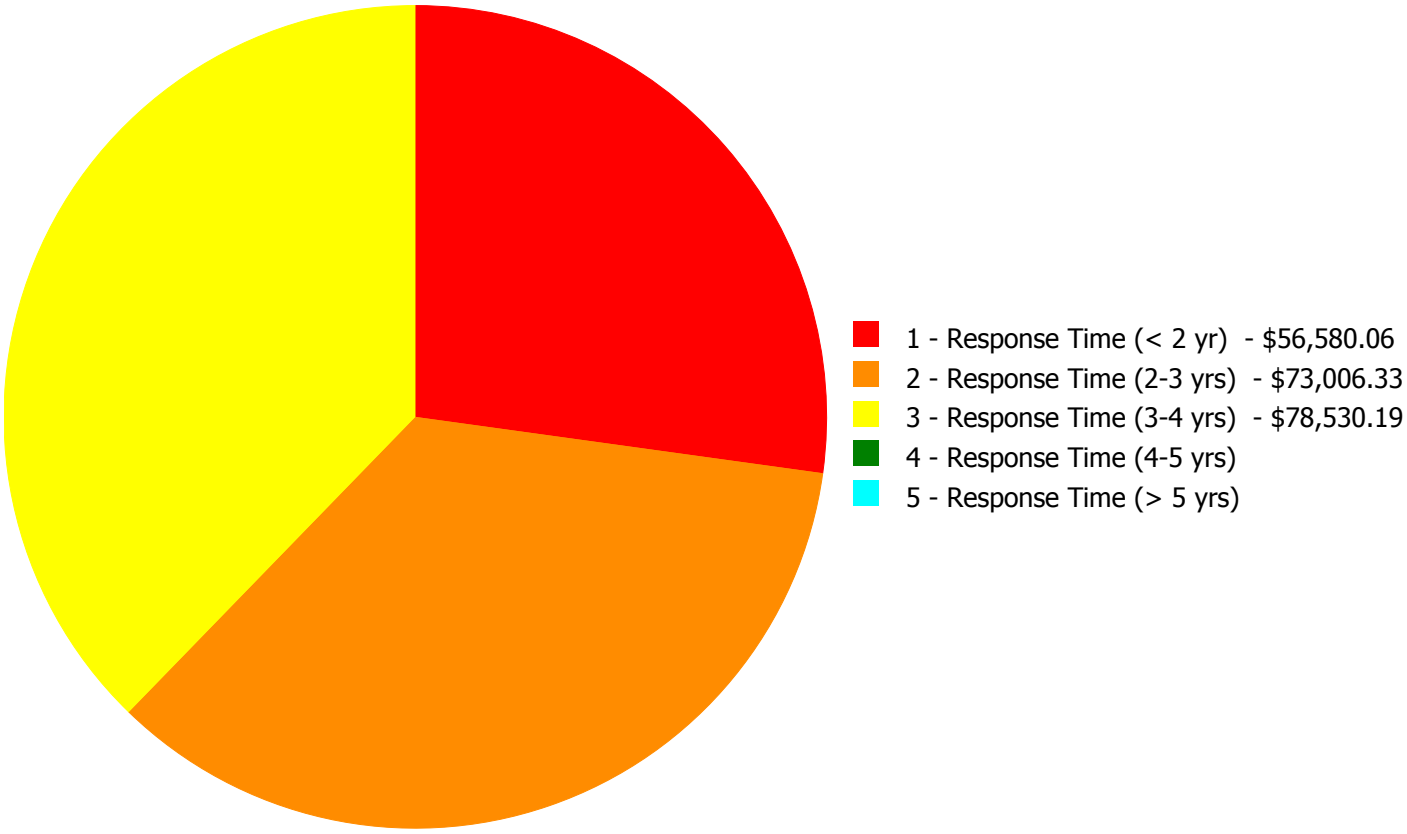
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $208,116.58

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: $208,116.58

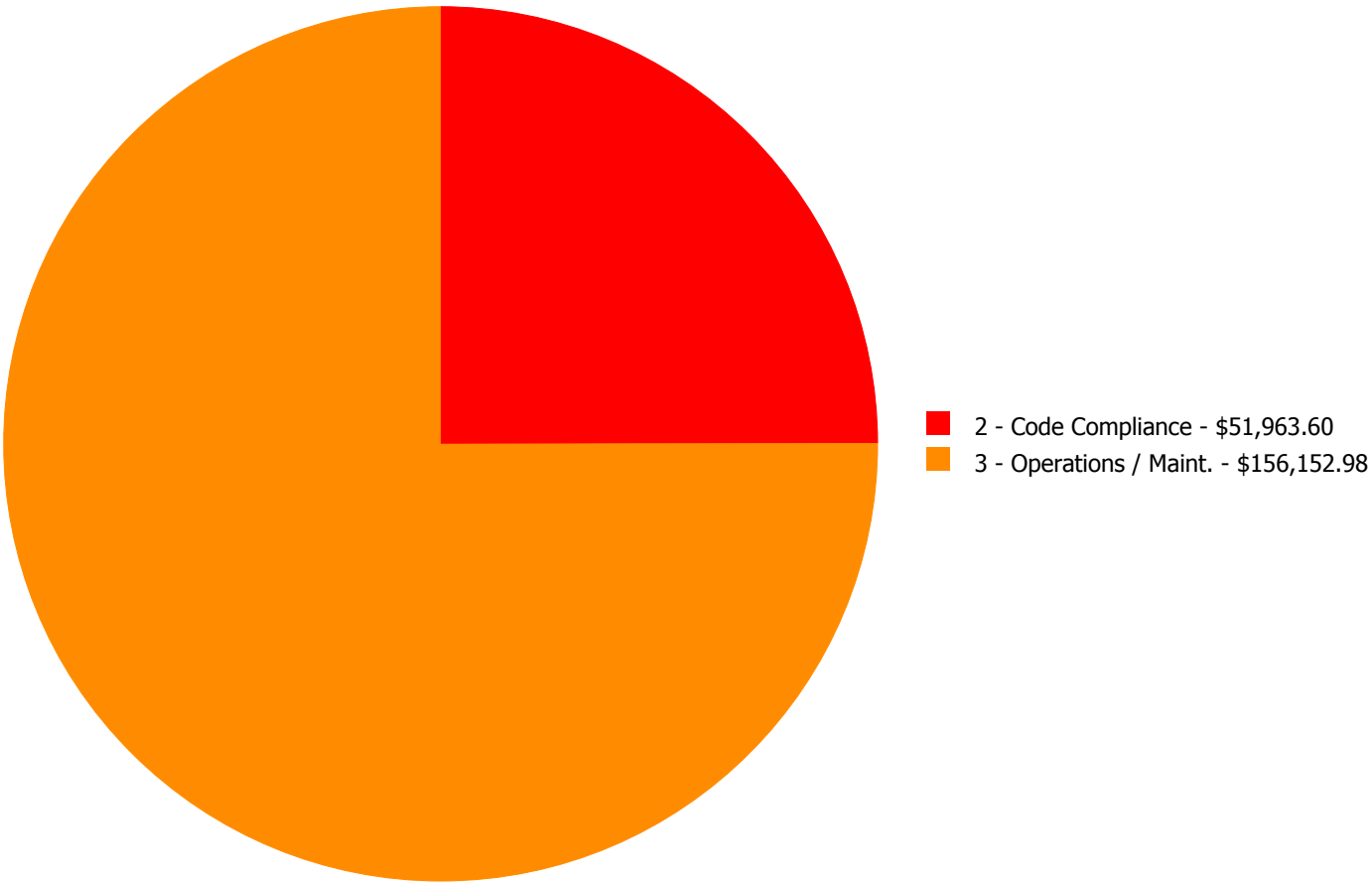
Deficiency By Priority Investment Table

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

System Code	System Description	1 - Response Time (< 2 yr)	2 - Response Time (2-3 yrs)	3 - Response Time (3-4 yrs)	4 - Response Time (4-5 yrs)	5 - Response Time (> 5 yrs)	Total
G2020	Parking Lots	$0.00	$0.00	$78,530.19	$0.00	$0.00	$78,530.19
G2030	Pedestrian Paving	$51,963.60	$5,503.92	$0.00	$0.00	$0.00	$57,467.52
G2040	Site Development	$4,616.46	$67,502.41	$0.00	$0.00	$0.00	$72,118.87
	Total:	$56,580.06	$73,006.33	$78,530.19	$0.00	$0.00	$208,116.58

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: $208,116.58

Deficiency Details by Priority

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

Priority 1 - Response Time (< 2 yr):

System: G2030 - Pedestrian Paving

Location: east driveway, door to corridor/stair

Distress: Accessibility

Category: 2 - Code Compliance

Priority: 1 - Response Time (< 2 yr)

Correction: Install an exterior ADA ramp - based on 5' wide by the linear foot - up to a 48" rise - per LF of ramp - figure 1 LF per inch of rise

Qty: 40.00

Unit of Measure: L.F.

Estimate: $51,963.60

Assessor Name: Craig Anding

Date Created: 01/19/2016

Notes: Provide new handicap ramp and railing system into east entrance (40 ft.)

System: G2040 - Site Development

Location: main entrance stair on E. Wyoming Ave.

Distress: Failing

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Replace or install exterior guardrails

Qty: 24.00

Unit of Measure: L.F.

Estimate: $4,616.46

Assessor Name: Craig Anding

Date Created: 01/19/2016

Notes: New handrails (2) for entrance stairs (24ft)

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

System: G2030 - Pedestrian Paving

Location: sidewalk

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 200.00

Unit of Measure: S.F.

Estimate: $2,876.57

Assessor Name: Craig Anding

Date Created: 01/19/2016

Notes: Repave broken sidewalk (200sf)

System: G2030 - Pedestrian Paving

Location: vehicle apron

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace concrete paving - pedestrian or parking - 8" concrete thickness

Qty: 100.00

Unit of Measure: S.F.

Estimate: $2,627.35

Assessor Name: Craig Anding

Date Created: 01/19/2016

Notes: New concrete apron to street, vehicle rated (100sf)

System: G2040 - Site Development

Location: retaining wall along east property line

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Repair concrete retaining wall in poor condition including rebar doweling - insert the SF of wall area

Qty: 150.00

Unit of Measure: S.F.

Estimate: $44,490.60

Assessor Name: Craig Anding

Date Created: 01/19/2016

Notes: Repair cracked and spalling retaining wall (150sf)

System: G2040 - Site Development

Location: main entrance stair on E. Wyoming Ave.

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace on grade concrete steps - based on 6' wide steps and 6 or 12 risers - modify estimate to suit the configuration

Qty: 1.00

Unit of Measure: Flight

Estimate: $14,040.01

Assessor Name: Craig Anding

Date Created: 01/19/2016

Notes: Reconstruct concrete entrance stairs (12 risers)

System: G2040 - Site Development

Location: site fence

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Replace chain link fence - 6' high

Qty: 100.00

Unit of Measure: L.F.

Estimate: $8,971.80

Assessor Name: Craig Anding

Date Created: 01/19/2016

Notes: Repair and repaint chain link fence on retaining wall (100lf)

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

System: G2020 - Parking Lots

Location: driveway and playground

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Resurface parking lot - grind and resurface including striping

Qty: 22,000.00

Unit of Measure: S.F.

Estimate: $78,530.19

Assessor Name: Craig Anding

Date Created: 01/19/2016

Notes: Repave asphalt driveway/delivery and playground area (22,000sf)

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