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.

Forrest School

Governance	DISTRICT	Report Type	Elementary
Address	7300 Cottage St.	Enrollment	1183
	Philadelphia, Pa 19136	Grade Range	'00-06'
Phone/Fax	215-335-5652 / 215-335-5983	Admissions Category	Neighborhood
Website	Www.Philasd.Org/Schools/Forrest	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	**32.84%**	**$15,880,395**	**$48,353,586**
Building	49.33 %	$15,626,963	$31,675,791
Grounds	14.22 %	$223,757	$1,573,143

Major Building Systems

Building System	System FCI	Repair Costs	Replacement Cost
Roof (Shows physical condition of roof)	08.65 %	$71,873	$830,867
Exterior Walls (Shows condition of the structural condition of the exterior facade)	03.77 %	$88,075	$2,334,558
Windows (Shows functionality of exterior windows)	39.22 %	$446,712	$1,139,133
Exterior Doors (Shows condition of exterior doors)	85.86 %	$78,743	$91,713
Interior Doors (Classroom doors)	174.16 %	$386,650	$222,008
Interior Walls (Paint and Finishes)	12.50 %	$132,902	$1,063,234
Plumbing Fixtures	46.15 %	$394,664	$855,140
Boilers	87.98 %	$1,038,883	$1,180,878
Chillers/Cooling Towers	77.79 %	$1,204,455	$1,548,360
Radiators/Unit Ventilators/HVAC	105.16 %	$2,859,546	$2,719,118
Heating/Cooling Controls	158.90 %	$1,356,842	$853,875
Electrical Service and Distribution	169.49 %	$1,039,850	$613,525
Lighting	69.15 %	$1,516,837	$2,193,510
Communications and Security (Cameras, Pa System and Fire Alarm)	75.21 %	$617,913	$821,618

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.

Facility Condition Assessment Summary Report

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Forrest PEC School

Governance	DISTRICT	Report Type	Elementary
Address	7300 Cottage St.	Enrollment	
	Philadelphia, Pa 19136	Grade Range	'00-06'
Phone/Fax	215-335-5652 / 215-335-5983	Admissions Category	Neighborhood
Website	Www.Philasd.Org/Schools/Forrest	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	**32.84%**	**$15,880,395**	**$48,353,586**
Building	00.20 %	$29,675	$15,104,652
Grounds	14.22 %	$223,757	$1,573,143

Major Building Systems

Building System	System FCI	Repair Costs	Replacement Cost
Roof (Shows physical condition of roof)	01.37 %	$13,721	$1,000,620
Exterior Walls (Shows condition of the structural condition of the exterior facade)	00.09 %	$674	$792,676
Windows (Shows functionality of exterior windows)	00.00 %	$0	$346,066
Exterior Doors (Shows condition of exterior doors)	00.00 %	$0	$42,401
Interior Doors (Classroom doors)	05.29 %	$5,049	$95,466
Interior Walls (Paint and Finishes)	00.00 %	$0	$426,806
Plumbing Fixtures	00.00 %	$0	$801,816
Boilers	00.00 %	$0	$474,031
Chillers/Cooling Towers	00.00 %	$0	$621,547
Radiators/Unit Ventilators/HVAC	00.00 %	$0	$1,091,516
Heating/Cooling Controls	00.00 %	$0	$342,765
Electrical Service and Distribution	00.00 %	$0	$246,283
Lighting	00.97 %	$8,552	$880,525
Communications and Security (Cameras, Pa System and Fire Alarm)	00.00 %	$0	$329,816

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

S825001;Forrest

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):	63,250
Year Built:	1929
Last Renovation:	
Replacement Value:	$48,353,586
Repair Cost:	$15,880,394.89
Total FCI:	32.84 %
Total RSLI:	73.84 %

Description:

Facility Condition Assessment

August 2015

School District of Philadelphia
Edwin Forrest Elementary School
7300 Cottage Street
Philadelphia, PA 19136

63,250 SF / 696 Students / LN 08

Forrest Primary Education Center
7300 Cottage Street
Philadelphia, PA 19136

25,390 SF / 278 Students / LN 08

General

Edwin Forrest Elementary School is located at 7300 Cottage Street. This building was constructed in 1929, has 63,250 square feet and is 3 stories tall with a full basement. The front entrance to the Main Building faces Cottage Street. Although not listed on the historical register of national historical buildings, the Forrest Elementary School has two colorful, arched terra cotta tile entrances, roof coping, and other design elements making it a good example of the Art Deco Architectural style utilized in some of the Philadelphia schools constructed in the 1920's and 1930's. The asphalt playground behind the building is shared with the Forrest Primary Education Center (PEC), located on the same property at the same address. Constructed in 2008, it has 23,390 square feet, is a one story structure and has no basement. The front of the Forrest PEC is on Walker Street. There is a precast concrete "portable building" located on the site since 1967; this structure is not part of the Facility Condition Analysis. Sean Robinson, the Building Engineer accompanied the FCA team during the inspection.

Architectural/Structural

Foundations in the Main Building are constructed of brick and concrete. Basement brick and masonry joints are in good condition with no major settlement cracks observed. Footings were not seen and their construction type or condition could not be ascertained. Foundations in the Primary Education Center (PEC) are constructed of concrete masonry units (block) with concrete footings, as seen on drawings for this facility.

Floor slabs in the basement of the main building are in good condition although covered with dirt and in need of stripping, cleaning and repainting. Upper floor slabs in the main building are also constructed of cast-in-place concrete with cast-in-place concrete beams. Cracking and spalling of the first floor concrete slab was observed from one location in the basement and seemed to be the only incidence of cracking. The Building Engineer indicated there are some leaks around some of the basement windows or possibly the louver in the boiler room. There was also water around the block wall containing the fuel oil storage tank, buried in sand under the auditorium; the source of this leak was unknown. Floor slabs in the PEC are in good condition with no large cracks showing through flooring.

Roof construction over the main building consists of reinforced concrete beams and deck, bearing on masonry walls. The superstructure is constructed of reinforced concrete columns, beams, and floor slabs. The main building roof deck is flat with minimum overall slope and pitch to roof drains. Roof access is via a door out of a masonry penthouse. The roof has a 2 foot high brick parapet and brick masonry roof structures. The auditorium roof has a flat roof with a low parapet like the main building roof and has 4 internal roof drains at low points along both long walls with vertical leaders running down the inside of the exterior walls. None of the roofs have overflow scuppers or overflow roof drains, but as long as the roof deck was designed to carry the load of the water contained by the parapet if all roof drains were clogged, this is not a structural concern. All structure observed from attics or access stairs to the roof appeared to be in good condition except for the bottom sides of the roof decks in the exterior exit stairs which is spalling, exposing some steel reinforcing rods. Roof construction on the PEC consists of a pitched steel framed gable roof system, sloping to front and back sides. The Cafetorium has an exposed truss roofing system with acoustical metal slat deck exposed to the room as the ceiling. There are small dormer units formed over windows in each classroom to let in more light into the spaces and give the roof a more interesting appearance. There is a single skylight in the roof over the intersection of the short and long wings of the building.

Exterior walls in are generally in good condition. Windows have brick headers supported by steel lintels. First and second floor lintels appear to be in good condition with no large cracks seen extending into adjacent brickwork. Basement openings on the rear and left side have noticeable cracks extending into adjacent brickwork and the lintels over these openings are rusting. Attic windows and some upper corners on the rear side also have masonry cracks extending from window lintels and joint cracking in other areas. There are areas of different grout color indicating past repairs made to the brickwork. Some joints have been caulked, which is not the proper joint repair solution. All cracked brick joints need to be cleaned and repointed to maintain water-tightness and structural integrity of the brickwork. The basement level (7 to 10 ft height) of exterior walls facing the asphalt playground in the rear has been painted with a beige colored paint to cover graffiti. The paint is now worn and blotchy showing areas that had been more recently repainted to cover newer graffiti. The entire foundation painted area needs to be repainted with a color to better match brickwork which will provide a more uniform and attractive appearance. Terra cotta artwork and decorative brickwork on the front and sides is covered in a light grime haze and is in need of powerwashing to reveal the style and patterns of the Art Deco style. Brickwork on the PEC is in good condition with only occurrence of graffiti that needs cleaning.

Exterior windows in the old building were replaced in the 1980's with bronze anodized aluminum frame operable single hung units with single thickness clear plexiglass acrylic vision panel glazing. Windows are in poor condition with oxidized frames and severely scratched single-pane plexiglass vision panels. Approximately half of classrooms have window-mounted air conditioners. Classrooms

without air conditioners must open their windows to provide cooling; windows are difficult to open and close and sometimes do not stay open. Single pane plexiglass units do not meet today's energy code requirements and are large sources of heat loss. They do not seal well and leak cold air in the winter. Replacement with more modern insulated units are recommended. Windows in the PEC are more modern painted aluminum frame window units containing 1" insulated glass and window screens on all windows, and exterior security screens on first floor windows. They appear to be in good working condition.

Exterior doors at the two front entrances of the main building appear to the original raised panel wood doors. They are quite heavy in appearance and in actual weight and require stripping, refinishing, and new code compliant hardware to revitalize their appearance and make them fully useful. Other doors around the building are painted steel framed flush hollow metal units with steel frames. Some doors have small, glazed vision panels with security screens. Doors are generally in fair condition, with dented panels, rusted frames, and some graffiti. Most hardware is operational, but some needs adjustment or replacement where not repairable. Weatherstripping is missing on all doors. All metal exterior doors and hardware should be replaced. There are no handicap accessible entrances on the main building. A new handicap accessible ADA compliant ramp with guardrail/handrail and accessible route signage is required. The PEC has factory painted aluminum and glass entrances and adequately operational hardware. There is an ADA compliant handicap accessible ramp and entrance at the front of the building. The side exit door has some graffiti on the outside frame. All non-student entrances and exits are painted hollow metal doors in good condition with minor damages that can be repaired with paint.

Roof coverings on the main building consist of a fully adhered built-up rolled asphalt membrane system, repainted silver approximately 8 years ago, with silver painted asphalt backed flashing membranes up onto rooftop ventilation ductwork, vents, and masonry parapets into reglets. Roof structures include masonry walls, the chimney, toilet room vents, ventilation ductwork, and roof drains. Silver-painted asphalt flashing terminates under aluminum counterflashing either set into masonry with reglets or attached to roof structures. There are many opportunities for water infiltration along the parapet where counterflashing is set under reglets; this continuous joint has been recently recaulked with white caulking over the existing black caulk and it appears that there are no leaks at this time visible on the inside. There had been leaks in two areas that had been recoated with a black asphaltic material, apparently solving the leak issue, however it is cracking and does not appear to be a permanent solution. There are a few areas of bubbling showing through the silver paint, which could become future blisters and openings to leaks. Wall coping caps are the original individual terra cotta blocks. Joints between blocks have been sloppily caulked as the grout may have been thought to be failing. These joints should be inspected and if leaking they should be cleaned and re-sealed with a material that better matches the color of the blocks. The membrane, flashing, and counterflashing embedded in brickwork covering the top of the flashing is weathered and is probably past its normal service life of 20 years and can be sources of potential failure and leaks. All loose and cracked masonry and requires repointing and repair. The PEC roof is in good condition except for areas that have been physically damaged and ripped apart by vandals that have climbed up onto the roof and pulled off individual shingles; rooms P4 and P5 roof leaks could be attributed to missing shingles. Roofing shingles in those damaged areas need to be replace with new shingles to ensure the water tightness of the roof.

Partitions in the main building basement are constructed of painted brick, glazed brick, and plaster. The classroom and office partitions on the upper 3 floors are constructed of plaster on wood or terra cotta lath partitions. Between some classrooms are manually operated full height wood folding partitions with integral blackboards/tackboards. Most are not easy to operate and some are not moveable; some moldings are broken and partitions might not be stable if moved. In general they are not required and should be replaced with standard fixed partitions with whiteboards and tackboards. The corridor partitions on the upper 3 floors are constructed of glazed block wainscot with painted plaster above. The painted plaster walls are peeling in many locations in classrooms near doorways, behind radiators and in corridors and are in need of painting. Wood framed clerestory glass panels located in corridor walls above classroom doors to the corridors are in generally good condition being above the reach of anyone, but the glass is not wired or fire rated. These should be removed and replaced with fire rated glazing or gypsum board wall assemblies. Walls in the Primary Education Center (PEC) are constructed of painted concrete block in corridors, bathrooms, offices, and cafetorium; partitions are unpainted block in the mechanical room. They are in good structural condition.

Interior doors used for classrooms, offices, storage rooms, and bathrooms in the old building are either the original wood raised panel doors with full height plate glass (not fire rated or wired) and either the original or updated hardware, or replacement wood doors with narrow wired glass vision panels (in some cases) and newer replacement hardware. The glass used in the original wood doors is not code compliant wired or fire rated glass, mullions are fragile, cracked, and many panes of glass are broken. These doors should be replaced with new wood doors with fire rated, tempered glass vision panels. Some interior basement doors in the old main building are half glass wired glass wood panel doors, in very poor condition. Most interior stairway doors are full divided glass steel doors and frames with full divided wired glass panels above the doors to the ceiling. These doors do not provide code approved fire or smoke separation for such large glazed panels, the glass is probably not tempered, and the doors do not have proper latching and operating exit hardware, making these stairway enclosures dangerous and in need of replacement with code compliant doors and walls above the doors. Damaged doors and frames can be repaired. Doors throughout the building have old nob-style locksets and should have lever-handle locksets with door closers. None of the classroom doors can be locked from the inside of the classroom, as required today for lock-down security. Some closet doors inside classrooms in the main building might be salvageable if in good

condition. Interior doors in the PEC are solid core oak veneer with circular, square, or triangular vision panels, depending on the location of the classroom. Doors are in good condition, however door frames are dirty and beginning to rust at the floors and should be repainted. Classroom and office doors have proper security hardware locking from the inside if needed.

Interior fittings/hardware in the old building include black slate chalkboards with wood chalk trays mounted on one wall in each classroom or mounted on folding partitions between classrooms. Some of the classrooms in the original building have the original wood built-ins that have been either refinished or repainted to extend their usability. Toilet room partitions in the main building have been replaced with plastic partitions and doors, generally in good condition. Most toilet room accessories appeared to be in place and operational. There is no accessible ADA compliant rest room on an accessible floor of the building; the gang toilet room in the basement has a larger toilet compartment but the basement is not accessible, making full compliance not possible. Toilet rooms in the PEC are fully accessible with the proper accessories, access, toilet compartment size. Individual toilets are provided in classrooms, also fully ADA accessible and compliant. Classrooms in the PEC have whiteboards, storage areas, built-in and plastic laminate base and wall cabinetry with sinks.

Stair construction in the original building consists of concrete treads with steel nosings, concrete risers, and concrete stringers with wood handrails (29" high) and guards (36" high) at tops of landings and steel balusters with 3" spacing. Since handrail and guard heights are not in compliance with today's codes, new handrail and guard systems are required. Concrete platforms and landings are finished with clear sealer, that has been recently reapplied and like the corridor floors, is mainly in good condition. There are two open stairs at the north ends of the North-South corridors, connecting the first floor and basement levels. They are both open to first floor and basement corridors, which is not allowed for egress stairs in today's building codes; both stairs connect two floors and therefore need to be enclosed with 1 hour fire rated enclosures and doors. One of the exterior stairs up to the auditorium is spalling and needs repair.

Wall finishes in the first, second, and third floors of the main building are full height painted plaster in offices and classrooms, painted plaster above a glazed block wainscot in corridors, stairways, and toilet rooms, or painted brick above a glazed block wainscot in basement rooms. Classroom walls are generally in good condition except near doorways to corridors where there consistently seemed to be wall damage. Corridors have some wall damage that can be plastered/spackled and repainted. There are some locations in corridors and the auditorium where plaster is damaged from roof or wall leaks. The Building Engineer indicated that the leaks were eliminated with the roof repairs; if this is the case, the plaster should be repaired and repainted. In the basement, extensive peeling paint was observed in the walls and ceilings in the mechanical room, possibly due to the humid environment during heating. There is also a general lack of maintenance of mechanical area walls, floors and ceilings in this space. All surfaces in the mechanical room should be cleaned and painted. Wall finishes in the PEC are in very good condition and require minor touch up paint in isolated locations.

Floor finishes in the classrooms of the original building consist of either dark stained oak floors, vinyl asbestos tile (VAT), or vinyl composition tile (VCT) floors. Some of the oak floors have been refinished, proving that there is still useable life left in the other floors; all wood floors should be stripped, sanded, and refinished to renew their appearance. Similarly, some corridors in the old building consist of recently refinished 4'x4' cast-in-place concrete panels, which have recently been stripped and coated with a clear glossy finish, proving that these floors can be made to look relatively clean and good in appearance. Similarly, the wood floors in the gymnasium were recently refinished and coated with a clear glossy finish. This floor is also in good condition and has a renewed appearance. Some classrooms in the main building have been overlayed with VCT (vinyl composition tile) over the old wood floors. These vinyl floors have been well maintained and do not appear to need replacement. There are a some carpeted offices that are in good condition. One classroom, two offices and the auditorium still have VAT flooring. It is acceptable to leave it in place if not friable, however its condition should be thoroughly checked to ensure safe working conditions. The auditorium stage is wood and needs to be refinished. VCT is used throughout the PEC and has been well maintained and is in good condition. Most toilet rooms have exposed concrete, which has a filthy appearance; these floors should be stripped and coated with the same system used in the corridors. The PEC office has carpet which is in good condition. The kitchen has quarry tile which is in good condition. The VCT is cracked and broken along the outer wall (playground wall) in the cafetorium. This is due to movement between the wall and the floor. Vinyl tiles along that wall should be replaced but not installed tight against the wall; allowance for movement should be provided.

Ceiling finishes on first, second and third floors are 2x4 suspended acoustical tile ceilings with recessed 2x4 fluorescent lighting fixtures throughout the main building in corridors, classrooms, and offices. Many of these ceiling tiles have been replaced and old ceiling tiles and grids are discolored. Basement corridors and mechanical rooms have exposed decks. The gymnasium has a 12"x12" tongue and groove ceiling tile system, glued to the structure and concrete deck above; these tiles are now losing adhesion and falling off the deck. A new system should be installed in this space. The roof structure over the auditorium is flat, unlike most schools in the Philadelphia School System built in this era, creating a clear flat ceiling of approximately 16 feet in ceiling height in the auditorium space below. Ceiling tiles are 12"x12" tongue and groove tiles forming a flat ceiling over this space. Ceilings in the PEC corridors, offices, and corridor sides of classrooms are 2x4 suspended acoustical tile ceiling systems. An exposed dormer and structural steel ceiling is used in the cafetorium and the open classroom space; a perforated sound attenuating metal slat ceiling secured to the

underside of the sloping roof deck is used in these open ceiling spaces providing good sound attenuation.

Fixed furnishings include wood seating in the auditorium which is in fair condition. Some chairs are broken and should be repaired to once again be fully operational. Wood seatbacks and seats are scratched but can be refinished. The Gym doubles as a cafeteria by use of folding tables. The PEC has built in plastic laminate cubbies, storage units, and a kitchen cabinet unit with base cabinets, wall cabinets, and a sink.

There is no elevator in the main building. A four stop elevator should be installed to provide ADA accessibility to all floors. There is no elevator in the PEC, since it is a single story building.

There is no ADA accessible ramp into the main building. One should be installed at one of the front doors leading to the first floor. The PEC has an accessible entrance with ADA signage.

Mechanical

Plumbing Fixtures -The building is equipped with wall hung urinals (flush valve type), 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. In the Primary Education Center (PDC), the water closets, lavatories and urinals were installed in 2008, are ADA compliant and do not need to be replaced.

Drinking fountains in the corridors and at the restrooms consist of wall hung electric water fountains with integral refrigerated coolers. They are beyond their service life and should be replaced; most are NOT accessible type. The drinking fountains in PEC are high/low configuration and are ADA compliant, were installed in 2008 when the building was constructed and do not need to be replaced.

A service sink is available in a janitor closet in the corridor on each floor for use by the janitorial staff. The sinks appear to have exceeded their service life, and should be replaced. The PEC service sinks were installed in 2008 when the building was constructed and do not need to be replaced.

Domestic Water Distribution - A 4" city water service enters the boiler room. The 4" meter and service valves are located in the boiler room. A double check backflow preventer (RPZA – reduced pressure zone assembly) serves the domestic water system and a separate reduced pressure backflow serves the boiler make up water system. The original domestic hot and cold water distribution piping with copper piping and sweat fittings is still in service. However, the domestic water piping is well beyond its service life and should be replaced. Insulation on the domestic water piping has been disturbed or is missing in some instances. The domestic water piping has reached the end of its useful life and should be replaced along with the insulation.

One Bradford White gas-fired, 48 gallon, vertical hot water heater with circulating pump located in the boiler mechanical equipment room supplies hot water for domestic use. The unit is located in the mechanical room on the basement level. The hot water heater is equipped with a T&P relief valve but no expansion tank. The domestic hot water heater appears to be within its service life and should provide reliable service for the next 5-7 years. A water softener was located in the boiler room for treating the makeup water system. The water treatment system appears to be in fair condition. The PEC water service splits within the boiler mechanical equipment room to serve the domestic waster system and the fire protection system. The domestic water system has a 4" meter installed and a double check backflow preventer (RPZA – reduced pressure zone assembly). The PEC plumbing fixtures are served by four natural gas fired instantaneous water heaters, Paloma Model PH-28 C IFSN-1 (max input 199900 btu/hr min input 19000 btu.hr) and a recirculating pump.

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. A simplex sewage ejector pit located in basement boiler room receives sanitary waste from the building. The pit cover was removed at the time of our survey. The PEC sanitary appears to leave the facility by gravity. The PEC's food prep/kitchen is equipped with one, three compartment stainless steel sink with 4" lever handle operated faucet. The grease interceptor is below the floor and is accessible through a floor access cover.

The maintenance staff reported mostly that during heavy rainfalls the sanitary waste piping system backs up and overflows out of the plumbing fixture drains. The District should hire a qualified contractor to examine the sanitary waste piping using video cameras to locate and replace any damaged piping and to further quantify the extent of the sewer back ups. Confirmation should be performed of whether the sanitary system is a combined system with the storm water.

Rain Water Drainage - The rain water drains from the roof of the main building and is routed through mechanical chases in the

building and connects to the underground site drainage system. There is no secondary roof drainage system installed. The roof drainage was cast iron hub and spigot at locations where the piping could be viewed. The PEC roof drainage system consist of downspouts and gutters which discharge to a below ground stormwater management system.

Energy Supply - Approximately a 1-1/2" city gas service enters the building on the lower level adjacent to the cafeteria/old gym . The gas meter is located at the same location as the gas service point of entry. The gas piping is a combination of threaded galvanized and black steel piping and fittings. The gas service feeds at a minimum the gas fired water heater. The PEC is served with a 4" gas service, 3" meter.

Duplex fuel oil supply pumps provide the required fuel to the boilers in the main building as the sole fuel source. The concrete fuel tank is located in the basement alongside the fuel oil pumps. The pumps and controls appear to be beyond their serviceable life and should be replaced. Recommend inspection of the fuel tank which is enclosed within a CMU enclosure with sand and the addition of required ventilation and fire suppression/alarm in the fuel storage area. The fuel oil piping consists of black steel pipe with threaded fittings.

Heat Generating Systems - Building heating in the main building is generated by two Weil McLain modular sectional cast iron boilers with, maximum output of 4061 MBH of steam, installed in 1972. Low pressure steam, 15 lbs/sq. in or less, is the heating medium. Each boiler is equipped with a modulating Power Flame burner, model CR4-OB, designed to operate on Number 2 fuel oil. Combustion air makeup is supplied by louvers equipped with motorized dampers. No major issues with the boilers were reported by the Building Engineer. The Primary Education Center heating system consists of two HB Smith sectional cast iron water boilers, model 19A-S/W-05, Net IBR Rating 500 But/hr. The hot water boilers are part of a four pipe system which serves the air handling units, fan coil units and unit ventilators. The burners are Power Flame Model LNICR1-GO-12, low NOx burners with natural gas or #2 fuel oil as a source of fuel. Presently, the burners are only using natural gas as a source of fuel. Each boiler is equipped with draft control on the flue. High and low combustion air outside air ventilation dampers provide fresh air into the boiler mechanical room when the boiler(s) are in operation. There are three heating water pumps, one operates as standby, while each of the other pump is dedicated to a boiler. The pumps characteristics are as follows: end suction, 3HP, 40 GPM, 55 FT head, 1800RPM. The pumping system is constant volume.

Cooling Systems - The PEC is served by a Carrier 130 ton Air Cooled chiller with scroll compressors and R410A refrigerant. The chilled water system is part of a four pipe distribution system which serves air handlers, fan coil units and unit ventilators. There are two chilled water pumps, one operates as standby. The pumps characteristics are as follows: end suction, 20 HP, 260 GPM, 125 FT head, 1800RPM. The pumping system is constant volume.

Distribution Systems - Original 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 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. The District should budget for replacing this piping over the next 5 years.

The low pressure steam distribution system in the original building supplies the building steam radiators for heating in the classrooms, hallways, stairwell landings, bathrooms, auditorium and the cafeteria/gymnasium. The steam radiators are vertical type and are typically located on the building's exterior walls with the exception of the cafeteria/gymnasium in which case they are suspended from the under side of the structure and are a horizontal configuration and in some hallways of which they are mounted on the surface of interior walls. The steam and condensate piping are original as well as the steam radiators. The condensate return system is gravity in nature until it reaches the point of collection, the condensate return pit, at which point the condensate is pumped directly back to the boilers. There are areas where the insulation for the steam piping in the boiler room has been disturbed or is missing. All distribution piping and insulation should be replaced. It is recommended to replace the steam radiator systems in the gymnasium/cafeteria with a roof top mounted unit with an overhead supply air distribution system and return air ductwork and low return intake grilles which would be protected from damage. It is recommended to replace the auditorium heating system with a roof top mounted unit with an overhead supply air distribution system and ducted return air system. The roof top unit would be equipped with heating, cooling and ventilation requirements for the space.

Ventilation and additional heating for the main building was provided by a house fan in the basement which is now non-operational. The air was pushed into the various rooms of the building through ducts built into the walls. The air was exhausted from other ducts built into the walls, up through the attic space, and out through roof mounted vents. This system is not currently operational and the only fresh air that the building receives is through opening windows. For the PEC, the classrooms are served by unit ventilators equipped with outside air ventilation intakes. The administration areas and cafetorium are served by air handling units with outside air ventilation and hydronic heating and cooling coils. The airside ductwork system consists of ducted supply and return air systems. The cafetorium is served by round ductwork with supply air registers. The air handling unit systems are equipped with variable frequency drives that are controlled via CO2 sensors to increase the airflow quantity based on a rise in CO2 levels from the increase in the

number of occupants in the space. AHU-2 which serves the cafetorium in the PEC was noted to have a loose belt on the supply fan. The sheave should be adjusted or the belt should be verified to be the correct size for the fan. The CO2 sensors should also be calibrated.

Terminal & Package Units - The restrooms in the main building are exhausted by two fans located on the roof. The Building Engineer reports that all exhaust fans are operational. The restrooms in the PEC are equipped with centrally located exhaust fans.

The kitchen for the PEC has no cooking equipment, only reheating equipment. The kitchen is equipped with a hood; no dedicated make up air system is present.

Controls & Instrumentation - The original pneumatic system in the main building still provides basic control functions. Pneumatic thermostats are unit mounted or part of the steam control valve assembly for the steam. Pneumatic room thermostats drive the unit ventilators, the damper actuators and control valves. Pneumatic control air is supplied from a compressor and air dryer located in the boiler room. The pneumatic systems are beyond their service life and require too much attention from the maintenance staff. The original control valves and pneumatic actuators are beyond their service life and should be rebuilt or replaced. These controls should be converted to DDC. A new building automation system (BAS) with modern DDC modules and communications network should be installed to serve the HVAC systems in this building to improve reliability and energy efficiency. An interface should be provided with the preferred system in use throughout the District. The PEC is equipped with a DDC Honeywell system with electric actuators (there is no compressed air system). The front end system is located in the engineer's office in the PEC. The MMI (man machine interface) consists of DDC software which the system can be monitored and commanded.

Sprinklers - The original school building is NOT covered by an automatic sprinkler system. 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. The PEC is fully sprinklered with fully recessed concealed sprinkler heads in areas with drop ceiling acoustical tiles. The boiler mechanical room and cafeteria/gymnasium are covered by upright heads.

Electrical

Site Electrical Service of the main building is from medium voltage overhead lines on wooden poles along Cottage St. Two pole-mounted power transformers with medium voltage primary (Voltage level unknown at this time) and 120/240VAC secondary and at an estimated available power of 150KVA are installed for supplying power to facility.

The service entrance to the facility consists of a disconnect switch and utility meter located in a closet in the gymnasium, and a main switch board located in the Boiler Room in the basement. The switchboard is of an open switch type and its size is estimated at 600A.

Power distribution is achieved through corridor located lighting/receptacle panel boards. Panel boards, two on each floor, are flush mounted. There is one power panel provided in the 3rd floor for feeding power to window mounted AC units. It appears that panel boards and branch circuit breakers have out-lived their useful lives are ready for upgrade/replacement. There is one 75KVA phase converter transformer for converting 240VAC to 120/208VAC, three phase power is provided for powering boilers and other 208-volts required loads.

Electrical service and distribution system for the PEC (Primary Education Center) is by 1200A, 208V, 3PH, 4wire, distribution power panel located in electrical room. This distribution panel board, which feeds all of the loads in PEC, is fed from a pad mounted utility transformer located outside of the building close to temporary portable building. The utility meter is located adjacent to the utility transformer. Overall, the distribution system for the LSH is in good condition and does not need upgrading or replacement.

In general there are not enough receptacles installed in the classrooms of the Main Building. Recommendation is to have a minimum of two receptacles on each classroom wall. The computer room is also lacking sufficient receptacles and requires one receptacle every three feet on each wall. It is also recommended to use surge protective type receptacles for computers.

Receptacles in PEC Building are not tamper-resistant type. This is in violation of the electrical code which indicates that receptacles that are subject to child access shall be either tamper proof or GFCI. Receptacles need to be upgraded to meet code requirements.

Lighting in the Main building is provided by fluorescent fixtures with T-12 lamps in most rooms and incandescent fixtures located in specific areas, like the auditorium. Classrooms and corridors utilize 2x4, (4) lamp lay-in or surface mounted fixtures. Lighting levels in the most areas like gymnasium do not meet IES (Illuminating Engineering Society) standards. Lighting in the PEC classrooms are provided by suspended 1x4 fluorescent lighting fixtures. Lighting in offices and corridors in the PEC are provided by recessed 2x2 decorative fluorescent lighting fixtures. All are in good condition with some minor maintenance and repairs needed.

Fire Alarm System in the Main Building is old and does not meet current fire alarm codes; it should be replaced. Fire alarm and monitoring in the PEC is by duct smoke detectors and pulls stations at building egress points. There are sufficient numbers of horn/strobes installed throughout the building such as classrooms, corridors, offices, and other areas of occupancy. No major deficiencies were observed in the PEC.

Telephone and /LAN equipment/devices are located on the IT room in the main building. This room was not accessible at the time of inspection. The communication system in the PEC is connected to the Main Building communication system; both systems are working properly.

Public address / Music systems are not provided in main building. The telephone system is used for public announcements. There is fully functional a PA rack including AM/FM radio, cassette player, CD player and amplifiers in the PEC dining area.

Intercom and paging systems in both buildings are functional. The paging system consists of one way communications from the office to each classroom. Two way communications are by wall mounted wall phones in classrooms and other areas.

Clock and Program system in the main building is not working and should be replaced. A wireless clock control system is provided and working in the PEC.

Television System is not provided in either building.

Security, access control, and video surveillance systems are provided in the Main Building and PEC. A sufficient number of cameras are installed to cover exit doors, corridors and other critical areas. They are controlled by a Closed Circuit Television system (CCTV). This system is working properly.

Emergency Power System is provided in the main building. A 30KW, 240/120V, 1PH, 3W diesel generator manufactured by Cummins is installed in the Boiler Room. The emergency power distribution is accomplished by a transfer switch, 45 KVA step down transformer, and an emergency distribution panel. Emergency lighting fixtures and all other critical loads are fed by this emergency panel. The emergency distribution system is in good condition and working properly.

The source of power for servers has not been verified because the IT room door was locked and inaccessible at the time of the field investigation. However it is assumed that servers are supported by a UPS, based on similar installations at other schools. If this is not the case, it is recommended to provide UPS power to the IT equipment.

Emergency lighting system, including exit lights are provided in both buildings. Corridors, library, and egress ways in the Main Building are fed by the emergency distribution panel board. Emergency battery-pack lighting fixtures are provided in PEC corridors.

Lightning protection is provided on the main building but it is believed to be inadequate. A study should be conducted to verify that the air terminals provided the proper coverage. No lightning protection is required for PEC.

Grounding system is present and is adequate.

Elevator is not provided in either school.

Theater lighting and dimming controls in the main building is old and not adequate. Lights are turned on and off by circuit breakers. This is dangerous and should be updated to a local switching system.

Sound System in main building auditorium is old and should be replaced.

Site Lighting System is adequate. There are sufficient numbers of wall mounted lighting fixtures provided around the building.

Site Video Surveillance of both the main building and PEC are monitored by the Building CCTV system. This system is working properly.

Site Paging System is adequate.

Grounds

Paving and parking is constructed of asphalt and is in good condition. There is a fenced-in asphalt teachers' parking lot that is in good

condition. The large asphalt play area between the main building and the PEC is in good condition. The fenced-in "kiddie" playground is constructed on asphalt which is cracking, broken and quite dangerous. A new softer material composed of chopped up automotive tires (used in the Lowell School) would be a good choice to improve the safety and the condition of this play area. Stairways into the front of the main building on Cottage Avenue and up from Bleigh Avenue are constructed of limestone blocks (tread/riser) with grouted joints between blocks, in need regrouting. New handrails are required for all exterior entrance stairways. The number of required parking spaces for school staff is unknown.

Site fencing is composed of black painted steel post fencing which is in good condition and chain link fencing, which is rusted in many areas and in need of repainting. Chain link fencing utilized to separate faculty parking from the playground is broken in some isolated locations which needs replacement.

Landscaping is in need of trimming and maintenance.

RECOMMENDATIONS

Architectural

Main Building

- Strip and repaint concrete foundation (basement) walls in mechanical rooms (5000sf)
- Strip and reseal concrete floors in basement and toilet rooms (10000sf)
- Repair crack in first floor slab, above (10ft)
- Investigate the source of water leaking into the basement and recaulk basement windows and air intake louver (reseal basement lintels – (60)4' long)
- Replace all exterior windows with insulated single hung units (240 in old bldg. x 3.5x8)
- Repoint cracked masonry walls around building near lintels and on brick roof structures (1000sf)
- Repaint all exterior metal doors and frames (8)3x7
- Refinish historical wood front doors at both Cottage Ave entrances (4)3.5x8
- Repair terra cotta grillework adjacent to right entrance door
- Repair flashing and counterflashing at brick parapets on roofs (700lf)
- Repaint with silver paint recently patched and peeling roof areas including auditorium roof (6000sf)
- Repoint terra cotta coping blocks (1200ft)
- Remove non-rated glass panels between most classrooms and corridors, over classroom doors and for glass panels over stairway doors, fill with fire rated gyp bd sys at (18) 3x6 panels + (18) 3x3 panels at corridor; (6) 3x10 panels at stairways above doors and 16 glass doors replace with B label rated doors and construction
- Provide steel doors in hollow metal frames in mechanical rooms and storage rooms in basement (8) 3x7
- Replace old wood classroom, toilet rooms, office, auditorium doors in corridors throughout building in with new fire rated solid core wood doors with narrow vision panels; repair wood frames (60) 3x7
- Repair and refinish wood doors and frames inside classrooms (80) 3x7
- Provide security hardware for classrooms and offices, locking from the inside of the room (50)
- Repair and repaint interior plaster walls where damaged in corridors, classrooms, and stairways (20000)
- Repaint foundation wall around side and rear of building (4000sf)
- New whiteboards/tackboards where folding partition walls are replaced with gyp bd walls (12)
- Replace folding wood partition room dividers in classrooms with gyp bd wall (12) x 240sf
- Provide toilet room accessories where missing or damaged (3 toilet rooms)
- Provide toilet room partitions where missing or damaged (3 toilet compartments)
- Upgrade existing single toilet bathroom to ADA accessible
- Strip, sand, repair and refinish all wood floors in classrooms (33,300sf)
- Remove and replace 9"x9" VAT floors in classroom, lounge, and auditorium; replace with VCT (7000sf)
- Replace stained and damaged 2x4 suspended acoustical tile ceiling system (excludes auditorium, toilet rooms, stairways, and basement areas without ceilings) (45000sf)
- Repaint concrete ceilings where damaged in mechanical rooms, stairs, and toilet rooms (2000sf)
- Replace ceiling tile in gymnasium, fully adhered to deck (4000sf)
- Remove and replace stairway handrails and guards with code compliant systems (3) 4 story stairways (240lf rail; 240lf rail+guard)
- Provide stairway enclosure for 2 open stairs connecting first floor with basement (600sf partition + 4 doors)
- Repoint granite stairs Cottage Street (20 treads, 16' long average) and Bleigh (8 treads, 6ft long)
- Add three freestanding handrails along two main entrance stairs, complying with 2015 building codes (60ft total length) and side stairs (16ft total length)

- Refinish auditorium seats (100)
- Add 4 stop elevator to serve basement through 3rd floors
- Repair spalling exterior concrete stair and railing (10 treads)

Primary Education Center (PEC)

- Clean graffiti in one location (100sf)
- Repair/replace vandalized roofing shingles (400sf)
- Repaint corridor door frames (24 doors)
- Repair/replace VCT along playground wall in cafetorium where cracked (100sf)
- Touch up ceilings stained by roof leaks (100sf)

Mechanical

Main Building

- 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.
- Replace the underground fuel oil storage tank (UST) underground located in the paved parking lot area near Adine Street.
- Add automatic sanitizing chemicals to the stainless steel sink in the cafeteria.
- Replace two instantaneous natural gas fired tankless water heaters.
- Inspect and replace the original as needed the domestic water piping 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.
- Conduct a steam trap survey to identify and replace failed traps passing live steam into the condensate piping system.
- Hire a qualified contractor to examine the steam and condensate piping in service for 65 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.
- Replace duplex fuel oil pumps.
- Remove four 4,650 MBH Weil McLain 94 series steam boilers and steam distribution system and replace with new hot water boilers and hot water distribution system with dual fuel burners.
- Replace the steam radiator 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.
- Replace the existing unit ventilators throughout the building with new units designed to provide adequate ventilation per ASHRAE Std. 62. The new units shall be equipped with hot water / chilled water coils and integral heat recovery wheels. Install steam converters in the existing boiler room with circulating pumps, distribution piping and controls to provide heating hot water for the new coils.
- Remove the window air conditioning units for the office/principal suite and install a 250 ton air-cooled chiller on the roof with chilled water distribution piping and pumps located in a mechanical room on the basement level to supply more reliable air conditioning for the building with a much longer service life. As part of the new installation, verify the reserve roof loading capacity to ensure it can carry the weight of the new chiller.
- Provide ventilation, heating and cooling for the gymnasium by installing a packaged roof top unit.
- Provide ventilation for the corridors first floor entryways (18 locations total) by installing fan coil air handling units hung from the structure with outdoor air ducted to the unit from louvers in the window openings. Remove and replace electric convection heaters.
- Provide ventilation, heating and cooling for the Cafeteria by removing the electric convection heaters and installing a package rooftop constant volume air handling unit with distribution ductwork and registers for supply and return air.
- Provide ventilation, heating and cooling for the Auditorium by removing the existing steam convectors and electric convection heaters and installing a package rooftop constant volume air handling unit with distribution ductwork and registers.
- Replace the pneumatic controls for the HVAC systems with modern DDC modules, valves and actuators to improve reliability and energy efficiency.
- Provide a new building automation system (BAS) with communication interface to the preferred system in use throughout the District.

- Install a fire protection sprinkler system 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.

Primary Education Center (PEC)

- Continue proper maintenance of mechanical equipment to ensure equipment performs/lasts throughout expected service life.
- Provide a dedicated make up air unit for the kitchen hood exhaust.

Electrical

Main Building

- Upgrade the existing electrical service with a new service. Replace the existing switchboard with new 1200A, 480/277, 3PH, 4 wire switchboard, 225KVA, 480V to 2120/208V transformer and 800A, low voltage distribution panel.
- Replace the entire distribution system. Estimated at 16 panel boards, 1- 225KVA, 480V to 120/208V and one 800A main low voltage distribution panel. Provide arc flash label on the electrical equipments.
- Install a minimum of two receptacles on each wall of each classroom. It is recommended that a surface mounted raceway with two-compartments (for data and power), be installed in the computer lab. Provide surge protective receptacles for computers, at 3 feet on center.
- Replace all lighting fixtures with new fluorescent lighting fixtures with T-5 lamps. Provide emergency power to a sufficient number of lights in corridors and other egress ways.
- Replace the existing fire alarm system with a new automatic Fire Alarm System including control panel, initiated devices in corridors, air ducts, electrical and LAN rooms, library, and computer rooms. Provide notification devices in classrooms, offices, auditorium, corridors, and other areas as recommended by codes.
- Replace the existing master clock system with a new wireless master clock system.
- Replace the existing emergency diesel generator with a new 100KW diesel generator.
- Provide lightning protection studies to ascertain adequacy of the existing system.
- Provide new stage lighting and controller in Auditorium.
- Provide new sound system including a freestanding 19” rack backstage with mixer per amplifiers, CD player, cassette player, AM-FM radio, graphic or parametric equalizer, and receivers for wireless microphones.

Primary Education Center (PEC)

- Replace existing receptacles with GFCI receptacles in the areas subject to access by children. Estimated at 100total.

Grounds

- Kiddie playground: remove asphalt and replace with chopped tire or similar soft material (4000sf)
- Fill cracks in asphalt (500ft)
- Add ADA handicap accessible ramp into front of building (7ft rise)
- Replace damaged sections of chain link fence (100ft)
- Repaint chain link fence connecting to main building (600ft)

Attributes:

General Attributes:			
Active:	Open	Bldg Lot Tm:	Lot 2 / Tm 2
Status:	Accepted by SDP	Team:	Tm 2
Site ID:	S825001		

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	58.26 %	0.00 %	$0.00
A20 - Basement Construction	61.05 %	0.00 %	$0.00
B10 - Superstructure	56.27 %	0.05 %	$4,054.28
B20 - Exterior Enclosure	67.67 %	12.94 %	$614,203.84
B30 - Roofing	46.85 %	4.67 %	$85,593.88
C10 - Interior Construction	56.05 %	32.18 %	$685,954.41
C20 - Stairs	51.96 %	119.70 %	$145,649.22
C30 - Interior Finishes	77.88 %	28.48 %	$1,328,274.93
D10 - Conveying	105.71 %	385.38 %	$670,322.07
D20 - Plumbing	93.59 %	48.79 %	$1,133,951.86
D30 - HVAC	97.75 %	65.51 %	$6,459,726.51
D40 - Fire Protection	97.75 %	122.51 %	$904,820.91
D50 - Electrical	97.08 %	66.06 %	$3,441,988.88
E10 - Equipment	33.11 %	7.44 %	$105,028.21
E20 - Furnishings	32.55 %	40.82 %	$77,068.83
G20 - Site Improvements	49.39 %	18.92 %	$223,757.06
G40 - Site Electrical Utilities	43.33 %	0.00 %	$0.00
Totals:	**73.84 %**	**32.84 %**	**$15,880,394.89**

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)
B825001;Forrest	63,250	49.33	$4,074,764.50	$5,003,161.10	$1,332,068.07	$48,947.09	$5,168,021.77
B825002;Forrest PEC	25,390	0.20	$9,225.48	$19,971.12	$478.70	$0.00	$0.00
G825001;Grounds	89,700	14.22	$0.00	$223,757.06	$0.00	$0.00	$0.00
Total:		**32.84**	**$4,083,989.98**	**$5,246,889.28**	**$1,332,546.77**	**$48,947.09**	**$5,168,021.77**

Deficiencies By Priority

- 1 - Response Time (< 2 yr) - $4,083,989.98
- 2 - Response Time (2-3 yrs) - $5,246,889.28
- 3 - Response Time (3-4 yrs) - $1,332,546.77
- 4 - Response Time (4-5 yrs) - $48,947.09
- 5 - Response Time (> 5 yrs) - $5,168,021.77

Budget Estimate Total: $15,880,394.89

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):	63,250
Year Built:	1929
Last Renovation:	
Replacement Value:	$31,675,791
Repair Cost:	$15,626,962.53
Total FCI:	49.33 %
Total RSLI:	72.12 %

Description:

Attributes:

General Attributes:

Active:	Open	Bldg ID:	B825001
Sewage Ejector:	No	Status:	Accepted by SDP
Site ID:	S825001		

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	37.00 %	0.00 %	$0.00
A20 - Basement Construction	37.00 %	0.00 %	$0.00
B10 - Superstructure	37.00 %	0.07 %	$4,054.28
B20 - Exterior Enclosure	60.55 %	17.21 %	$613,529.94
B30 - Roofing	25.00 %	8.65 %	$71,873.20
C10 - Interior Construction	43.61 %	43.87 %	$680,905.72
C20 - Stairs	37.00 %	163.32 %	$145,649.22
C30 - Interior Finishes	82.59 %	40.58 %	$1,326,594.48
D10 - Conveying	105.71 %	385.38 %	$670,322.07
D20 - Plumbing	105.58 %	87.80 %	$1,133,951.86
D30 - HVAC	107.77 %	91.81 %	$6,459,726.51
D40 - Fire Protection	105.71 %	177.49 %	$904,820.91
D50 - Electrical	110.11 %	92.35 %	$3,433,437.30
E10 - Equipment	14.29 %	10.43 %	$105,028.21
E20 - Furnishings	12.50 %	57.21 %	$77,068.83
Totals:	**72.12 %**	**49.33 %**	**$15,626,962.53**

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.	63,250	100	1929	2029	2052	37.00 %	0.00 %	37			$1,163,800
A1030	Slab on Grade	$7.73	S.F.	63,250	100	1929	2029	2052	37.00 %	0.00 %	37			$488,923
A2010	Basement Excavation	$6.55	S.F.	63,250	100	1929	2029	2052	37.00 %	0.00 %	37			$414,288
A2020	Basement Walls	$12.70	S.F.	63,250	100	1929	2029	2052	37.00 %	0.00 %	37			$803,275
B1010	Floor Construction	$75.10	S.F.	63,250	100	1929	2029	2052	37.00 %	0.09 %	37		$4,054.28	$4,750,075
B1020	Roof Construction	$13.88	S.F.	63,250	100	1929	2029	2052	37.00 %	0.00 %	37			$877,910
B2010	Exterior Walls	$36.91	S.F.	63,250	100	1929	2029	2052	37.00 %	3.77 %	37		$88,075.23	$2,334,558
B2020	Exterior Windows	$18.01	S.F.	63,250	40	1929	1969	2057	105.00 %	39.22 %	42		$446,711.51	$1,139,133
B2030	Exterior Doors	$1.45	S.F.	63,250	25	1929	1954	2042	108.00 %	85.86 %	27		$78,743.20	$91,713
B3010105	Built-Up	$37.76	S.F.	21,969	20	1980	2000	2020	25.00 %	8.66 %	5		$71,873.20	$829,549
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.	21,969	20	1929	1949	2020	25.00 %	0.00 %	5			$1,318
C1010	Partitions	$17.91	S.F.	63,250	100	1929	2029	2052	37.00 %	21.55 %	37		$244,086.45	$1,132,808
C1020	Interior Doors	$3.51	S.F.	63,250	40	1929	1969	2057	105.00 %	174.16 %	42		$386,650.27	$222,008
C1030	Fittings	$3.12	S.F.	63,250	40	1929	1969	2020	12.50 %	25.42 %	5		$50,169.00	$197,340
C2010	Stair Construction	$1.41	S.F.	63,250	100	1929	2029	2052	37.00 %	163.32 %	37		$145,649.22	$89,183

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System Code	System Description	Unit Price $	UoM	Qty	Life	Year Installed	Calc Next Renewal Year	Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency $	Replacement Value $
C3010230	Paint & Covering	$13.21	S.F.	63,250	10	1929	1939	2020	50.00 %	15.91 %	5		$132,902.00	$835,533
C3010231	Vinyl Wall Covering	$0.97	S.F.	63,250	15				0.00 %	0.00 %				$61,353
C3010232	Wall Tile	$2.63	S.F.	63,250	30				0.00 %	0.00 %				$166,348
C3020411	Carpet	$7.30	S.F.	700	10	2005	2015	2020	50.00 %	0.00 %	5			$5,110
C3020412	Terrazzo & Tile	$75.52	S.F.		50				0.00 %	0.00 %				$0
C3020413	Vinyl Flooring	$9.68	S.F.	12,000	20	2000	2020		25.00 %	64.91 %	5		$75,395.69	$116,160
C3020414	Wood Flooring	$22.27	S.F.	33,300	25	1929	1954	2042	108.00 %	48.35 %	27		$358,539.10	$741,591
C3020415	Concrete Floor Finishes	$0.97	S.F.	17,250	50	1929	1979	2067	104.00 %	174.21 %	52		$29,150.13	$16,733
C3030	Ceiling Finishes	$20.97	S.F.	63,250	25	1980	2005	2042	108.00 %	55.08 %	27		$730,607.56	$1,326,353
D1010	Elevators and Lifts	$2.75	S.F.	63,250	35			2052	105.71 %	385.38 %	37		$670,322.07	$173,938
D2010	Plumbing Fixtures	$13.52	S.F.	63,250	35	1929	1964	2052	105.71 %	46.15 %	37		$394,664.05	$855,140
D2020	Domestic Water Distribution	$1.68	S.F.	63,250	25	1929	1954	2042	108.00 %	403.73 %	27		$428,999.06	$106,260
D2030	Sanitary Waste	$2.90	S.F.	63,250	25	1929	1954	2042	108.00 %	169.16 %	27		$310,288.75	$183,425
D2040	Rain Water Drainage	$2.32	S.F.	63,250	30	1929	1959	2045	100.00 %	0.00 %	30			$146,740
D3020	Heat Generating Systems	$18.67	S.F.	63,250	35	1929	1964	2052	105.71 %	87.98 %	37		$1,038,883.34	$1,180,878
D3030	Cooling Generating Systems	$24.48	S.F.	63,250	30	1929	1959	2047	106.67 %	77.79 %	32		$1,204,454.53	$1,548,360
D3040	Distribution Systems	$42.99	S.F.	63,250	25	1929	1954	2042	108.00 %	105.16 %	27		$2,859,546.41	$2,719,118
D3050	Terminal & Package Units	$11.60	S.F.	63,250	20	1929	1949	2037	110.00 %	0.00 %	22			$733,700
D3060	Controls & Instrumentation	$13.50	S.F.	63,250	20	1929	1949	2037	110.00 %	158.90 %	22		$1,356,842.23	$853,875
D4010	Sprinklers	$7.05	S.F.	63,250	35	1929	1964	2052	105.71 %	202.91 %	37		$904,820.91	$445,913
D4020	Standpipes	$1.01	S.F.	63,250	35	1929	1964	2052	105.71 %	0.00 %	37			$63,883
D5010	Electrical Service/Distribution	$9.70	S.F.	63,250	30	1929	1959	2047	106.67 %	169.49 %	32		$1,039,849.69	$613,525
D5020	Lighting and Branch Wiring	$34.68	S.F.	63,250	20	1929	1949	2037	110.00 %	69.15 %	22		$1,516,837.21	$2,193,510
D5030	Communications and Security	$12.99	S.F.	63,250	15	1929	1944	2032	113.33 %	75.21 %	17		$617,912.68	$821,618
D5090	Other Electrical Systems	$1.41	S.F.	63,250	30	1929	1959	2047	106.67 %	290.23 %	32		$258,837.72	$89,183
E1020	Institutional Equipment	$4.82	S.F.	63,250	35	1929	1964	2020	14.29 %	34.45 %	5		$105,028.21	$304,865
E1090	Other Equipment	$11.10	S.F.	63,250	35	1929	1964	2020	14.29 %	0.00 %	5			$702,075
E2010	Fixed Furnishings	$2.13	S.F.	63,250	40	1929	1969	2020	12.50 %	57.21 %	5		$77,068.83	$134,723
								Total	**72.12 %**	**49.33 %**			**$15,626,962.53**	**$31,675,791**

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 plaster or brick 92% glazed brick/block 8%	
System:	C3020 - Floor Finishes	This system contains no images
Note:	Concrete – 17,250 27% Wood - 33,300 53% VCT - 4,000 6% Carpet- 700 1% VAT - 8,000 13%	
System:	C3030 - Ceiling Finishes	This system contains no images
Note:	acoustical tile ceilings (suspended or glued to deck) 75% painted concrete deck above 25%	
System:	D5010 - Electrical Service/Distribution	This system contains no images
Note:	1- 75KVA, 240V to 208V phase changer.	

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:	**$15,626,963**	**$0**	**$0**	**$0**	**$0**	**$3,987,139**	**$0**	**$0**	**$0**	**$0**	**$0**	**$19,614,101**
*** 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	$4,054	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$4,054**
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	$88,075	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$88,075**
B2020 - Exterior Windows	$446,712	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$446,712**
B2030 - Exterior Doors	$78,743	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$78,743**
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	$71,873	$0	$0	$0	$0	$1,057,842	$0	$0	$0	$0	$0	**$1,129,715**
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	$1,681	$0	$0	$0	$0	$0	**$1,681**
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	$244,086	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$244,086**

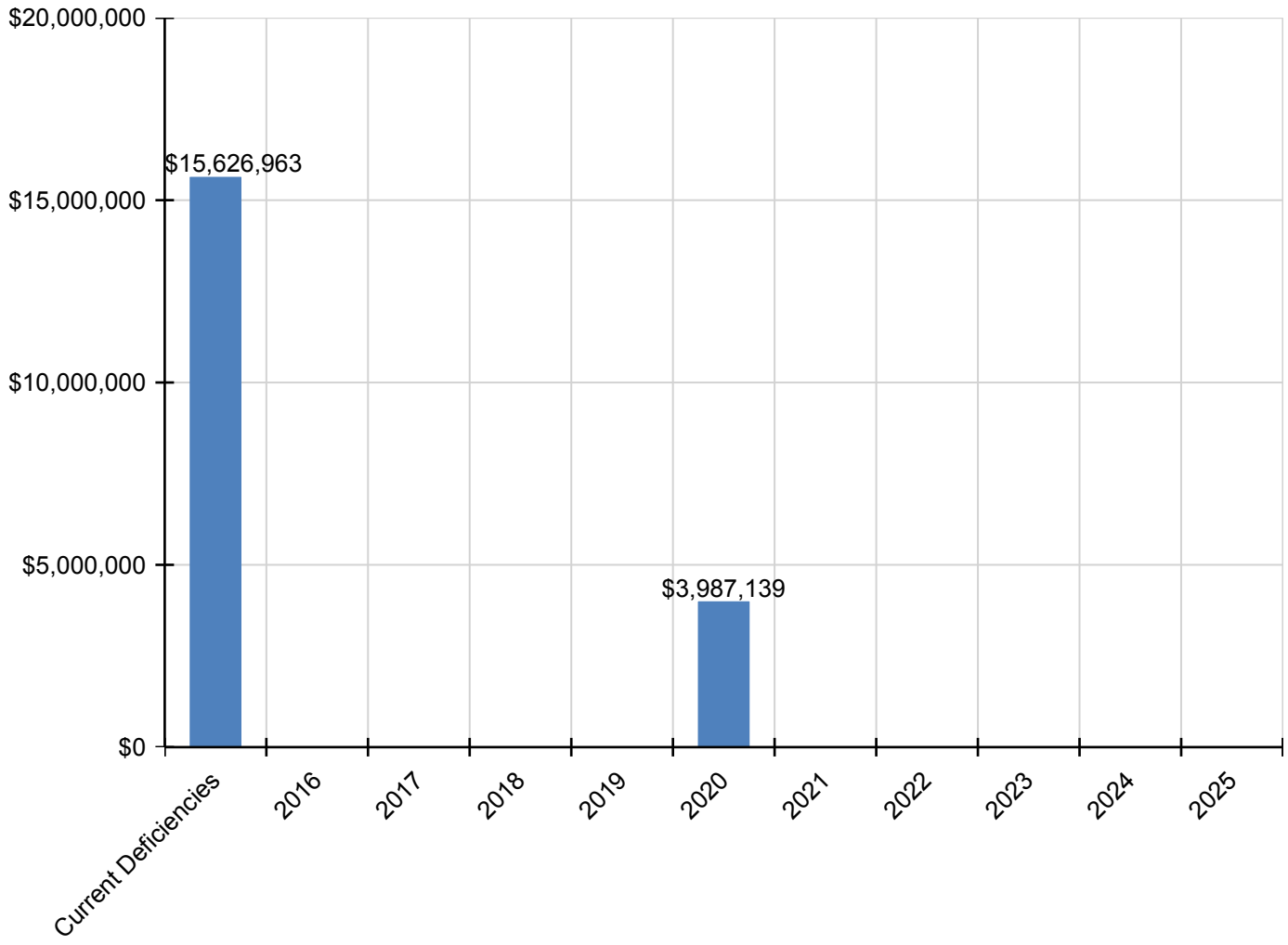
C1020 - Interior Doors	$386,650	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$386,650**
C1030 - Fittings	$50,169	$0	$0	$0	$0	$251,648	$0	$0	$0	$0	$0	**$301,817**
C20 - Stairs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C2010 - Stair Construction	$145,649	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$145,649**
C30 - Interior Finishes	$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	$132,902	$0	$0	$0	$0	$1,065,473	$0	$0	$0	$0	$0	**$1,198,375**
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	$6,516	$0	$0	$0	$0	$0	**$6,516**
C3020412 - Terrazzo & Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020413 - Vinyl Flooring	$75,396	$0	$0	$0	$0	$148,127	$0	$0	$0	$0	$0	**$223,523**
C3020414 - Wood Flooring	$358,539	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$358,539**
C3020415 - Concrete Floor Finishes	$29,150	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$29,150**
C3030 - Ceiling Finishes	$730,608	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$730,608**
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	$670,322	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$670,322**
D20 - Plumbing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2010 - Plumbing Fixtures	$394,664	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$394,664**
D2020 - Domestic Water Distribution	$428,999	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$428,999**
D2030 - Sanitary Waste	$310,289	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$310,289**
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	$1,038,883	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,038,883**
D3030 - Cooling Generating Systems	$1,204,455	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,204,455**
D3040 - Distribution Systems	$2,859,546	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$2,859,546**
D3050 - Terminal & Package Units	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3060 - Controls & Instrumentation	$1,356,842	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,356,842**
D40 - Fire Protection	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D4010 - Sprinklers	$904,821	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$904,821**
D4020 - Standpipes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

D50 - Electrical	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D5010 - Electrical Service/Distribution	$1,039,850	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,039,850**
D5020 - Lighting and Branch Wiring	$1,516,837	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,516,837**
D5030 - Communications and Security	$617,913	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$617,913**
D5090 - Other Electrical Systems	$258,838	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$258,838**
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	$105,028	$0	$0	$0	$0	$388,765	$0	$0	$0	$0	$0	**$493,793**
E1090 - Other Equipment	$0	$0	$0	$0	$0	$895,288	$0	$0	$0	$0	$0	**$895,288**
E20 - Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E2010 - Fixed Furnishings	$77,069	$0	$0	$0	$0	$171,799	$0	$0	$0	$0	$0	**$248,867**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

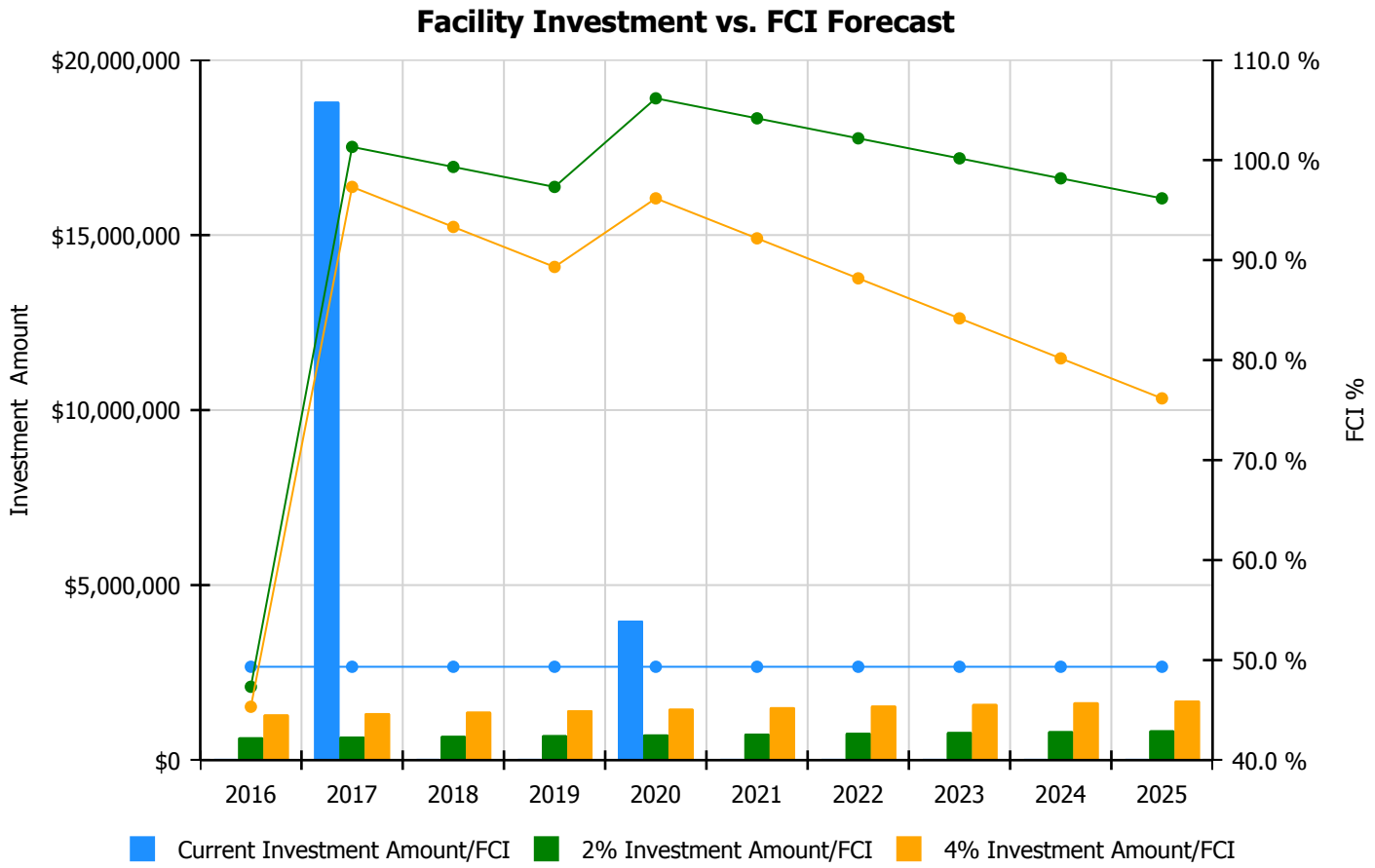
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



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:

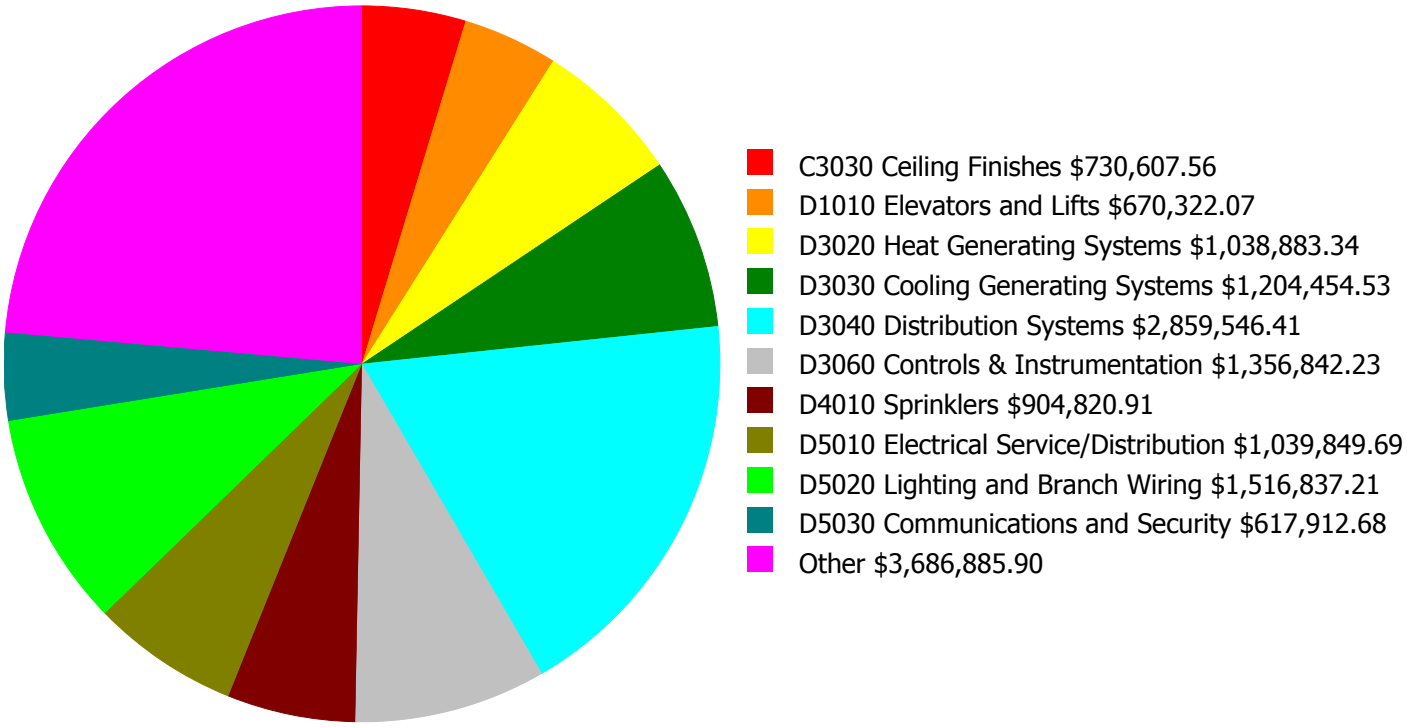
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 49.33%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$652,521.00	47.33 %	$1,305,043.00	45.33 %
2017	$18,811,707	$672,097.00	101.31 %	$1,344,194.00	97.31 %
2018	$0	$692,260.00	99.31 %	$1,384,520.00	93.31 %
2019	$0	$713,028.00	97.31 %	$1,426,055.00	89.31 %
2020	$3,987,139	$734,418.00	106.17 %	$1,468,837.00	96.17 %
2021	$0	$756,451.00	104.17 %	$1,512,902.00	92.17 %
2022	$0	$779,145.00	102.17 %	$1,558,289.00	88.17 %
2023	$0	$802,519.00	100.17 %	$1,605,038.00	84.17 %
2024	$0	$826,594.00	98.17 %	$1,653,189.00	80.17 %
2025	$0	$851,392.00	96.17 %	$1,702,785.00	76.17 %
Total:	**$22,798,846**	**$7,480,425.00**		**$14,960,852.00**	

Deficiency Summary by System

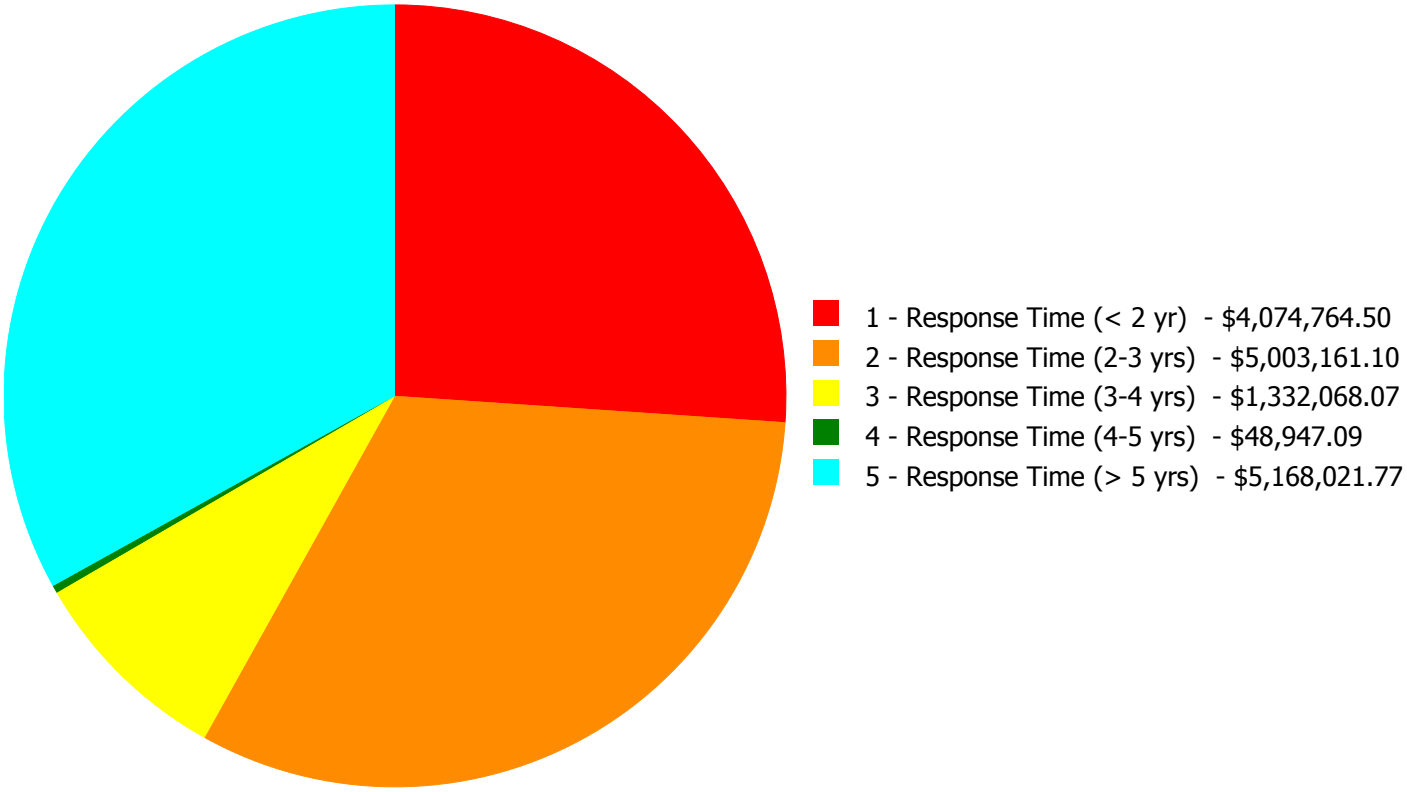
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $15,626,962.53

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: $15,626,962.53

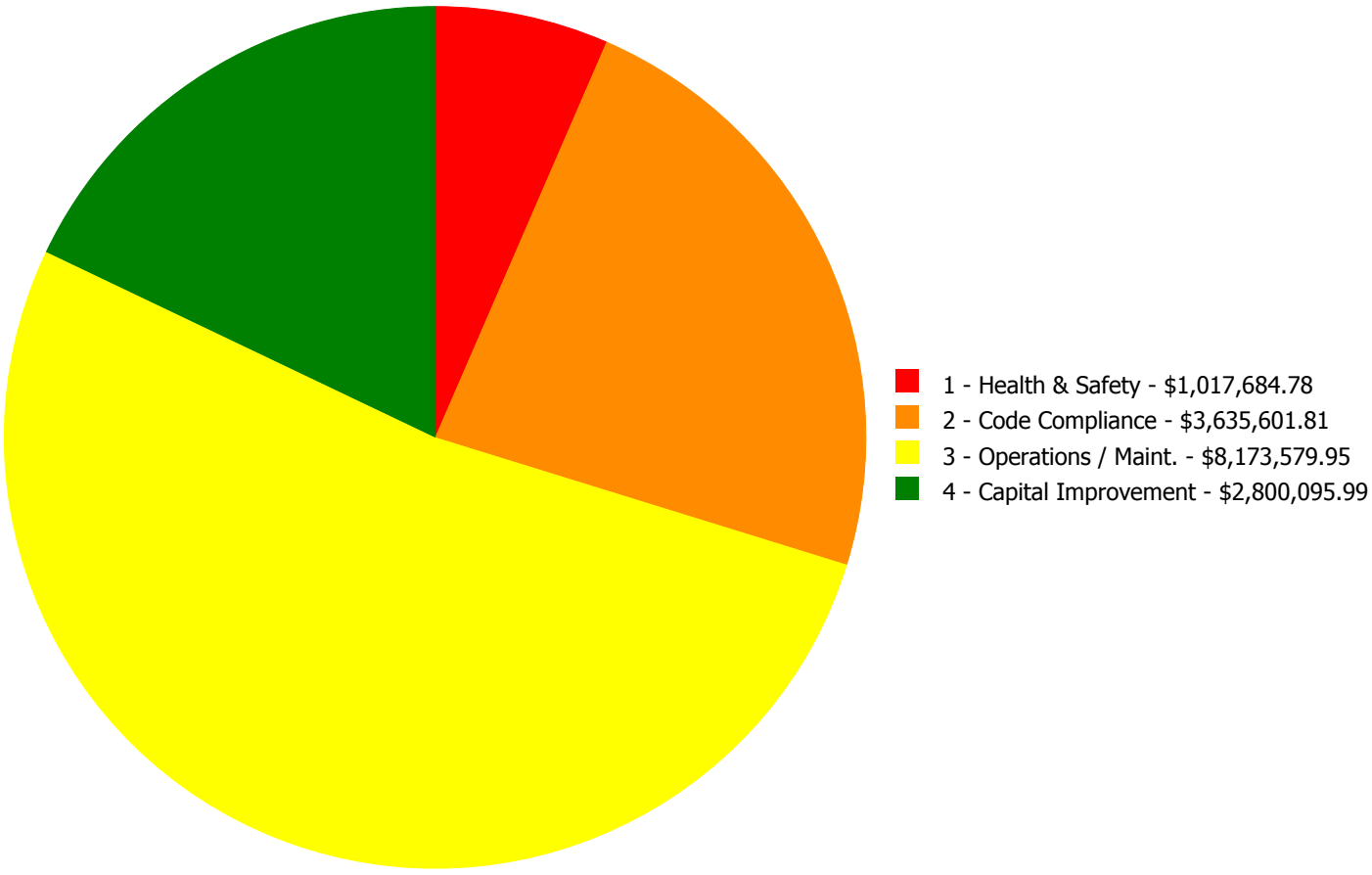
Deficiency By Priority Investment Table

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	$4,054.28	$0.00	$0.00	$0.00	$4,054.28
B2010	Exterior Walls	$0.00	$88,075.23	$0.00	$0.00	$0.00	$88,075.23
B2020	Exterior Windows	$0.00	$446,711.51	$0.00	$0.00	$0.00	$446,711.51
B2030	Exterior Doors	$0.00	$78,743.20	$0.00	$0.00	$0.00	$78,743.20
B3010105	Built-Up	$71,873.20	$0.00	$0.00	$0.00	$0.00	$71,873.20
C1010	Partitions	$116,776.14	$127,310.31	$0.00	$0.00	$0.00	$244,086.45
C1020	Interior Doors	$0.00	$386,650.27	$0.00	$0.00	$0.00	$386,650.27
C1030	Fittings	$0.00	$50,169.00	$0.00	$0.00	$0.00	$50,169.00
C2010	Stair Construction	$140,119.52	$5,529.70	$0.00	$0.00	$0.00	$145,649.22
C3010230	Paint & Covering	$0.00	$132,902.00	$0.00	$0.00	$0.00	$132,902.00
C3020413	Vinyl Flooring	$0.00	$75,395.69	$0.00	$0.00	$0.00	$75,395.69
C3020414	Wood Flooring	$0.00	$358,539.10	$0.00	$0.00	$0.00	$358,539.10
C3020415	Concrete Floor Finishes	$0.00	$29,150.13	$0.00	$0.00	$0.00	$29,150.13
C3030	Ceiling Finishes	$0.00	$721,033.50	$9,574.06	$0.00	$0.00	$730,607.56
D1010	Elevators and Lifts	$0.00	$670,322.07	$0.00	$0.00	$0.00	$670,322.07
D2010	Plumbing Fixtures	$0.00	$394,664.05	$0.00	$0.00	$0.00	$394,664.05
D2020	Domestic Water Distribution	$0.00	$0.00	$0.00	$48,947.09	$380,051.97	$428,999.06
D2030	Sanitary Waste	$0.00	$0.00	$310,288.75	$0.00	$0.00	$310,288.75
D3020	Heat Generating Systems	$0.00	$0.00	$1,012,205.26	$0.00	$26,678.08	$1,038,883.34
D3030	Cooling Generating Systems	$0.00	$0.00	$0.00	$0.00	$1,204,454.53	$1,204,454.53
D3040	Distribution Systems	$207,530.13	$0.00	$0.00	$0.00	$2,652,016.28	$2,859,546.41
D3060	Controls & Instrumentation	$0.00	$1,356,842.23	$0.00	$0.00	$0.00	$1,356,842.23
D4010	Sprinklers	$0.00	$0.00	$0.00	$0.00	$904,820.91	$904,820.91
D5010	Electrical Service/Distribution	$1,039,849.69	$0.00	$0.00	$0.00	$0.00	$1,039,849.69
D5020	Lighting and Branch Wiring	$1,516,837.21	$0.00	$0.00	$0.00	$0.00	$1,516,837.21
D5030	Communications and Security	$617,912.68	$0.00	$0.00	$0.00	$0.00	$617,912.68
D5090	Other Electrical Systems	$258,837.72	$0.00	$0.00	$0.00	$0.00	$258,837.72
E1020	Institutional Equipment	$105,028.21	$0.00	$0.00	$0.00	$0.00	$105,028.21
E2010	Fixed Furnishings	$0.00	$77,068.83	$0.00	$0.00	$0.00	$77,068.83
	Total:	$4,074,764.50	$5,003,161.10	$1,332,068.07	$48,947.09	$5,168,021.77	$15,626,962.53

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: $15,626,962.53

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: Repair or replace flashing where it connects to masonry parapet - choose proper material
Qty: 700.00
Unit of Measure: L.F.
Estimate: $38,172.29
Assessor Name: System
Date Created: 09/25/2015

Notes: Repair flashing and counter flashing at brick parapets on roofs (700lf)

System: B3010105 - Built-Up

Location: roof
Distress: Failing
Category: 3 - Operations / Maint.
Priority: 1 - Response Time (< 2 yr)
Correction: Blister or membrane repair - partial areas
Qty: 3,000.00
Unit of Measure: S.F.
Estimate: $33,700.91
Assessor Name: System
Date Created: 09/25/2015

Notes: Repaint with silver paint recently patched and peeling roof areas including auditorium roof (6000sf)

System: C1010 - Partitions

Location: corridor walls and stairway walls

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 1 - Response Time (< 2 yr)

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

Qty: 1,400.00

Unit of Measure: S.F.

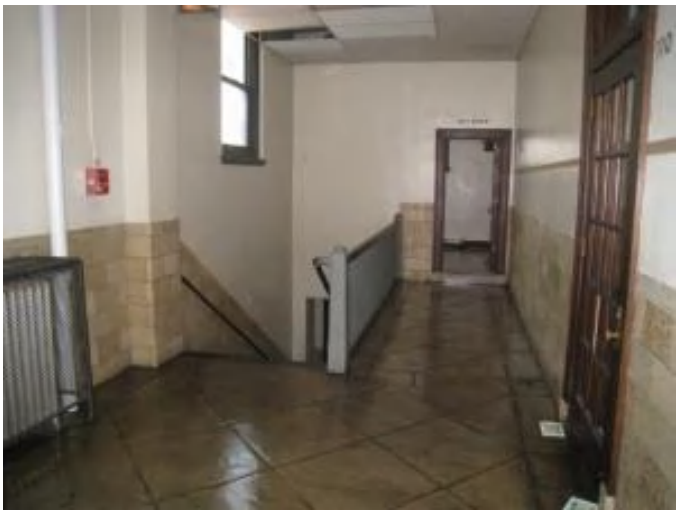
Estimate: $87,267.99

Assessor Name: System

Date Created: 09/25/2015

Notes: Remove non-rated glass panels between most classrooms and corridors, over classroom doors and for glass panels over stairway doors, fill with fire rated gyp bd sys at (18) 3x6 panels + (18) 3x3 panels at corridor; (6) 3x10 panels at stairways above doors and 16 glass doors replace with B label rated doors and construction stairway walls

System: C1010 - Partitions



Location: open stairs in corridor

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 1 - Response Time (< 2 yr)

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

Qty: 600.00

Unit of Measure: S.F.

Estimate: $29,508.15

Assessor Name: System

Date Created: 09/26/2015

Notes: Provide stairway enclosure for 2 open stairs connecting first floor with basement (600sf partition + 4 doors)

System: C2010 - Stair Construction

Location: stairs

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: 240.00

Unit of Measure: L.F.

Estimate: $83,810.17

Assessor Name: System

Date Created: 09/26/2015

Notes: Remove and replace stairway handrails and guards with code compliant systems (3) 4 story stairways (240lf rail+guard)

System: C2010 - Stair Construction

Location: stairs

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: 240.00

Unit of Measure: L.F.

Estimate: $37,422.48

Assessor Name: System

Date Created: 09/26/2015

Notes: Remove and replace stairway handrails and guards with code compliant systems (3) 4 story stairways (240lf rail)

System: C2010 - Stair Construction

Location: exterior stairs

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: 90.00

Unit of Measure: L.F.

Estimate: $14,782.85

Assessor Name: System

Date Created: 09/26/2015

Notes: Add three freestanding handrails along two main entrance stairs, complying with 2015 building codes (60ft total length) and replace damaged rear stairs railings (30ft total length)

System: C2010 - Stair Construction

Location: exterior stair

Distress: Damaged

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Repair exterior stairs

Qty: 10.00

Unit of Measure: Riser

Estimate: $4,104.02

Assessor Name: System

Date Created: 09/26/2015

Notes: Repair spalling exterior concrete stair and railing (10 treads) 4 ft wide

System: D3040 - Distribution Systems

Location: Throughout the building

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: 63,250.00

Unit of Measure: S.F.

Estimate: $207,530.13

Assessor Name: System

Date Created: 11/16/2015

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

System: D5010 - Electrical Service/Distribution

Location: Boiler Room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Replace Switchboard

Qty: 1.00

Unit of Measure: Ea.

Estimate: $634,450.15

Assessor Name: System

Date Created: 09/01/2015

Notes: Upgrade the existing electrical service with a new service. Replace the existing switchboard with new 1600A, 480/277, 3PH, 4 wire switchboard, 225KVA,480V to2120/208V transformer and 800A, low voltage distribution panel.

System: D5010 - Electrical Service/Distribution

Location: Boiler Room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Replace Electrical Distribution System (U)

Qty: 1.00

Unit of Measure: Ea.

Estimate: $405,399.54

Assessor Name: System

Date Created: 09/01/2015

Notes: Replace the entire distribution system. Estimated at 16 panel boards.

System: D5020 - Lighting and Branch Wiring

Location: Entire Building

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 1 - Response Time (< 2 yr)

Correction: Replace Lighting Fixtures (SF)

Qty: 1.00

Unit of Measure: S.F.

Estimate: $1,063,647.80

Assessor Name: System

Date Created: 09/01/2015

Notes: Replace all lighting fixtures with new fluorescent lighting fixtures with T-5 lamp. Provide emergency power to sufficient number of lights in corridors and other egress ways.

System: D5020 - Lighting and Branch Wiring

Location: Entire Building

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 1 - Response Time (< 2 yr)

Correction: Replace Wiring Devices (SF) - surface mounted conduit and boxes

Qty: 1.00

Unit of Measure: S.F.

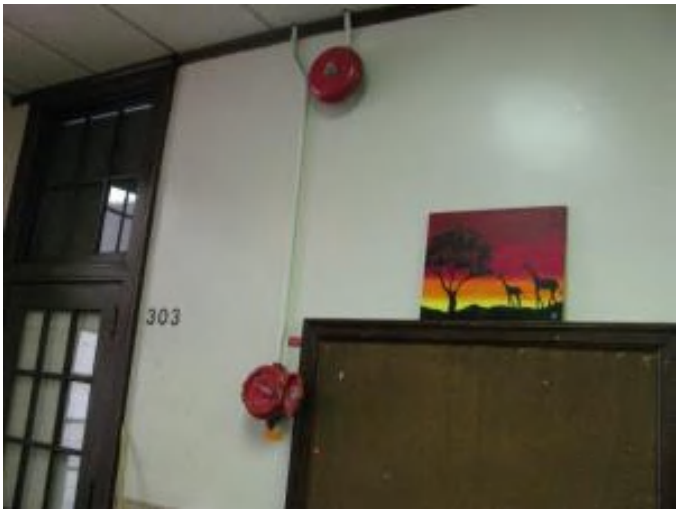
Estimate: $453,189.41

Assessor Name: System

Date Created: 09/01/2015

Notes: Install minimum two receptacles on each wall in class rooms. It is recommended that a surface mounted raceway with two-compartment, for data and power, be installed in the computer lab room. Provide surge protective receptacle for computers.

System: D5030 - Communications and Security



Location: Boiler Room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Replace fire alarm system

Qty: 1.00

Unit of Measure: S.F.

Estimate: $356,960.08

Assessor Name: System

Date Created: 09/01/2015

Notes: Replace existing fire alarm system with a new automatic Fire Alarm System including control panel, initiated devices in corridors, air ducts, electrical and LAN rooms, library, and computer rooms. Provide notification devices in class rooms, offices, auditorium, corridors, other area recommended by codes.

System: D5030 - Communications and Security

Location: Entire Building
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 1 - Response Time (< 2 yr)
Correction: Add/Replace Clock System or Components
Qty: 1.00
Unit of Measure: Ea.
Estimate: $216,559.96
Assessor Name: System
Date Created: 09/01/2015

Notes: Replace existing master clock system with wireless master clock system.

System: D5030 - Communications and Security

Location: Auditorium
Distress: Inadequate
Category: 4 - Capital Improvement
Priority: 1 - Response Time (< 2 yr)
Correction: Add/Replace Sound System
Qty: 1.00
Unit of Measure: LS
Estimate: $44,392.64
Assessor Name: System
Date Created: 09/02/2015

Notes: Provide new sound system including a freestanding 19” rack backstage with mixer per amplifiers, CD player, cassette player, AM-FM radio, graphic or parametric equalizer, and receivers for wireless microphone.

System: D5090 - Other Electrical Systems

Location: Boiler Room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Add Standby Generator System

Qty: 1.00

Unit of Measure: Ea.

Estimate: $232,841.37

Assessor Name: System

Date Created: 09/01/2015

Notes: Replace existing emergency diesel generator with new 100KW diesel generator.

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

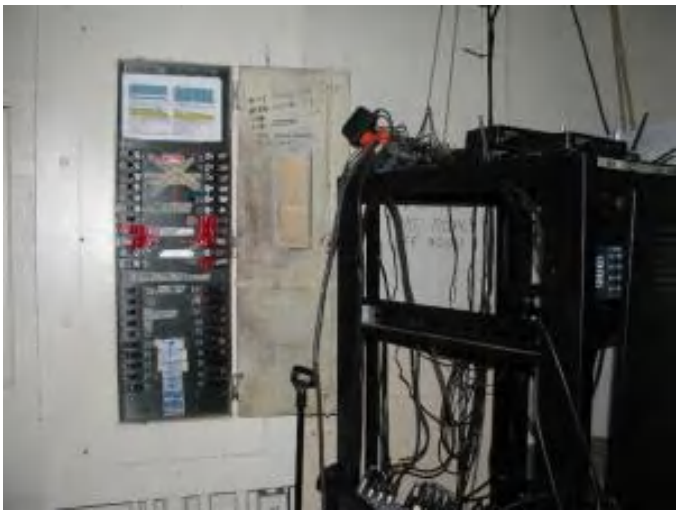
Estimate: $25,996.35

Assessor Name: System

Date Created: 09/02/2015

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

System: E1020 - Institutional Equipment



Location: Auditorium

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

Priority: 1 - Response Time (< 2 yr)

Correction: Add/Replace Stage Theatrical Lighting System

Qty: 1.00

Unit of Measure: Ea.

Estimate: $105,028.21

Assessor Name: System

Date Created: 09/02/2015

Notes: Provide new stage lighting and controller in Auditorium.

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

System: B1010 - Floor Construction

Location: underside 1st floor

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Repair rebar and epoxy grout exposed rebar on the underside of floors and floor beams

Qty: 50.00

Unit of Measure: S.F.

Estimate: $4,054.28

Assessor Name: System

Date Created: 09/25/2015

Notes: Repair crack in first floor slab, above (50ft)

System: B2010 - Exterior Walls

Location: rear foundation walls

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Repaint exterior walls - CMU

Qty: 4,000.00

Unit of Measure: S.F.

Estimate: $35,089.38

Assessor Name: System

Date Created: 09/25/2015

Notes: Repaint foundation wall around side and rear of building (4000sf)

System: B2010 - Exterior Walls

Location: exterior walls near window and door lintels

Distress: Failing

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: 1,000.00

Unit of Measure: S.F.

Estimate: $32,289.47

Assessor Name: System

Date Created: 09/25/2015

Notes: Repoint cracked masonry walls around building near lintels and on brick roof structures (1000sf)

System: B2010 - Exterior Walls

Location: terra cotta parapet coping

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Repoint horizontal or vertical joints at limestone coping

Qty: 1,200.00

Unit of Measure: L.F.

Estimate: $19,081.88

Assessor Name: System

Date Created: 09/25/2015

Notes: Repoint terra cotta coping blocks (1200ft)

System: B2010 - Exterior Walls

Location: vents adjacent to entrance door

Distress: Damaged

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: 50.00

Unit of Measure: S.F.

Estimate: $1,614.50

Assessor Name: System

Date Created: 09/25/2015

Notes: Repair terra cotta grillework adjacent to right entrance door

System: B2020 - Exterior Windows

Location: exterior windows

Distress: Beyond Service Life

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: 1.00

Unit of Measure: Ea.

Estimate: $445,187.10

Assessor Name: System

Date Created: 09/25/2015

Notes: Replace all exterior windows with insulated single hung units (240 in old bldg. x 3.5x8)

System: B2020 - Exterior Windows

Location: basement windows and louver

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Replacement of failing perimeter window sealant - per LF of sealant

Qty: 240.00

Unit of Measure: L.F.

Estimate: $1,524.41

Assessor Name: System

Date Created: 09/25/2015

Notes: Investigate the source of water leaking into the basement and recaulk basement windows and air intake louver (reseal basement lintels – (60)4' long)

System: B2030 - Exterior Doors

Location: exterior metal doors

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Remove and replace exterior doors - per leaf

Qty: 8.00

Unit of Measure: Ea.

Estimate: $64,768.64

Assessor Name: System

Date Created: 09/25/2015

Notes: Repaint all exterior metal doors and frames (8)3x7

System: B2030 - Exterior Doors

Location: front doors

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Replace hardware with compliant hardware, paint and weatherstrip - per leaf

Qty: 4.00

Unit of Measure: Ea.

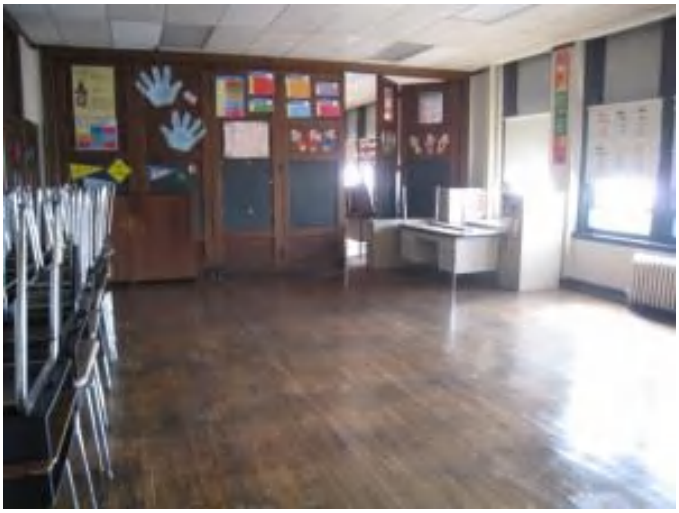
Estimate: $13,974.56

Assessor Name: System

Date Created: 09/25/2015

Notes: Refinish historical wood front doors at both Cottage Ave entrances (4)3.5x8

System: C1010 - Partitions



Location: partitions between classes

Distress: Failing

Category: 3 - Operations / Maint.

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

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

Qty: 3,000.00

Unit of Measure: S.F.

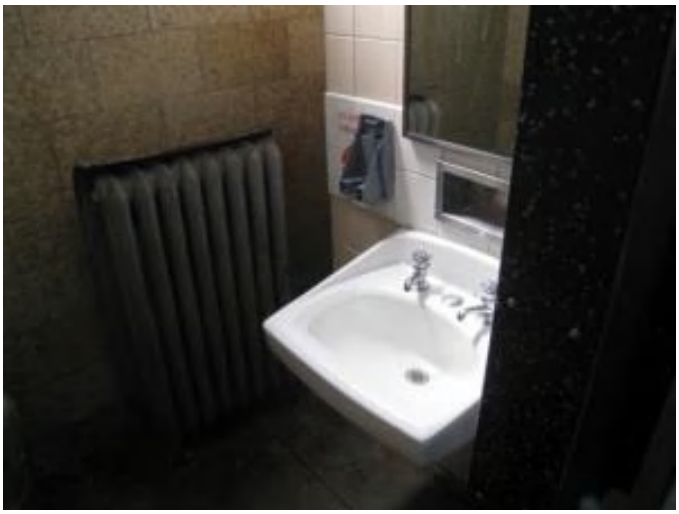
Estimate: $66,838.49

Assessor Name: System

Date Created: 09/25/2015

Notes: Replace folding wood partition room dividers in classrooms with gyp bd wall (12) x 240sf

System: C1010 - Partitions



Location: toilet room

Distress: Accessibility

Category: 2 - Code Compliance

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

Correction: Build new single restroom to meet code requirements

Qty: 1.00

Unit of Measure: Ea.

Estimate: $60,471.82

Assessor Name: System

Date Created: 09/25/2015

Notes: Upgrade existing single toilet bathroom to ADA accessible

System: C1020 - Interior Doors

Location: corridors, classrooms, toilet rooms, offices

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 60.00

Unit of Measure: Ea.

Estimate: $279,260.34

Assessor Name: System

Date Created: 09/25/2015

Notes: Replace old wood classroom, toilet rooms, office, auditorium doors in corridors throughout building in with new fire rated solid core wood doors with narrow vision panels; repair wood frames (60) 3x7

System: C1020 - Interior Doors

Location: interior doors inside classrooms

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Refinish interior doors

Qty: 80.00

Unit of Measure: Ea.

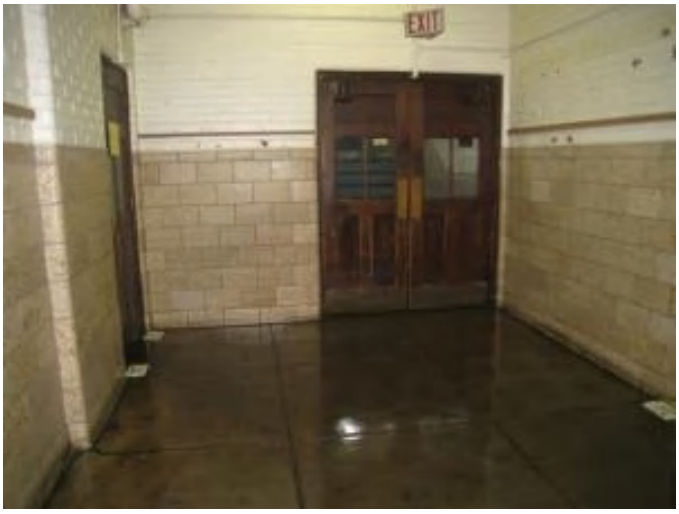
Estimate: $66,254.64

Assessor Name: System

Date Created: 09/25/2015

Notes: Repair and refinish wood doors and frames inside classrooms (80) 3x7

System: C1020 - Interior Doors



Location: basement

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace hollow metal frames and doors

Qty: 8.00

Unit of Measure: Ea.

Estimate: $29,663.46

Assessor Name: System

Date Created: 09/25/2015

Notes: Provide steel doors in hollow metal frames in mechanical rooms and storage rooms in basement (8) 3x7

System: C1020 - Interior Doors

Location: classroom and office doors

Distress: Security Issue

Category: 1 - Health & Safety

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

Correction: Provide security hardware for classroom and office doors

Qty: 50.00

Unit of Measure: Ea.

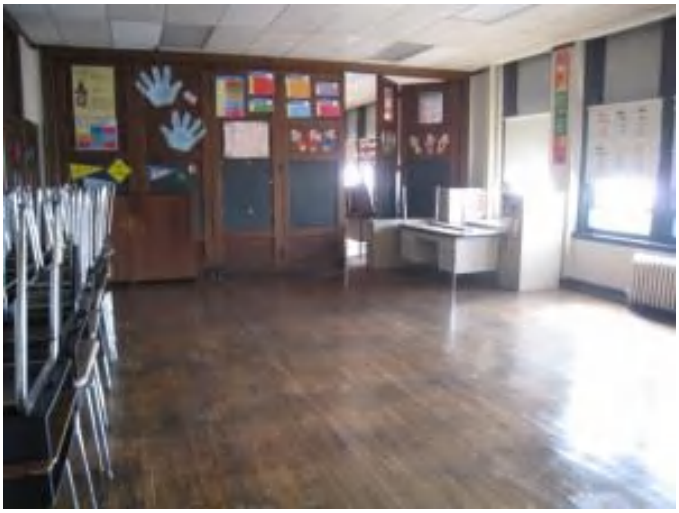
Estimate: $11,471.83

Assessor Name: System

Date Created: 09/25/2015

Notes: Provide security hardware for classrooms and offices, locking from the inside of the room (50)

System: C1030 - Fittings



Location: classrooms

Distress: Inadequate

Category: 4 - Capital Improvement

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

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

Qty: 50.00

Unit of Measure: Ea.

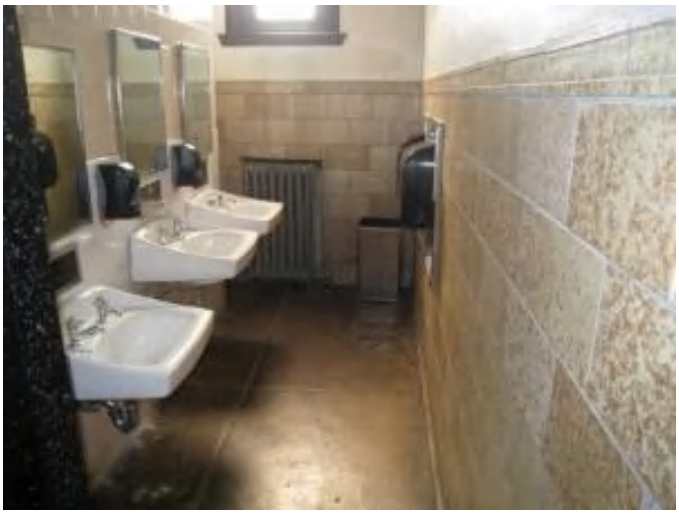
Estimate: $34,411.61

Assessor Name: System

Date Created: 09/25/2015

Notes: New whiteboards/tackboards where folding partition walls are replaced with gyp bd walls (12)

System: C1030 - Fittings



Location: toilet rooms

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Replace toilet accessories - select accessories and quantity

Qty: 3.00

Unit of Measure: Ea.

Estimate: $8,058.18

Assessor Name: System

Date Created: 09/25/2015

Notes: Provide toilet room accessories where missing or damaged (3 toilet rooms)

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: 3.00

Unit of Measure: Ea.

Estimate: $7,699.21

Assessor Name: System

Date Created: 09/25/2015

Notes: Provide toilet room partitions where missing or damaged (3 toilet compartments)

System: C2010 - Stair Construction

Location: exterior stairs

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Regrout joints between stone treads and risers - LF of grout

Qty: 370.00

Unit of Measure: L.F.

Estimate: $5,529.70

Assessor Name: System

Date Created: 09/26/2015

Notes: Repoint granite stairs Cottage Street (20 treads, 16’ long average) and Bleigh (8 treads, 6ft long)

System: C3010230 - Paint & Covering

Location: classroom and corridor walls

Distress: Appearance

Category: 3 - Operations / Maint.

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

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

Qty: 20,000.00

Unit of Measure: S.F.

Estimate: $102,169.74

Assessor Name: System

Date Created: 09/25/2015

Notes: Repair and repaint interior plaster walls where damaged in corridors, classrooms, and stairways (20000)

System: C3010230 - Paint & Covering

Location: basement mech rooms

Distress: Appearance

Category: 3 - Operations / Maint.

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

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

Qty: 5,000.00

Unit of Measure: S.F.

Estimate: $30,732.26

Assessor Name: System

Date Created: 09/25/2015

Notes: Strip and repaint concrete foundation (basement) walls in mechanical rooms (5000sf)

System: C3020413 - Vinyl Flooring

Location: auditorium and lounge

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

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

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

Qty: 7,000.00

Unit of Measure: S.F.

Estimate: $75,395.69

Assessor Name: System

Date Created: 09/25/2015

Notes: Remove and replace 9”x9” VAT floors in classroom, lounge, and auditorium; replace with VCT (7000sf)

System: C3020414 - Wood Flooring

Location: classrooms

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Refinish wood floors

Qty: 33,300.00

Unit of Measure: S.F.

Estimate: $358,539.10

Assessor Name: System

Date Created: 09/25/2015

Notes: Strip, sand, repair and refinish all wood floors in classrooms (33,300sf)

System: C3020415 - Concrete Floor Finishes

Location: basement

Distress: Appearance

Category: 3 - Operations / Maint.

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

Correction: Clean and reseal concrete floors

Qty: 10,000.00

Unit of Measure: S.F.

Estimate: $29,150.13

Assessor Name: System

Date Created: 09/25/2015

Notes: Strip and reseal concrete floors in basement and toilet rooms (10,000sf)

System: C3030 - Ceiling Finishes

Location: classsrooms, corridors

Distress: Damaged

Category: 3 - Operations / Maint.

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

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

Qty: 45,000.00

Unit of Measure: S.F.

Estimate: $678,709.36

Assessor Name: System

Date Created: 09/25/2015

Notes: Replace stained and damaged 2x4 suspended acoustical tile ceiling system (excludes auditorium, toilet rooms, stairways, and basement areas without ceilings) (45000sf)

System: C3030 - Ceiling Finishes

Location: gymnasium

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Remove and replace ceiling tiles only in suspended ceiling - pick the proper material

Qty: 4,000.00

Unit of Measure: S.F.

Estimate: $42,324.14

Assessor Name: System

Date Created: 09/25/2015

Notes: Replace ceiling tile in gymnasium, fully adhered to deck (4000sf)

System: D1010 - Elevators and Lifts

This deficiency has no image.

Location: corridor

Distress: Accessibility

Category: 2 - Code Compliance

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

Correction: Add interior elevator - 4 floors - adjust the electrical run lengths to hook up the elevator

Qty: 1.00

Unit of Measure: Ea.

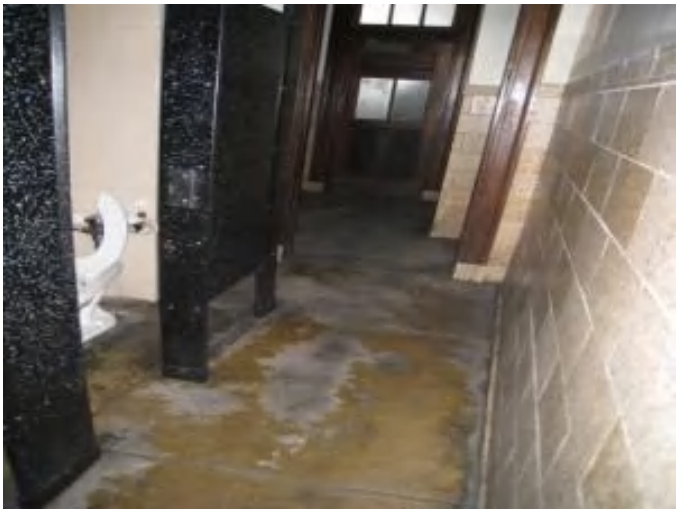
Estimate: $670,322.07

Assessor Name: System

Date Created: 09/26/2015

Notes: Add 4 stop elevator to serve basement through 3rd floors

System: D2010 - Plumbing Fixtures



Location: Throughout the building

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: 30.00

Unit of Measure: Ea.

Estimate: $223,864.43

Assessor Name: System

Date Created: 11/16/2015

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

System: D2010 - Plumbing Fixtures

Location: Throughout the byuilding

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace water fountains to meet ADA - includes high and low fountains and new recessed alcove

Qty: 6.00

Unit of Measure: Ea.

Estimate: $94,157.37

Assessor Name: System

Date Created: 11/16/2015

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 byuilding

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace or replace wall hung urinals

Qty: 12.00

Unit of Measure: Ea.

Estimate: $39,829.00

Assessor Name: System

Date Created: 11/16/2015

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

System: D2010 - Plumbing Fixtures

Location: Throughout the byuilding

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Remove and replace floor janitor or mop sink - insert the quantity

Qty: 5.00

Unit of Measure: Ea.

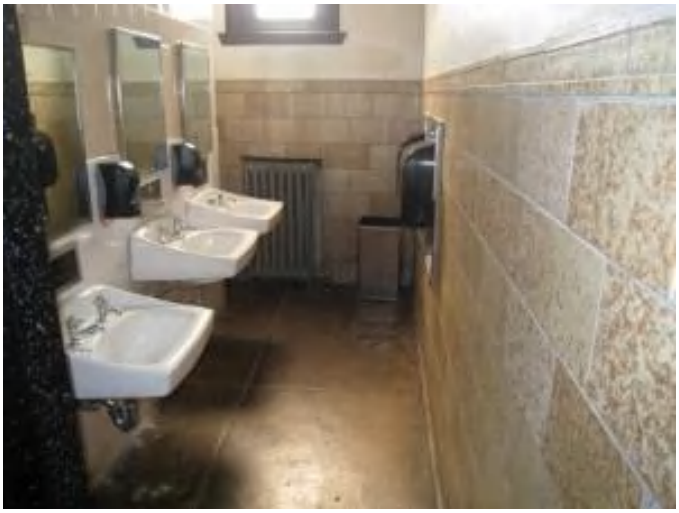
Estimate: $34,080.46

Assessor Name: System

Date Created: 11/16/2015

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

System: D2010 - Plumbing Fixtures



Location: Throughout the building

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: 16.00

Unit of Measure: Ea.

Estimate: $2,732.79

Assessor Name: System

Date Created: 11/16/2015

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

System: D3060 - Controls & Instrumentation

Location: Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace pneumatic controls with DDC (75KSF)

Qty: 63,250.00

Unit of Measure: S.F.

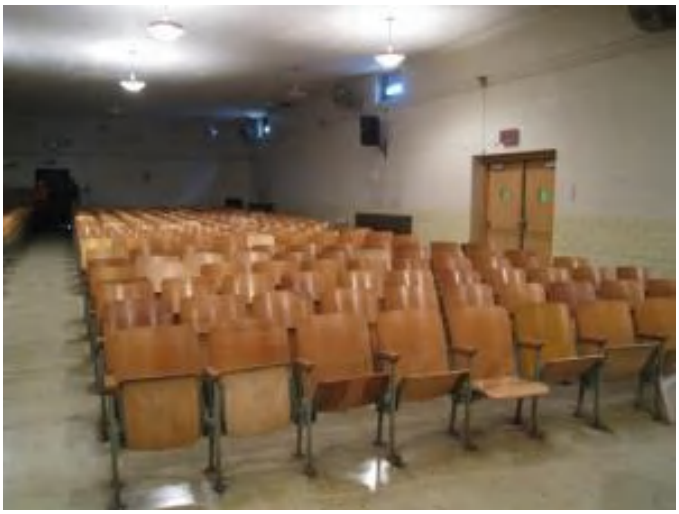
Estimate: $1,356,842.23

Assessor Name: System

Date Created: 11/16/2015

Notes: Replace the pneumatic controls for the HVAC systems with modern DDC modules, valves and actuators to improve reliability and energy efficiency. Provide a new building automation system (BAS) with communication interface to the preferred system in use throughout the District.

System: E2010 - Fixed Furnishings



Location: auditorium

Distress: Appearance

Category: 3 - Operations / Maint.

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

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

Qty: 100.00

Unit of Measure: Ea.

Estimate: $77,068.83

Assessor Name: System

Date Created: 09/26/2015

Notes: Refinish auditorium seats (100)

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

System: C3030 - Ceiling Finishes

Location: mech rooms, stairs, toilet rooms

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Re-paint ceilings - SF of ceilings

Qty: 2,000.00

Unit of Measure: S.F.

Estimate: $9,574.06

Assessor Name: System

Date Created: 09/25/2015

Notes: Repaint concrete ceilings where damaged in mechanical rooms, stairs, and toilet rooms (2000sf)

System: D2030 - Sanitary Waste

Location: Throughout the building

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

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

Qty: 63,250.00

Unit of Measure: S.F.

Estimate: $310,288.75

Assessor Name: System

Date Created: 11/16/2015

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: D3020 - Heat Generating Systems

Location: Boiler Mechanical Equipment Room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace boiler, cast iron sectional (150 HP)

Qty: 2.00

Unit of Measure: Ea.

Estimate: $1,012,205.26

Assessor Name: System

Date Created: 11/16/2015

Notes: Remove four 4,650 MBH Weil McLain 94 series steam boilers and replace with new hot water boilers and hot water distribution system with dual fuel burners.

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

System: D2020 - Domestic Water Distribution

Location: Boiler Mechanical Equipment Room

Distress: Beyond Service Life

Category: 3 - Operations / Maint.

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

Correction: Replace instantaneous water heater

Qty: 2.00

Unit of Measure: Ea.

Estimate: $48,947.09

Assessor Name: System

Date Created: 11/16/2015

Notes: Replace two instantaneous natural gas fired tankless water heaters.

Priority 5 - Response Time (> 5 yrs):

System: D2020 - Domestic Water Distribution

Location: Throughout the building
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 5 - Response Time (> 5 yrs)
Correction: Replace domestic water piping (75 KSF)
Qty: 75,000.00
Unit of Measure: S.F.
Estimate: $380,051.97
Assessor Name: System
Date Created: 11/16/2015

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

System: D3020 - Heat Generating Systems

Location: Boiler Mechanical Equipment Room
Distress: Beyond Service Life
Category: 3 - Operations / Maint.
Priority: 5 - Response Time (> 5 yrs)
Correction: Replace fuel oil pumps
Qty: 1.00
Unit of Measure: Ea.
Estimate: $26,678.08
Assessor Name: System
Date Created: 11/16/2015

Notes: Replace duplex fuel oil pumps.

System: D3030 - Cooling Generating Systems

Location: Adjacent to the building

Distress: Inadequate

Category: 4 - Capital Improvement

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 75,000.00

Unit of Measure: S.F.

Estimate: $1,204,454.53

Assessor Name: System

Date Created: 11/16/2015

Notes: Remove the window air conditioning units for the office/principal suite and install a 250 ton air-cooled chiller on the roof with chilled water distribution piping and pumps located in a mechanical room on the basement level to supply more reliable air conditioning for the building with a much longer service life. As part of the new installation, verify the reserve roof loading capacity to ensure it can carry the weight of the new chiller

System: D3040 - Distribution Systems

Location: Throughout the building

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 20.00

Unit of Measure: C

Estimate: $1,661,219.77

Assessor Name: System

Date Created: 11/16/2015

Notes: Replace the existing unit ventilators throughout the building with new units designed to provide adequate ventilation per ASHRAE Std. 62. The new units shall be equipped with hot water / chilled water coils and integral heat recovery wheels. Install steam converters in the existing boiler room with circulating pumps, distribution piping and controls to provide heating hot water for the new coils.

System: D3040 - Distribution Systems

Location: Cafeteria

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 850.00

Unit of Measure: Pr.

Estimate: $397,410.06

Assessor Name: System

Date Created: 11/16/2015

Notes: Provide ventilation, heating and cooling for the Cafeteria by removing the electric convection heaters and installing a package rooftop constant volume air handling unit with distribution ductwork and registers for supply and return air.

System: D3040 - Distribution Systems

Location: Gym

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 6,000.00

Unit of Measure: Ea.

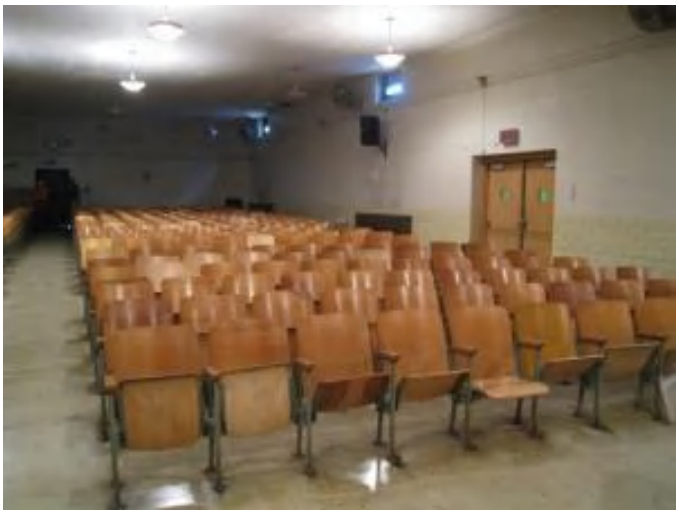
Estimate: $308,301.04

Assessor Name: System

Date Created: 11/16/2015

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

System: D3040 - Distribution Systems



Location: Auditorium

Distress: Building / MEP Codes

Category: 2 - Code Compliance

Priority: 5 - Response Time (> 5 yrs)

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

Qty: 200.00

Unit of Measure: Seat

Estimate: $285,085.41

Assessor Name: System

Date Created: 11/16/2015

Notes: Provide ventilation, heating and cooling for the Auditorium by removing the existing steam convectors and electric convection heaters and installing a package rooftop constant volume air handling unit with distribution ductwork and registers.

System: D4010 - Sprinklers

Location: Throughout the building

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

Priority: 5 - Response Time (> 5 yrs)

Correction: Install a fire protection sprinkler system

Qty: 63,250.00

Unit of Measure: S.F.

Estimate: $904,820.91

Assessor Name: System

Date Created: 11/16/2015

Notes: Install a fire protection sprinkler system 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
D3020 Heat Generating Systems	Boiler, oil fired, flame retention burner, cast iron, steam, gross output, 4360 MBH, includes standard controls and insulated flush jacket, packaged	2.00	Ea.	Boiler Mechanical Equipment Room	Weil McLain	Series 94			35			$73,163.50	$160,959.70
D3020 Heat Generating Systems	Boiler, oil fired, flame retention burner, cast iron, steam, gross output, 4360 MBH, includes standard controls and insulated flush jacket, packaged	2.00	Ea.	Boiler Mechanical Equipment Room	Weil MCLain	Series 94			35			$73,163.50	$160,959.70
D5010 Electrical Service/Distribution	Switchboards, distribution section, aluminum bus bars, 4 W, 120/208 or 277/480 V, 600 amp, excl breakers	1.00	Ea.	Boiler Room					30	1929	2017	$3,819.15	$4,201.07
												Total:	**$326,120.47**

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:	Primary Education Center
Gross Area (SF):	25,390
Year Built:	2008
Last Renovation:	
Replacement Value:	$15,104,652
Repair Cost:	$29,675.30
Total FCI:	0.20 %
Total RSLI:	80.14 %

Description:

Attributes:

General Attributes:

Active:	Open	Bldg ID:	B825002
Sewage Ejector:	No	Status:	Accepted by SDP
Site ID:	S825001		

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	93.00 %	0.00 %	$0.00
A20 - Basement Construction	93.00 %	0.00 %	$0.00
B10 - Superstructure	93.00 %	0.00 %	$0.00
B20 - Exterior Enclosure	89.17 %	0.06 %	$673.90
B30 - Roofing	65.00 %	1.37 %	$13,720.68
C10 - Interior Construction	89.37 %	0.87 %	$5,048.69
C20 - Stairs	93.00 %	0.00 %	$0.00
C30 - Interior Finishes	66.82 %	0.12 %	$1,680.45
D20 - Plumbing	78.59 %	0.00 %	$0.00
D30 - HVAC	72.79 %	0.00 %	$0.00
D40 - Fire Protection	80.00 %	0.00 %	$0.00
D50 - Electrical	64.63 %	0.57 %	$8,551.58
E10 - Equipment	80.00 %	0.00 %	$0.00
E20 - Furnishings	82.50 %	0.00 %	$0.00
Totals:	**80.14 %**	**0.20 %**	**$29,675.30**

Condition Detail

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

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

System Listing

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

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

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

System Code	System Description	Unit Price $	UoM	Qty	Life	Year Installed	Calc Next Renewal Year	Next Renewal Year	RSLI%	FCI%	RSL	eCR	Deficiency $	Replacement Value $
A1010	Standard Foundations	$24.32	S.F.	25,390	100	2008	2108		93.00 %	0.00 %	93			$617,485
A1030	Slab on Grade	$15.51	S.F.	25,390	100	2008	2108		93.00 %	0.00 %	93			$393,799
A2010	Basement Excavation	$13.07	S.F.	25,390	100	2008	2108		93.00 %	0.00 %	93			$331,847
A2020	Basement Walls	$23.02	S.F.	25,390	100	2008	2108		93.00 %	0.00 %	93			$584,478
B1010	Floor Construction	$92.20	S.F.	25,390	100	2008	2108		93.00 %	0.00 %	93			$2,340,958
B1020	Roof Construction	$24.11	S.F.	25,390	100	2008	2108		93.00 %	0.00 %	93			$612,153
B2010	Exterior Walls	$31.22	S.F.	25,390	100	2008	2108		93.00 %	0.09 %	93		$673.90	$792,676
B2020	Exterior Windows	$13.63	S.F.	25,390	40	2008	2048		82.50 %	0.00 %	33			$346,066
B2030	Exterior Doors	$1.67	S.F.	25,390	25	2008	2033		72.00 %	0.00 %	18			$42,401
B3010105	Built-Up	$37.76	S.F.		0				0.00 %	0.00 %				$0
B3010120	Single Ply Membrane	$38.73	S.F.		0				0.00 %	0.00 %				$0
B3010130	Preformed Metal Roofing	$54.22	S.F.		0				0.00 %	0.00 %				$0
B3010140	Shingle & Tile	$38.73	S.F.	25,390	20	2008	2028		65.00 %	1.40 %	13		$13,720.68	$983,355
B3020	Roof Openings	$0.68	S.F.	25,390	20	2008	2028		65.00 %	0.00 %	13			$17,265
C1010	Partitions	$14.93	S.F.	25,390	100	2008	2108		93.00 %	0.00 %	93			$379,073
C1020	Interior Doors	$3.76	S.F.	25,390	40	2008	2048		82.50 %	5.29 %	33		$5,048.69	$95,466
C1030	Fittings	$4.12	S.F.	25,390	40	2008	2048		82.50 %	0.00 %	33			$104,607
C2010	Stair Construction	$1.28	S.F.	25,390	100	2008	2108		93.00 %	0.00 %	93			$32,499

Site Assessment Report - B825002;Forrest PEC

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.	25,390	10	2008	2018	2020	50.00 %	0.00 %	5			$335,402
C3010231	Vinyl Wall Covering	$0.97	S.F.	25,390	15				0.00 %	0.00 %				$24,628
C3010232	Wall Tile	$2.63	S.F.	25,390	30	2008	2038		76.67 %	0.00 %	23			$66,776
C3020411	Carpet	$7.30	S.F.	1,000	10	2008	2018	2020	50.00 %	0.00 %	5			$7,300
C3020412	Terrazzo & Tile	$75.52	S.F.	3,000	50	2008	2058		86.00 %	0.00 %	43			$226,560
C3020413	Vinyl Flooring	$9.68	S.F.	20,690	20	2008	2028		65.00 %	0.60 %	13		$1,201.75	$200,279
C3020414	Wood Flooring	$22.27	S.F.		25				0.00 %	0.00 %				$0
C3020415	Concrete Floor Finishes	$0.97	S.F.	700	50	2008	2058		86.00 %	0.00 %	43			$679
C3030	Ceiling Finishes	$20.97	S.F.	25,390	25	2008	2033		72.00 %	0.09 %	18		$478.70	$532,428
D2010	Plumbing Fixtures	$31.58	S.F.	25,390	35	2008	2043		80.00 %	0.00 %	28			$801,816
D2020	Domestic Water Distribution	$2.90	S.F.	25,390	25	2008	2033		72.00 %	0.00 %	18			$73,631
D2030	Sanitary Waste	$2.90	S.F.	25,390	25	2008	2033		72.00 %	0.00 %	18			$73,631
D2040	Rain Water Drainage	$3.29	S.F.	25,390	30	2008	2038		76.67 %	0.00 %	23			$83,533
D3020	Heat Generating Systems	$18.67	S.F.	25,390	35	2008	2043		80.00 %	0.00 %	28			$474,031
D3030	Cooling Generating Systems	$24.48	S.F.	25,390	30	2008	2038		76.67 %	0.00 %	23			$621,547
D3040	Distribution Systems	$42.99	S.F.	25,390	25	2008	2033		72.00 %	0.00 %	18			$1,091,516
D3050	Terminal & Package Units	$11.60	S.F.	25,390	20	2008	2028		65.00 %	0.00 %	13			$294,524
D3060	Controls & Instrumentation	$13.50	S.F.	25,390	20	2008	2028		65.00 %	0.00 %	13			$342,765
D4010	Sprinklers	$8.02	S.F.	25,390	35	2008	2043		80.00 %	0.00 %	28			$203,628
D4020	Standpipes	$0.99	S.F.	25,390	35	2008	2043		80.00 %	0.00 %	28			$25,136
D5010	Electrical Service/Distribution	$9.70	S.F.	25,390	30	2008	2038		76.67 %	0.00 %	23			$246,283
D5020	Lighting and Branch Wiring	$34.68	S.F.	25,390	20	2008	2028		65.00 %	0.97 %	13		$8,551.58	$880,525
D5030	Communications and Security	$12.99	S.F.	25,390	15	2008	2023		53.33 %	0.00 %	8			$329,816
D5090	Other Electrical Systems	$1.41	S.F.	25,390	30	2008	2038		76.67 %	0.00 %	23			$35,800
E1020	Institutional Equipment	$4.82	S.F.	25,390	35	2008	2043		80.00 %	0.00 %	28			$122,380
E1090	Other Equipment	$11.10	S.F.	25,390	35	2008	2043		80.00 %	0.00 %	28			$281,829
E2010	Fixed Furnishings	$2.13	S.F.	25,390	40	2008	2048		82.50 %	0.00 %	33			$54,081
								Total	**80.14 %**	**0.20 %**			**$29,675.30**	**$15,104,652**

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 block 96%
ceramic tile 4%

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

Note:
VCT20,690 81%
Carpet 1,000 4%
Concrete 700 3%
CT/QT 3,000 12%

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

Note:
acoustical tile ceilings 30%
acoustical metal slat 65%
exposed metal deck 5%

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:	**$29,675**	**$0**	**$0**	**$0**	**$0**	**$437,014**	**$0**	**$0**	**$459,582**	**$0**	**$0**	**$926,271**
*** A - Substructure**	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
*** A10 - Foundations**	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A1010 - Standard Foundations	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A1030 - Slab on Grade	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
*** A20 - Basement Construction**	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A2010 - Basement Excavation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
A2020 - Basement Walls	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B - Shell	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B10 - Superstructure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B1010 - Floor Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B1020 - Roof Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B20 - Exterior Enclosure	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B2010 - Exterior Walls	$674	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$674**
B2020 - Exterior Windows	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
B2030 - Exterior Doors	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
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	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
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	$13,721	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$13,721**
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**

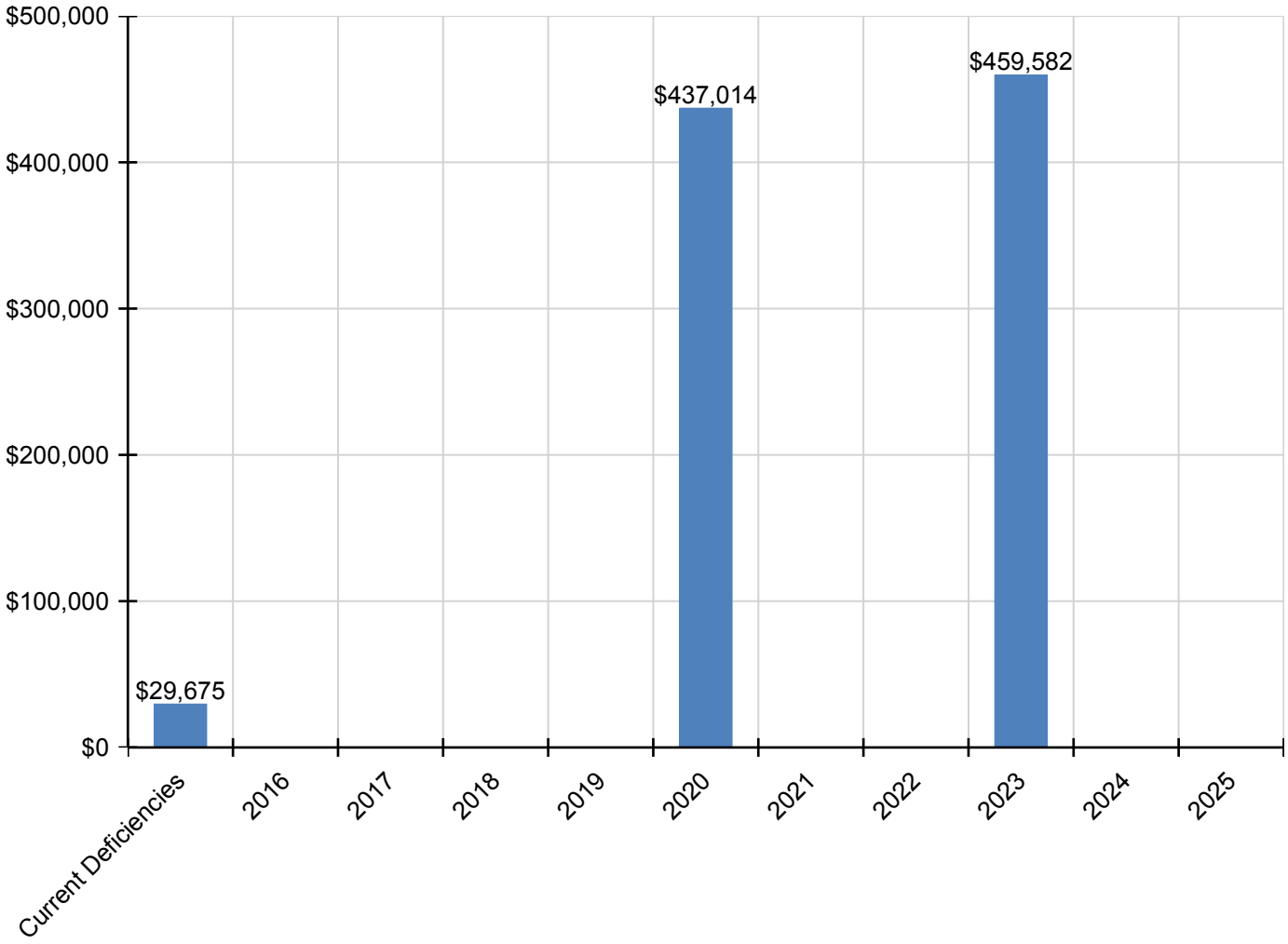
C1020 - Interior Doors	$5,049	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$5,049**
C1030 - Fittings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C20 - Stairs	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C2010 - Stair Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C30 - Interior Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010 - Wall Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3010230 - Paint & Covering	$0	$0	$0	$0	$0	$427,705	$0	$0	$0	$0	$0	**$427,705**
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	$9,309	$0	$0	$0	$0	$0	**$9,309**
C3020412 - Terrazzo & Tile	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020413 - Vinyl Flooring	$1,202	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,202**
C3020414 - Wood Flooring	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3020415 - Concrete Floor Finishes	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
C3030 - Ceiling Finishes	$479	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$479**
D - Services	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D20 - Plumbing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2010 - Plumbing Fixtures	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2020 - Domestic Water Distribution	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D2030 - Sanitary Waste	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
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	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
D3040 - Distribution Systems	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
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	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
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	$0	**$0**

D5020 - Lighting and Branch Wiring	$8,552	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$8,552**
D5030 - Communications and Security	$0	$0	$0	$0	$0	$0	$0	$0	$459,582	$0	$0	**$459,582**
D5090 - Other Electrical Systems	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E - Equipment & Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E10 - Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E1020 - Institutional Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E1090 - Other Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E20 - Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
E2010 - Fixed Furnishings	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

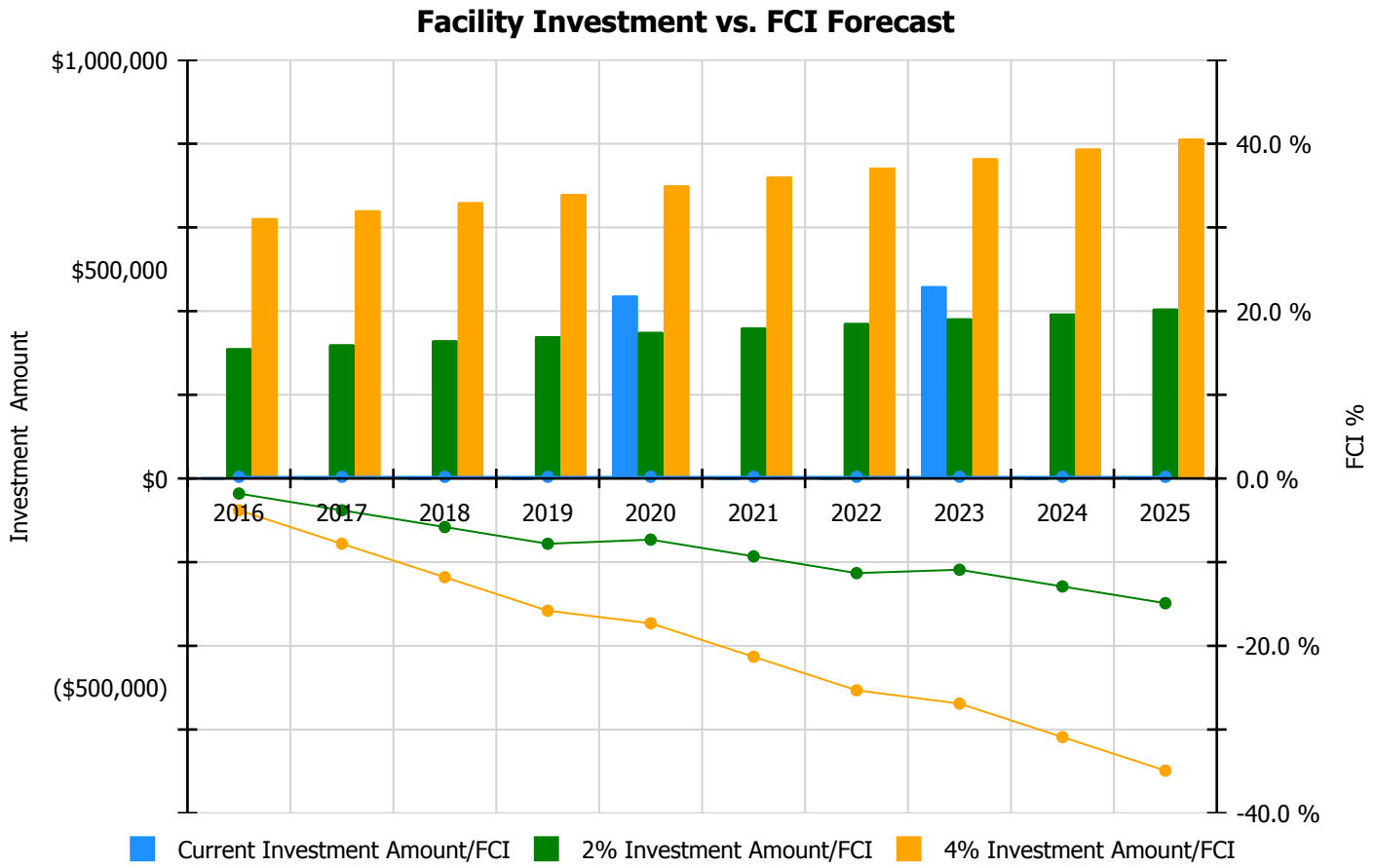
The following chart shows the current building deficiencies and forecasting sustainment requirements over the next ten years.



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:

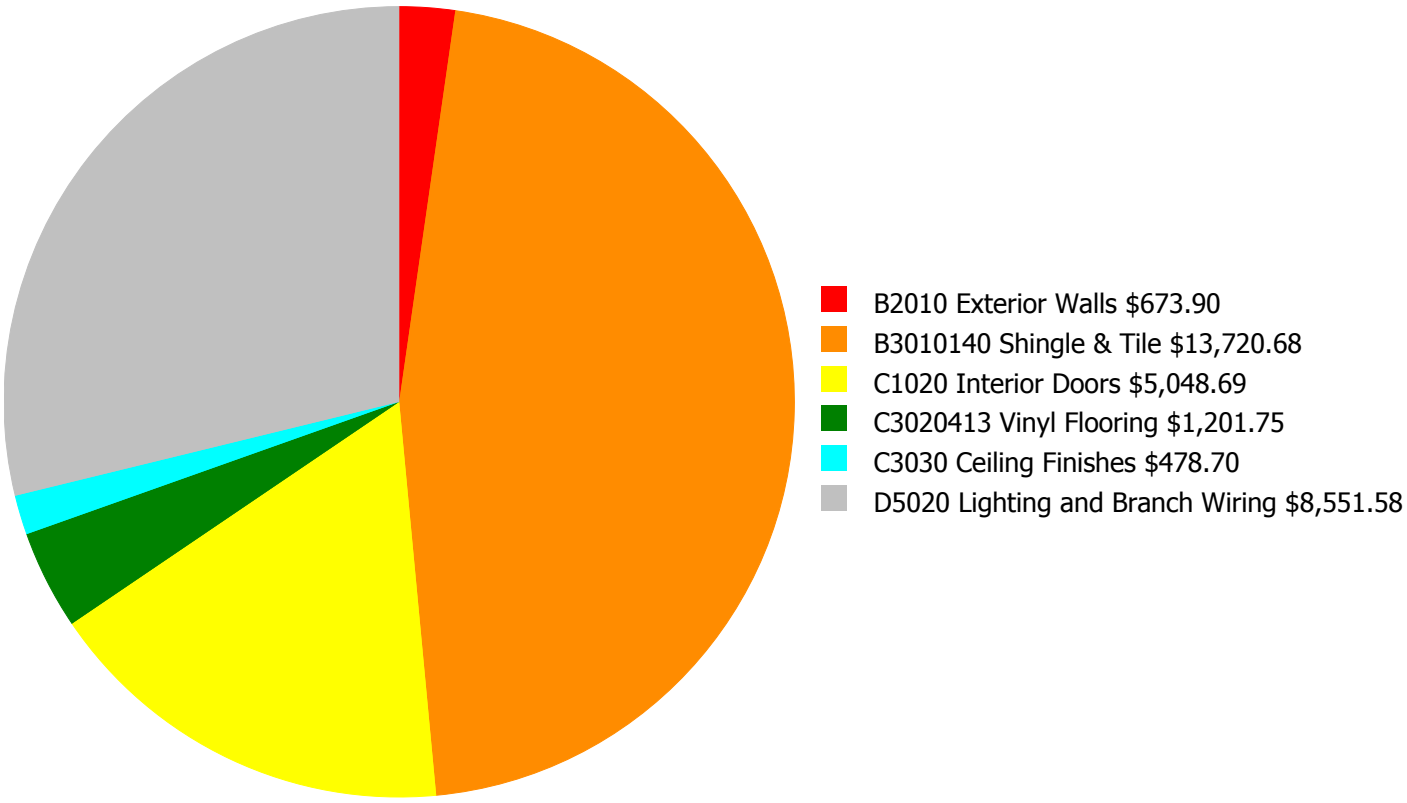
- Current FCI: a variable investment amount based on renewing expired systems to maintain the current FCI for the building
- 2% Investment: an annual investment of 2% of the replacement value of the building, escalated for inflation
- 4% Investment: an annual investment of 4% of the replacement value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



Year	Investment Amount Current FCI - 0.2%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$311,156.00	-1.80 %	$622,312.00	-3.80 %
2017	$0	$320,491.00	-3.80 %	$640,981.00	-7.80 %
2018	$0	$330,105.00	-5.80 %	$660,210.00	-11.80 %
2019	$0	$340,008.00	-7.80 %	$680,017.00	-15.80 %
2020	$437,014	$350,209.00	-7.31 %	$700,417.00	-17.31 %
2021	$0	$360,715.00	-9.31 %	$721,430.00	-21.31 %
2022	$0	$371,536.00	-11.31 %	$743,073.00	-25.31 %
2023	$459,582	$382,682.00	-10.91 %	$765,365.00	-26.91 %
2024	$0	$394,163.00	-12.91 %	$788,326.00	-30.91 %
2025	$0	$405,988.00	-14.91 %	$811,976.00	-34.91 %
Total:	**$896,596**	**$3,567,053.00**		**$7,134,107.00**	

Deficiency Summary by System

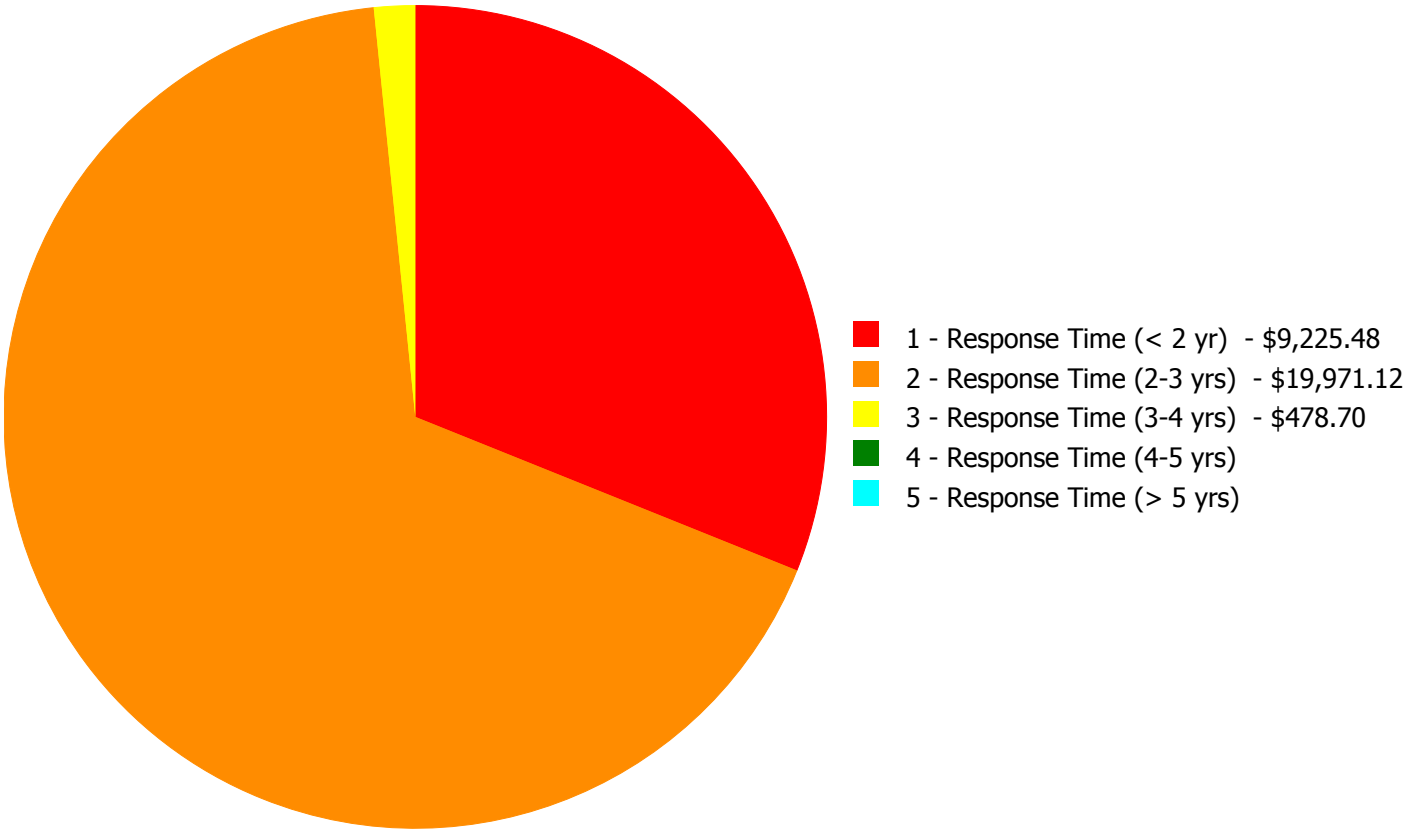
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $29,675.30

Deficiency Summary by Priority

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



Budget Estimate Total: $29,675.30

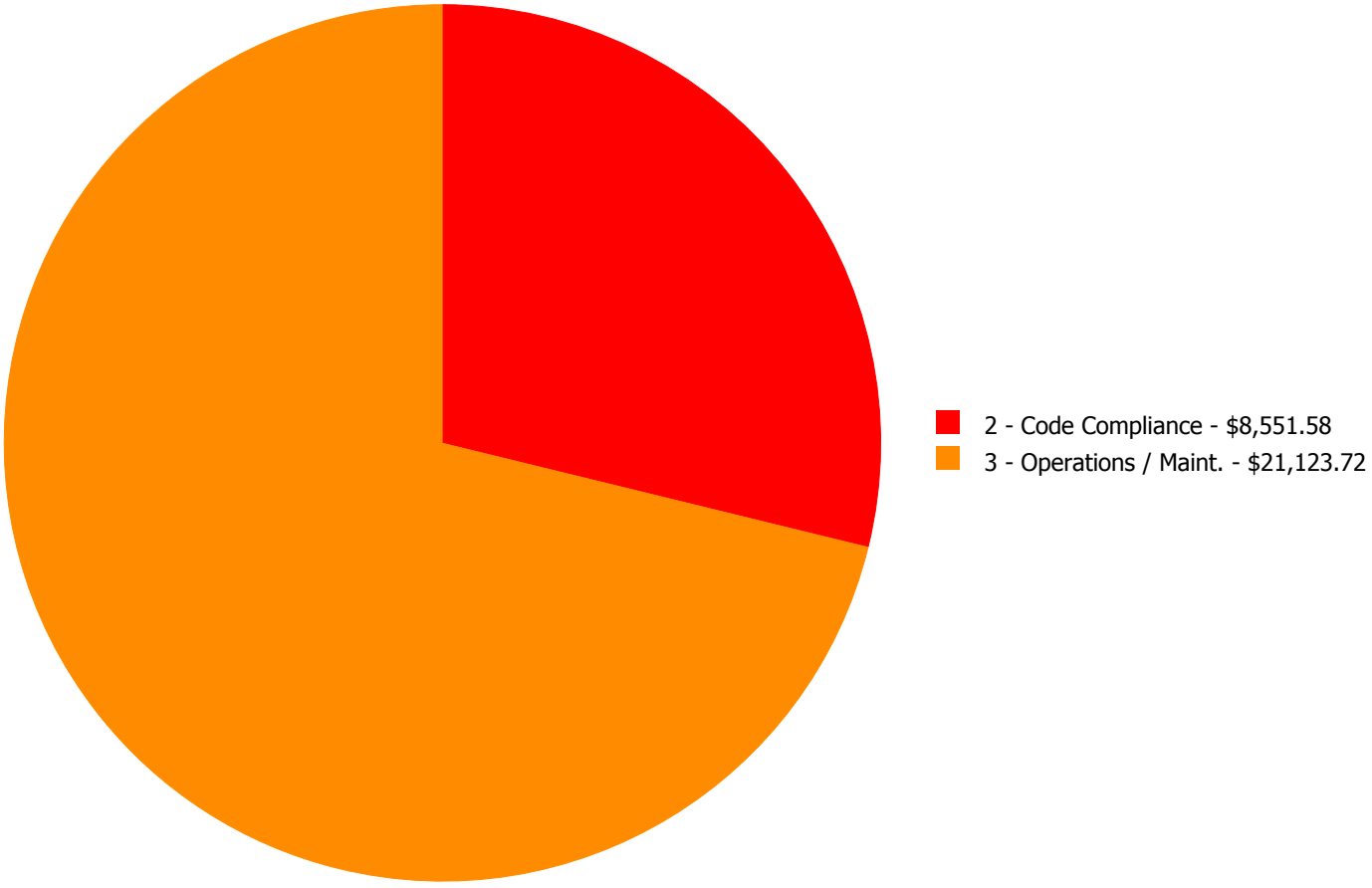
Deficiency By Priority Investment Table

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

System Code	System Description	1 - Response Time (< 2 yr)	2 - Response Time (2-3 yrs)	3 - Response Time (3-4 yrs)	4 - Response Time (4-5 yrs)	5 - Response Time (> 5 yrs)	Total
B2010	Exterior Walls	$673.90	$0.00	$0.00	$0.00	$0.00	$673.90
B3010140	Shingle & Tile	$0.00	$13,720.68	$0.00	$0.00	$0.00	$13,720.68
C1020	Interior Doors	$0.00	$5,048.69	$0.00	$0.00	$0.00	$5,048.69
C3020413	Vinyl Flooring	$0.00	$1,201.75	$0.00	$0.00	$0.00	$1,201.75
C3030	Ceiling Finishes	$0.00	$0.00	$478.70	$0.00	$0.00	$478.70
D5020	Lighting and Branch Wiring	$8,551.58	$0.00	$0.00	$0.00	$0.00	$8,551.58
	Total:	$9,225.48	$19,971.12	$478.70	$0.00	$0.00	$29,675.30

Deficiency Summary by Category

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



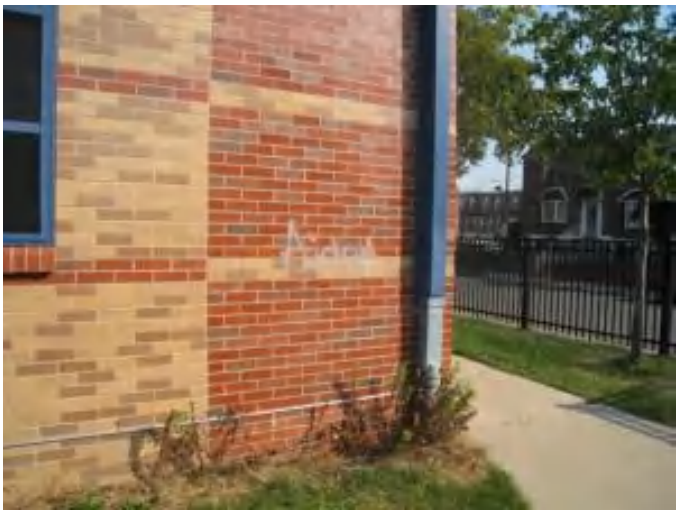
Budget Estimate Total: $29,675.30

Deficiency Details by Priority

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

Priority 1 - Response Time (< 2 yr):

System: B2010 - Exterior Walls



Location: PEC corner of building
Distress: Appearance
Category: 3 - Operations / Maint.
Priority: 1 - Response Time (< 2 yr)
Correction: Remove graffiti - power wash and paint
Qty: 100.00
Unit of Measure: S.F.
Estimate: $673.90
Assessor Name: Craig Anding
Date Created: 09/26/2015

Notes: Clean graffiti in one location (100sf)

System: D5020 - Lighting and Branch Wiring

Location: PEC Location subject to kid access
Distress: Building / MEP Codes
Category: 2 - Code Compliance
Priority: 1 - Response Time (< 2 yr)
Correction: Replace Wiring Device
Qty: 100.00
Unit of Measure: Ea.
Estimate: $8,551.58
Assessor Name: Craig Anding
Date Created: 09/02/2015

Notes: Replace existing receptacle with GFIC receptacle in the areas subject to kid access. Estimated at 100total.

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

System: B3010140 - Shingle & Tile

Location: PEC roof

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace asphalt shingle roof - partial area

Qty: 400.00

Unit of Measure: S.F.

Estimate: $13,720.68

Assessor Name: Craig Anding

Date Created: 09/26/2015

Notes: Repair/replace vandalized roofing shingles (400sf)

System: C1020 - Interior Doors

Location: PEC corridor door frames

Distress: Failing

Category: 3 - Operations / Maint.

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

Correction: Repair and repaint HM door frames - per frame

Qty: 24.00

Unit of Measure: Ea.

Estimate: $5,048.69

Assessor Name: Craig Anding

Date Created: 09/26/2015

Notes: Repaint corridor door frames (24 doors)

System: C3020413 - Vinyl Flooring

Location: PEC cafetorium

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Remove and replace VCT

Qty: 100.00

Unit of Measure: S.F.

Estimate: $1,201.75

Assessor Name: Craig Anding

Date Created: 09/26/2015

Notes: Repair/replace VCT along playground wall in cafetorium where cracked (100sf)

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

System: C3030 - Ceiling Finishes

Location: PEC ceilings

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Re-paint ceilings - SF of ceilings

Qty: 100.00

Unit of Measure: S.F.

Estimate: $478.70

Assessor Name: Craig Anding

Date Created: 09/26/2015

Notes: Touch up ceilings stained by roof leaks (100sf)

Equipment Inventory

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

Subsystem	Inventory	Qty	UoM	Location	Manufacturer	Model Number	Serial Number	Barcode	Life	Install Date	Next Renewal	Raw Cost	Inventory Cost
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, hot water, gross output, 500 MBH, includes burners, controls and insulated jacket, packaged	2.00	Ea.	Boiler Mechanical Equipment Room	Smith	19AW06			35	2008	2043	$22,675.10	$49,885.22
D3020 Heat Generating Systems	Boiler, gas/oil combination, cast iron, hot water, gross output, 500 MBH, includes burners, controls and insulated jacket, packaged	2.00	Ea.	Boiler Mechanical Equipment Room	Smith	19AW06			35	2008	2043	$22,675.10	$49,885.22
D3040 Distribution Systems	Pump, circulating, cast iron, close coupled, end suction, bronze impeller, flanged joints, 20 HP to 1350 GPM, 5" size	2.00	Ea.	Main Boiler Mechanical Equipment Room	Bell & Gossett	1510			25	2008	2033	$8,350.50	$18,371.10
D3040 Distribution Systems	Pump, circulating, cast iron, close coupled, end suction, bronze impeller, flanged joints, 20 HP to 1350 GPM, 5" size	2.00	Ea.	Main Boiler Mechanical Equipment Room	Bell & Gossett	1510			25	2008	2033	$8,350.50	$18,371.10
												Total:	**$136,512.64**

Executive Summary

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

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

Function:	
Gross Area (SF):	89,700
Year Built:	2008
Last Renovation:	
Replacement Value:	$1,573,143
Repair Cost:	$223,757.06
Total FCI:	14.22 %
Total RSLI:	47.89 %

Description:

Attributes:

General Attributes:

Bldg ID:	S825001	Site ID:	S825001

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	49.39 %	18.92 %	$223,757.06
G40 - Site Electrical Utilities	43.33 %	0.00 %	$0.00
Totals:	**47.89 %**	**14.22 %**	**$223,757.06**

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	$7.65	S.F.	10,000	30	1929	1959	2028	43.33 %	6.60 %	13		$5,050.20	$76,500
G2030	Pedestrian Paving	$11.52	S.F.	53,500	40	1929	1969	2032	42.50 %	27.68 %	17		$170,579.03	$616,320
G2040	Site Development	$4.36	S.F.	89,700	25	1929	1954	2028	52.00 %	12.31 %	13		$48,127.83	$391,092
G2050	Landscaping & Irrigation	$3.78	S.F.	26,200	15	1929	1944	2028	86.67 %	0.00 %	13			$99,036
G4020	Site Lighting	$3.58	S.F.	89,700	30	1929	1959	2028	43.33 %	0.00 %	13			$321,126
G4030	Site Communications & Security	$0.77	S.F.	89,700	30	1929	1959	2028	43.33 %	0.00 %	13			$69,069
								Total	**47.89 %**	**14.22 %**			**$223,757.06**	**$1,573,143**

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.

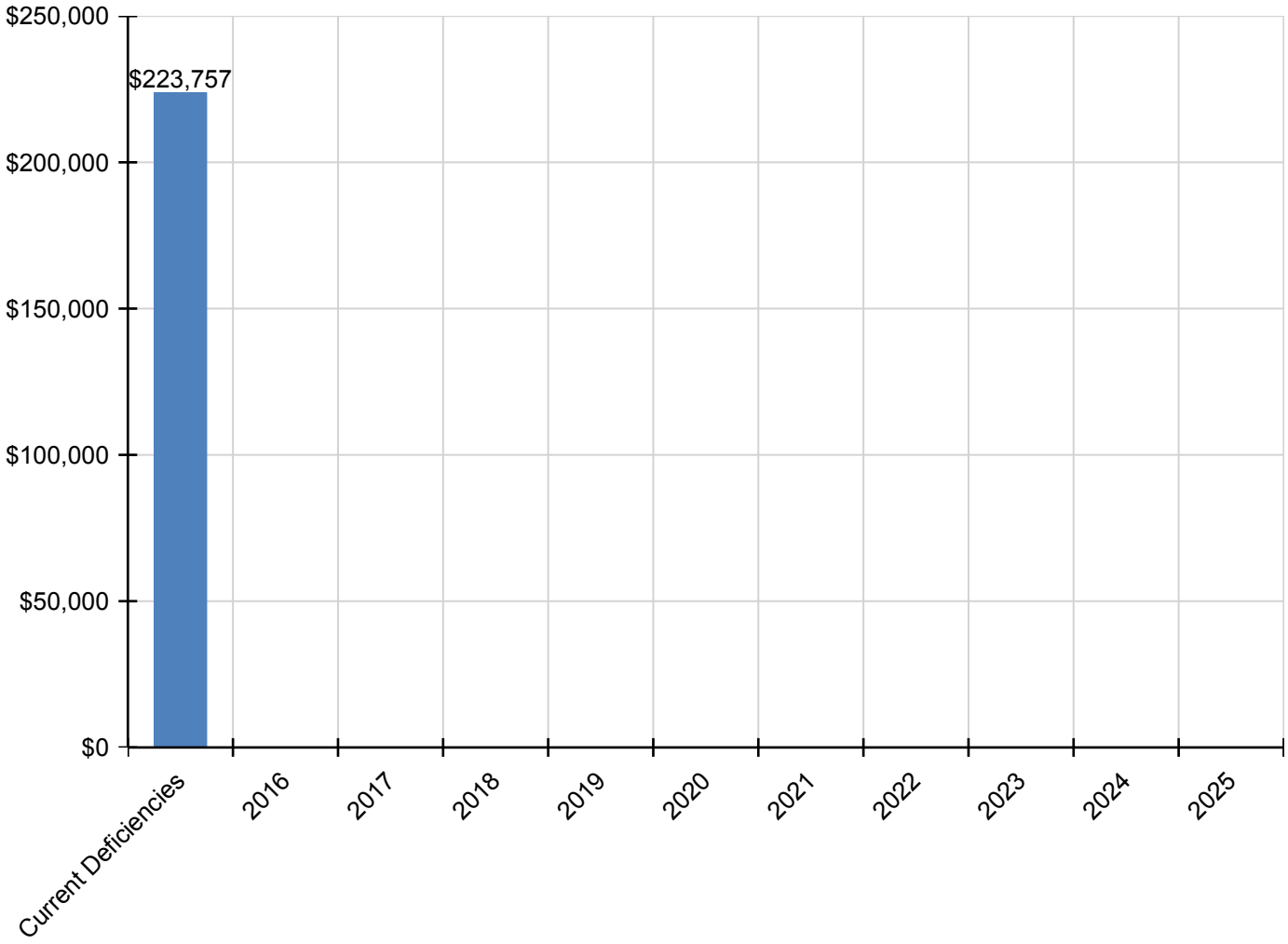
Inflation Rate: 3%

System	Current Deficiencies	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Total:	**$223,757**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$223,757**
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	$5,050	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$5,050**
G2030 - Pedestrian Paving	$170,579	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$170,579**
G2040 - Site Development	$48,128	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$48,128**
G2050 - Landscaping & Irrigation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G40 - Site Electrical Utilities	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G4020 - Site Lighting	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
G4030 - Site Communications & Security	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**

** Indicates non-renewable system*

Forecasted Sustainment Requirement

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

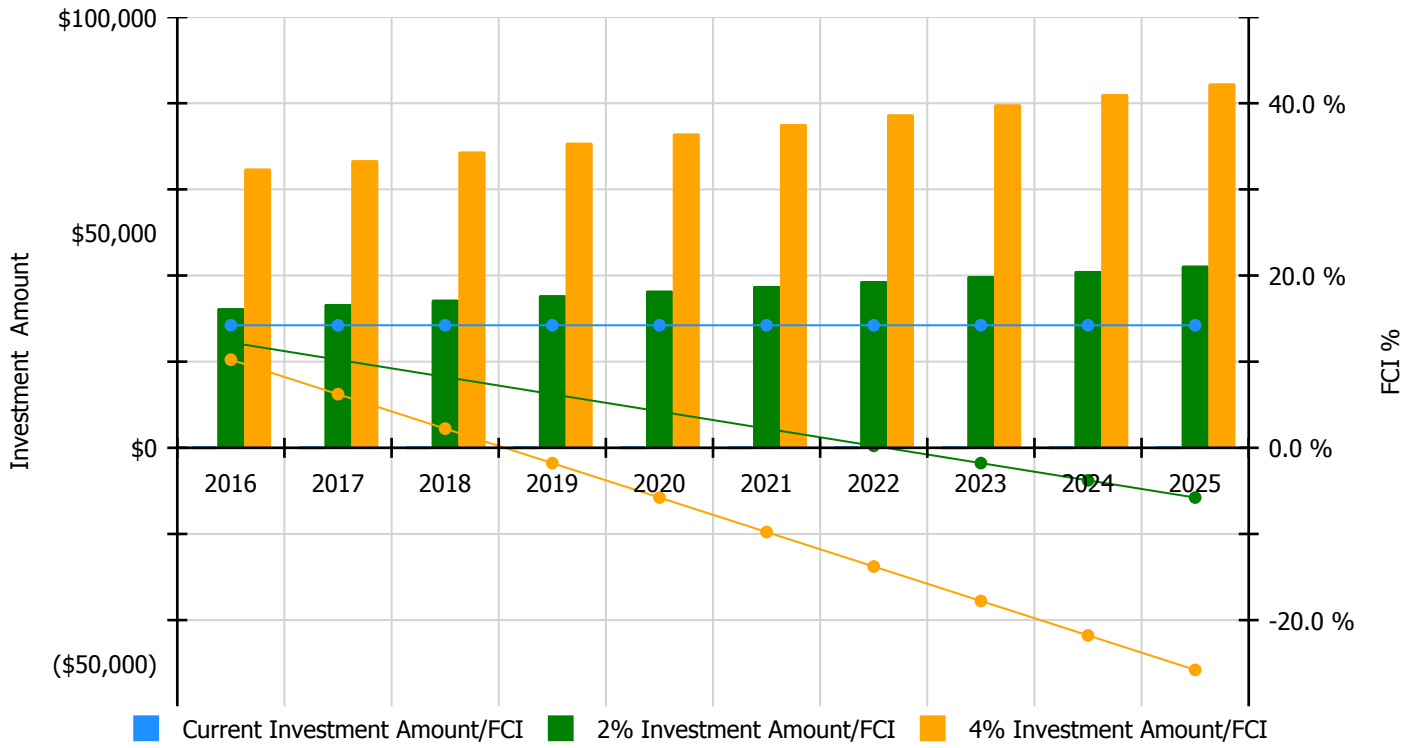


10 Year FCI Forecast by Investment Scenario

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

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

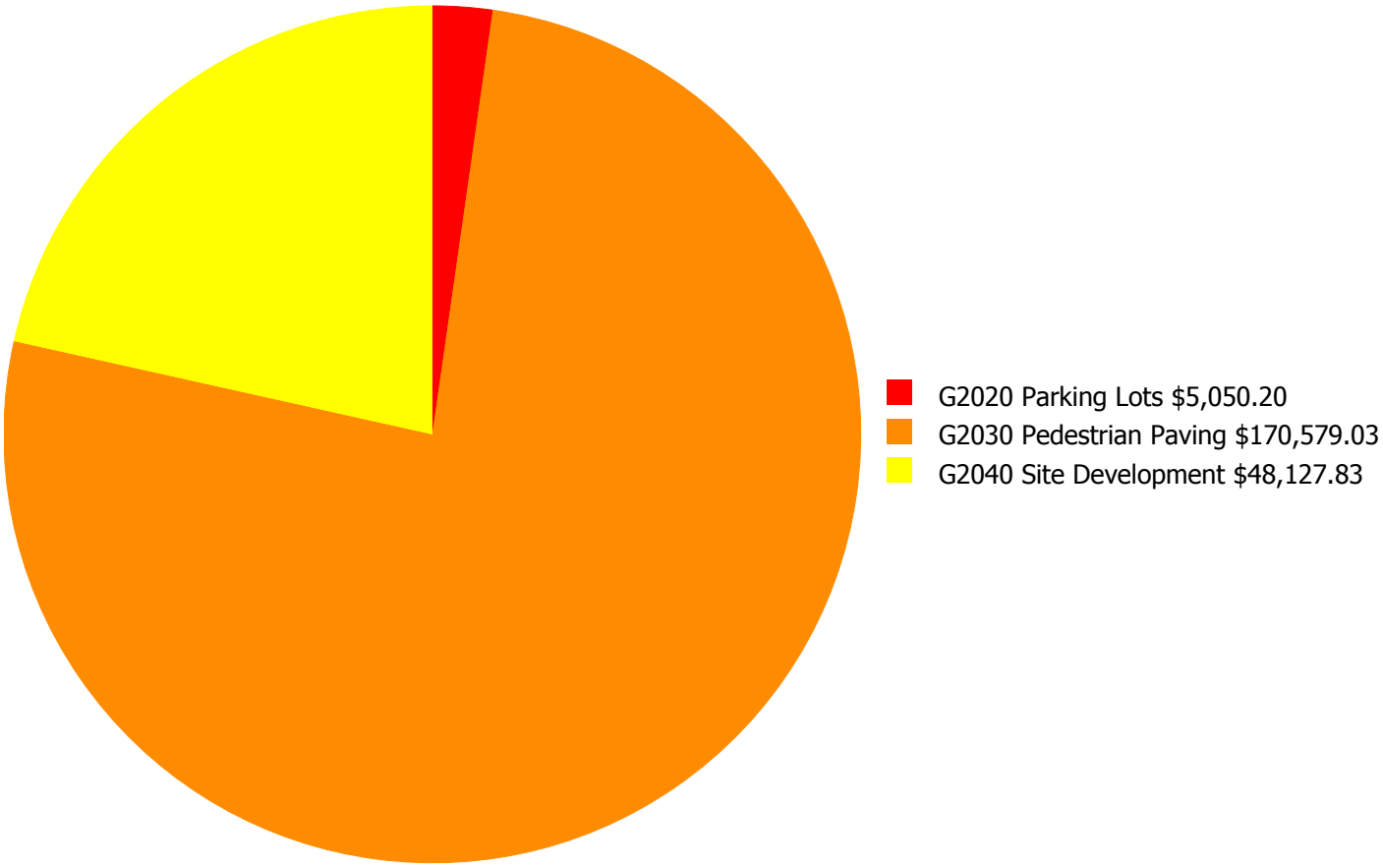
Facility Investment vs. FCI Forecast



Year	Investment Amount Current FCI - 14.22%	2% Investment		4% Investment	
		Amount	FCI	Amount	FCI
2016	$0	$32,407.00	12.22 %	$64,813.00	10.22 %
2017	$0	$33,379.00	10.22 %	$66,758.00	6.22 %
2018	$0	$34,380.00	8.22 %	$68,761.00	2.22 %
2019	$0	$35,412.00	6.22 %	$70,823.00	-1.78 %
2020	$0	$36,474.00	4.22 %	$72,948.00	-5.78 %
2021	$0	$37,568.00	2.22 %	$75,137.00	-9.78 %
2022	$0	$38,695.00	0.22 %	$77,391.00	-13.78 %
2023	$0	$39,856.00	-1.78 %	$79,712.00	-17.78 %
2024	$0	$41,052.00	-3.78 %	$82,104.00	-21.78 %
2025	$0	$42,283.00	-5.78 %	$84,567.00	-25.78 %
Total:	**$0**	**$371,506.00**		**$743,014.00**	

Deficiency Summary by System

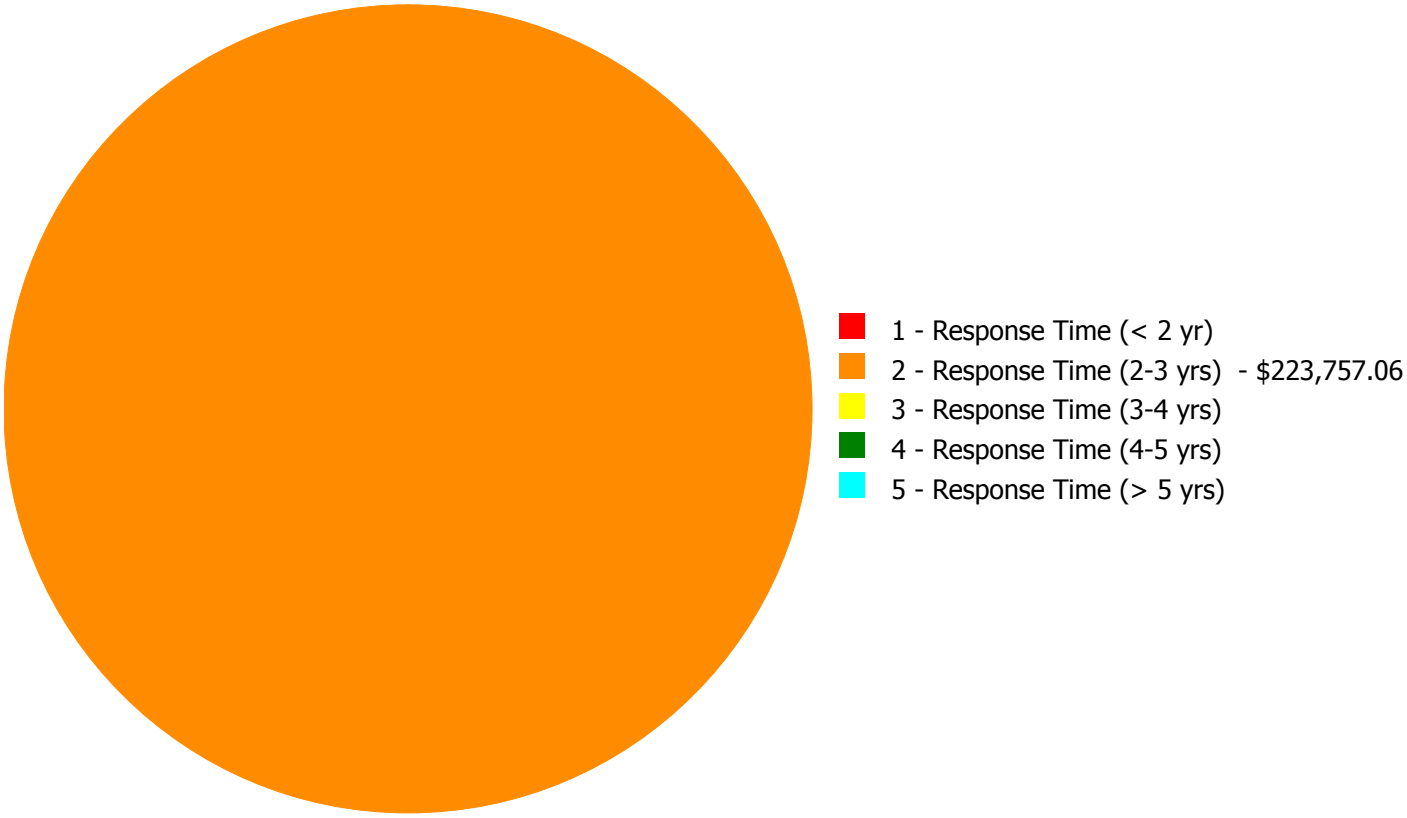
Current deficiencies included assemblies that have reached or exceeded their design life or components of the assemblies that are in need of repair. Assemblies that have reached their design life are identified as current deficiencies and assigned the distress 'Beyond Useful Life'. The following chart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



Budget Estimate Total: $223,757.06

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: $223,757.06

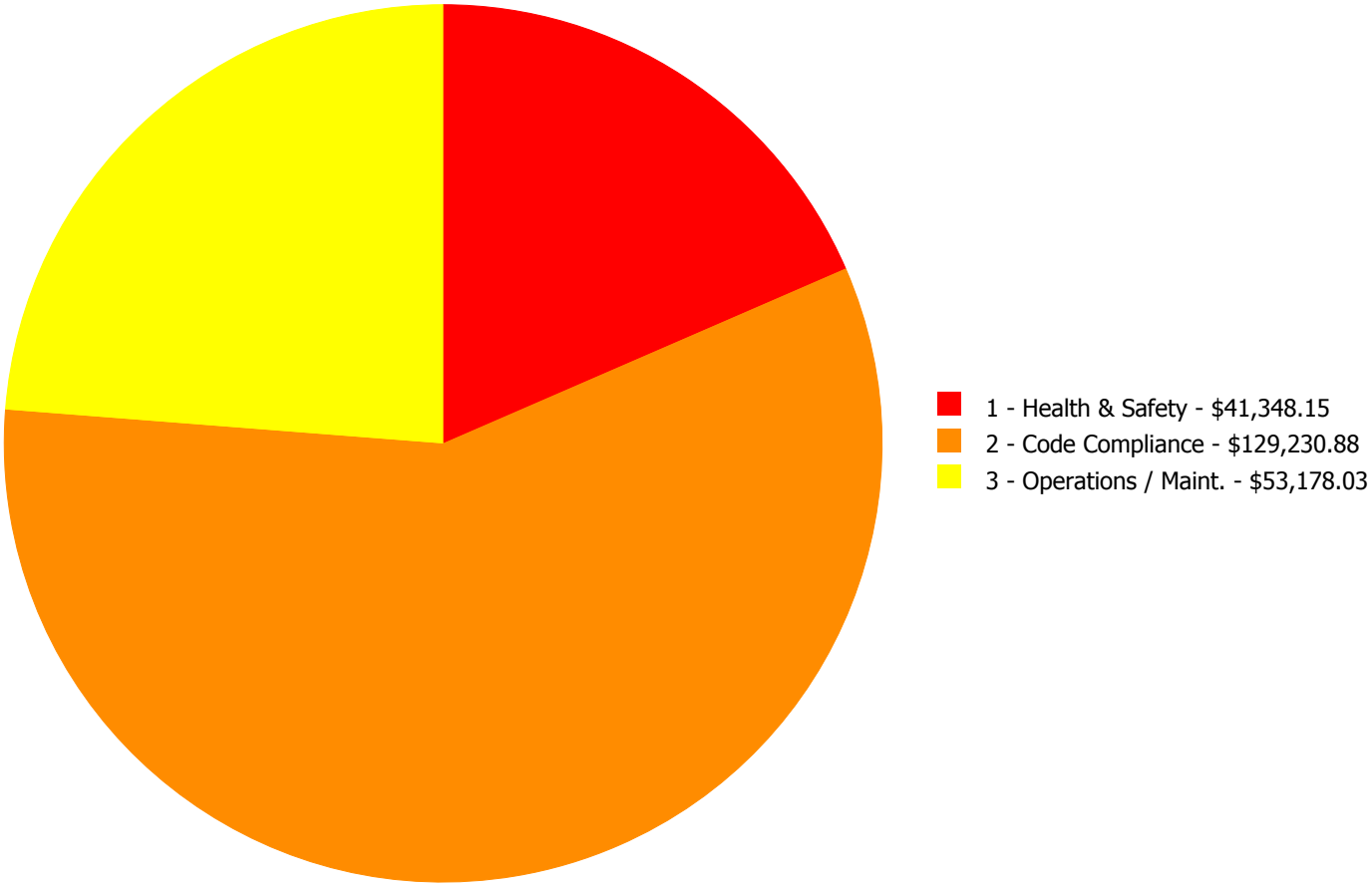
Deficiency By Priority Investment Table

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	$5,050.20	$0.00	$0.00	$0.00	$5,050.20
G2030	Pedestrian Paving	$0.00	$170,579.03	$0.00	$0.00	$0.00	$170,579.03
G2040	Site Development	$0.00	$48,127.83	$0.00	$0.00	$0.00	$48,127.83
	Total:	$0.00	$223,757.06	$0.00	$0.00	$0.00	$223,757.06

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: $223,757.06

Deficiency Details by Priority

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

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

System: G2020 - Parking Lots

Location: parking lot

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Fill cracks in AC paving - by the LF - average size and depth of crack

Qty: 500.00

Unit of Measure: L.F.

Estimate: $5,050.20

Assessor Name: Craig Anding

Date Created: 09/26/2015

Notes:

System: G2030 - Pedestrian Paving

This deficiency has no image.

Location: front entrance

Distress: Accessibility

Category: 2 - Code Compliance

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

Correction: Install an exterior ADA ramp - based on 5' wide by the linear foot - up to 84" rise - per LF of ramp - figure 1 LF of ramp per inch of rise

Qty: 75.00

Unit of Measure: L.F.

Estimate: $129,230.88

Assessor Name: Craig Anding

Date Created: 09/26/2015

Notes: Add ADA handicap accessible ramp into front of building (7ft rise)

System: G2030 - Pedestrian Paving

Location: kiddie playground

Distress: Life Safety / NFPA / PFD

Category: 1 - Health & Safety

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

Correction: Replace brick paving system - pick the proper material and bedding

Qty: 4,000.00

Unit of Measure: S.F.

Estimate: $41,348.15

Assessor Name: Craig Anding

Date Created: 09/26/2015

Notes: Kiddie playground: remove asphalt and replace with chopped tire or similar soft material (4000)

System: G2040 - Site Development

Location: site fence

Distress: Damaged

Category: 3 - Operations / Maint.

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

Correction: Paint steel picket fence - LF of fence 6' high

Qty: 600.00

Unit of Measure: L.F.

Estimate: $39,156.03

Assessor Name: Craig Anding

Date Created: 09/26/2015

Notes: Repaint chain link fence connecting to main building (600ft)

System: G2040 - Site Development

Location: parking area fence

Distress: Damaged

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: 09/26/2015

Notes: Replace damaged sections of chain link fence (100ft)

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