



Geneva Community Unit School District #304
Operations and Maintenance
7 Year Capital Improvement Plan

Board of Education

April 25, 2022





Geneva Community Unit School District #304 Operations and Maintenance 7 Year Capital Improvement Plan

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Geneva Community Unit School District #304 Operations and Maintenance 7 Year Capital Improvement Plan

Introduction

This report analyzes the existing facilities and their related conditions. It takes a look at the next seven years in which the highest priority needs will be addressed first. These priorities will be based on financial considerations such as cost and efficiencies, condition of existing facilities, code compliance, and the comfort and safety of our buildings. While it is difficult to imagine every possible scenario that our buildings face, I have compiled a comprehensive outlook of the present facilities based on current conditions. This report covers all buildings and grounds the District owns and estimates the funding required to maintain our properties to provide an optimal teaching and learning environment. Projected costs by building are included in the Appendix. The Seven Year Capital Improvement Plan is intended to provide the information needed to assist the District Board of Education and Administration with the decisions they will face with regards to future financial support of our buildings.

Respectfully Submitted,

Scott K. Ney
Director of Facility Operations
Geneva Community Unit School District #304

Geneva High School



Geneva High School Building Summary

Originally built in 1958, the high school has undergone four major additions (1964, 1967, 1973, and 2001). The building is 390,331 square feet built on 10 acres and has a capacity of 1,800 students. The Master Facilities Plan from 2005 called for the high school to be expanded and renovated. Due to economic conditions, the \$85+ million project was put on hold. The athletic area to the northwest encompasses 37 acres and houses the athletic and P.E. fields for the high school.

FGM Architects performed the 10-Year Health Life Safety Survey in the summer of 2019. They provided the district with no “A” items that needed immediate attention and 30 “B” items that need to be addressed over the next two to four years. The “B” repairs that were documented on the survey will be sent to ISBE and we are required to repair all code violations in the proper time frame.

CS2 Design Group, LLC conducted a mechanical facility study in 2021 to provide the District with an estimated service life on all of the Heating Ventilation and Air Conditioning (HVAC) equipment. This study used the American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) standards to give an accurate snapshot on when our HVAC equipment would need to be replaced. The equipment needing to be replaced includes classroom unit ventilators, condensing units, rooftop units, pumps, and exhaust fans.

The **Roof** sections that were noted to be damaged have been repaired this past summer. The Boiler Room roof was repaired and a waterproof restoration coating added.

Several additional capital improvements are needed in the next seven years. The 47 year old 2,500 amp **switchboard** will need to be replaced. Several of the current disconnects do not operate and this causes a safety issue. **Concrete curbs and sidewalk sections** are heaving, cracking, and repairs will be needed this year to address this safety issue. The building **water softener** was installed in 1999 and the steel tanks and controls have started to fail and will need to be replaced. The seven **air handlers** that serve the library, Mack Olson Gym, cafeteria, kitchen, auditorium and weight room are all over 47 years old and are in need of updating or replacement. Since they all are housed inside the building, the shells of the units are in good condition. We recommend replacing the bearings, shafts and motors to improve reliability and efficiency. Any new equipment will be installed with new **DDC controls** to continue the conversion of the high school from pneumatic controls. The Quincy **air compressor** that operates the pneumatic HVAC control system is 21 years old and is near the end of its life and will need to be replaced in the next seven years. **Air conditioning** needs to be added to the Athletic Area to maintain a comfortable environment for students and staff. **Flooring** has been an ongoing concern for several years. The existing carpet is at least 21 years old and, in some areas, even older. The Fritz quartz tile that was installed in 2000 has not performed well. It is cracking throughout the building and has faded considerably. We are replacing small sections of flooring in phases due to budgeting restrictions. The **indoor track flooring** will need to be resurfaced and the subfloor cracks repaired. The typical life expectancy of this type of flooring is 12-15 years based on usage. This flooring is original to the building and will need to be replaced in the next three years. The **stagecraft and cafeteria bathrooms** are over 47 years old and showing significant wear. We need to update the bathrooms which would include new flooring, update plumbing, fixtures, sinks and toilets. The **stage and house lighting in the auditorium** is starting to fail

and the parts for the lighting panel are becoming obsolete and no longer available. We will need to update the entire lighting system. FGM Architects conducted a Roof Assessment in the summer of 2018 and found several failing sections of the roof. The **roof** of the building was installed in 2001 and the typical life cycle of a roof is 25 years. Several sections of the roof have been repaired over the past several years. The rest of the high school roof will need to have a waterproof restoration coating added this year. The **parking lots** were resurfaced the summer of 2013. Crack filling and sealcoating will be needed this year. The two **500-gallon PVI hot water heaters** will need to be replaced within the next four years. Additional **office space** will be needed in the Deans' and Counseling & Advising areas. There is not enough space for staff that needs to be in a confidential environment. The **lighting** will need to be upgraded to replace the inefficient metal halide and fluorescent fixtures with energy efficient LED fixtures and lighting controls throughout the entire building for energy savings. The Kewanee steam **boilers, installed in 2000, 1967, 2 in 1957**, that supply heat to the high school are inefficient and becoming increasingly costly to maintain. Kewanee stopped manufacturing all boilers and parts in 2001. Over the next several years, there will come a point when we will be unable to locate parts and therefore, we will not be able to repair these boilers. We need to replace the Kewanee boilers with a more efficient boiler system and relocate this system at the high school. The **heating ventilation and air conditioning (HVAC)** equipment at 301 McKinley maintenance garage is nearing the end of its estimated service life according to ASHRAE. The 265kW emergency **Generator** is 21 years in age and starting to have consistent failures and escalating repair costs. Replacement will be needed in the next three years. The **retaining wall** on Center Street is starting to fail and cause a safety issue. The blocks are starting to push forward and collapse. This will need to be rebuilt this year. An additional **storage shed** will be needed in the athletic area of Burgess Field for gym and athletic storage. **Portable bleachers** need to be purchased so the District will not have to rent these in the future and we will save money by owning our own. The Burgess Field **Scoreboard** was installed in the early 90's and will need to be replaced. Over the last several seasons, we have had consistent failures and several of the components are obsolete. The **synthetic turf** was installed in 2012 and has a typical life cycle of eight to ten years based on usage. We are budgeting over the next several years to have the money available when the renewal maintenance is due. The turf is in need of replacement next year.

It is recommended that additional **security cameras** be added to both **interior** and **exterior** locations based on security assessments and the needs of the administration to monitor, prevent, deter and assist in investigations when incidents occur. Additional **FOB access control** readers need to be added to the Health Office and the Band Room to enhance security to those areas.

Geneva High School



HVAC Controls

Pneumatic to Digital conversion will be computer based, allowing for tighter control of temperature, setback features, and alarming features.



Auditorium Lighting Replacement

Parts for lighting panel are becoming obsolete and starting to fail.

Replace with energy efficient fixtures and lighting panel.



Carpet

The carpet is starting to fray and cause trip hazards.

Carpet will need to be replaced.

Geneva High School



Flooring

Existing quartz tile is cracking and has faded.

Replace tile in phases.



Cafeteria and Stagecraft Bathrooms

Bathrooms are 47 years old.

Showing significant wear.

Need to update.



Hot Water Heaters

The two 500-gallon PVI water heaters are nearing the end of their life cycle.

Replacement will be needed within the next four years.

Geneva High School



Parking lot

Several areas with extreme cracking.

Sealcoating and crack filling will be needed.



Roof

Roof replacement/restoration will be needed this year.



Switchboard

The 2,500-amp switchboard is 47 years old and does not operate properly.

The switchboard will need to be replaced or rebuilt.

Geneva Middle School North



Geneva Middle School North Building Summary

Originally opened in 2006, Geneva Middle School North was patterned after Geneva Middle School South and built to alleviate the overcrowding occurring at South due to the growth the District was experiencing. The school is a 2-story building with a small basement area for mechanical equipment. It is constructed of noncombustible building materials including masonry bearing walls, steel framing and pre-cast concrete. The total building consists of 198,000 square feet and is built on the 65 acre site shared with Middle School South. It has a student capacity of 1,100.

The **Tuckpointing** that was missing mortar joints and damaged bricks around the building was repaired.

The existing **Direct Digital Controls** system (Lon) is outdated and costly to repair. It is scheduled to be converted to the ASHRAE standard BACnet control the summer of 2022. **Concrete curbs and sidewalk sections** are cracking, and repairs will be needed this year to address this safety issue. The **LMC air handling unit** is undersized for cooling when the outside air temperature is above 80 degrees. The airflow needs to be increased and can be done without replacing the entire air handling unit by resheaving the pulleys on the shaft, adding four to six more VAV boxes with reheat coils and controls. The **flooring** is 16 years old and will need to be replaced due to age, wear and extensive staining. The **VFDs (variable frequency drives)** on the air handling units and pumps are obsolete and repair costs are increasing. The **roof** was installed in 2006 and the typical life cycle of a roof is 25 years. FGM Architects conducted a Roof Assessment in the summer of 2019 and found the roof to be in good condition. The roof will need to be replaced or a waterproof restoration coating added in the next seven years. The **lighting** will need to be upgraded to replace the inefficient metal halide and fluorescent fixtures with energy efficient LED fixtures and lighting controls throughout the entire building for energy savings. Finally, the **parking lot** will need to be sealcoated and crack filled in the next three to six years to extend the life of the pavement.

During security assessments along with conversations with the administrators at the building and first responders, strategic locations were identified to add both **interior and exterior security cameras** to monitor, prevent, deter, and to assist with investigations when incidents occur.

Lastly, **security traffic bollards** were recommended to be added in front of the building to provide protection to both students and staff along with protecting the structure of the building.

Geneva Middle School North



Lon Controller

Lon controls throughout the building.

Outdated and costly to repair.

Replace Lon to BACnet.



LMC

AHU is undersized for space.

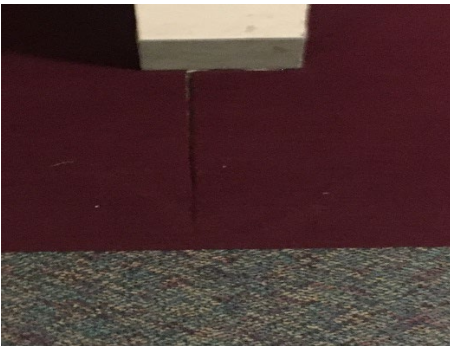
Only two VAV boxes serving the space.

Recommend increasing the capacity of the AHU and adding four to six VAV boxes with controls to increase comfort and control humidity.



Variable Frequency Drive (VFD)

Needs replacing in the next 2 years.



Flooring Replacement

Carpet is starting to show wear and seams are starting to pull apart.

Life cycle of carpet is 12-20 years.

Tile is lifting and cracking in several areas.

Geneva Middle School South



Geneva Middle School South Building Summary

Constructed in 1993 and opened in 1994, Geneva Middle School South has undergone three additions. Cafeteria expansion, additional classroom space, a third gymnasium and the Friendship Station Preschool were added. The building is a two story building with a small basement area for mechanical equipment. It is constructed of noncombustible building materials including masonry bearing walls, steel framing and precast concrete. The total building now consists of 246,253 square feet and is built on the 65 acre site shared with Middle School North. It has a student capacity of 1,281 including Friendship Station.

The referendum construction project of 2007-09 brought needed attention to several areas including ADA and building code requirements, roof replacement, security, and HVAC repairs. All carpet was replaced during the project. Technology improvements such as cabling, wireless access points and projectors were added. A key fob system and AI phone video entry system were added. The library furniture and shelving were replaced. The interior spaces were renumbered and new signage for each space was added.

CS2 Design Group, LLC conducted a mechanical facility study in 2021 to provide the District with an estimated service life on all of the Heating Ventilation and Air Conditioning (HVAC) equipment. This study used the American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) standards to give an accurate snapshot on when our HVAC equipment would need to be replaced. The equipment needing to be replaced includes classroom unit ventilators, condensing units, rooftop units, pumps, and exhaust fans.

The **Bryan boilers, primary Taco pumps, and hot water storage tank** that were original to the building and nearing the end of their estimated service have been replaced this year. Also, all of the **Tuckpointing** that needed to be addressed with missing mortar joints and damaged bricks around the building has been repaired. An **exterior security camera** was installed to monitor, prevent, deter and assist with investigations when incidents occur.

The **contest gym flooring** is showing excessive wear and needs to be resurfaced and sealed this year. **Concrete curbs and sidewalk sections** are heaving, cracking, and repairs will be needed this year to address this safety issue. The **stage lighting** in the cafeteria is original to the building, starting to fail and will need to be updated within the next two years. The **ceiling tile and grid** throughout the building is starting to show signs of wear and discoloration. Replacing the ceiling tile and grid should be completed in sections; we are recommending the first phase to include the main office area, athletic and technology wings. Two air handlers equipped with direct expansion (DX) cooling need cooling upgrades. It is proposed to add a **chiller** for efficiency and reliability, replacing old, inefficient and noisy roof-top DX units. The **flooring** is 14 years old and will need to be replaced due to age, wear and extensive staining. The emergency **Generator** is 28 years of age and starting to have consistent failures and escalating repair costs. Replacement will be needed in the next two to five years. FGM Architects conducted a Roof Assessment in the summer of 2019 and found several failing sections of the roof. The **roof** will need to be repaired in the next one to two years. The **lighting** will need to be upgraded to replace the inefficient metal halide and fluorescent fixtures with energy efficient LED fixtures and lighting controls throughout the entire building for energy savings. The **parking lot** will need to be sealcoated and crack filled in the next four years to extend the life of the pavement.

During security assessments along with conversations with the administrators at the building and first responders, strategic locations were identified to add both **interior and exterior security cameras** to monitor, prevent, deter and to assist with investigations when incidents occur.

Lastly, **security traffic bollards** were recommended to be added in front of the building to provide protection to both students and staff along with protecting the structure of the building.

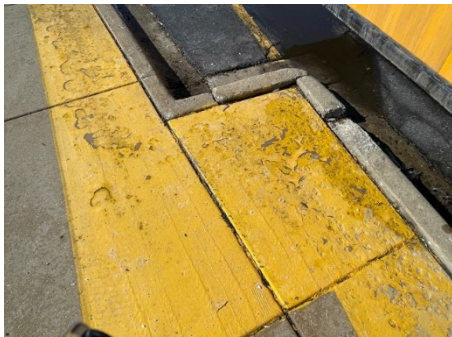
Geneva Middle School South



Ceiling Tile

Ceiling grid and tile are starting to show excessive discoloration and wear.

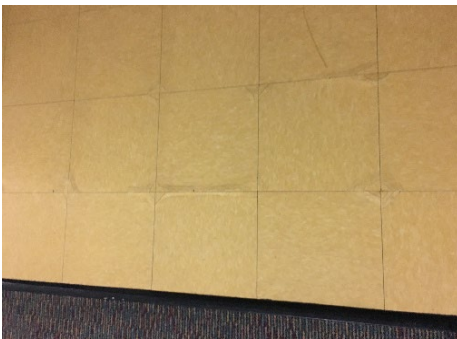
Replace ceiling grid and tile.



Concrete Sidewalk/Curb Replacement

Several sections are heaving, cracking, and spalling.

Replace sections for safety concerns.



Flooring Replacement

Carpet is starting to show wear and seams are starting to pull apart.

Life cycle of carpet is 12-20 years.

Tile is lifting and cracking in several areas.

Harrison Street Elementary School



Harrison Street Elementary School

Building Summary

Originally opened in 1928, Harrison Street Elementary School has had seven additions. The original building was constructed of noncombustible construction except for the roof which is wood framing. The original structure is two stories plus a basement, and the additions are all one story. All the additions were constructed of fire resistant construction, with masonry bearing walls. The building is equipped with a standby 100 kW natural gas emergency generator supplying power to emergency lighting/exit signs, fire alarm system, fob system, boilers, heating pumps, sump pumps and the new digital temperature control system.

It was completely renovated in 2009 to upgrade the HVAC, plumbing, lighting, ceilings, ceramic tile/carpet, restrooms, technology, roof, windows, concrete repairs, an addition to the sprinkler system and ADA requirements including a new chair lift for the stage. All blackboards were replaced with whiteboards. The classrooms and library were outfitted with new furniture and bookcases. The entire building was repainted and several doors were replaced. A key fob system was added as well as an AI phone video entry system. The two playgrounds were combined and equipment replaced. The kindergarten playground area was landscaped to be used as a teaching and play area. The building sits on 10 acres, has 90,684 square feet of space and a capacity of 550 students.

FGM Architects performed the 10-Year Health Life Safety Survey in the summer of 2019. They provided the district with no “A” items that needed immediate attention and five “B” items that need to be addressed over the next two to four years. The “B” repairs that were documented on the survey will be sent to ISBE and we are required to repair all code violations in the proper time frame.

CS2 Design Group, LLC conducted a mechanical facility study in 2021 to provide the District with an estimated service life on all of the Heating Ventilation and Air Conditioning (HVAC) equipment. This study used the American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) standards to give an accurate snapshot on when our HVAC equipment would need to be replaced. The equipment needing to be replaced includes classroom unit ventilators, condensing units, rooftop units, pumps, and exhaust fans.

Roof sections L that was installed in 2000 that needed immediate attention has been repaired this past summer along with the damaged roof deck.

Additional **Flashing repairs** and **tuckpointing** will be needed to address leaking areas. Many of the fifteen **cabinet unit heaters** are older and will need to be replaced. Several **air handling units** should either be rebuilt or replaced including the library unit, the art room and the teachers’ workroom/conference room area. The **radiant heat** in the glass hallway (kindergarten wing) should be replaced to provide proper heating to that space. The two **Weil McLain Boilers and B&G secondary pumps** were installed in 1999 and are nearing the end of their estimated service life according to ASHRAE. They are in need of replacement for optimal efficiency. The 100- gallon A.O. Smith **hot water heater** was installed in 2011 and is nearing the end of its expected life cycle. The **Staff Lounge renovation** will be needed to make room for all staff at the building. The **air handling unit** (AHU) that controls the server room is nearing the end of its life cycle and will need to be replaced in the next two to four years. The 80-ton York **chiller** is 23 years old and nearing the end of its service life as per ASHRAE. The **roof section** that was installed in 2000 will need to be replaced in the next

three years. The typical life expectancy of a roof is 25 years. FGM Architects conducted a Roof Assessment in the summer of 2018 and found several other failing sections of the roof. The roof will need to be replaced or a waterproof restoration coating added in the next two to four years. The 100kW emergency **generator** is starting to have consistent failures and escalating repair costs. Replacement will be needed in the next five years. The **lighting** will need to be upgraded to replace the inefficient metal halide and fluorescent fixtures with energy efficient LED fixtures and lighting controls throughout the entire building for energy savings. The **parking lot** will need to be crack filled and sealcoated within the next five to seven years.

During safety and security conversations with the principal and first responders, strategic locations were identified to add **exterior security cameras** to monitor, prevent, deter and to assist with investigations when incidents occur.

Harrison Street Elementary School



Cabinet Unit Heaters

15 units are over 41 years old.

Replace with energy efficient units.



Air Handling Unit

Needs rebuilding or possible replacement.

New motor, shaft, bearings and controls needed.

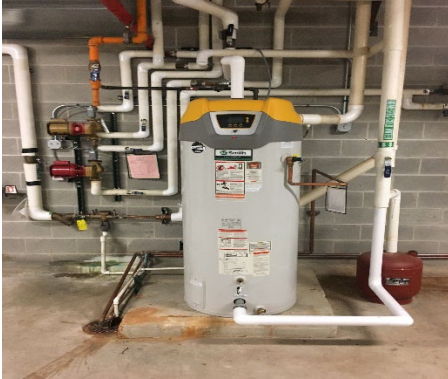


Boiler and Secondary Pumps Replacement

23 years old boilers and pumps nearing end of their estimated service life as per ASHRAE.

Need to be replaced with energy efficient design.

Harrison Street Elementary School



Hot Water Heater

The 100-gallon A.O. Smith water heater is nearing the end of its life cycle.

Replacement will be needed.

Western Avenue Elementary School



Western Avenue Elementary School

Building Summary

Built in 1964, Western Elementary School is a 62,832 square foot, one-story building built on 14.18 acres. It has undergone two additions and has a student capacity of 561. The original building was constructed of cavity wall construction consisting of block and brick, with 1" cavity insulation. The additions were constructed of similar cavity walls. The windows are uniform throughout the building consisting of fixed panels with 1" insulated glass, fixed panels glazed with an aluminum insulating panel and a small operating hopper sash. There is a small mechanical mezzanine located on the roof. The exterior brick is in good condition. The building was originally constructed with asbestos containing material and much of it was abated or encapsulated. The building is equipped with a 60 kW natural gas emergency generator supplying power to the emergency lighting and exit signs, the key fob system and the new digital temperature control system.

The building was completely renovated in 2009 to upgrade the HVAC, plumbing, lighting, ceiling, flooring, restrooms, technology, sprinkler/fire alarm system, roof, concrete repairs and ADA requirements including a new chair lift for the stage. All blackboards were replaced with whiteboards. The library received partial replacement of bookcases. The entire building was repainted and many doors were replaced. A key fob system was installed as well as an AI phone video entry system. The playground was replaced.

FGM Architects performed the 10-Year Health Life Safety Survey in the summer of 2019. They provided the district with no "A" items that needed immediate attention and six "B" items that need to be addressed over the next two to four years. The "B" repairs that were documented on the survey will be sent to ISBE and we are required to repair all code violations in the proper time frame.

CS2 Design Group, LLC conducted a mechanical facility study in 2021 to provide the District with an estimated service life on all of the Heating Ventilation and Air Conditioning (HVAC) equipment. This study used the American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) standards to give an accurate snapshot on when our HVAC equipment would need to be replaced. The equipment needing to be replaced includes classroom unit ventilators, condensing units, rooftop units, pumps, and exhaust fans.

Concrete sidewalk sections are cracking, and repairs will be needed this year to address this safety issue. The **air handling unit** (AHU) that controls the server room is nearing the end of its life cycle and will need to be replaced this year. The two **Bryan boilers** are 32 years old and nearing the end of their estimated service life and will need to be replaced. The remaining sections of the **hot water and chilled water piping** for the heating, ventilation, and air conditioning system is starting to fail and needs to be replaced. The piping is starting to rust through and beginning to leak in sections. The first piping section was replaced over the summer of 2017. The **roof** was installed in 2000, 2006 and 2017 and the typical life cycle of a roof is 25 years. FGM Architects conducted a Roof Assessment in the summer of 2019 and found several failing sections of the roof. Future repairs will be needed to address some of the failing sections. Based on its age, the roof will need to be replaced or a waterproof restoration coating added in the six to seven years. Several **interior doors** are damaged and starting to show excessive wear. Nine **cabinet unit heaters** are over 26 years old and in need of replacing. The **gym AHU** is aging and needs to be rebuilt with a new motor, bearings and shaft. The cost will

be shared with the Geneva Park District. The **lighting** will need to be upgraded to replace the inefficient metal halide and fluorescent fixtures with energy efficient LED fixtures and lighting controls throughout the entire building for energy savings. The **parking lot** will need to be crack filled and sealcoated within the next two to four years.

During safety and security conversations with the principal and first responders, strategic locations were identified to add **exterior security cameras** to monitor, prevent, deter and to assist as an investigative tool when incidents occur.

Western Avenue Elementary School



Cabinet Unit Heaters

9 units are over 26 years old.

Replace with energy efficient units.



Boiler Replacement

32-year-old boilers are inefficient and nearing the end of their estimated service life as per ASHRAE.

Replace with new high efficiency boilers.



HVAC Piping Replacement

Chilled and hot water HVAC piping is original to the building.

Showing excessive rust and starting to leak.

Replace with new dual temperature piping and insulation.

Mill Creek Elementary School



Mill Creek Elementary School Building Summary

Originally built in 1995, this 92,015 square foot building is built on 17.6 acres. It has a student capacity of 564. The building is a split-level design. It was constructed of noncombustible materials. The interior structure is columns and beams and exterior masonry bearing wall construction. Roofs are steel joists with steel trusses.

A 28,775 square foot addition was added in 2006, providing a five classroom wing, music/band rooms, a second wood floor gym and much needed storage. The building was partly renovated during the last referendum construction project.

FGM Architects performed the 10-Year Health Life Safety Survey in the summer of 2019. They provided the district with no “A” items that needed immediate attention and five “B” items that need to be addressed over the next two to four years. The “B” repairs that were documented on the survey will be sent to ISBE and we are required to repair all code violations in the proper time frame.

The 85-gallon A.O. Smith **hot water heater** that was installed in 2002 was replaced this winter.

The **paved area** by the playground will need to be resurfaced this year. The condition has deteriorated to the point it is a trip hazard due to cracks and heaved sections. The **air handling unit** (AHU) that controls the server room is nearing the end of its life cycle and will need to be replaced this year. The two **Kewanee boilers and two primary boiler pumps** are original to the building and nearing the end of their estimated service life as per ASHRAE. The **mechanical cooling** for the office area is currently served off a large air handling unit that also serves the main classroom wing. Since most of the cooling season occurs when the students are on summer break, cooling the office space is costly and inefficient. We propose adding a separate, small air handling unit to serve the office area and re-ducting the office area off of the main classroom area. The **flooring** is 13 years old and will need to be replaced due to age, wear and staining within the next two to six years. Eleven **cabinet unit heaters** are over 26 years old and in need of replacing. The **roof** was installed in 2005 and the typical life cycle of a roof is 25 years. FGM Architects conducted a Roof Assessment in the summer of 2019 and found several failing sections of the roof. Based on its age, the roof will need to be replaced or a waterproof restoration coating added in the next six to seven years. The 100kW emergency **Generator** is 26 years in age and starting to have consistent failures and escalating repair costs. Replacement will be needed in the next two to three years. The **lighting** will need to be upgraded to replace the inefficient metal halide and fluorescent fixtures with energy efficient LED fixtures and lighting controls throughout the entire building for energy savings. The **parking lot** will need to be crack filled and sealcoated in the next two to three years.

During safety and security conversations with the principal and first responders, strategic locations were identified to add **exterior security cameras** to monitor, prevent, deter and to assist as an investigative tool when incidents occur.

Mill Creek Elementary School



Boiler Replacement

Boilers are 26 years old and original to the building.

Nearing the end of their estimated service life as per ASHRAE.



Primary Boiler Pumps

Original to the building.

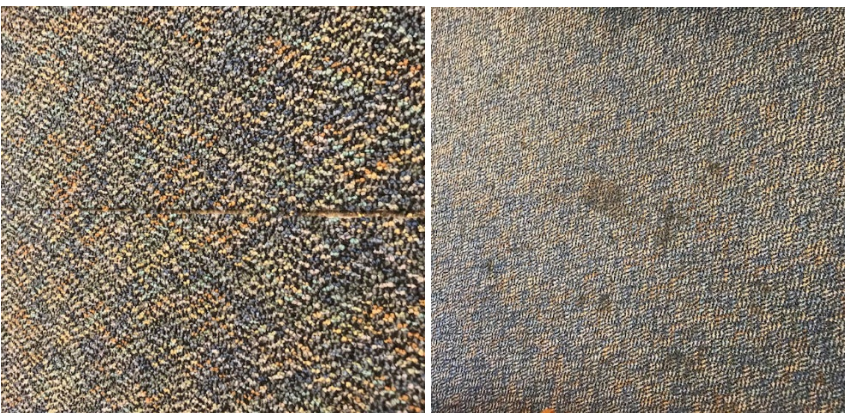
Need replacing with energy efficient design.



Generator Replacement

100KW generator is 26 years old and needs to be replaced in the next two to three years.

Escalating repair costs and consistent breakdowns.



Flooring Replacement

Carpet is starting to show wear and staining that we are unable to remove.

Life cycle of carpet is 12-20 years.

Heartland Elementary School



Heartland Elementary School

Building Summary

Built in 2002, this 77,447 square foot building sits on 11 acres. It has a student capacity of 550. The building footprint is similar to Mill Creek Elementary School. The building is a split-level design, constructed of noncombustible materials. The interior structure is columns and beams and the exterior is masonry bearing wall construction. The roofs are steel joists and trusses. The building is equipped with a standby 100 kW natural gas generator supplying power to emergency lighting and exit signs, fire alarm system, fob system, intercom system, heating pumps, sump pumps and the digital temperature control system.

FGM Architects performed the 10-Year Health Life Safety Survey in the summer of 2019. They provided the district with no “A” items that needed immediate attention and three “B” items that need to be addressed over the next two to four years. The “B” repairs that were documented on the survey will be sent to ISBE and we are required to repair all code violations in the proper time frame.

The **Tuckpointing** repairs around the building have been repaired. The **Gym floor** was resurfaced and sealed this past summer. One of the 100-gallon A.O. Smith **hot water heaters** which was installed in 2011 failed this winter and was replaced.

The **air handling unit** (AHU) that controls the server room is nearing the end of its life cycle and will need to be replaced this year. The last 100-gallon A.O. Smith **hot water heaters** which was installed in 2011 and will need to be replaced this year. The typical life cycle of a commercial hot water heater is 12 to 15 years. **Concrete sidewalk sections** are cracking and heaving, and repairs will be needed. The **flooring** is 20 years old and will need to be replaced due to age, wear and extensive staining. The **roof** was installed in 2002 and the typical life cycle of a roof is 25 years. FGM Architects conducted a Roof Assessment in the summer of 2018 and found several failing sections of the roof. The roof will need to be replaced or a waterproof restoration coating added in the next five years. The 230-ton York **chiller** is 20 years old and nearing the end of its service life as per ASHRAE. The two **chilled water pumps** are original to the building and will need to be replaced with **variable frequency drives (VFD)**. This will greatly increase energy efficiency and lengthen the life of the pumps. The two Burnham **boilers and primary boiler pumps** are original to the building and nearing the end of their estimated service life as per ASHRAE. The **lighting** will need to be upgraded to replace the inefficient metal halide and fluorescent fixtures with energy efficient LED fixtures and lighting controls throughout the entire building for energy savings. The **parking lot** will need to be crack filled and sealcoated within the next two to four years. The 100kW emergency **generator** is 20 years in age and is nearing its estimated service life. Replacement will be needed in the next five to six years.

During safety and security conversations with the principal and first responders, strategic locations were identified to add **exterior security cameras** to monitor, prevent, deter and to assist as an investigative tool when incidents occur.

Heartland Elementary School



Air Handling Unit

Air handling unit is nearing the end of its life cycle.

Will need to be replaced this year.



Flooring Replacement

Carpet is starting to show wear and staining that we are unable to remove.

Life cycle of carpet is 12-20 years.

Tile is lifting and cracking in several areas.

Flooring will need to be replaced.



Chilled Water Pumps (2) – Add VFD

Original to the building.

Variable Frequency Drives will greatly increase energy efficiency and lengthen the life of the pumps.

Heartland Elementary School



Chiller

20 years old chiller and nearing the end of its service life as per ASHRAE.

Repairs are becoming more frequent.



Boilers and Primary Pumps Replacement

Boiler and primary pumps are 20 years old and original to the building.

Nearing the end of their estimated service life as per ASHRAE.



Hot Water Heaters

The one 100-gallon A.O. Smith water heater is nearing the end of its life cycle.

Replacement will be needed within this year.

Williamsburg Elementary School



Williamsburg Elementary School Building Summary

Built in 2008, this 104,000 square foot building is built on 14 acres. It has a student capacity of 550. This state of the art building is built with noncombustible building materials.

The **air handling unit** (AHU) that controls the server room that was nearing the end of its life cycle was replaced when the sprinkler pipe froze and damaged the unit. Insurance paid for the replacement as part of the loss claim.

Tuckpointing and masonry repairs will be needed to address missing mortar joints around the building and drip edge repair. **Concrete sidewalk sections** are cracking and heaving, and repairs will be needed. The typical life cycle of a commercial hot water heater is 12 to 15 years. The two 100-gallon Bradford White **hot water heaters** are original to the building and will need to be replaced within the next two to five years. The **lighting** will need to be upgraded to replace the inefficient metal halide and fluorescent fixtures with energy efficient LED fixtures and lighting controls throughout the entire building for energy savings. The **parking lot** will need to be crack filled and sealcoated in the next two to five years to extend the life of the pavement. The two 250 ton Trane **chillers** are 14 years old and nearing the end of their service life as per ASHRAE.

During safety and security conversations with the principal and first responders, strategic locations were identified to add **exterior security cameras** to monitor, prevent, deter and to assist as an investigative tool when incidents occur.

Williamsburg Elementary School



Trane Chillers

14 years old chillers are nearing the end of their service life as per ASHRAE.



Hot Water Heaters

The two 100-gallon Bradford White water heaters are nearing the end of their life cycle.

Replacement will be needed within the next two to five years.



Tuckpointing/ Masonry Repairs

Cracked and missing mortar joints and drip edge repairs.

Fabyan Elementary School



Fabyan Elementary School Building Summary

Built in 2009, this 104,000 square foot building sits on 11 acres. It has a student capacity of 550. This state of the art building is built with noncombustible building materials.

FGM Architects performed the 10-Year Health Life Safety Survey in the summer of 2019. They provided the district with no “A” items that needed immediate attention and seven “B” items that need to be addressed over the next one to three years. The “B” repairs that were documented on the survey will be sent to ISBE and we are required to repair all code violations in the proper time frame.

The **air handling unit** (AHU) that controls the server room is nearing the end of its life cycle and will need to be replaced this year. **Concrete sidewalk sections and stairs** are cracking and heaving, and repairs are needed. The **roof** was installed in 2009 and the typical life cycle of a roof is 25 years. FGM Architects conducted a Roof Assessment in the summer of 2020 and found the roof to be in good condition except for one section of the roof. This section will need to be repaired this year. The typical life cycle of a commercial hot water heater is 12 to 15 years. The two 100-gallon A.O. Smith **hot water heaters** are original to the building and will need to be replaced within the next two to five years. The two 247-ton York **chillers** are 13 years old and nearing the end of their service life as per ASHRAE. The **lighting** will need to be upgraded to replace the inefficient metal halide and fluorescent fixtures with energy efficient LED fixtures and lighting controls throughout the entire building for energy savings. The **parking lot** will need to be crack filled and sealcoated in the next two to four years to extend the life of the pavement.

During safety and security conversations with the principal and first responders, strategic locations were identified to add **exterior security cameras** to monitor, prevent, deter and to assist as an investigative tool when incidents occur.

Fabyan Elementary School



Air Handling Unit

Air handling unit is nearing the end of its life cycle.

Will need to be replaced this year.



York Chillers

13 years old chillers are nearing the end of their service life as per ASHRAE.



Hot Water Heaters

The two 100-gallon A.O. Smith water heaters are nearing the end of their life cycle.

Replacement will be needed within the next two to five years.

Coultrap Educational Services Center



Coultrap Educational Services Center Building Summary

Built in 1916, this 28,400 square foot building has had 3 additions and sits on 1.7 acres. Fourth Street School began as an elementary building, housed the original Friendship Station Preschool, and now serves as the District's Administration Center. During the last referendum, several upgrades to the building were made including IT server upgrades and several office modifications. With the demolition of Coultrap Elementary School in 2013, Fourth Street Administration building was renamed Coultrap Educational Services Center. The offices were reorganized and updated in 2014-15 for better workflow.

The **parking lot** will be crack filled and sealcoated this spring to extend the life of the pavement. The 75-gallon A.O Smith **hot water heater** that was installed in 1996 and at the end of its expected life cycle failed and was replaced.

The **Notifier 5000 fire alarm systems** is obsolete, inadequate and will need to be updated this year to meet current NFPA code requirements. The **HVAC pneumatic controls** are starting to fail and the controllers have been discontinued and no longer available. The conversion of the pneumatic controls to a DDC system is recommended. The heating system works well, but the **variable frequency drive (VFD)**, which has not worked for years needs to be replaced. The building is cooled with **fan coil and condensing units** which were installed in 1996. These units are reaching the end of their life cycle and need to be replaced. The Quincy **air compressor** that operates the pneumatic HVAC control system is 26 years old and is near the end of its life and will need to be replaced in the next three years. The two gas fired multizone forced air furnace Industrial Combustion **burners** were installed in 2000 and will need to be replaced in the next three years. The **existing galvanized piping** is deteriorating and has an excessive amount of rust. The old piping will need to be replaced with copper piping and provide new ball valves for adequate shut-off. The current **elevator control system** parts are becoming obsolete and no longer available for repairs. Over the past year, we have been experiencing several failures and breakdowns. The elevator control system will need to be upgraded in the next two years to ensure proper operation and ADA compliance. The **lighting** will need to be upgraded to replace the inefficient metal halide and fluorescent fixtures with energy efficient LED fixtures and lighting controls throughout the entire building for energy savings. The **roof** was installed in 2002 and the typical life cycle of a roof is 25 years. FGM Architects conducted a Roof Assessment in the summer of 2018 and found several failing sections of the roof. The roof will need to be replaced or a waterproof restoration coating added in the next two years. Resurfacing the **parking lot** will need to take place within the next two to three years. There is no building wide **automatic sprinkler system** for fire protection. The building will need to be upgraded within the next seven years to meet current NFPA Standards. The **parking lot** will need to be crack filled and sealcoated within the next five to seven years to extend the life of the pavement.

Coultrap Educational Services Center



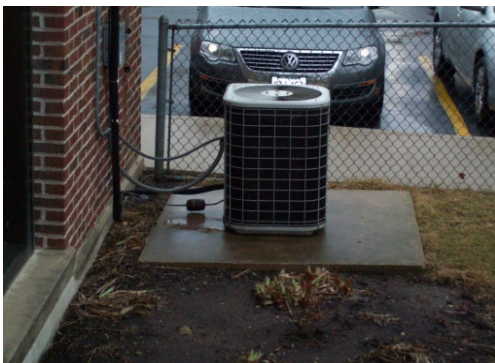
HVAC Controls

Upgrading the discontinued pneumatic controls with Direct Digital Controls.



Fire Alarm System

Notifier 5000 fire alarm panel will need to be updated to meet current NFPA code requirements.



Fan Coil and Condensing Units

The entire building is cooled with fan coil units.

Several are beginning to fail and most will need to be replaced in the next three years.

Coultrap Educational Services Center



Air Compressor

26 years old and needs to be replaced.



Variable Frequency Drive

VFD has failed and needs to be replaced.



Parking Lot

Several areas with extreme cracking.

Resurfacing will be needed.

Coultrap Educational Services Center



Forced Air Furnace Burners

Burners are 22 years old.

Nearing the end of their estimated service life as per ASHRAE.



Elevator Control System Upgrade

The current elevator control system parts are becoming obsolete and no longer available for repairs.

Control upgrades will be needed in the next two years.



Roof

The roof is 20 years old and many sections are in poor condition.

Roof replacement/restoration will be needed in the next two to four years.

Keslinger Transportation Building



Keslinger Transportation Building Building Summary

The Keslinger Transportation Facility was opened in 2004. The 44,350 square foot building is constructed on 7.9 acres. This facility houses 52 of the district's buses, three bus service bays and the grounds shop for the western part of the district. The bus bays are not heated but are equipped with plug-ins for the heater core for cold weather starting. The service bays are heated. In addition, there are office and dispatch facilities as well as a large conference area for training and meetings. The building is equipped with a small kitchen area and restroom facilities for the staff and drivers. The district is in the process of acquiring the Metra property which is an 8.46-acre parcel that is west of the current facility. The existing pole barn on this property will be utilized and a new parking lot will be expanded into this new area.

The **parking lot** will be crack filled and sealcoated this spring to extend the life of the pavement.

The exterior architectural **precast wall panel** has cracked and will need to be replaced. The **heating ventilation and air conditioning (HVAC)** equipment is original to the building and nearing the end of its estimated service life according to ASHRAE. This includes the three Lennox split systems that serves the offices and conference area, along with three Bananza make-up air units that serve the three service bays. Resurfacing and drainage improvements to the current **parking lot** will be needed within the next two years. Also, a **parking lot expansion** into the new property will be needed for additional staff parking and bus storage. The **lighting** will need to be upgraded to replace the inefficient metal halide and fluorescent fixtures with energy efficient LED fixtures and lighting controls throughout the entire building for energy savings. The **roof** was installed in 2003 and the typical life cycle of a roof is 25 years. FGM Architects conducted a Roof Assessment in the summer of 2018 and found the roof to be in good condition. The roof will need to be replaced or a waterproof restoration coating added in the next four years based on its age. The **parking lot** will need to be crack filled and sealcoated in the next five to seven years to extend the life of the new pavement.

Keslinger Transportation Building



Parking Lot

Pavement starting to crack and breakdown.

Resurfacing and drainage improvements will be needed in the next two years.



Lighting Upgrades

Replace all inefficient metal halide and fluorescent fixtures with LED fixtures and lighting controls throughout building for energy savings.



HVAC Split System

The 3 Lennox split systems are nearing their ASHRAE recommended service life.

Replacement will be needed within the next two years.

Keslinger Transportation Building



Air Handling Unit

The three Bananza make-up air units are nearing their ASHRAE recommended service life.

Replacement will be needed within the next two years.



Architectural Precast Wall Panel

The exterior architectural precast wall panel has cracked and will need to be replaced.

Replacement will be needed in the next two years.

Completed Capital Improvement Plan Projects 2021-22

Projects Approved			
Project	Budget	Cost	Variance
GHS/Boiler House – Roof	\$205,000.00	\$210,000.00	(\$5,000.00)
GHS – Switchboard Replacement	\$55,000.00 (In Progress)	\$129,370.00	(\$74,370.00)
GHS - Budgeted Future Capital Improvements (Boiler Systems, Burgess Field Turf, etc.)	\$150,000.00	\$150,000.00	\$0
GMSN – Tuckpointing Repairs	\$30,000.00 (In Progress)	\$14,480.00	\$15,520.00
GMSN- DDC Controls	\$470,000.00 (In Progress)	\$499,667.00	(\$29,667.00)
GMSS– Tuckpointing Repairs	\$35,000.00	\$35,00.00	\$0
GMSS – Boiler/Hot Water Storage Storage Tank Replacement	\$860,000.00 (In Progress)	\$833,382.00	\$26,618.00
GMSS – Exterior Security Cameras	\$4,000.00	\$4,317.00	(\$317.00)
HSS- Roof	\$250,000.00	\$210,098.00	\$39,902.00
HES – Tuckpointing Repairs	\$15,000.00 (In Progress)	\$3,200.00	\$11,800.00
HES – Gym Flooring	\$25,000.00	\$16,710.00	\$8,290.00
HES- Hot Water Heater	\$0 (Emergency Replacement)	\$19,820.00	(\$19,820.00)
MCS- Hot Water Heater	\$20,000.00 (In Progress)	\$22,596.00	(\$2,596.00)
CESC- Parking Lot	\$10,000.00 (In Progress)	\$9,595.00	\$405.00
Transportation- Parking Lot	\$40,000.00 (In Progress)	\$21,000.00	\$19,000.00
District-Wide – Security Upgrades	\$49,637.50 (In Progress)	\$517.09	\$49,120.41
Sub-Total	\$2,218,637.50	\$2,179,752.09	\$38,885.41

Capital Improvement Plan Projects

2022-23

2021-2022 Capital Improvement Carryover	\$TBD
Health/Life Safety Funds	\$1,814,683.43
2022-2023 Capital Improvement Budget	\$9,323,930.00

60E 300 2540 5110

GHS

Roof	\$2,959,000.00
Switchboard Replacement	\$ 129,370.00
Water Softener	\$ 60,000.00
Parking Lot	\$ 100,000.00
Concrete Sidewalk/Curb Repairs	\$ 125,000.00
Health/Life Safety Improvements	\$ 399,650.00
Boiler System	\$ 100,000.00
Burgess Field Turf	\$ 50,000.00

60E 202 2540 5110

GMSN

Concrete Sidewalk Repairs	\$ 75,000.00
DDC Controls	\$ 499,667.00

60E 201 2540 5110

GMSS

Gym Flooring	\$ 38,000.00
Concrete Sidewalk/Curb Repairs	\$ 75,000.00

60E 102 2540 5110

HSS

Flashing Repair and Tuckpointing	\$ 35,000.00
Roof	\$ 250,000.00
Health/Life Safety Improvements	\$ 59,800.00

60E 103 2540 5110

WAS

Server Room AHU	\$ 25,000.00
Concrete Sidewalk Repairs	\$ 15,000.00
Boiler Replacement	\$ 750,000.00
HVAC Piping Replacement	\$1,780,000.00
Health/Life Safety Improvements	\$ 49,400.00

60E 104 2540 5110

MCS

Paving for Playground Area	\$ 60,000.00
Server Room AHU	\$ 25,000.00
Boiler Replacement	\$ 740,000.00
Health/Life Safety Improvements	\$ 47,900.00

60E 105 2540 5110

HES

Concrete Sidewalk Repairs	\$ 12,500.00
Server Room AHU	\$ 25,000.00
Hot Water Heater	\$ 25,000.00
Health/Life Safety Improvements	\$ 58,400.00

60E 106 2540 5110

FES	Concrete Sidewalk/stair repairs	\$ 60,000.00
	Server Room AHU	\$ 25,000.00
	Roof	\$ 30,000.00
	Health/Life Safety Improvements	\$ 95,260.00
60E 107 2540 5110		
WES	Tuckpointing and Masonry Repairs	\$ 60,000.00
	Concrete Sidewalk Repairs	\$ 15,000.00
60E 500 2540 5110		
CESC	Fire Alarm Upgrades	\$ 137,500.00
	Fan Coil and Condensing Units	\$ 59,483.00
TOTAL:		\$9,050,930.00
BUDGET:		\$9,050,930.00
Additional Projects		
GHS	Retaining Wall	\$ 68,000.00
	Flooring Replacement	\$ 160,000.00
HSS	Staff Lounge Renovation	\$ 45,000.00
ADDITIONAL PROJECTS TOTAL:		\$ 273,000.00

2022-23 Operations and Maintenance
7 Year Capital Improvement Cost Summary

3/30/2022

Building / Description	Recommendation	Cost Estimate		Priority	Year	Comments	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Geneva High School-Academic Areas													
Roof	Repair/waterproof restoration coating.	\$ 2,959,000.00		H	1	Nearing end of life cycle and many failing sections as per FGM Architect Roof Assessment Report.	\$ 2,959,000.00						
Switchboard (carryover from 2021-22 Capital Plan)	Replace with new switchboard	\$ 129,370.00		H	1	Current switchboard is 47 years old. The disconnects do not operate properly causing a safety issue.	\$ 129,370.00						
Water Softener	Replacement of water softener	\$ 60,000.00		H	1	Water softener was installed in 1999. Metal tank and controls have started to fail.	\$ 60,000.00						
Parking lot	Periodic maintenance; sealcoating	\$ 100,000.00		H	1	Resurfaced/Sealcoated in 2013.	\$ 100,000.00						
Retaining wall	Replace failing retaining wall.	\$ 68,000.00		H	1	Landscape blocks are being pushed forward and tipping over causing a safety hazard.	\$ 68,000.00						
Concrete sidewalk/curb repairs	Replace cracked and damaged sections.	\$ 125,000.00		H	1	Repair for safety concerns.	\$ 125,000.00						
Stair ST3 - Stair guardrail contains areas that would allow a sphere greater than 4" to pass through the system	Install intermediate elements at all openings greater than 4" O.C. for all guardrails at stair.	\$ 7,700.00		H	1	10 Year HLS "B" Repairs	\$ 7,700.00						
Stair C112 - Stair guardrail contains areas that would allow a sphere greater than 4" to pass through the system	Install intermediate elements at all openings greater than 4" O.C. for all guardrails at stair.	\$ 7,700.00		H	1	10 Year HLS "B" Repairs	\$ 7,700.00						
Corridor west of CAD 109, Vestibule A105 - Ramp element does not have handrails on both sides of walking surface.	Install required/compliant handrails at ramp.	\$ 2,200.00		H	1	10 Year HLS "B" Repairs	\$ 2,200.00						
Corridor E103, Corridor E125 - Ramp element does not have handrails on both sides of walking surface.	Install required/compliant handrails at ramp.	\$ 8,400.00		H	1	10 Year HLS "B" Repairs	\$ 8,400.00						
Feature Stair in Commons B132 - Non-compliant handrail/guardrail at stair and/or stair landing.	Install intermediate elements at all openings greater than 4" O.C. for all guardrails at stair. Provide handrail with required/compliant gripping surface/circumference. Provide required/compliant head protection/cane detection beneath stair.	\$ 26,600.00		H	1	10 Year HLS "B" Repairs	\$ 26,600.00						
Choral F109 - Aisle at platform risers does not have handrail.	Install required/compliant handrails at aisle.	\$ 1,100.00		H	1	10 Year HLS "B" Repairs	\$ 1,100.00						
Stair A159, Track H205, Stair H203, Stair A222 - Guardrail height required w/ picket spacing adjacent windows at stair landing(s).	Install required/compliant guardrail at stair landing adjacent window fenestration.	\$ 53,900.00		H	1	10 Year HLS "B" Repairs	\$ 53,900.00						
Exterior: East Elevation (near door 20E), East Elevation (near Door 22E) - Brick lintel at overhang at storefront is beginning to show signs of future failure.	Provide destructive investigation of the condition at the lintel. Provide re-construction of failed systems. Re-install face brick. Sand, prime and re-paint stell lintel.	\$ 15,000.00		H	1	10 Year HLS "B" Repairs	\$ 15,000.00						
Stair A112, Stair A159, Stair B102, Stair H202, Stair D111 - Guardrail height less than 42" at stair run.	Provide required/compliant guardrail at open edges of stair systems.	\$ 40,600.00		H	1	10 Year HLS "B" Repairs	\$ 40,600.00						
Lower Level: South Exterior Wall of Mechanical Room - Exterior doors at boiler ramp toward basement space allows water and pest intrusion into interior of building.	Provide replacement door systems that will halt intrusion of weather and pests into interior of building.	\$ 2,500.00		H	1	10 Year HLS "B" Repairs	\$ 2,500.00						
Site: Southwest Corner of Building (3 handrails needed) - Provide required handrails at exterior stair.	Install required/compliant handrails at stair.	\$ 3,000.00		H	1	10 Year HLS "B" Repairs	\$ 3,000.00						
Elevator Machine Room - Elevator equipment room lacks exhaust	Provide a dedicated exhaust system for the space.	\$ 8,500.00		H	1	10 Year HLS "B" Repairs	\$ 8,500.00						
Food lab EE182 - Kitchen range lacks a hood or exhaust located directly over range.	Provide a recirculating kitchen hood or dedicated exhaust system for the kitchen range.	\$ 2,500.00		H	1	10 Year HLS "B" Repairs	\$ 2,500.00						
Toilet B144 - Toilet room lacks an exhaust system.	Provide a dedicated exhaust system for the space.	\$ 8,500.00		H	1	10 Year HLS "B" Repairs	\$ 8,500.00						
Laundry D160 - Laundry dryer vent not connected directly to the outdoors. Ductwork is not air tight. Products of combustion may enter space.	Provide new exhaust system and ductwork to vent dryer directly to the outdoors.	\$ 6,000.00		H	1	10 Year HLS "B" Repairs	\$ 6,000.00						
Public lavatories and hand washing sinks. - Water temperature at public lavatories and hand washing sinks exceeds 110 degrees.	Provide thermostatic mixing valve to prevent water temperature from exceeding 110 degrees.	\$ 89,600.00		H	1	10 Year HLS "B" Repairs	\$ 89,600.00						
Building Exterior - Exterior wall hydrants do not have vacuum breaker and/or frost proof.	Provide new wall hydrant with integral vacuum breaker and is frost proof.	\$ 10,000.00		H	1	10 Year HLS "B" Repairs	\$ 10,000.00						
Janitor A225, Janitor D161, Janitor E123, Art Storage B107, Janitor (at Lobby D127) - Soap/chemical dispenser does not have separate water supply, ball valve, and RPZ	Provide reduced pressure zone backflow preventer and separate domestic supply to serve soap dispensing unit.	\$ 15,000.00		H	1	10 Year HLS "B" Repairs	\$ 15,000.00						
Janitor's Closet E116 - Faucet does not have a vacuum breaker.	Provide faucet with vacuum breaker.	\$ 850.00		H	1	10 Year HLS "B" Repairs	\$ 850.00						
Science A202, Science A204, Science A205, Science A207, Science A213, Science A221, Science A229, Science B201, Science B204, Science B215, Science B218, Science B220, Kitchen EE181 - Emergency shower is supplied with cold water only.	Provide necessary hot water piping and approved thermostatic mixing valve with cold water system.	\$ 39,000.00		H	1	10 Year HLS "B" Repairs	\$ 39,000.00						
Science Prep Room A203, Science Prep Room A206 - Dishwasher waste connection is not to code with air gap and separate waste trap.	Repipe dishwasher waste connection with air gap and separate waste trap.	\$ 2,000.00		H	1	10 Year HLS "B" Repairs	\$ 2,000.00						

2022-23 Operations and Maintenance
7 Year Capital Improvement Cost Summary

Building / Description	Recommendation	Cost Estimate	Priority	Year	Comments	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Photo B108, Darkroom B106 - Science room does not have emergency fixtures.	Recommend providing separate eye wash fixture with thermostatic mixing valve. Owner/Architect to review curriculum/hazard to determine if emergency fixture unit(s) are required.	\$9,600.00	H	1	10 Year HLS "B" Repairs	\$9,600.00						
Training G121 - Sink faucet has cold water only.	Provide hot water to sink faucet.	\$1,500.00	H	1	10 Year HLS "B" Repairs	\$1,500.00						
Training G121 - Sink waste is not to code with proper venting.	Provide vent piping that is connected to existing vent system.	\$1,500.00	H	1	10 Year HLS "B" Repairs	\$1,500.00						
Food Workroom, Storage G104, Toilet E107, Toilet E111, Grill E131 - Abandoned fixtures resulting in sections of unused piping. ("dead ends")	Remove abandoned fixture and remove unused sections of piping back to mains.	\$14,400.00	H	1	10 Year HLS "B" Repairs	\$14,400.00						
Paint Shop B101.1, CR B105 - Sinks do not have solids interceptor to prevent waste piping from becoming plugged.	Recommend providing solids interceptor at waste piping below sinks. Owner/Architect to review curriculum/hazard to determine if solids interceptor unit(s) are required.	\$2,000.00	H	1	10 Year HLS "B" Repairs	\$2,000.00						
Lobby H111 - Storage and trophy display casework is not protected by the building sprinkler system.	Provide proper fire protection sprinkler coverage to storage and trophy display casework per NFPA 13.	\$5,000.00	H	1	10 Year HLS "B" Repairs	\$5,000.00						
Kitchen EE181 - Sprinkler head outside of hood space in ceiling are fully recessed and should be verified that the temperature rating is acceptable for this space per NFPA13.	Replace sprinkler head with (green bulb type) with a 200 degree F temperature rating at a minimum, per NFPA 13.	\$4,000.00	H	1	10 Year HLS "B" Repairs	\$4,000.00						
Preparation E127, Kitchen E128, Warewashing E129, Kitchen E138, Grill E131 - Sprinkler head outside of hood space in ceiling are fully recessed and should be verified that the temperature rating is acceptable for this space per NFPA13.	Replace sprinkler head with (green bulb type) with a 200 degree F temperature rating at a minimum, per NFPA 13.	\$10,000.00	H	1	10 Year HLS "B" Repairs	\$10,000.00						
Mechanical B125 - Existing sprinkler head is obstructed by ductwork.	Reposition existing sprinkler head or add sprinkler head to meet NFPA 13.	\$1,000.00	H	1	10 Year HLS "B" Repairs	\$1,000.00						
Flooring replacement (carryover from 2021-22 Capital Plan)	Replace worn flooring remaining on the 1st floor areas.	\$635,000.00	H,M	1,3	Flooring at least 21 years old. Fraying/Tripping hazard. Replace in phases.	\$160,000.00		\$475,000.00				
Boiler systems	Eventually replace steam boilers with new heating system.	\$1,800,000.00	Budget	1,2	Steam line failed and was replaced Summer 2014. Budgeting funds for system upgrade.	\$100,000.00	\$1,700,000.00					
Auditorium stage and house lighting	Update the entire lighting system.	\$325,000.00	H	2	Lighting panel becoming obsolete and parts are no longer available.		\$325,000.00					
Office space	Add additional office space in the Deans' and Counseling Advising Office areas.	\$85,000.00	H	2	Additional office space needed for staff.		\$85,000.00					
Air handlers (7)	Need Re-built or Replacement	\$300,000.00	H	2	47 years old and nearing estimated service life according to ASHRAE.		\$300,000.00					
Renovate Cafeteria bathrooms	Update	\$65,000.00	M	2	47 years old and in need of updating.		\$65,000.00					
Renovate Stagecraft area including bathrooms	Update	\$65,000.00	M	2	47 years old and in need of updating.		\$65,000.00					
PVI hot water heaters (500 Gallon) (2)	Replacing 2 - 500 gallon hot water heaters.	\$155,000.00	M	2	Typical life cycle of a commercial hot water heater is 12 to 15 years.		\$155,000.00					
Air compressor	Replacement will be needed.	\$45,000.00	L	2	Current air compressor is 21 yrs old.		\$45,000.00					
Make-up Air Unit at 301 McKinley	Replacing current make-up air unit.	\$85,000.00	M	3	Installed 1996 and nearing estimated service life according to ASHRAE.			\$85,000.00				
Emergency back-up generator	Replace unit.	\$255,000.00	L	3	Generator is 21 years old. Nearing end of life cycle; consistent repairs and breakdowns.			\$255,000.00				
End of service life HVAC Equipment	Replace end of life equipment with high efficiency equipment	\$6,122,388.00	M	3	HVAC equipment nearing end of service life based on CS2 Design Group, LLC 2021 Mechanical Facility Study			\$6,122,388.00				
Indoor track flooring	Resurface and repair cracking	\$125,000.00	M	3	End of life and surfacing needed for safety concerns.			\$125,000.00				
DDC Controls	Add as equipment is replaced.	\$925,000.00	M	4	Convert pneumatic to digital controls.				\$925,000.00			
Lighting/Controls upgrade	Replace inefficient mercury vapor and flourescent lighting.	\$525,000.00	M	4	Energy savings with LED lighting and controls.				\$525,000.00			
Air conditioning	Add air conditioning in the athletic area.	\$4,800,000.00	L	7	Add air conditioning for staff and student comfort.							\$4,800,000.00
Geneva High School-Athletic Areas												
Burgess field turf	Turf renewal maintenance.	\$650,000.00	Budget	1,2	Turf was installed in 2012. Typical life cycle of synthetic turf is 8-10 years. Budgeting \$50K over 10 years.	\$50,000.00	\$600,000.00					
Burgess field scoreboard	Replace scoreboard	\$200,000.00	M	2	Replace scoreboard that was installed in the early 1990s and having consistent repairs.		\$200,000.00					
Storage shed	Athletic area	\$68,000.00	L	6	Needed space for athletic/gym supplies.						\$68,000.00	
Portable exterior baseball bleachers	Purchase new moveable bleachers.	\$90,000.00	L	7	Added bleachers needed at the baseball fields that can be utilized in other areas for events.							\$90,000.00
SECURITY												
Add FOB reader and wiring to Access Control System	Install a FOB to the hallway doors at the Health Office and Band Room.	\$31,900.00	M	3,4	Adding this feature will enhance the protection of our assets and reduce the risk of theft.			\$15,950.00	\$15,950.00			
Interior security cameras	Addition of interior security cameras to monitor, prevent, deter, and Investigate when incidents occur. (Phase 1: Year 3: \$4,400) (Phase 2: Year 5: \$9,900)	\$14,300.00	M,L	3,5	Administration identified areas where cameras would be of assistance.			\$4,400.00		\$9,900.00		
Exterior security cameras	Additional exterior security cameras to monitor, prevent, deter, and investigate when incidents occur. (Phase 1: Year 3: \$ 4,400) (Phase 2: Year 5: \$9,900)	\$14,300.00	M,L	3,5	Identified areas in the 2014 ARCON Security Assessment.			\$4,400.00		\$9,900.00		
Total for GHS		\$15,088,908.00				\$3,991,020.00	\$3,000,000.00	\$6,612,138.00	\$1,465,950.00	\$19,800.00		

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Building / Description	Recommendation	Cost Estimate		Priority	Year	Comments	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
GMS-N													
Concrete sidewalk repairs	Replace cracked and damaged sections.	\$ 75,000.00		H	1	Repair for safety concerns.	\$ 75,000.00						
DDC controls (carryover from 2021-22 Capital Plan)	Replace obsolete control system.	\$ 499,667.00		H	1	Update from Lon to BACnet.	\$ 499,667.00						
VFD (Variable Frequency Drives)	Replace obsolete VFDs.	\$ 24,000.00		H	2	VFDs are obsolete and parts are no longer available.		\$ 24,000.00					
LMC air handling unit	Add VAV boxes with associated piping and ductwork as required.	\$ 58,500.00		H	2	Only 2 VAV boxes installed for entire Library area. Add 6-8 boxes.		\$ 58,500.00					
Parking Lot	Sealcoating and crack filling	\$ 110,000.00		M	3,6	Extend the life of pavement. Sealcoated and crack filled in 2019.			\$ 55,000.00			\$ 55,000.00	
Lighting/Controls upgrade	Replace inefficient mercury vapor and flourescent lighting.	\$ 295,000.00		M	4	Energy savings with LED lighting and controls.				\$ 295,000.00			
Flooring replacement	Replace worn carpet and tile throughout school.	\$ 560,000.00		L	4,5	Life cycle of average flooring is 12-20 years. Extensive staining and wear.				\$ 280,000.00	\$ 280,000.00		
Roof	Replace roof/waterproof restoration coating.	\$ 2,821,800.00		L	7	Nearing end of life cycle and many failing sections as per FGM Architect Roof Assessment Report. Roof installed 2000. Replace in sections.							\$ 2,821,800.00
SECURITY													
Exterior security cameras	Additional exterior cameras to prevent, monitor, deter, and investigate when incidents occur. (Phase 1: Year 2: \$4,400) (Phase 2: Year 3: \$10,010)	\$ 14,410.00		H,M	2,3	Working in conjunction with the principal and the consultant from ARCON conducting the Security Assessment. Strategic areas were identified for placement of security cameras.		\$ 4,400.00	\$ 10,010.00				
Interior security cameras	Interior cameras to prevent, monitor, deter, and investigate when incidents occur. (Phase 1: Year 3: \$12,100) (Phase 2: Year 4: \$12,100)	\$ 24,200.00		M	3,4	Administration identified areas where cameras would be of assistance.			\$ 12,100.00	\$ 12,100.00			
Security traffic bollards	Install security bollards outside of the front entrance to provide a barrier.	\$ 5,000.00		L	5	Bollards help provide deterrence and protection for both life and property. Identified in the ARCON 2014 Security Assessment.					\$ 5,000.00		
Total for GMS-N		\$ 3,927,577.00					\$ 574,667.00	\$ 86,900.00	\$ 77,110.00	\$ 307,100.00	\$ 5,000.00	\$ 55,000.00	\$ 2,821,800.00
GMS-S													
Gym flooring (carryover from 2021-22 Capital Plan)	Resurface and seal Contest Gym.	\$ 38,000.00		H	1	Floor showing wear.	\$ 38,000.00						
Concrete sidewalk/curb repairs	Replace cracked and damaged sections.	\$ 75,000.00		H	1	Repair for safety concerns.	\$ 75,000.00						
Roof	Repair failing sections of roof.	\$ 400,000.00		H/L	2,5	Roof assessment found several failing sections of the roof.		\$ 225,000.00			\$ 175,000.00		
Ceiling tile and grid replacement	Recommend in phases. First phase main office, athletic and technology wings.	\$ 185,000.00		H,M	2	Grid is starting to show discoloration.		\$ 185,000.00					
Stage lighting	Update the entire light system.	\$ 45,000.00		H	2	Original to the building, starting to fail.		\$ 45,000.00					
Emergency back-up generator	Replace unit.	\$ 95,000.00		H	2	Nearing end of life cycle; consistent repairs and breakdowns.		\$ 95,000.00					
End of service life HVAC Equipment	Replace end of life equipment with high efficiency equipment	\$ 2,012,140.00		M	3	HVAC equipment nearing end of service life based on CS2 Design Group, LLC 2021 Mechanical Facility Study			\$ 2,012,140.00				
Chiller - 180 ton	Add to replace noisy, inefficient DX units on roof.	\$ 295,000.00		M	3	DX units are original and beginning to show signs of wear and failure.			\$ 295,000.00				
Parking lot	Periodic maintenance; sealcoating	\$ 110,000.00		M	3,6	Extend life of pavement.			\$ 55,000.00			\$ 55,000.00	
Lighting/Controls upgrade	Replace inefficient mercury vapor and flourescent lighting.	\$ 350,000.00		M	4	Energy savings with LED lighting and controls.				\$ 350,000.00			
Flooring replacement	Replace worn carpet and tile throughout school.	\$ 525,000.00		L	4	Life cycle of average flooring is 12-20 years. Extensive staining and wear.				\$ 525,000.00			
SECURITY													
Exterior security cameras	Addition of exterior security cameras to monitor, prevent, deter, and investigate when incidents occur. (Phase 1: Year 1: \$7,590) (Phase 2: Year 3: \$6,900)	\$ 14,490.00		H,M	2,3	Working in conjunction with the principal and the consultant from ARCON conducting the Security Assessment. Strategic areas were identified for placement of security cameras.		\$7,590	\$ 6,900.00				
Interior security cameras	Interior cameras are recommended to prevent, monitor, deter, and investigate when incidents occur. (Phase 1: Year 2: \$16,940) (Phase 2: Year 4: \$9,680)	\$ 26,620.00		M	2,3	Administration identified areas where cameras would be of assistance.		\$16,940	\$ 9,680.00				
Security traffic bollards	Install security bollards outside of the front entrance to provide a barrier.	\$ 4,400.00		L	5	Bollards help provide deterrence and protection for both life and property. Identified in the ARCON 2014 Security Assessment .					\$ 4,400.00		
Total for GMS-S		\$ 3,406,160.00					\$ 113,000.00	\$ 336,940.00	\$ 2,371,820.00	\$ 350,000.00	\$ 179,400.00	\$ 55,000.00	

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Building / Description	Recommendation	Cost Estimate	Priority	Year	Comments	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Harrison												
Flashing Repair and Tuckpointing (carryover from 2021-22 Capital Plan)	Repair cracked and missing brick and mortar joints.	\$ 35,000.00	H	1	Needed for leaking areas and cracked/missing mortar joints	\$ 35,000.00						
Roof	Replace roof/waterproof restoration coating.	\$ 1,350,000.00	H,M	1,2	Nearing end of life cycle and many failing sections as per FGM Architect Roof Assessment Report. Roof installed 2000. Replace in sections.	\$ 250,000.00	\$ 1,100,000.00					
Mezzanine 235, Mechanical 235A - Incomplete fire separation.	Provide continuous fire partition with minimum fire resistance rating required.	\$ 25,000.00	H	1	10 Year HLS "B" Repairs	\$ 25,000.00						
Toilet - Toilet room does not have an exhaust system.	Provide exhaust system	\$ 7,500.00	H	1	10 Year HLS "B" Repairs	\$ 7,500.00						
Public lavatories and hand washing sinks. - Water temperature at public lavatories and hand washing sinks exceeds 110 degrees.	Provide thermostatic mixing valve to prevent water temperature from exceeding 110 degrees.	\$ 22,800.00	H	1	10 Year HLS "B" Repairs	\$ 22,800.00						
Receiving 36 - Soap/chemical dispenser does not have separate water supply, ball valve, and RPZ.	Provide reduced pressure zone backflow preventer and separate domestic supply to serve soap dispensing unit.	\$ 3,000.00	H	1	10 Year HLS "B" Repairs	\$ 3,000.00						
2nd Floor: Mechanical Room - Eye wash is supplied with cold water only.	Provide necessary hot water piping and approved mixing valve.	\$ 1,500.00	H	1	10 Year HLS "B" Repairs	\$ 1,500.00						
Staff lounge	Renovate staff lounge.	\$ 45,000.00	M	1	Renovate staff lounge for adequate teacher space.	\$ 45,000.00						
Air Handlers (3)	Rebuild with new components.	\$ 180,000.00	M	2	Shell is in good condition.		\$ 180,000.00					
Server Room AHU	Replace AHU.	\$ 25,000.00	M	2	Nearing end of life cycle as per ASHRAE.		\$ 25,000.00					
Radiant heat-K Wing	Replace with new radiant piping.	\$ 35,000.00	M	3	Short run in glass hallway.			\$ 35,000.00				
Cabinet Unit Heaters (15)	Replace with new units.	\$ 84,975.00	M	3	Units over 41 years old. Replace as fans fail.			\$ 84,975.00				
Chiller - 80 tons	Replacement will be needed.	\$ 137,500.00	M	3	Chiller nearing end of life cycle as per ASHRAE.			\$ 137,500.00				
Parking Lot	Sealcoating and crack filling	\$ 99,000.00	L	3,6	Extend life of pavement			\$ 49,500.00			\$ 49,500.00	
End of service life HVAC Equipment	Replace end of life equipment with high efficiency equipment	\$ 1,535,100.00	M	4	HVAC equipment nearing end of service life based on CS2 Design Group, LLC 2021 Mechanical Facility Study				\$ 1,535,100.00			
Lighting/Controls upgrade	Replace inefficient mercury vapor and flourescent lighting.	\$ 230,000.00	M	4	Energy savings with LED lighting and controls.				\$ 230,000.00			
Boiler and secondary pumps	Replace with new high efficiency boilers and primary pumps.	\$ 550,000.00	L	4	Nearing estimated service life according to ASHRAE.				\$ 550,000.00			
Hot water heater	Install new commercial unit.	\$ 26,000.00	L	5	AO Smith was installed in 2011.					\$ 26,000.00		
Emergency back-up generator	Replace unit.	\$ 80,000.00	L	6	Nearing end of life cycle; consistent repairs and breakdowns.						\$ 80,000.00	
SECURITY												
Exterior security camera	Addition of exterior security cameras to monitor, prevent, deter, and investigate when incidents occur.	\$ 4,400.00	M	3	Based on an internal Security Assessment additional cameras would be beneficial.			\$ 4,400.00				
Total for Harrison		\$ 4,396,775.00				\$ 344,800.00	\$ 1,305,000.00	\$ 276,375.00	\$ 2,315,100.00	\$ 26,000.00	\$ 129,500.00	
Western												
Server Room AHU	Replace AHU.	\$ 25,000.00	H	1	Nearing end of life cycle as per ASHRAE.	\$ 25,000.00						
Concrete sidewalk repairs	Replace cracked and damaged sections.	\$ 15,000.00	H	1	Repair for safety concerns.	\$ 15,000.00						
Boiler replacement (2)	Replace with new high efficiency boilers.	\$ 750,000.00	H	1	32-year old boilers are inefficient and nearing the end of their estimated service life as per ASHRAE.	\$ 750,000.00						
Piping for hot water and chilled water	Replace failing sections	\$ 1,780,000.00	H	1	Piping is rusting and beginning to leak.	\$ 1,780,000.00						
Storage 163A, Storage 51 - Non-rated door assembly within fire partition of storage room/corridor access.	Provide required door assembly and hardware to comply with required fire resistance rating.	\$ 10,000.00	H	1	10 Year HLS "B" Repairs	\$ 10,000.00						
AHU Mezzanine (adjacent stage) - Incomplete fire separation.	Provide continuous fire partition with minimum fire resistance rating required.	\$ 2,000.00	H	1	10 Year HLS "B" Repairs	\$ 2,000.00						
Main Vestibule - Main entry vestibule does not have heating.	Provide cabinet unit heater.	\$ 6,000.00	H	1	10 Year HLS "B" Repairs	\$ 6,000.00						
Sprinkler Room - Sprinkler room does not have heating.	Provide cabinet unit heater or finned tube radiation to prevent pipes from freezing.	\$ 5,000.00	H	1	10 Year HLS "B" Repairs	\$ 5,000.00						
Public lavatories and hand washing sinks. - Water temperature at public lavatories and hand washing sinks exceeds 110 degrees.	Provide thermostatic mixing valve to prevent water temperature from exceeding 110 degrees.	\$ 20,400.00	H	1	10 Year HLS "B" Repairs	\$ 20,400.00						
Janitor's Closet 27, Janitor's Closet 44A - Soap/chemical dispenser does not have separate water supply, ball valve, and RPZ.	Provide reduced pressure zone backflow preventer and separate domestic supply to serve soap dispensing unit.	\$ 6,000.00	H	1	10 Year HLS "B" Repairs	\$ 6,000.00						
Gym AHU	Rebuild with new components. Geneva Park District share costs.	\$ 30,000.00	H	2	Coil replaced in 2009; original in 1964.		\$ 30,000.00					
Roof	Repair and replace roof/waterproof restoration coating.	\$ 1,320,000.00	H,L	2,6	Roof assessment found several failing sections of the roof.		\$ 360,000.00				\$ 960,000.00	
Parking lot	Periodic maintenance; sealcoating	\$ 66,000.00	L	2,5	Sealcoated and crack filled in 2018.		\$ 33,000.00			\$ 33,000.00		
Cabinet unit heaters (9)	Replace with new units.	\$ 60,000.00	M	3	Over 26 years old. Replace as fans fail.			\$ 60,000.00				
Interior doors	Replace damaged doors.	\$ 12,360.00	M	3	Showing excessive wear.			\$ 12,360.00				
Lighting/Controls upgrade	Replace inefficient mercury vapor and flourescent lighting.	\$ 185,000.00	M	4	Energy savings with LED lighting and controls.				\$ 185,000.00			
End of service life HVAC Equipment	Replace end of life equipment with high efficiency equipment	\$ 1,563,000.00	M	4	HVAC equipment nearing end of service life based on CS2 Design Group, LLC 2021 Mechanical Facility Study				\$ 1,563,000.00			
SECURITY												
Exterior security camera	Addition of exterior security cameras to monitor, prevent, deter, and investigate when incidents occur.	\$ 4,400.00	L	5	Based on an internal Security Assessment additional cameras would be beneficial.					\$ 4,400.00		
Total for Western		\$ 5,860,160.00				\$ 2,619,400.00	\$ 423,000.00	\$ 72,360.00	\$ 1,748,000.00	\$ 37,400.00	\$ 960,000.00	

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Mill Creek												
Paving for playground area (carryover from 2021-22 Capital Plan)	Resurfacing needed.	\$ 60,000.00	H	1	Extreme cracking and deterioration causing safety issues.	\$ 60,000.00						
Server Room AHU	Replace AHU.	\$ 25,000.00	H	1	Nearing end of life cycle as per ASHRAE.	\$ 25,000.00						
Boiler and primary pump replacement	Replace, install new boiler and primary pumps.	\$ 740,000.00	H	1	26 years old and nearing estimated service life according to ASHRAE.	\$ 740,000.00						
Kiln Room 102B - Kiln does not have an exhaust hood.	Provide a dedicated exhaust hood and fan for the kiln.	\$ 15,000.00	H	1	10 Year HLS "B" Repairs	\$ 15,000.00						
Main Electrical Room - Transformer missing secondary overcurrent protection.	Provide a fusible safety switch within 10'-0" of transformer on the secondary side.	\$ 2,500.00	H	1	10 Year HLS "B" Repairs	\$ 2,500.00						
Public lavatories and hand washing sinks. - Water temperature at public lavatories and hand washing sinks exceeds 110 degrees.	Provide thermostatic mixing valve to prevent water temperature from exceeding 110 degrees.	\$ 24,400.00	H	1	10 Year HLS "B" Repairs	\$ 24,400.00						
Kitchen 150J - Soap/chemical dispenser does not have separate water supply, ball valve, and RPZ	Provide reduced pressure zone backflow preventer and separate domestic supply to serve soap dispensing unit.	\$ 3,000.00	H	1	10 Year HLS "B" Repairs	\$ 3,000.00						
Receiving 150M - Soap/chemical dispenser does not have separate water supply, ball valve, and RPZ	Provide reduced pressure zone backflow preventer and separate domestic supply to serve soap dispensing unit.	\$ 3,000.00	H	1	10 Year HLS "B" Repairs	\$ 3,000.00						
Emergency back-up generator	Replace unit.	\$ 85,000.00	M	2	Nearing end of life cycle; consistent repairs and breakdowns.		\$ 85,000.00					
Parking lot	Periodic maintenance; sealcoating	\$ 80,000.00	L	2,5	Sealcoated and crack filled in 2018.		\$ 40,000.00			\$ 40,000.00		
Roof	Repair and replace roof/waterproof restoration coating.	\$ 1,423,400.00	H	2,7	Nearing end of life cycle and many failing sections as per FGM Architect Roof Assessment Report. Roof installed in 2005.		\$ 220,000.00					\$ 1,203,400.00
Flooring replacement	Replace	\$ 380,000.00	M	3	Flooring is 13 years old. Replacement needed due to age, wear and staining.			\$ 380,000.00				
Office cooling system	Install new system for office.	\$ 60,000.00	M	3	Update for energy efficiency.			\$ 60,000.00				
Cabinet unit heaters	Replace due to age.	\$ 70,000.00	L	3	Cabinet unit heaters are over 26 years old			\$ 70,000.00				
Lighting/Controls upgrade	Replace inefficient mercury vapor and flourescent lighting.	\$ 230,000.00	M	4	Energy savings with LED lighting and controls.				\$ 230,000.00			
SECURITY												
Exterior security camera	Additional exterior cameras to prevent, monitor, deter, and investigate when incidents occur.	\$ 7,700.00	M	3	Based on internal Security Assessment additional cameras would be beneficial.			\$ 7,700.00				
Total for Mill Creek		\$ 2,769,000.00				\$ 872,900.00	\$ 345,000.00	\$ 77,700.00	\$ 230,000.00	\$ 40,000.00		\$ 1,203,400.00
Heartland												
Concrete sidewalk repairs	Replace cracked and damaged sections.	\$ 12,500.00	H	1	Repair for safety concerns.	\$ 12,500.00						
Kiln Room 102A - Kiln does not have an exhaust hood.	Provide a dedicated exhaust hood and fan for the kiln.	\$ 15,000.00	H	1	10 Year HLS "B" Repairs	\$ 15,000.00						
Public lavatories and hand washing sinks. - Water temperature at public lavatories and hand washing sinks exceeds 110 degrees.	Provide thermostatic mixing valve to prevent water temperature from exceeding 110 degrees.	\$ 28,400.00	H	1	10 Year HLS "B" Repairs	\$ 28,400.00						
Custodian Mop Basin & Dishwasher: Rooms 38, 111, 137, 150E, 150F - Soap/chemical dispenser does not have separate water supply, ball valve, and RPZ.	Provide reduced pressure zone backflow preventer and separate domestic supply to serve soap dispensing unit.	\$ 15,000.00	H	1	10 Year HLS "B" Repairs	\$ 15,000.00						
Server Room AHU	Replace AHU.	\$ 25,000.00	H	1	Nearing end of life cycle as per ASHRAE.	\$ 25,000.00						
Hot water heater	Install new commercial unit.	\$ 25,000.00	M	1	AO Smith is nearing end of life cycle.	\$ 25,000.00						
Flooring Replacement	Replace worn carpet and tile throughout school.	\$ 450,000.00	H	2	Age of carpet is 20 years-2021-22 school year. Life cycle 12-20 years. Extensive staining and wear.		\$ 450,000.00					
Roof	Repair and replace roof/waterproof restoration coating.	\$ 885,000.00	H,L	2,4	Nearing end of life cycle and many failing sections as per FGM Architect Roof Assessment Report. Roof installed in 2002.		\$ 120,000.00		\$ 765,000.00			
Chilled water pumps replacement and new VFDs installed (2).	Install new VFDs and chilled water pumps.	\$ 40,000.00	M	2	Original to the building and nearing end of life cycle as per ASHRAE. VFDs will increase efficiency and extend motor life.		\$ 40,000.00					
Chiller - 230 tons	Replacement will be needed.	\$ 320,000.00	L	2	Chiller nearing end of life cycle as per ASHRAE.		\$ 320,000.00					
Lighting/Controls upgrade	Replace inefficient mercury vapor and flourescent lighting.	\$ 200,000.00	M	4	Energy savings with LED lighting and controls.				\$ 200,000.00			
Parking lot	Periodic maintenance; sealcoating	\$ 66,000.00	M	3,6	Resurfaced/Sealcoated in 2013.			\$ 33,000.00			\$ 33,000.00	
Boiler/primary pumps replacement (2)	Replace with new high efficiency boilers and primary pumps.	\$ 550,000.00	L	5	2 Burnham boilers and two primary pumps are 20-years old. Equipment is inefficient and nearing the end of their estimated service life as per ASHRAE.					\$ 550,000.00		
Emergency back-up generator	Replace unit.	\$ 85,000.00	L	6	Nearing end of life cycle; consistent repairs and breakdowns.						\$ 85,000.00	
SECURITY												
Exterior security camera	Additional exterior cameras to prevent, monitor, deter, and investigate when incidents occur.	\$ 4,400.00	L	5	Based on an internal Security Assessment additional cameras would be beneficial.					\$ 4,400.00		
Total for Heartland		\$ 2,271,300.00				\$ 120,900.00	\$ 480,000.00	\$ 33,000.00	\$ 965,000.00	\$ 554,400.00	\$ 118,000.00	

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Williamsburg												
Tuckpointing/Masonry repairs (carryover from 2021-22 Capital Plan)	Repair cracked mortar joints and repair drip edges.	\$ 60,000.00	H	1	Multiple cracks; leakage into building. Drip edge is safety issue.	\$ 60,000.00						
Concrete sidewalk repairs	Replace cracked and damaged sections.	\$ 15,000.00	H	1	Repair for safety concerns.	\$ 15,000.00						
Hot water heater	Install new commercial units.	\$ 60,000.00	H	2	Bradford White is nearing end of life cycle.		\$ 60,000.00					
Parking lot	Periodic maintenance; sealcoating	\$ 66,000.00	M	2,5	Sealcoated and crack filled in 2018.		\$ 33,000.00			\$ 33,000.00		
Lighting/Controls upgrade	Replace inefficient mercury vapor and flourescent lighting.	\$ 275,000.00	M	3	Energy savings with LED lighting and controls.			\$ 275,000.00				
Chiller - 250 tons	Replacement will be needed.	\$ 605,000.00	L	7	Chiller nearing end of life cycle as per ASHRAE.							\$ 605,000.00
SECURITY												
Exterior security cameras	Additional exterior cameras to prevent, monitor, deter, and investigate when incidents occur.	\$ 4,400.00	L	4	Preventitive measure to keep the building more secure.				\$ 4,400.00			
Total for Williamsburg		\$ 1,085,400.00				\$ 75,000.00	\$ 93,000.00	\$ 275,000.00	\$ 4,400.00	\$ 33,000.00		\$ 605,000.00
Fabyan												
Concrete sidewalk/Stair repairs	Replace cracked and damaged sections.	\$ 60,000.00	H	1	Repair for safety concerns.	\$ 60,000.00						
Server Room AHU	Replace AHU.	\$ 25,000.00	H	1	Nearing end of life cycle.	\$ 25,000.00						
Roof	Repair damaged section "R".	\$ 30,000.00	H	1	Section "R" is in need of repair as per FGM Architect Roof Assessment Report. Roof installed in 2009.	\$ 30,000.00						
Stage 030 - missing rated label on door/frame.	Provide rated/labeled door opening assembly for corridor fire partition.	\$ 2,640.00	H	1	10 Year HLS "B" Repairs	\$ 2,640.00						
Storage 167a (Mother's Room) - No ventilation present in reclassified/occupied space.	Provide required natural/mechanical ventilation within occupied space.	\$ 2,750.00	H	1	10 Year HLS "B" Repairs	\$ 2,750.00						
Kitchen 032 - Kitchen hood does not extend beyond the cooking equipment.	Replace kitchen hood with new hood that shall extend 6" beyond cooking equipment in all directions.	\$ 24,200.00	H	1	10 Year HLS "B" Repairs	\$ 24,200.00						
Public lavatories and hand washing sinks. - Water temperature at public lavatories and hand washing sinks exceeds 110 degrees.	Provide thermostatic mixing valve to prevent water temperature from exceeding 110 degrees.	\$ 34,320.00	H	1	10 Year HLS "B" Repairs	\$ 34,320.00						
Janitor 245, 230, 213, 117, 137, 156, 024, Receiving 018, Kitchen 032 - Soap/chemical dispenser does not have separate water supply, ball valve, and RPZ.	Provide reduced pressure zone backflow preventer and separate domestic supply to serve soap dispensing unit.	\$ 26,400.00	H	1	10 Year HLS "B" Repairs	\$ 26,400.00						
Kitchen 197 - Eye wash is supplied with cold water only.	Provide necessary hot water piping and approved thermostatic mixing valve with cold water bypass.	\$ 1,650.00	H	1	10 Year HLS "B" Repairs	\$ 1,650.00						
Kitchen 197 - Soap dispensing unit does not have any form of backflow prevention and triple sink faucet has been modified for a water connection for the soap dispensing unit.	Remove existing faucet connection and associated fittings. Provide new triple sink faucet. Provide code approved backflow protection device at soap dispensing equipment and three-compartment sink.	\$ 3,300.00	H	1	10 Year HLS "B" Repairs	\$ 3,300.00						
Lighting/Controls upgrade	Replace inefficient mercury vapor and flourescent lighting.	\$ 275,000.00	M	2	Energy savings with LED lighting and controls.		\$ 275,000.00					
Parking lot	Periodic maintenance; sealcoating	\$ 66,000.00	L	2,5	Sealcoated and crack filled in 2018.		\$ 33,000.00			\$ 33,000.00		
Hot water heater	Install new commercial units.	\$ 60,000.00	M	3	AO Smith is nearing end of life cycle.			\$ 60,000.00				
Chiller - 247 tons	Replacement will be needed.	\$ 550,000.00	L	6	Chiller nearing end of life cycle as per ASHRAE.						\$ 550,000.00	
SECURITY												
Exterior security camera	Additional exterior cameras to prevent, monitor, deter, and investigate when incidents occur.	\$ 4,400.00	M	3	Based on internal Security Assessment additional cameras would be beneficial.			\$ 4,400.00				
Total for Fabyan		\$ 1,165,660.00				\$ 210,260.00	\$ 308,000.00	\$ 64,400.00		\$ 33,000.00	\$ 550,000.00	
Coultrap Education Services Center (4th St)												
Fire alarm system (carryover from 2021-22 Capital Plan)	Update fire system.	\$ 137,500.00	H	1	Obsolete, inadequate and does not meet current NFPA code requirements.	\$ 137,500.00						
Fan coil and condensing units (carryover from 2021-22 Capital Plan)	Replace 23 failing units.	\$ 456,033.00	H	1,3	Nearing end of life cycle.	\$ 59,483.00		\$ 396,550.00				
Elevator Control System Upgrade	Replace system, parts becoming obsolete and no longer available for repairs.	\$ 101,970.00	H	2	Consistant breakdowns and repairs.		\$ 101,970.00					
Roof	Replace roof/waterproof restoration coating.	\$ 264,000.00	H	2	Nearing end of life cycle and many failing sections as per FGM Architect Roof Assessment Report. Roof installed in 2002.		\$ 264,000.00					
Domestic water piping	Replace old piping with copper piping and provide new ball valves for adequate shut-off.	\$ 110,000.00	H	2	Current piping is deteriorating and has excessive amount of rust.		\$ 110,000.00					
VFD for furnace	Install new VFD.	\$ 10,197.00	H	2	Currently does not work and it is overridden.		\$ 10,197.00					
Lighting/Controls upgrade	Replace inefficient mercury vapor and flourescent lighting.	\$ 225,000.00	M	2	Energy savings with LED lighting and controls.		\$ 225,000.00					
Parking lot	Resurface will be needed.	\$ 169,950.00	M	2	Sealcoated and crack filled in 2022.		\$ 169,950.00					
Air compressor	Replacement will be needed.	\$ 13,596.00	H	3	Current air compressor is 26 yrs old.			\$ 13,596.00				
HVAC controls	Upgrading the controls with direct digital controls (DDC).	\$ 175,000.00	H	3	Pneumatic controls discontinued.			\$ 175,000.00				
Furnace Burners	Burner replacement; Replace with high efficiency burners.	\$ 90,640.00	M	3	22 year old burners nearing the end of their estimated service life as per ASHRAE.			\$ 90,640.00				
Parking lot	Periodic maintenance; sealcoating	\$ 22,000.00	H	5,7	Sealcoated and crack filled in 2022.					\$ 11,000.00		\$ 11,000.00
Automatic Sprinkler System	Install Automatic Sprinkler System for Fire Protection	\$ 495,000.00	M	7	No building-wide automatic sprinkler system. Upgrade to meet current NFPA standards.							\$ 495,000.00
Total for CESC (4th St)		\$ 2,270,886.00				\$ 196,983.00	\$ 881,117.00	\$ 675,786.00		\$ 11,000.00		\$ 506,000.00

2022-23 Operations and Maintenance
7 Year Capital Improvement Cost Summary

Building / Description	Recommendation	Cost Estimate		Priority	Year	Comments	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Transportation													
Architectural precast wall panel replacement	Replace cracked precast wall panel.	\$ 45,320.00		H	2	Panel cracked in fall 2016.		\$ 45,320.00					
Parking lot	Resurfacing and drainage improvements.	\$ 385,220.00		M	2	Sealcoated and crack filled in 2022.		\$ 385,220.00					
Parking lot expansion	Expand parking lot and install property lighting at new 8.46 acres parcel.	\$ 600,000.00		M	2	Additional Parking is needed for Transportation staff and buses.		\$ 600,000.00					
HVAC	Replacing 3 Lenox split systems and 3 Bananza make up air units.	\$ 135,960.00		M	2	Original to building and nearing estimated service life according to ASHRAE.		\$ 135,960.00					
Lighting/Controls upgrade	Replace inefficient mercury vapor and flourescent lighting.	\$ 195,000.00		M	3	Energy savings with LED lighting and controls.			\$ 195,000.00				
Roof	Replace roof/waterproof restoration coating.	\$ 88,000.00		L	4	Nearing end of life cycle as per FGM Architect Roof Assessment Report. Roof installed in 2003.				\$ 88,000.00			
Parking lot	Periodic maintenance; sealcoating.	\$ 88,000.00		M	5-7	Sealcoated and crack filled in 2022.					44,000.00		\$ 44,000.00
Total for Transportation		\$ 1,537,500.00						\$ 1,166,500.00	\$ 195,000.00	\$ 88,000.00	\$ 44,000.00		\$ 44,000.00
	7 Year Total	\$ 43,779,326.00					\$ 9,118,930.00	\$ 8,425,457.00	\$ 10,730,689.00	\$ 7,473,550.00	\$ 983,000.00	\$ 1,867,500.00	\$ 5,180,200.00
	Year 1	\$ 9,118,930.00											
	Year 2	\$ 8,425,457.00											
	Year 3	\$ 10,730,689.00											
	Year 4	\$ 7,473,550.00											
	Year 5	\$ 983,000.00											
	Year 6	\$ 1,867,500.00											
	Year 7	\$ 5,180,200.00											
	FUTURE CONSIDERATIONS	\$ 8,432,490.00					\$ 205,000.00	\$ 1,227,590.00	\$ 956,900.00	\$ 805,000.00	\$ 280,000.00	\$ 68,000.00	\$ 4,890,000.00