



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

Board of Education

March 9, 2020





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 at 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 regard 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.

The **concrete sidewalks and curbs** that were cracking and lifting have been repaired.

Several additional capital improvements are needed in the next seven years. The **Mack Olson gym flooring** is showing excessive wear and needs to be resurfaced and sealed. The gym flooring was scheduled to be completed last year, but needed to be pushed back due to contractor scheduling. The seven **air handlers** that serve the library, Mack Olson Gym, cafeteria, kitchen, auditorium and weight room are all over 45 years old and in need of updating. 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 19 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 19 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 **stagecraft and cafeteria bathrooms** are over 45 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 the 2001 and the typical life cycle of a roof is 25 years. Several sections of the roof will need to be repaired this year. The rest of the high school roof will need to be replaced or a waterproof restoration coating added in the next three years. The **parking lots** were resurfaced the summer of 2013. Crack filling and sealcoating will be needed in the next two to four years. 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 and Advising areas. There is not enough space for staff that needs to be in a confidential environment. 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 **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 in the next two years. 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 would not have to rent these in the future and would save money by owning our own. The **synthetic turf** has a typical life cycle of eight to twelve years based on usage. We are budgeting over the next several years to have the money available when the renewal maintenance is due.

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 an 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 45 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

The roof is 19+ years old and many sections are in poor condition and need repair.

Roof replacement/restoration will be needed in the next one to three years.

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.

Dahlquist & Lutzow Architects (DLA Ltd) performed the 10-Year Health Life Safety Survey in April 2015 for GMSN. They provided the district with six “A” items that needed immediate attention and 10 “B” items that need to be addressed this year. The “A” and “B” repairs that were documented on the survey have been sent to ISBE and we are required to repair all code violations in the proper time frame. All “**A**” items were repaired during the summer of 2016.

The **concrete sidewalks and curbs** that were cracking and lifting have been repaired. The **parking lot** was crack filled and sealcoated this year to extend the life of the pavement.

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 **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 14 years old and will need to be replaced due to age, wear and extensive staining. We will be replacing small sections of flooring in phases due to budgeting restrictions. The **VFDs (variable frequency drives)** on the air handling units and pumps are obsolete and repair costs are increasing. Finally, the **parking lot** will need to be sealcoated and crack filled in the next four to seven 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 3 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.

Dahlquist & Lutzow Architects (DLA Ltd) performed the 10-Year Health Life Safety Survey in April 2015 for GMSS. They provided the district with six “A” items that needed immediate attention and 10 “B” items that need to be addressed this year. The “A” and “B” repairs that were documented on the survey have been sent to ISBE and we are required to repair all code violations in the proper time frame. All “**A**” items were repaired during the summer of 2016.

The **concrete sidewalk sections** that were cracking, spalling and heaving causing safety issues have been replaced this past summer. The **parking lot** was crack filled and sealcoated to extend the life of the pavement. The **temperature controls** were converted to the ASHRAE Standard BACnet controls from the outdated and costly Lon Controls. The front **brick knee walls** that were failing have been repaired.

The **contest gym flooring** is showing excessive wear and needs to be resurfaced and sealed next year. 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 **Bryan boilers and primary Taco pumps** are original to the building and are nearing the end of their estimated service life according to ASHRAE. They are in need of replacement within the next two years. The **hot water storage tank** is original to the building and will need to be replaced in the next three years. The **flooring** is 12 years old and will need to be replaced due to age, wear and extensive staining. We will be replacing small sections of flooring in phases due to budgeting restrictions. The emergency **Generator** is 26 years in age and starting to have consistent failures and escalating repair costs. Replacement will be needed in the next three to seven 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 **parking lot** will need to be sealcoated and crack filled in the next four to seven 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.



Boiler Replacement

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

Replace with new high efficiency boilers.



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 80 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.

The **concrete sidewalk sections** that were cracking, spalling and heaving causing safety issues have been replaced this past summer. The **parking lot** was crack filled and sealcoated this year to extend the life of the pavement.

The building is in good shape and will need several upgrades. 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 21 years old and nearing the end of its service life as per ASHRAE. **Flashing repair and tuckpointing** will be needed to address the leaking areas and the cracked and missing mortar joints. The **roof section** that was installed in 2000 will need to be replaced in phases over the next two 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 **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 39 years old.

Replace with energy efficient units.



Air Handling Unit

Needs rebuilding or possible replacement.

New motor, shaft, bearings and controls needed.

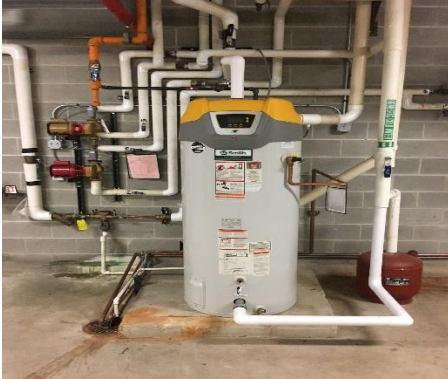


Boiler and Secondary Pumps Replacement

21 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.

The 100- gallon A.O. Smith **hot water heater** tank cracked, and an emergency install was completed on Monday, February 24th, 2020.

The building is in excellent shape and is only in need of a few mechanical and interior improvements. The **roof** was installed in 2000 and 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 several failing sections of the roof. Repairs will be needed this year to address some of those failing sections. 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. Several **interior doors** are damaged and starting to show excessive wear. Nine **cabinet unit heaters** are over 24 years old and in need of replacing. The **gym AHU** is aging and needs to be rebuilt with a new motor, bearings and shaft and the cost will be shared with the Geneva Park District. The two **Bryan boilers** are 30 years old and nearing the end of their estimated service life and will need to be replaced. 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 as an investigative tool when incidents occur.

Western Avenue Elementary School



Cabinet Unit Heaters

9 units are over 24 years old.

Replace with energy efficient units.



Boiler Replacement

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

Replace with new high efficiency boilers.

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.

The **concrete sidewalk sections** that were cracking, spalling and heaving causing safety issues have been replaced this past summer. The **temperature controls** were converted to the ASHRAE Standard BACnet controls from the outdated and costly Lon Controls. The **flashing** and **tuckpointing** repairs have been completed that addressed the leaking areas and the cracked and missing mortar joints. The **Simplex 4020 fire panel** was replaced that was original to the building and starting to have escalating repair costs and consistent breakdowns.

Overall, Mill Creek is in excellent condition and only in need of a couple minor upgrades. **Tuckpointing** will be needed to address the final missing mortar joints and damaged bricks around the building. 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 two **Kewanee boilers and primary boiler pumps** are original to the building and nearing the end of their estimated service life as per ASHRAE. The 85 gallon A.O. Smith **hot water heater** was installed in 2002 and is nearing the end of its expected life cycle. The **flooring is** 11 years old and will need to be replaced due to age, wear and staining within the next three to seven years. We are replacing small sections of flooring in phases due to budgeting restrictions. Eleven **cabinet unit heaters** are over 24 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. Repairs will be needed this year to address some of those failing sections. 100KW emergency **Generator** is 24 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 **parking lot** will need to be crack filled and sealcoated in 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 as an investigative tool when incidents occur.

Mill Creek Elementary School



Hot Water Heater

The 75- gallon A.O. Smith water heater is nearing the end of its life cycle.

Replacement will be needed.



Boiler Replacement

Boilers are 24 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 24 years old and needs to be replaced in the next two to three years.

Escalating repair costs and consistent breakdowns.

Mill Creek Elementary School



Flooring Replacement

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

Life cycle of carpet is 12-20 years.



Tuckpointing

Cracked and missing mortar joints and bricks will need to be repaired.

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.

The **concrete sidewalk sections** that were cracking, spalling and heaving causing safety issues have been replaced this past summer. The **parking lot** was crack filled and sealcoated this year to extend the life of the pavement. **Flashing repair** and **tuckpointing** was also completed to address the leaking areas and the cracked and missing mortar joints.

The building is in excellent shape and there are only a couple of deficiencies that need to be addressed. The two **chilled water pumps** need **variable frequency drives (VFD)**. This will greatly increase energy efficiency and lengthen the life of the pumps. The **flooring** is 18 years old and will need to be replaced due to age, wear and extensive staining. We are replacing small sections of flooring in phases due to budgeting restrictions. 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 three years. 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. Repairs will be needed this year to address some of those failing sections. The roof will also need to be replaced or a waterproof restoration coating added in the next five to seven years. The 230 ton York **chiller** is 18 years old and nearing the end of its service life as per ASHRAE. 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** were installed in 2011 and will need to be replaced within the next five to seven years. 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 **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 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 in the next two to three years.



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

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

Heartland Elementary School



Chiller

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

Repairs are becoming more frequent.

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 HVAC and lighting systems are energy efficient.

FGM Architects performed the 10-Year Health Life Safety Survey in the summer of 2018. They provided the district with three “A” items that needed immediate attention and two “B” items that need to be addressed over the next two to four years. The “A” and “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 **concrete sidewalk sections** that were cracking, spalling and heaving causing safety issues have been replaced this past summer.

FGM Architects conducted a Roof Assessment in the summer of 2019 and found that the **wood trellis/ pergola** by the art room is showing signs of deterioration. The trellis will need to be replaced with a more weather resistant material this year. 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 **parking lot** will need to be crack filled and sealcoated in the next five to seven 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.

Williamsburg Elementary School



Wood Trellis/Pergola

Wood is deteriorating and many damaged sections.

Replace with a more weather resistant material.



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.

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. The HVAC and lighting systems are energy efficient.

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 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 three to seven years. The **parking lot** will need to be crack filled and sealcoated in the next five to seven 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 in the next two to four years.



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 three to seven 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, several office modifications and the Intervention Coordinator's office was added. With the demolition of Coultrap Elementary School in 2013, Fourth Street Administration building was renamed to Coultrap Educational Services Center. The offices were reorganized and updated in 2014-15 for better work flow.

The **tuckpointing** is scheduled to be completed in Spring to address all the cracked and missing mortar joints.

Resurfacing the **parking lot** will need to take place within the next two years. 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 in phases over the course of several years because of budget restrictions. The Quincy **air compressor** that operates the pneumatic HVAC control system is 24 years old and is near the end of its life and will need to be replaced in the next four 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 seven years. The 75-gallon A.O Smith **hot water heater** was installed in 1996 and is at the end of its expected life cycle and will need to be replaced. 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 **Notifier 5000 fire alarm systems** will need to be updated to meet current NFPA code requirements. 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 to three years to ensure proper operation and ADA compliance. 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 to four years. The **parking lot** will need to be crack filled and sealcoated within the next two 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 seven years.

Coultrap Educational Services Center



Air Compressor

24 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 20 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 to three years.



Roof

The roof is 18 years old and many sections are in poor condition.

Roof replacement 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 47 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 **tuckpointing** is scheduled to be completed in Spring to address all of the cracked and missing mortar joints.

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. The **lighting** will need upgrades to replace the inefficient metal halide fixtures in the service and ground shop bays, with new LED fixtures. Resurfacing and drainage improvements to the **parking lot** will be needed within the next four years. The exterior architectural **precast wall panel** has cracked and will need to be replaced. The **parking lot** will need to be crack filled and sealcoated within two years to extend the life of the pavement.

Keslinger Transportation Building



Parking Lot

Pavement starting to crack and breakdown.

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



Lighting Upgrades

Replace inefficient metal halide fixtures with LED fixtures in service bays and ground shop 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 four 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 four years.



Architectural Precast Wall Panel

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

Replacement will be needed within the next two years.

Completed Capital Improvement Plan Projects 2019-20

Projects Approved			
Project	Budget	Cost	Variance
GHS – Gym Floor	\$20,000.00 (20-21 Project)	\$0.00	\$20,000.00
GHS – Roof Repair and Restoration	\$475,000.00	\$248,996.00	\$226,004.00
GHS - Budgeted Future Capital Improvements (Boiler Systems, Burgess Field Turf, etc.)	\$150,000.00	\$150,000.00	\$0
GMSS – Direct Digital Controls Upgrade	\$250,000.00	\$257,308.48	(\$7,308.48)
GMSS – Knee wall Replacement	\$30,000.00	\$25,000.00	\$5,000.00
MCS- Fire Panel Upgrade	\$0.00	\$35,130.00	(\$35,130.00)
MCS – Direct Digital Controls Upgrade	\$230,000.00	\$228,029.00	\$1,971.00
MCS – Tuckpointing and Flashing Replacement	\$250,000.00	\$97,430.00	\$152,570.00
HES- Tuckpointing and Flashing Replacement	\$70,000.00	\$70,000.00	\$0
Transportation- Tuckpointing	\$12,000.00	\$12,000.00	\$0
CESC - Tuckpointing	\$12,000.00	\$12,000.00	\$0
District-Wide – Paving Project/Concrete Repairs	\$0.00	\$200,983.86	(\$200,983.86)
District-Wide – Security Upgrades	\$0.00	\$70,000.00	(\$70,000.00)
Sub-Total	\$1,499,000.00	\$1,406,877.34	\$92,122.66

Capital Improvement Plan Projects 2020-21

60E 300 2540 5110		
GHS		
	Gym flooring (carryover funds from 2019/2020)	\$ 25,000.00
	Roof	\$ 300,000.00
	Boiler system	\$ 100,000.00
	Burgess field turf	\$ 50,000.00
60E 202 2540 5110		
GMSN	DDC controls	\$ 450,000.00
	Health/Life Safety Improvements	\$ 100,400.00
60E 201 2540 5110		
GMSS	Roof	\$ 145,000.00
	Health/Life Safety Improvements (using \$162,000 health/life safety funds for fire shutters)	\$ 387,200.00
60E 102 2540 5110		
HSS	Flashing Repair and Tuckpointing	\$ 50,000.00
	Roof	\$ 325,000.00
60E 103 2540 5110		
WAS	Roof	\$ 317,500.00
60E 104 2540 5110		
MCS	Tuckpointing repair	\$ 70,000.00
	Roof	\$ 250,000.00
60E 105 2540 5110		
HES	Roof	\$ 110,000.00
60E 107 2540 5110		
WES	Wood trellis/Pergola	\$ 30,000.00
	Health/Life Safety Improvements	\$ 51,600.00
60E 500 2540 5110		
CESC	Fan coil and condensing units	\$ 52,500.00

TOTAL \$ 2,814,200.00

Capital Improvement Plan Projects 2020-21

2019-2020 Capital Improvement Carryover	\$100,000.00
Health/Life Safety Funds	\$416,000.00
2020-2021 Capital Improvement Budget	\$1,500,000.00

60E 300 2540 5110		
GHS		
Gym flooring (carryover project from 2019/2020)	\$	25,000.00
Roof	\$	300,000.00
Boiler system	\$	100,000.00
Burgess field turf	\$	50,000.00
60E 202 2540 5110		
GMSN		
Health/Life Safety Improvements	\$	100,400.00
60E 201 2540 5110		
GMSS Roof	\$	145,000.00
Health/Life Safety Improvements (using \$162,000 health/life safety funds for fire shutters)	\$	387,200.00
60E 102 2540 5110		
HSS Flashing Repair and Tuckpointing	\$	50,000.00
Roof	\$	325,000.00
60E 104 2540 5110		
MCS Tuckpointing repair	\$	70,000.00
60E 107 2540 5110		
WES Wood trellis/Pergola	\$	30,000.00
Health/Life Safety Improvements	\$	51,600.00
TOTAL:	\$	1,634,200.00
BUDGET:	\$	1,762,000.00

Additional Projects		
GMSN DDC controls	\$	450,000.00
WAS Roof	\$	317,500.00
MCS Roof	\$	250,000.00
HES Roof	\$	110,000.00
CESC Fan coil and condensing units	\$	52,500.00
ADDITIONAL PROJECTS TOTAL:	\$	1,180,000.00

2020-21 Operations and Maintenance
7 Year Capital Improvement Cost Summary

3/3/2020

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													
Gym flooring	Resurface and seal Mack Olson Gym.	\$ 25,000.00		H	1	Floor showing wear. Was scheduled to be completed in SY 19/20. Pushed back to due to contractor scheduling.	\$ 25,000.00						
Roof	Repair/Replace roof/waterproof restoration coating.	\$ 3,830,099.00		H,M	1,3	Nearing end of life cycle and many failing sections as per FGM Architect Roof Assessment Report.	\$ 300,000.00		\$ 3,530,099.00				
Flooring replacement	Replace worn flooring remaining on the 1st floor areas.	\$ 465,000.00		H,M	1-3	Flooring at least 19 years old. Fraying/Tripping hazard. Replace in phases.	\$ 155,000.00	\$ 155,000.00	\$ 155,000.00				
Auditorium stage and house lighting	Update the entire lighting system.	\$ 250,000.00		H	2	Lighting panel becoming obsolete and parts are no longer available.		\$ 250,000.00					
Office space	Add additional office space in the Deans' and Counseling Advising Office areas.	\$ 78,300.00		H	2	Additional office space needed for staff.		\$ 78,300.00					
Boiler systems	Eventually replace steam boilers with new heating system.	\$ 700,000.00		Budget	1-7	Steam line failed and was replaced Summer 2014. Budgeting funds for system upgrade.	\$ 100,000.00	\$ 100,000.00	\$ 100,000.00	\$ 100,000.00	\$ 100,000.00	\$ 100,000.00	\$ 100,000.00
Air handlers (7)	Need Re-built	\$ 195,000.00		H	2	45 years old.		\$ 195,000.00					
Parking lot	Periodic maintenance; sealcoating	\$ 75,000.00		H	2	Resurfaced/Sealcoated in 2013.		\$ 75,000.00					
		\$ 55,000.00		H	2			\$ 55,000.00					
Retaining wall	Replace failing retaining wall.					Landscape blocks are being pushed forward and tipping over causing a safety hazard.							
DDC Controls	Add as equipment is replaced.	\$ 250,000.00		M	3,4	Convert pneumatic to digital controls.			\$ 125,000.00	\$ 125,000.00			
PVI hot water heaters (500 Gallon) (2)	Replacing 2 - 500 gallon hot water heaters.	\$ 145,000.00		M	4	Typical life cycle of a commercial hot water heater is 12 to 15 years.				\$ 145,000.00			
Make-up Air Unit at 301 McKinley	Replacing current make-up air unit.	\$ 60,000.00		M	4	Installed 1996 and nearing estimated service life according to ASHRAE.				\$ 60,000.00			
Renovate Cafeteria bathrooms	Update	\$ 50,000.00		M	4	45 years old and in need of updating.				\$ 50,000.00			
Renovate Stagecraft area including bathrooms	Update	\$ 50,000.00		M	4	45 years old and in need of updating.				\$ 50,000.00			
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
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
Air compressor	Replacement will be needed.	\$ 35,000.00		L	7	Current air compressor is 19 yrs old.							\$ 35,000.00
Geneva High School-Athletic Areas													
Burgess field turf	Turf renewal maintenance.	\$ 350,000.00		Budget	1-7	Typical life cycle of synthetic turf is 8-10 years. Budgeting \$50K over 10 years. (Totaling \$500K)	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00
Storage shed	Athletic area	\$ 65,000.00		L	6	Needed space for athletic/gym supplies.						\$ 65,000.00	
SECURITY													
Add FOB reader and wiring to Access Control System	Install a FOB to the hallway doors at the Health Office and Band Room.	\$ 29,000.00		M	3,4	Adding this feature will enhance the protection of our assets and reduce the risk of theft.			\$ 14,500.00	\$ 14,500.00			
Interior security cameras	Addition of interior security cameras to monitor, prevent, deter, and Investigate when incidents occur. (Phase 1: Year 3: \$4,000) (Phase 2: Year 5: \$9,000)	\$ 13,000.00		M,L	3,5	Administration identified areas where cameras would be of assistance.			\$ 4,000.00		\$ 9,000.00		
Exterior security cameras	Additional exterior security cameras to monitor, prevent, deter, and investigate when incidents occur. (Phase 1: Year 3: \$ 4,000) (Phase 2: Year 5: \$9,000)	\$ 13,000.00		M,L	3,5	Identified areas in the 2014 ARCON Security Assessment.			\$ 4,000.00		\$ 9,000.00		
Total for GHS		\$ 5,775,099.00					\$ 475,000.00	\$ 475,000.00	\$ 3,827,599.00	\$ 494,500.00	\$ 168,000.00	\$ 150,000.00	\$ 185,000.00
GMS-N													
DDC controls	Replace obsolete control system.	\$ 450,000.00		H	1	Update from Lon to BACnet.	\$ 450,000.00						
The guardrail along the open side of the stair has a height of 36" which is lower than the required 42" height.	Extend the existing guardrail to achieve a minimum overall height of 42 inches in Stair A, B, C, D, E, and F.	\$ 25,000.00		H	1	10 Year HLS "B" Repairs	\$ 25,000.00						
First floor doors have vision panels that are rated 1/3 or 3/4-hour and therefore do not meet the required 1-hour fire-rating.	In Stair C, D and F Replace doors with 1-hour fire-rated doors.	\$ 20,000.00		H	1	10 Year HLS "B" Repairs	\$ 20,000.00						
Doors leading into Storage 171 and out the back of the Platform are not labeled and therefore do not meet the required 3/4-hour fire rating.	In Cafeteria 164 replace the door with a 3/4-hour fire rated door.	\$ 10,000.00		H	1	10 Year HLS "B" Repairs	\$ 10,000.00						
Doors are not labeled and therefore do not meet the required 3/4-hour fire rating.	Technical Education 157 and 156 replace the doors with a 3/4-hour fire rated door.	\$ 15,000.00		H	1	10 Year HLS "B" Repairs	\$ 15,000.00						
Abandon fixtures resulting in sections of unused piping ("dead ends").	Remove abandoned plumbing fixtures from shower and remove unused sections of piping back to mains.	\$ 5,400.00		H	1	10 Year HLS "B" Repairs	\$ 5,400.00						
Door leading to basement does not have a label and therefore does not comply with the 1-hour fire rating requirement for an interior stair.	In Stair C and D replace door with 1-hour fire-rated door.	\$ 5,000.00		H	1	10 Year HLS "B" Repairs	\$ 5,000.00						
Doors leading to the north Team Center are labeled with a 1/3-hour fire rating and therefore do not meet the required 3/4-hour fire rating.	In Library replace doors with 3/4-hour fire-rated doors.	\$ 5,000.00		H	1	10 Year HLS "B" Repairs	\$ 5,000.00						
Door leading into Storage 199B are labeled with a 1/3-hour fire rating and therefore do not meet the required 3/4-hour fire rating.	In White Gym (Storage 199B) replace the door with a 3/4-hour fire rated door.	\$ 5,000.00		H	1	10 Year HLS "B" Repairs	\$ 5,000.00						
Doors leading into Storage 197A are labeled with a 1/3-hour fire rating and therefore do not meet the required 3/4-hour fire rating.	In Blue Gym (Storage 197B) replace the door with a 3/4-hour fire rated door.	\$ 5,000.00		H	1	10 Year HLS "B" Repairs	\$ 5,000.00						

2020-21 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
Exterior security cameras	Addition of exterior security cameras to monitor, prevent, deter, and investigate when incidents occur. (Phase 1: Year 1: \$4,000) (Phase 2: Year 3: \$6,900)	\$ 10,900.00		H,M	1,3	Working in conjunction with the principal and the consultant from ARCON conducting the Security Assessment. Strategic areas were identified for placement of security cameras.	\$ 4,000.00		\$ 6,900.00				
Interior security cameras	Interior cameras are recommended to prevent, monitor, deter, and investigate when incidents occur. (Phase 1: Year 3: \$15,400) (Phase 2: Year 4: \$8,800)	\$ 24,200.00		M	3,4	Administration identified areas where cameras would be of assistance.			\$ 15,400.00	\$ 8,800.00			
Security traffic bollards	Install security bollards outside of the front entrance to provide a barrier.	\$ 4,000.00		L	6	Bollards help provide deterrence and protection for both life and property. Identified in the ARCON 2014 Security Assessment .						\$ 4,000.00	
Total for GMS-S		\$ 1,905,400.00					\$ 532,200.00	\$ 850,000.00	\$ 270,400.00	\$ 98,800.00	\$ 50,000.00	\$ 104,000.00	\$ -
Harrison													
Flashing Repair and Tuckpointing	Repair cracked and missing brick and mortar joints.	\$ 50,000.00		H	1	Needed for leaking areas and cracked/missing mortar joints	\$ 50,000.00						
Roof	Replace roof/waterproof restoration coating.	\$ 650,000.00		H	1,2	Nearing end of life cycle and many failing sections as per FGM Architect Roof Assessment Report. Roof installed 2000. Replace in sections.	\$ 325,000.00	\$ 325,000.00					
Radiant heat-K Wing	Replace with new radiant piping.	\$ 30,000.00		M	3	Short run in glass hallway.			\$ 30,000.00				
Air Handlers (3)	Rebuild with new components.	\$ 150,000.00		M	4	Shell is in good condition.				\$ 150,000.00			
Cabinet Unit Heaters (15)	Replace with new units.	\$ 75,000.00		M	4	Units over 39 years old. Replace as fans fail.				\$ 75,000.00			
Staff lounge	Renovate staff lounge.	\$ 40,000.00		M	4	Renovate staff lounge for adequate teacher space.				\$ 40,000.00			
Server Room AHU	Replace AHU.	\$ 20,000.00		M	4	Nearing end of life cycle as per ASHRAE.				\$ 20,000.00			
Chiller - 80 tons	Replacement will be needed.	\$ 110,000.00		L	5	Chiller nearing end of life cycle as per ASHRAE.					\$ 110,000.00		
Boiler and secondary pumps	Replace with new high efficiency boilers and primary pumps.	\$ 480,000.00		L	6	Nearing estimated service life according to ASHRAE.						\$ 480,000.00	
Parking Lot	Sealcoating and crack filling	\$ 45,000.00		L	6	Extend life of pavement						\$ 45,000.00	
Hot water heater	Install new commercial unit.	\$ 25,000.00		L	7	AO Smith was installed in 2011.							\$ 25,000.00
SECURITY													
Exterior security camera	Addition of exterior security cameras to monitor, prevent, deter, and investigate when incidents occur.	\$ 4,000.00		M	4	Based on an internal Security Assessment additional cameras would be beneficial.				\$ 4,000.00			
Total for Harrison		\$ 1,609,000.00					\$ 375,000.00	\$ 325,000.00	\$ -	\$ 249,000.00	\$ 110,000.00	\$ 525,000.00	\$ 25,000.00
Western													
Roof	Repair failing sections of roof.	\$ 317,500.00		H	1	Roof assessment found several failing sections of the roof.	\$ 317,500.00						
Boiler replacement (2)	Replace with new high efficiency boilers.	\$ 495,000.00		H	2	30-year old boilers are inefficient and nearing the end of their estimated service life as per ASHRAE.		\$ 495,000.00					
Gym AHU	Rebuild with new components. Geneva Park District share costs.	\$ 21,000.00		H	2	Coil replaced in 2009; original in 1964.		\$ 21,000.00					
Piping for hot water and chilled water	Replace failing sections	\$ 300,000.00		M	3	Piping is rusting and beginning to leak.			\$ 300,000.00				
Cabinet unit heaters (9)	Replace with new units.	\$ 45,000.00		M	4	Over 24 years old. Replace as fans fail.				\$ 45,000.00			
Interior doors	Replace damaged doors.	\$ 10,000.00		M	4	Showing excessive wear.				\$ 10,000.00			
Parking lot	Periodic maintenance; sealcoating	\$ 30,000.00		L	5	Sealcoated and crack filled in 2018.					\$ 30,000.00		
SECURITY													
Exterior security camera	Addition of exterior security cameras to monitor, prevent, deter, and investigate when incidents occur.	\$ 4,000.00		L	6	Based on an internal Security Assessment additional cameras would be beneficial.						\$ 4,000.00	
Total for Western		\$ 1,222,500.00					\$ 317,500.00	\$ 516,000.00	\$ 300,000.00	\$ 55,000.00	\$ 30,000.00	\$ 4,000.00	\$ -
Mill Creek													
Tuckpointing repairs	Repair cracked and missing brick and mortar joints.	\$ 70,000.00		H	1	Multiple cracks; leakage into building.	\$ 70,000.00						
Roof	Repair failing sections of roof.	\$ 250,000.00		H	1	Roof assessment found several failing sections.	\$ 250,000.00						
Boiler and primary pump replacement	Replace, install new boiler and primary pumps.	\$ 440,000.00		H	2	24 years old and nearing estimated service life according to ASHRAE.		\$ 440,000.00					
Hot water heater	Install new commercial unit.	\$ 18,000.00		H	2	AO Smith was installed in 2002.		\$ 18,000.00					
Emergency back-up generator	Replace unit.	\$ 75,000.00		M	3	Nearing end of life cycle; consistent repairs and breakdowns.			\$ 75,000.00				
Flooring replacement	Replace over two years.	\$ 350,000.00		M	3,4	Flooring is 11 years old. Replacement needed due to age, wear and staining.			\$ 175,000.00	\$ 175,000.00			
Office cooling system	Install new system for office.	\$ 50,000.00		H	4	Update for energy efficiency.				\$ 50,000.00			
Cabinet unit heaters	Replace due to age.	\$ 50,000.00		L	5	Cabinet unit heaters are over 24 years old					\$ 50,000.00		
Parking lot	Periodic maintenance; sealcoating	\$ 35,000.00		L	6	Sealcoated and crack filled in 2018.						\$ 35,000.00	
SECURITY													
Exterior security camera	Additional exterior cameras to prevent, monitor, deter, and investigate when incidents occur.	\$ 7,000.00		M	3	Based on internal Security Assessment additional cameras would be beneficial.			\$ 7,000.00				
Total for Mill Creek		\$ 945,000.00					\$ 320,000.00	\$ 458,000.00	\$ 82,000.00	\$ -	\$ 50,000.00	\$ 35,000.00	\$ -
Heartland													

2020-21 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
		\$ 810,000.00		H,L	1,5	Nearing end of life cycle and many failing sections as per FGM Architect Roof Assessment Report. Roof installed in 2002.	\$ 110,000.00				\$ 700,000.00		
Roof	Replace roof/waterproof restoration coating.												
Server Room AHU	Replace AHU.	\$ 20,000.00		H	2	Nearing end of life cycle as per ASHRAE.		\$ 20,000.00					
Flooring Replacement	Replace worn carpet and tile throughout school.	\$ 410,000.00		M	2,3	Age of carpet is 18 years-2019-20 school year. Life cycle 12-20 years. Extensive staining and wear.		\$ 205,000.00	\$ 205,000.00				
VFD for chilled water pumps (2)	Install new VFDs.	\$ 12,500.00		M	4	Increase efficiency and motor life.				\$ 12,500.00			
Parking lot	Periodic maintenance; sealcoating	\$ 30,000.00		L	5	Resurfaced/Sealcoated in 2013.					\$ 30,000.00		
Hot water heater	Install new commercial units.	\$ 50,000.00		L	5	AO Smith is nearing end of life cycle.					\$ 50,000.00		
Boiler replacement (2)	Replace with new high efficiency boilers.	\$ 480,000.00		L	7	2 Burnham boilers 17-years old. Inefficient and nearing the end of their estimated service life as per ASHRAE.							\$ 480,000.00
Chiller - 230 tons	Replacement will be needed.	\$ 280,000.00		L	7	Chiller nearing end of life cycle as per ASHRAE.							\$ 280,000.00
SECURITY													
Exterior security camera	Additional exterior cameras to prevent, monitor, deter, and investigate when incidents occur.	\$ 4,000.00		L	6	Based on an internal Security Assessment additional cameras would be beneficial.						\$ 4,000.00	
Total for Heartland		\$ 1,686,500.00					\$ 110,000.00	\$ 20,000.00	\$ -	\$ 12,500.00	\$ 780,000.00	\$ 4,000.00	\$ 760,000.00
Williamsburg													
Wood Trellis/Pergola	Replace with a more weather resistant material	\$ 30,000.00		H	1	Wood is deteriorating and many damaged sections.	\$ 30,000.00						
Public lavatories and hand washing sinks; Water temperature at public lavatories and hand washing sinks exceed 110 degrees and existing master mixing is malfunctioning.	Provide thermostatic mixing valve to prevent water temperature from exceeding 110 degrees and replace master mixing valve.	\$ 34,000.00		H	1	10 Year HLS "B" Repairs	\$ 34,000.00						
Custodian mop basin or service sink; 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 "A" Repairs	\$ 15,000.00						
Kitchen 197; Eye wash station with cold water only.	Provide necessary hot water piping and approved thermostatic mixing valve with cold water bypass.	\$ 1,500.00		H	1	10 Year HLS "A" Repairs	\$ 1,500.00						
Boiler Room 187; Domestic water heaters exhaust pipe condensate drain line does not have a condensate neutralizer kit.	Provide condensate neutralizer kit on each water heater condensate drain line.	\$ 600.00		H	1	10 Year HLS "B" Repairs	\$ 600.00						
Teachers' Workroom 107; Water dispenser does not have any form of backflow prevention.	Provide dual check backflow preventer.	\$ 500.00		H	1	10 Year HLS "A" Repairs	\$ 500.00						
Hot water heater	Install new commercial units.	\$ 50,000.00		L	5	Bradford White is nearing end of life cycle.					\$ 50,000.00		
Parking lot	Periodic maintenance; sealcoating	\$ 30,000.00		L	5	Sealcoated and crack filled in 2018.					\$ 30,000.00		
SECURITY													
Exterior security cameras	Additional exterior cameras to prevent, monitor, deter, and investigate when incidents occur.	\$ 4,000.00		L	5	Preventitive measure to keep the building more secure.					\$ 4,000.00		
Total for Williamsburg		\$ 165,600.00					\$ 81,600.00	\$ -	\$ -	\$ -	\$ 84,000.00	\$ -	\$ -
Fabyan													
Server Room AHU	Replace AHU.	\$ 20,000.00		M	3	Nearing end of life cycle.			\$ 20,000.00				
Hot water heater	Install new commercial units.	\$ 50,000.00		L	5	AO Smith is nearing end of life cycle.					\$ 50,000.00		
Parking lot	Periodic maintenance; sealcoating	\$ 30,000.00		L	5	Sealcoated and crack filled in 2018.					\$ 30,000.00		
SECURITY													
Exterior security camera	Additional exterior cameras to prevent, monitor, deter, and investigate when incidents occur.	\$ 4,000.00		M	3	Based on internal Security Assessment additional cameras would be beneficial.			\$ 4,000.00				
Total for Fabyan		\$ 104,000.00					\$ -	\$ -	\$ 24,000.00	\$ -	\$ 80,000.00	\$ -	\$ -
Coultrap Education Services Center (4th St)													
Fan coil and condensing units	Replace failing units. There are 23 units at \$17,500 each.	\$ 402,500.00		H	1-6	Nearing end of life cycle.	\$ 52,500.00	\$ 70,000.00	\$ 70,000.00	\$ 70,000.00	\$ 70,000.00	\$ 70,000.00	
Fire alarm system	Update fire system.	\$ 75,000.00		H	2	Does not meet current NFPA code requirement.		\$ 75,000.00					
HVAC controls	Upgrading the controls with direct digital controls (DDC).	\$ 125,000.00		H	2	Pneumatic controls discontinued.		\$ 125,000.00					
Elevator Control System Upgrade	Replace system, parts becoming obsolete and no longer available for repairs.	\$ 90,000.00		H	2	Consistant breakdowns and repairs.		\$ 90,000.00					
Parking lot	Resurface will be needed.	\$ 150,000.00		H	2	Sealcoated and crack filled in 2018.		\$ 150,000.00					
Domestic water piping	Replace old piping with copper piping and provide new ball valves for adequate shut-off.	\$ 48,000.00		H	2	Current piping is deteriorating and has excessive amount of rust.		\$ 48,000.00					
Hot water heater and pump	Install new commercial unit.	\$ 15,000.00		H	2	AO Smith was installed in 1996 and at end of life cycle.		\$ 15,000.00					
VFD for furnace	Install new VFD.	\$ 9,000.00		H	2	Currently does not work and it is overridden.		\$ 9,000.00					
Roof	Replace roof/waterproof restoration coating.	\$ 235,000.00		M	4	Nearing end of life cycle and many failing sections as per FGM Architect Roof Assessment Report. Roof installed in 2002.				\$ 235,000.00			
Burner	Burner replacement; Replace with high efficiency burners.	\$ 80,000.00		M	4	20 year old burners nearing the end of their estimated service life as per ASHRAE.				\$ 80,000.00			
Air compressor	Replacement will be needed.	\$ 12,000.00		M	4	Current air compressor is 24 yrs old.				\$ 12,000.00			
Parking lot	Periodic maintenance; sealcoating	\$ 10,000.00		L	7	Sealcoated and crack filled in 2018.							\$ 10,000.00
Total for CESC (4th St)		\$ 1,251,500.00					\$ 52,500.00	\$ 582,000.00	\$ 70,000.00	\$ 397,000.00	\$ 70,000.00	\$ 70,000.00	\$ 10,000.00
Transportation													

2020-21 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
Parking lot	Periodic maintenance; sealcoating	\$ 20,000.00		H	2	Sealcoated and crack filled in 2018.		\$ 20,000.00					
Architectural precast wall panel replacement	Replace cracked precast wall panel.	\$ 40,000.00		H	2	Panel cracked in fall 2016.		\$ 40,000.00					
Lighting upgrades	Replace inefficient mercury vapor lighting.	\$ 15,000.00		M	3	Energy savings with high output T-8/LED lighting.			\$ 15,000.00				
HVAC	Replacing 3 Lenox split systems and 3 Bananza make up air units.	\$ 120,000.00		M	4	Original to building and nearing estimated service life according to ASHRAE.				\$ 120,000.00			
Parking lot	Resurfacing and drainage improvements.	\$ 340,000.00		M	4	Sealcoated and crack filled in 2018.				\$ 340,000.00			
Total for Transportation		\$ 535,000.00					\$ -	\$ 60,000.00	\$ 15,000.00	\$ 460,000.00	\$ -	\$ -	\$ -
	7 Year Total	\$ 15,911,099.00					\$ 2,814,200.00	\$ 3,290,000.00	\$ 4,641,099.00	\$ 1,817,800.00	\$ 1,472,000.00	\$ 896,000.00	\$ 980,000.00
	Year 1	\$ 2,814,200.00											
	Year 2	\$ 3,290,000.00											
	Year 3	\$ 4,641,099.00											
	Year 4	\$ 1,817,800.00											
	Year 5	\$ 1,472,000.00											
	Year 6	\$ 896,000.00											
	Year 7	\$ 980,000.00											
	FUTURE CONSIDERATIONS	\$ 7,934,200.00					\$ 159,000.00	\$ 718,300.00	\$ 654,400.00	\$ 447,500.00	\$ 250,000.00	\$ 565,000.00	\$ 5,140,000.00