



STANTON COMMUNITY SCHOOLS

FACILITY ASSESSMENT
605 ELLIOTT ST
STANTON, IA 51573

August 4, 2023

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STATEMENT OF PURPOSE

KPE has performed a facility assessment of the Stanton Community Schools building which contains grades K-12. The assessment included a visual inspection of the current facility conditions. The focus of the inspection is as follows:

- a. Exterior: site/circulation overview, walls, doors, windows, sealant, and openings.
- b. Roofs: basic roof observation to determine type, age, and general condition.
- c. Interior: floors, ceiling, walls, doors, gym, and kitchen equipment.
- d. Accessibility: ADA assessment, review building and site accessibility.
- e. Mechanical Systems: Heating and Cooling, control systems, ductwork, piping, ventilation, and exhaust systems.
- f. Plumbing waste and vent piping, domestic water piping, plumbing fixtures, water heater and fire protection (where visible).
- g. Electrical Systems: Service entrance, panels, lighting, general receptacles, fire alarm, access control, clock system, phone/intercom/PA system, data network.

This Facilities Assessment will document, categorize, and prioritize the deficiencies. The priorities are based on our initial observations. KPE has developed recommendations and estimate of cost for the individual items. Our recommendations are provided in a manner to extend the expected useful life of the building for around another 20-25 years.

The Facilities Assessment and subsequent recommendations should be considered during any future building projects. Some of the projects may be completed by the school out the annual operating budget, or several of the projects may be bundled and funded as part of a larger project.



EXECUTIVE SUMMARY

The school building was observed with several critical items requiring immediate attention along with many other items that are less critical such as materials and systems in use beyond their rated life expectancy. The following is a brief outline of the critical items discovered during the team's assessment of the facilities.

Critical Items

HVAC/Mechanical

- The family and consumer science classroom dryer exhaust vent should be rerouted to the exterior and not discharge into the range exhaust.
- Insulate piping in the high school boiler room and provide adequate intake opening for combustion air.
- Scope drain line in boiler pit to determine the condition of waste piping. Repair pit concrete for proper drainage.
- The elementary loop pump number number 1 should be replaced as it is not functioning.
- Run water through high school restroom fixtures and floor drains to eliminate sewer smell.
- Scope roof drains with tape to determine if pipe is disconnected or broken.

Electrical

- Work with local electrical utility to replace leaking pad-mount transformer serving school.
- Replace Bulldog Pushmatic and Wadsworth branch circuit panelboards that are original to the 1969 high school building for safety consideration. Bulldog Pushmatic circuit breakers have been reported to have failures when tripping resulting in arcing and potential fire hazards.
- Replace or relamp existing light fixtures throughout facility that are not operational, have damaged or missing lenses, or have lamps with mismatched color temperatures. Clean existing light fixtures that contain debris and dirt.
- Provide new fire alarm system for facility with voice evacuation message system. Provide fire alarm notification appliances in each classroom and common space.
- Provide additional emergency egress lighting in corridors and common areas to maintain a minimum of 1-footcandle along the path of egress.
- Provide exterior emergency egress lighting at building exits that lead to public way.
- Provide secure entry at high school and elementary school main entrances into building. Provide two-way video intercom, card reader, and keypad access control devices.

Beyond Rated Life

Building Exterior/Interior

- Consider replacing the Northwest parking lot.
- Consider roof replacement.
- Consider replacing non-ADA compliant door hardware.
- Consider replacing the worn out / stained carpet.
- Consider replacing the sagging / water stained acoustical ceiling tiles.

HVAC/Mechanical

- Replace three furnaces serving the gymnasium. Code required ventilation should be added when replaced.
- Replace shut-off valves with corrosion for the high school boiler room.
- Replace or refurbish Mcquay air handling unit serving elementary.
- Replace air-cooled condensing unit for elementary AHU.
- Replace three boilers serving elementary.
- Replace elementary pneumatic control system with DDC.
- Replace exhaust fans.
- Replace make-up air unit serving locker rooms.
- Replace exhaust fans (10).
- Replace gas piping.
- Replace 80-gallon water heater in the basement mechanical room, elementary water heater, and locker room water heater.
- Replace shower heads in locker rooms.
- Replace elementary faucets with corrosion.

Electrical

- Provide additional perimeter receptacles in classrooms with inadequate coverage.
- Replace receptacles in 1990 elementary classrooms with tamper resistant devices.
- Replace receptacles in Kitchen, Restrooms, Locker Rooms, and Science lab classroom areas to GFCI devices throughout.
- Consider replacing all receptacles within existing school facility as receptacle wiring devices are subject to wear and tear.
- Replace all existing incandescent, fluorescent, and metal halide lighting fixtures throughout facility with new energy-saving LED style luminaires. Along with a lighting upgrade, replace associated circuiting and lighting controls throughout the facility for maximum energy savings.
- Replace existing high-intensity discharge (HID) ballfield flood lighting with new LED style sports field flood lighting for increased coverage and uniformity.

FACILITY BACKGROUND

The original Stanton school building construction date is unknown. Original drawings for this section of the building were not found in the drawings provided by the school. An addition was built in 1969 and the square footage of the original and 1969 addition is 40,000 square feet. The original and 1969 addition included two levels with the gymnasium/stage, locker rooms, shop, kitchen and concourse on the lower level. The main level included classrooms, media center, and administration area. Another addition was built in 1990 to serve as the elementary school and is approximately 22,000 square feet. The building currently functions as a K-12 school.



OBSERVATIONS/ASSESSMENT

KPE staff toured the facility and discussed with maintenance personnel Bob Reed.

ARCHITECTURAL ASSESSMENT

SITE

- The northwest parking lot by the gym is in poor condition. It has large cracks throughout the parking lot and has had sealant previously applied. The cracks are widespread making patching/repairs difficult.
- The parking lot to the east of the gym and drive is newer and in good condition.
- The concrete playground to the east of the elementary had some minor cracks and is in overall fair condition.
- The entry sidewalk to the elementary and a section of the front sidewalk to the south have been replaced and are in good condition. The rest of the sidewalks have some cracks and are in fair condition.

ROOF

- The roof has a Durolast single-ply rubber membrane except for the elevator section which is EPDM. Bob did not know the age of the roof, however it is estimated at 10-15 years old. A single-ply rubber membrane has a typical life expectancy of 20-25 years.
- No roof cores were taken to identify the potential presence of an older roofing system, the thickness of the existing insulation, the existence of a cover board or if the insulation could potentially be wet.
- The north section had ponding water at the time of visit and other sections showed evidence of ponding water in the past. Prolonged ponding can cause premature deterioration in single ply roofing systems such as this.
- Roof vents and condensers without hail guards displayed potential hail damage. The membrane showed hail spatter, but no functional damage was observed.
- There is no internal access to the roof.
- Several roof drains had tape or a cover around the bottom portion of the roof drain. Bob stated when there is heavy rain, water is found in the north hallway by the fire doors. This tape was installed around the roof drains to slow down the water during heavy rains. A potential cause could be the roof drain is disconnected or broken.
- Other roof drains were observed to have a build-up of dirt and debris around the cover.
- The EPDM roof had a roof drain, and it was missing the cover.
- Joint sealants around several roof penetrations are showing signs of deterioration.
- Quite a few of the flue pipes are very short and should be extended.
- A lot of the rooftop equipment curbs are short and should be raised to help with the roof drainage.

EXTERIOR ENVELOPE / MASONRY

- The exterior wall construction of the original building is comprised of face brick veneer, an air space and painted concrete masonry units (CMU) on the interior.
- Selective tuck-pointing and cleaning of the exterior masonry walls is needed around the building. Some mortar joints need repaired as a result of expansion/ contraction, lack of control joints, and deterioration from moisture/normal wearing.
 - In general, the lifespan of mortar varies due to exposure conditions, and mortar materials, but can typically be expected to last over 25 years to upwards of 50 years or more.

- Joint sealants around the building are showing signs of deterioration.
 - The expected useful life of joint sealants is 10-20 years depending on the type used and the environmental conditions in which it is exposed. Many of the joint sealants have exceeded their expected useful life and should be replaced entirely to prevent future moisture and air infiltration.
- The metal wall panels at the elevator addition were observed to be in good condition.
- The metal under the wall cap flashing in places was showing damage from hail.
- The metal soffit at the front entry to the building was in good condition.
- The wood soffits around the building looked to be in good condition.
- The soffits on the north and east side of the building could use a fresh coat of paint.
- Some penetrations around the building were missing sealant and should be replaced.

DOORS

- Exterior doors and frames at the primary entrances consist of an aluminum framed storefront system with a dark bronze anodized finish and insulated glazing and seemed to all be in overall good condition.
- Hollow metal doors/frames with insulated glazing were observed at multiple locations around the exterior of the building.
 - The paint finish on these doors/frames was observed to be faded. They should be routinely repainted, along with all exposed exterior metals.
- Weather-stripping and door sweeps should be evaluated and repaired at all doors on an annual basis.

WINDOWS

- The exterior windows mostly consist of an aluminum framed storefront system with a dark bronze anodized finish and insulated glazing/insulated panels. There is another type of window at the existing locker rooms.
 - Overall, the windows are all in good condition and there is no sign of broken seals.

INTERIOR WALLS/CEILINGS

- Most of the walls in the original building are painted concrete block (CMU) and painted gypsum wall board (GWB) in the building addition.
- Some walls show minor damage and should be re-painted on a regular basis.
- Most of the bathroom's walls have ceramic tile on them and some of the bathrooms were recently renovated.
- The ceilings throughout corridors and classrooms are a combination of 2'x2' and 2'x4' suspended acoustical tile ceiling (ATC) with metal grid.
 - The ceilings tiles are in average to poor condition. The ceiling tiles are starting to sag and have stains/scuffs/damage.
 - Ceiling tiles typically have an expected useful life of around 20-30 years. The grid can last much longer but is subject to discoloring and minor damage.
 - Replacement of sagging, stained, or damaged tiles may be considered for future routine maintenance.
 - When the tiles are replaced, consideration should be given to converting the ceilings with a 2'x4' metal grid to a 2'x2' metal grid. 2'x2' ceiling tiles tend to perform better over time and exhibit less sagging.
- The ceiling in the kitchen is an acoustical ceiling tile. If the ceiling does not have a washable or cleanable ceiling tile, it is recommended to replace it with one,

- Ceilings in various smaller rooms and vestibules have a smooth and textured plaster ceiling with painted finish. We recommend testing to verify if they contain asbestos.
- Ceilings in select areas are exposed finish:
 - Exposed steel joist/deck at mechanical rooms and storage rooms.

FLOORS

- The flooring types vary throughout the building and are usually dictated by the designated use of the space. The types of flooring documented are concrete, carpet, vinyl tile, wood, ceramic, etc. The wall base is typically 4" tall rubber base, ceramic tile or no base at all.
 - The corridors and classrooms throughout the building were a combination of carpet and vinyl composition tile. The carpet was showing signs of wear and had stains in several locations.
 - Some rooms were observed with vinyl composition tile (VCT) which typically does not contain asbestos and is 12"x12" in size.
 - It is not known if the original VAT is still present under the newer floor coverings.
 - Abatement of the VAT floor tiles is not required due to their overall condition, however - it should be considered as part of a plan to eliminate asbestos from the building. As the flooring begins to deteriorate, or a new floor covering is considered, abatement should be performed.
 - Most of the bathrooms have vinyl composition tile (VCT) floors and there were signs of staining at multiple locations. There are a few with ceramic tile, that were in overall good condition.
 - The wood floor in the gymnasiums were in overall good condition.
 - The walk-off carpets in the vestibule were mostly all in good condition.
 - The quarry tile in the vestibules, and entry was in overall good condition.
 - The terrazzo flooring in the kitchen is in fair condition.
- Several offices and certain classrooms in the building have been covered with carpet. Carpet color and styles vary from room to room and conditions also range from poor to average. The carpet in some of these rooms may have been installed over the original vinyl asbestos tile (VAT).
 - The life expectancy of carpet is 7 to 15 years if it is well maintained and of good quality. Flooring should be reviewed and replaced during routine building maintenance.

INTERIOR DOORS

- Overall, the interior doors were in average condition. Routine maintenance of door and door frames are needed and should be considered during maintenance scheduling.
- Most interior doors consist of the original hollow metal frames with solid-core wood doors.
 - The hollow metal frames and doors are in average condition. Routine painting should be performed.
 - The solid-core wood doors appear to be original and are in average condition. Various types of wear/tear and damage were observed.
 - Many of the doors also contain louvers, which are not allowed under current building codes. Replacement of the doors should be considered with an upgrade project.
 - Most of the door hardware throughout the building is not ADA compliant. Door hardware that is not ADA compliant should be replaced.
- Potential code deficiencies include corridor doors with louvers, non-rated corridor doors, corridor doors without closers, and doors that open entirely into the corridor. These items are typically not allowed by code and may require improvements with future building improvements.

CASEWORK

- Most of the casework observed was in good condition.
- Corridor lockers appeared to be in overall good condition.

HAZARDOUS MATERIALS

The Asbestos Hazard Emergency Response Act (AHERA) and its regulations require school districts to:

- Inspect facilities for asbestos-containing building material.
- Prepare management plans and to take action to prevent or reduce asbestos hazards.

These legal requirements are founded on the principle of “in-place” management of asbestos-containing material. Removal of these materials is not usually necessary unless the material is severely damaged or will be disturbed by a building demolition or renovation project.

Many building materials installed prior to the early 1980s contained asbestos (see list), some of which were observed “in-place” during our inspection:

Cement Wallboard	Pipe Insulation
Cement Siding	Heating and Electrical Ducts
Asphalt Floor Tile	Electrical Panel Partitions
Vinyl Floor Tile	Electrical Cloth
Vinyl Sheet Flooring	Electric Wiring Insulation
Construction Mastics	Chalkboards
Ceiling Tiles and Lay-in Panels	Roofing Felt
Blown-in Insulation	Roll Roofing
Fireproofing Materials	Roof Patching Cement
Taping Compounds (Thermal)	Fire Doors
Laboratory Hoods/Table-Tops	Caulking/Putties
HVAC Duct Insulation	Adhesives
Boiler Insulation	Joint Compounds

A full building survey should be performed prior to moving forward with any major renovation or demolition project.

MECHANICAL/PLUMBING ASSESSMENT

HVAC SYSTEMS

- The original building is served by hot water boilers with radiators around the exterior walls for heating. Mini splits have been added to rooms for cooling.
- The original building does not have ventilation as there is not any air handlers serving the rooms.
- The boilers serving the original building were replaced in 2021. The piping within the boiler room is exposed and should be insulated. Intake/vent piping from previous boilers are cut off within room. The boiler pit for condensate and relief discharge is deteriorating. The drain should be scoped to check the condition of waste pipe and the pit should be repaired for proper drainage. The hot water pump does not have a date but is in fair condition. Shutoff valves around the hot water pump show corrosion and should be replaced. The boilers utilize air intake from the room for combustion and the door to the boiler room has a louver opening. The louver is covered with insulation. The proper size of louver should be determined. Louver can be sealed off with sheet metal in lieu of insulation if necessary.
- The 1969 building is served by gas fired furnaces for heating and mini splits have been added for cooling. Furnace life expectancy is 18 years and split system is 15 years.

- The gym is served by three 125 mbh Lennox furnaces in a closet on the stage and are from 1996. The life expectancy of gas fired furnaces per ASHRAE is 18 years. The gym does not have any air conditioning or ventilation. The gym furnaces are beyond its useful life. Furnaces can be replaced and ventilation/cooling added or another unit such as a rooftop unit can be installed.
- The administration area is served by an Armstrong Air furnace installed in 2021 and has a Renewaire Energy Recovery Ventilator for ventilation.
- The classrooms are served from Armstrong Air furnaces in the basement mechanical room. The furnaces are reported to be 2 years old from Bob. The ductwork is underfloor and serves the rooms above with floor registers. The basement mechanical room also has a Lennox furnace that serves the kitchen. Bob reported this furnace is rarely used as the kitchen gets too warm for the occupants.
- The family and consumer science room has a dryer vent that connects to the exhaust of the range hood over the stove. Lint from the dryer can accumulate in the hot range exhaust with moisture and is a potential fire hazard. The accumulated lint will also reduce the airflow/efficiency of the hood exhaust.
- The elementary is heated and cooled from a VAV reheat system. Bob reported one of the boilers has had a lot of maintenance issues. One of the boilers has had the gas train replaced. These boilers are beyond their useful life of 25 years per ASHRAE and should be replaced. Loop pump number 1 is not currently working according to Bob. Pump #2 has been replaced in the last 5 years.
- One McQuay air handling unit (AHU) with a 15 hp fan serves the entire elementary. Bob reported the AHU has control issues sometimes. The coil has some damage to the fins and the drain pan is showing signs of corrosion. The AHU is original from 1991. Fans have an equipment life of 25 years and coils are 20 years. The AHU is beyond its useful life and should be replaced or refurbished. The AHU has a 60-ton Carrier air-cooled condensing unit for cooling. The condensing unit is past its useful life of 20 years.
- There are VAV boxes above ceiling serving the spaces. Bob reported all boxes have been replaced in the last 5 years. Even though the boxes are newer, Bob also reported some dampers get locked open or shut and cause issues such as feeling heat when the air conditioning is on. These control issues are typical of this system.
- The locker rooms are heated by a Reznor make-up air unit. Nameplate data could not be found; however, the unit appears to be fairly old and is likely beyond its useful life. The insulation on the exterior is damaged and should be repaired.
- The elementary HVAC is controlled by an Alerton pneumatic control system. Maintenance can read values and see errors online. The high school is served by an Altronix control system. Maintenance cannot read values from this system online.
- The kitchen equipment has a kitchen hood for exhaust with an Ansul fire protection system. The dishwasher has a dish hood for exhaust. The hoods are in fair condition.
- There are various exhaust fans located on the roof. Age is unknown, however, most appear older and past their useful life. Life expectancy for a centrifugal fan is 25 years.
- Gas pipe on the roof is old and rusted. Steel pipe life expectancy is around 50 years.

WATER HEATERS

- The 1969 mechanical room has a natural gas 100-gallon RUUD water heater from 2022 and an electric 80-gallon water heater that was manufactured in 1987. The 80-gallon water heater is past its useful life.
- The locker rooms are served by a 6kw 120-gallon State water heater from 2004.
- A 40-gallon electric water is located in the shop and serves the ADA restroom.

- The elementary is served by a 75-gallon natural gas water heater from 1992. This is past its useful life.
- The storage building has a six-gallon electric AO Smith water heater in good condition.

PLUMBING SANITARY/DOMESTIC WATER PIPING

- The 1959 building sanitary waste piping for the building is cast iron and the vent piping is galvanized. The supply piping is copper. Most piping is original to the building with a few repairs completed with PVC piping.
- The 1990 building sanitary piping is chrome-plated brass after fixture into the wall. The main sanitary waste could not be verified but is assumed to be cast iron. The supply piping is copper.
- The building has three separate water service lines. One service enters in the basement and serves the kitchen and downstairs restrooms, one enters in the boiler room and serves the boys and girls restrooms and the third enters in a storage room and serves the elementary addition.
- At the time of site visit there was a sewer smell near the main office and restroom area. Bob stated the smell happens occasionally. The most likely cause is the p-traps could be dry when not used frequently. Water should be ran through the fixture or poured into floor drains (including the back rooms used for storage).

PLUMBING FIXTURES

- The 1969 building has floor-mounted water closets with manual flushometers on the main floor and tank-type toilets in the basement. The lavatories and urinals are wall mounted. These fixtures are all in fair condition.
- An ADA restroom in the basement has been recently completed and is in good condition.
- The shower heads in the locker rooms are in poor condition. It was stated the showers are rarely used.
- The 1990 elementary has wall mount toilets with manual flushometers. Each set of gang restrooms have a wash fountain outside the restrooms and two electric water coolers (EWC). Only one of the EWC includes a bottle filler. The fixtures are in fair condition with the bottle filler being in good condition.
- The elementary classrooms have sinks in the classrooms. Some faucets are showing corrosion and should be replaced.

FIRE PROTECTION

- The building does not have a fire protection system.

ELECTRICAL ASSESSMENT

ELECTRICAL SERVICE AND POWER DISTRIBUTION

- The school's electrical service is fed underground from an existing pad-mount transformer owned by the Southwest Iowa Rural Electric Cooperative. The transformer provides a 120/208V, 3-phase, 4-wire electrical service to the 1969 portion of the facility through a 1200A fusible main switch and switchboard located in the kitchen receiving area. The utility meter, socket, and CTs are located on the transformer enclosure. Evidence of leaking was found at the base of the transformer. (Photo E1).
- There are several branch circuit panelboards throughout the existing facility that are original to the 1969 building and appear to be in poor condition. Replacement parts for these panels are obsolete or no longer available on the market, if required, for any associated renovation work. However, there are distribution panels and panelboards that have been replaced with renovation or building addition projects from the 1990s and 2000s. Most of this equipment appears to be

manufactured by either Square-D or Siemens, both of which are reputable companies that are still in business today.

- The equipment original to the 1969 building is outdated but functional. It appears a lot of the panel labels and panel directories are old and have not been kept up to date with the building renovations. Several directories contain circuits that are handwritten in pencil. Others are applied with a taped label or handwritten marker on the enclosure itself. (Photo E2).
- The distribution equipment within the newer 1990 elementary addition is in good condition and dates to the 1990s and 2000s. Phenolic labels and typed panel schedule directories were observed on most of this equipment. (Photo E3).
- An adequate amount of receptacle devices were observed in the 1990 elementary school classrooms, however, the original 1969 high school building could benefit from more receptacles in each of the classrooms and other common spaces. There was a mixture of original devices recessed into the existing walls along with newer devices that were likely added during interior remodel work via surface mounted boxes and wiremold conduit.
- Ground fault circuit interrupters were observed in select locations required by code but also missing in other key areas such as the Kitchen, restrooms, locker rooms, and Science lab classroom.
- Tamper resistant receptacles were missing from all elementary school classrooms.
- The football field pressbox and baseball field concessions building each have load centers with main circuit breakers that are dedicated to each remote building. Each load center was observed to be manufactured by Siemens, approximately only 12-15 years old, and in good working condition. Each load center had available prepared space for the possibility of additional capacity in the future.

LIGHTING

- Most of the lighting in the facility consists of 2x4 troffers and linear style fluorescent light fixtures with a mixture of 2-lamp, 3-lamp, and 4-lamp F32T8 varieties throughout the main corridors, lobbies, classrooms, cafeteria, and locker room spaces. A small number of incandescent and compact fluorescent recessed downlights were noted in some of the classrooms, lobbies, and locker rooms. (Photo E4).
- Some of the existing fluorescent light fixtures were noticed having cracked, damaged, or missing lenses and missing lamps. (Photo E5 and E6).
- Linear T12 fluorescent lamps are being utilized in the garage areas and kitchen. Replacement lamps are no longer being manufactured and are obsolete. The existing T12 fixtures in the kitchen do not have vapor tight lenses or shatter proof lamps required per National Sanitation Foundation (NSF) safety regulations.
- Given the age of the facility, there is likelihood that some of the existing fluorescent lighting fixtures utilize magnetic ballasts. Old magnetic style ballasts are now known as hazardous waste which also create a damaging amount of electrical emissions. In the upcoming years, certain jurisdictions will require that all magnetic ballasts be mandatorily replaced with national requirements to follow in the near future.
- High-output T5HO fluorescent highbay light fixtures serve the existing gymnasium and provide a uniform lighting level for competition, but manual occupant lighting controls are limited to turning circuit breakers on/off in the panelboard.
- 2x4 LED flat panel light fixtures have recently been added in the administrative area and weight room.
- Emergency lighting is provided by wall mounted bug-eye style battery lighting units and combination emergency exit signs. The school does not have an emergency generator for egress lighting.

- Lighting controls throughout the building are limited to simple manual on/off lighting control within individual spaces. Classrooms were observed to have multiple light reduction switch steps by typically switching individual rows.
- Exterior building mounted lighting consists of a mixture of compact fluorescent, metal halide, and LED wallpacks with varying lamp color temperatures.
- The sports field lighting serving the existing football and baseball field is a type of high-intensity discharge (HID) lighting. The site observation was performed during the day, but no concerns were identified of the performance or intensity of these flood lights during night events.

FIRE ALARM

- The existing fire alarm system is manufactured by Siemens and is a FireFinder XLS control panel. (Photo E7).
- The existing fire alarm control panel is functional. The manufacturer has upgraded technology, but this panel will perform as intended. It was undetermined during the site visit if spare fire alarm zones are available within the panel.
- A remote annunciator panel was seen at the main high school building entrance but not near the newer elementary addition entrance.
- Current code requires a fire alarm system with emergency voice evacuation message system.
- The smoke detector spacing and coverage in the corridors is good. Duct smoke detectors were seen serving large HVAC units.
- There was a good quantity of horns and strobes for occupant notification in common spaces and corridors required by code but no notification appliances were observed in any of the classrooms.
- Manual pull station initiation devices were present at most building exits.

SECURITY/ACCESS CONTROL

- Separate Altronix and Honeywell NetAXS security and access control panels were observed on site. (Photo E8).
- Existing keypads or card readers are located at primary entrances, but not at every exterior door.
- There are surveillance cameras installed within the interior corridors and lobbies. Cameras were also observed on the building exterior. Coverage is adequate for the size of building.
- There is no secured entrance location into the facility or two-way video intercom system near the administration area.

CALL/PAGING SYSTEM

- A Valcom V-2920 20-zone intercom system serves the existing school. (Photo E9).
- A two-way call system is deployed in the classrooms. These rooms have a DuKane surface mounted wall speaker and associated call switch for intercom messaging. (Photo E10).
- Some of the classrooms have separate call switch buttons to communicate with the high school and elementary school separately.
- Corridors and other common public areas of the facility have one-way ceiling mounted speakers for public address announcements.
- The school's overall intercom and call system is in good working order and no issues were reported at the time of the assessment.
- The existing head end equipment is functional serving a mixture of speakers original to the 1969 building and the newer 1990 addition.

DATA NETWORK

- The staff reported that the data network was adequate for their needs. A limited amount of data device outlets were seen in each classroom and other common spaces. However, the facility utilizes numerous ceiling-mounted wireless access points for an almost exclusive wireless facility in lieu of wired network devices.
- Classrooms have a sufficient number of ceiling-mounted wireless access points for teacher workstations and student devices.
- The main head end network data switches and security server equipment are located in a locked room near the administrative offices which limits the potential for tampering with equipment and wiring. (Photo E11).
- A dedicated mini-split air conditioning system serves this data room to help regulate temperature. (Photo E12).

PHOTOS

PHOTO A1

DESCRIPTION:
North West Parking lot Arial Cracks.



PHOTO A2

DESCRIPTION:
Parking lot crack.



PHOTO A3

DESCRIPTION:
Ponding water on roof.



PHOTO A4

DESCRIPTION:
Ponding water on roof.



PHOTO A5

DESCRIPTION:
Ceiling tile stains.



PHOTO A6

DESCRIPTION:
Ceiling tile stains.



PHOTO A7

DESCRIPTION:
Interior non-ADA door hardware.



PHOTO A8

DESCRIPTION:
Worn carpet.



PHOTO M1

DESCRIPTION:

Bathroom cracked tile & missing base.

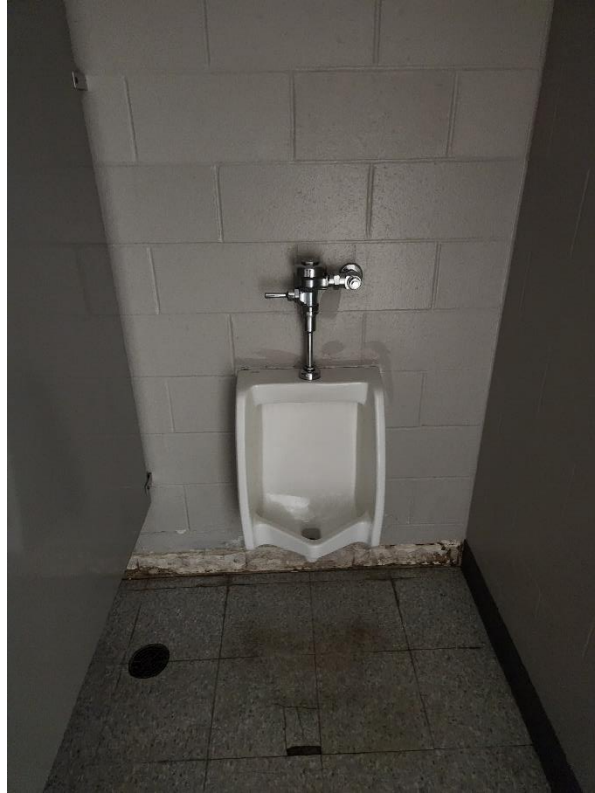


PHOTO M2

DESCRIPTION:

Boiler pit for condensate and relief discharge.



PHOTO M3

DESCRIPTION:
Furnaces serving Gymnasium.



PHOTO M4

DESCRIPTION:
Furnace serving classrooms (typical).



PHOTO M5

DESCRIPTION:
Elementary Boilers.



PHOTO M6

DESCRIPTION:
Loop pump number 1.



PHOTO M7

DESCRIPTION:
AHU serving entire elementary.



PHOTO M8

DESCRIPTION:
60 ton air cooled condenser. Unit serves elementary AHU (M7).



PHOTO M9

DESCRIPTION:

Air compressor serving pneumatic controls.



PHOTO M10

DESCRIPTION:

100 gallon gas water heater (2022).



PHOTO M11

DESCRIPTION:

80 gallon electric water heater (1987).



PHOTO M12

DESCRIPTION:

75 gallon gas water heater serving the elementary (1992).



PHOTO E1

DESCRIPTION:

Evidence of leaking at the utility pad-mount transformer.



PHOTO E2

DESCRIPTION:

Existing panelboard type original to the 1969 building.



PHOTO E3

DESCRIPTION:

Existing panelboard type provided under 1990 building addition.



PHOTO E4

DESCRIPTION:

Typical classroom with 2x4 recessed fluorescent troffer style light fixtures with varying lamp color temperatures.



PHOTO E5

DESCRIPTION:

Fluorescent light fixtures with cracked, damaged, or missing lenses and missing lamps.



PHOTO E6

DESCRIPTION:

Fluorescent light fixtures with cracked, damaged, or missing lenses and missing lamps.



PHOTO E7

DESCRIPTION:
Existing Fire Alarm Control Panel.

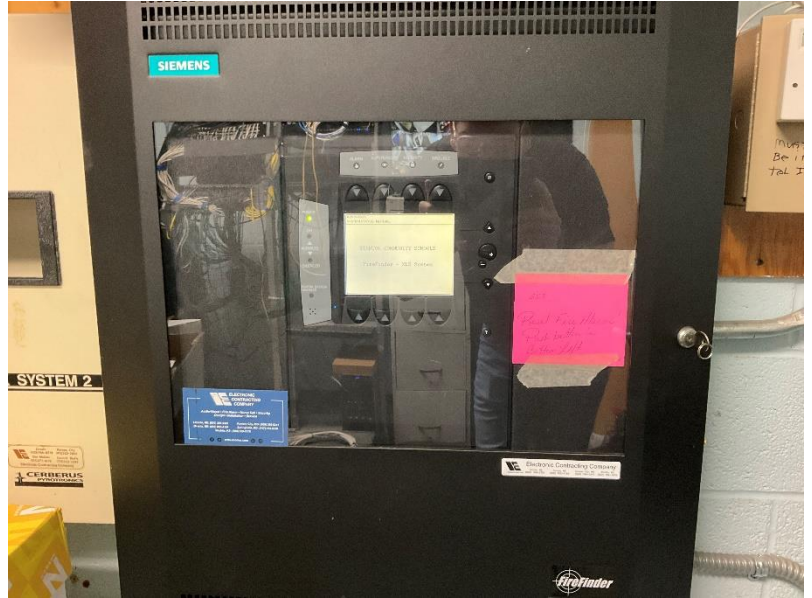


PHOTO E8

DESCRIPTION:
Existing Access Control Panel.



PHOTO E9

DESCRIPTION:

Existing telecommunications board with Valcom intercom system.

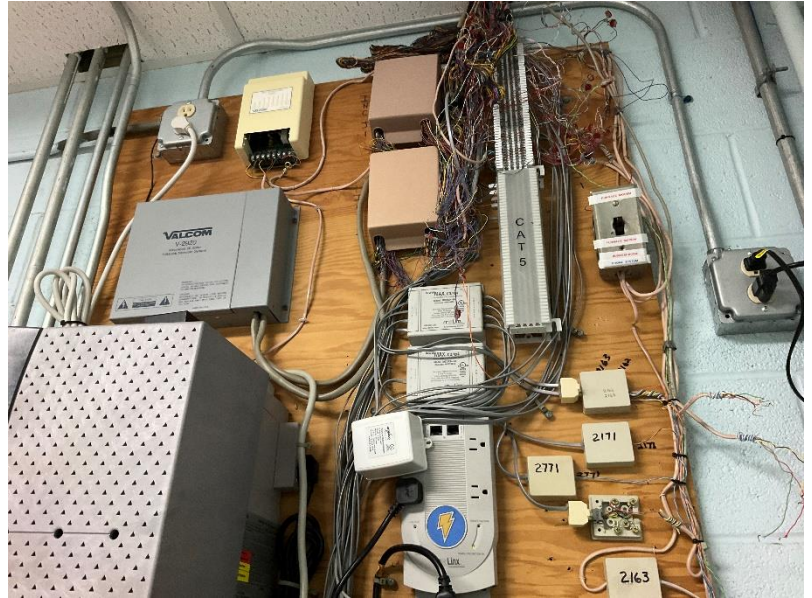


PHOTO E10

DESCRIPTION:

Classroom call system with wall speaker and call switch.



PHOTO E11

DESCRIPTION:

Existing I.T. Room adjacent to Admin area for network head-end equipment.



PHOTO E12

DESCRIPTION:

Mini-split AC unit serving existing I.T. Room adjacent to Admin area.



RECOMMENDATIONS

The following list of recommendations are based upon the conditions observed and documented. In many cases, the items identified may be corrected through routine maintenance. In other instances, the items may be more significant in cost, complexity, or require coordination with other building systems.

The next step will be to identify and prioritize the recommendations. The list should be evaluated for items the school may wish to perform on their own, through the annual operating budget, or by bundling several projects to become part of a larger renovation project.

Critical Items – 1-3 Years

Mechanical Recommendations

- Reroute the dryer exhaust vent located in the family and consumer science classroom to the exterior.
- Insulate piping in the high school boiler room and provide adequate intake opening for combustion air.
- Scope drain line in boiler pit to determine the condition of waste piping. Replace drain line as required. Repair pit concrete for proper drainage.
- Replace elementary loop pump number one.
- Regularly run water through high school restroom fixtures and floor drains to eliminate sewer smell.
- Scope roof drains with tape to determine if the pipe is disconnected or broken. Replace piping as required.

Electrical Recommendations

- Work with local electrical utility to replace leaking pad-mount transformer serving school.
- Replace existing branch circuit panelboards that are original to the 1969 building. Provide new feeder conductors to serve new panels in the same location.
- Upgrade all fluorescent, incandescent, and metal halide lighting to energy efficient LED luminaires.
 - At a minimum, replace or relamp existing fluorescent and incandescent light fixtures throughout facility that are not operational.
 - Replace fluorescent light fixtures throughout the facility that are broken or damaged.
 - Clean existing light fixtures that contain debris, dirt, or insects.
- Install occupancy sensors, manual light reduction controls, dimmer switches, and daylight responsive controls throughout the facility to increase energy efficiency.
- Provide exterior emergency egress lighting adjacent to building exits.
- Provide a minimum of one secured entrance at a main entrance into the building. Provide two-way video intercom, card reader, and keypad access control devices.
- Provide new fire alarm system for facility with voice evacuation. Provide fire alarm notification appliances in each classroom and common space.

Beyond Rated Life – 3-5 Years

Site/Building Envelope Architectural Recommendations

- Consider replacing the Northwest parking lot.

- Consider replacing the worn out / stained carpet. (This could be done as part of the yearly maintenance budget, so it is not included in the OPC. We would suggest that you budget \$30 to \$40 a square yard for this cost.)
- Consider replacing the sagging / water-stained acoustical ceiling tiles. (Since this would be a per ceiling tile cost, we did not include it in the OPC.)

Mechanical Recommendations

- Replace the three furnaces serving the gymnasium. Code required ventilation should be added when replaced.
- Replace corroded shutoff valves in the high school boiler room.
- Replace or refurbish the McQuay air handling unit serving the elementary.
- Replace three boilers serving elementary.
- Replace air-cooled condensing unit associated with the elementary AHU.
- Replace elementary control system.
- Replace the make-up air unit serving locker rooms.
- Replace exhaust fans (10).
- Replace gas piping on roof.
- Replace 80-gallon water heater in the basement mechanical room, elementary water heater, and locker room water heater.
- Replace shower heads in locker rooms.
- Replace corroded faucets in the elementary portion of the building.

***HVAC System Replacement – The VAV boxes for the elementary school have been replaced within the last 5 years, however, the boilers, air handler, condensing unit and one loop pump are all recommended to be replaced and maintenance reported control issues. While we are not recommending a complete replacement of the elementary HVAC system due to new VAV boxes, it should be considered as an option to enhance the overall efficiency and performance of the system. Replacing the aged equipment would provide improvements, but complete replacement can provide an energy efficient solution that is more reliable and has better control than the existing. The cost is not included in this report, but we can provide further information if requested by Stanton Community Schools.

Electrical Recommendations

- To meet current National Electrical Code requirements, replace existing standard 120-volt receptacles with listed tamper-resistant receptacles in elementary classrooms and common areas. Provide additional receptacles and branch circuits, as required, to reduce the need for power strips and extension cords which pose a tripping hazard.
- Replace receptacles in Kitchen, Restrooms, Locker Rooms, Science Lab, and Family Consumer Science areas to GFCI devices throughout.
- Replace existing high-intensity discharge (HID) lighting at football and baseball fields with new LED style sports field flood lighting for increased coverage and uniformity. Provide associated lighting controls for new sports field lighting.

Beyond Rated Life – 5+ Years

Site/Building Envelope Architectural Recommendations

- Consider roof replacement. (The cost in the OPC will be for the entire roof.)
- Consider replacing non-ADA compliant door hardware. (Most of the time it is easier to replace the entire door and hardware, instead of trying to retrofit the existing door with new hardware. So, the cost included in the OPC is to provide a new door and new hardware.)

- Consider replacing the worn out / stained carpet. (This could be done as part of the yearly maintenance budget, so it is not included in the OPC. We would suggest that you budget \$30 to \$40 a square yard for this cost.)
- Consider replacing the sagging / water-stained acoustical ceiling tiles. (Since this would be a per ceiling tile cost, we did not include it in the OPC.)

Mechanical Recommendations

- Replace existing mini-split units.

Electrical Recommendations

- Consider installing a cable tray for routing of all data cabling throughout school corridors.
- Consider purchasing a GPS synchronized wireless clock system for the entire facility.

OPINION OF PROBABLE CONSTRUCTION COSTS

The recommended items for the building have the following Opinion of Probable Construction Cost (OPC). The costs are presented in a low to high range for each recommendation. Costs are difficult to estimate without Schematic Design completed, so the following scenarios are based on limited information, rough square foot costs using previous project information, RS Means Online Estimating, and knowledge of the current volatile construction economy. The cost associated with each recommendation does not include soft costs such as A/E professional fees, legal fees, bidding fees, furnishings, etc.

DESCRIPTION – CRITICAL ITEMS	LOW	HIGH	PRIORITY
1. Reroute dryer exhaust to exterior.	\$250	\$375	1-3 Years
2. Insulate high school boiler room piping and provide intake.	\$6,500	\$8,600	1-3 years
3. Scope boiler drain line and replace line and concrete.	\$1,800	\$2,600	1-3 Years
4. Replace elementary loop pump.	\$14,000	\$20,100	1-3 Years
5. Scope roof drains and replace piping.	\$2,500	\$3,600	1-3 Years
6. Replace original panelboards and associated feeders.	\$105,000.00	\$126,000.00	1-3 Years
7. Upgrade existing lighting to LED and install new energy saving lighting controls. Provide new interior and exterior emergency egress lighting.	\$155,000.00	\$217,000.00	1-3 Years
8. Provide new access control equipment for exterior doors that don't currently have any.	\$20,000.00	\$30,000.00	1-3 Years
9. Provide new fire alarm system with voice evacuation.	\$124,000.00	\$186,000.00	1-3 Years
TOTAL ESTIMATED COST CRITICAL ITEMS	\$429,050	\$594,275	
DESCRIPTION – BEYOND RATED LIFE	LOW	HIGH	PRIORITY
1. Replace Northwest parking lot.	\$260,000.00	\$320,000	3-5 Years
2. Replace gymnasium furnaces.	\$25,000	\$36,000	3-5 Years
3. Replace high school boiler room shutoff valves.	\$3,700	\$4,400	3-5 Years
4. Replace McQuay elementary AHU.	\$120,000	\$160,000	3-5 Years
5. Replace 3 elementary boilers	\$78,000	\$93,000	3-5 years
6. Replace Elementary control system with DDC	\$120,000	\$170,000	3-5 years
7. Replace exhaust fans (10)	\$4,200	\$5,200	3-5 years
8. Replace gas piping on roof	\$24,000	\$28,800	3-5 years
9. Replace locker room make-up air unit.	\$25,200	\$30,300	3-5 Years
10. Replace water heaters.	\$30,300	\$43,600	3-5 Years
11. Replace shower heads in locker rooms	\$5,800	\$8,300	3-5 years
12. Replace elementary corroded faucets.	\$2,000	\$2,800	3-5 Years
13. Replace elementary receptacles with tamper resistant devices and provide GFCI receptacles per code.	\$15,000	\$20,000	3-5 Years
14. Softball Field Lighting	\$140,000	\$160,000	3-5 years
15. Football field Lighting	\$170,000	\$190,000	3-5 Years
TOTAL ESTIMATED COST BEYOND RATED LIFE	\$1,023,200	\$1,272,400	*

DESCRIPTION – BEYOND RATED LIFE	LOW	HIGH	PRIORITY
1. Roof replacement.	\$676,000.00	\$780,000.00	5+ Years
2. Replace non-ADA door hardware (per door).	\$1,000.00	\$1,500.00	5+ Years
3. Replace mini-split units (Each)	\$5,000	\$7,200	5+ Years
4. Install cable-tray in corridors.	\$30,000.00	\$40,000.00	5+ Years
5. Provide GPS synchronized wireless clock system.	\$32,000.00	\$42,000.00	5+ Years
			**

*In order to account for price increases and market inflation, we recommend adding an escalation fee of 3% for each year beyond the initial two years.

** Total cost was not provided as multiple recommendations are based on per unit cost. An escalation fee is recommended for any recommendations in the 5+ years category.