



USD 469

Lansing

Facility Assessments

Summer 2023



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Introduction

This facilities assessment was conducted for USD 469 Lansing as a service provided by DCS Services. Its purpose is to identify the condition of the district's buildings and site locations. This assessment included inspection of building sites, building exteriors, roofs, interior components, mechanical systems, electrical systems, plumbing systems, communication systems, and fire safety systems.

There are 3 phases to the assessment.

In Phase I, JGR Architects, LST Consulting Engineers, and DCS Services completed the following steps to compile this detailed report:

1. Reviewed existing building plans
2. Visited each of the buildings
3. Conducted a site assessment of each building
4. Met with key personnel at each building

In Phase II of the assessment, the major issues of each facility will be listed, recommendations will be made on how to correct the issues, and cost estimates associated with those recommendations will be provided. Also provided in Phase II will be ADA and Life Safety recommendations regarding how to bring each building up to code.

Phase III will provide schematic plans and updated cost estimates associated with addressing facility and district needs.



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Early Childhood Assessment

Summary

Areas of Need:

- ADA Access
- HVAC and Exhaust
- Electrical and Lighting Upgrades
- Roofing
- Brick
- Retaining Walls
- Parking and Concrete
- Soffits
- Flooring
- Windows
- Secure Entrance
- Ceilings
- Interior Finishes

The Early Childhood Assessment

Includes:

1. A building assessment summary completed by JGR Architects. This report ranks existing components as Excellent, Good, Fair, and Poor. The systems evaluated for this report include site, building envelope, and building interior.
2. A Systems Assessment summary completed by LST Consulting Engineers. This report ranks existing systems as Excellent, Good, Fair, and Poor. The systems evaluated for this report include Plumbing, Electrical, Mechanical, Communications, and Fire Safety.
3. The color-coding system utilized in this section is shown below.

4	Excellent	No issues to report. System component should be expected to remain functional for 10 years.
3	Good	System components exhibit wear, but no failures or critical issues are present. System component should be serviceable for 5-10 years.
2	Fair	System components exhibit wear, but no failures or critical issues are present. System component is at or beyond typical life expectancy. Component will likely require repair or replacement within 5 yrs.
1	Poor	System components are worn/damaged. Replacement is recommended.

Early Childhood Assessment

Architecture | Structural | Civil



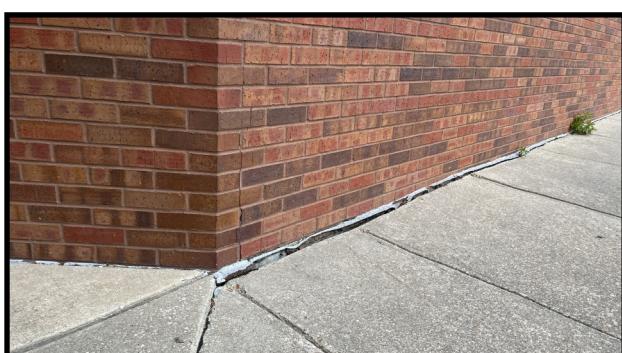
Drives and Sidewalk Access



Drop Off Area



Parking, Loading Area, and Sidewalks



Brick Sidewalks

Site Component	Comments
Parking	1 Drives and sidewalk accesses are worn and damaged.
Parking	2 There is no handicap parking striping and ramp access is non-compliant.
Parking	2 There is no sidewalk protection at drop off area. Bollards or curbs would help protect the sidewalk.
Parking	2 No sidewalk protection at drop off area. Concrete drive is in need of repair.
Parking	2 Handicap parking, stalls, ramp, and signage is non-compliant.
Pavement-Sidewalks	2 Parking area, loading area, and sidewalks are deteriorated and overgrown with weeds.
Pavement-Sidewalks	2 Sidewalks and building joint at sidewalk is overgrown with weeds.
Pavement-Sidewalks	2 Expansion joint at sidewalk is overgrown with weeds.
Pavement-Sidewalks	1 Brick sidewalks are pulling away from the building. There is differential settlement at the sidewalk and minor brick cracking in the corner.
Pavement-Sidewalks	2 Concrete sidewalks are spalling.

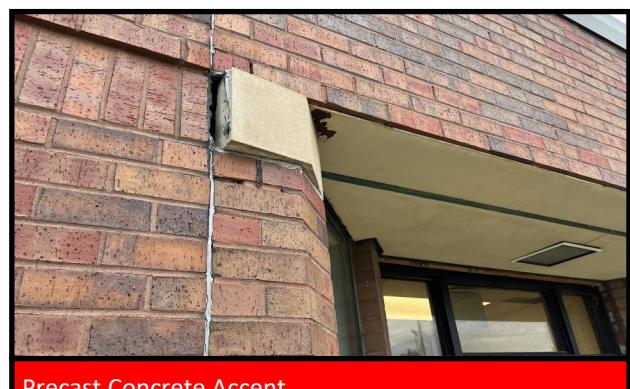
Early Childhood Assessment

Architecture | Structural | Civil

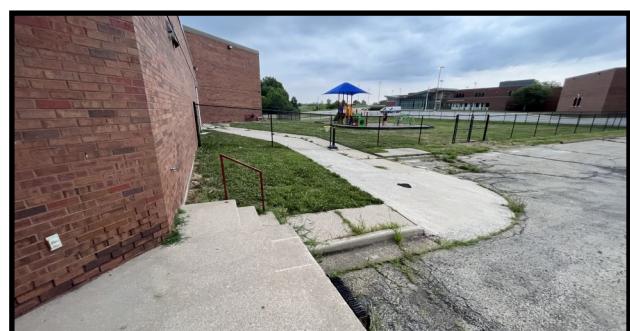
Envelope Component		Comments
Walls-Soffits	2	Deteriorated masonry joints indicate water within the exterior wall. Sidewalk joint at building recommended to be sealed.
Walls-Soffits	2	There appears to be no weep holes within the brick cavity wall.
Walls-Soffits	2	There is brick cracking and movement at the underside of the corner soffit. Paint and rust touch up at the underside of the soffit is necessary.
Walls-Soffits	2	Brick joints have deteriorated and brick has moved at upper corner of wall.
Walls-Soffits	1	Precast concrete accent at the underside of the lintel has shifted, causing large gap at the wall.
Walls-Soffits	2	Steel lintel has rusted at underside of soffit. There appears to be no flashing or weep holes at the brick.
Walls-Soffits	2	Evidence of water damage with rust at the lintel, and effervescence at the brick.
Walls-Soffits	2	Effervescence at the brick wall, likely caused by water damage.
Miscellaneous	1	Damaged brick at lower section of wall. Non-compliant railings at loading dock stair.
Miscellaneous	3	Playground equipment appears to be in good condition. There is yardwork and writing in the grass area that may need addressed.
Miscellaneous	2	There is erosion under the sidewalk adjacent to the stair. Railings are non-compliant.
Miscellaneous	1	The railroad tie retaining wall is shifting and may be unsafe.
Miscellaneous	1	Playground retaining wall is deteriorated and appears unsafe.
Miscellaneous	2	There is no protective railing at retaining wall in excess of 3 feet tall.
Miscellaneous	2	Sidewalks and lower portion of concrete wall are deteriorated.



Exterior Brick Wall



Precast Concrete Accent



Damaged Brick at Lower Wall Section



Playground Retaining Wall

Early Childhood Assessment

Architecture | Structural | Civil



Lintels, Window Sills



Window Frame and Glazing



Roof Finish



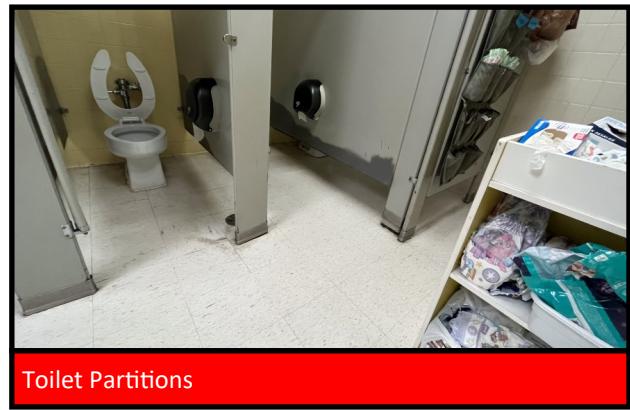
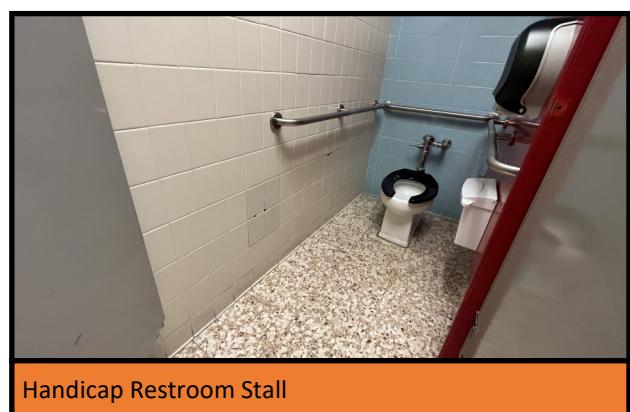
Metal Roof

Envelope Component	Comments
Miscellaneous	Lintel and soffit finish are rusted and damaged. No lens at light fixture.
Windows-Doors	Lintel wall and window sills are deteriorated and need repair.
Windows-Doors	There is a large gap between the soffit and the door frame. General door damage as well.
Windows-Doors	Window frame and glazing is in poor condition.
Roof	Roof finish is damaged. Thorough and detailed roof inspection is recommended.
Roof	Roof finish is peeling. Dark areas of roof indicate significant ponding may be an issue.
Roof	Significant peeling and blistering of roof finish.
Roof	Metal roof appears to be damaged.
Roof	Roof flashing sealant has been heavily applied. Roof transition cants appear worn.
Roof	Corner of roof appears to experience significant ponding. Roofing granules have collected in large areas. Roof membrane appears deteriorated.
Roof	Roof granules have collected in large areas.
Roof	Wood expansion joint covering is damaged with exposed nails.
Roof	Roof at screened equipment area is blistered, and traffic mats are deteriorated.
Roof	Metal wall panel at equipment room has significant gap.
Roof	Roof penetrations appear to be at areas of ponding water. There appears to be minimal flashing at penetrations.

Early Childhood Assessment

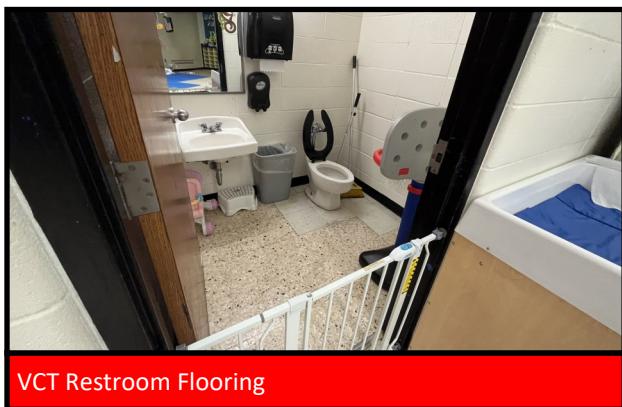
Architecture | Structural | Civil

Interior Component		Comments
Accessibility	3	Accessible drinking fountains installed. Damaged wall behind.
Accessibility	3	Accessible handwashing provided. There is no low sink for kids, have a stool for access. Potential hazard.
Accessibility	2	Handicap stall with grab bars is narrow.
Accessibility	2	Handrails at ramp are located at only one side.
Accessibility	3	Small restroom with low fixtures has room for assistance of kids.
Accessibility	4	Handrails provided at stair.
Aesthetics	2	Floor finish is worn and dated.
Aesthetics	3	VCT floors appear in good condition.
Aesthetics	2	Light fixtures are damaged and discolored. Ceiling tiles are dirty at air registers.
Aesthetics	1	Toilet partitions and floors are damaged at water closet area.
Aesthetics	1	Walls, floors, and door are in poor condition. Door does not have accessible hardware.
Aesthetics	1	Floor at multi purpose play area is aged. Floor is not cushioned as recommended for children's play.
Aesthetics	1	Ceilings are damaged, discolored, and water stained.
Aesthetics	2	Floor tile and toilet partitions are damaged. VCT joints and wall transitions are dirty.
Aesthetics	2	Ceilings are damaged and light fixtures appear loose at the ceiling.



Early Childhood Assessment

Architecture | Structural | Civil



Interior Component	Comments
Floors	3 VCT floors appear in good condition. Loose rugs may be a trip hazard.
Floors	3 VCT floors and ceiling at entry appear in good condition.
Floors	3 Floor at hallway appears in good condition.
Floors	2 VCT floors are not recommended or permitted by code at bathrooms. Joints and wall transitions are dirty and unsanitary.
Floors	3 Floor is in good condition. Loose rugs may be a trip hazard.
Floors	3 Quarry tile floors are in general good condition. This type of floor is quite bumpy for transporting carts.
Floors	1 Multipurpose room floor is aged, cracking, and not cushioned.
Floors	2 Loose rug at play area is a trip hazard.
Floors	2 Floor base is damaged.
Floors	1 VCT floors are not recommended or permitted by code at toilet areas. Floor joints are dirty and unsanitary.
Floors	3 Floor appears in good condition. Loose rug may be a trip hazard.
Floors	1 Floor is damaged underneath drinking fountain.
Floors	2 VCT floor appears settled and cracked at area previously infilled.
Windows-Doors	2 Non-rated doors at hallways. Doors are not on closures or gasketed.
Windows-Doors	1 Window is inefficient single pane system.

Early Childhood Assessment

Architecture | Structural | Civil

Interior Component		Comments
Windows-Doors	1	Floor is damaged at doorway. This may be due to water infiltration.
Windows-Doors	2	Floor transition is loose and uneven.
Windows-Doors	2	Bottom of door and door frame are damaged.
Life Safety	1	There appears to be no emergency lighting in long corridor.
Life Safety	4	Hood is adequately sized for kitchen equipment.
Life Safety	2	Emergency lighting does not appear to be provided.
Miscellaneous	2	There is no secure or access controlled entry at main building entrance.
Miscellaneous	2	Interior partition walls are only constructed to and supported by ceiling tile.
Miscellaneous	2	Base of wall and floor base have some minor damage.
Miscellaneous	2	Walls are constructed only to underside of ceiling. Unclear if emergency lighting is provided in several areas.
Miscellaneous	2	Countertops, sinks, and fixtures are stained and deteriorated.
Miscellaneous	1	Ceilings are stained throughout.
Miscellaneous	2	Lower section of wall has holes throughout. Appears to have been exterior wall, these may have been weep holes that have been retained. Water infiltration would cause standing water at the floor.



Early Childhood Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety



Water Closets



Lavatories



Drinking Fountains



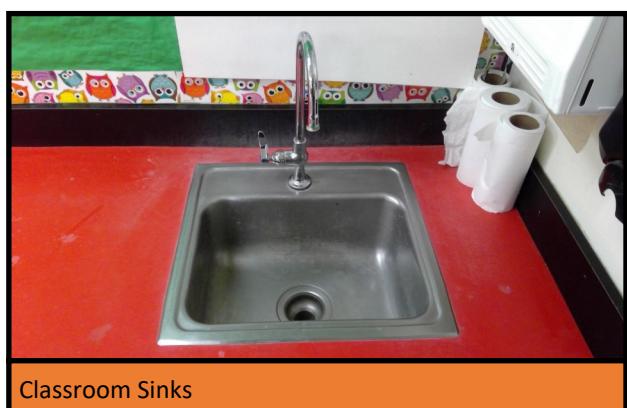
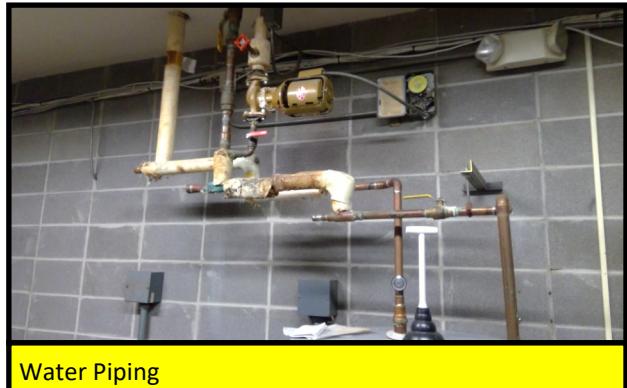
Circulation Pumps

Plumbing Component	Comments
Water Closets	3 Floor mount manual flush valve.
Urinals	3 Wall mount manual flush valve.
Lavatories	3 Wall hung lavatories with two handle manual faucets.
Drinking Fountains/ Water Coolers	3 ADA height units with bottle fillers.
Janitor Sinks	3 2x2 floor mount sink with wall mount faucet; ensure faucet is provided with vacuum breaker.
Roof Drains/Overflow Drains	3 Roof drains and overflow drains with cast iron dome strainers in good condition.
Water Heaters	3 2014 electric water heater.
Circulation Pumps	3 Inline circulator showing signs of corrosion.

Early Childhood Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety

Plumbing Component	Comments
Drainage Piping	3 Cast iron and PVC piping; no known issues.
Water Piping	3 Copper piping where visible. Water in this area is quite hard and no water softener was noted on site which could lead to premature degradation of plumbing fixtures.
Gas Piping	3 Schedule 40 black steel piping.
Classroom Sinks	2 Stainless steel drop in sinks with manual faucets. Recommend replacement of faucets with lever handle for ease of use.
Wash Fountains	2 Wall hung sensor operated fixtures. Outlets exhibit extremely low flow, likely due to sediment build up.
Kitchen Sinks	3 Commercial type stainless steel sinks.
Grease Interceptor	3 Indoor grease interceptor. Location makes cleaning difficult; ensure regular maintenance for proper operation.

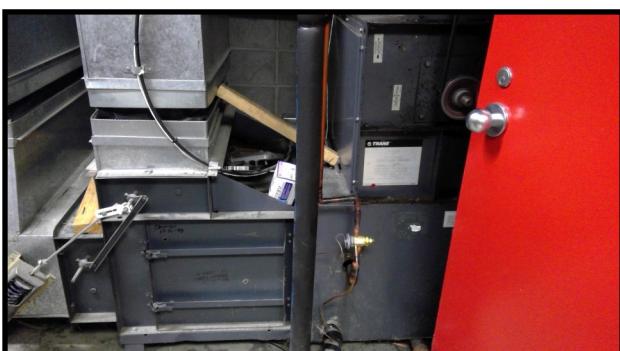


Early Childhood Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety



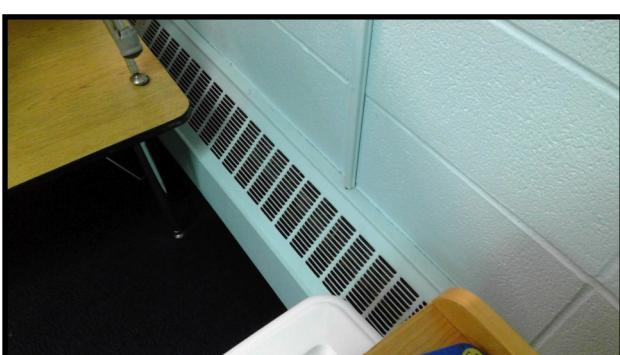
1985 Addition Condensing Units



1985 Addition Air Handling Units



1970's Air Handling Unit



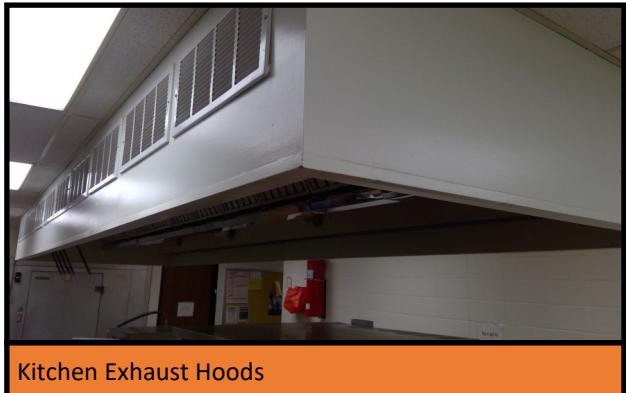
Baseboard Heaters

HVAC Component	Comments
Building Automation System	3 Automated Logic controls for all buildings in district. Some units on standalone thermostats. Recommend integrating all equipment into BAS control system.
1985 Addition Condensing Units	2 Residential style condensing units. One unit is new and in good condition. Second unit is 40+ years old and well beyond expected life.
1985 Addition Air Handling Units	2 Trane horizontal air handlers 40+ years old are well beyond expected life.
Original Building Condensing Unit	2 2003 Condensing unit is approaching end of expected life.
Original Building Air Handling Unit	1 1970s air handler located in rooftop penthouse is beyond expected life.
VAV Boxes	1 VAV boxes were not visible on walk through; if original to building, equipment is beyond expected life.
Baseboard Heaters	2 Electric baseboard heaters; recommend improved controls for thermostatic operation of heaters.

Early Childhood Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety

HVAC Component	Comments
Heating and Ventilating Unit	1 Heating and ventilation unit with electric heater for kitchen hood make up air is beyond expected life.
Kitchen Exhaust Hoods	2 Kitchen exhaust hood with ansul system appeared to be in good condition. Recommend test and balance to ensure proper airflow; exhaust fan is beyond expected life. Dishwasher exhaust ducted to outdoors.
Ventilation Air	3 Via Air handler. Configuration of outside air intake does not allow for accurate balancing of outside air to individual spaces.
Air Distribution Ductwork	3 Sheetmetal rectangular.
Unit Heaters	3 Electric wall heaters; some superficial damage to grates.
Exhaust Fans	2 Rooftop exhaust fans beyond expected life.
HVAC Piping Insulation	2 Exterior refrigerant piping insulation is damaged/missing where visible.



Kitchen Exhaust Hoods



Kitchen Exhaust



Unit Heaters



HVAC Piping Insulation

Early Childhood Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety



Branch Circuit Panelboards



Fluorescent Lighting



Gymnasium Lighting



Exterior Building Mounted Lighting

Electrical Component	Comments
Switchboards	4 1600A 480V-3ph Siemens SB3 switch-board.
Branch Circuit Panelboards	2 Obsolete Federal Pacific panels. Recommend replacement with new. Some new GE A-Series panels in good condition.
Enclosed Disconnect Switches	3 Heavy duty square D disconnects in NEMA 3R enclosure.
Feeders	3 Rigid EMT where visible. Some MC cabling utilized.
Wiring Devices	3 Devices appear to be commercial specification grade with stainless steel or nylon cover plates. Snap switches are rated for 20 amps, and receptacles rated for 15 amps.
Ambient Lighting	2 Surface mounted and recessed T8 Linear Fluorescent is in serviceable condition. Consider replacement with LED for improved efficacy and energy savings.
Gymnasium Lighting	2 Recessed T8 Linear Fluorescent is in serviceable condition. Consider replacement with LED for improved efficacy and energy savings.
Emergency Lighting	3 Twin head unitary emergency lights with integral battery backup.
Exit Signage	3 Thermoplastic exit signs with red LED letters and integral battery backup.
Exterior Building Mounted Lighting	2 Compact fluorescent and HID wall packs and surface canopy lights. Consider replacement with LED.
Parking Lot Lighting	2 Pole mounted fixtures with LED replacement lamps; source of power unknown. Recommend investigation to determine how to safely disconnect power for servicing fixtures.

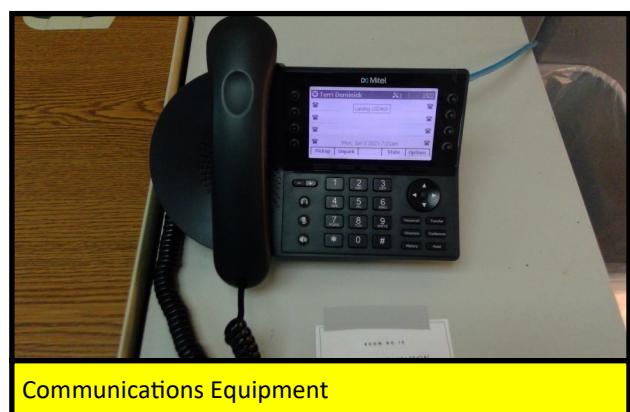
Early Childhood Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety

Communications Component		Comments
Communications Raceway Systems	3	Cabling installed loose overhead and concealed inside walls. Some surface raceway is present.
Data/Network System Equipment	3	Category 5/5e patch panels wall mounted I.T. racks.
Data/Network Horizontal Cabling	3	Category 5e/6 UTP copper cabling from patch panels to wall outlets.
Data/Network Outlets	3	Category 5e/6 RJ45 jacks in nylon wall outlets.



Data/Network Outlets



Communications Equipment

Early Childhood Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety



Fire Alarm Control Panel

Fire Alarm Component	Comments
Fire Alarm Control Panel	3 Simplex 4010 control panel.
Smoke Detectors	3 Ceiling mounted spot type area detectors.
Manual Pull Stations	3 Single action stations at exits.
Notification Appliances	3 Ceiling and wall mounted strobes/horns.



Smoke Detectors



Manual Pull Stations



Notification Appliances

Lansing Elementary School Assessment

Summary

Areas of Need:

- Fire Alarm
- HVAC
- Roof
- Ceilings & Wall Damage
- Lighting Upgrades
- Concrete & Paving
- Playground Surface/Curbings
- Flooring

The Lansing Elementary School Assessment

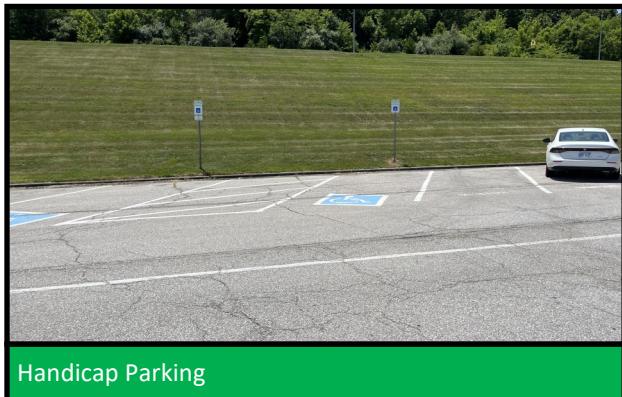
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Lansing Elementary School Assessment

Architecture | Structural | Civil



Site Component	Comments
Parking	4 Handicap parking is well identified with striping and signage.
Parking	2 West and North parking areas need surfacing repair and sealing.
Pavement-Sidewalks	3 Sidewalk warning devices are provided. Some repair and driveway repair is necessary.
Pavement-Sidewalks	1 Sidewalk is damaged. Requires repair and level where there is differential settlement.
Pavement-Sidewalks	1 Sidewalk at exterior door is deteriorated.
Pavement-Sidewalks	1 Sidewalk warning devices and drive need repair.
Pavement-Sidewalks	2 Sidewalk needs repaired. There is no sidewalk protection at drive and drop off area.



Lansing Elementary School Assessment

Architecture | Structural | Civil

Envelope Component		Comments
Walls-Soffits	2	Brick control joints should be resealed.
Walls-Soffits	3	Brick and masonry sills in generally good condition. Resealing is needed at many control joints.
Miscellaneous	3	No rust at lintels. Some paint scraping and touch up is necessary.
Miscellaneous	2	Gate gets stuck on asphalt.
Miscellaneous	3	Blacktop surface in good condition. Ramp access to playground is provided.
Miscellaneous	2	Playground curbing system does not contain the cushion material within the curbed area.
Windows-Doors	2	Brick tuckpointing and paint touchup at lintel is necessary.
Windows-Doors	3	Exterior windows appear in generally good condition.
Roof	2	Modified Bitumen roof, appears aged and worn.
Roof	3	Gas pipe support appears secure.
Roof	2	There is debris on roof. Roof is worn with large areas of aggregate collected.
Roof	2	There appears to be water damage at brick wall at duct penetration.
Roof	3	Roof to wall transition is well flashed. Roof is worn and dated.
Roof	2	Roof is worn and dated with cracking and blistering at some joints.
Roof	2	Appropriate roof curb not provided at condenser. Wood is deteriorated.



Brick Control Joints



Playground Curbing System



Modified Bitumen Roof



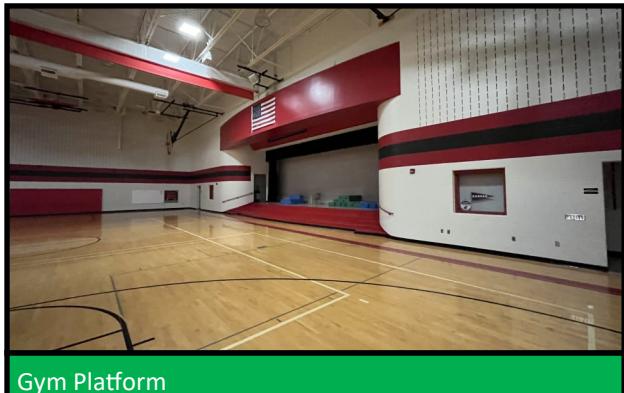
Roof Cracking and Blistering

Lansing Elementary School Assessment

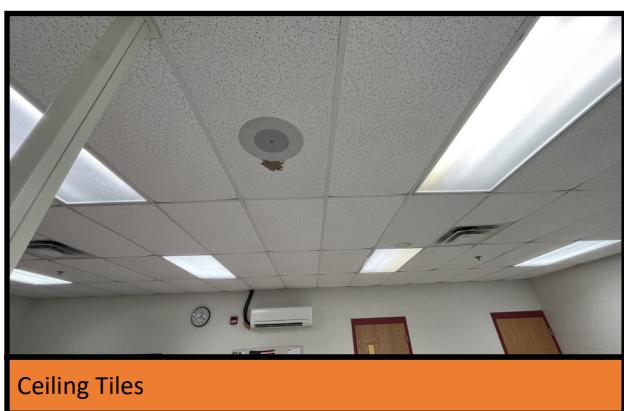
Architecture | Structural | Civil



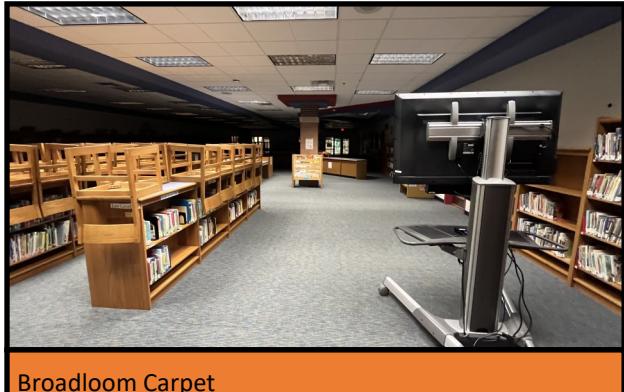
Reception Area



Gym Platform



Ceiling Tiles



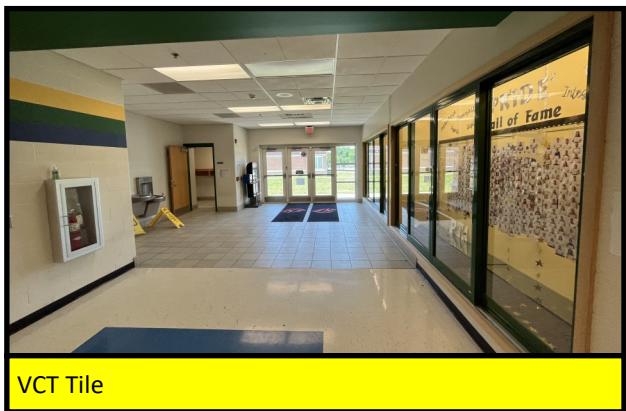
Broadloom Carpet

Interior Component	Comments
Accessibility	4 Handicap accessible space at reception area.
Accessibility	4 Handicap restroom stall is compliant with ADA.
Accessibility	4 Library reception and check out desk is handicap accessible.
Accessibility	4 Platform area at gym has accessible railings at the side stair entrance. Ramp access from the other side.
Accessibility	4 Access to food service line is accessible.
Accessibility	3 Restroom lavatories are ADA accessible. Paper towel dispensers exceed 4 inch projection limit for ADA compliance.
Aesthetics	2 Some sagging and stained ceiling tiles. Building finishes are generally in good condition.
Floors	3 Ceramic tile floors at entries are in good condition. Loose mats are used at the floor, which may be a tripping hazard.
Floors	3 VCT floors at corridors are in generally good condition.
Floors	3 Ceramic tile floors at handwashing stations are in good condition.
Floors	2 Broadloom carpet at media center and other areas is in fair condition. It is older and there is some fraying at carpet seams.
Floors	3 The wood gym floor is in good condition, needing only routine maintenance.

Lansing Elementary School Assessment

Architecture | Structural | Civil

Interior Component	Comments
Floors	1 There is missing ceramic tile base at restroom floor. Discoloration, dirt, or possibly mold at the joint line in the wall.
Floors	2 There is some cracking and settlement at VCT floor outside of classroom door. This is likely at a building control or expansion joint.
Floors	3 Hallway VCT and ceramic tile is in good condition. Loose mats at doorways may be a trip hazard.
Floors	3 There is VCT floor settlement and cracking at doorway. This is likely at a building joint. This could be addressed by a floor expansion joint cover.
Windows-Doors	3 Exterior windows in classroom and office in generally good condition.
Windows-Doors	4 Hallway windows, extending to floor, are in good condition. No evidence of rusting at base of hollow metal frames.
Windows-Doors	4 Building compartment doors are fire rated.
Windows-Doors	1 There are leaks at the exterior wall and soffit at the large common area entry.
Windows-Doors	2 Window trim is loose in areas and needs minor corrective work.
Windows-Doors	2 Window trim is peeling and needs corrective work. Windows should be checked to ensure that water infiltration is not the source of this damage.
Windows-Doors	3 Ceramic tile entry floors in good condition. Loose rugs may be a trip hazard.

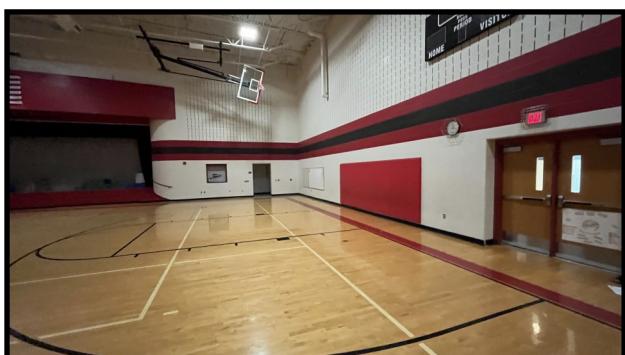


Lansing Elementary School Assessment

Architecture | Structural | Civil



Sprinkled Building Compartments



Staining at Top of Wall and Roof Transition



Leaks at Yellow Soffit and Exterior Wall



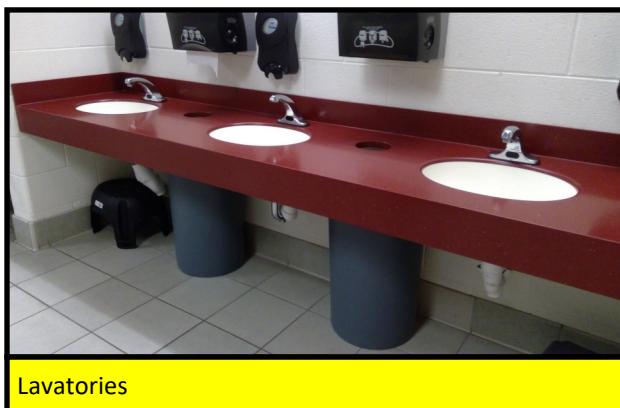
Leaks—Stained Ceiling Tiles and Lights

Interior Component	Comments
Life Safety	4 Building is sprinkled and building compartments appear to be separated by rated construction.
Life Safety	4 Fire rated doors are provided at areas required by code.
Life Safety	4 Kitchen hood appears adequately sized to properly cover cooking equipment.
Life Safety	4 Rated doors with hold open devices, integrated with fire alarm are provided building compartments.
Miscellaneous	2 There appear to be some staining at top of wall and roof transition. Verify and repair source of leaks.
Miscellaneous	1 There are leaks at the yellow soffit and exterior wall causing blistering and peeling paint. Leaks should be corrected immediately.
Miscellaneous	1 Blistering at soffit and peeling paint appears to be caused by leaks above soffit.
Miscellaneous	2 Kiln does not appear to be properly installed with venting hood.
Miscellaneous	1 There are leaks at ceiling tiles and lights.
Miscellaneous	1 Leaks at ceiling and wall have damaged the wall cabinets.

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Lansing Elementary School Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety

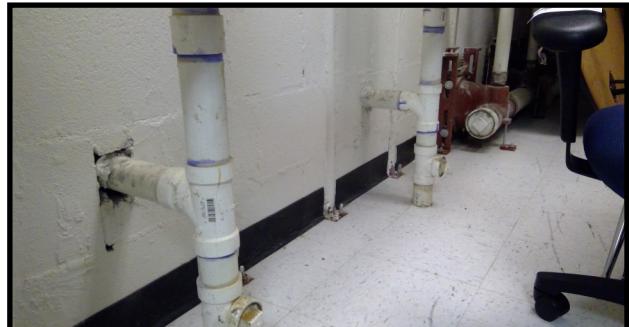


Plumbing Component	Comments
Water Closets	3 Wall mount manual and sensor flush valve.
Urinals	3 Wall mount sensor flush valve.
Lavatories	3 Wall hung and self rimming lavatories with sensor operated faucets.
Drinking Fountains/ Water Coolers	3 ADA height units; some with bottle fillers.
Janitor Sinks	3 2x2 floor mount sink with wall mount faucet; ensure faucet is provided with vacuum breaker.
Roof Drains/ Overflow Drains	3 Roof drains and overflow drains with cast iron dome strainers in good condition.
Water Heaters	2 2007 Tankless gas fired boiler nearing end of expected life. 2021 gas fired high efficiency tank type water heater in good condition.
Circulation Pumps	3 Inline circulators at all water heaters.

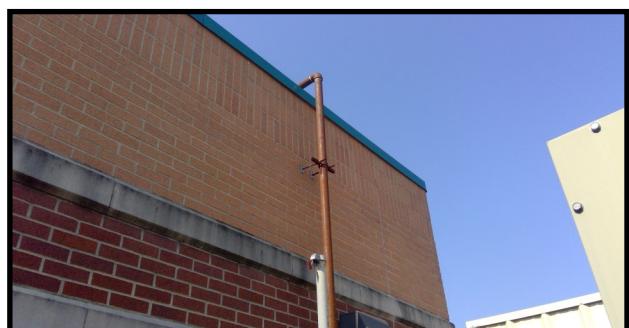
Lansing Elementary School Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety

Plumbing Component	Comments
Drainage Piping	3 Cast iron and PVC piping; no known issues.
Water Piping	3 Copper piping where visible.
Gas Piping	3 Schedule 40 black steel piping. Rooftop supports in good condition.
Classroom Sinks	3 Stainless steel drop in sinks with manual faucets.
Water Softener	3 Whole building water softener system in main mechanical room.
Kitchen Sinks	3 Commercial type stainless steel sinks.
Grease Interceptor	3 2500 gallon precast concrete exterior interceptor. Ensure regular maintenance for proper operation.
Emergency Eye Wash	3 Eye wash station located in kitchen.
Fire Protection System	3 Fire protection system provides complete coverage.



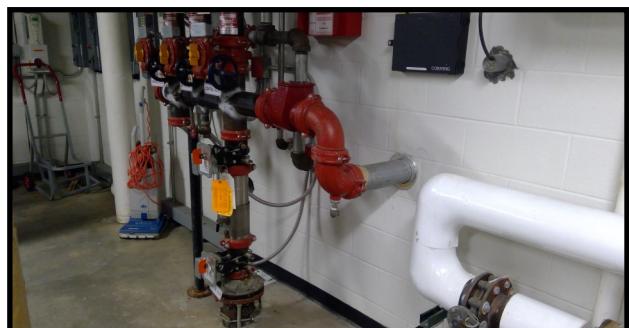
Drainage Piping



Gas Piping



Classroom Sinks



Fire Protection System

Lansing Elementary School Assessment

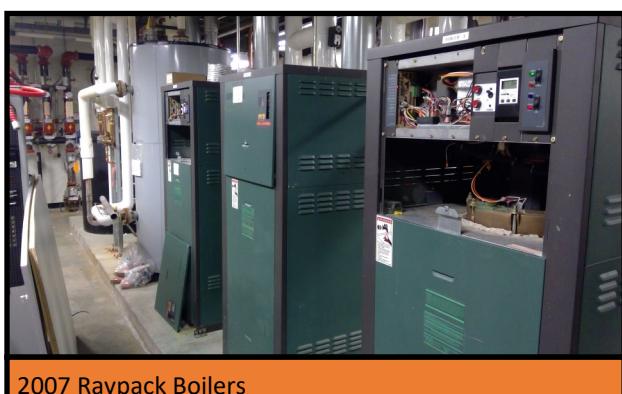
Plumbing | Electrical | Mechanical | Communications | Fire Safety



Building Automation System



2007 Chillers



2007 Raypack Boilers



Liebert CRAC Unit

HVAC Component	Comments
Building Automation System	3 Automated Logic controls for all buildings in district.
Chillers	2 2007 (2) 250 ton air cooled chillers at end of expected life.
Boilers	2 2007 Raypack boilers with primary and secondary pumping at end of expected life.
HVAC Pumps	2 Hot and chilled water pumps will be at end of expected life if original to building.
HVAC Piping	3 Heating and chilled water piping in good condition.
VAV Boxes	2 2007 VAV and fan powered VAV boxes with hot water reheat coils at end of expected life.
Blower Coils	2 4-pipe blower coils with outside air intake are at end of expected life.
Computer Room Unit	2 Liebert CRAC unit at end of expected life. (note: computer room no longer used as such).

Lansing Elementary School Assessment

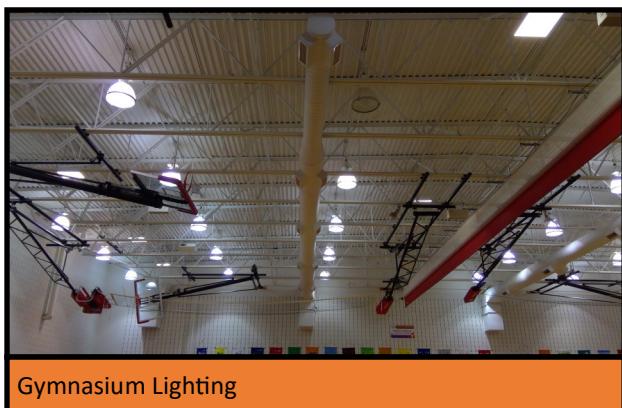
Plumbing | Electrical | Mechanical | Communications | Fire Safety

HVAC Component	Comments
Kitchen Exhaust Hoods	3 Kitchen exhaust hood with ansul system appeared to be in good condition. Heated makeup air unit on roof. Dishwasher exhaust ducted to outdoors.
Ventilation Air	3 Via air handlers.
Air Distribution Ductwork	3 Sheetmetal rectangular and double wall spiral.
Unit Heaters	3 Ceiling mounted hydronic cabinet heater.
Exhaust Fans	3 Rooftop exhaust fans in good condition.
HVAC Piping Insulation	3 Hydronic piping insulation in good condition.
Air Handling Units	2 2006 4-pipe roof mounted units at end of expected life.



Lansing Elementary School Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety

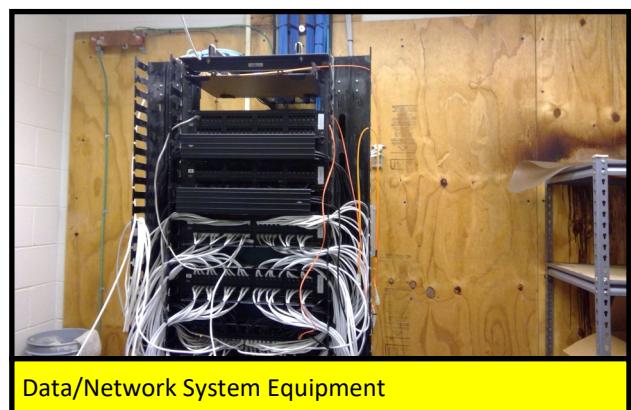
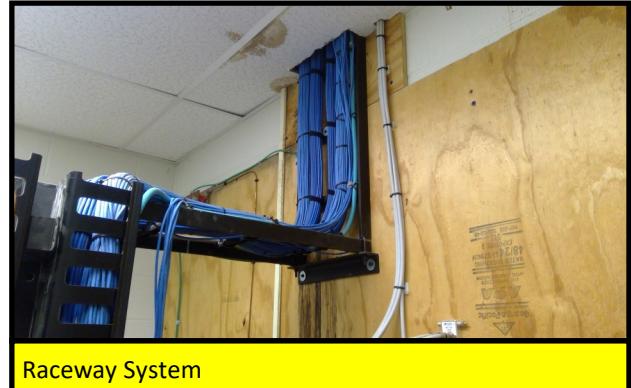


Electrical Component	Comments
Switchboards	3000A 480V-3ph Square D QED switchboard (2007).
Branch Circuit Panelboards	Square D NF panelboards.
Dry Type Transformers	Square D transformers.
Enclosed Disconnect Switches	Heavy duty disconnects in NEMA 3R enclosure.
Feeders	Rigid EMT where visible.
Wiring Devices	Devices appear to be specification grade with stainless steel or nylon cover plates.
Ambient Lighting	Surface mounted and recessed T8 Linear Fluorescent is in serviceable condition. Consider replacement with LED for improved efficacy and energy savings.
Gymnasium Lighting	High Bay HID fixtures in serviceable condition. Some fixtures replaced with LED. Consider replacement with LED for improved efficacy and energy savings.
Emergency Lighting	Emergency drivers on recessed fixtures throughout building.
Exit Signage	Thermoplastic exit signs with red LED letters and integral battery backup.
Exterior Building Mounted Lighting	Compact fluorescent and HID wall packs and surface canopy lights. Consider replacement with LED.
Parking Lot Lighting	Pole mounted HID fixtures some with LED replacement lamps.

Lansing Elementary School Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety

Communications Component	Comments
Communications Raceway Systems	3 Cabling installed in cable tray, conduit and surface ladder hooks.
Data/Network System Equipment	3 Category 5/5e patch panels wall mounted I.T. racks.
Data/Network Horizontal Cabling	3 Category 5e/6 UTP copper cabling from patch panels to wall outlets.
Data/Network Outlets	3 Category 5e/6 RJ45 jacks in nylon wall outlets.
Intercom	3 Intercom through ceiling speakers via VOIP phones.
Clocks	3 Valcom microprocessor programmable clocks.

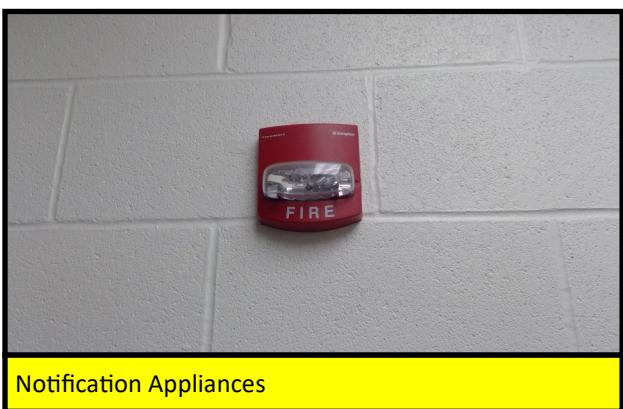


Lansing Elementary School Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety



Fire Alarm Component	Comments
Fire Alarm Control Panel	1 Simplex 4010 panel in need of replacement due to faults and programming requirements.
Smoke Detectors	3 Ceiling mounted spot type area detectors.
Manual Pull Stations	3 Single action stations at exits with keyed reset.
Notification Appliances	3 Ceiling and wall mounted strobes/horns.
Electromagnetic Door Holds	3 Holds located at all fire doors.



Lansing Intermediate School Assessment

Summary

Areas of Need:

- Life Safety-Eye Wash Station
- Exterior Brick and Lintels
- Windows
- Soffits
- Roof
- Concrete & Paving
- Track
- Retaining Walls at Track
- Concessions and Restroom Upgrades
- Flooring
- Lighting Upgrades
- Select Interior Fixtures and Finishes

The Lansing Intermediate School Assessment

Includes:

1. A building assessment summary completed by JGR Architects. This report ranks existing components as Excellent, Good, Fair, and Poor. The systems evaluated for this report include site, building envelope, and building interior.
2. A Systems Assessment summary completed by LST Consulting Engineers. This report ranks existing systems as Excellent, Good, Fair, and Poor. The systems evaluated for this report include Plumbing, Electrical, Mechanical, Communications, and Fire Safety.
3. The color-coding system utilized in this section is shown below.

4	Excellent	No issues to report. System component should be expected to remain functional for 10 years.
3	Good	System components exhibit wear, but no failures or critical issues are present. System component should be serviceable for 5-10 years.
2	Fair	System components exhibit wear, but no failures or critical issues are present. System component is at or beyond typical life expectancy. Component will likely require repair or replacement within 5 yrs.
1	Poor	System components are worn/damaged. Replacement is recommended.

Lansing Intermediate School Assessment

Architecture | Structural | Civil



Parking

Site Component	Comments
Parking	2 Driveway and parking, notably handicap parking areas are damaged. No crosswalk identified across driveway from parking to sidewalk.
Parking	2 Pavement is worn and deteriorated at east parking lot.
Parking	2 Parking area, pavement, and sidewalk pavement is damaged. Appropriate ADA parking signs not provided.
Pavement-Sidewalks	2 There is a step at the exterior door. Foot scraper potentially interferes at sidewalk.
Pavement-Sidewalks	2 Stoop at exterior door is small without required side clearance. Settlement at sidewalk transition to stoop.
Pavement-Sidewalks	2 Stairs are deteriorated and spalled off at handrail penetrations.
Pavement-Sidewalks	3 Ramp access to playground is provided. Curb system does not contain the cushioning mulch material.
Pavement-Sidewalks	2 Sidewalk sections are damaged. Expansion joints not sealed to prevent weed growth.



Parking, Pavement, and Sidewalks



Exterior Door Step

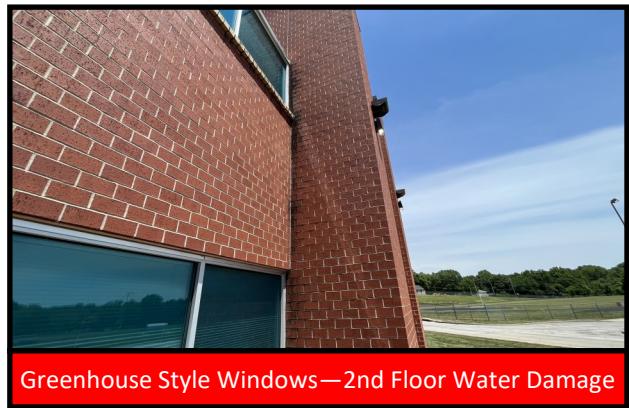
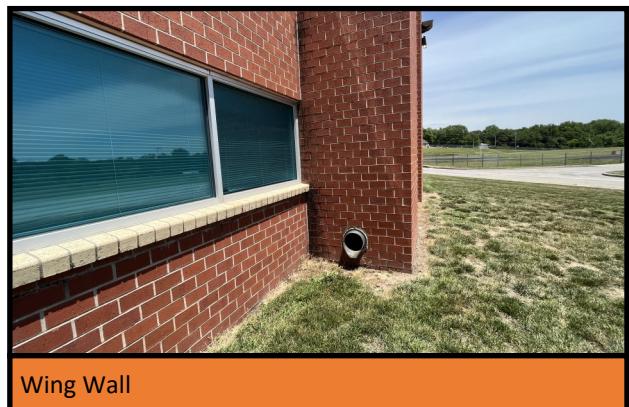
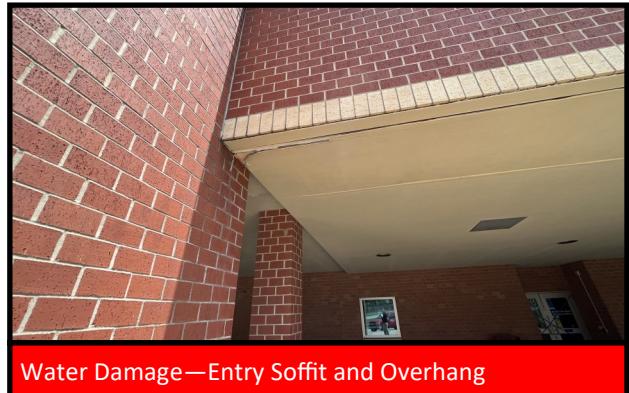


Playground Access Ramp

Lansing Intermediate School Assessment

Architecture | Structural | Civil

Envelope Component		Comments
Walls-Soffits	1	Water damage at entry, soffit, and overhang.
Walls-Soffits	2	Access panel is rusting.
Walls-Soffits	2	Soffit finish is de-laminating at building and trim.
Walls-Soffits	2	At wing wall adjacent to windows, there is water damage along the height of the wall. Also water damage under window sills.
Walls-Soffits	2	Masonry joints are cracked and deteriorated from water damage at underside of windowsills .
Miscellaneous	2	Building roof drains across the top of the sidewalk. This is a potential slip hazard.
Miscellaneous	2	Downspout in corner of building is damaged.
Miscellaneous	2	Water damage and de-laminating of soffit exists at building entry. Column cover is rusting at the top.
Miscellaneous	1	Water damage is evident at the second floor, greenhouse style windows, transitioning to the masonry wall .
Miscellaneous	2	There is minimal slope for water drainage away from the building and some rutting of the ground .
Miscellaneous	2	Column covers are significantly rusted and cracked concrete around columns .
Windows-Doors	2	Window lintels are rusted above windows.



Lansing Intermediate School Assessment

Architecture | Structural | Civil



Water Damage Under Windowsills



Roof Downspout Locations



Condensate Piping



Roof Bubbles and Blistering

Envelope Component	Comments
Windows-Doors	2 There is brick damage underneath windowsills, likely from water infiltration. This is typical around the building.
Roof	2 No cant strip at roof to EIFS wall transition. No control joints at a EIFS wall.
Roof	2 No downspouts at roof downspout locations.
Roof	2 Roof material is worn and cracking. Large quantity of roof aggregate has collected. Loose debris, including razor blades are laying on the roof.
Roof	2 Roof material is aged and very worn.
Roof	2 Roof is very worn and cracking. Condensate pipe lays directly on roof.
Roof	1 Condensate piping is not properly connected. Roof is worn and cracking.
Roof	1 There are no drainage weeps at the EIFS wall finish where it transitions to roof flashing.
Roof	1 Roof is bubbled and blistered.
Roof	2 EIFS wall finish is dirty and stained. Unclear if this is related to moisture issues and lack of drainage. Control joints are cracked.
Roof	2 Roof is aged and cracking. There appears to be condensate piping, not connected or extended to drains. Piping not properly supported. Appears to be large areas of ponding.
Roof	1 Roof is worn. Condensate piping is not connected. Appears to have large areas of ponding.

Lansing Intermediate School Assessment

Architecture | Structural | Civil

Envelope Component	Comments
Track-Field Area 1	Track surface is deteriorated and cracked.
Track-Field Area 1	Retaining wall has crumbled at north side of track.
Track-Field Area 1	Top row of retaining wall has collapsed.
Track-Field Area 1	Retaining wall has collapsed.
Track-Field Area 2	Concession area sidewalks and building systems are old, but in fair condition.
Track-Field Area 2	Minor damage around concrete concession area.
Track-Field Area 2	Concession area finishes are aged. In fair condition. There is no hood at the stove.
Track-Field Area 2	Toilet areas are not accessible.
Track-Field Area 2	There is no base at floor wall transition. Toilet partitions are delaminating.
Track-Field Area 2	Fixtures are not handicap accessible.
Track-Field Area 2	Partition doors are delaminating.
Track-Field Area 3	Handicap stall has grab bars provided. Room is not entirely ADA accessible.



Lansing Intermediate School Assessment

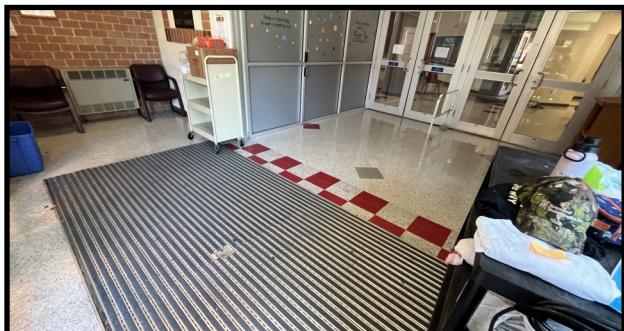
Architecture | Structural | Civil



Restroom Access



Blistering Wall Behind Toilet



VCT Flooring



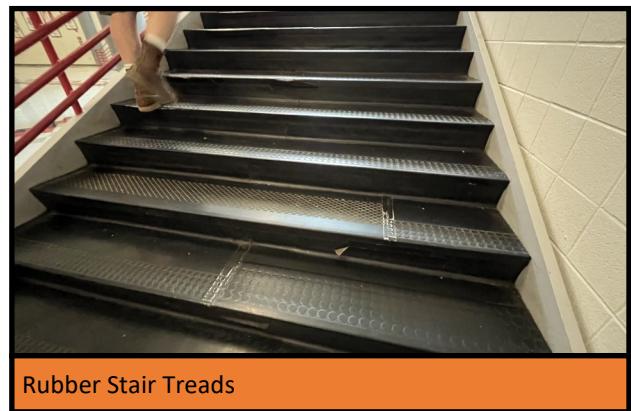
Floor Devices—Office Carpet

Interior Component	Comments
Accessibility	ADA restroom is not entirely accessible by new standards, however, it is accessible per original ADA requirements at time of construction.
Accessibility	Accessible stall is ADA compliant.
Accessibility	Restroom has accessible fixtures, but limited floor clearance.
Aesthetics	Wall behind toilet stall is blistered. Seal around toilet.
Aesthetics	Floor, wall, and ceiling finishes in generally good condition. Some drywall touchup is necessary at various areas.
Aesthetics	Toilet partitions have been sanded to cover scratches or vandalism.
Aesthetics	Hallway finishes in good condition.
Aesthetics	Hallway finishes in good condition. Stained ceiling tiles need repair or replacement.
Floors	VCT floors and entry rug in fair condition. Roll up rug is difficult to maintain. Walk off carpet may be preferred.
Floors	Floor devices are loose at office carpet.
Floors	Epoxy floors at restroom are in generally good condition. There is some staining, however.
Floors	Hallway finishes in good condition. Rolled style carpet is aging.
Floors	Wood gym floor in good condition. Routine maintenance is necessary.
Floors	VCT floors at hallway in good condition.

Lansing Intermediate School Assessment

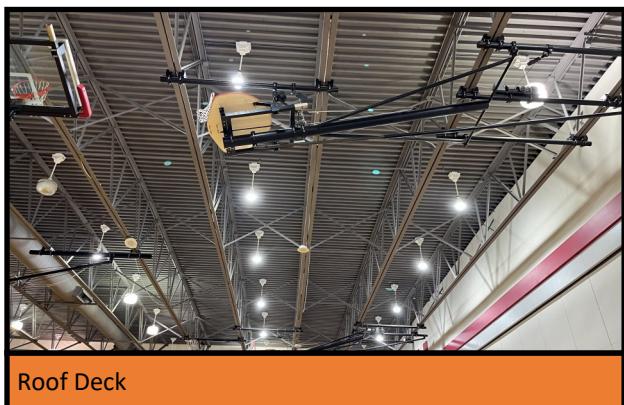
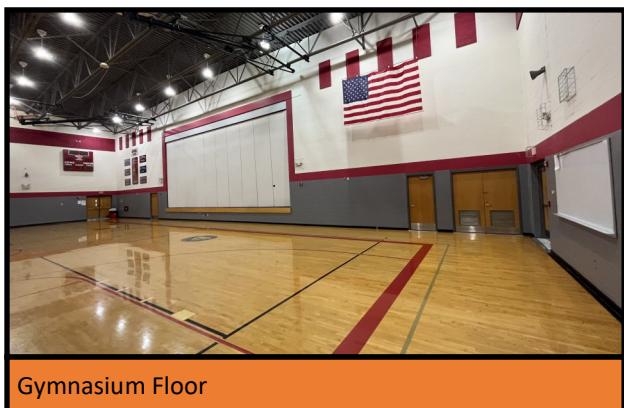
Architecture | Structural | Civil

Interior Component		Comments
Floors	1	Dishwashing drains and ice machine drain do not appear to align with floor sink.
Floors	3	Kitchen serving area floor is in good condition.
Floors	1	Electrical floor boxes are not appropriately sealed.
Floors	2	Rubber treads and risers in generally good condition. Some minor repair is necessary.
Floors	2	Epoxy floor at restroom is stained. Rubber base outside restroom door is loose. Minor cracking at restroom epoxy floor.
Floors	2	Floor outlet not appropriately covered and secure tight to floor.
Floors	2	Floor movement and settling at VCT. This likely occurs over a building transition. Expansion joint cover may correct this condition.
Windows-Doors	2	Entry doors in fair condition. Floor at doorway and rug is damaged.
Windows-Doors	3	Exterior windows appear in good condition. Note, however, water damage is consistent at sills outside of building.
Windows-Doors	4	Rated doors provided at hallways.
Windows-Doors	2	All the metal doors in need of touchup. Floor transition is loose.
Windows-Doors	2	Light at greenhouse style windows is very intense and hot.
Windows-Doors	2	Some dirt collected on greenhouse style glazing. Water issues occur at window to wall transitions at exterior of building.
Windows-Doors	4	Curtainwall does appear in good condition.



Lansing Intermediate School Assessment

Architecture | Structural | Civil



Interior Component	Comments
Life safety	Building is sprinkled with visible exit, lighting, and emergency lighting in hallway.
Life safety	Exit signage provided and doors at building compartments are on, hold open devices integrated with the fire alarm.
Life safety	Kitchen equipment is not fully under the hood. There appears to be room to shift equipment under the hood.
Life safety	Emergency lighting provided at kitchen hood system appears well-maintained.
Miscellaneous	Vestibule has been created with the addition of interior doors to provide access control through the office area.
Miscellaneous	Gymnasium lighting has been partially changed to LED fixtures. Remaining light fixtures to be replaced.
Miscellaneous	There appears to be a small area of blistering at the gym floor. There is minimal sound absorption at walls.
Miscellaneous	Roof deck does not appear to be acoustical type. Additional sound absorption may be desired.
Miscellaneous	Overall finishes in good condition.
Miscellaneous	Skylight appears to be in good condition and not problematic. It does seem to generate heat.
Miscellaneous	HVAC system at the time of site observation was not well functioning at upper level classroom wing.
Miscellaneous	Urinal appears loose at the wall. Secure and seal.
Miscellaneous	Sink and counter finishes have some corrosion. Strainer missing at sink.

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Lansing Intermediate School Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety



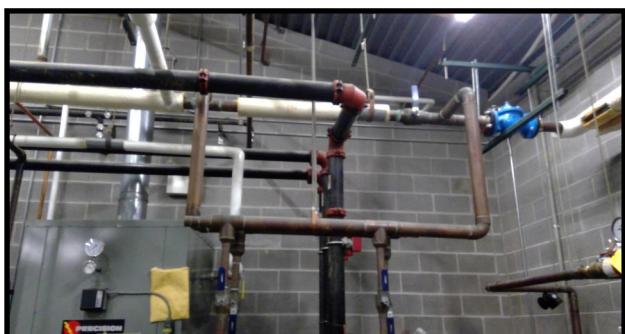
Wash Fountains



Roof Drains



Circulation Pumps



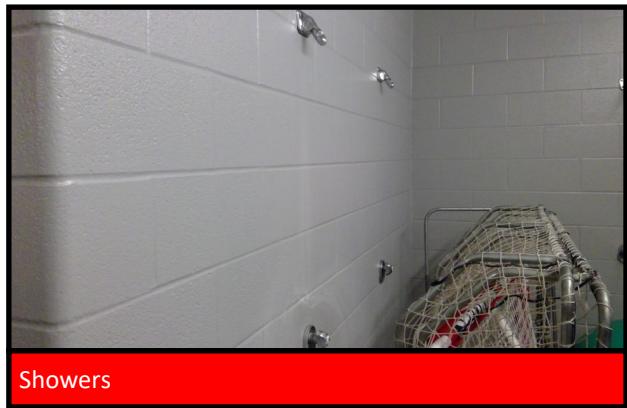
Water Piping

Plumbing Component	Comments
Water Closets	3 Wall mount manual flush valve.
Urinals	3 Wall mount manual flush valve.
Lavatories	3 Wall hung and self rimming lavatories with sensor operated faucets.
Wash Fountains	2 Wall hung sensor operated wash fountains with poor water pressure.
Drinking Fountains/ Water Coolers	3 ADA height units; some with bottle fillers.
Janitor Sinks	3 2x2 floor mount sink with wall mount faucet; ensure faucet is provided with vacuum breaker.
Roof Drains/ Overflow Drains	3 Roof drains and overflow drains with cast iron dome strainers in good condition.
Water Heaters	3 2014 tankless gas fired boilers (one unit for school and one unit for kitchen).
Circulation Pumps	3 Inline circulators at all water heaters.
Drainage Piping	3 Cast iron and PVC piping; no known issues.
Water Piping	3 Copper piping where visible. Some portions of piping missing insulation.

Lansing Intermediate School Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety

Plumbing Component		Comments
Gas Piping	3	Schedule 40 black steel piping.
Science Room Sinks	3	Chemical resistant drop in sinks with manual faucets.
Science Room Gas Turrets	3	Countertop turrets controlled by master control switch.
Water Softener	3	Whole building water softener system in main mech room.
Kitchen Sinks	3	Commercial type stainless steel sinks.
Grease Interceptor	3	750 gallon precast concrete exterior interceptor. Ensure regular maintenance for proper operation.
Emergency Eye Wash	1	No eye wash stations visible in science rooms; If none present, ensure equipment is installed for safety.
Fire Protection System	3	Fire protection system provides complete coverage.
Showers	1	Showers no longer in use. Ensure water shut off to fixtures. Floor drain traps in locker rooms dry up and allow infiltration of sewer gasses. Provide trap guard devices to prevent this issue.
Water Softener	3	Water softener in main mechanical room.



Lansing Intermediate School Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety

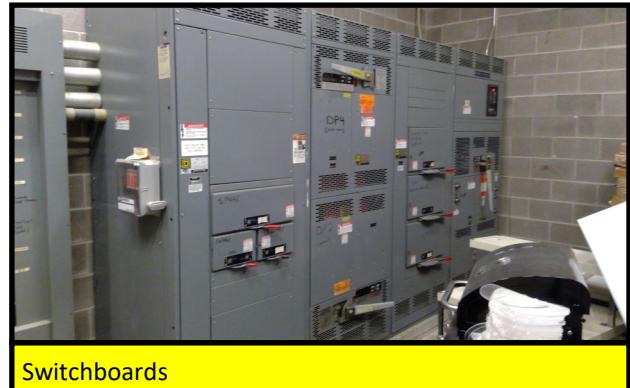


HVAC Component	Comments
Building Automation System	3 Automated Logic controls for all buildings in district.
Packaged Rooftop Equipment	1 1995 Rooftop units; single zone, heating only, and cooling only units beyond expected life; all rooftop equipment scheduled to be replaced Summer 2023.
VAV Boxes	2 Dual duct VAV boxes and cooling only VAV boxes beyond expected life.
Kitchen Exhaust Hoods	3 Kitchen exhaust hood with ansul system appeared to be in good condition. Heated makeup air unit on roof. Dishwasher exhaust ducted to outdoors.
Ventilation Air	3 Via rooftop units.
Air Distribution Ductwork	3 Sheetmetal rectangular and double wall spiral.
Unit Heaters	3 Gas fired unit heater in mechanical rooms; electric wall heater in circulation spaces.
Exhaust Fans	3 Rooftop exhaust fans in good condition.
Life Skills Exhaust Hood	1 No range hood above cooking equipment in life skills room.
Lab Exhaust	3 Self contained laboratory exhaust system.
Kiln Exhaust	3 Dedicated kiln exhaust system connected to kiln.

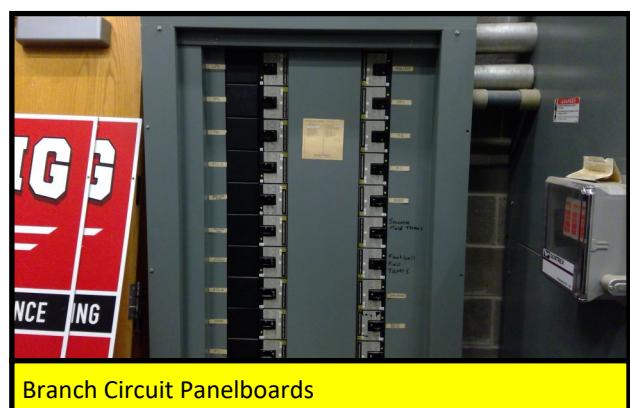
Lansing Intermediate School Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety

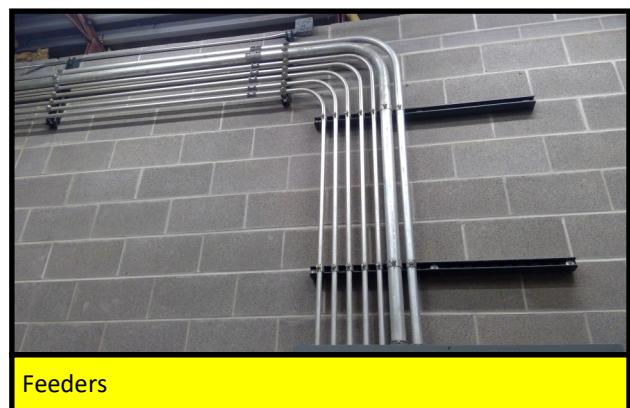
Electrical Component	Comments
Switchboards	3 2500A 480V-3ph Square D QED switchboard (1995).
Distribution Panelboards	3 Square D I-Line panel.
Branch Circuit Panelboards	3 Square D NQOD panelboards. Square D NHEB panels may be nearing obsolescence.
Dry Type Transformers	3 Square D transformers.
Enclosed Disconnect Switches	3 Heavy duty disconnects in NEMA 3R enclosure.
Feeders	3 Rigid EMT where visible.
Wiring Devices	3 Devices appear to be specification grade with stainless steel or nylon cover plates.
Ambient Lighting	2 Surface mounted and recessed T8 Linear Fluorescent is in serviceable condition. Consider replacement with LED for improved efficacy and energy savings.



Switchboards



Branch Circuit Panelboards



Feeders



Fluorescent Lighting

Lansing Intermediate School Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety



Electrical Component	Comments
Gymnasium Lighting	2 High Bay HID fixtures in serviceable condition. Some fixtures replaced with LED. Consider replacement with LED for improved efficacy and energy savings.
Emergency Lighting	3 Twin head ceiling and wall emergency lighting units.
Exit Signage	3 Thermoplastic exit signs with red LED letters and integral battery backup.
Exterior Building Mounted Lighting	2 Compact fluorescent and HID wall packs and surface canopy lights. Consider replacement with LED.
Parking Lot Lighting	2 Pole mounted HID fixtures some with LED replacement lamps.
Exterior Lighting Controls	2 Central contactors and time switches for exterior lighting. Adjust system to ensure fixtures operate at correct times. Many fixtures were 'on' during daytime during site visit.
Exterior Wiring Devices	2 Some exterior devices missing weather proof covers.

Lansing Intermediate School Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety

Communications Component	Comments
Communications Raceway Systems	3 Cabling installed in cable tray, conduit and surface ladder hooks.
Data/Network System Equipment	3 Category 5/5e patch panels wall mounted I.T. racks.
Data/Network Horizontal Cabling	3 Category 5e/6 UTP copper cabling from patch panels to wall outlets.
Data/Network Outlets	3 Category 5e/6 RJ45 jacks in nylon wall outlets.
Intercom	3 Intercom through ceiling speakers via VOIP phones.
Clocks	3 Simplex microprocessor programmable clocks.



Lansing Intermediate School Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety



Fire Alarm Control Panel

Fire Alarm Component	Comments
Fire Alarm Control Panel	3 Simplex 4010 panel.
Fire Alarm Remote Annunciator Panel	3 Simplex remote annunciator panel in vestibule.
Smoke Detectors	3 Ceiling mounted spot type area detectors.
Manual Pull Stations	3 Single action stations at exits with keyed reset.
Notification Appliances	3 Ceiling and wall mounted strobes/horns.



Remote Annunciator Panel



Manual Pull Stations



Notification Appliances

Lansing Middle School Assessment

Summary

Areas of Need:

- ADA Access
- Bleachers
- Exterior Brick
- Outbuilding Canopy
- Baseball Retaining Wall
- Windows / Storefront
- Kiln Hood
- HVAC
- Tennis Courts
- Concrete & Paving
- Interior Doors
- Flooring
- Electrical & Lighting Upgrades

The Lansing Middle School Assessment

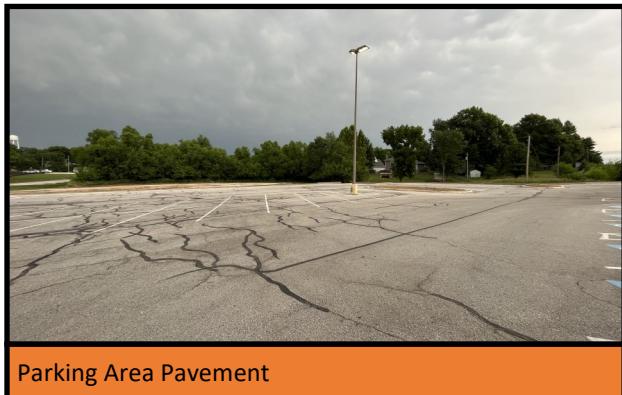
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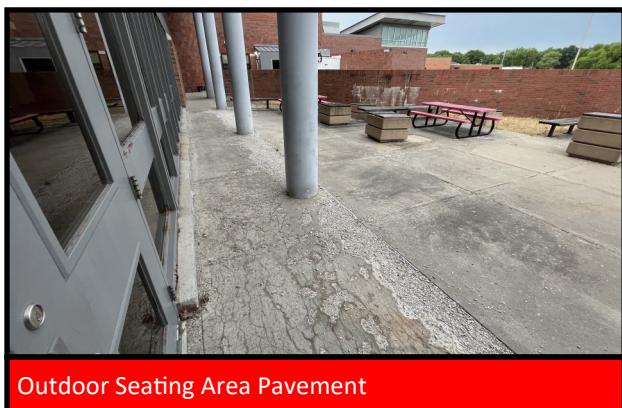
Lansing Middle School Assessment

Architecture | Structural | Civil



Parking Area Pavement

Site Component	Comments
Parking	3 Van accessible stalls not identified. Some damage at parking bumpers.
Parking	2 Parking area pavement requires maintenance and future replacement.
Parking	2 Parking area and drive is deteriorating.
Pavement-Sidewalks	1 Permeable pavement has no vegetation growth. Surface is uneven and potentially hazardous due to unstable footing.
Pavement-Sidewalks	3 Drainage trench has collected some debris.
Pavement-Sidewalks	1 Concrete paving at outdoor seating area is deteriorated.
Pavement-Sidewalks	2 Concrete footing tops are damaged at some of the canopy columns.
Pavement-Sidewalks	2 Concrete around canopy column is deteriorated.
Pavement-Sidewalks	1 Concrete sidewalk around screen wall is deteriorated.
Pavement-Sidewalks	1 Concrete sidewalk is deteriorated.
Pavement-Sidewalks	1 Stair has crumbled and deteriorated.



Outdoor Seating Area Pavement



Sidewalk at Screen Wall

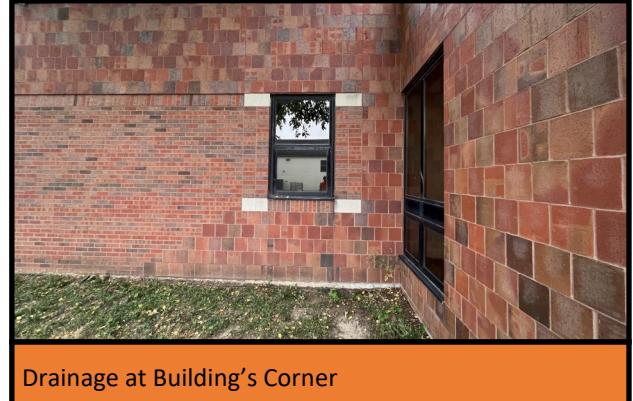


Concrete Stairs

Lansing Middle School Assessment

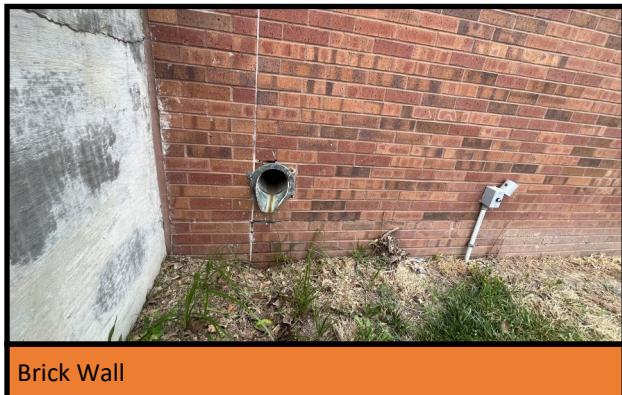
Architecture | Structural | Civil

Envelope Component	Comments
Walls-Soffits	1 Outbuilding canopy is deteriorated.
Walls-Soffits	3 Control joints at brick require re-sealing.
Miscellaneous	1 Large cracks at tennis courts. Courts need a minimum patching and resurfacing.
Miscellaneous	3 New building entrance is attractive and accessible.
Miscellaneous	1 Masonry screen wall has water damage and severe effervescence.
Miscellaneous	1 Top of screen wall has water damage resulting in significant water infiltration through the wall.
Miscellaneous	2 Masonry screen walls have extensive effervescence and water damage. Concrete delivery drive is deteriorating.
Miscellaneous	4 Panic hardware is provided to allow security and safe exiting from the courtyard area.
Miscellaneous	2 There appears to be a low spot impacting drainage adjacent to the building corner.
Miscellaneous	1 The exterior door stoop at the outbuilding classroom is undersized with no handrails at steps.



Lansing Middle School Assessment

Architecture | Structural | Civil



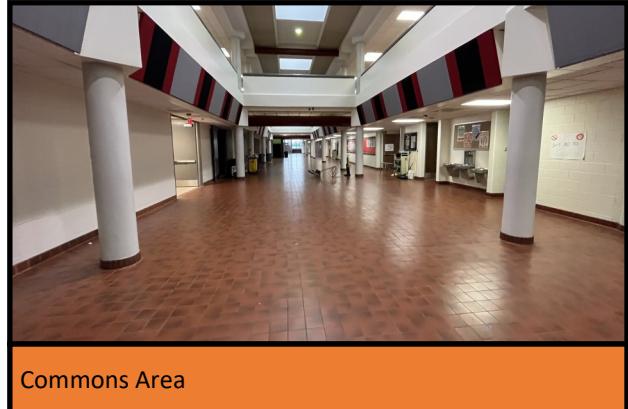
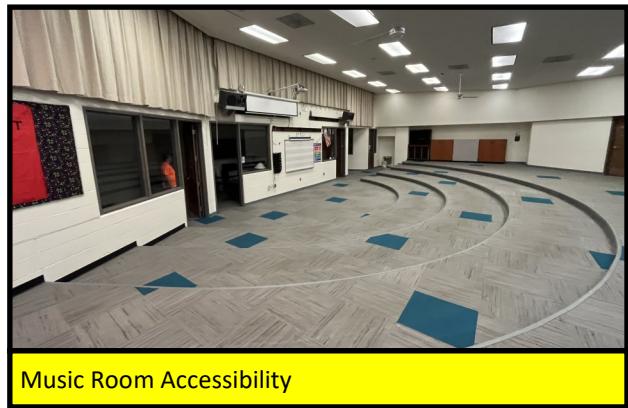
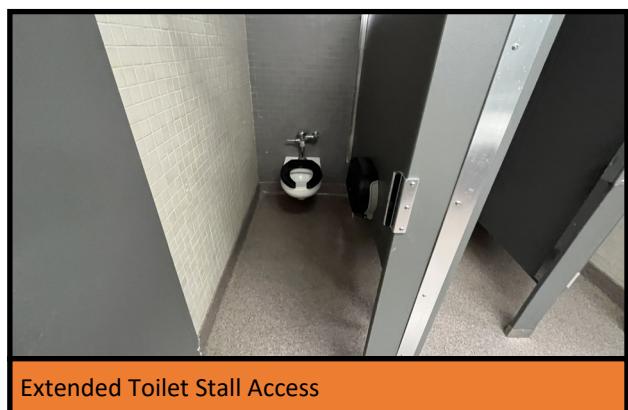
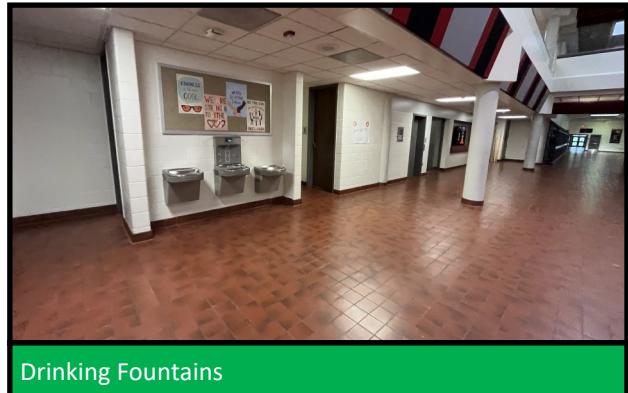
Envelope Component		Comments
Miscellaneous	2	There is damaged brick around the roof drain outlet.
Miscellaneous	1	There is water damage and cracking at masonry screen wall.
Miscellaneous	1	Building debris and deteriorating retaining wall at baseball field area.
Windows-Doors	1	Large hollow metal curtain wall system is damaged and deteriorated due to water infiltration. Water damage has shifted into interior side of building. Adjacent pavement is deteriorated.
Windows-Doors	2	Skylight system has missing framing components and damaged gasket.
Windows-Doors	1	Hollow metal storefront system components are rusted and deteriorated at base.



Lansing Middle School Assessment

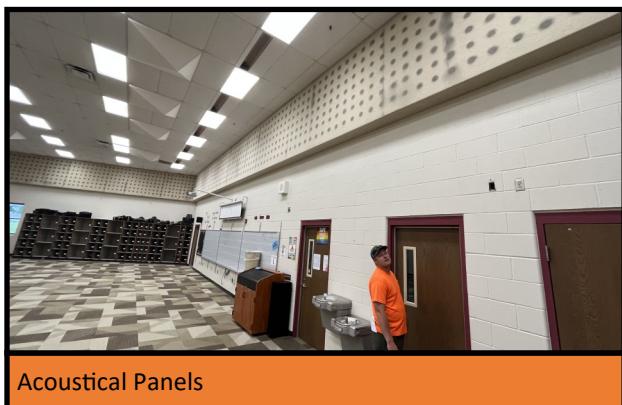
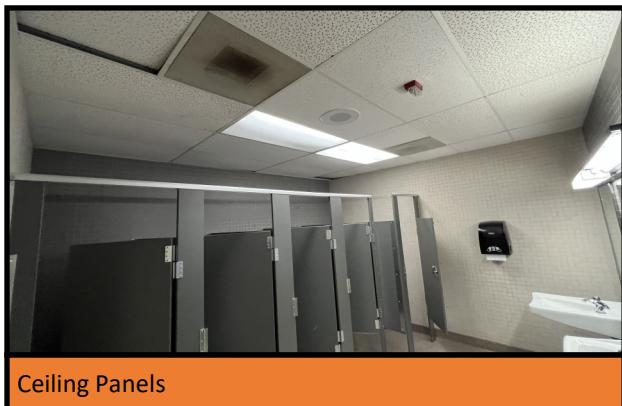
Architecture | Structural | Civil

Interior Component		Comments
Accessibility	4	Handicap restroom is fully accessible.
Accessibility	4	Handicap drinking fountains are provided.
Accessibility	3	Good clear area at restroom with accessible fixtures, except toilets.
Accessibility	2	Extended depth toilet stall is not wide enough for accessibility and no grab bars.
Accessibility	3	Accessible stall is narrow with configurations similar to alternative stall layout.
Accessibility	3	Locker room restrooms are accessible. Correct insulation at handicap lavatory is necessary.
Accessibility	4	Restroom is accessible.
Accessibility	2	Handicap lift at auditorium is not properly used.
Accessibility	3	Music room is accessible from upper and lower levels. No ramp system within the room.
Accessibility	3	Accessible lavatory and urinal. Water closet is narrow.
Aesthetics	3	Office entry and reception finishes are attractive. Some minor discoloration at ceiling grids may need repair.
Aesthetics	2	Commons area floors and wall finishes are drab and dated.
Aesthetics	2	Commons area finishes and air outlets are dated.
Aesthetics	4	Updated classroom finishes appear in good condition.
Aesthetics	3	Updated hallway areas are attractive. Original quarry tile flooring is dated.



Lansing Middle School Assessment

Architecture | Structural | Civil

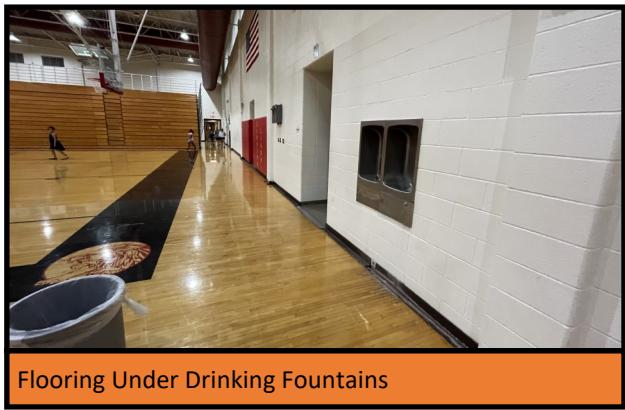
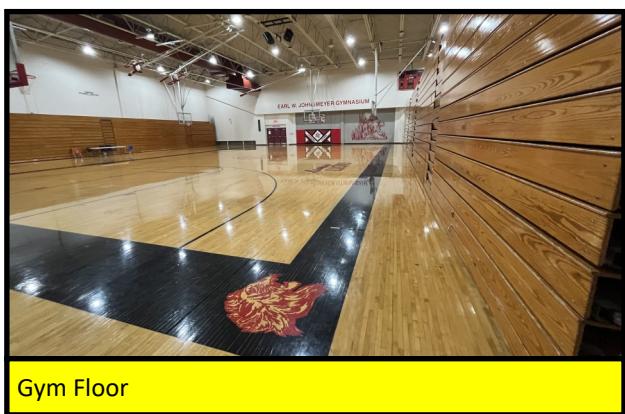
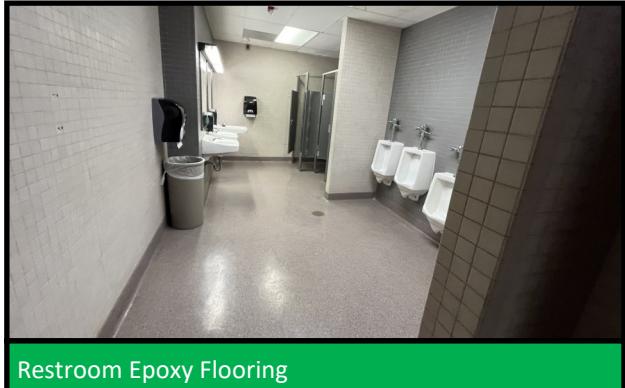


Interior Component	Comments
Aesthetics 4	Updated classroom finishes and VCT floors look nice. Cabinets are in good condition.
Aesthetics 2	Floor and ceiling tiles, in general, finishes are dated. Stained ceiling tiles from water damage.
Aesthetics 2	Damaged ceiling and wall tiles in restrooms.
Aesthetics 2	Ceiling panels are mismatched. Air registers are dirty.
Aesthetics 2	Ceilings and lights at wrestling area are damaged. Air registers are dirty.
Aesthetics 2	Drinking fountain panel is missing.
Aesthetics 3	Floor tiles are somewhat aged. Overall finishes at floor and ceiling are generally good.
Aesthetics 3	Floor and wall finishes in nice condition. Dots at the acoustic panels are dirty. Ceiling tiles appear to have some sagging.
Aesthetics 2	Spots on acoustical panels are dirty. Verify source of dirt. Possibly from HVAC system filtering.
Aesthetics 3	Dressing room finishes in generally good condition.
Aesthetics 3	Auditorium finishes in good condition.
Aesthetics 2	Ceilings at outbuilding classroom are sagging from water damage.
Flooring 2	Quarry tile floors are dated, loud, and difficult to maintain.
Flooring 2	Quarry tile floors at kitchen are aged and challenging to maintain. Floors are bumpy for moving carts and tables.
Flooring 3	VCT floors in good condition.

Lansing Middle School Assessment

Architecture | Structural | Civil

Interior Component		Comments
Flooring	2	Quarry tile floors are dated. Walk off carpet may be preferred at building entrances.
Flooring	4	Epoxy resign floors at restrooms in good condition.
Flooring	3	Wood gym floors in generally good condition. Routine maintenance required.
Flooring	3	Some spotting occurs at gym floor. Should be corrected with routine maintenance.
Flooring	2	Some water damage and floor base damage underneath drinking fountains.
Flooring	2	Rusting and discoloration evident at shower area floor.
Flooring	2	Floor staining occurs under plumbing fixtures. Maybe from water damage at leaking fixtures.
Flooring	2	Electrical floor box cover does not appear to be appropriate for the recessed box.
Flooring	2	Threshold recommended at doorway between hallway and stage floor.
Flooring	2	Quarry tile floor at second-floor has damage at tile and joints.
Windows-Doors	3	Exterior windows in generally good condition. There appears to be some wall damage at Interior sill. Recommend to determine if that is caused by water infiltration.
Windows-Doors	2	Exterior portions of hollow metal storefront/curtain wall system are heavily deteriorated. Interior portions appear to be in better condition.
Windows-Doors	3	Interior doors are non-rated at hallways.
Windows-Doors	2	Interior side of vestibule Storefront/curtain wall are in good condition. Exterior components are severely damaged.
Windows-Doors	1	Apparent bullet damage and damaged seal at glazing units.



Lansing Middle School Assessment

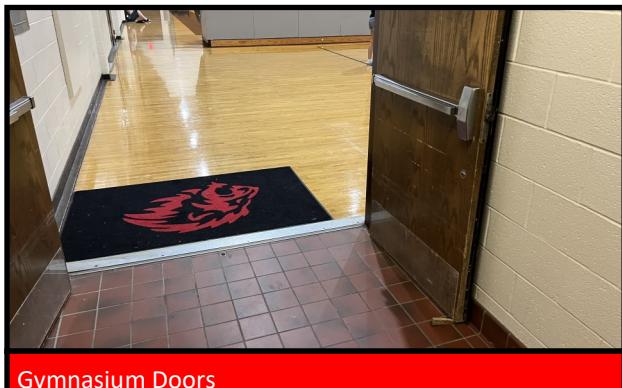
Architecture | Structural | Civil



Locker Room Door



Skylights



Gymnasium Doors



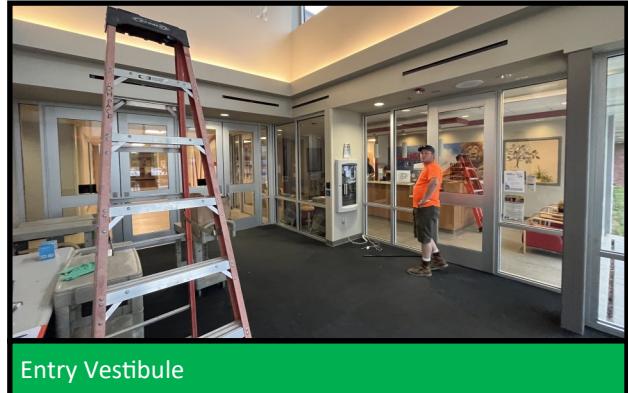
Kiln

Interior Component	Comments
Windows-Doors	Hallway door is propped open, rather than hold-open device, and integrated with fire alarm.
Windows-Doors	Locker room door is damaged.
Windows-Doors	Interior panels of skylights have been broken.
Windows-Doors	Gymnasium doors are damaged, and propped open rather than using hold-open devices integrated with fire alarm.
Windows-Doors	Exterior doors appear in good condition, note there is signage to ensure doors latch, indicating a potential problem with doors closing properly.
Windows-Doors	Music room doors are damaged. Edge protection may be preferred where transporting musical instruments through doorway.
Windows-Doors	Windows at outbuilding classrooms appear in generally good condition. Accent screens have been provided to reduce light at teaching wall.
Life Safety	Rated doors are provided at transition between building compartments.
Life Safety	Kitchen equipment fits adequately under hood system.
Life Safety	Dead-end corridor condition at access to safe room. No emergency light observed.
Life Safety	Auditorium scene shop is sprinkled.
Life Safety	Upper stage area accessed by compliant stairway. Scene shop area is sprinkled.
Life Safety	No exit signage or emergency light observed at corridor.
Life Safety	Kiln does not have overhead vent system.
Life Safety	Classroom corridor doors do not appear to have a fire label.

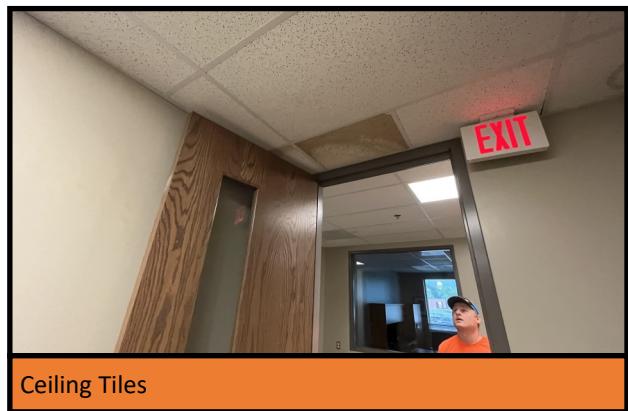
Lansing Middle School Assessment

Architecture | Structural | Civil

Interior Component	Comments
Miscellaneous	Entry vestibule has access control entry requiring office staff to allow visitors in.
Miscellaneous	Wall damage at windowsill in newer office area.
Miscellaneous	Stained ceiling tiles in new office area from water leaks.
Miscellaneous	Minor damage at ceramic wall tile at restroom. Missing ceiling tiles at restroom.
Miscellaneous	Lavatory appears loose at wall, secure, and reseal.
Miscellaneous	Concession area cabinets have some damage with de-lamination. Cabinet doors have been removed.
Miscellaneous	Older bleacher system appears to not have handrails or handicap seating cut outs.
Miscellaneous	Locker room, floors, benches, and lockers in generally good condition. Some damage at ceilings and lights.
Miscellaneous	Locker floors in generally good condition.
Miscellaneous	Water pipes at shower tower are exposed with no escutcheon at ceiling penetration.
Miscellaneous	Minor trim damage at music storage lockers.
Miscellaneous	Ceiling and wall damage from water leak.
Miscellaneous	Computer classroom at outbuilding in generally nice condition.



Entry Vestibule



Ceiling Tiles



Concession Stand Cabinets



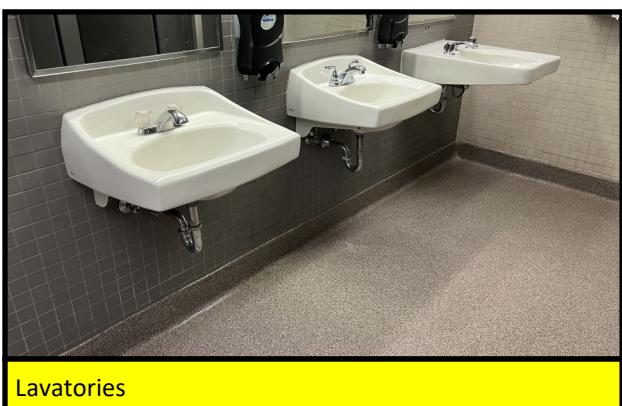
Bleachers

Lansing Middle School Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety



Water Closets



Lavatories



Roof Drains



Water Heaters

Plumbing Component	Comments
Water Closets	3 Wall mount manual flush valve.
Urinals	3 Wall mount manual flush valve.
Lavatories	3 Wall hung lavatories with lever and two handle manual faucets.
Drinking Fountains/ Water Coolers	3 ADA height units with bottle fillers.
Janitor Sinks	3 2x2 floor mount sink with wall mount faucet; ensure faucet is provided with vacuum breaker.
Roof Drains/ Overflow Drains	3 Roof drains and overflow drains with cast iron dome strainers in good condition. Some roof drains have debris built up resulting in standing water. Recommend cleaning area around all drains.
Water Heaters	2 2022 electric water heater (Kitchen) Tankless gas fired boiler nearing end of expected life (School). 2017 gas fired natural draft water heater (Detached Building). 2022 electric water heater (Auditorium).
Circulation Pumps	3 Inline circulators at all water heaters. Unit in kitchen showing signs of wear.

Lansing Middle School Assessment

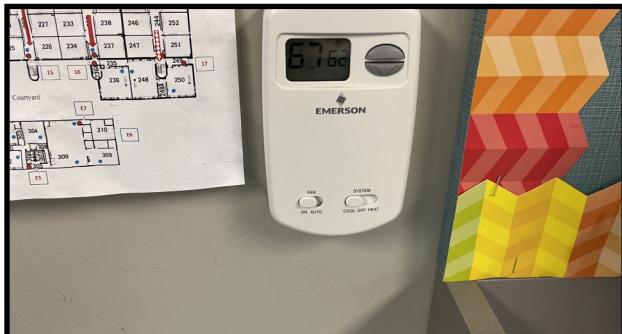
Plumbing | Electrical | Mechanical | Communications | Fire Safety

Plumbing Component		Comments
Drainage Piping	3	Cast iron and PVC piping; no known issues.
Water Piping	3	Copper piping where visible.
Gas Piping	3	Schedule 40 black steel piping. Rooftop supports in good condition.
Science Room Sinks	3	Stainless steel drop in sinks with manual faucets.
Showers	3	Private shower with hand shower. Locker rooms showers stainless steel pedestal type.
Kitchen Sinks	3	Commercial type stainless steel sinks.
Grease Interceptor	3	Indoor grease interceptor. Ensure regular maintenance for proper operation.
Emergency Eye Wash	3	Eye wash stations located in science rooms.
Fire Protection System	3	Fire protection system provided for Auditorium and Admin/Kitchen/Media Center and 2nd floor area above.
Water Softener	3	Water softener in main mechanical room.

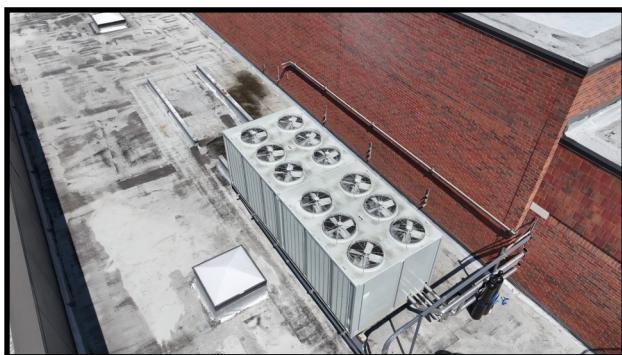


Lansing Middle School Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety



Building Controls



Air Cooled Condensing Units



Packaged RTU's



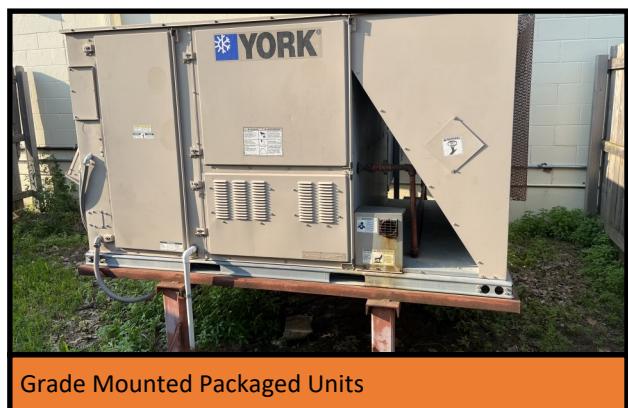
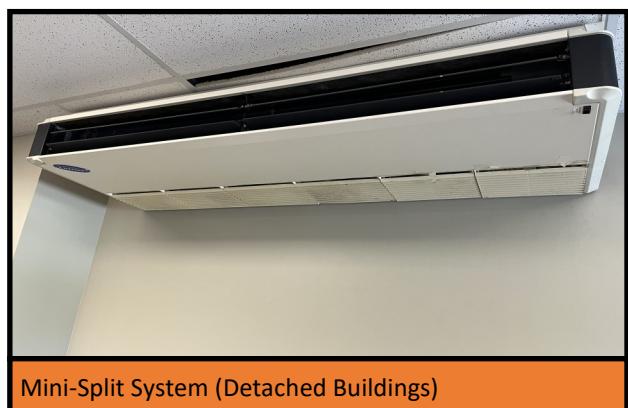
IT Closet Mini-Split Systems

HVAC Component	Comments
Building Automation System	Automated Logic controls for all buildings in district. Some units on standalone thermostats. Recommend integrating all equipment into BAS control system. 3
Air Cooled Condensing Units	2015 roof mounted equipment. 3
Air Handling Units	2015 Trane air handlers. 3
HVAC Pumps	Heating water pumps in good condition. 3
Hydronic Piping	Heating water piping in good condition. 3
VAV Boxes	2015 VAV and Fan Powered VAV boxes with hot water reheat coils. 3
Packaged RTUs	2007 Trane Gas fired RTUs at end of expected life. 2015 Trane gas fired RTUs serving Admin, Media, Gym and Annex in good condition. 2
Heating and Ventilating Unit	H&V unit for locker rooms nearing end of expected life. 2
Mini-Split Systems (IT Closets)	Ceiling suspended indoor units serving IT closets not operating properly. 2
Kitchen Exhaust Hoods	Kitchen exhaust hood with ansul system appeared to be in good condition. Heated makeup air unit on roof. Dishwasher exhaust ducted to outdoors. 3

Lansing Middle School Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety

HVAC Component	Comments
Ventilation Air	3 Via RTUs and air handlers.
Air Distribution Ductwork	3 Sheetmetal rectangular and double wall spiral.
Unit Heaters	3 Ceiling mounted electric heater.
Exhaust Fans	3 Rooftop exhaust fans in good condition.
HVAC Piping Insulation	3 Hydronic piping insulation in good condition.
Split Systems (Detached Buildings)	3 2013/2015/2020 split systems in good condition. Basement unit appears to be nearing end of expected life.
Mini-Split Systems (Detached Buildings)	2 2009 Ceiling suspended indoor units serving IT closets not operating properly.
Grade Mounted Packaged Units (Detached Buildings)	2 2003 Trane and York grade mounted gas fired packaged units nearing end of expected life.
Boiler	2 LAARS RHEOS+ boiler approaching end of expected life.

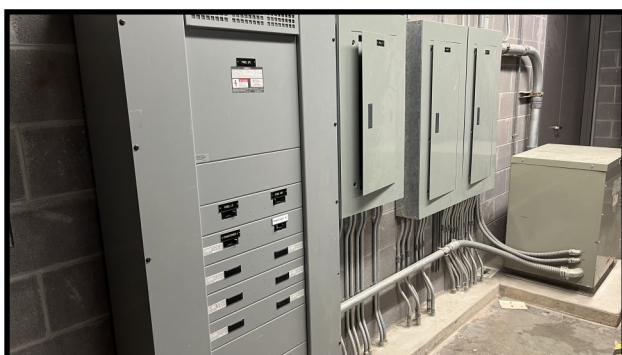


Lansing Middle School Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety



Switchboards



Distribution Panelboards



Federal Pacific Panelboards (Detached Buildings)



Dry Type Transformers

Electrical Component	Comments
Switchboards	2000A 480V-3ph Eaton Pow-R-Line Switchboards (2015). Investigate issue with main breaker tripping. Problem could be due to faulty breaker. 1600A 208V-3ph Eaton Pow-R-Line switchboards (2015).
Distribution Panelboards	3 Siemens Type S4 (1992).
Branch Circuit Panelboards	3 Eaton PRL1A panelboards.
Detached Buildings	1 Obsolete Federal Pacific panels. Recommend replacement with new.
Dry Type Transformers	3 Eaton, Westinghouse, and Siemens transformers.
Enclosed Disconnect Switches	3 Heavy duty Eaton disconnects in NEMA 3R enclosure.
Feeders	3 Rigid EMT where visible.
Wiring Devices	3 Devices appear to be specification grade with stainless steel or nylon cover plates.

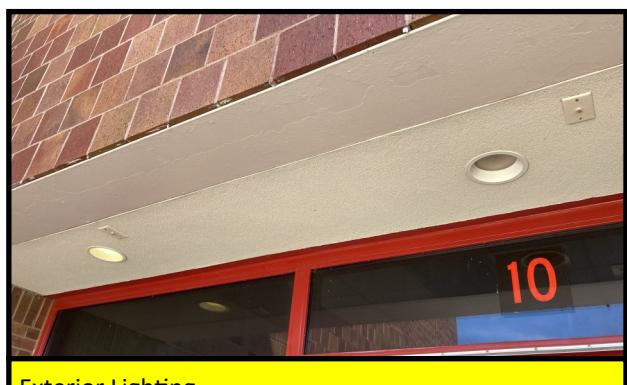
Lansing Middle School Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety

Electrical Component	Comments
Ambient Lighting	3 Surface mounted and recessed T8 Linear Fluorescent is in serviceable condition. Consider replacement with LED for improved efficacy and energy savings.
Gymnasium Lighting	2 High Bay HID fixtures in serviceable condition. Consider replacement with LED for improved efficacy and energy savings.
Emergency Lighting	3 Twin head unitary emergency lights with integral battery backup.
Exit Signage	3 Thermoplastic exit signs with red LED letters and integral battery backup.
Exterior Building Mounted Lighting	3 Compact fluorescent and HID wall packs and surface canopy lights. Consider replacement with LED.
Parking Lot Lighting	3 Pole mounted fixtures with LED replacement lamps; source of power unknown. Recommend investigation to determine how to safely disconnect power for servicing fixtures.
Occupancy Sensors	4 Wall switch and ceiling mounted occupancy sensors.
Exterior Lighting Controls	4 Distributed lighting controls with photocell and override control.
Electric Service Detached Buildings	1 Pad mount transformer feeds wireway with 7 disconnect switches. Number of disconnects exceeds code allowed quantity of 6. Disconnect switches nearing obsolescence. Recommend replacement with distribution panel with main circuit breaker.



Gymnasium Lighting



Exterior Lighting



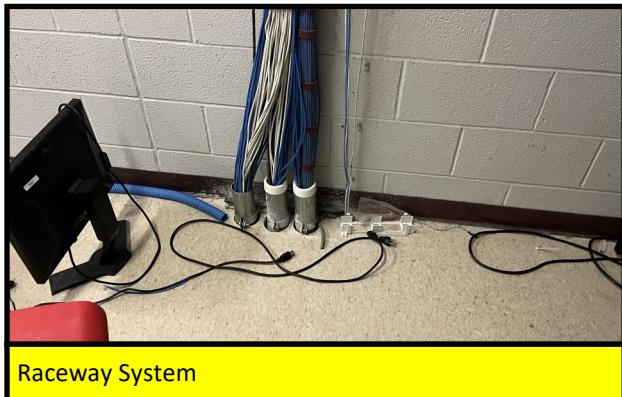
Exterior Lighting Controls



Electric Service to Detached Buildings

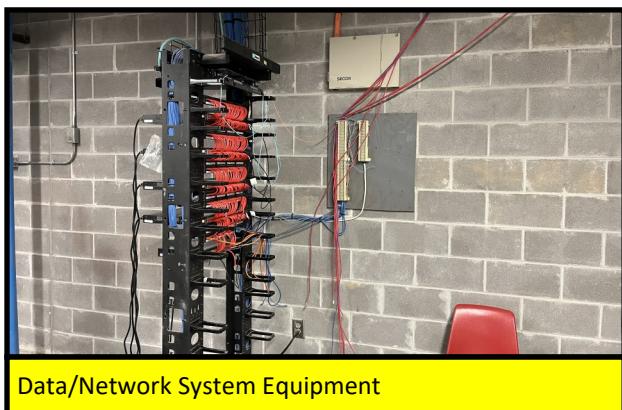
Lansing Middle School Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety

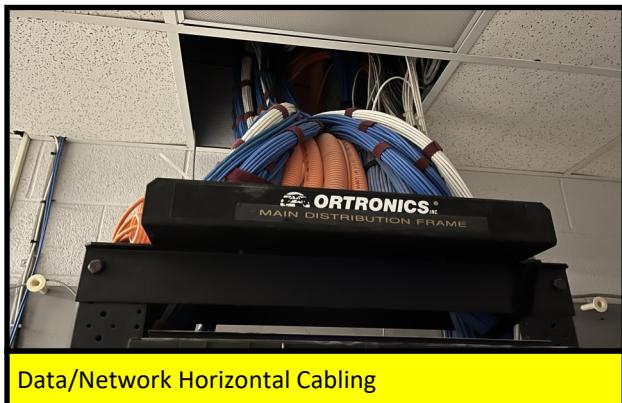


Raceway System

Communications Component	Comments
Communications Raceway Systems	3 Cabling installed in cable tray, conduit and surface ladder hooks.
Data/Network System Equipment	3 Category 5/5e patch panels wall mounted I.T. racks.
Data/Network Horizontal Cabling	3 Category 5e/6 UTP copper cabling from patch panels to wall outlets.
Data/Network Outlets	3 Category 5e/6 RJ45 jacks in nylon wall outlets.
Intercom	3 Intercom through ceiling speakers via VOIP phones.



Data/Network System Equipment



Data/Network Horizontal Cabling

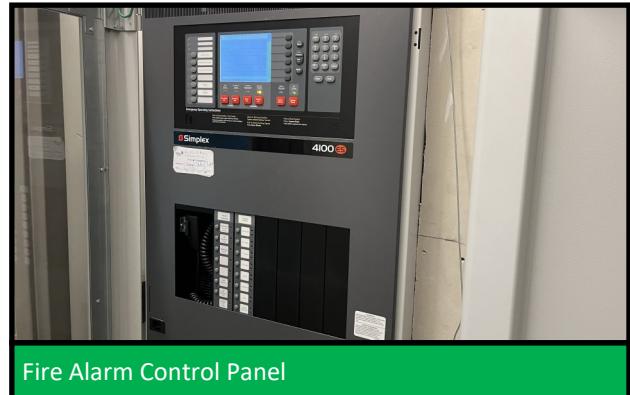


Intercom Speakers

Lansing Middle School Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety

Fire Alarm Component		Comments
Fire Alarm Control Panel	4	Simplex 4100 panels with voice notification capability.
Smoke Detectors	3	Ceiling mounted spot type area detectors.
Manual Pull Stations	3	Single action stations at exits with keyed reset.
Notification Appliances	3	Ceiling and wall mounted strobes/horns.



Lansing High School Assessment

Summary

Areas of Need:

- Roof Drains
- Ceiling Repairs
- Exterior Brick
- Trench Drain
- Erosion / Drainage Issues
- Interior Pool Doors
- Concrete & Paving
- Tennis Courts

The Lansing High School Assessment

Includes:

1. A building assessment summary completed by JGR Architects. This report ranks existing components as Excellent, Good, Fair, and Poor. The systems evaluated for this report include site, building envelope, and building interior.
2. A Systems Assessment summary completed by LST Consulting Engineers. This report ranks existing systems as Excellent, Good, Fair, and Poor. The systems evaluated for this report include Plumbing, Electrical, Mechanical, Communications, and Fire Safety.
3. The color-coding system utilized in this section is shown below.

4	Excellent	No issues to report. System component should be expected to remain functional for 10 years.
3	Good	System components exhibit wear, but no failures or critical issues are present. System component should be serviceable for 5-10 years.
2	Fair	System components exhibit wear, but no failures or critical issues are present. System component is at or beyond typical life expectancy. Component will likely require repair or replacement within 5 yrs.
1	Poor	System components are worn/damaged. Replacement is recommended.

Lansing High School Assessment

Architecture | Structural | Civil



Courtyard Sidewalks

Site Component	Comments
Pavement-Sidewalks	4 Courtyard sidewalks and pavers in good condition.
Pavement-Sidewalks	2 Exit door and stoop does not lead to sidewalk.
Pavement-Sidewalks	1 Sidewalk trench drain is deteriorated. Decorative retaining wall contains some loose blocks.



Exit Door and Stoop

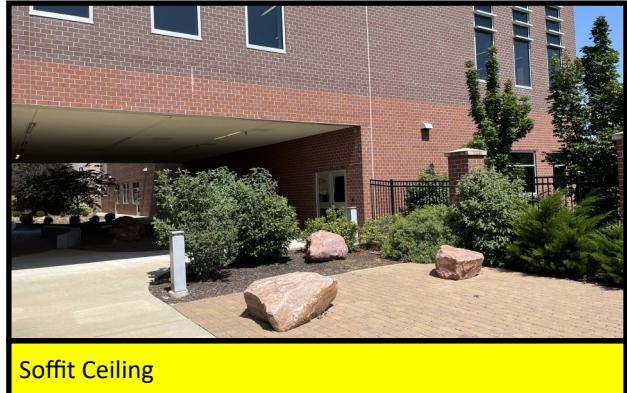


Sidewalk Trench Drain

Lansing High School Assessment

Architecture | Structural | Civil

Envelope Component		Comments
Walls-Soffits	3	Soffit ceiling at tunnel area appears to be sagging. Minor effervescence at corner and at single weep hole above.
Miscellaneous	2	Some effervescence at building control joints and stone accent band.
Miscellaneous	4	Attractive building appearance in generally good condition.
Miscellaneous	3	Soffits and overhand in good condition. Some wall staining at roof drain outlet.
Miscellaneous	3	Flashing and expansion provided at pavers.
Miscellaneous	4	Building finishes and sidewalk and drives attractive and in good condition.
Miscellaneous	3	Some staining at roof drain. Verify if this is an overflow roof drain that is functioning properly.
Miscellaneous	2	Areas of courtyard irrigation system may not be functioning properly.



Soffit Ceiling



Brick Wall



Flashing and Expansion at Pavers



Roof Drain

Lansing High School Assessment

Architecture | Structural | Civil



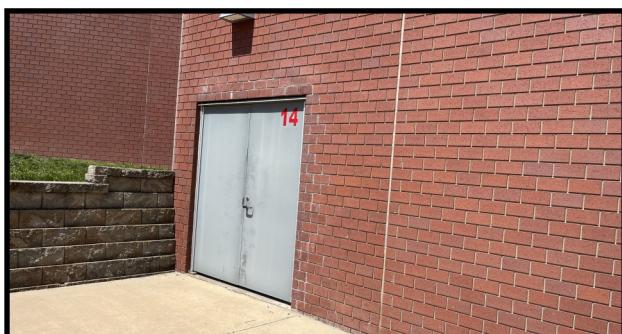
Courtyard Erosion



Sidewalk Transition Warning Pads



Window System



Brick Around Door-Effervescence

Envelope Component	Comments
Miscellaneous 2	There appears to be some dirt erosion into the courtyard lower plaza area.
Miscellaneous 2	There is some erosion at courtyard. Irrigation system may not be functioning properly.
Miscellaneous 3	Sidewalk transition with warning pads provided.
Windows-Doors 4	Window systems appear in good condition. There appears to be some water drainage at weep holes.
Windows-Doors 2	There appears to be some settlement at sidewalks and building steps.
Windows-Doors 2	Exterior door stoop does not lead to sidewalk or right of way. Unsure if this is an issue of concern.
Windows-Doors 2	There appears to be some moisture issue with effervescence around exterior door.

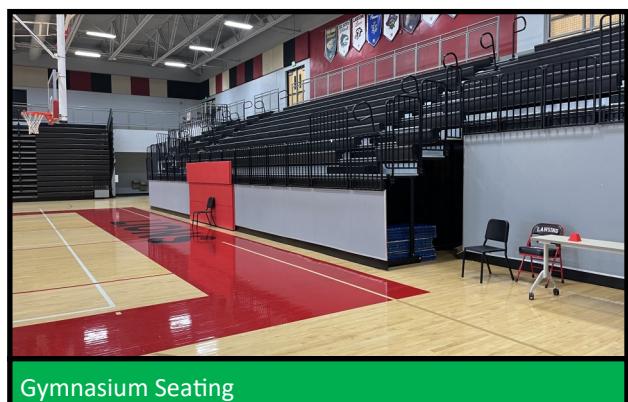
Lansing High School Assessment

Architecture | Structural | Civil

Interior Component		Comments
Accessibility	4	Restrooms are fully accessible.
Accessibility	4	Gym seating with accessible handrails and accessible seating is provided.
Accessibility	4	Stairway railings and guards are fully accessible.
Aesthetics	4	Building finishes and curtain walls are attractive and in good condition.
Aesthetics	2	Some wall damage at drywall wall at gym area stair.
Aesthetics	4	Gym finishes are attractive and in good condition.
Aesthetics	1	There is a leak above doorway exit sign.
Aesthetics	2	Stained ceiling tile caused by leak.
Aesthetics	4	Classroom finishes attractive and in generally good condition.
Aesthetics	2	Damaged ceiling tile cause by water leak above.
Aesthetics	2	Stained ceiling tile at air register and fax room may be caused by leak and changing of the filter.
Aesthetics	2	Minor drywall damage and loose wall covering at accent.
Floors	4	Walk off carpet at building entry in good condition.



Restroom Accessibility



Gymnasium Seating



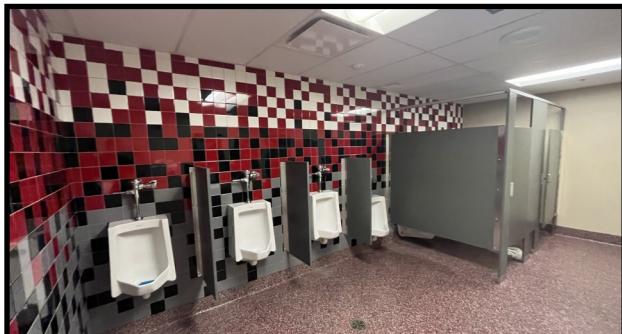
Ceiling Tile



Entry Walk Off Carpet

Lansing High School Assessment

Architecture | Structural | Civil



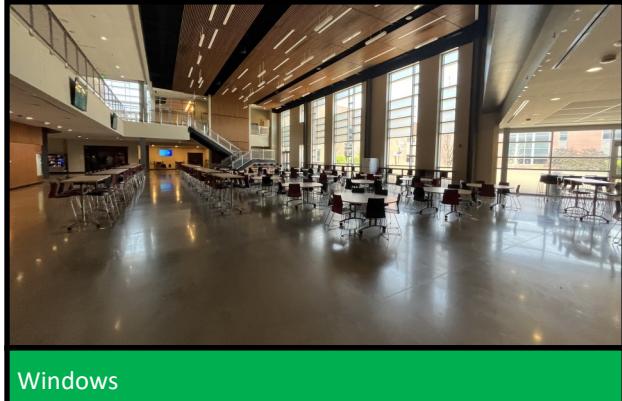
Restroom Epoxy Resin Flooring



Gym Floor



Interior Doors—Pool Area



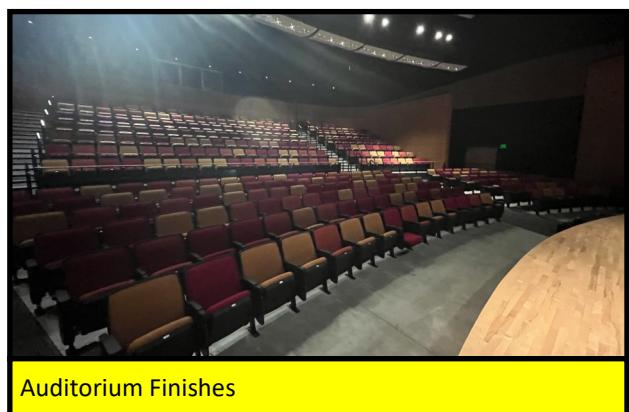
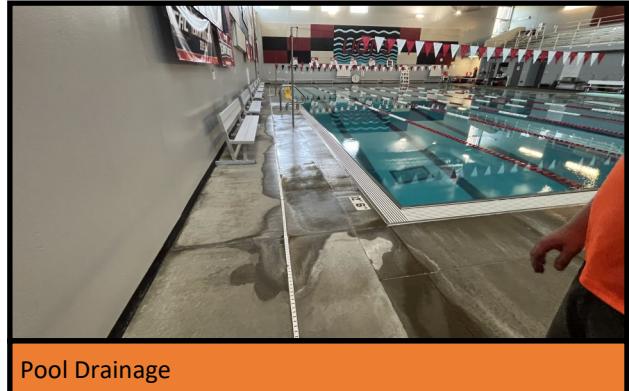
Windows

Interior Component	Comments
Floors	4 Epoxy resin floors in good condition at restrooms.
Floors	4 Wood gym floors in good condition.
Floors	4 Polished concrete floors in good condition. Loose rugs may be a trip hazard. Some cracking is evident but to be expected in this type of floor.
Floors	4 Epoxy resin science classroom floors in good condition.
Windows-Doors	1 One door and hardware corroded and damaged at pool area. Common at pool areas.
Windows-Doors	1 Hollow metal doors and hardware damaged by corrosion at the pool area. Common at pool areas.
Windows-Doors	4 Building windows appear in good condition.
Windows-Doors	4 Hollow metal windows and interior storefront in good condition.
Windows-Doors	4 Building curtain wall and finishes appear in good condition.
Life Safety	4 Appropriate guards and railings in place at gymnasium seating.
Life Safety	4 Appropriate guards and railings in place at pool seating.

Lansing High School Assessment

Architecture | Structural | Civil

Interior Component		Comments
Life Safety	2	Kiln is not hooked up. Appropriate venting is not in place for installation in this area.
Miscellaneous	1	Wall lavatories are loose at wall.
Miscellaneous	2	Water may not be draining appropriately to desk drains at pool maintenance suggested that there may be some settlement at one corner of the pool. This is not visible during this observation.
Miscellaneous	2	Electrical devices and conduits are corroded due to the pool environment.
Miscellaneous	4	Wood shop area in good condition with appropriate ventilation and emergency eyewash fixtures.
Miscellaneous	3	Auditorium finishes appear in good condition.
Miscellaneous	4	Concession area cabinets, countertops, and floors in good condition.
Miscellaneous	2	Minor wall damage at classroom drywall areas.
Miscellaneous	4	Science classroom finishes in good condition.
Miscellaneous	4	FACS classroom finishes in good condition.
Miscellaneous	3	Wood platform area in wood condition. A couple of electrical devices appear loose and missing covers.
Miscellaneous	3	Commons area finishes in good condition. Ceiling tile damaged by leak at upper concourse.



Lansing High School Assessment

Architecture | Structural | Civil



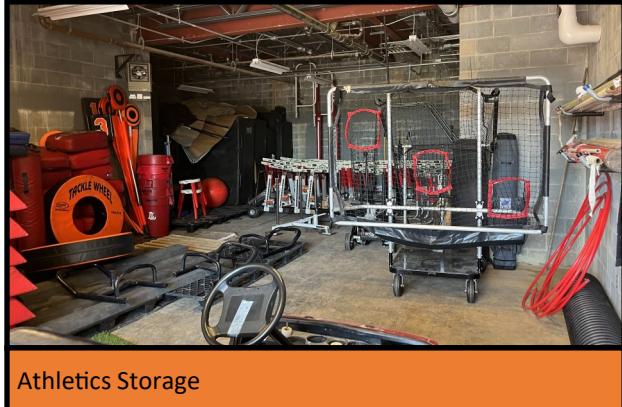
Baseball Field



Driveway



Concessions Sidewalk



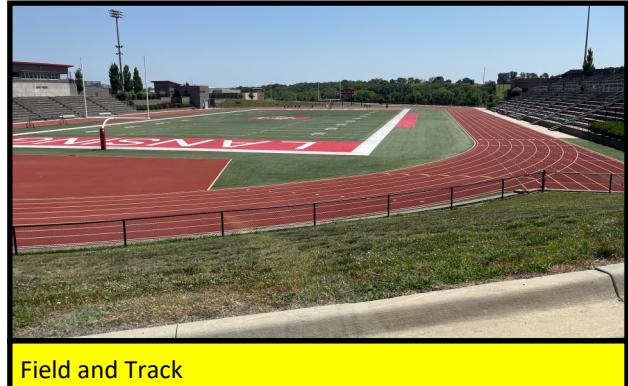
Athletics Storage

Athletic Component		Comments
Miscellaneous	3	Baseball field in good condition. No field lighting exists.
Miscellaneous	1	There is odd settlement at driveway area. Cracking at pavement and previous filled void in pavement is settling.
Miscellaneous	2	Area drain inlet may not be fully handling draining from the soccer field and surround area.
Miscellaneous	1	Fence post is loose south of soccer field.
Concessions	1	Effervescence at walls of concession building and there appears to be significant settlement of 2+ inches adjacent to concession windows.
Concessions	2	Sidewalk expansion joint at building should be sealed.
Concessions	2	Sidewalk appears to have settled and cracked along edge of building.
Concessions	1	Appears to be a leak at the wall hydrant box.
Concessions	2	Field level storage area shows signs of water infiltration throughout several walls.
Concessions	1	Source of water infiltration should be investigated by an expert.

Lansing High School Assessment

Architecture | Structural | Civil

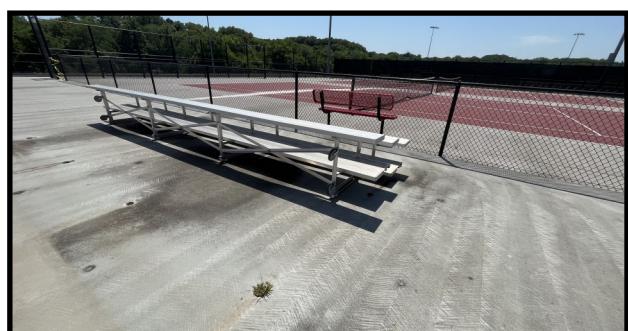
Athletic Component	Comments
Athletics Concessions	2 Effervescence coming through wall.
Athletics Football Track	3 Field and track appear in good condition although maintenance and infill of rubber may be required.
Athletics Tennis	2 Handrail extensions do not return to post as required by code.
Athletics Tennis	1 Tennis court surfacing is cracked and settling throughout.
Athletics Tennis	1 Indentations at court surface caused by weight of bleacher.
Athletics Tennis	1 Court surfacing is cracked throughout. Appears to be settling.
Athletics Tennis	2 Expansion joint at wall between court levels is not sealed. Court finish is peeling below.



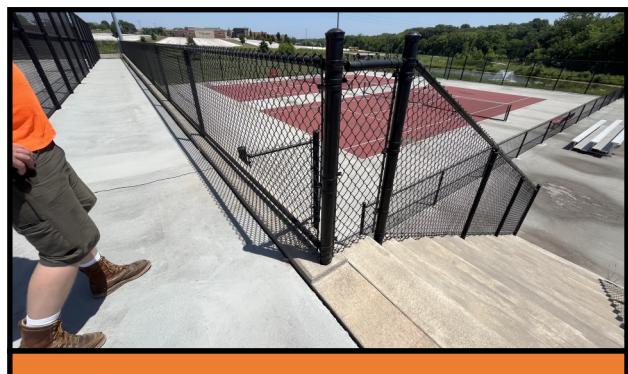
Field and Track



Tennis Court Surface



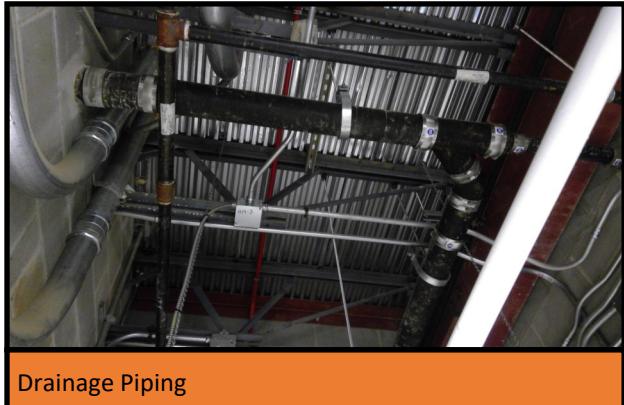
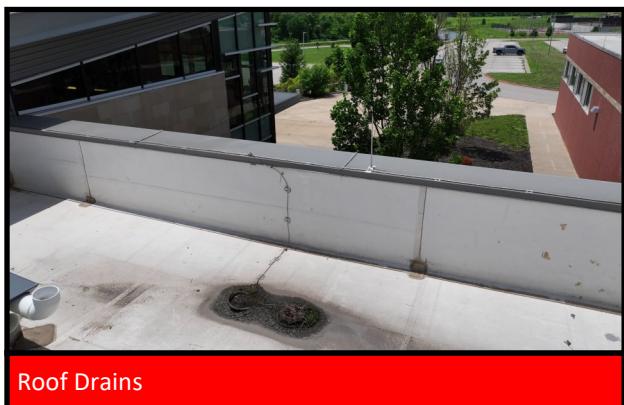
Tennis Court



Tennis Court Expansion Joint

Lansing High School Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety



Plumbing Component	Comments
Water Closets	3 Wall mount manual and sensor flush valve.
Urinals	3 Wall mount sensor flush valve.
Lavatories	3 Wall hung and self rimming lavatories with sensor operated faucets.
Drinking Fountains/ Water Coolers	3 ADA height units; some with bottle fillers.
Janitor Sinks	3 2x2 floor mount sink with wall mount faucet; ensure faucet is provided with vacuum breaker.
Roof Drains/Overflow Drains	1 Roof drains are clogged resulting in water flowing through overflow nozzles. This has resulted in high water flow through courtyard area and water floods into main mech/electrical rooms.
Water Heaters	3 2014 Aerco boilers with sequencing controller.
Circulation Pumps	3 Inline circulators at all water heaters.
Drainage Piping	2 Cast iron and PVC piping; drain piping below Mechanical Room F100 is partially blocked with concrete. Recommend intercepting above grade piping on north end of room and routing overhead to exposed drain piping on south side.
Water Piping	3 Copper piping where visible.

Lansing High School Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety

Plumbing Component	Comments
Gas Piping	3 Schedule 40 black steel piping.
Science Room Sinks	3 Stainless steel drop in sinks with manual faucets.
Science Room Gas	3 Countertop gas turrets and emergency shut off.
Art Room Sinks	3 Stainless steel sinks with plaster traps.
Water Softener	3 Whole building water softener system in main mech room and pool mechanical room.
Kitchen Sinks	3 Commercial type stainless steel sinks.
Grease Interceptor	3 1000 gallon precast concrete exterior interceptor. Ensure regular maintenance for proper operation.
Emergency Eye Wash/ Shower	3 Eye wash/shower station located in science rooms and woodshop.
Fire Protection System	3 Fire protection system provides complete coverage; stand pipe system.
Showers	3 Private showers in office area and locker rooms.
Natatorium Equipment	3 Pool pump recently replaced; ensure regular maintenance on equipment to maintain in operational condition.

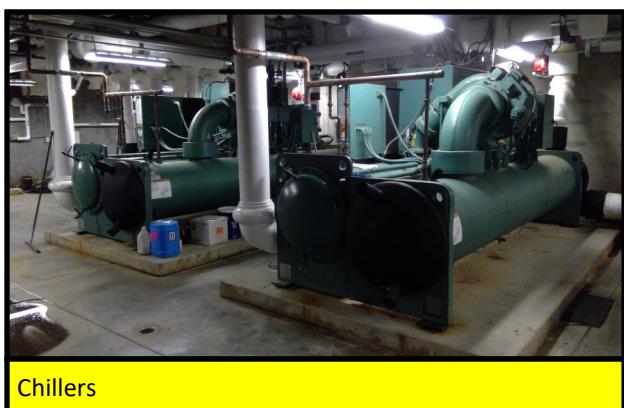


Lansing High School Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety



Cooling Towers



Chillers



Pool Dehumidification Unit



ERV Units

HVAC Component	Comments
Building Automation System	3 Automated Logic controls for all buildings in district.
Cooling Towers	3 2014 BAC forced draft cooling tower (2) 325 ton sections..
Chillers	3 2014 (2) 325 ton centrifugal chillers
Boilers	3 2014 AERCO Benchmark boilers with manufacturer's sequencing controls.
HVAC Pumps	3 Hot and chilled end suction pumps. Condenser water vertical turbine pumps.
Water Treatment	3 Ensure recommended water treatment program is utilized to extend system life.
HVAC Piping	3 Heating and chilled water piping in good condition.
Air Handlers	3 2014 Trane CSAA 4-pipe air handlers.
Pool Dehumidification Unit	3 2014 50 ton Poolpak rooftop unit with hot gas reheat for enhanced dehumidification.
ERVs	3 2014 Trane CSAA units with enthalpy wheel units serving Lockers, Weights, and Wrestling rooms provided with hot and chilled water coils.

Lansing High School Assessment

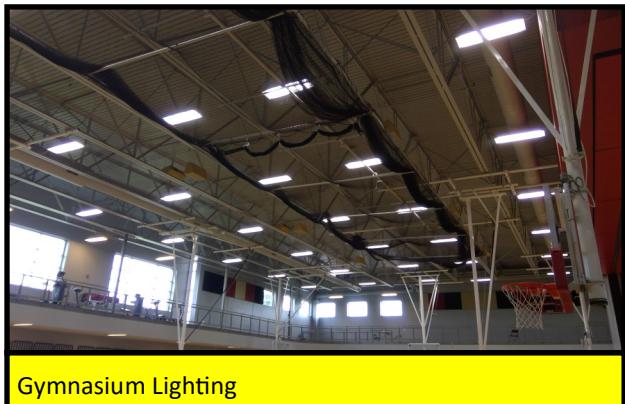
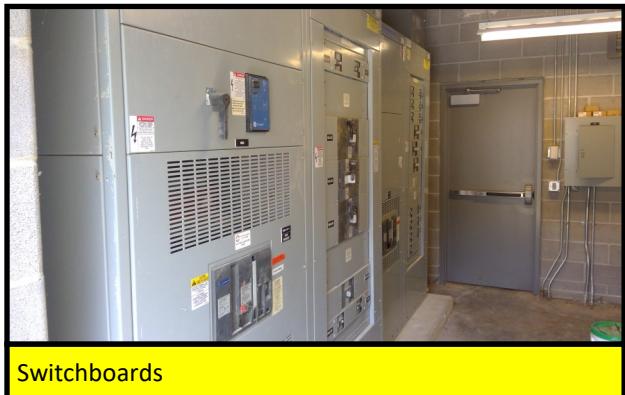
Plumbing | Electrical | Mechanical | Communications | Fire Safety

HVAC Component	Comments
Computer Room Unit	2 Liebert split systems dedicated to IT closets. Some units not able to maintain adequate room temperature.
Kitchen Exhaust Hoods	3 Kitchen exhaust hoods with ansul system appeared to be in good condition. Heated makeup air unit on roof. Dishwasher exhaust ducted to outdoors.
Ventilation Air	3 Via air handlers.
Air Distribution Ductwork	3 Sheetmetal rectangular (insulated), double wall spiral, and fabric ductwork in pool area.
Unit Heaters	3 HW wall mounted and ceiling suspended hydronic cabinet and unit heaters.
Exhaust Fans	3 Rooftop exhaust fans in good condition.
HVAC Piping Insulation	3 Hydronic piping insulation in good condition.
Lab Exhaust	3 Self-contained lab exhaust system.
FACS Room Exhaust	3 Residential style recirculating range hoods.
Dust Collection System	3 Exterior dust collector, ducted intake ports at workstations.
Finishing Booth	3 Pre-manufactured finishing booth with filters and fire suppression.
VAV Boxes	3 Fan powered VAV boxes with HW reheat coils.



Lansing High School Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety



Electrical Component	Comments
Switchboards	3 3000A 480V-3ph GE Switchboard.
Distribution Panelboards	2 GE Spectra Series panels.
Branch Circuit Panelboards	3 GE Series A panels.
Dry Type Transformers	3 GE transformers.
Enclosed Disconnect Switches	3 Heavy duty disconnects in NEMA 3R enclosure.
Feeders	3 Rigid EMT where visible.
Wiring Devices	3 Devices appear to be specification grade with white nylon cover plates.
Ambient Lighting	3 Surface mounted and recessed T8 Linear Fluorescent is in serviceable condition. Consider replacement with LED for improved efficacy and energy savings.
Gymnasium Lighting	3 High Bay T5HO fluorescent fixtures in serviceable condition. Consider replacement with LED for improved performance and energy savings.

Lansing High School Assessment

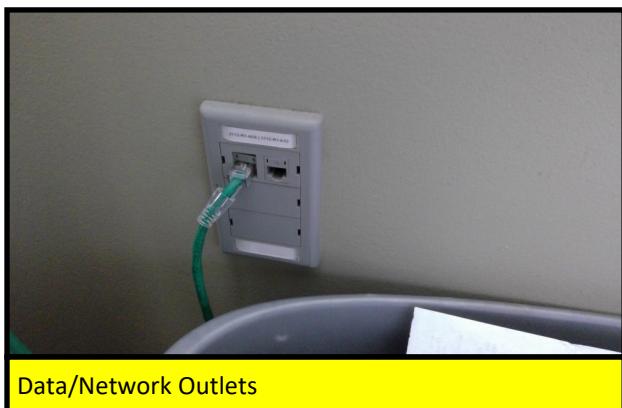
Plumbing | Electrical | Mechanical | Communications | Fire Safety

Electrical Component	Comments
Emergency Lighting	3 Powered by generator backup power.
Exit Signage	3 Thermoplastic exit signs with red green letters and integral battery backup.
Exterior Building Mounted Lighting	3 Compact fluorescent and HID wall packs and surface canopy lights. Consider replacement with LED.
Parking Lot Lighting	3 Pole mounted HID fixtures some with LED replacement lamps.
Occupancy Sensors	3 Ceiling occupancy and combination wall switch/sensors.
Generator	3 60kw Olympian natural gas generator and CAT automatic transfer switches; unit serves lights and life safety equipment.
Auditorium Lighting	3 Recessed house lighting and theatrical lighting in good condition.
Natatorium Lighting	3 Asymmetric uplights rated for natatorium environments.



Lansing High School Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety



Communications Component	Comments
Communications Raceway Systems	3 Cabling installed in cable tray, conduit and surface ladder hooks.
Data/Network System Equipment	3 Category 5/5e patch panels floor and wall mounted I.T. racks.
Data/Network Horizontal Cabling	3 Category 5e/6 UTP copper cabling from patch panels to wall outlets; fiber backbone cabling.
Data/Network Outlets	3 Category 5e/6 RJ45 jacks in nylon wall outlets.
Intercom	3 Intercom through ceiling speakers via VOIP phones.
Clocks	3 Valcom microprocessor programmable clocks.

Lansing High School Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety

Fire Alarm Component	Comments
Fire Alarm Control Panel	3 Simplex 4100ES control panel with voice notification.
Smoke Detectors	3 Ceiling mounted spot type area detectors.
Manual Pull Stations	3 Single action stations at exits with keyed reset.
Notification Appliances	3 Ceiling and wall mounted strobes/ horns.
Electromagnetic Door Holds	3 Holds located at all fire doors.



Board of Education Assessment

Summary

Areas of Need:

- Fire Alarm
- Basement Issues
- HVAC
- Exterior Brick
- HVAC
- Electrical & Lighting Upgrades
- Plumbing / Sump Pump
- Windows, Doors, and Trim
- Assorted Interior Finishes
- Flooring
- Concrete, Paving, and Asphalt

The Board of Education Assessment

Includes:

1. A building assessment summary completed by JGR Architects. This report ranks existing components as Excellent, Good, Fair, and Poor. The systems evaluated for this report include site, building envelope, and building interior.
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2	Fair	System components exhibit wear, but no failures or critical issues are present. System component is at or beyond typical life expectancy. Component will likely require repair or replacement within 5 yrs.
1	Poor	System components are worn/damaged. Replacement is recommended.

Board of Education Assessment

Architecture | Structural | Civil



Parking Lot

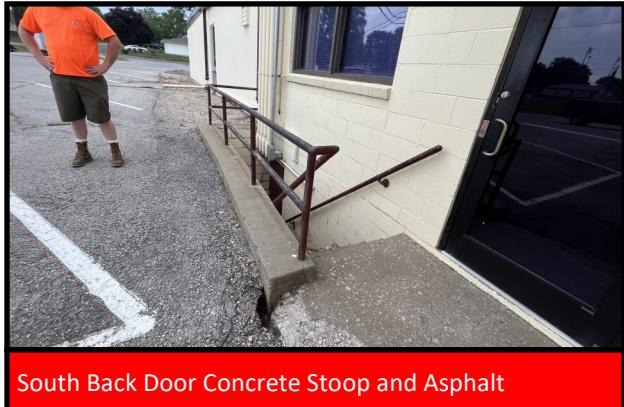
Site Component	Comments
Parking	2 Parking lot needs repair and resurfacing. No handicap parking near main entrance.
Pavement-Sidewalks	2 Concrete walk is deteriorating with asphalt road topping aggregate accumulating at curb line.
Pavement-Sidewalks	1 Concrete stoop outside exterior door is deteriorated.
Pavement-Sidewalks	2 Concrete walks at west staff entrance in fair condition, adjacent parking is deteriorated and in need of repair.
Pavement-Sidewalks	1 Asphalt paving outside southside of west staff entrance is deteriorated, in need of replacement.
Pavement-Sidewalks	1 South back door, concrete stoop, and asphalt is deteriorated. Hole in paving adjacent to stairwell is large enough for animals to live.



Sidewalks and Concrete Stoop



Asphalt Parking—Southside of West Staff Entrance

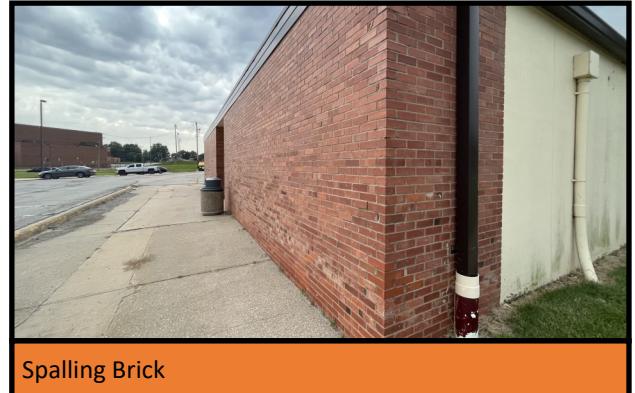


South Back Door Concrete Stoop and Asphalt

Board of Education Assessment

Architecture | Structural | Civil

Envelope Component	Comments
Walls-Soffits	2 Brick is spalled and damaged at multiple building areas.
Walls-Soffits	2 Base of concrete wall is damaged at finish floor line.
Miscellaneous	1 Roof drain piping is damaged and disconnected along south side of building.
Miscellaneous	1 Exterior stairwell is full of debris. Masonry walls are damaged.
Windows-Doors	2 Exterior window trim is cracked and in need of repair or sealing at various areas.
Windows-Doors	3 Exterior main entry doors appear in good condition.
Windows-Doors	1 Basement boiler room access door is non-functional due to the damage and debris at the stairwell.

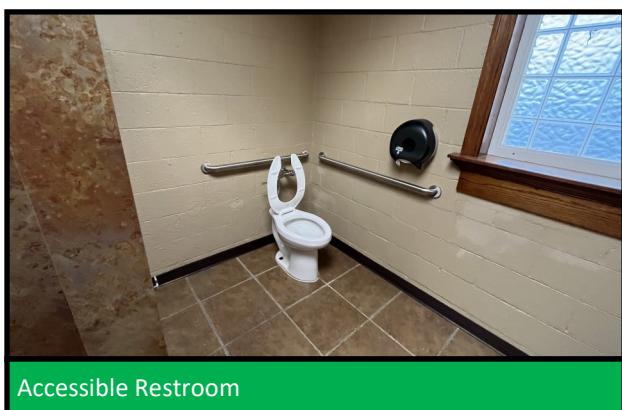


Board of Education Assessment

Architecture | Structural | Civil



Office Staff Restroom



Accessible Restroom



Carpet



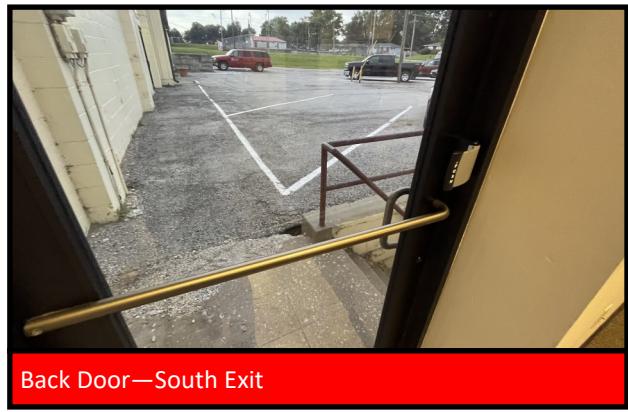
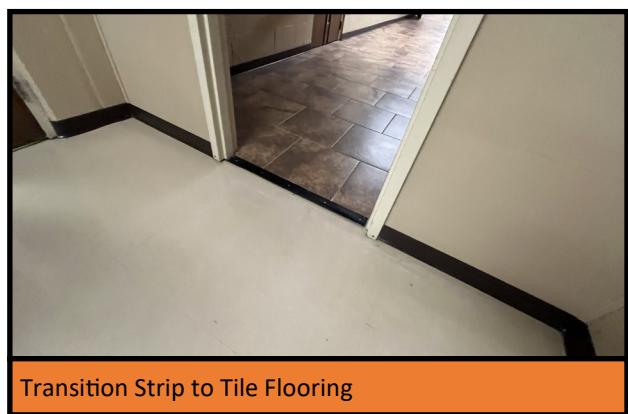
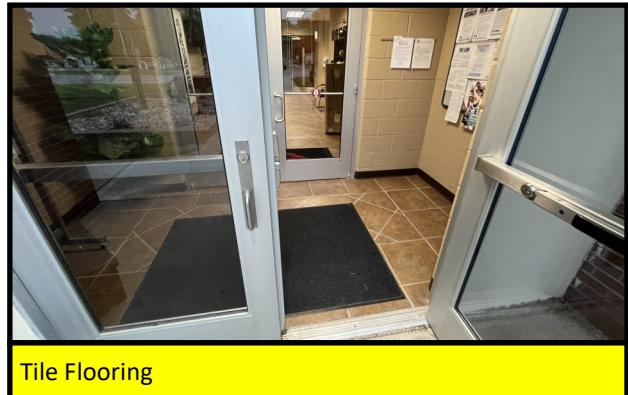
Basement Boiler Room Floor

Interior Component	Comments
Accessibility	Entry and office access doors are accessible. Proper door clearance not provided at office side with cabinet under the window encroaching on clear area requirements.
Accessibility	Office staff restroom is not accessible. Accessible restrooms located elsewhere within the building. Room and finishes are in good condition.
Accessibility	Lavatory area and urinals are accessible, limited access to water closets.
Accessibility	Good open area and access at lavatory area to doors.
Accessibility	Accessible water closet, meets size and grab bar requirements.
Accessibility	Accessible drinking fountains provided.
Accessibility	Staff restroom and shower is accessible, except interference from cabinetry.
Aesthetics	Entry area finishes are in good condition, tile may be considered dated, but good condition.
Aesthetics	Carpet floors are aged and dated, wall, ceiling, and light finishes are good.
Aesthetics	Rust appears at ceiling grid in bathroom stall.
Aesthetics	Room finishes appear in good condition, stained ceiling, tiles in the corner, need repair and replacement.
Aesthetics	Stained ceiling tiles in corner of break room. Locate source of damage and repair.
Flooring	Basement boiler room floor is a hazard. Perimeter water trough appears hazardous-adjacent to electrical panels.
Flooring	Loose rugs at building entry can be a trip hazard. May want to consider walk off carpet.

Board of Education Assessment

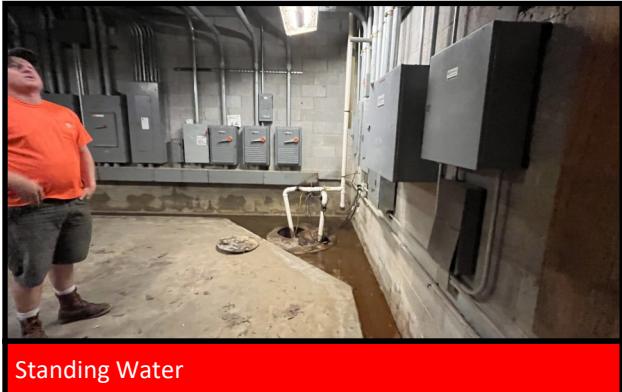
Architecture | Structural | Civil

Interior Component		Comments
Flooring	3	Tile floor at hallway in generally good condition. Some grout repair is needed.
Flooring	2	Office area floor is dated.
Flooring	2	VCT floors at restroom are not recommended due to joints and sanitary code requirements. Hard surface material not provided at walls around water closet.
Flooring	2	Floors are cracking along north conference room wall. Unclear if this is from settlement or original building conditions.
Flooring	2	Loose floor, transition strip at hallway and meeting room door way.
Flooring	2	Asbestos flooring at small area is exposed and has damaged edges.
Flooring	3	VCT floors at west end of building in good condition. Loose rugs may be a trip hazard.
Flooring	2	Transition strip at ceramic tile floor is slightly raised, without smooth transition.
Windows-Doors	2	Hallway doors are damaged at areas. Hallway doors are non-rated and should be rated per code for non-sprinkled buildings. Doors are missing closures at hallway.
Windows-Doors	2	Exterior windows with Roto vents have deteriorated glazing.
Windows-Doors	1	Deteriorated trim and glazing at exterior window. Floor damage may be due to water infiltration at window.
Windows-Doors	3	Exterior window and shelf in generally good condition. Some wood finish repair may be required.
Windows-Doors	1	Back door, south exit adjacent to stairwell, is a hazardous condition at the stoop and asphalt transition.
Windows-Doors	1	South window has deteriorated glazing, broken glass, and water infiltration.
Windows-Doors	2	West staff entry doors are damaged and rusted at the base.

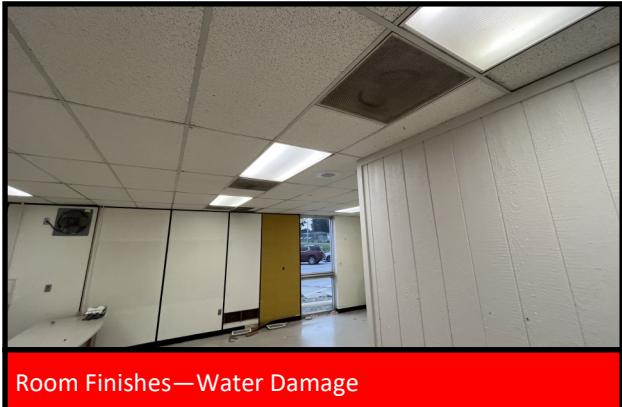
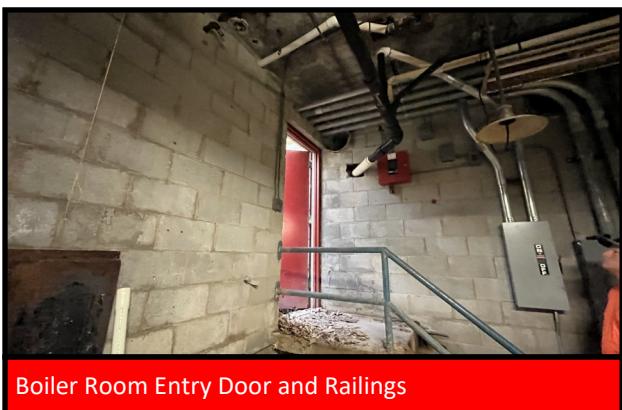


Board of Education Assessment

Architecture | Structural | Civil



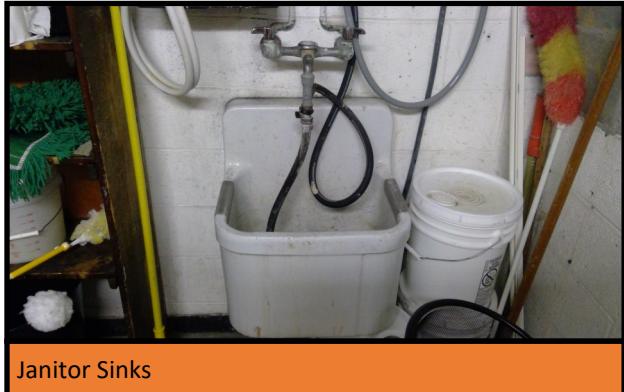
Interior Component	Comments
Life Safety	1 Standing water at electrical equipment is hazardous.
Life Safety	1 Boiler room entry door and railing system is unsafe due to difficult access.
Life Safety	2 Fire alarm system should be evaluated to confirm modernization requirements.
Life Safety	3 Good exiting provided. Exit doors to exit path are non-rated, however.
Miscellaneous	1 Boiler room walls and floors have water damage and standing water. Overall access is limited by areaway debris.
Miscellaneous	1 Water damage and standing water at perimeter of room around electrical panels.
Miscellaneous	3 Minor repair needed at hallway ceilings. Floors and walls in generally good condition.
Miscellaneous	3 Some ceiling repair needed at meeting room.
Miscellaneous	2 Exit blocked by stored materials. Some ceiling finish and lighting repair required.
Miscellaneous	1 Wall and base damage, may be the result of water infiltration.
Miscellaneous	1 Room finishes are in poor condition. There appears to be water damage, non-accessible door, hardware, poorly constructed dividers, not extending through ceiling, filthy, air, vents, etc.
Miscellaneous	1 Water damage at ceiling in server room.
Miscellaneous	1 Room finishes are in poor condition. There appears to be water damage, not accessible door, hardware, poorly constructed, dividers, filthy, air vents, and damaged ceiling.
Miscellaneous	2 Lavatory appears to be loose at the wall.
Miscellaneous	2 Water damage at hallway door and damaged floor tile.



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Board of Education Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety



Plumbing Component	Comments
Water Closets	3 Floor mount manual flush valve.
Urinals	3 Wall mount manual flush valve.
Lavatories	3 Wall hung and self rimming lavatories with manual faucets.
Drinking Fountains/ Water Coolers	3 ADA height units with bottle fillers.
Showers	3 Private shower with ADA grab bar, and hand shower.
Janitor Sinks	2 Wall mount fixture with wall faucet. Unit is difficult to dump mop bucket. Ensure vacuum breaker installed.
Roof Drains/ Overflow Drains	3 Gutters and downspouts; some downspouts disconnected from above grade piping.
Water Heaters	3 2002 gas fired natural draft water heater near end of expected life.
Circulation Pumps	3 2021 Inline circulator at water heater.
Sump Pump	1 Sump pit cover is corroded/damaged. Pit is used as a drain for basement resulting in standing water directly beneath electrical gear. Modify drainage in basement to allow proper drainage.
Drainage Piping	2 Cast iron and PVC piping appears to be in poor condition where visible.
Water Piping	2 Mix of copper and galvanized piping. Visible signs of corrosion. Galvanized piping is prone to corrosion and leaking.
Gas Piping	3 Schedule 40 black steel piping. Wood blocks used for rooftop support are degrading.

Board of Education Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety

HVAC Component	Comments
Building Automation System	Automated Logic controls for all buildings in district. Some units on standalone thermostats. Recommend integrating all equipment into BAS control system.
Packaged RTUs	Wide variety of RTU ages and manufacturers. Gas fired rooftop units beyond expected life. Units not provided with hail guard have damaged condenser fins. Recommend utilizing a single manufacturer as units are replaced for maintenance.
Ventilation Air	Via RTUs.
Air Distribution Ductwork	Sheetmetal rectangular.
Unit Heaters	Electric wall heaters; some superficial damage to grates.
Exhaust Fans	Rooftop exhaust fans nearing end of expected life.
Portable A/C Unit	Portable AC in use and is not adequately sized for space being served. RTU for computer room is not operational.
Mini-Split	Wall mounted indoor unit and rooftop heat pump for IT room.



Board of Education Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety



Electric Service Entrance Equipment



Branch Circuit Panelboards



T8 Fluorescent Lighting



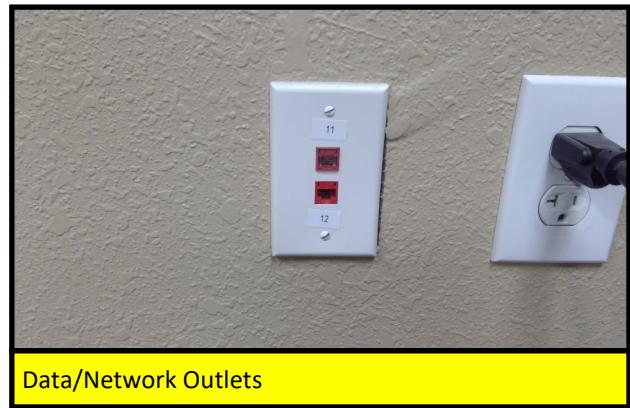
Exterior Building Mounted Lighting

Electrical Component	Comments
Electric Service Entrance Equipment	Overhead service to basement electrical room. Main disconnect switches located above standing water. Devices are beyond expected life. Recommend replacement of disconnects and wireway with new service entrance rated panelboard to feed downstream panels.
Branch Circuit Panelboards	Obsolete Federal Pacific panels. Equipment in basement located above standing water. Recommend replacement with new.
Enclosed Disconnect Switches	Obsolete Federal Pacific disconnect switches. Equipment in basement located above standing water. Recommend replacement with new or modify per 26.01.
Feeders	Rigid EMT where visible. Some MC cabling utilized.
Wiring Devices	Devices appear to be commercial specification grade with stainless steel or nylon cover plates. Snap switches are rated for 20 amps, and receptacles rated for 15 amps.
Ambient Lighting	Surface mounted and recessed T8 Linear Fluorescent is in serviceable condition. Consider replacement with LED for improved efficacy and energy savings.
Emergency Lighting	Twin head unitary emergency lights with integral battery backup.
Exit Signage	Thermoplastic exit signs with red LED letters and integral battery backup.
Exterior Building Mounted Lighting	Compact fluorescent and LED wall packs and surface canopy lights.
Parking Lot Lighting	Pole mounted fixtures; source of power unknown. Recommend investigation to determine how to safely disconnect power for servicing fixtures.

Board of Education Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety

Communications Component	Comments
Communications Raceway Systems	3 Cabling installed loose overhead and concealed inside walls. Some surface raceway is present.
Data/Network System Equipment	3 Category 5/5e patch panels in floor and wall mounted I.T. racks.
Data/Network Horizontal Cabling	3 Category 5e/6 UTP copper cabling from patch panels at MDF/IDF to wall outlets.
Data/Network Outlets	3 Category 5e/6 RJ45 jacks in nylon wall outlets.



Board of Education Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety



Fire Alarm Component	Comments
Fire Alarm Control Panel	2 DSC MAXSYS fire alarm control panel. System is not fully operational and produces regular trouble codes. Recommend replacing with new fire alarm control panel.
Smoke Detectors	3 Ceiling mounted spot type area detectors.
Manual Pull Stations	2 Single action station with keyed reset; recommend replacement with new devices compatible with replacement control panel.
Notification Appliances	3 Wall mounted strobes/horns.



Maintenance Building Assessment

Summary

Areas of Need:

- HVAC
- Electrical & Lighting Upgrades

The Maintenance Building Assessment

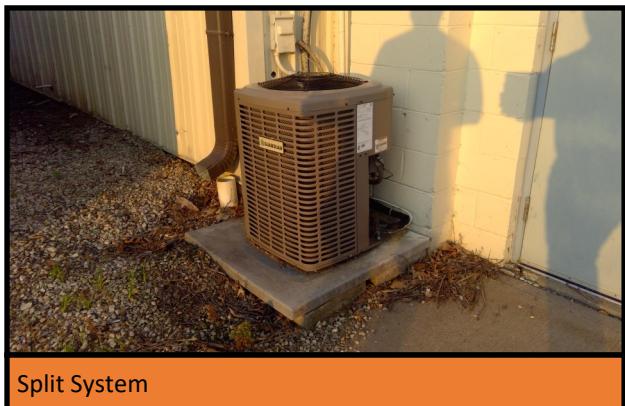
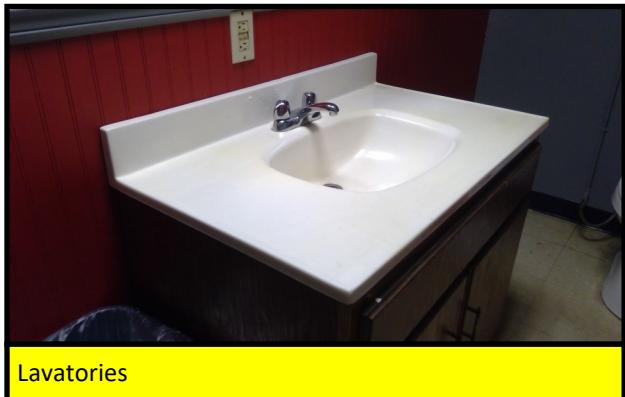
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1	Poor	System components are worn/damaged. Replacement is recommended.

Maintenance Building Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety



Building Component	Comments
Plumbing	<p>3</p> <p>Floor mount flush tank water closet Self rimming lavatory with two handle faucet. Wall hung laundry tub sink in shop area. Schedule 40 black steel gas pipe.</p>
Mechanical	<p>2</p> <p>2014 Guardian condensing unit and gas fired furnace in good condition. Insulated ductwork where visible. Standalone thermostats. Gas fired unit heaters (only 2 of 3 in operational condition). No exhaust or hood above break room range.</p>
Electrical Power	<p>1</p> <p>Electric service via adjacent district office building; provide clear indication labeling location of service disconnect. Electrical panel in shop area needs replacement for safe operation. Industrial receptacles and switches.</p>
Lighting	<p>2</p> <p>T8 strips and surface mount fixtures; consider fixtures rated for use in shop environment. Wall mounted exit signs with battery backup. No emergency lighting visible.</p>

Transportation Building Assessment

Summary

Areas of Need:

- ADA Access
- Drainage
- Exterior Doors
- Concrete & Paving
- Flooring & Interior Finishes

The Transportation Building Assessment

Includes:

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Transportation Building Assessment

Architecture | Structural | Civil



Building Exterior Components



Drainage and Exterior Paving



Material Storage



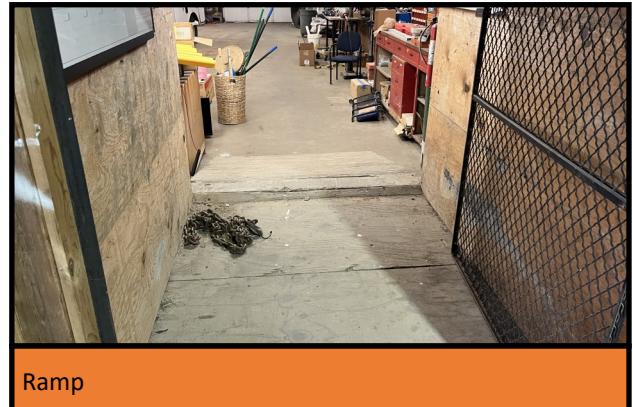
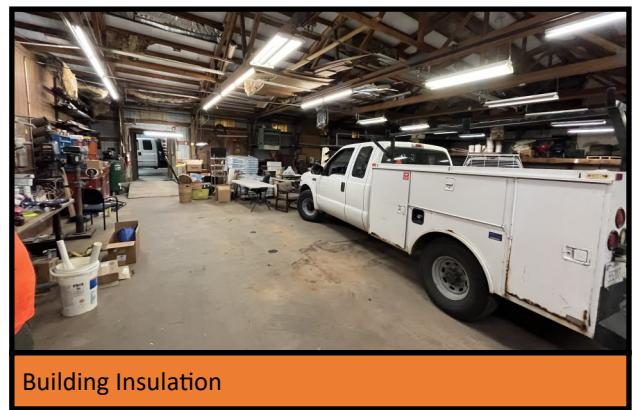
Exterior Door & Threshold

Site and Envelope Component	Comments
Exterior	2 Building components are worn and damaged. There is no containment area at fuel dispensing.
Exterior	2 Building components are damaged and material storage is not secured .
Exterior	1 There is minimal drainage from building. Area way is full of gravel and leaves. This window and similar conditions result in leaks at the interior of the building.
Exterior	2 Paving around containment areas is deteriorated. Building transition at containment area is deteriorated.
Exterior	1 Wall panels are sealed at concrete retaining wall/ containment area in lieu of being properly flashed and sealed .
Exterior	1 Stored materials are not contained, including gas cans.
Exterior	1 Exterior door and threshold is deteriorated. There is no gas containment at dispensing area.

Transportation Building Assessment

Architecture | Structural | Civil

Interior Component	Comments
Interior	2 Transportation/maintenance office finishes are aged and in poor condition.
Interior	2 Restroom is not accessible. Finishes are aged and dirty. Ceiling is damaged. VCT floor not recommended for sanitation in restroom.
Interior	2 Interior finishes are aged. Door hardware is not accessible.
Interior	2 Insulation is damaged and sagging throughout building. Did not observe emergency lighting at building.
Interior	2 Floor finishes relatively good condition. Wall and liner panels and overhead doors have damage.
Interior	2 No side protection at ramp. Ramp is steep.



Transportation Building Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety



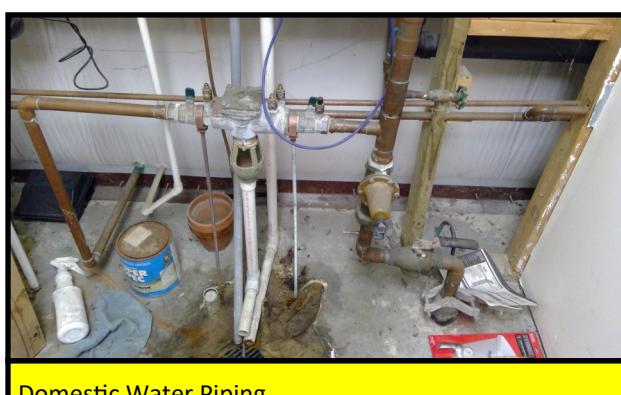
Lavatories



Janitor Sink



Water Heater



Domestic Water Piping

Building Component	Comments
Water Closets	3 Floor mount flush tank water closets in good condition.
Urinals	3 Wall hung urinals with manual flush valves.
Lavatories	3 Wall hung lavatories with lever-handle faucets.
Janitor Sinks	3 2x2 floor mounted sinks with wall mounted faucets.
Water Heaters	4 2022 electric water heater .
Circulation Pumps	1 No circulation pumps present.
Waste and Vent Piping	3 No observable or known issues with waste and vent piping.
Domestic Water Piping	3 Copper piping in good condition.
Gas Piping	3 Schedule 40 black steel in good condition. Wood block roof supports are starting to degrade.

Transportation Building Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety

HVAC Component	Comments
Building Automation System	2 Standalone controls for fans, heaters and A/C equipment.
Packaged Rooftop Units	2 2006 Carrier gas fired rooftop units nearing end of expected life.
Exhaust Fans	3 Ceiling cabinet exhaust fan in restrooms.
Split System Furnace	3 Carrier gas fired high efficiency furnace in good condition for shop area.
Ventilation Air	3 Via RTUs.
Air Distribution Ductwork	3 Where visible ductwork was sheet metal and in good condition.
Vehicle Exhaust	1 Recommend addition of code compliant exhaust for vehicle maintenance areas.

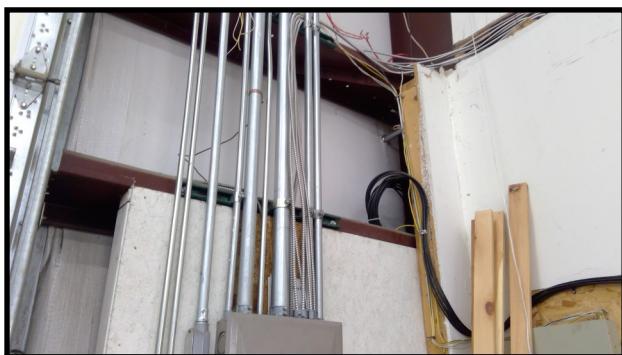


Transportation Building Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety



Interior Branch Circuit Panelboards



Feeders



Fluorescent Office Lighting



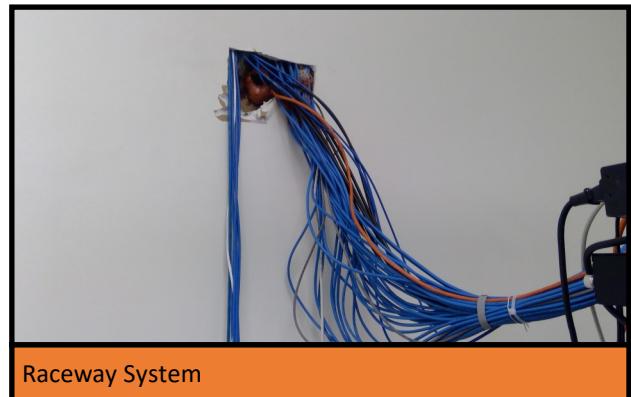
Fluorescent Shop Lighting

Electrical Component	Comments
Interior Branch Circuit Panelboards	3 Cutler Hammer panelboards.
Wiring Devices (Shop)	3 Industrial and commercial grade devices with stainless steel and nylon cover plates.
Enclosed Disconnect Switches	3 Heavy and medium duty switches serving large equipment and A/C in serviceable condition.
Feeders (Exposed to view)	3 Enclosed in rigid conduit system.
Wiring Devices (Offices, Common Spaces)	3 Industrial and commercial grade devices with stainless steel and nylon cover plates.
Ambient Lighting in Office/Common Spaces	2 T8 linear fluorescent lensed troffers, strips, wraparounds in serviceable condition. Consider replacement with LED.
Shop Lighting	2 Suspended T8 linear fluorescent strips in serviceable condition. Consider replacement with LED.
Exit Signage	3 LED exit signs with red letters and integral battery backup.
Emergency Lighting	3 Twin head emergency lights with battery backup.

Transportation Building Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety

Communications Component	Comments
Communications Raceway Systems	2 Cabling installed loose in walls and above suspended ceilings.
Data/Network Equipment	3 Floor mounted IT rack connected to district system via fiber.
Data/Network Horizontal Cabling	3 Category 5e/6 UTP copper with blue jacketing.
Data/Network Outlets	3 Surface and recessed Data/Network wall outlets with nylon cover plates.



Transportation Building Assessment

Plumbing | Electrical | Mechanical | Communications | Fire Safety



Fire Alarm Component	Comments
Fire Alarm Control Panel	2 Edwards Fire Shield panel; recommend replacement with addressable fire alarm control panel.
Smoke Detectors	3 Ceiling mount spot type area detectors.
Manual Pull Stations	2 Single action stations at exits; some devices are aging, recommend updating with devices compatible with new panel.
Notification Appliances	3 Ceiling and wall mounted strobes/horns.



Abandoned Building Assessment

Summary

Areas of Need:

- All Components

The Abandoned Building Assessment

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Abandoned Building Assessment

Architecture | Structural | Civil



Building Component		Comments
Site-Envelope-Interior	1	Significant wall damage at building entry, caused by water infiltration. Parking and drive in poor condition.
Site-Envelope-Interior	1	Soffit and brick wall damaged due to water infiltration issues.
Site-Envelope-Interior	2	Exterior window glazing is cracking and damaged. Likely additional leaks at windows throughout.
Site-Envelope-Interior	1	Wood rot at soffit and damage windows, common throughout building.
Site-Envelope-Interior	1	Water damage and damaged building components common through building exterior.
Site-Envelope-Interior	1	Windows and building components in poor condition. Typical throughout.
Site-Envelope-Interior	1	Exterior door damaged and brick cracked. Settlement at north side of building.
Site-Envelope-Interior	1	Abandoned building interiors, the source of moisture and mold. Appears prevalent.
Site-Envelope-Interior	1	Exterior windows damaged, in poor condition throughout.