Reagan Early College High School Site Summary

Address	7104 Berkman Drive Austin, TX 78752
Number of Permanent Campus Facilities	9
Original Year of Construction	1965
Total Campus Building Area (combined)	253,072 SF

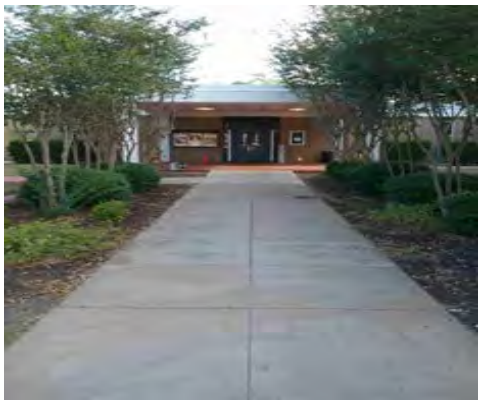
Introduction

The Reagan Early College High School campus is located at 7104 Berkman Drive in Austin, Texas. Reagan Early College High School was established in 1965, and this assessment focused on nine campus buildings. These permanent campus buildings are the Administration Building (BLDG-006A), Stand-Alone Classroom Building (includes library) ("Old Mall") (BLDG-006B), Stand-Alone Gymnasium – Big, Small, & Dance Gymnasiums (includes weight room, lockers, and showers) (BLDG-006C), Stand-Alone [former] Band Hall (BLDG-006D) [now the dance studio], Vocational/Art/Shop and now also JROTC Building (BLDG-006E), Mechanical Building (BLDG-006F), Stand-Alone Cafeteria and Choir Building (BLDG-006G), Stand-Alone Classroom Building ("New Mall") (BLDG-006H), and the Automotive Mechanics/[former] JROTC [and now Technology]/Theater/Band Hall (BLDG-006I). The Administration Building, Stand-Alone Classroom Building (includes Library) Old Mall, Stand-Alone Gymnasium, Stand-Alone [former] Band Hall [now the dance studio], Vocational/Art/Shop Building, Mechanical Building, and Stand-Alone Cafeteria are believed to have been part of the original construction of the campus in 1965. The Stand-Alone Classroom Building without a library is believed to have been constructed soon after circa 1967. The Automotive Mechanics/[formerly] JROTC [and now Technology]/Theater/Band Hall are believed to have been constructed around 1987. The majority of buildings are connected by covered sidewalks, except for the Automotive/Mechanics/[formerly] JROTC [and now Technology]/Theater/Band Hall.

Meeting Log		Revision Log		
Date	**Meeting**	**Revision**	**Date**	**Summary of Content**
7/25/16	Interview	00	9/23/16	Draft Issue
8/9/16	Assessment	01	12/20/16	Added comments from CM Julie Vetter as indicated on email dated 10/31/16 and comments from Project Specialist Kathren Hill and CAC as indicated on email dated 10/31/16. See pages 4, 15, and 114.
10/27/16	Cluster Meeting (Attended)			

Administration Building – BLDG-006A

Building Purpose	Administration
Building Area	5,581 SF
Inspection Date	August 9, 2016
Inspection Conditions	100°F - Sunny
Facility Condition Index	



System Deficiency Overview

The following table provides a summary of the systems and their respective conditions found by each discipline.

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Exterior	Exterior Walls	The exterior of the building consists of painted reinforced concrete beams and columns with prefabricated concrete panels coated with aggregate. The exterior walls were observed to be in good condition, with isolated areas in need of cleaning due to organic growth and debris accumulation. Additionally, isolated areas of the foundation needed recoating and joint sealants maintained.	Good
	Exterior Windows	The exterior windows consist of single-pane glazing units with aluminum frames. The exterior windows were in average condition for their extended age. Facility staff reported no leaks.	Average
	Exterior Doors	The building has two main entrances and two additional emergency exits. All are metal doors in metal frames. The main entrance doors are partially glazed. The remaining service doors around the facility are metal. The exterior doors were in average condition due to age, high usage, and minor rusting. They were well-coated to protect from typical weathering.	Average
Roofing	The roof material covering the building is constructed of various materials. The main portion of the building is covered with built-up asphalt and granular topping while modified bitumen is found on the entrance and covered walkway canopies. The covered walkway canopies are constructed of concrete columns, beams and metal framing. The front canopy of the main entrance is constructed of concrete and has a roof covering of built-up asphalt with a granular topping. The roofing systems covering the building were observed to be in poor condition.		Poor

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		The following deficient conditions were observed on the main building roof surface: evidence of ponding water, cracked asphalt scuppers, cracked sealant, debris build-up, and bald spots resulting in the exposure of the asphalt membrane. The roof trim and metal flashing materials were observed to be in average condition. It should be noted that there were no reported active leaks in occupied spaces within the building at the time of the assessment. The following deficient conditions were observed on the walkway canopy roof surfaces: evidence of ponding water, blisters, spider cracking, and cracked sealant. The trim and metal flashing was observed to be cracked and aged. The gutter and downspout system serving the walkway canopies was observed to be insufficient as wide-spread corrosion and peeling paint was observed on the canopy's metal framing system. It also appeared that water frequently cascaded out of the gutter system onto the pedestrian sidewalks located below the canopies. It was also observed that the top of the concrete beam system supporting the canopy structure was spalling in several areas due to exposure to the elements. Julie Vetter, AISD Construction Management, reported that the concrete beam system that supports the canopy has more wide spread issues. All walkway canopies appear to have structural integrity issues. Gaps can be seen from the exterior and within the courtyard stairs area. Two concrete beam systems have already been replaced due to these issues.	
Interior Construction	Interior Walls	The interior walls are made of painted gypsum board construction, CMU (concrete masonry unit), or brick walls. Ceramic tile was present on the interior side of the exterior wall at entrances. The interior walls appeared in average condition. Some conduits penetrated some walls without appropriate sealing for thermal or fire needs.	Average
	Interior Doors	Interior doors predominantly consist of wood doors and frames. Interior windows are wood framed. One internal double door was present with partial glazing. The interior doors and frames were observed to be in average condition given the age of the system and typical signs of wear and use throughout their design service life. Occasional doors had been replaced. Interior windows were in good condition.	Average
	Interior Specialties	A walk-in safe is installed in a wall. Its door appears to be typical safe metal with a dial, and its walls CMU, in a storage room-like design. No issues were observed or reported by staff and was in average condition due to age of its mechanical dial components.	Average
Stairs	Exterior Stairs	System not present.	N/A
	Interior Stairs	System is not present.	N/A

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Interior Finishes	Interior Wall Finishes	Interior wall finishes are typically paint or partially covered walls of ceramic tiles in the restrooms. The interior wall finishes are in good condition due to recent recoating of painted surfaces.	Good
	Interior Floor Finishes	8" x 8" VCT (vinyl composition tile) flooring is found throughout the building. Some group rooms are covered by carpet. The VCT tile appeared to be well-maintained, but was heavily worn. Frequent instances of high wear, staining, scarring, and occasional cracking and bubbling of these tiles was present. Ceramic tile floor is present in the restrooms and was also heavily worn and discolored. Carpet in group rooms appeared to be in satisfactory condition.	Average
	Interior Ceiling Finishes	Interior ceiling finishes are comprised of 2' x 2' suspended ceiling systems (ACT). The ceiling finishes were relatively recent and were in good condition.	Good
Conveying	System not present.		N/A
Plumbing	Plumbing Fixtures	The building has restrooms for men, women and administration staff. These restrooms have vitreous china hand sinks in counters with manual faucets, along with vitreous china, floor-mount/wall toilets with manual flushing mechanisms. The restroom plumbing fixtures were observed to be in good condition as the fixtures were typically aged but still operational.	Good
	Domestic Water Distribution	All of the plumbing fixtures for the building are serviced with domestic water through a single EWH (electric water heater). It was observed to be in good condition.	Good
	Other Plumbing	The building has single inlet roof drains that are equipped with metal grate covers to prevent debris from entering the drainage system. They were observed to be in good condition.	Good
Mechanical/ HVAC	The building is heated and cooled by (3) three roof top mounted heat pumps feeding (2) constant volume AHUs (air handling units) with interconnecting refrigerant piping. The equipment was observed to be in average condition operationally. However, the heat pumps utilize R-22 refrigerant which is being phased out of production. The AHUs have variable frequency drives on the supply fan of the unit. For building exhaust, each restroom has a single roof mounted EF (exhaust fan) that was controlled by the restroom light switch. They were observed to be in average condition.		Average
Fire Protection	Fire Alarm	This building has the main FACP (Fire Alarm Control	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		Panel) for the entire campus. All other buildings (with the exception of the Auto Mechanics, Theater & Band Hall building) report to this FACP. The building has initiation and annunciation devices such as audio/visual devices, visual only, pull stations, heat and smoke detectors. The system is manufactured by Silent Knight (by Honeywell). The system was observed to be in good condition, (there was no functional testing performed) There is a State Fire Marshal tag dated 07/31/15 on the FACP stating "Old Mall smoke detectors removed for construction". Tag states "system inoperable". The tag also states that the tag can only be removed by a State of Texas Fire Marshal. The panel display showed "All Systems Normal" during the assessment site visit. It does not appear that there is a campus wide "Mass Notification System", and the Audio/Visual devices appeared not to be voice capable. School personnel stated that the Fire Alarm monitoring system does not report correctly to the AISD Service Center and that all the buildings are not programmed in the system.	
	Fire Protection/ Suppression	The building is protected by portable fire extinguishers placed throughout the facility. All observed portable fire extinguishers had inspection tags dated within the last year as required. No automatic sprinkler system is located in the building.	Good
Electrical	Electrical Distribution	The electrical distribution is fed from main switchboard #2 (MSB2) in the Mechanical Building. The feeder enters the building at 480Y/277V-3PH-4W. There is one 480Y/277V-3PH-4W panelboard, a transformer and three 208Y/120V-3PH-4W panelboards throughout the building. This building does not have a lightning protection system. All the electrical distribution equipment is original to the building and has outlived its design service life. The electrical distribution equipment was observed to be in average condition. The rooms where the equipment is located are only accessible to authorized personnel.	Average
	Lighting	The building's exterior lighting consists of HID luminaires mounted under the canopy and on all the exterior walls. The interior lighting consists of primarily T8 fluorescent luminaires. The luminaires for the building were observed to be in good condition. Emergency lighting is provided by emergency lighting units with integral battery packs.	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		When a sampling of exit signs and emergency lighting units test switches were engaged, there was no illumination. All lighting is controlled via toggle switches...	
	Communications & Security	There is a Gemini security panel including surveillance cameras in the building. There is a public address system with ceiling mounted speakers. There appeared to be a new telecommunications systems rack. The Wi-Fi devices also appear to have been recently installed. All the communications and security system appeared to be in good condition with no observed or reported deficiencies.	Good

Exterior System Deficiency Examples

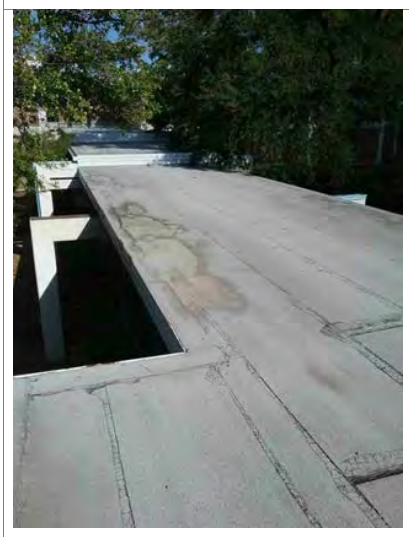
Exterior Walls

Exterior Windows

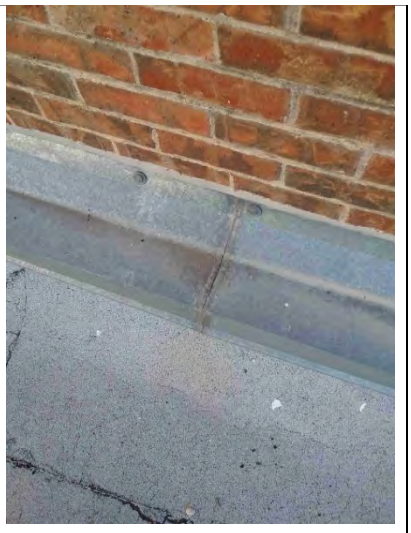
Exterior Doors

Roofing Deficiency Examples





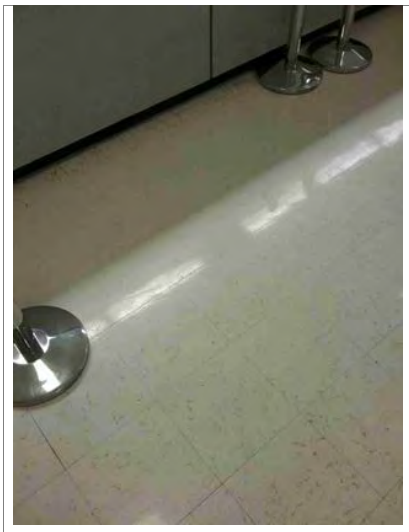
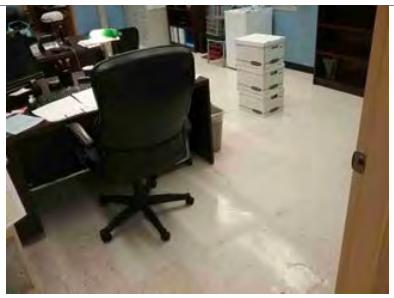



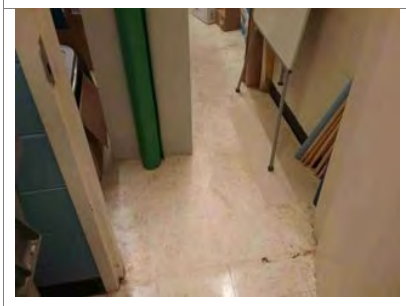
Interior Construction Deficiency Examples

Interior Doors

Interior Finishes Deficiency Examples

Interior Wall Finishes



Mechanical/HVAC System Deficiency Examples

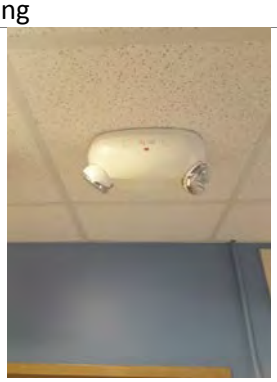


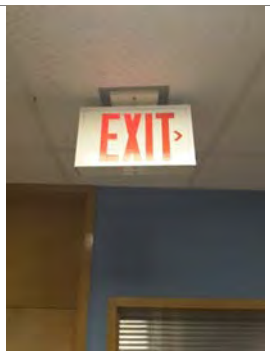
Fire Protection System Deficiency Examples

Fire Alarm

Electrical System Deficiency Examples

Lighting





Stand-Alone Classroom Building (includes Library, "Old Mall") – BLDG-006B

Building Purpose	Classrooms, Staff Offices and Library
Building Area	61,508 SF
Inspection Date	August 9-11, 2016
Inspection Conditions	100°F - Sunny
Facility Condition Index	

System Deficiency Overview

The following table provides a summary of the conditions and deficiencies found by each discipline.

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Exterior	Exterior Walls	The exterior of the building consists of painted reinforced concrete beams and columns with brick veneer panels at entrances, above entrances, and facing the interior outdoor courtyard or prefabricated concrete panels coated with aggregate on the exterior of the building. The building is two stories with a large interior, unconditioned and uncovered courtyard and four interior classroom quadrant corridors on each floor. One of the classroom corridors on the first floor is dedicated to housing the campus library. Debris and possible biological growth had degraded the coating of some beams and columns and their joint sealants with some walls. This was especially present on the lower portion of the north side of the building, likely due to site and covered walkway canopy drainage towards this area and ponding. The tops of beams throughout were weathered with accumulated debris. Rare occasional small cracks existed in five percent or less of the area of beams, though more may have been concealed by the recent repainting. The grout at the bottom of the elevator shaft and elevator mechanical room was dirty, weathered, and eroded, likely from roof drainage splash back. The external brick wall of the elevator mechanical room was cracked diagonally across its back face and sealant was degraded for much of the joint of the brick veneer walls facing the interior outdoor courtyard with the sidewalk or balcony.	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		Occasional minor rust spots were present on 5% of the external aggregate-coated concrete wall panels. The joints of the exterior wall with the foundation were dirty and degraded throughout the building, as were the joints of the building to sidewalks. The reinforced concrete beams of the balcony near the elevator were cracking horizontally near their top and their interface with other beams and columns. The makeshift brick apron adjacent to the foundation on the northwest below adjacent to roof B-02 appeared problematic as it was likely permeable since the brick joints were not sealed and it had settled and drained towards the foundation.	
	Exterior Windows	The exterior windows consist of single-pane glazing units with aluminum frames and vertical sliders spring-loaded with four sections of glass The units were in average condition given their service age. No leaks were reported by facility staff. Sealant was degraded from 50% of the windows on their inside and throughout their outside. The lower painted aluminum panels of 50% of the windows were faded. Room 235 has a missing window latch so it would not stay shut due to the window's spring loading. In 15% of the windows, glass panels had been replaced with acrylic, of which about 30% was heavily worn and scratched. 60% of window blinds were missing or broken. The windows were rated average as they have exceeded their expected design service life, broken and missing blinds, and acrylic panel fading. Some damage existed in windows adjacent to the entry way doors that may be attributable to possible structural issues similar to those in Building H New Mall or other causes.	Average
	Exterior Doors	Exterior doors are steel in metal frames with partial glazing in the doors and glazing on either side of the set of doors. This glazing varied as about 70% glass and 30% acrylic. The doors appeared to have been recently recoated. 10% of the glazing in the doors was heavily scratched or worn limiting safety visibility, and about 15% glazing adjacent to the entrances had scratched panels. The exterior doors' condition was average due to the glazing condition at the entrances and service age of the entrance door and window subsystems.	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Roofing	The roof material covering the building varies between a single-ply membrane with a gravel topping on the main portion of the building and modified bitumen on the entrance and covered walkway canopies. The covered walkway canopies are constructed of concrete columns, beams and a metal framing system. The roofing systems covering the building were observed to be in poor condition. The following deficient conditions were observed on the main building roof surface: evidence of wide-spread ponding water, cracked scuppers, exposed areas of membrane material, cracked sealant at roof penetrations, and uneven distribution of the gravel topping across the roof surface. Most materials were observed to be aged. Gravel and debris was present in the gutter system in various locations. It should be noted that there were no reported active leaks in occupied spaces within the building at the time of the assessment. The following deficient conditions were observed on the canopy roof surface: evidence of ponding water, blistering, spider cracking, and cracked sealant. The canopy flashing and trim joints were cracked, rusted, and weathered. Tree branches overhung onto the roof surface and deposited debris on portions of walkway and entrance canopies. The gutter and downspout system serving the walkway canopies was observed to be deteriorated and insufficient as wide-spread corrosion and peeling paint was observed on the canopy's metal framing system. It also appeared that water frequently cascaded out of the gutter system onto the pedestrian sidewalks located below the canopies. The bottom portion of the gutter channel was observed to be deteriorated. It was also observed that the top of the concrete beam system supporting the canopy structure was spalling in several areas due to exposure to the elements. The steel framing structure was observed to be corroded in various areas as the finish paint was blistered and peeling. Facility staff report evidence of active leaks present within the band hall.		Poor
Interior Construction	Interior Walls	Most interior walls are painted gypsum board on wood or aluminum framing and approximately 15% are painted CMU. Interior glass, wood-framed windows are present in each quarter classroom corridor's teacher office's walls adjacent to the corridors on each level of the building. The interior walls were average due to their service age, though they were functionally sufficient.	Average
	Interior Doors	Interior doors are solid wood in wood frames. 90% are partially glazed with glass, reinforced glass, or acrylic. Louvers are present in the bottom half of some doors for mechanical, storage, and special use rooms along with 60% of classrooms. Sliding folding partitions were present in the staff office of each classroom corridor. Overall, 85% of the interior door hardware was worn. The finish of 75% of doors were aged, dated, and heavily worn as indicated by scratches, wear, tape and adhesive wear marks, though most doors remain	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		structurally and functionally sufficient. The sliding folding partitions in the staff offices are old, but are in good condition.	
	Interior Specialties	Steel lockers are present on both floors in the courtyard and sheltered by the courtyard roof. They are painted and mounted either to the brick veneer or to the ground level floor. Lockers with greater exposure to the sun or precipitation had more weathered paint and undercarriage. The tops of 80% of the lockers had dust and debris accumulation, and appeared to be dented down at each unit by ongoing precipitation accumulation or other loading, possibly by books. About 60% of them had rusty tops. Some appeared to be wearing well without dents or excessive wearing due to use or abuse.	Average
Stairs	Exterior Stairs	Two flights of stairs with one landing of polished reinforced concrete steps are present at each of the four entrances. The polishing of the concrete was worn in the most highly trafficked areas. The step treads were worn, slippery, and chipping near the treads and on the steps creating a slipping hazard, especially when wet. About 10% of the area of the landings had spalling and 10% has delamination occurring, which provided a tripping hazard. Spalling was present at the top of the stairs. The landings may reach the end of their expected design service life within the next couple of years. Some landings had minimal cracks in them, whereas one of the landings had a center cracking running across its bottom and up its sides. The stairs were in average condition with worn treads creating a life safety issue.	Average
	Interior Stairs	A fixed aluminum roof access ladder is present in the janitorial room. It was in good condition.	Good
Interior Finishes	Interior Wall Finishes	Interior wall finishes include paint on the interior of the exterior CMU walls, paint on the gypsum board of the interior walls, chalkboards, marker boards, vinyl panels, painted vinyl panels, bulletin boards, and vinyl covered bulletin boards, and rubber/plastic base boards that were sometimes painted. Some interior base boards needed repair due to tearing, marking, stains, worn out glue, or repainting. Some corridor walls had paint that needed touch up. The painted vinyl finished walls in many of the corridors and the vinyl panels underneath many of the blackboards	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		were in good condition, given their age. With the recent repainting of most of the interior corridors, and the overall condition of the wall finishes, the interior wall finishes were rated as average.	
	Interior Floor Finishes	The ground floor adjacent to the interior outdoor courtyard finish is aggregate coated concrete, similar to that of the exterior walls. The interior conditioned space corridor and classroom floor finishes are 8”x8” VCT, with about 10% of the VCT being replaced by 12”x12” VCT. The floors appeared to be in good condition.	Good
	Interior Ceiling Finishes	The ceilings are 2’ x 2’ suspended ACT tiles inside the condition spaces, and exposed painted waffle slab reinforced concrete in the unconditioned open corridors surrounding the courtyard. Where the tiles were used in a vertical application for an enclosure of a utility conduit in the building, they were often observed to be warped.	Good
Conveying	The building is equipped with a hydraulic passenger elevator to service two levels. The elevator was noted as having a maximum weight capacity of 2100 lbs. This elevator was observed to be in good condition as a recent inspection certificate issued within the last year, as required, was visible. The school personnel stated that the elevators were original to the building. The equipment within the machine room shows a manufacture date of 1999.		Good
Plumbing	Plumbing Fixtures	The building has public restrooms for men, women and students, and also has separate staff restrooms located throughout the facility. These restrooms typically have metal sinks recessed in countertops with timed push button faucets. The toilets are floor-mount and the urinals are wall-mounted. They have manual flushing mechanisms and are vitreous china. There are service sinks found in the janitorial closets, and water coolers located throughout the facility, typically near the public restrooms. The restroom plumbing fixtures were observed to be in average condition and were still operational; however, they are nearing the end of their expected design service life.	Average
	Domestic Water Distribution	Domestic hot water is routed to the building’s plumbing fixtures from multiple smaller EWHs that were located near the restrooms. The water heaters all appeared to have been replaced in recent years and were in good condition.	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
	Other Plumbing	The building has single inlet roof drains that are equipped with metal grate covers to prevent debris from entering the drainage system. They were observed to be in good condition.	Good
Mechanical/ HVAC	Old Mall mechanical systems are located on the roof with a dedicated outside air unit (DOAS) with all ventilation air that is delivered to the space routed back to the unit through a heat unit recovery coil in the DOAS. There is a DOAS unit for each quadrant of the building. The DOAS provide neutral air to the space. The cooling is provided by chilled water fan coil units at the perimeter of each classroom. The interior non-classroom spaces have a separate indoor air handler. The Library is served from (2) indoor AHUs with heating and chilled water coils. The elevator machine room on the first floor is cooled by a packaged terminal air conditioner that is mounted above the egress door. The main computer MDF room for the campus is located on the 2nd floor. It is served by dedicated computer room AC units with reheat and humidification capabilities. A back-up unit is also located next to the primary unit for 100% redundancy. Numerous EFs are located on the roof. Some of the units were not in operation at the time of the survey and it was not possible to determine if they were functional. Overall, they were aged/out of date, making them due for replacement.		Average
Fire Protection	Fire Alarm	This building also has a Silent Knight Fire Alarm panel. This panel is tied back to the main FACP panel located in the Administration Building. The building has initiation and annunciation devices such as audio/visual devices, strobes only, pull stations, heat and smoke detectors. The system was observed to be in good condition, (there was no functional testing performed) All of the devices exposed to the elements in the open areas have aged past their useful design service life.	Average
	Fire Protection/ Suppression	The building is protected by portable fire extinguishers placed throughout the facility. All observed portable fire extinguishers had inspection tags dated within the last year as required. There wasn't an automatic sprinkler system is located in the facility.	Good
Electrical	Electrical Distribution	Electrical distribution and panelboards are located in various rooms throughout the building. 50% are original to the building's construction and the rest have been replaced or added since the mid 1990's. The newer electrical equipment was in good condition and the older equipment was in average condition.	Average
	Lighting	The building's exterior lighting consists of HID luminaires mounted under the canopy and on all the exterior walls. The interior lighting consists of primarily T8 fluorescent luminaires.	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		The luminaires for the building were observed to be in good condition. Emergency lighting is provided by emergency lighting units with integral battery packs.	
	Communications & Security	There is a Gemini security panel including surveillance cameras in the building. There is a public address system with ceiling mounted speakers. The Wi-Fi devices also appear to have been recently installed. This building has the entire school campus' MDF room. The room has multiple racks, UPS's and its own cooling equipment.	Good

Exterior System Deficiency Examples

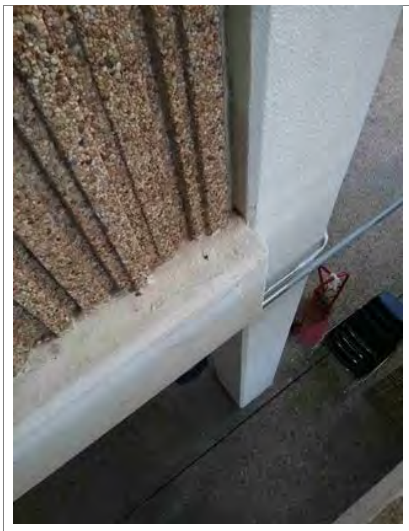
Exterior Walls











Exterior Windows






Exterior Doors

Roofing Deficiency Examples



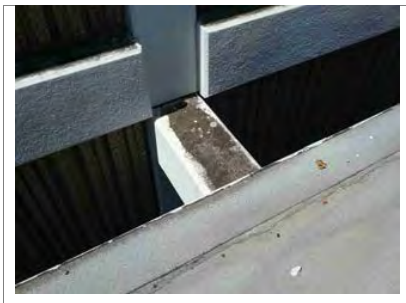




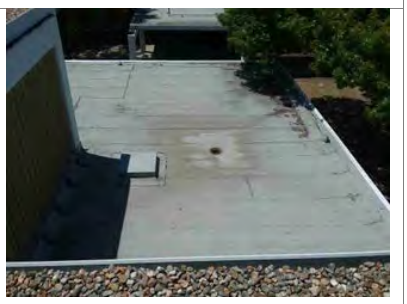






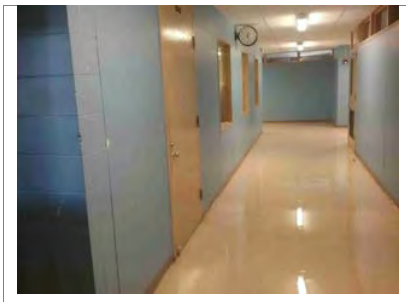


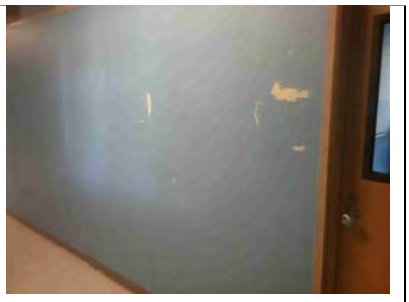





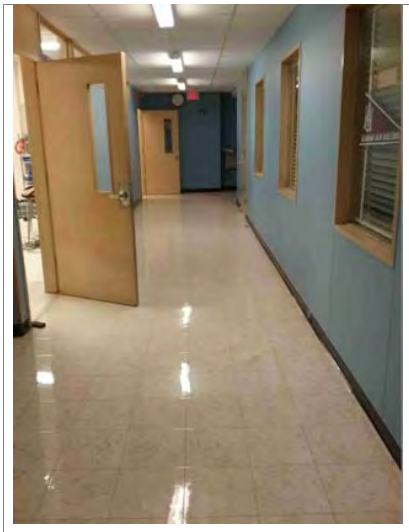
Interior Construction Deficiency Examples

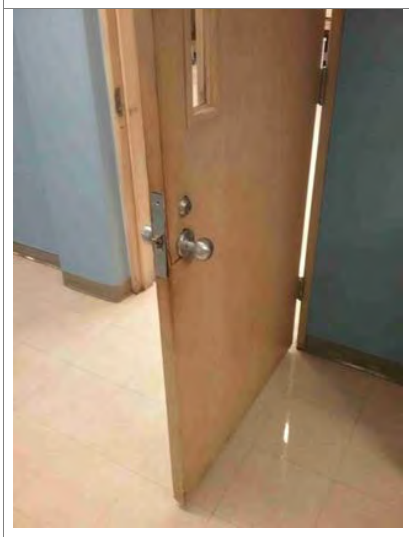
Interior Walls

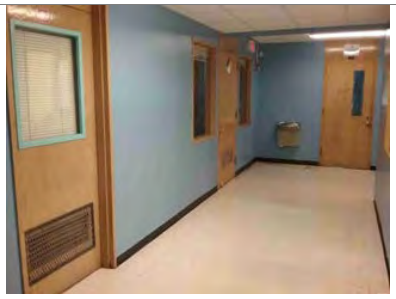




Interior Doors



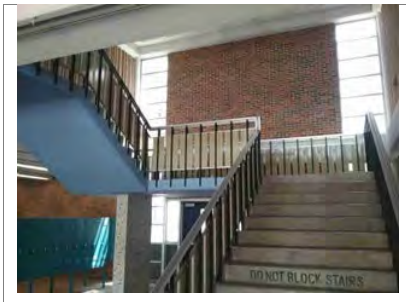




Interior Specialties

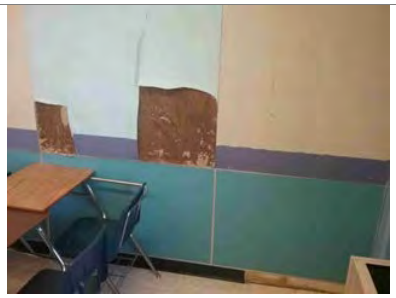

Stairs Deficiency Examples

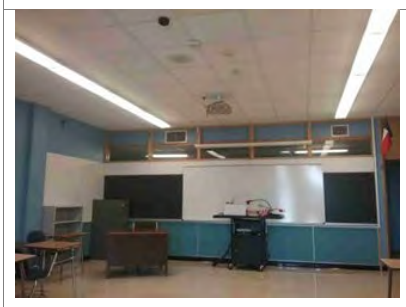
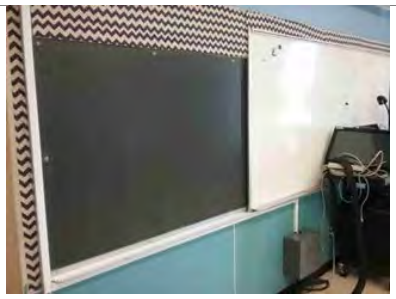
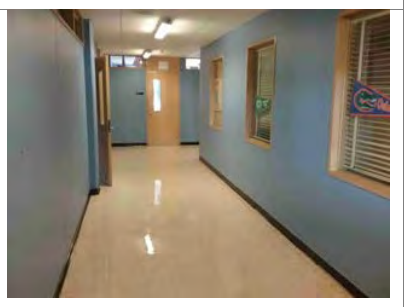
Exterior Stairs

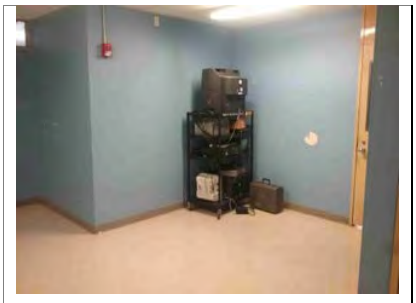


Interior Finishes Deficiency Examples

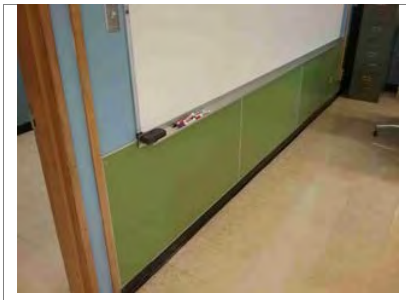
Interior Wall Finishes

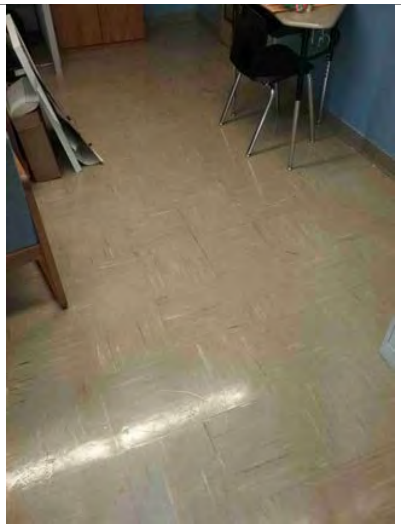



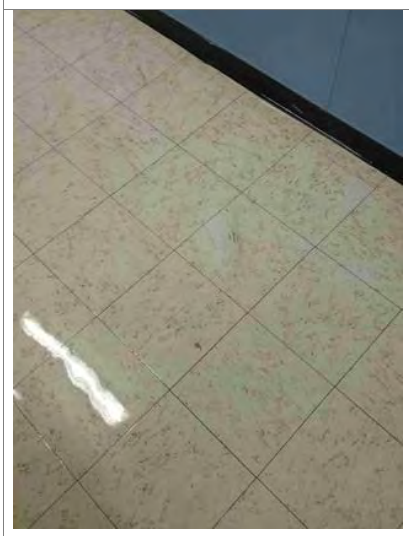




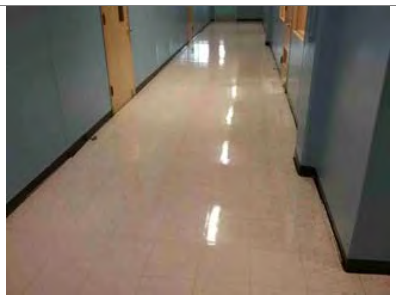


Interior Floor Finishes



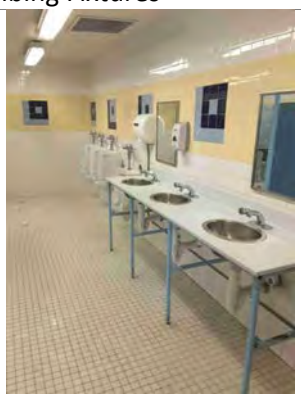




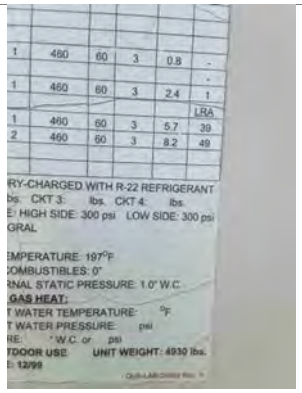


Plumbing System Deficiency Examples

Plumbing Fixtures



Mechanical/HVAC System Deficiency Examples



1	460	60	3	0.8	-
					-
1	460	60	3	2.4	1
					LRA
1	460	60	3	5.7	39
2	460	60	3	8.2	49

RY-CHARGED WITH R-22 REFRIGERANT
bs. CKT 3: lbs. CKT 4: lbs.
E: HIGH SIDE: 300 psi LOW SIDE: 300 psi
GRAL

EMPERATURE: 197°F
COMBUSTIBLES: 0"
RNAL STATIC PRESSURE: 1.0" W.C.
GAS HEAT:
T WATER TEMPERATURE: °F
T WATER PRESSURE: psi
RE: "W.C. or psi
TDOOR USE: UNIT WEIGHT: 4930 lbs.
E: 12/99

Stand-Alone Gymnasium - Big, Small & (former) Dance Gymnasiums (includes Weight Room, Lockers and Showers) – BLDG-006C

Building Purpose	Gymnasiums, Weight Room, Staff Offices, Concessions, and Locker Rooms
Building Area	47,562 SF
Inspection Date	August 11-12, 2016
Inspection Conditions	100°F - Sunny
Facility Condition Index	

System Deficiency Overview

The following table provides a summary of the conditions and deficiencies found by each discipline.

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Exterior	Exterior Walls	The exterior of the building consists of painted reinforced concrete beams and columns with brick veneer panels for the gymnasiums or prefabricated concrete panels coated with aggregate for the one story portions of the building. The exterior walls were observed to be in average condition. The north wall of the trainer room had debris covering most of its foundation beam, likely due to the concentrated drainage directed in the narrow corridor between it and the abutment wall of the sidewalk for the north neighboring standalone [former] Band Hall [now dance studio]. Debris had also accumulated on the foundation beam of the south wall. Isolated instances of conduits penetrating the wall that were unsealed or adjacent to cracked or degraded bricks were also present. The brick veneer was weathered, but not excessively for its age or to affect its performance. Some instances of weathered coating and cracked, degraded joint sealant and/or mortar existed on the foundation beams on the west and near the southeast corner. Walls with electrical conduit attached to them had rust stains or had weathered near the conduit. The flashing and trim on the upper beam of the south wall of the small gymnasium was rusting heavily in an area,	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		likely due to water penetration. The lettering material of the school name, motto, and championship years on the south wall was heavily weathered and a couple of letters had fallen off or had pieces broken off and had peeling paint. An excessive quantity of ants was observed in the vertical joint of the second story walls under roofs C-02 and C-04 adjacent to C-10. The external louvers throughout had cracked, shrunk, or missing sealant in the joints of their frames to the walls; about 10% had blades ajar, dented, or a very few that were missing, and about 10% of screens were dented and bent; about 70% of their lintels were corroded and were weathered; the louvers under roof C-09 above the former dance room had weathered and bent screens. The northwest wall of the small gymnasium and north wall of the auxiliary gymnasium appeared to have parking lot drainage running towards them, as indicated by debris build-up, organic matter, and moisture, and subsequent accelerated weathering of both the brick veneer and joint sealant of the walls. Beams on the southeastern exterior had deteriorated paint. The south and southwestern walls had dirt and damaged grout.	
	Exterior Windows	The exterior windows consist of single-pane glazing units with aluminum frames. The exterior windows were in average condition for their extended age. No leaks were observed or reported by facility staff. Isolated instances of damage to the lower aluminum panels of some windows were present. The windows were rated average as they have exceeded their expected design service life.	Average
	Exterior Doors	Exterior doors and frames are steel. Entrances used commonly and with typically more traffic have glazing, which are located predominantly on the east side of the building. Exterior doors on the west of the building predominantly appeared to not be used regularly, and those that have glazing, appeared to have decommissioned their glazing by heavily scratching it out or covering it. The doors appeared to have been recently recoated. Their Acrylic glazing was heavily scratched and worn. Half of an exterior pull handle of a south facing door on the auxiliary gymnasium had been pulled entirely off.	Average
Roofing	The roof material covering the building consists of built-up asphalt with a granular topping on the main portion of the building and at the main entrance canopy while		Poor

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		modified bitumen is found on the covered walkway canopies. The covered walkway canopies are constructed of concrete columns, beams and a metal framing system. Skylights are present on roof sections C-05 and C-02. The roofing systems covering the building were observed to be in poor condition. The following deficient conditions were observed on the main building roof surface: evidence of ponding water, cracked asphalt scuppers, cracked sealant, debris build-up, and bald spots resulting in the exposure of the asphalt membrane. The roof trim and metal flashing materials were observed to be in average condition. Inside the building in the small gymnasium, the structural framing supporting the roof-mounted mechanical equipment was observed to be severely corroded. This is a possible result of an active roof leak in this area. The following deficient conditions were observed on the walkway canopy roof surfaces: evidence of ponding water, blisters, spider cracking, and cracked sealant. The trim and metal flashing was observed to be cracked and aged. The gutter and downspout system serving the walkway canopies was observed to be insufficient as wide-spread corrosion and peeling paint was observed on the canopy's metal framing system. It also appeared that water frequently cascaded out of the gutter system onto the pedestrian sidewalks located below the canopies. It was also observed that the top of the concrete beam system supporting the canopy structure was spalling in several areas due to exposure to the elements. The skylights were observed to be in good condition, and building staff did not report and leaks or previous deficiencies with this system.	
Interior Construction	Interior Walls	Interior walls are primarily CMU. The tiled corridor for the locker rooms and equipment storage rooms was humid and smells very musty, perhaps because of the doors being closed on either end of the corridor and inactive or inadequate ventilation. Cracking was observed in the walls of all three gymnasiums. In the large gymnasium, the north wall had cracks from the ceiling/roof within about six inches each of the roof's girders connected at their top bolt to the wall down to the top of the glaze/tiled CMU portion of the wall below at its intersection with the column to which the girder connected; a similar such crack was present in the middle of the wall although no girder was present. The west wall had fewer such and less progressed cracks near where some of the roof's beams connected to its columns from the ceiling/roof down to where the glazed/tiled CMU intersected the columns to which the beams connected. The east wall had similar such cracks, but less progressed. The large gymnasium's columns had about 25% visible sporadic	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		horizontal cracking spanning the width of many of its columns; more cracks could have existed under the paint of the columns; the top of the southwest corner wall had symmetrical cracks on its intersecting walls. The small gymnasium also had similar cracking, though less severe to that of the large gymnasium where its girders connected to its walls and similar degrees of horizontal cracking in its painted columns. The auxiliary gymnasium's west wall had approximately three instances of cracking regularly along the same CMU joint mortar spanning the entire height of the wall. The cracks were wider at their top, narrowing to their bottom. The southeast corner also had a crack at the intersection of its walls, also wider on top and narrowing towards its bottom. The east wall had cracking along both vertical joints of a 'column' of CMUs from the top of the wall to the bottom, which were more distinguishable at the bottom of the column than the top, and possibly attributable to or indicative by the cracked CMU block at the bottom of this 'column' of CMUs.	
	Interior Doors	Except for the single door leading to it from the weight room, the doors in the old stage/former dance room were blocked from the inside and/or outside or were locked/had broken door hardware disabling their use. This could be a life safety issue for fire exit. The concession area has three metal roll-up doors that were in average condition with a few dents. The interior side of the interior doors to the gymnasiums were scuffed, as were the doors in the locker room and storage room corridor. The wooden old stage doors and their louvers were heavily worn and faded.	Average
	Interior Specialties	The metal lockers in the locker rooms were coated well and appeared in good condition, as were their benches. The wooden bench tops in the private showers are highly degraded.	Good
Stairs	Exterior Stairs	Small stairs of two to three steps exist on the west side entrances of the building. The tread is highly worn or missing on all of them. The southernmost steps on the west side have been asphalted over to create a short, steep ramp apparently to aid in movement of equipment in and out of its double doors to its storage room. This ramp had a large crack across the first step and thus had a limited life/use remaining before repair will be needed.	Poor

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
	Interior Stairs	Interior concrete stairs are present that lead to the trainers' room from the gymnasiums and were in good condition. Interior wooden steps are present on either side of the front of the old stage in the large gymnasium, and at its side backstage access points. All of these stage steps were highly worn with wear on their wooden seal worn away. The wooden stairs leading to the weight room from backstage/old dance room were excessively worn. The stairs existing backstage/old dance room left to an athletic equipment storage room were blocked by equipment, creating a likely fire exit hazard, especially in combination with its door being blocked by stored materials. The other backstage/old dance room left stairs had been replaced by a ramp.	Poor
Interior Finishes	Interior Wall Finishes	Interior wall finishes are painted CMU in the corridors, concessions, auxiliary gymnasium, weight room, trainer room, and the teachers/coaches lounge; glazed/tiled CMU in the locker rooms, restrooms, showers, and locker room/equipment storage rooms corridor; alternating painted panels of painted CMU and glazed/tiled perforated CMU in the large gymnasium, alternating panels of glazed/tiled CMU in the small gymnasium, painted CMU in the auxiliary gymnasium. The old stage had wood paneling on its walls. The painted walls were in good condition or had been recently recoated, except for the weight room's walls being highly worn. The tiling was in good condition. The wooden base boards of the large and small gymnasiums were heavily worn but appeared to be functionally sound. The stage's wooden façade in the large gymnasium was faded and aged. Paint was consistently peeling on 10% of interior walls, such as those in the trainer room, possibly due to pipes that were not insulated at the time of construction, according to facility staff. The wood paneling of the stage was faded, and scratched heavily closely adjacent to its doors on either stage side. The trim of the stage and also its storage doors underneath were heavily worn and scratched, but appeared sealed. Overall, the interior wall finishes are dated, but in mostly in good condition.	Good
	Interior Floor Finishes	All three gymnasiums have wooden floors. The trainers' room, showers, and locker rooms are tiled with porcelain tile. The corridors and other rooms are tiled	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		with VCT. The weight room has a cushioned rubber tile covering. The stage and backstage/old dance room is wooden with carpet covering it. The ramped corridor leading from the small gymnasium to the auxiliary gymnasium was covered in raised disc rubber tiles. The floor finishes were in good condition except for the stage, backstage/old dance room, the auxiliary gymnasium corridor, and the weight room. Also, five percent of the tiles in the corridor to the locker rooms and storage rooms showed high wear near the entryways to the corridor and in the public restrooms, but appeared to be functionally sound. The carpet was excessively worn and torn backstage/old dance room, exposing the highly worn and unsealed wood of the former backstage. The auxiliary gymnasium's raised disc rubber flooring tiles appeared to be a high slipping hazard when wet and were highly worn. Additionally, the auxiliary gymnasium's corridor appeared to have been recently mopped/washed with excessive water running down the ramp and onto the small gymnasium's wooden floor, weathering its wood and sealing and creating a slipping hazard. A volleyball pole floor mount cap was missing from the subsurface mounting hole in the floor of the auxiliary gymnasium and needs to be replaced with a suitable cap rather than the torn tape that had been covering it as this is a safety issue. The weight room rubber cushioned tile was heavily soiled throughout with isolated tears in less than one percent of its area.	
	Interior Ceiling Finishes	The ceiling finishes in the gymnasiums are 2' x 4' fiberglass panels. The ceiling in the corridors, teacher/coaches lounge/office, offices, and trainers' room is 2' x 2' suspended ACT tiles. The ceiling in the locker rooms and bathrooms is painted gypsum board. The ceiling in the backstage/old dance room, weight room, and athletic equipment storage room is exposed but painted reinforced concrete waffle slab. The ceilings were in good condition except for the exposed reinforced concrete waffle slab ceiling in the athletic equipment storage room adjacent to the stage had peeling paint, possibly from water penetration through the roof and/or the roof drain overhead.	Good
Conveying	System not present.		N/A

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Plumbing	Plumbing Fixtures	The facility has male and female restrooms for public use, male and female locker rooms with restroom facilities, and staff restrooms. The restrooms utilize vitreous china fixtures throughout with manual faucets and flush valves. The hand sinks are in-counter mounted while the toilets and urinals are wall-mounted fixtures. The locker rooms also have group style showers with stainless steel fixtures. The facility also has water coolers, typically near the restrooms, and mop sinks at the janitorial closets. The plumbing fixtures were all functioning properly but are nearing the end of their expected design service life.	Average
	Domestic Water Distribution	All of the plumbing fixtures are serviced with hot water from multiple small GWHs (gas water heaters) and EWHs that were located throughout the buildings The water heaters were replaced in recent years and were in good condition.	Good
	Other Plumbing	The facility has single inlet roof drains that are equipped with metal grate covers to prevent debris from entering the drainage system. We were not provided with information about standing water at the facility. There are no secondary roof drains located on any of the buildings as there is no parapet on the perimeter of the roof.	Good
Mechanical/ HVAC	Each of the gymnasiums are supplied with own roof mounted AHU with heating and chilled water coils. Supplemental mechanical equipment for the HVAC system also includes EFs, VAV (variable air volume) terminals. Outside air for ventilation is introduced at the AHU and mixed with return air from the space. Numerous EFs are located on the roof. Some of the units were not running, but it could not be determined if they operational. Overall, they were aged/out of date, making them due for replacement soon.		Average
Fire Protection	Fire Alarm	This building also has a Silent Knight Fire Alarm panel. This panel is tied back to the main FACP panel located in the Administration Building. The building has initiation and annunciation devices such as audio/visual devices, strobes only, pull stations, heat and smoke detectors. The system was observed to be in good condition, (there was no functional testing performed)	Good
	Fire Protection/ Suppression	The building is protected by portable fire extinguishers placed throughout the facility. All observed portable fire extinguishers had inspection tags dated within the last year as required. There is not an automatic sprinkler system is located in the building.	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Electrical	Electrical Distribution	The Boiler Room contains GH4 which houses the main 600-amp circuit breaker for the entire building. This and the other main electrical distribution equipment are in good condition. MCCA located in the Boiler Room is only utilized as overcurrent protection for four HVAC pieces of equipment. There is one original transformer located in the Electrical Equipment room (located between the various locker rooms) that was very rusted and corroded, it was in poor condition. There is electrical equipment that is original to the building, it was in average condition. There is a section of roof where lightning protection is installed, the grounding conductors were aged and in average condition.	Average
	Lighting	The building's exterior lighting consists of HID luminaires mounted under the canopy and on all the exterior walls. The gymnasiums all have HID luminaires and they were in good condition. The rest of the interior spaces had fluorescent T8 luminaires, also in good condition. One of the gymnasiums had an exit sign missing its face.	Good
	Communications & Security	There is a Gemini security panel including surveillance cameras in the building. There is a public address system with ceiling mounted speakers. The Wi-Fi devices also appeared to have been recently installed.	Good

Exterior System Deficiency Examples

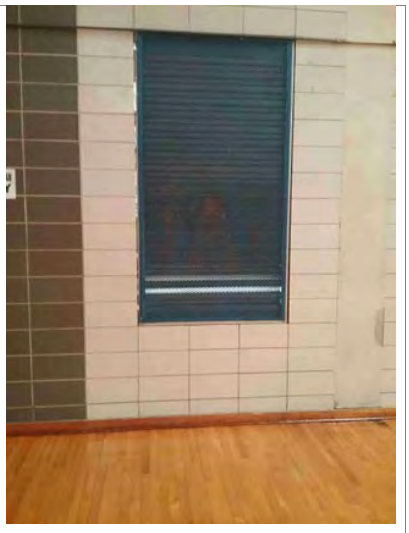
Exterior Walls





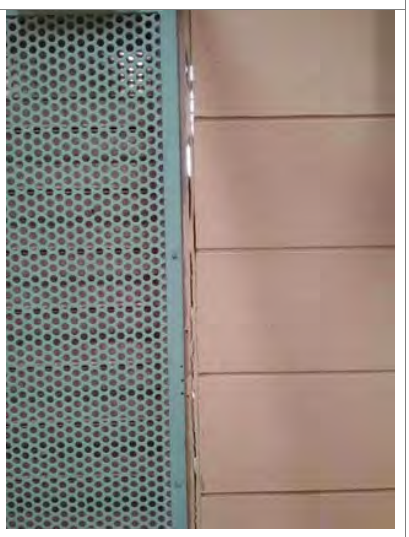
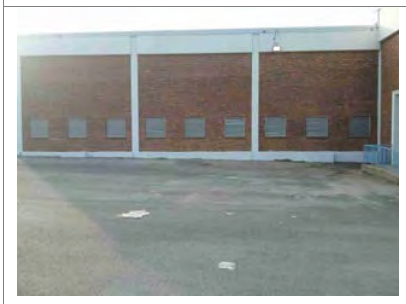




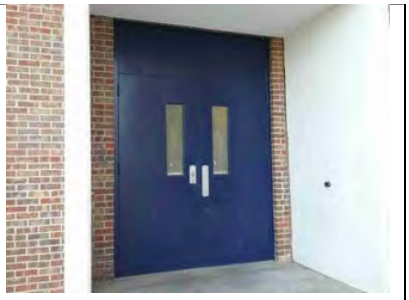




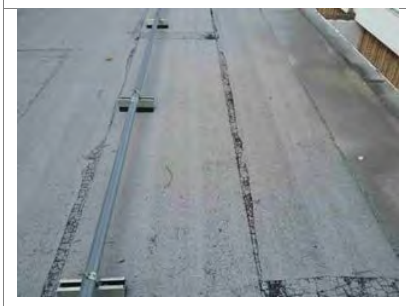
Exterior Windows

Exterior Doors



Roofing Deficiency Examples







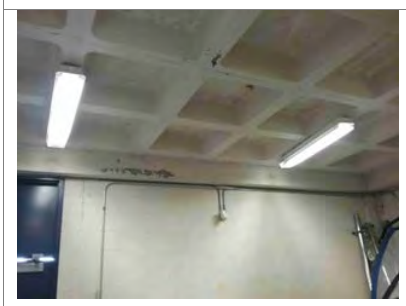






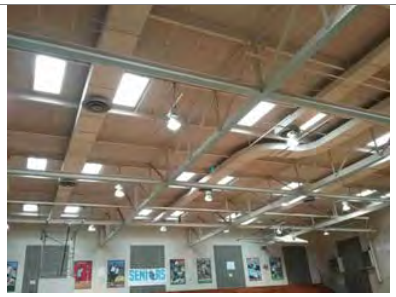
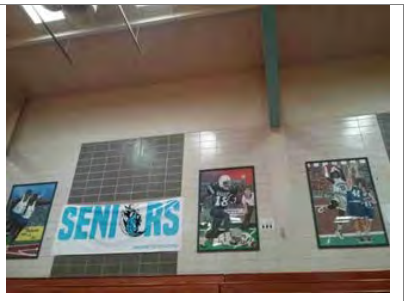


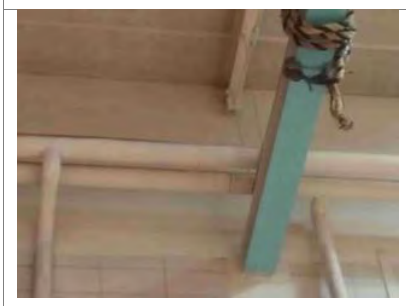
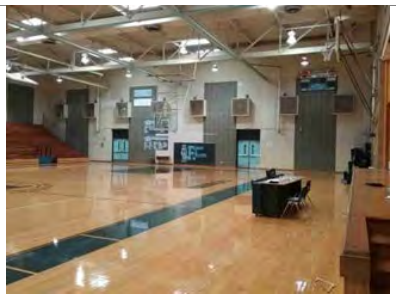




Interior Construction Deficiency Examples

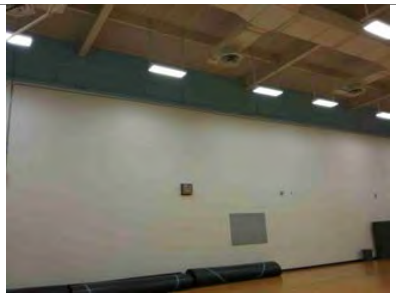
Interior Walls

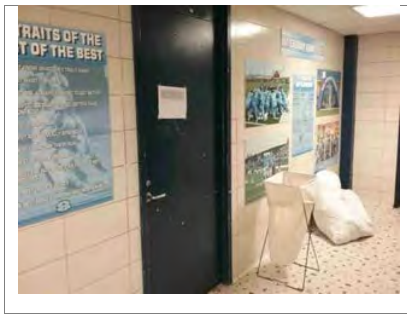





Interior Doors

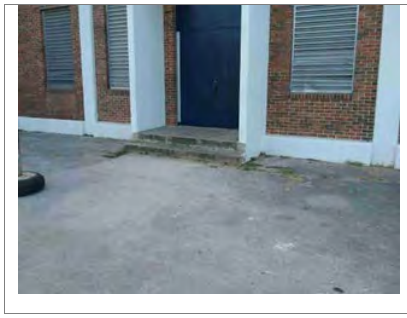




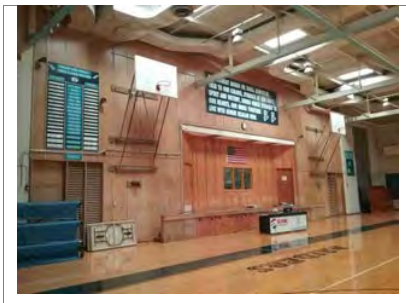
Interior Specialties

Stairs Deficiency Examples

Exterior Stairs

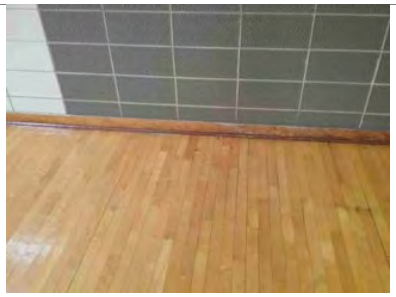
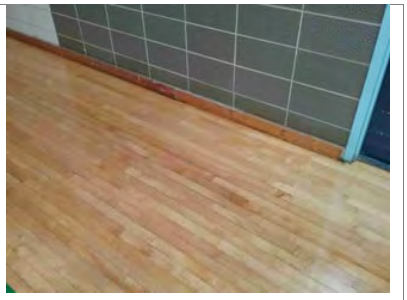
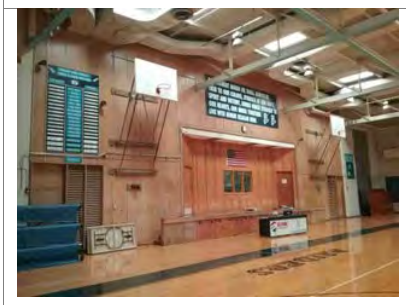


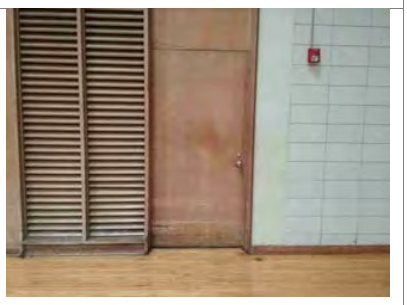
Interior Stairs



Interior Finishes Deficiency Examples

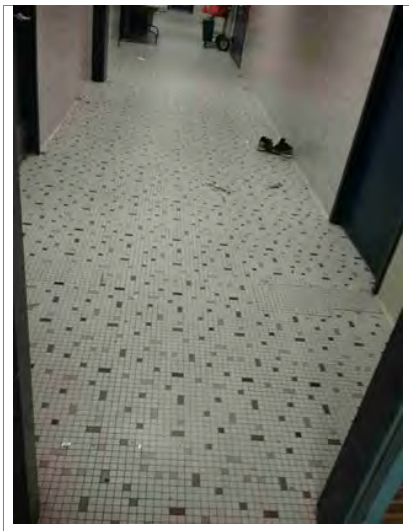
Interior Wall Finishes

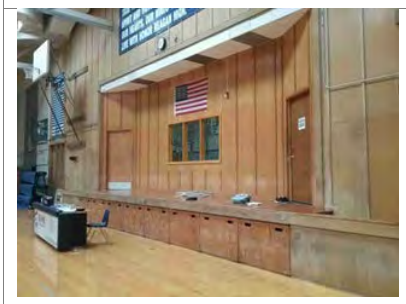





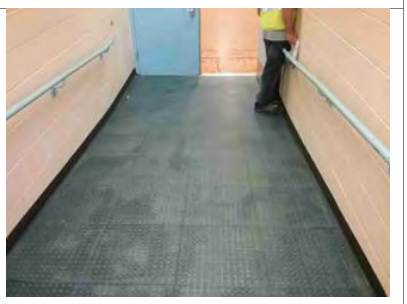
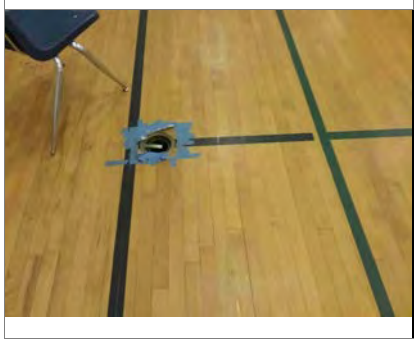


Interior Floor Finishes

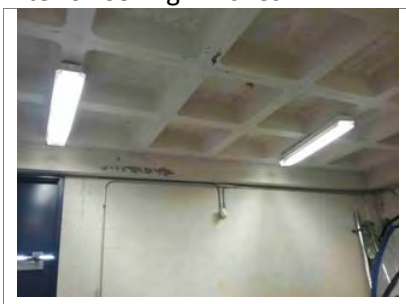




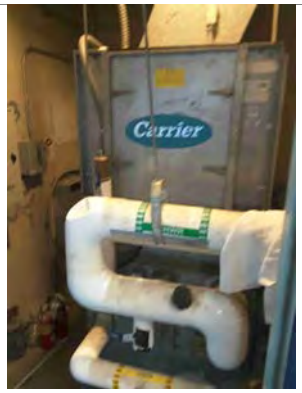
Interior Ceiling Finishes




Plumbing System Deficiency Examples

Plumbing Fixtures

Mechanical/HVAC System Deficiency Examples



Electric System Deficiency Examples

Electrical Distribution

Lighting

Stand-Alone (former) Band Hall (now Dance Studio) – BLDG-006D

Building Purpose	Dance Studio
Building Area	2,982 SF
Inspection Date	August 11-12, 2016
Inspection Conditions	100°F - Sunny
Facility Condition Index	

System Deficiency Overview

The following table provides a summary of the conditions and deficiencies found by each discipline.

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Exterior	Exterior Walls	The exterior of the building consists of painted reinforced concrete beams and columns with prefabricated concrete panels coated with aggregate. The exterior walls were in average condition. Wall joints and sidewalk joints were deteriorated.	Average
	Exterior Windows	The exterior windows consist of single-pane glazing units with aluminum frames and vertical sliders spring-loaded with four sections of glass This single-pane design was aged, although the units were in average condition. The windows were rated average because of their broken and missing blinds, panel fading and age.	Average
	Exterior Doors	Doors are metal in metal frames. Some are partially glazed. A linked steel roll-up door is present near the east entrance. The entry doors were well-coated to protect from typical weathering.	Good
Roofing	The roof material covering the building varies between built-up asphalt with a granular topping on the main portion of the building and modified bitumen on the entrance and covered walkway canopies. The covered walkway canopies are constructed of concrete columns, beams and steel and aluminum framing. The roofing systems covering the building were observed to be in poor condition. Active or historical leaks were observed in the building and on the bottom side of the covered walkway canopies The following deficient conditions were observed on the main building roof surface: evidence of ponding water, cracked asphalt scuppers, cracked sealant, debris build-up, and bald spots resulting in the exposure of the asphalt membrane. The roof trim and metal flashing materials		Poor

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
	were observed to be in average condition. The following deficient conditions were observed on the walkway canopy roof surfaces: evidence of ponding water, blisters, spider cracking, and cracked sealant. The trim and metal flashing was observed to be cracked and aged. Gutters and downspouts on the canopies were not present. It was also observed that the top of the concrete beam system supporting the canopy structure was spalling in several areas due to exposure to the elements. Tree branches overhung above the covered walkway canopies contributing greatly to debris and water accumulation and subsequent accelerated weathering.		
Interior Construction	Interior Walls	Interior walls are predominantly painted gypsum board on wooden or aluminum framing, finished wood paneling, painted CMU, or painted vented CMU. Some minor water damage to the drywall adjacent to the door entering the locker room was observed.	Good
	Interior Doors	Interior doors are wood with wooden frames. Interior door finishes were highly worn and scuffed.	Average
	Interior Specialties	Painted steel lockers are present in a room. The tops of the lockers were rusted and needed repainting. The lockers were aged. The lockers may or may not have been mounted to the wall.	Average
Stairs	Exterior Stairs	System not present.	N/A
	Interior Stairs	System not present.	N/A
Interior Finishes	Interior Wall Finishes	The interior of the building has acoustical wall panels at the top on the south side concrete block exterior or interior wall on the north and south sides and wood paneling on the west side. The interior finishes were dated but appeared to be in functional condition. Some paint was scuffed and chipped from walls, especially on corners. Much of the wood paneling was delaminating from the walls and could cause a safety hazard.	Average
	Interior Floor Finishes	The predominant floor finish is VCT tile. The VCT was highly worn and absent in a room that had a crawl space hatch. Some of the base boards were loose and peeling.	Good
	Interior Ceiling Finishes	The ceiling finish was 2’ x 4’ suspended fiber tiles and 2’x2’ ACT suspended tiles.	Good
Conveying	System not present.		N/A
Plumbing	Plumbing Fixtures	System not present.	N/A
	Domestic Water Distribution	System not present.	N/A

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
	Other Plumbing	The building has single inlet roof drains that are equipped with metal grate covers to prevent debris from entering the drainage system.	Good
Mechanical/ HVAC	The building has a constant volume indoor AHU with chilled water and heating water coils. The AHU is located in the mechanical room for facility and was in average condition.		Average
Fire Protection	Fire Alarm	The building has initiation and annunciation devices such as audio/visual devices, visual only, pull stations, heat and smoke detectors. The system is manufactured by Silent Knight (by Honeywell). All system devices are fed from the Fire Alarm Panel within the Vocational, Arts JROTC Building. The system was observed to be in good condition, (there was no functional testing performed)	Good
	Fire Protection/ Suppression	The building is protected by portable fire extinguishers placed throughout the facility. All observed portable fire extinguishers had inspection tags dated within the last year as required. No automatic sprinkler system is located in the building.	Good
Electrical	Electrical Distribution	This building has no electrical panelboards, it is estimated that the lighting and power branch circuits originate in the Vocational, Arts, JROTC building.	N/A
	Lighting	The building's exterior lighting consists of HID luminaires mounted under the canopy and on all the exterior walls. The interior lighting consists of primarily T8 fluorescent luminaires. The luminaires for the building were observed to be in good condition. Emergency lighting is provided by emergency lighting units with integral battery packs	Good
	Communications & Security	There is a Gemini security panel including surveillance cameras in the building. There is a public address system with ceiling mounted speakers. The Wi-Fi devices also appear to have been recently installed. All the communications and security system appeared to be in good condition with no reported deficiencies.	Good

Exterior System Deficiency Examples

Exterior Walls

Exterior Windows

Roofing Deficiency Examples









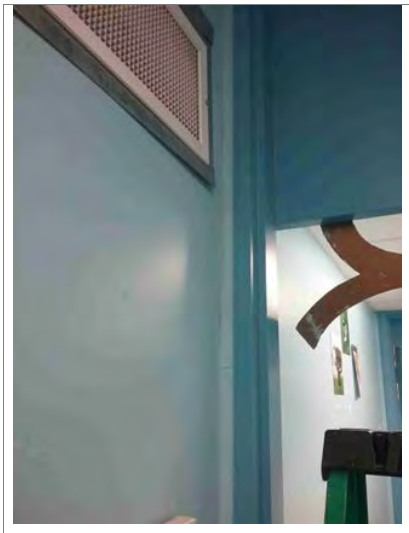






Interior Construction Deficiency Examples

Interior Walls

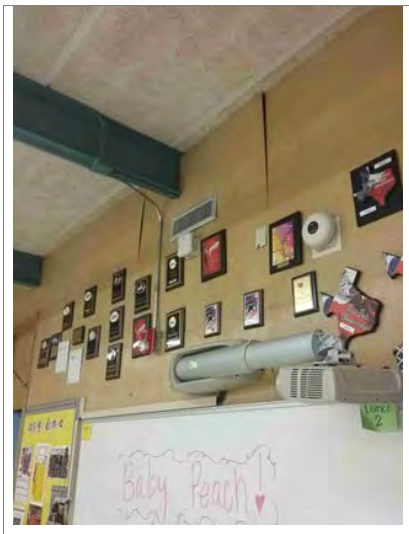


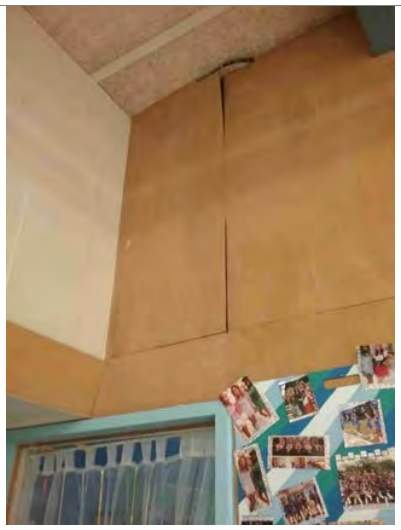
Interior Doors

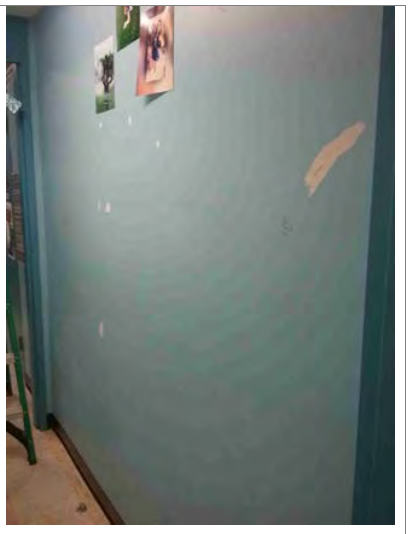
Interior Specialties

Interior Finishes Deficiency Examples

Interior Wall Finishes







Interior Floor Finishes

Mechanical/HVAC System Deficiency Examples

Vocational/Art/Shop (and now also) JROTC Building - BLDG-006E

Building Purpose	Classrooms and Staff Offices
Building Area	17,949 SF
Inspection Date	August 11-12, 2016
Inspection Conditions	100°F - Sunny
Facility Condition Index	

System Deficiency Overview

The following table provides a summary of the conditions and deficiencies found by each discipline.

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Exterior	Exterior Walls	The building is one story. The exterior facade is a mix of exposed aggregate precast panels with a vertical pattern or brick veneer inset into concrete frames created by the foundation columns and beams at the roof line. The rear elevations away from the common areas have a taller concrete wall at the base. The top of the precast panels appear to be held in place with steel angles located at the top of the panels. The building is predominantly the precast panel facade. The Art and ROTC entrances have a glazed brick finish in the doorways. The exterior walls were observed to be in good condition with several very minor deficiencies. The precast panels had some minor rust stains and had one spot of blue paint on the exterior. The paint was and has been peeling off of the concrete structure, and at some point the concrete had been repainted but the previous paint layers were not stripped prior to repainting. The bottoms of the precast panels have chipped and have been repaired with what appears to be mortar, and the angles that hold the panels in place were observed to have minor rusting in some locations. The paint on the top concrete grade beam is continuing to peel and needs to be repainted. The concrete around the base is also being stained by some of the rusting security covers on the windows. Around the rear and side of the building, near the cafeteria, there appeared to be some tar like substance, possibly roofing that had run down	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		the face of the concrete. The exterior foundation is pitted with what appeared to be some minor non-structural cracks.	
	Exterior Windows	The exterior windows consist of single pane glazing in aluminum frames and single panel glass in passage door sidelites. The window frames match the height of the precast panels and are split into several sections. The bottom panel of the window is a metal panel that looks like louvers with vertical slats and the top panel is a solid flat plate. Painted wire mesh covers glass on nearly half of the building for security purposes. Overall the condition of the windows was good considering the age of the system, but the overall average condition rating was based on their age. Some windows mesh covers showed signs of rusting. Rust staining from mesh covers was staining the window frames below the covers and the concrete wall below.	Average
	Exterior Doors	The exterior doors are metal doors in hollow metal frames. The metal frames are full height and above the doors, the frame is infilled with metal panels. The majority of the exterior doors are single leaf doors with the art room access being a double leaf door. The doors have vision glass. At the rear entrance, there is a full height hollow metal frame system with single pane windows above and next to the door. The doors and frames have been repainted. One overhead manual rolling door is on the exterior of the building. The door is open decorative grating. The exterior doors were observed to be in good condition. Standard wear and tear on the doors and frames were observed but no other notable deficiencies were noted. The overhead door was observed to be exhibiting signs of corrosion on the frame and grate.	Good
Roofing	The roof material covering the building consists of built-up asphalt with a granular topping on the main portion of the building and at the main entrance canopy while modified bitumen is found on the covered walkway canopies. The covered walkway canopies are constructed of concrete columns, beams and a metal framing system. The roofing systems covering the building were observed to be in poor condition. The following deficient conditions were observed on the main building roof surface: evidence of ponding water, cracked asphalt scuppers, cracked sealant, debris build-up, and bald spots resulting in the exposure of the asphalt membrane. The roof trim and metal flashing materials were observed to be in average condition.		Poor

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
	The following deficient conditions were observed on the walkway canopy roof surfaces: evidence of ponding water, blisters, spider cracking, and cracked sealant. Tree branches overhung the covered walkway canopies contributing greatly to debris and water accumulation and subsequent accelerated weathering. The trim and metal flashing was observed to be cracked and aged. Gutters and downspouts on the canopies were not present. It was also observed that the top of the concrete beam system supporting the canopy structure was spalling in several areas due to exposure to the elements.		
Interior Construction	Interior Walls	The interior walls are framed partition walls, CMU walls and brick walls. No issues were found on the walls other than finishes. No holes or cracking was observed in the walls. One portion of the wall had a crack above one corner of the door typical of settlement cracks; however, the wall was most likely not structural, therefore the crack was considered cosmetic. In several areas of the building, rows of interior windows were between offices/work rooms and the main classrooms. One location has single pane glazing in wood frames. In the other locations there was glazing with security mesh in metal frames. Both sets of windows appeared to be newer construction. Some additional windows were found with similar conditions. Interior walls were observed to be in good condition with no significant deficiencies to report.	Good
	Interior Doors	Due to age of the building several interior remodels have taken place which has led to a large variety of interior doors, the condition assigned was average. Some doors were dated while other doors are newer. Doors were a mix of metal and wood while door frames were metal. Some doors have vision glass with security mesh while other doors have louvers on the bottom or both. The doors were observed to be in overall average condition. Deficiencies observed included wear and tear on the door finishes which has led to scuff marks, scratches, dents and signs of wear for heavily used doors. Some doors were observed to have missing louvers or mesh installed over the position of the louver rather than actual louvers. The hardware on the doors was observed to also be in average condition due to loose hardware, failed locking mechanisms requiring secondary locks on doors, and locks that stuck.	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
	Interior Specialties	Metal lockers occur on the inside and outside of the building. Lockers either had combination locks or were tied closed. The lockers were observed to be in average condition. The lockers on the exterior were observed to be worn and had locations showing signs of rusting and areas where the paint was missing. The lockers on the interior were observed to require a new painted finish as large sections of paint were missing and showed the previous paint layers below.	Average
Stairs	Exterior Stairs	Two sets of exterior concrete stairs and ramps occur on the exterior of the building providing access up to the building from the main plaza. The concrete stairs were observed to be in average condition as some previous damage has caused the corners of the stairs to be ground down at the corner likely due to wear, spalling or fractures. Some of the broken corners had not been repaired.	Average
	Interior Stairs	System not present	
Interior Finishes	Interior Wall Finishes	Similar to the interior doors, due to the age of the building a condition rating of average was assigned. Several different interior remodels have modified the original finishes within the building. The remodels have created a multitude of different types and levels of finishes. Wall finishes include painted CMU, brick, painted non-textured drywall partition walls, polished colored brick, wood panels, and tile or painted CMU in the restrooms. One room in the JROTC training area has acoustical panels on the wall and one restroom has painted drywall for the wall finish rather than ceramic tile which was standard. This building contains the art room and some murals and other artwork have been painted on the corridor walls near the art room. The interior wall finishes were observed to be in average condition, where recent remodels have not taken place the deficiencies was more apparent which is why the finishes are rated average. Deficiencies observed included areas where new paint is required to repair damaged finishes. Some walls were observed to have irregular wall surfaces or were excessively dirty.	Average
	Interior Floor Finishes	Similar to the interior doors, due to the age of the building several different interior remodels have changed the original finishes within the building. The remodels have created multitude of different types and	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		levels of finishes. The majority of the flooring is VCT in different colors and patterns. The VCT has recently been refinished. The restrooms have tile floors and the mechanical rooms have no finish and are exposed concrete. Rooms in the newly remodeled ROTC training area and offices have relatively new carpet. Rubber cove wall base is used throughout the building. All of the rooms were not accessible at the time of the site visit. The floor finishes were observed to be in overall good condition; over one third of the accessible portions of the building were observed to have recently replaced carpet. The condition of the VCT was in good condition and although some of the VCT is older it was observed to have been well maintained. The rubber cove wall base was in good condition, although several locations were observed where it has deteriorated or is not adequately attached to the wall. One broken VCT was observed adjacent to a service space.	
	Interior Ceiling Finishes	Three types of ceiling finishes were observed in the building; ACT (acoustic ceiling tile), painted drywall, and exposed to structure. In the areas exposed to structure a fibrous board covered the roof decking so it was not visible. The acoustical grid was a mix between 2' x 2' and 4' x 4'. The condition of the ceiling tiles was observed to be average. The ceiling tiles range from old worn and stained to new. The newer ceiling panels in one room had an offset grid such that in the middle of the room the grid was offset. Some panels with stains were visible and some were very dirty. No sagging panels were observed in this building.	Average
Conveying	System not present.		N/A
Plumbing	Plumbing Fixtures	The building has student and staff restrooms. The staff restroom was remodeled in recent years and has vitreous china fixtures including a wall-mounted sink and floor mounted toilet. The plumbing fixtures use manual faucets and flush valves. The student restrooms are similar to the facilities throughout the rest of the campus and have in-counter mounted sinks with manual faucets, floor mounted toilets with manual flush valves, and wall-mounted urinals (male restroom only) with manual flush valves. Overall the restrooms were functioning well and were observed to be in good condition.	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
	Domestic Water Distribution	Domestic water is fed to the facilities plumbing fixtures through multiple EWHs that were located throughout the building. The water heaters have been replaced in recent years and were in good condition.	Good
	Other Plumbing	The building has single inlet roof drains that are equipped with metal grate covers to prevent debris from entering the drainage system.	Good
Mechanical/ HVAC	The HVAC system consists of roof mounted AHU's with heating and chilled water coils. The ductwork feeds variable air volume (VAV) boxes in each of the offices or classrooms. Outside air for ventilation is introduced at the AHU and mixed with return air from the space. The facility also has (2) roof top mounted condensing units that are connected to fan coil units mounted above the ceiling. The condensing units are charged with R-22 refrigerant which is being phased out of production. They were observed to be in average condition.		Average
Fire Protection	Fire Alarm	This building also has a Silent Knight Fire Alarm panel. This panel is tied back to the main FACP panel located in the Administration Building. The building has initiation and annunciation devices such as audio/visual devices, strobes only, pull stations, heat and smoke detectors. The system was observed to be in good condition, (there was no functional testing performed)	Good
	Fire Protection/ Suppression	The building is protected by portable fire extinguishers placed throughout the facility. All observed portable fire extinguishers had inspection tags dated within the last year as required. There is not an automatic sprinkler system is located in the building.	Good
Electrical	Electrical Distribution	The main distribution panel and a few other panelboards were replaced in 1999; they were all in good condition. There are many other panelboards that are original to the building, they are in average condition	Good to Average
	Lighting	The building's exterior lighting consists of HID luminaires mounted under the canopy and on all the exterior walls. The interior lighting consists of primarily T8 fluorescent luminaires. The luminaires for the building were observed to be in good condition. Emergency lighting is provided by emergency lighting units with integral battery packs.	Good
	Communications & Security	There is a Gemini security panel including surveillance cameras in the building. There is a public address system with ceiling mounted speakers. There appears to be a new telecommunications	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		systems rack. The Wi-Fi devices also appear to have been recently installed. All the communications and security system appeared to be in good condition with no reported deficiencies.	

Exterior System Deficiency Examples

Exterior Walls

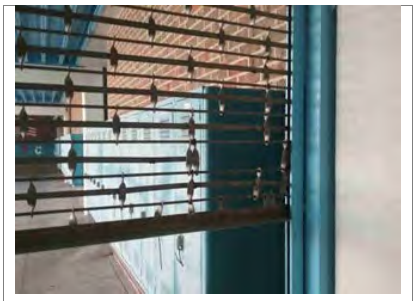






Exterior Windows

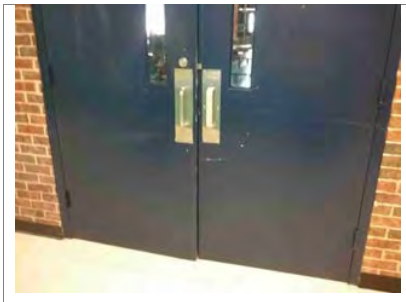
Exterior Doors

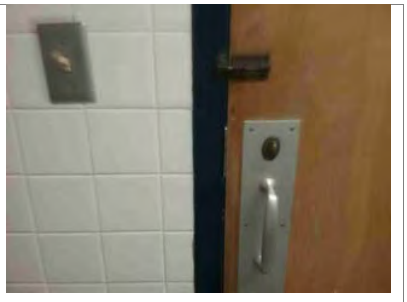


Roofing Deficiency Examples

Interior Construction Deficiency Examples

Interior Doors





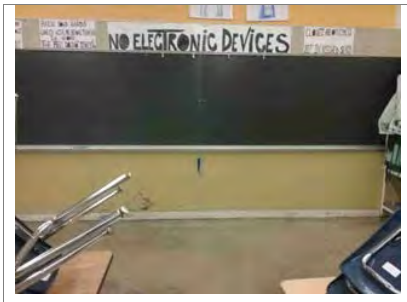
Interior Specialties

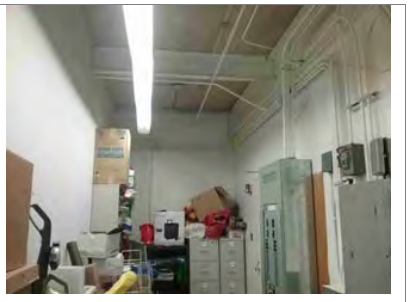
Stairs Deficiency Examples

Exterior Stairs

Interior Finish Deficiency Examples

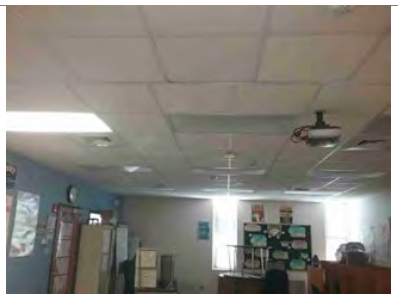
Interior Wall Finishes





Interior Floor Finishes

Interior Ceiling Finishes


Mechanical/HVAC System Deficiency Examples

Mechanical Building– BLDG-006F

Building Purpose	Central Chilling and Heating Plant
Building Area	4,549 SF
Inspection Date	August 10, 2016
Inspection Conditions	100°F - Sunny
Facility Condition Index	

System Deficiency Overview

The following table provides a summary of the conditions and deficiencies found by each discipline.

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Exterior	Exterior Walls	The Mechanical Building includes two independent structures; the main building and the cooling tower enclosure. The main building is a concrete framed structure with structural CMU walls and brick exterior face. The cooling tower enclosure is CMU block wall with sections of chain-link fencing that together create a perimeter enclosure, or screen, for the cooling towers. The main building has a concrete slab and houses the chilled water and heating hot water equipment, while the cooling tower enclosure has a raised concrete foundation supporting two cooling towers and houses no other equipment. The exterior enclosure walls of the two structures are in average condition showing signs of degrading grout, brick and expansion joints.	Average
	Exterior Windows	The exterior windows at the mechanical building are single-pane with steel frames and have sections of glass that are approximately 1.5'x4'. The windows are aged and damaged at both of the facilities entries and are in poor condition.	Poor
	Exterior Doors	The main building has three sets of hollow metal doors and frames accessing the facility while the cooling tower enclosure has a single chain link gate. The mechanical building also has an accordion style gate that closes off a small storage area. The hollow metal doors at the mechanical building and	Average

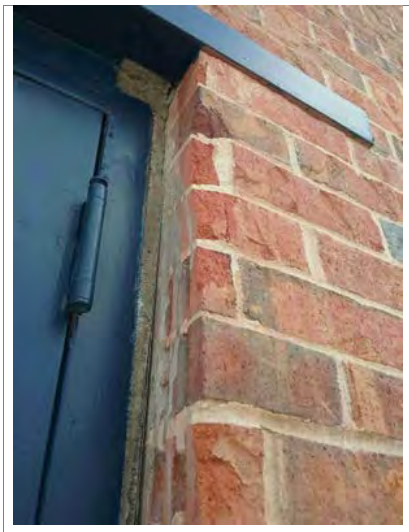
System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		the chain link gate at the cooling tower enclosure were observed to be in average condition with cosmetic damage to painted surfaces. However, the accordion style gate at the mechanical building storage area appeared to be non-operable and was in poor condition.	
Roofing	The roof material covering the building is built-up asphalt with a granular topping on the main portion of the building and modified bitumen on the entrance and covered walkway canopies. The roof surfaces were observed to be in average condition. Evidence of widespread ponding water was observed, and the roof drain scuppers had cracked and aged sealant. Building staff did not report any active leaks in the roof surface. .		
Interior Construction	Interior Walls	The main mechanical building has small office, restroom and compressor rooms with painted CMU partitions. The cooling tower building does not have interior partitions Overall the interior partitions are in good condition and show signs of surface scuffing and paint chipping.	Good
	Interior Doors	The mechanical building has wood interior doors with hollow metal frames. Overall the wood doors and hollow metal frames are in average condition with some minor scuffing on the surface material surfaces and paint damage.	Average
	Interior Specialties	System not present.	N/A
Stairs	Exterior Stairs	System not present.	N/A
	Interior Stairs	System not present.	N/A
Interior Finishes	Interior Wall Finishes	The interior partitions of the main mechanical building are finished with standard latex paint. Overall the painted surfaces are in average condition showing signs of normal wear and tear.	Average
	Interior Floor Finishes	The floors of the mechanical building are unfinished concrete and were in good condition. There was some minor cracking in the slab due to the concrete curing process but no evidence of settling or structural shifting.	Good
	Interior Ceiling Finishes	The office, restroom and compressor rooms all have painted drywall ceilings. Overall the structure of the ceiling was in good condition; however, the drywall and painted surface had a number of holes and damaged sections that needed to be repaired. The ceilings were in average condition.	Average
Conveying	System not present.		N/A

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Plumbing	Plumbing Fixtures	The building has a private restroom for the building operator consisting of vitreous china hand sink with manual faucets, along with vitreous china floor mounted toilet with a manual flushing mechanism. Overall, the plumbing fixtures were in average condition and were reaching the end of their expected design service life.	Average
	Domestic Water Distribution	The domestic hot water is provided by a single EWH that was in good condition.	Good
	Other Plumbing	The building's roof was not accessible; however, it could be seen from the adjacent building's roof. The mechanical building has single inlet roof drains that are equipped with metal grate covers to prevent debris from entering the drainage system. The roof drains were in good condition.	Good
Mechanical/ HVAC	The building is central chilled water and heating water plant for the majority of the campus heating and cooling. The chilled water plant consists of two Trane 400-TON water cooled chillers with a condensate water system that rejects heat through two stainless steel Cooling Towers. The heating water system is served by (3) 2,000 MBH high efficiency natural gas-fired boilers for the purpose of reheat. The chilled water and heating hot water is distributed through underground piping to the AHUs at each of the buildings on campus. Pumping for the chilled water is provided by constant speed primary pumps. The heating hot water pumping is in a primary/ secondary arraignment with the secondary pumps supplied with variable frequency drives for energy efficiency. Overall the equipment in the mechanical building is functioning properly; however, the chillers utilize R-123 refrigerant which is an ozone depleting gas and will be phased out of production.		Average
Fire Protection	Fire Alarm	System not present.	N/A
	Fire Protection/ Suppression	The building is protected by portable fire extinguishers placed throughout the facility. All observed portable fire extinguishers had inspection tags dated within the last year as required. No automatic sprinkler system is located in the building.	Good
Electrical	Electrical Distribution	Within a fenced area adjacent to the Mechanical Building are the Utility Transformer and the Stand-by Generator. The campus is fed with a 2,000 kVA utility transformer with 480/277V-3ph-4w secondaries. The utility transformer feeds a 5000 amp switchboard with a 3000 amp main switch. This main switch has ground fault protection. This switchboard (estimated to be from the 1990's) has a distribution section with breakers for	Average

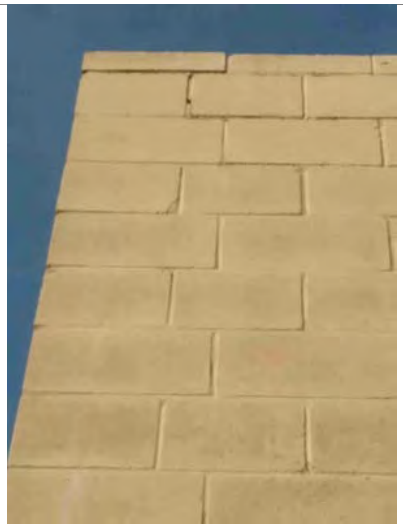
System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		MTDP, CH-1, CHP and DAC and directly feeds the original distribution lineups identified as Main Switchboard #2 (MSB2) (all of this electrical equipment is more than 30 years old). MSB2 consists of (4) sections of switchboards from various manufacturers and installed during various projects. The equipment installed since 1990 was in good condition, the equipment installed from 1967 to 1989 was in average condition. In 2015, a replacement 150kW, 480/277V-3ph-4w diesel generator and automatic transfer switch were installed. The generator has a 300-gallon sub-base tank. The Generator is not used for Life Safety; it provides stand-by power to the MDF room within Old Mall, which provides all the telecommunications service to the entire school campus. The Generator was in excellent condition.	
	Lighting	There are various types of luminaires within the building. The fluorescent luminaires have T8 lamps, and there are some HID luminaires, some of these HID's have been replaced with LED type luminaires. The	Average
	Communications & Security	No communications or security systems were seen within this building.	N/A

Exterior System Deficiency Examples

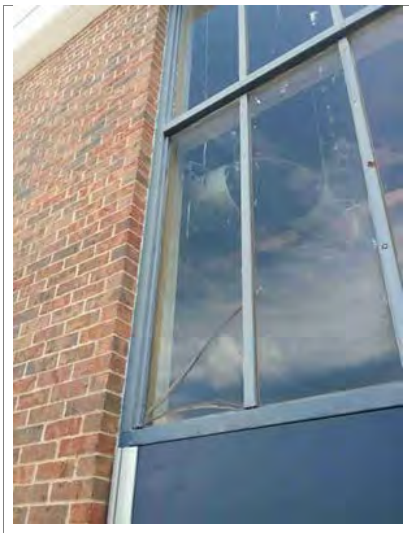
Exterior Walls







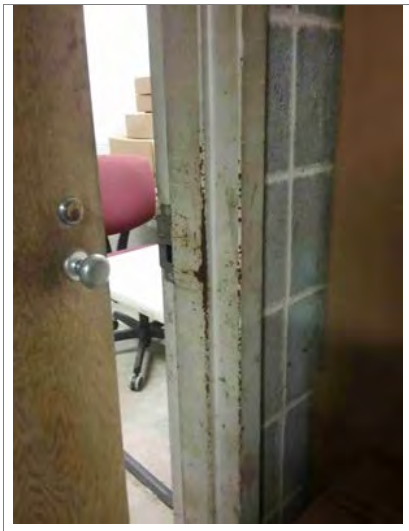

Exterior Windows

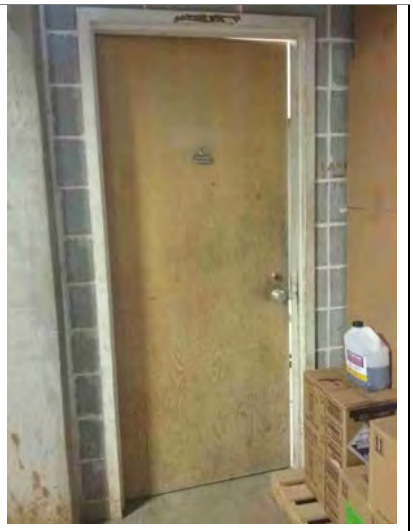


Exterior Doors

Interior Construction Deficiency Examples

Interior Doors





Interior Finishes Deficiency Examples

Interior Wall Finishes

Interior Ceiling Finishes

Plumbing System Deficiency Examples

Plumbing Fixtures

Mechanical/HVAC System Deficiency Examples

Stand-Alone Cafeteria and Choir Building – BLDG-006G

Building Purpose	Cafeteria, Kitchen, and Choir Rooms
Building Area	24,939 SF
Inspection Date	August 10-12, 2016
Inspection Conditions	100°F - Sunny
Facility Condition Index	

System Deficiency Overview

The following table provides a summary of the conditions and deficiencies found by each discipline.

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Exterior	Exterior Walls	The building is one story. The exterior facade is a mix of exposed aggregate precast panels with a vertical pattern or brick veneer inset into concrete frames created by the foundation columns and beams at the roof line. The top of the precast panels appear to be held in place with steel angles located at the top of the panels. The exterior wall around the cafeteria is constructed using a window system on top of a short brick wall. Away from the cafeteria, the building is predominantly the precast panel facade. The exterior wall was observed to be in good condition with some minor aesthetic deficiencies. The sealant at joints between the panel's door frames was deteriorated. The paint was observed to be peeling off of the exterior painted concrete and was at some point repainted without stripping the previous paint. On the rear of the building there was a location where the paint was observed to be peeling off of the concrete. Around the rear and side of the building near the cafeteria there is what a appears to be some tar like substance possibly roofing that was running down the face of the concrete; in other areas of the roof the top concrete beams had streaks indicating water has run down the face of the beam. A few locations where the steel angle holds the precast panel in place were observed to be showing early signs of corrosion.	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		Some cracks on the concrete beams were also observed and also seemed minor in nature and not of structural concern.	
	Exterior Windows	The exterior windows consist of single pane glass in hollow metal frames. The cafeteria has windows on both sides that are along the exterior of the building. Very few windows occur on the exterior of the building other than at the cafeteria. No notable deficiencies at the windows were observed.	Good
	Exterior Doors	The exterior doors are metal doors in metal frames. The metal frames are full height and above the doors, the frame is infilled with metal panels. The majority of the exterior doors are single passage doors. The doors have vision glass; some vision glass has a mesh. The exterior doors were observed to be in average condition. A door frame was observed to be dented and other doors were observed to have scuff and wear marks indicating significant use. One overhead manual rolling door is on the exterior of the building. The door is open decorative grating. The overhead door was observed to be exhibiting signs of corrosion on the frame and grate	Average
Roofing	The building roof is covered with tar and gravel. There is modified bitumen found surrounding the roof drains and at the canopies. The roofing system covering the building was observed to be in poor condition. Evidence of ponding was observed as indicated by widespread dirt accumulation, stains and patches. Blisters, cracked sealant and weathered materials were observed. Flashing, trim, and drip edge materials appeared to be in average condition. The joint interface between roof surfaces was observed to be cracked. Facility staff reported roof leaks above the kitchen area, but none were observed the day of the assessment. The modified bitumen cover of the canopies was observed to be cracked, blistered, and had cracked sealant. Evidence of ponding water was observed. Tree branches overhung the roof surface and were depositing debris onto the roof. The underside of the canopy was observed to be corroded. The gutter and downspout system serving the walkway canopies was observed to be insufficient. The gutters and downspouts were observed to be corroded and detached from their stirrups.		Poor
Interior Construction	Interior Walls	The interior walls are framed partition walls, CMU walls and brick walls. No holes or cracking were observed in the walls. The cafeteria is separated from the rest of the building by interior hollow metal frames with single pane glass and metal infill panels.	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		The interior walls were observed to be in good condition.	
	Interior Doors	Interior doors are wood with metal frames, and the common doors have vision glass. Interior glazed walls separate the cafeteria from the main entrance and large interior louvers separate the kitchen from the cafeteria. The interior doors were observed to be in average condition. The doors with heavy use show signs of wear and tear with scuff marks and damaged finishes on the doors and on the door frames. The larger louvers that occur between the kitchen and the dining area displayed some louvers with bent slats.	Average
	Interior Specialties	Several sets of metal lockers were located throughout the building. Lockers in this building appear to be for support staff rather than students. The lockers were observed to be in average to poor condition. The lockers in the kitchen had rusting along the bottom panels. One locker was observed to be missing the end panel such that the locker's contents were exposed and not protected. Also, several lockers were observed where the top coat of paint is peeling exposing paint layers below.	Poor
Stairs	Exterior Stairs	System not present.	N/A
	Interior Stairs	Interior stairs were observed in the cafeteria providing access to the stage and the choir risers in the choir room are similar to interior stairs. The stairs appeared to be in good condition, however the stairs in the cafeteria did not have a wall or floor mounted railing.	Good
Interior Finishes	Interior Wall Finishes	The interior wall finishes in this building are primarily painted CMU, wood paneling in the choir room, painted drywall in corridors, exposed brick around the cafeteria, glazed CMU in the kitchen, and ceramic tile in the restrooms. The wall finishes were observed to be in good condition with a few exceptions. The interior wall in the mechanical room had graffiti and the wall in front of the stage is missing paint in several locations.	Good
	Interior Floor Finishes	The floor finishes in this building are varied. The storage room has exposed concrete floor. The only carpet in the building occurs in the head janitorial office. The stage in the cafeteria has a wood floor. The restrooms have ceramic tile as well as the kitchen. The remaining areas	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		in the building have VCT including the risers in the choir room. The floor finishes were observed to be in good condition. The VCT flooring does not match throughout the building. The wood floor on the stage has scratches and gouges; however, this damage is older as the wood has been refinished smooth with the damage below. Between the kitchen tile and the cafeteria VCT and at an interior stair the VCT was observed to be broken or missing. The tile in the women's restrooms was stained from the feet of the sink counter.	
	Interior Ceiling Finishes	The ceiling finishes throughout the building were primarily a dropped ceiling infilled with 2' x 2' ACT (acoustical ceiling tiles). The exceptions to ACT included the storage room which is open to structure, the restrooms and one choir room which has a painted drywall ceiling. The ceiling finishes were observed to be in overall good condition and much of the ceiling appeared to have been replaced. The ceiling in the kitchen was observed to be bowing and the lighting in the kitchen appears to be supporting the ceiling which could present a life safety hazard.	Good
Conveying	System not present.		N/A
Plumbing	Plumbing Fixtures	The building has public restrooms for students and separate restrooms for the Kitchen staff. These restrooms have vitreous china in-counter hand sinks with manual faucets, along with floor-mounted vitreous china toilets and wall-hung vitreous china urinals (in the men's restrooms) with manual flushing mechanisms. There are water coolers located near the public restrooms and floor sinks in the janitorial closets. The building also includes specialty fixtures for the kitchen and school cafeteria that were stainless steel. The plumbing fixtures were observed to be in good condition as the fixtures were typically aged but still operational.	Good
	Domestic Water Distribution	A gas-fired water heater is located in the mechanical room for domestic hot water supply to the kitchen and restroom fixtures. The dishwashers have an additional instant water heater for sanitization. The domestic water distribution piping and equipment was in good condition.	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
	Other Plumbing	The building has a combination of single and dual inlet roof drains are equipped with metal grate covers to prevent debris from entering the drainage system. The roof drains were in good condition.	Good
Mechanical/ HVAC	A building has a series of constant volume roof top AHUs with chilled water and heating water coils serving the Cafeteria and Choir spaces. The choir rooms have an additional variable air volume (VAV) system with VAV boxes located above the ceiling to provide zoned heating and cooling. The kitchen is served by multiple packaged DX roof top air conditioning units. The buildings mechanical systems were functioning normally; however, the roof top package air conditioning units were all charged with R-22 refrigerant which is being phased out of production.		Good
Fire Protection	Fire Alarm	This building also has a Silent Knight Fire Alarm panel. This panel is tied back to the main FACP panel located in the Administration Building. The building has initiation and annunciation devices such as audio/visual devices, visual only, pull stations, heat and smoke detectors. The system was observed to be in good condition, (there was no functional testing performed) There did not appear to be any fire alarm devices tied into disconnecting electrical power and natural gas from all the cooking equipment located under the kitchen hoods.	Poor
	Fire Protection/ Suppression	The building is protected by portable fire extinguishers placed throughout the facility. All observed portable fire extinguishers had inspection tags dated within the last year as required. The building did not have an automatic sprinkler system for common spaces or classrooms, but the kitchen has a specialized fire suppression system at the hoods. The fire suppression system was in good condition.	Good
Electrical	Electrical Distribution	The main electrical room contains two Main Distribution Panel DAC and MTDP which provides power to the Cafeteria, Choir building and various other buildings. The Automatic Transfer Switch for the stand-by generator power to MDF room is located within this buildings electrical room. The electrical equipment associated with the Cafeteria Kitchen is all original (from 1965) and outlived their expected design service life. Distribution Panel CLD is missing its inner cover. All wiring and bus bars are visible. All the electrical equipment older than 15 years, located	Poor

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		within the Electrical Room (accessible from an exterior door) was in poor condition and had rust and corrosion on their enclosures. The rest of the electrical equipment was installed in the 1990's or 2000's and was in good condition. There appears to be no emergency off button for kitchen equipment located under the hoods. This emergency off should disconnect all power and gas utilities to all cooking equipment located under the hoods. This emergency off button should also be tied into the Fire Alarm System.	
	Lighting	The building's exterior lighting consists of HID luminaires mounted under the canopy and on all the exterior walls. The interior lighting consists of primarily T8 fluorescent luminaires. All kitchen equipment luminaires are required to have lenses. The luminaires for the building were observed to be in good condition. Emergency lighting is provided by emergency lighting units with integral battery packs.	Average
	Communications & Security	There is a Gemini security panel including surveillance cameras in the building. There is a public address system with ceiling mounted speakers. The Wi-Fi devices appear to have been recently installed. All the communications and security system appear to be in good condition with no reported deficiencies.	Good

Exterior System Deficiency Examples

Exterior Walls




Exterior Doors



Roofing Deficiency Examples







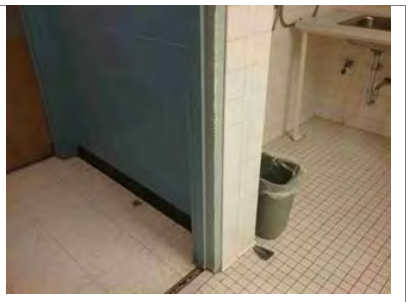




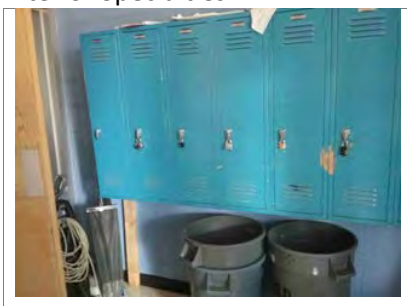


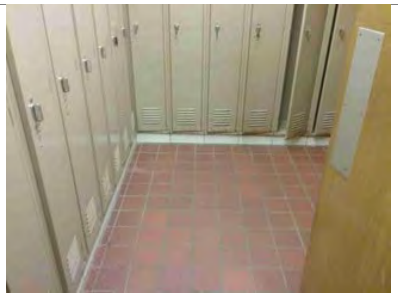

Interior Construction Deficiency Examples

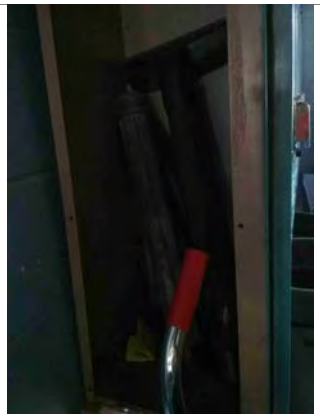
Interior Doors



Interior Specialties

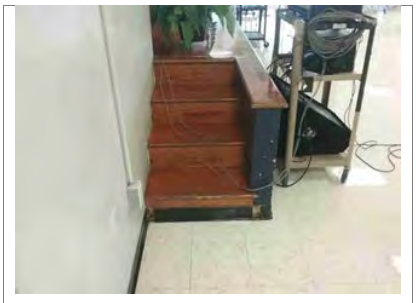






Stairs Deficiency Examples

Interior Stairs

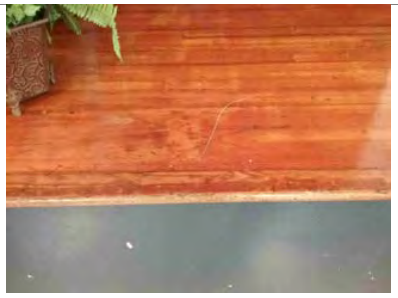


Interior Finish Deficiency Examples

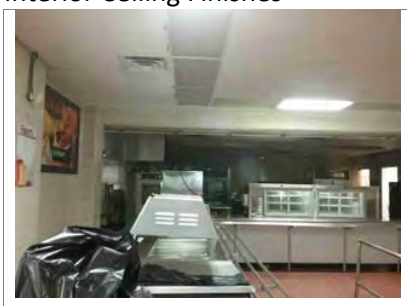
Interior Wall Finishes



Interior Floor Finishes


Interior Ceiling Finishes



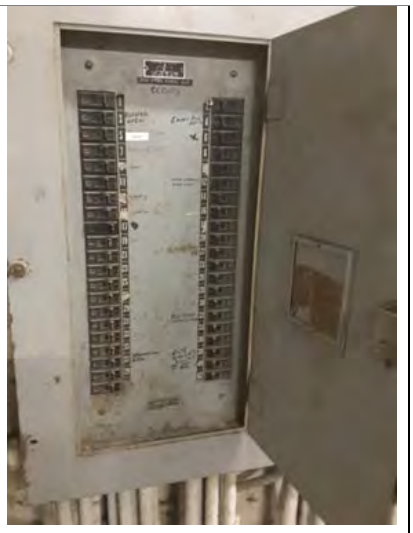

Mechanical/HVAC System Deficiency Examples

Fire Protection

Fire Alarm

Electrical System Deficiency Examples

Electrical Distribution



Lighting

Stand-Alone Classroom Building (New Mall) – BLDG-006H

Building Purpose	Classrooms and Staff Offices
Building Area	43,119 SF
Inspection Date	August 9-12, 2016
Inspection Conditions	100°F - Sunny
Facility Condition Index	

System Deficiency Overview

The following table provides a summary of the conditions and deficiencies found by each discipline.

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Exterior	Exterior Walls	The exterior of the building consists of painted reinforced concrete beams and columns with brick veneer panels at entrances, above entrances, and facing the interior outdoor courtyard or prefabricated concrete panels coated with aggregate on the exterior of the building. Debris and possible biological growth had degraded the coating of some beams and columns and their joint sealants with some walls, which are especially present on the northeast and southwest areas. Rare occasional small cracks existed in five percent or less of the area of beams. The (large) lintel of entrance awning H-10 is rusted and joint sealant degraded. The north east wall junction of a column and beam has rebar possibly bulging out for six to eight inches in length. The paint was peeling on the northeast wall beams and appeared to weather more frequently than those of the rest of the building. The grout at the bottom of the elevator shaft and elevator mechanical room was dirty, weathered, and eroded. A south staircase wall beam was cracking at the joint of the stairs and column. Another beam by the southwest stair is cracking laterally at its top. Sealant was degraded for much of the joint of the brick veneer walls facing the interior outdoor courtyard and the sidewalk or balcony. Water was leaking out of an approximately a one and one-half inch diameter hole in the soil in the yard south	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		of the intersection of covered walkway canopies H-02 and G-05.	
	Exterior Windows	The exterior windows consist of single-pane glazing units with aluminum frames and vertical sliders spring-loaded with four sections of glass. This single-pane design is aged, although the units were in average condition given their age. No leaks were reported by inquiry to facility staff. Sealant was degraded from 50% of the windows on their inside and outside. The lower painted aluminum panels of 50% of the windows were faded. In 15% of the windows, glass panels had been replaced with acrylic, of which about 30% was heavily worn and scratched. 60% of blinds were broken or missing. The windows were rated average because of their broken and missing blinds, panel fading and age.	Average
	Exterior Doors	Exterior doors are steel with partial glazing in the doors and glazing on either side of the set of doors. This glazing varied as about 70% glass and 30% acrylic. The doors appeared to have been recently recoated. 10% of the glazing in the doors was heavily scratched or worn limiting safety visibility, and about 15% glazing adjacent to the entrances had scratched panels. Facility staff reported that one of the doors at the main entrance on the southwest side was worn enough where it could be yanked open if pulled hard even when locked, but the door of concern could not be identified. This could not be verified during the observation even with staff assistance. The exterior doors condition was rated as average because of the glazing condition of the entrances and age of the entrance door and window subsystems.	Average
Roofing	The roof material covering the building is constructed of various materials. The main portion of the building is covered with built-up asphalt and granular topping while modified bitumen is found on the entrance and covered walkway canopies. The covered walkway canopies are constructed of concrete columns, beams and metal framing. The roofing systems covering the building were observed to be in poor condition. The following deficient conditions were observed on the main building roof surface: evidence of ponding water, cracked asphalt scuppers, cracked sealant and joints, debris build-up, and bald spots resulting in the exposure of the asphalt membrane. The roof trim and metal flashing materials were observed to be in average condition. Gravel and debris was present in some of the gutters of the built-up asphalt covered entrance awnings. It should be noted that there were no		Poor

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
	reported active leaks in occupied spaces within the building at the time of the assessment. The following deficient conditions were observed on the walkway canopy roof surfaces: evidence of ponding water, blisters, spider cracking, and cracked sealant. The trim and metal flashing was observed to be cracked and aged. Gutters were not observed to be present at the canopies, but periodic downspouts were observed. It appeared that there was a lack of controlled roof drainage of water off of the canopy surface. Some canopy flashing and trim joints were cracked, rusted, and weathered likely because of debris and excessive walkway canopy storm water runoff.		
Interior Construction	Interior Walls	Most interior walls are painted gypsum board on wood or aluminum framing, though around 15% are painted CMU. Interior glass, wood-framed windows are present in each quarter classroom corridor's teacher office's walls adjacent to the corridors on each level of the building. The interior walls had a condition rating of average because of their age and finishes, though they were functionally sufficient.	Average
	Interior Doors	Interior doors are solid wood in wood frames. 90% are partially glazed with glass, reinforced glass, or acrylics. Louvers are present in the bottom half of some doors for mechanical, storage, and special use rooms along with 60% of classrooms. Sliding folding partitions are present in the staff office of each classroom corridor. Overall, 85% of the interior door hardware was worn, especially in the corridor of rooms 410 to 414. The office door in the corridor of rooms 421-424 was jammed by the bottom of its door frame in contact with the door frame and possibly the floor and would not open at all, despite the door flexing minimally. The finish of 75% of doors were aged, dated, and heavily worn as indicated by scratches, wear, tape and adhesive wear marks, though must doors remain structurally and functionally sufficient. The sliding folding partitions in the staff offices are old, but were in good condition.	Average
	Interior Specialties	Steel lockers are present on both floors outdoors in the courtyard yet sheltered by the courtyard roof. They are painted and mounted either to the brick veneer or to the ground level floor. Lockers with greater exposure to the sun or precipitation had more weathered paint and under-carriage. The tops of 80% of the lockers had dust and debris accumulation, and appeared to be dented down at each unit by	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		ongoing precipitation accumulation or other loading, possibly by books. About 60% of them had rusty tops. Some appeared to be wearing well without dents or excessive wearing due to use or abuse.	
Stairs	Exterior Stairs	Two flights of stairs with one landing of polished reinforced concrete steps are present at each of the four entrances. The polishing of the concrete was worn in the most highly trafficked areas. The step treads were worn, slippery, and chipping near the treads and on the steps and are presently creating a slipping hazard, especially when wet. The landings had a high presence of spider web cracks in 50% or more of their area. About 10% of the area of the landings had spalling and 10% had delamination occurring, which provided a tripping hazard. The landings may near the end of their useful design service life within the next couple of years.	Poor
	Interior Stairs	A fixed steel roof access ladder is present in the janitorial room. A fixed aluminum step ladder (stairs) is present in a separate roof access room. The step ladder roof access hatch railing is fiberglass reinforced plastic (FRP). The roof hatch access ladder in the janitorial room was not of sufficient height to safely access the roof through the hatch; however, a stair ladder existed at another nearby hatch in another nearby roof access room. The FRP roof hatch railing of the roof access step ladder was severely weathered, splintered, broken, weak, unsteady, and missing pieces. The condition rating was poor because of the conditionally obsolete roof access railing for the fixed aluminum roof access step ladder and the insufficient height of the fixed steel roof access ladder.	Poor
Interior Finishes	Interior Wall Finishes	Interior wall finishes include paint on the interior of the exterior CMU walls, paint on the gypsum board of the interior walls, chalkboards, marker boards, vinyl panels, painted vinyl panels, bulletin boards, and vinyl covered bulletin boards, and rubber/plastic base boards which were sometimes painted. Some interior base boards needed repair due to tearing, marking, stains, worn out glue, or repainting. Some corridor walls had paint that needed touch up. The painted vinyl finished walls in many of the corridors and the vinyl panels underneath many of the blackboards	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		were in good condition, especially give their age., The recent repainting of most of the interior corridors, and the relatively overall average condition of the wall finishes, the interior wall finishes were rated as average.	
	Interior Floor Finishes	The ground floor adjacent to the interior outdoor courtyard finish is polished reinforced concrete slab. The balcony floor finish is polished reinforced concrete. The interior conditioned space corridor and classroom floor finishes are 8”x8” VCT, with about 10% of the VCT being replaced by 12”x12” VCT. The balcony had excessive spider web cracking, worse and larger in corners and worse near each its corners and at each set of stairs in. Minor water damage indicated by stained and buckled tiles was observed in the exterior corners of classrooms 420–440 due to either current or historical water penetration.	Average
	Interior Ceiling Finishes	The ceilings are 2’ x 2’ suspended ACT tiles inside the condition spaces, and exposed painted waffle slab reinforced concrete in the unconditioned open corridors surrounding the courtyard. The ceiling tiles of the classrooms 440-444 corridor had older ceiling tiles than the other corridors in the buildings, probably by five to seven years. When the tiles were used in a vertical application in an enclosure of a utility conduit in the building, they were often warped.	Good
Conveying	The building is equipped with a hydraulic passenger elevator to service two levels. The elevator was noted as having a maximum weight capacity of 2100 lbs. This elevator was observed to be in good condition as a recent inspection certificate issued within the last year, as required, was visible. The school personnel stated that the elevators were original to the building, the equipment within the machine room shows a manufacture date of 1999.		Good
Plumbing	Plumbing Fixtures	The building has public restrooms for men, women and students, and there is additional staff restrooms located throughout the facility. These restrooms typically have metal sinks recessed in countertops with timed push button faucets. The toilets are floor-mounted and urinals are wall hung. They are vitreous china and have manual flushing mechanisms. There are service sinks found in the janitorial closets, and water coolers located throughout the facility, typically near the public restrooms. The restroom plumbing fixtures were observed to be in good condition as the fixtures were typically aged but still operational.	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
	Domestic Water Distribution	The buildings domestic hot water is provided to the plumbing fixtures by a single 70 MBH GWH that was installed in 2010.	Good
	Other Plumbing	The building has dual inlet roof drains that are equipped with metal grate covers to prevent debris from entering the drainage system.	Good
Mechanical/ HVAC	The HVAC system consists of roof mounted AHU's with heating and chilled water coils. The sizes vary from 12,500 cfm to 17,500 cfm per quadrant. The ductwork feeds variable air volume (VAV) boxes in each of the offices or classrooms. Outside air for ventilation is introduced at the AHU and mixed with return air from the space. Numerous EFs are located on the roof. Some of the units were not running, but it could not be determined if they operational. Overall, they were aged/out of date, making them due for replacement soon.		Average
Fire Protection	Fire Alarm	This building also has a Silent Knight Fire Alarm panel. This panel is tied back to the main FACP panel located in the Administration Building. The building has initiation and annunciation devices such as audio/visual devices, strobes only, pull stations, heat and smoke detectors. The system was observed to be in good condition, (there was no functional testing performed) All of the devices exposed to the elements in the open areas have aged past their useful design service life.	Average
	Fire Protection/ Suppression	The building is protected by portable fire extinguishers placed throughout the facility. All observed portable fire extinguishers had inspection tags dated within the last year as required. There is not an automatic sprinkler system for this facility.	Good
Electrical	Electrical Distribution	Electrical Distribution and panelboards are located in various rooms throughout the building. 50% are original to the building's construction and the rest have been replaced or added since the mid 1990's. The newer electrical equipment is in good condition and the older equipment is in average condition. A section of the lower room has lightning protection.	Average
	Lighting	The building's exterior lighting consists of HID luminaires mounted under the canopy and on all the exterior walls. The interior lighting consists of primarily T8 fluorescent luminaires. There are a number of classrooms that have had occupancy sensors installed.	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		The luminaires for the building was observed to be in good condition. Emergency lighting is provided by emergency lighting units with integral battery packs.	
	Communications & Security	There is a Gemini security panel including surveillance cameras in the building. There is a public address system with ceiling mounted speakers. There appeared to be a new telecommunications systems rack. The Wi-Fi devices also appear to have been recently installed. All the communications and security system appeared to be in good condition with no reported deficiencies.	Good

Exterior System Deficiency Examples

Exterior Walls

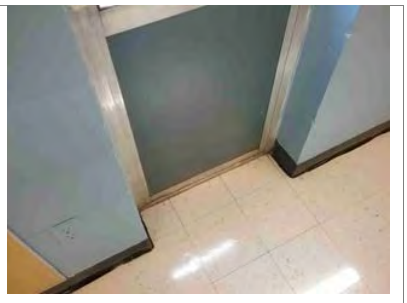






Exterior Windows





Exterior Doors


Roofing Deficiency Examples















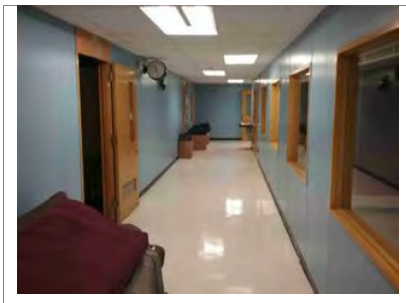
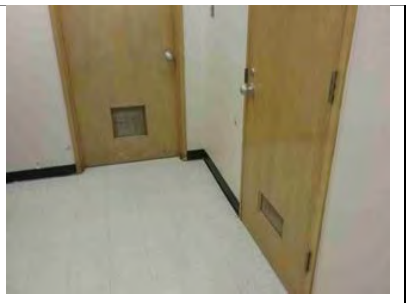






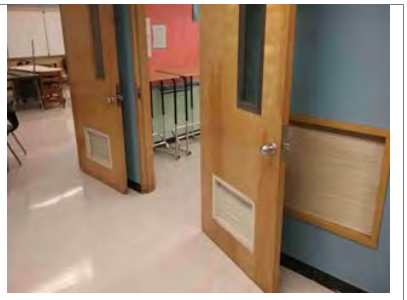
Interior Construction Deficiency Examples

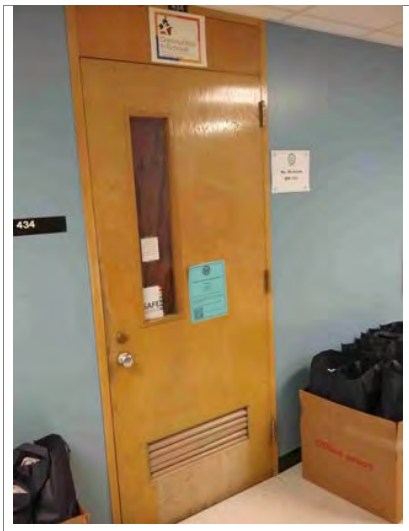
Interior Walls

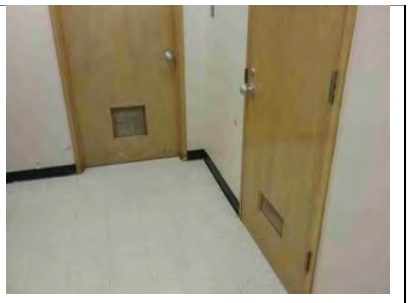



Interior Doors









Interior Specialties

Stairs Deficiency Examples

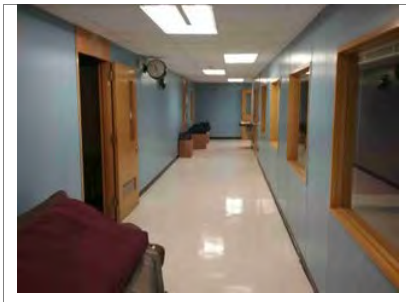
Exterior Stairs

Interior Stairs



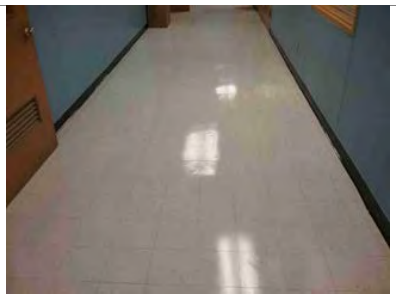
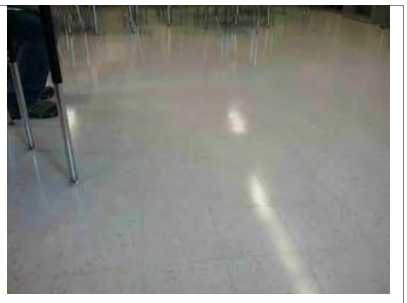
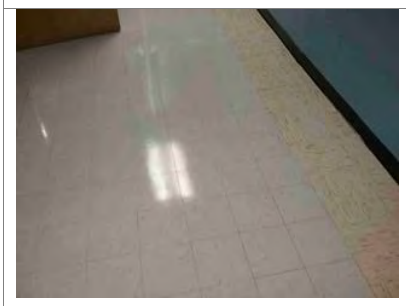
Interior Finishes Deficiency Examples

Interior Wall Finishes

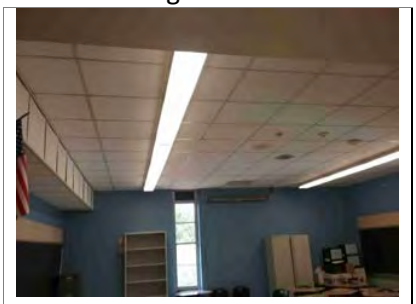



Interior Floor Finishes



Interior Ceiling Finishes



Mechanical/HVAC System Deficiency Examples

Automotive Mechanics, (former) JROTC, Theater, Band Hall, (and now Technology) Building – BLDG-006I

Building Purpose	Classrooms, Theater, Band Hall, Technology, and Automotive Shop
Building Area	44,613 SF
Inspection Date	August 11, 2016
Inspection Conditions	100°F - Sunny
Facility Condition Index	

System Deficiency Overview

The following table provides a summary of the conditions and deficiencies found by each discipline.

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Exterior	Exterior Walls	The exterior of the building consists of painted reinforced concrete beams and columns with brick veneer panels. The exterior walls were observed to be in average condition. The poor condition rating downgrades the walls from good primarily due to occasional instances of beams or column cracking that could drop debris onto pedestrians below and/or lead to further structural issues and degradation if not addressed. Additionally, isolated areas were in need of cleaning due to organic growth and debris accumulation. Additionally, isolated areas of the foundation need recoating and joint sealants maintained. Some sinkholes and water drainage to the foundation were evident that may put the foundation at risk. More specifically, the south corner of theater building had a chunk of a beam that is cracked and may fall creating a life and/or safety hazard that should be repaired and walking access underneath blocked off until it is. The southwest corner bottom concrete foundation beams had encountered water damage apparently from before the roof was rehabbed. Water staining is present on the southwest wall brick veneer and is likely due to historical and/or present drainage off	Poor

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		of the roof onto the wall. The foundation beams of the west wall of the Shop were debris-ridden causing deterioration of the joint between the foundation beam, and the brick wall had organic matter accumulation. Joint sealant had degraded, especially in areas of weathering, water, organic matter, and debris accumulation. A 12 by 18 by 6 inch sinkhole had developed at the second column from the southwest of the auto shop building. A 24 by 24 by 24 inch sinkhole had developed on the south side of the building at a water valve is sprinkler box that had been shattered as well because of the erosion; the same wall had many very large cracks in the soil and apparently historic heaving that could often be associated with excessive water leaking or accumulating in mass quantities against the foundation, putting it at risk. Occasional cracks were present in the foundation wall. Beam and column intersections were cracking at the top of the southeast corner of the Band Hall. Besides being indicative of possible larger structural issues, large piece(s) may delaminate and fall off soon onto the ground and/or pedestrians causing further deterioration and possible life and/or safety issues. The west top corner of Theater entrance also had symmetrical cracks that could have similar implications that need further study as the cracks in the band wing. The northeast column at the level of the second and third beam up was observed to be cracking on both its north and east sides in a symmetrical fashion.	
	Exterior Windows	The exterior windows consist of single-pane glazing units with aluminum frames. The exterior windows were in average condition for their extended age. No leaks were reported by inquiry to facility staff, but their joint seals have degraded in many instances. The windows along the northwest corner of the Shop had moss and organic matter accumulating and debris present on them; these characteristics and visual observation revealed that site drainage likely drains toward these windows and accumulates near or against them causing weathering. Rust existed on the windows and their fasteners along the south wall, which is where evidence was present of much water presence at and extending from the south wall. Windows of north entrance to Shop had worn and heavily scratched glazing with limited visibility.	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
	Exterior Doors	Exterior doors are steel with glazing, except for the exterior entrance to the Theater, which are aluminum-framed glazing. Two manual steel roll up doors are on the east of the Auto Shop. Louvers are adjacent to each of these Shop roll-up doors. The Theater stage also has steel roll-up door. The exterior doors were in average in condition and ready for some routine maintenance. Both roll up doors of the Shop were operable but the south one has rust on it. The north rollup door of the Shop had some resistive sticking points in operation. The louvers adjacent to the roll-up Shop doors were in satisfactory condition. The rollup door for the stage appeared to be in satisfactory condition, but was inaccessible to attempt its operation due to non-related maintenance activities. Roof I-04 access door needs had a high amount of rust on its exterior. Band wing exterior double door frames were significantly worn, especially their removable center mullion posts; removable center mullion posts were prone to loud, interruptive slamming and rattling with each use, and the one associated with the extra tall exterior double door for the band room had no center support, which causes high wear on the entire assembly and a lack of stability.	Average
Roofing	The roof material covering the building is built-up asphalt with a granular topping. The roof surface was observed to be in average condition. Evidence of widespread ponding was observed as well as bald spots exposing the asphalt membrane, and debris accumulation in the low areas of the surface. Roof drain scuppers and sealants were cracked throughout. A roof drain grate on top of the theater was observed to be detached. The skylight on the south side of the Auto Shop wing was cracked in its southwest corner. Building staff did not report active leaking in occupied spaces on the interior of the building.		Average
Interior Construction	Interior Walls	The interior walls are made of painted gypsum board construction in the theater and band hall. The Shop walls are and second story Band Hall ones appear to be mainly CMU. Porcelain tile made up most of the walls of the restrooms. The interior walls appeared in average condition. Cracks in the main reinforced concrete beam above the stage were present near its longest span and highest load supporting most of catwalk, stage speakers, and stage opening ceiling finishing, etc.; the cracks were small and vertical from top to bottom of beam and wrapped around bottom of beam; these were especially	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		present in the area of where the overhead stage speakers hung, perhaps indicating that it was not designed with the intention of supporting some or all of these loads; this should be monitored, measured, and studied further. Interior walls showed excessive wear in the narrower passages of the entry to the main band room and main entry to theater, given their narrower dimensions, high traffic, and traffic pattern, and equipment being moved in tight quarters.	
	Interior Doors	Interior doors are primarily wooden with steel frames. Classroom doors include partial glazing. Interior doors and their hardware were extensively worn throughout the Band and Theater wings and about 40% in the Technology and Auto Shop wing. The Band wing interior double door frames were significantly worn, especially their removable center mullion posts; the present installed design of removable center mullion posts are prone to loud, interruptive slamming and rattling with each use. Accordion gates in Auto Shop appeared to be in satisfactory condition and functioning.	Poor
	Interior Specialties	Lockers are present in interior corridors of the Technology and Auto Shop wing. The lockers appeared to be in good condition.	Good
Stairs	Exterior Stairs	The short stairs present at a few entrances are made of reinforced concrete. Stairs for the south side were chipped and cracked, which are slipping and tripping safety hazards.	Poor
	Interior Stairs	Interior stairs are made of concrete and accessed the second story of the band hall and eventually the theater's steel catwalk stairs. The treads on the theater catwalk stairs were very worn, causing a slipping hazard. The internal fixed steel ladder for roof access presented a likely falling hazard. Although the approximately middle ten feet of the approximately 30-foot ladder were caged, and included a platform halfway, the falling distance from the uncaged top approximately 12 feet of the ladder is much greater than the platform, cage far below, or even catwalk 30 feet below because the falling angle would likely entail the climber falling to the gypsum board ceiling finish of the theater 30 feet below and through it to the stage at a total of 60 or more feet	Poor

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		below from the upper portion of the ladder. The interior stairs were rated poor because of the catwalk steps and roof access ladder's lack of more extensive caging.	
Interior Finishes	Interior Wall Finishes	Interior wall finishes included paint on gypsum board and porcelain tile in the restrooms. Interior wall finishes were in good condition, except for higher routine maintenance of painting and possible patching needed in crowded and tight areas that were highly trafficked at the immediate interior entrances to the band room and the theater.	Good
	Interior Floor Finishes	Floor finishes are predominantly 12 by 12-inch VCT tiles. The theater audience seating area is carpeted. The theater stage is comprised of exposed wood surrounded by black 12 by 12-inch VCT tiles. Ceramic tile is in the restrooms. Overall, the floor finishes were in good condition, except for the VCT tiles on the theater stage which are highly worn, chipped, and detaching. Therefore, the rating for the building's interior floor finishes is average.	Average
	Interior Ceiling Finishes	Interior ceiling finishes are comprised of 2' x 2' suspended ceiling systems for the majority of the building. The theater's ceiling finish is painted gypsum board. The ceiling finishes were relatively recent, but older than those of newer ones in the classroom buildings on campus. The ceiling finishes had wear and tear. The corridor ones were in better condition than the classroom ones. Facility staff reported that ceilings leaked in the band restrooms regularly during rain events as of last school year, especially as evidenced by highly rusted restroom stall partitions, but facility staff believes this has been fixed. The theater ceiling had water damage spots near the front of the audience seating that may be due to roof drains, the plumbing of the roof drains, cracked seals on roof, and/or other active or inactive sources.	Average
Conveying	The Theater has a lift at the stage that lowers to the house floor level. The lift was installed in 2015.		Excellent
Plumbing	Plumbing Fixtures	The building has public restrooms for men, women and students throughout the facility, and also has separate staff restrooms. The restroom facilities have vitreous china fixtures including; in counter hand sinks with manual faucets, floor-mount toilets with manual flushing	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		mechanisms, and wall-hung urinals in the men's restrooms with manual flushing mechanisms. There are service sinks in the janitorial closets, and water coolers located throughout the facility, typically near the public restrooms. The restroom plumbing fixtures were observed to be in good condition as the fixtures were typically aged but still operational. Additionally, the automotive shop was equipped with circular hand washing sinks that were foot activated.	
	Domestic Water Distribution	All of the plumbing fixtures are serviced with domestic water from multiple GWHs and EWHs that were located throughout the building. The water heaters are primarily near the cafeteria kitchen, culinary classroom kitchen, and the home economics classrooms The domestic water distribution was in good condition.	Good
	Other Plumbing	The building has a mix of single inlet and dual inlet roof drains that are equipped with metal grate covers to prevent debris from entering the drainage system. The roof drains were in good condition.	Good
Mechanical/ HVAC	This is the only building that is not served by the central chilled water plant. The building has a 185-TON air cooled chiller located on the roof and two 1,500 MBH gas-fired boilers for air conditioning. The chilled water and heating hot water is distributed to the indoor and roof mounted AHUs. The vocational arts portion of the building has a dedicated indoor 8,500 cfm AHU to serve the offices and (2) ceiling hung fan coil units for the automotive shops. The Theatre is served by a dedicated indoor 8,500 CFM AHU, and the Band Hall by a 9,500 CFM indoor AHU located in a 2nd floor Mechanical room. The Lobby of the Theatre has a dedicated 4,000 cfm AHU. The building has a TAC building automation system is located on the campus and controls temperature in the spaces and AHU/RTUs for the facilities. Supplemental mechanical equipment for the HVAC systems also includes chilled water pumps, heating water pumps and EFs. The mechanical system was overall in average condition.		Average
Fire Protection	Fire Alarm	This building also has a Silent Knight Fire Alarm panel, but school personnel have stated that it is not sending alarm signals to the Main FACP located in the Administration Building. There is a State Fire Marshal tag on the Theater fire alarm panel dated 01/04/16 stating, "phone line 2 not working – placed a heat ticket work order." The tag also states that the tag can only be removed by a State of Texas Fire Marshal. The panel display showed "All Systems Normal" during the assessment site visit.	Poor

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
	Fire Protection/ Suppression	The building is protected by automatic wet pipe sprinkler system that was inspected within the last year and has dry chemical fire extinguisher throughout the facility. Overall the fire suppression system was in good condition	Good
Electrical	Electrical Distribution	The electrical distribution is fed from Main Switchboard #2 (MSB2) in the Mechanical Building. The feeder enters the building at 480Y/277V-3PH-4W. There is a 1000 amp, 480Y/277V-3PH-4W distribution panel, which distributes power throughout the building. This building was built in 1987; the electrical system equipment was in excellent to good condition. All the original equipment was in good condition and some of the equipment has been replaced. This building does not have a lightning protection system.	Good
	Lighting	The building's exterior lighting consists of HID luminaires mounted under the canopies and on all the exterior walls. The interior lighting consists of primarily T8 fluorescent luminaires. The lighting for the building was observed to be in good condition. Emergency lighting is provided by emergency lighting units with integral battery packs. All lighting was controlled via toggle switches. The existing theatrical dimming rack was manufactured by Colortran and is the Dimension 192 model. The dimmers for this system haven't been manufactured since 1991.	Good
	Communications & Security	There is a Gemini security panel including surveillance cameras in the building. There is a public address system with ceiling mounted speakers. There appears to be a new telecommunications systems rack. The Wi-Fi devices also appear to have been recently installed. All the communications and security system appear to be in good condition with no reported deficiencies.	Good

Exterior System Deficiency Examples

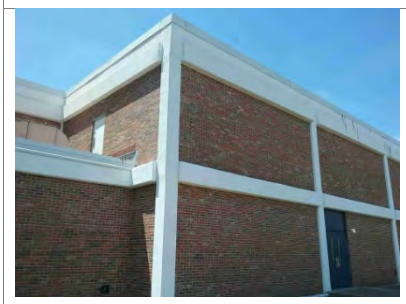
Exterior Walls

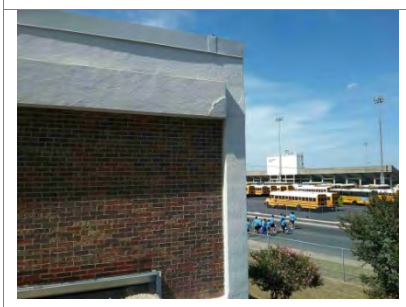






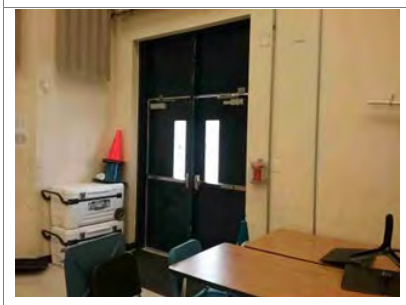


Exterior Windows

Exterior Doors



Roofing Deficiency Examples



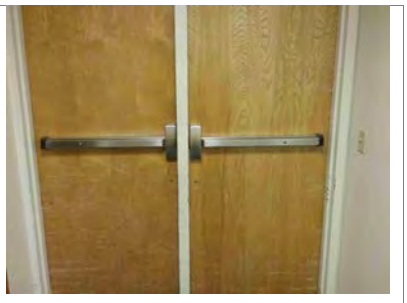


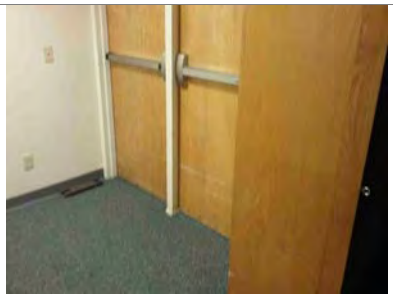

Interior Construction Deficiency Examples

Interior Walls


Interior Doors







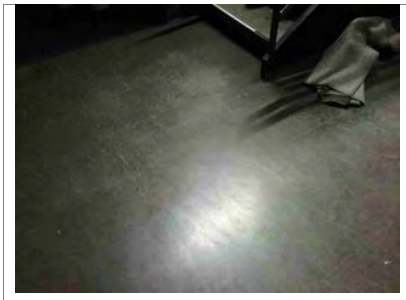

Stairs Deficiency Examples

Exterior Stairs

Interior Stairs

Interior Finishes Deficiency Examples

Interior Wall Finishes



Mechanical/HVAC System Deficiency Examples

Fire Protection

Fire Alarm

Reagan Early College High School Campus Summary of Recommendations

This document is based on current conditions observed during fieldwork and provides recommendations for corrective actions by each discipline. The following recommendations provide a summary of the findings.

Campus Recommendations

Exterior

1. Conduct a campus-wide structural study of the interior and exterior of the "big box" buildings such as the gymnasiums, theater, orchestra hall, and band hall. Include the balconies and staircases of the Old Mall and New Mall, and their elevator structures in the study. Also include structural elements accessible via crawl spaces in the study. Take into account the observations from this assessment in the study – for instance where the roof girders connect to the walls and degrading or cracked reinforced concrete structural beams and columns.
2. Consider replacing existing highly aged and energy inefficient windows with more modern technology for better energy efficiency, thermal comfort, and aesthetics.
3. Replace the 60%+ of blinds across campus that are missing or broken.
4. Replace or repair heavily scratched Acrylic glazing of doors and their adjacent entryway windows, unless in such condition for privacy reasons in some isolated instances where use of the door without such visibility will not jeopardize safety.

Roofing

1. Conduct a campus-wide roofing study including consideration of widespread ponding evidence on buildings' built-up asphalt roofs and attached building entrance awnings to re-slope to proper drainage points, extend their trim and flashing to not drain onto building side beams and walls, determine whether roof drain scuppers are needed where none are presently. Reseal all asphalt roof drain scuppers and their sealants which are both 95%+ cracked across campus.
2. Study the drainage of the covered walkway canopies to determine suitable drainage options. Replace existing obsolete gutters and consider adding gutters where none yet exist and more adequate drainage pathways to downspouts, and extending downspouts away from structures to direct flow away from them and pedestrian areas and even possibly underground to prevent recurring damage and pedestrian tripping hazards due to high pedestrian traffic. Replace existing gutters of covered walkways canopies, 95%+ of which are so rusted and pitted to daylighting that they are obsolete for their purpose. Re-slope canopies to proper drainage points to alleviate ponding on top of them and frequent significant flooding of key pedestrian walkways. Reseal modified bitumen roof covering cracks and seals, or replace the covering. Replace bubbled areas of modified bitumen roof covering. Repair, clean, recoat, and reseal canopy trim as necessary.
3. Clean and recoat areas of rust and peeling paint on bottoms and edges of covered walkway canopies and awnings with the modified bitumen covering attached to building entrances. Determine and repair water penetration source(s). Clean and recoat rusted steel beams, columns, baseplates, and fasteners and tops of the reinforced concrete beams.
4. Re-attach loose downspouts of canopies and awnings after recoating the concrete columns behind them.
5. Cover exposed tar on the built-up asphalt roofs with gravel.
6. Replace the remaining concrete beams with structural issues that support building entrance awnings and covered walkway canopies (requested by Julie Vetter-AISD Construction Management). Keep clean to mitigate weathering of paint and spalling and degradation of concrete.
7. Repair flashing and trim joints that were cracked, rusted, or weathered. Protect them from excessive runoff and debris weathering by trimming back trees from top of canopies and re-sloping canopies to proper drainage points.

8. Trim back trees from roofs, attached awnings to building entrances, and covered walkway canopies. Remove existing debris and keep clean from debris that will regularly accumulate in regular areas because of the nature of the orientation of vegetation to roofs, awnings, and canopies.
9. Reseal joints of flashing and trim as necessary.
10. Clean and recoat rusting steel baseplates of entrance awnings.

Interior Finishes

1. Begin planning and budgeting for replacement of worn VCT floor tiles. They appear to be being maintained well, but they are past their life expectancy and show high wear. Eventually, they will begin failing. Asbestos containing materials procedures likely may need to be utilized at least for the 8” x 8” tiles, which will need to be added to the budget and procedures for replacement.

Plumbing

1. Continue preventative maintenance on aged plumbing fixtures and / or planning for replacement in the future as fixtures continue to age at all associated campus facilities
2. Repair or replace any damaged or missing piping insulation as needed at all facilities.

Mechanical/HVAC

1. Adjust HVAC controls or other equipment, such as dehumidifiers, installed to assist the HVAC equipment in mitigating the humidity observed in all facilities. If any of the HVAC equipment is planned to be replaced, such as any of the AHUs or package units, it should be replaced with an updated asset that includes an integral dehumidification wheel that will assist with humidity issues.
2. Address any rust or corrosion observed to the equipment, its associated piping, or any other sub-asset in all facilities by cleaning, re-painting, and/or repairing by any other means to prevent further deterioration.
3. Address any equipment at all of the campus facilities that were noted with excessive noise/vibration by repairing the motor, changing the belt, or any other means to promote efficiency.
4. Repair any observed leaks to prevent water damage to the asset, its piping, support beams, or any other sub-assets. Once leaks are addressed in all facilities, repair or replace any water damaged components as needed.
5. Repair or replace any fin assemblies of HVAC equipment that shows extensive wear and tear. Consider adding a protective fence around any of the units on the exterior ground level that could be vandalized or damaged by students/civilians, particularly at the weight room / shop facility.
6. Plan and track for equipment that uses R-22 refrigerant in all facilities. The refrigerant is being phased out of manufacturing and construction use in the near future, and thus will make all equipment obsolete.
7. Ensure routine preventative maintenance is conducted for cleaning ductwork to promote efficient and clean air flows to all of the facilities’ spaces.
8. Install air curtains at the entry doors/vestibules as needed. Facility staff reported that the lack of air curtains at entries is an issue; particularly at the main school and gymnasium facility.
9. Further investigate the return grilles and corridor HVAC balancing. Facility staff reported that the corridor spaces throughout the main school and gymnasium facilities were poorly conditioned and stated that the lack of return air grilles could be the source of the problem. Note that if air curtains are to be installed this study should be conducted after the installation.

Fire Protection

1. Continue annual inspections of the fire protection system (at the main school) and the portable fire extinguishers (at all facilities).
2. Consider installing and providing fire protection to the rest of the high school campus outside the theater/auditorium space of the main high school as needed.
3. Address the need for a “Mass Notification” system.
4. Address the issue of the Fire Alarm system notifying the AISD Service Center.

Electrical

1. Immediately provide missing cover plates on all junction boxes and electrical equipment.
2. Perform an Arc Flash Study to determine the level of Personal Protective Equipment (PPE) Clothing required to work on energized electrical equipment.
3. Replace all electrical equipment affected by corrosion or rust.
4. Replace all electrical equipment installed prior to 1995. UL listed spare parts/breakers are probably unavailable.
5. While most of the existing luminaires are in good condition, maintenance and energy savings could be attained if replacement LED luminaires were utilized.
6. Test all emergency lighting units and exit sign batteries, and replace as necessary.
7. Evaluate the existing security system and camera layout, provide replacement devices and improvements.
8. Provide a lightning protection assessment for the entire campus and determine the risk value. Lightning protection is not a code requirement.

Administration Building (BLDG-006A) Recommendations

Exterior

1. Clean isolated areas of debris accumulation on the foundation beams and keep them clean.
2. Clean and recoat isolated areas of paint deterioration on foundation beams.
3. Remove isolated areas of failing sealants from joints, clean, and reseal.

Roofing

1. Regrade re-gutter covered walkway canopies to handle the quantity of stormwater that they encounter to protect the structure and walkway occupants from excessive weathering from water and debris.
2. Remove debris and trim back overhanging vegetation over roofs so that less debris is deposited on the roofs.
3. Reseal joints of flashing and trim.

Interior Walls

1. Seal occasional conduit penetrations in walls appropriately for fire protection and thermal comfort.

Interior Doors

1. Replace 80% of interior doors.

Interior Floor Finishes

1. Replace VCT tile throughout building.

Mechanical/HVAC

1. Replace 15-TON roof top mounted heat pump that has surpassed its expected useful design service life.
2. Repair cracking and damaged refrigerant line insulation.
3. Replace two 4-TON roof top mounted condensing units that have surpassed their expected design service life.

Fire Protection

1. Closeout the State Fire Marshals issue with the “removed devices for construction” and have the tag removed.
2. Replace all fire alarm devices exposed to the elements.

Electrical

1. Replace the corridor toggle switch lighting controls with key switches. This was requested by school personnel.

Stand-Alone Classroom Building (includes Library, "Old Mall", BLDG-006B) Recommendations

Exterior

1. Remove debris and possible biological growth from beams and columns and joints of theirs with the walls, Clean and recoat the paint and clean and reseal the joints.
2. Monitor the isolated small cracks in 5% or less area of beams.
3. Provide more routine maintenance of the north side due to weathering and more extensive ponding and moisture exposure.
4. Clean and repair the grout at the bottom of the elevator shaft and its mechanical room. Consider installing a drip edge to protect it from water drainage from the roofs of these structures.
5. Study and monitor the crack across the back brick veneer face of the elevator mechanical room.
6. Study and monitor the cracks in wall beams and columns near the elevator stair cases. This could be included in the campus-wide structural study.
7. Clean and reseal the exterior windows as needed.
8. Investigate a surface protectant to mitigate the fading of the bottom panels of the windows.
9. Monitor the occasional rust spots penetrating from the external aggregate coated concrete panels. Monitor for instances and magnitudes of rapidly increasing severity and/or quantity.
10. Keep the joints of the sidewalk and balcony with the brick veneer walls in the courtyard corridors clean and sealed.
11. Replace the makeshift brick apron adjacent under roof B-02 with a proper apron.
12. Clean and reseal joints of exterior walls with sidewalks.
13. Replace the missing window latch in Room 235 so that window will shut.
14. Monitor Acrylics of exterior windows for wear and damage that necessitate repair or replacement.
15. Clean and reseal joints of windows.
16. Replace worn and scratched Acrylics in exterior doors and adjacent window panels.
17. Investigate the cracked windows in the entryways in the campus-wide structural study.
18. Clean, repair spalling and pitting, and recoat beams that have weathered from the roof trim and flashing draining onto the top beams.

Roofing

1. Clean and recoat the waffle slab reinforced concrete ceiling here where paint is degraded, peeling, or stained after have made necessary roof leak repairs or confirmed that it is not leaking.
2. Level out piles of gravel on roof B-01 to mitigate this visibly unobvious tripping, slipping, stability, and life safety issue, especially where present at the edge of the roof.
3. Clean debris and gravel from the gutters of the building entrance awnings.
4. Extend roof trim and flashing to protect top beams of building rather than draining on them.
5. Reseal cracked sealants in roof covering at mechanical appurtenance penetrations.
6. Study cracks running between junction boxes in the waffle slab reinforced concrete ceiling in the outdoor corridors adjacent to the courtyard.
7. Study whether roof drains on roof B-01 and awnings of the built up asphalt with gravel type need scuppers similar to those on roof H-01 on Building H New Mall.
8. More regularly clean and maintain the roof drains that have an extra bird cage layer to strain debris or that are more exposed to debris.

Interior Construction

1. Refurbish or replace the classroom door hardware. 85% needed, so consider doing all.
2. Clean and refinish or replace classroom doors. 75% needed, so consider doing all.
3. Recoat the most highly weathered lockers within the next year. Clean rust and debris from the tops of lockers and keep them free of debris. Recoat the tops of lockers. If water ponding and/or penetration are an issue with the lockers, investigate a preventative solution. Keep feet, legs, and fasteners of lockers clean and sealed. Consider priming the lockers before the next repainting.

Stairs

1. Replace treads of the exterior stairs, which are worn and slippery, especially when wet.
2. Repair concrete chipping near treads of the exterior stairs.
3. Investigate the exterior stairs, their landings, their connections to the balconies, and their surrounding beams and columns in the campus-wide big box structural study.
4. Repair delamination and spalling of exterior staircases.

Interior Finishes

1. Repair isolated instances in baseboards.
2. Touch up scuffed walls with paint.
3. Study the components of the vinyl covered bulletin boards to determine whether asbestos is present. If it is, take appropriate steps. This is especially important with the vinyl-covered bulletin boards that have been torn and/or picked at by student seating.
4. Plan to replace vertically-seated suspended ceiling tiles more frequently due to their accelerated warping given their orientation.
5. Investigate a study of the balcony in the campus-wide big box structural study.

Plumbing

1. Replace the aging plumbing fixtures throughout the facility.

Mechanical/HVAC

1. Replace the cracked and damaged refrigerant line insulation.
2. Replace the chilled water fan coil units in the classrooms as they are nearing the end of their expected useful design service life.
3. Replace the aging roof top AHUs as they are nearing the end of their expected useful design service life.

Stand-Alone Gymnasium – Big, Small, & Dance Gymnasiums (includes Weight Room, Lockers & Showers, (BLDG-006C) Recommendations

Exterior

1. Remove debris from north wall and its foundation beam(s) and regrade the channel between it and its very near adjacent abutment wall of the sidewalk for the neighboring standalone [former] Band Hall [now dance studio] standalone building to the north. Regrade this sidewalk and abutment if needed to properly drain away from the Gymnasium (BLDG-006C).
2. Remove debris from south wall and routinely remove it going forward.
3. Seal conduit penetrations that are not sealed or adjacent to cracked or degraded bricks.
4. Clean and reseal weathered and cracked joint sealants/mortar on the foundation beams on the west and near the southeast corner.
5. Clean and recoat flashing and trim on the upper beam of the south wall of the small gymnasium that is heavily rusted. Seal properly to prevent water penetration.
6. Repair and recoat or replace the damaged and missing lettering on the south wall.

7. Remove louvers and brick close the louver locations or reseal the joints of the framing of the louvers with the walls.
8. Clean and recoat louver lintels.
9. Repair or replace damaged louver and ajar louver blades and screens.
10. Regrade the immediate parking lot drainage to not run to and pond against the northwest wall of the small gymnasium and north wall of the auxiliary gymnasium. Keep walls here cleaned and sealed both during and after this drainage issue.
11. Clean and recoat reinforced concrete beams on the southeastern side.
12. Clean the south and southwestern brick veneer walls and repair their grout.
13. Replace exterior door handle that has been pulled off of south facing door on west side.
14. Investigate and eliminate source of and exterminate ants in the vertical joint of the second story walls under roofs C-02 and C-04 above roof C-10.
15. Consider replacing highly aged external window frames and glazing for greater thermal and HVAC operational efficiency and thermal comfort.
16. Clean and recoat walls with conduit attached where rust staining or weathering has occurred.

Roofing

1. Monitor and repair the membrane interface seam sealant of roofs C-01, C-10, and C-03.
2. Install a fixed ladder or fixed steps from roof C-05 to roof C-09 to enable access to roof C-09.
3. Safely untie and remove the existing roller steps for access between roofs C-02 and C-03 from the lightning protection system of roof C-02 and safely remove the roller steps from the roof. Repair the lighting protection system damage from being tied to the roller steps. Replace these roller steps with fixed steps or a fixed ladder.
4. Extend the flashing and drip edge of C-04 to the edge of its top reinforced concrete beams to prevent exposure to unnecessary amounts of runoff and weathering of the beams. Clean and recoat the beams prior.
5. Investigate whether a leak exists at the southwest corner of roof C-04 and repair as necessary.
6. Perform a structural investigation of the highly rusted reinforcement framing and its associated neighbors inside the small gymnasium for mechanical equipment on roof C-03 to diagnosis potential structural degradation or other impacts. Determine whether it is exposed to leaks and repair the leaks if so.
7. Repair or replace the leaky valve on the ceiling above the northeast interior entrance to the small gymnasium or other nearby equipment/plumbing to prevent further frequent and recurring leaks from it that damage the hardwood court below.
8. Investigate the potential water penetration from a leaky roof drain or a leaky roof above the prevalent peeling ceiling paint of roof C-02.
9. Coat the decommissioned large reinforced concrete beams of former mechanical equipment on roof C-10.

Interior Construction

1. Investigate wall cracking in gymnasiums. Consider including this investigation as part of the campus-wide structural study of the “big box” structures on campus. Monitor cracks in the interim, and if exposed to external weather elements, seal them on the exterior. In the interim, especially monitor cracks in the north wall of the big gymnasium that are near the connection of the roof girders to the wall and the cracks in the walls of the auxiliary gymnasium.
2. Investigate the source of the musty odor and humidity in the tiled corridor for the locker rooms and storage rooms. Investigate whether associated biological matter is present and remediate.
3. Repair dents in concession area roll-up doors.
4. Replace wooden benches in private showers of locker rooms.
5. Conduct a study to determine whether existing fire exit from backstage/old dance floor are sufficient. In the interim, unblock at least one of the doors on its inside and outside from storage and/or make the door hardware operable of the doors leading to the front stage.

6. Recoat the interior sides of the interior doors to the gymnasiums.
7. Refinish the wooden doors and their louvers to the old stage.

Stairs

1. Replace the tread on the steps for the entrances on the west side of the building.
2. Re-asphalt the ramp at the southernmost entrance on the west, which leads to the athletic equipment storage room. Evaluate it whether it meets safety requirements or whether a safer or more user friendly one is needed.
3. Recondition and reseal the wooden steps for the stage and backstage. Evaluate the southern-/westernmost side steps leading to the backstage as to whether a railing or other safety considerations, such as tread, are needed. Remove storage blocking backstage steps.

Interior Finishes

1. Clean and recoat weight room walls.
2. Recondition or replace wooden baseboards in the large and small gymnasiums.
3. Recondition the wooden façade of the stage in the large gymnasium.
4. Investigate whether greater benefit would be gained to insulate pipes in the walls of the trainers' room and other locations to prevent paint from frequently peeling off of walls and overall thermal comfort.
5. Consider reconditioning the stage and its storage doors prior to the next resealing. Continue to reseal as needed.
6. Replace areas of floor tile in the tiled corridor to the locker rooms and storage rooms when its traction nears slippery.
7. Recondition and reseal the old stage floor. Remove torn and heavily worn carpeting on it and replace it.
8. Replace the rubber raised disc floor tiles in the ramped entry corridor to the auxiliary gymnasium with a less slippery floor finish.
9. Do not get the ramped entry corridor to the auxiliary gymnasium so wet that water runs onto the auxiliary court floor, or install a floor drain across the lower end of the ramp to prevent this.
10. Replace the cap of the volleyball floor mount with a proper cap (not tape).
11. Thoroughly clean the rubber cushioned flooring in the weight room, repair its few small tears or replace such portions, and plan for its replacement within the next couple of years.
12. Repaint the ceiling of roof C-08 after investigating and remedying the trigger for the peeling paint.

Plumbing

1. Replace the aging plumbing fixtures throughout the facility.
2. Replace the leaking shower head in the female locker room.

Mechanical/HVAC

1. Replace the aging roof top AHUs as they are nearing the end of their expected useful design service life.

Stand-Alone [former] Band Hall [now Dance Studio] (BLDG-006D) Recommendations

Exterior

1. Remove failing sealants from joints, clean, and reseal.

Roofing

1. Remove debris and trim back overhanging vegetation over roofs so that less debris is deposited on the roofs.
2. Reseal joints of flashing and trim. Clean rust from them.
3. Extend flashing and trim to cover header that was exposed on canopy.
4. Determine whether active leaks exist from the roof, especially those that could be damaging the walls, and repair.
5. Add gutters and downspouts to walkway canopies.

Interior Construction

1. Refinish or replace highly worn doors and hardware.
2. Make sure lockers are mounted to the wall for safety to prevent them from falling over on to people.
3. Clean and repaint the top of the lockers.

Interior Finishes

1. Study the wood paneling to determine the instigator of delaminating them from the walls, make sure that the wood paneling is safely mounted to walls, and remove any paneling that may fall from walls until it may be properly secured.
2. Repair and repaint scuffed, chipped, and peeling walls.
3. Repair loose and peeling baseboards, likely by regluing.

Mechanical/HVAC

1. The AHU for the facility has reached the end of its expected useful design service life, and while it is still functioning properly it should be scheduled for replacement.

Vocational/Art/Shop [and now also JROTC] Building (BLDG-006E) Recommendations

Exterior

1. Clean isolated areas of debris accumulation on the foundation beams and keep them clean.
2. Clean and recoat isolated areas of paint deterioration on foundation beams.
3. Remove isolated areas of failing sealants from joints, clean, and reseal.
4. Coat steel angles to stop rusting and prevent corrosion from becoming more widespread.
5. Replace mesh covers on windows and clean rust.
6. Clean corrosion from overhead manual rolling frame and grate.

Roofing

1. Clean the awning over the rear entrance.

Interior Construction

1. Repaint and repair finishes on interior door frames and doors.
2. Replace door hardware.
3. Replace or install door louvers.
4. Clean and recoat exterior and interior lockers.

Stairs

1. Repair broken corners of exterior stairs.

Interior Finishes

1. Recoat damaged finishes.
2. Replace broken VCT tiles to match adjacent tiles.
3. Clean excessively dirty wall finishes.
4. Replace stained or dirty ceiling tile finish panels.
5. Replaced damaged wall base cove.

Mechanical/HVAC

1. Replace roof top (2) condensing units that are charged with R-22 refrigerant which is being phase out of production.

Mechanical Building (BLDG-006F) Recommendations

Exterior

1. There is damage to the brick surrounding the exterior doors. Because the replacement of the brick will not increase structural stability of the facility and would be a costly fix, the best repair would be to install metal corner guards over the brick edges.
2. There is some concrete chipping at the concrete columns that is cosmetic only. Patch the concrete columns to prevent further deterioration.
3. Replace damaged stainless steel louver.
4. The grout joint at the base of the exterior walls is cracking and chipping away in places. Remove the existing grout and replace with new.
5. The grout joints along the upper most layers of CMU block for the cooling tower enclosure are degrading and need to be repointed.
6. The windows above the main entrances to the mechanical building have cracked and damaged glass panels. Based on the age of the windows and overall condition, the windows need to be removed and replaced with new exterior window systems that utilize double pane glass for sound insulation.
7. The section of exterior window that was removed for the installation of duct in the mechanical building currently has a plywood cover over the opening. The plywood is not treated or protected from the elements. The plywood should be removed, proper support for the duct installed and a spandrel panel installed.
8. The exterior doors are in good condition overall but have some minor damage to the interior faces and there is chipping in the painted surface throughout. The doors should be prepped and repainted.
9. The accordion style gate for the exterior storage area is rusted and the paint is peeling away. Additionally, the gate is difficult to operate and should be replaced including the track.

Interior Construction

1. The interior door frames are in average condition but are functioning properly. The frames should be prepped and repainted.
2. The interior wood doors are functioning properly but have reached the end of their expected useful design service life and are beginning to wear-out. The doors should be replaced.

Interior Finishes

1. The interior walls of the office, restroom and compressor room are dirty and scuffed. Repaint interior CMU partitions.
2. The fan coil unit in the small office has been replaced leaving damaged to the GWB ceiling. Repair the GWB, retexture the ceiling and repaint to match the adjacent surfaces.
3. There is minor damage to the restroom ceiling where equipment has been removed. The repair is failing and the GWB appears to be cracking and falling away from the framing. Repair the GWB ceiling and refinish to match the adjacent surfaces.

Mechanical/HVAC

1. The chillers are charged with R-123 refrigerant which is an ozone depleting gas and is being phased out of production.
2. The boilers have reached the end of their expected useful design service life and should be scheduled for replacement.

Fire Protection

1. Consider installing fire alarm devices in the building.

Stand-Alone Cafeteria and Choir Building (BLDG-006G) Recommendations

Exterior

1. Monitor cracks in foundations.
2. Remove debris and repaint walls as needed.
3. Investigate water damage sources, repair them, and repair water damage to walls if significant.
4. Replace sealant between walls and doors as required.
5. Clean corrosion from the overhead door frame and grate and recoat doors.
6. Recoat the rusting steel angles to stop and prevent further corrosion.
7. Replace damaged door frames and repaint exterior walls.

Roofing

1. Reseal cracked membrane interfaces.
2. Reseal flashing of columns penetrating canopies.
3. Clean and recoat or replace downspouts.
4. Immediately address the failed southern downspout on the canopy that has caused severe damage to its abutment wall and possibly impacting the superstructure.
5. Install new gutters.

Interior Construction

1. Clean and recoat doors and door frames as needed.
2. Replace broken lockers and strip and repaint metal lockers.

Stairs

1. Install a railing for the exterior cafeteria stairs.

Interior Finishes

1. Clean and repaint walls as needed.
2. Remove graffiti from walls.
3. Recondition and reseal the wooden floor on the stage when needed.
4. Replace broken and stained VCT tile.
5. Clean ceramic tile floors in restrooms and replace as required.
6. Replace ceiling in the kitchen. The ceiling may be supported on the lighting and could create a life safety hazard.

Mechanical/HVAC

1. There are (3) roof top package air conditioning units that are all charged with R-22 refrigerant which is being phased out of production.

Fire Protection

1. Consider Installing Fire Alarm control devices at the Kitchen Hoods to disengage the natural gas and electricity when the fire alarm goes into alarm. Also provide emergency off push buttons at each hood.

Stand-Alone Classroom ("New Mall") Building (BLDG-006H) Recommendations

Exterior

1. Remove debris and possible biological growth from beams and columns and joints of their s with the walls, Clean and recoat the paint and clean and reseal the joints.
2. Monitor the isolated small cracks in 5% or less area of beams.
3. Clean and recoat the large lintel of entrance awning H-10 and reseal its joint.

4. Study the eight-inch length of potential rebar bulging out from the column on the north east wall.
5. Provide more routine maintenance of the northeast wall due to weathering and more extensive moisture exposure.
6. Clean and repair the grout at the bottom of the elevator shaft and its mechanical room. Consider installing a drip edge to protect it from water drainage from the roofs of these structures.
7. Study and monitor the cracks in wall beams and columns near stair cases, especially those at the southwest staircase, and consider the staircases in the investigation. This could be included in the campus-wide structural study.
8. Investigate the water leak percolating from the approximately one and one-half inch diameter hole in the soil in the yard south of the intersection of covered walkway canopies H-02 and G-05.
9. Clean and reseal the exterior windows as needed.
10. Investigate a surface protectant to mitigate the fading of the bottom panels of the windows.

Roofing

1. Investigate potential roof leak to balcony ceiling, especially at and near its southwest corner. Clean and recoat the waffle slab reinforced concrete ceiling here where paint is degraded, peeling, or stained after have made necessary roof leak repairs or confirmed that it is not leaking.
2. Level out piles of gravel on roof H-01 to mitigate this visibly unobvious tripping, slipping, stability, and life safety issue, especially where present at the edge of the roof.
3. Clean debris and gravel from the gutters of the building entrance awnings.
4. Clean and recoat the large lintel of the entrance at under awning H-10. Also, reseal its joints.
5. Study whether awing H-10 is draining towards the building and remedy it if so.

Interior Construction

1. Refurbish or replace the classroom door hardware. 85% needs it, so consider doing all.
2. Clean and refinish or replace classroom doors. 75% need it, so consider doing all.
3. Repair the jammed door on the side of the office in classrooms corridor 421-424.
4. Recoat the most highly weathered lockers within the next year. Clean rust and debris from the tops of lockers and keep them free of debris. Recoat the tops of lockers. If water ponding and/or penetration are an issue with the lockers, investigate a preventative solution. Keep feet, legs, and fasteners of lockers clean and sealed. Consider priming the lockers before the next repainting.

Stairs

1. Replace treads of the exterior stairs, which are worn and slippery, especially when wet.
2. Repair concrete chipping near treads of the exterior stairs.
3. Include the exterior stairs, their landings, their connections to the balconies, and their surrounding beams and columns in the campus-wide big box structural study.
4. Repair delamination of exterior staircases.
5. Monitor severe spider web cracking in exterior staircase landings and include it in the campus-wide big box structural study.
6. Replace the roof top railing for the roof access step ladder. The condition of the roof top railing presented a life safety issue.
7. Replace the roof access ladder in the janitorial room to be of sufficient height or remove it and lock the hatch. The short height of the ladder presented a life safety issue.

Interior Finishes

1. Repair isolated instances in baseboards.
2. Touch up scuffed walls with paint.
3. Study the components of the vinyl covered bulletin boards to determine whether asbestos is present. If it is, take appropriate steps. This is especially important with the vinyl-covered bulletin boards that have been torn and/or picked at by student seating.
4. If a more modern wall finish is desired, consider replacing the finishes of the painted vinyl covered corridor walls and vinyl paneling in classrooms, most of which is in good condition but very far out of style.
5. Consider an aesthetic writing board strategy to address the many different types of partially overlapping but shorter marker boards and bulletin boards over the top of chalkboards.
6. Plan to replace vertically-seated suspended ceiling tiles more frequently due to their accelerated warping given their orientation.

Mechanical/HVAC

1. Replace the aging and damaged roof top EFs.

Fire Protection

1. Replace all fire alarm devices exposed to the elements.
2. Consider providing Fire Alarm control devices at both Classrooms building elevators to shunt trip power to the elevators in the event of the fire alarm going into alarm.

Auto Mechanics, [former] JROTC, Theater, Band Hall, [and now Technology] Building (BLDG-006I) Recommendations

Exterior

1. Conduct a campus-wide structural study that includes the band, theater, and orchestra halls, and other buildings, especially with regards structural reinforced concrete beam and column degradation.
2. Block off the ground from pedestrian access where overhead concrete beam and column degradation could drop debris onto pedestrians causing a life and/or safety hazard.
3. Clean water staining from brick veneer and structural members. Recoat structural members.
4. Clean isolated areas of debris accumulation on the foundation beams and keep them clean. Scrape, clean, patch, and recoat areas that have degraded from the elements.
5. Clean areas of organic matter accumulation from brick veneer.
6. Clean and recoat isolated areas of paint deterioration on foundation beams.
7. Make sure site stormwater drainage drains away from the buildings.
8. Clean and reseal joints, while not plugging weep holes.
9. Fill and compact the sinkhole that has developed at the second column from the southwest corner of the Shop building.
10. Conduct a study to diagnose the heaving, cracking, and settling of much of the soil adjacent along and extending from the south wall of the Shop that indicates high water presence at times against its foundation which put it at risk. Remedy the issue(s). Replace the sprinkler valve box along this wall, fill and compact the hole around it. Mark the hole in the interim to make pedestrians aware of it to mitigate them tripping or falling due to it.
11. Clean and seal occasional cracks in the foundation beams and foundation wall.

Exterior Windows

1. Consider replacing highly aged external window frames and glazing for greater thermal and HVAC operational efficiency and thermal comfort.
2. Clean and remove rust from south-facing windows of the Shop, which are along a main entryway to campus.

3. Investigate rusting of windows and their fasteners along the south wall of the Shop, to both prevent it and because it may be indicative of a larger water issue at the building.
4. Repair or replace heavily worn and scratched glazing with subsequent low visibility at north entrance.
5. Re-grade site drainage away from windows and building.
6. Clean and reseal window joints.

Exterior Doors

1. Clean, remove rust, and recoat south roll-up door of the Shop. Recoat both doors or other approach to protect both doors from rusting.
2. Investigate and remedy the resistiveness of the operator of the north roll-up door of the Shop.
3. Clean and recoat rusty areas of the Roof I-04 access door.
4. Replace removable center mullion door posts of exterior double doors of the band hall with more user-friendly and much quieter keyed lock removable center door posts. Develop a more reinforced framing solution for the removable center post of the external double doors of the band room.

Roofing

1. Investigate further the status and source of roof leaks in the theater audience seating area and the band hall. Remedy as needed.
2. Monitor historical leaks in band hall and theater and repair immediately when they occur.
3. Reattach removed roof drain grate on theater.
4. Repair crack in south skylight.

Interior Construction

1. Conduct a structural study of the main concrete beam above the stage ceiling finishing, especially regarding its cracking at mid-span where additional loads have been attached. Measure and monitor cracking in the interim.
2. Routinely patch and recoat highly worn areas of interior walls at the immediate interior entrances to the main band room and the theater.
3. Significantly rehabilitate or replace interior doors, their frames, and their hardware of the band hall and theater, and about 40% of those in the auto shop wing. Replace removable center mullion door posts of the band wing with more user-friendly and much quieter (from frequent interruptive slamming and rattling) keyed lock removable center door posts.

Stairs

1. Repair chips and cracks of exterior south stairs to mitigate slipping and tripping hazards.
2. Continue caging from the middle third of the theater roof access ladder to approximately the upper third of it. Restrict access to it in the interim.
3. Retread or replace steel catwalk steps in theater.

Interior Finishes

1. Replace theater stage's VCT floor tile.

Mechanical/HVAC

1. The AHUs throughout the facility are nearing the end of their expected useful design service life and should be scheduled for replacement.
2. The fan coil units in the automotive shop bays have surpassed their expected useful design service life and should be replaced.
3. Replace the aging roof top EFs.

Fire Protection

1. Program the existing Fire Alarm Panels to report to the Main FACP within the Administration Building.
2. Closeout the State Fire Marshals issue with the 2nd phone line and have the tag removed.

Electrical

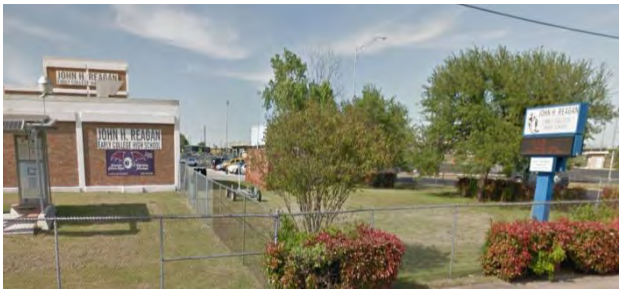
1. Address the needs of the Theater's Lighting and Sound systems.
2. Address the low light levels in the Auto Mechanics spaces.
3. Address the issues with the recently installed Paint Booth.

DRAFT

Reagan High School Site Summary

Site/Civil Assessment

Address	7104 Berkman Dr., Austin, TX 78752
Number of Permanent Campus Facilities	9
Original Year of Construction	1965
Total Campus Area	31 acres
Data Collection Method	Desktop, Site Visit
Site Visit/Assessor	01/20/2016 / E. Sierra-Ortega



Introduction

The Reagan HS campus is located at 7104 Berkman Dr. in Austin, Texas. Reagan HS was established in 1965 and consists of nine buildings housing classrooms, a gymnasium, a band hall, mechanical building, cafeteria, choir building, auto shop, theater, and band building.

Development Information

Watershed	Buttermilk Branch
Total Impervious Cover	39%
Allowable Impervious Cover	100%
Barton Spring Recharge Zone	No

Data from" AISD District Wide Impervious Cover Simplified 12-1-16" spreadsheet, Prepared by Fayez Kazi/Civilitude, on December 1, 2016.

Parking and Drives

Parking and Drives	Configuration	Size (SF)
P1, South West	364 CB 9 HC	137,400
P2, East	25 CB 0 HC	10,200
P3, East	48 CB 1 HC	22,000
P4, North	21 CB 0 HC	14,000
P5, North West	26 CB 0 HC	18,400
R1, South	0 CB 0 HC	17,500
R2, West	0 CB 0 HC	15,000
Loading Dock	-	3,000

HC – Accessible Parking, CB – Combined Parking

System Deficiency Overview

The following table provides a summary of the systems and their respective conditions found by each discipline. Refer to the AISD_FCA_Reagan_HS_Site_Civil_Exhibit for additional information.

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Site Improvements	Roadways	Reagan HS has two main roadways. Roadway one, R1, is located on the south side of campus and is used to access parking lot one. Roadway two, R2, is located on the west side of campus and is used to access the back side of campus and the loading dock.	Poor
	R1, South	R1 is in poor condition. This roadway shows signs of rutting, severe longitudinal cracking, potholes, and severe alligator cracking	
	R2, West	R2 is in poor condition. There are several areas with severe rutting. There is a utility patch on the road that is damaged and needs to be redone. The circle part of the road has poor drainage and needs to be regraded to slope toward the area inlet.	
		Roadway Deficiencies:	

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		· Pavement has areas of rutting and alligator cracking. · Pothole · Drainage issues	
	Parking Lots P1, South West P2, East P3, East P4, North P5, North West	There are four parking lots that service this facility. Parking lot one, P1, is located on the south west side of campus. Parking lot two, P2, and parking lot three, P3, are located on the east side of campus. Parking lot four, P4, is on the north side of campus. Parking lot five, P5, is on the north west side of campus. All parking lots are asphalt with concrete driveways. P1 is in average condition with a few areas with rutting and longitudinal and alligator cracking. Some driveways are cracked and or broken. P1 also has potholes that need repair. P2 parking is used up by the mechanic shop on campus and the asphalt was difficult to assess due to parked cars and scrap metal in the area. P3, P4 and P5 are in poor condition. These lots have surface raveling with multiple longitudinal and transverse cracking. P3 has areas that pond. P5 has overgrown grass through the cracks that needs to be cleared. Parking Lot Deficiencies: · Rutting and alligator cracking · Potholes · Damaged utility patch · Sediment build up	P1, Average P2, N/A P3, Poor P4, Poor P5, Poor Overall Average
	Pedestrian Paving	The facility has sidewalks running throughout the entire campus. There are several areas where the sidewalk is broken, heaving or sunken. There is an area on the east side of campus where the sidewalk drainage cut is clogged. There are areas where erosion has developed under the sidewalk and sediment piles on the sidewalk. There are spots in the sidewalk where aged wooden bridges need to be removed and replaced with metal sections. Near the play fields, there is a walkway that currently has a plank laid on top. Pedestrian Paving Deficiencies: · There are sidewalks that are broken, heaving, or sunken. · There is erosion under some sidewalks. · The sidewalk drainage cut does not work in some areas. · Certain sidewalk areas are covered by sediment.	Average
	Site Development	The fence along the back side of the campus separating the playfields from public property has areas that are broken or bent needing repair. There are several areas throughout the campus with exposed rebar or concrete needing to be removed. There is a crawl space on the side of the building that is uncovered and filled with debris. There is an aged water fountain near the baseball field that needs to be removed. There is an exposed pipe on the west side of the building that needs to be covered.	Average

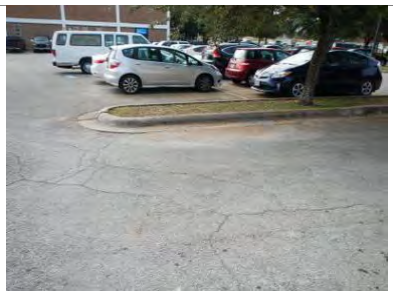
System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		Site Development Deficiencies: · Fence bent and broken · Exposed rebar and concrete areas that need to be removed · Debris found · Uncovered crawl space · Remove the outdoor water fountain. · Exposed pipe	
	Site Drainage	There are several downspouts throughout the campus that do not tie into the underdrain and splash blocks that are placed incorrectly. As a result there is erosion along multiple sides of the buildings. There are also several areas throughout the campus with ponding. Several pest holes and low spots were also found around the buildings. Many inlets are inadequately sized or clogged, causing drainage and erosion issues. There are multiple flumes in that are clogged and need adjusting. There are multiple condensates on the side of the buildings doesn't tie into the underdrain. There is a rain barrel system near the portables on the east side of the building. Site Drainage Deficiencies: · There are areas with erosion up against the building. · Downspouts don't tie to an underdrain system. · Various splash blocks are placed incorrectly. · The condensate does not tie into an underdrain system. · The flume is not properly draining. · The area inlets are inadequately sized and clogged.	Poor
	Courtyards	There are four courtyards on campus. Courtyard one, CY1, is on the west side of campus. Courtyard two, CY2, is in the center of campus. Courtyard three, CY3, is on the east side of campus. Courtyard four and five, CY4 and CY5, is on the far east side of campus. Several of the courtyards have aged and damaged inlets. CY1 has a flume that is not properly draining and needs adjustment. There is also a low spot in this courtyard that needs to be filled. CY1 has an area inlet that is too small and needs resizing. CY3 has a broken gutter in need of repair and has debris that needs to be removed. CY3 also has inadequately sized inlets that need to be larger. The drainage in CY4 is not draining. Gutters are needed in CY5. Courtyard Deficiencies: · The water is not draining. · Gutters are needed in certain areas. · Some gutters are broken and clogged.	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
	Landscaping	There are several low spots around the building that need to be filled in. There are also areas of erosion throughout the campus. Underneath several trees, re-sodding or re-mulching is needed as the surrounding areas are dead. Near the portable on the east side of the building, there are over grown plants needing trimming. There is also a tree with overgrown limbs running into the transmission lines. Landscaping Deficiencies: · Areas of erosion. · Low spots in certain area. · There is overgrown landscaping.	Average
Site Utilities	Water Supply	There are multiple areas where the irrigation pipe, nozzle or cap is broken. Several irrigation boxes are missing covers and irrigation has been abandoned. Water Supply Deficiencies: · The irrigation boxes are missing a covers. · Broken irrigation pipe. · Abandoned irrigation.	Average
	Sanitary Sewer	There is a Fiberglass Grease Sampling Enclosure. No deficiencies observed during this site visit.	Good
	Storm Sewer	No deficiencies observed.	Good
	Detention Pond	Detention pond observed to be in good condition.	Good
	Other Site Mechanical Utilities	A concrete pad under and in front of dumpsters is needed. Other Utilities Deficiencies: · There is not a concrete pad under and in front of the dumpsters.	Average

Site Improvement Deficiency Examples

Roadways

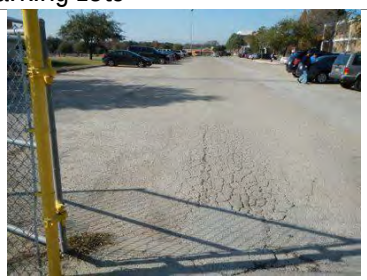
Longitudinal and alligator cracking



Transverse and longitudinal cracking

Drainage damage

Parking Lots

		
Alligator cracking	Damaged utility patch	Overgrown grass and erosion

Pedestrian Paving

	
Clogged drainage cut	Wood bridge

Site Development

	
Bent fence	Uncovered crawl space

Site Drainage

		
Clogged flume and area inlet	Erosion against building	Condensate does not tie to underdrain

Courtyards

		
Damaged Downspout	Inadequately sized inlet	Damaged and inadequately sized inlet

Landscaping

		
Re-sodding needed	Overgrown tree	Broken/Abandoned Irrigation

Site Utilities

		
Fiberglass Grease Sampling Enclosure Found	Dumpster needs concrete pad and approach	Low spot and damaged irrigation

Play Fields

Areas presented in table are approximate.

Playfields	Count	Size (SF)
Basketball Courts	-	-
Tennis Courts	4	25,800
Soccer/Multi-Purpose	1	69,650
Baseball/Softball Fields	2	131,000
Bleacher Seating	-	-
Track	1	400 M
Green Space	1	228,500
Football Field	1	101,000
Playscapes	-	-

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Playfields	Tennis Courts	The fencing around the tennis court is damaged and needs to be repaired or replaced. There is also cracking on the court surface. Tennis Court Deficiencies: · The fence around the court is bent or damaged. · There are cracks on the court.	Average
	Soccer Field/Multi-Purpose	The soccer/multi-purpose field is northeast of the tennis courts. There is some debris on the field that needs to be removed. · Areas of material/debris/concrete need to be removed	Average
	Baseball/Softball Fields	The baseball field has an irrigation box in the outfield that is missing a cover. The softball field is in overall good condition, the infield is worn. Baseball/Softball Fields · The irrigation boxes are missing covers. · Remove the outdoor water fountain. · Bleachers.	Average
	Track	The track surface is in good condition. There is some debris that needs to be removed at the east end of the track just inside.	Good

		Track Deficiencies: · Areas of debris/concrete need to be removed.	
	Football Field	There are a couple area inlets around the outside of the field. Two of these inlets are clogged and one of them needs to be regraded to. Football Field Deficiencies: · The area inlet is clogged or needs to be uncovered. · The area inlet needs to be regraded to maintain positive drainage	Average
	Green Space	There is green space area between the softball and baseball fields. In the middle of the field from the school to the track, is a walkway. This path needs to be refilled and compacted. There is also a broken irrigation on the northeast side of the green space. Green Space Deficiencies: · Broken irrigation pipe. · Refill and compact walkway.	Average

Playfield Deficiency Examples

Tennis

	
Tennis court fencing needs repair	Tennis court cracks

Baseball/Softball Fields

	
Missing irrigation box covers	Worn softball field

Track

Area of material needs to be removed

Football

Area inlet needs to be uncovered

Green Space

Refill and compact walkway

Summary of Recommendations

This document is based on information provided by staff during interview, site visit and additional desktop measurements using Google Earth. This document provides recommendations for corrective actions. The following recommendations provide a summary of the findings.

Site/Civil Recommendations

Roadways

1. Apply thin asphalt overlay to areas of rutting and alligator cracking
2. Seal any longitudinal cracks that are not included in an overlay
3. Fill potholes
4. Regrade roadway circle to slope toward area inlet

Parking Lots

1. Apply thin asphalt overlay to areas of rutting and alligator cracking
2. Fill potholes.
3. Repair utility patch.
4. Clean/remove areas of sediment.

Pedestrian Paving

1. Replace/repair section of broken sidewalk.
2. Fill in and regrade under sidewalk.
3. Repair/unclog drainage under sidewalk.
4. Clean sediment from sidewalk.

Site Development

1. Repair or replace broken fence.
2. Remove debris.
3. Remove concrete and rebar areas.
4. Place cover over crawl space opening.
5. Remove outdoor water fountain.
6. Cover exposed pipe.

Site Drainage

1. Regrade to slope away from building.
2. Tie downspouts into underdrain.
3. Reposition splash block.
4. Tie condensate into underdrain.
5. Unclog and adjust flumes.
6. Unclog inlets and determine if sized adequately.

Courtyards

1. Regrade to properly drain and fill low spots.
2. Repair broken downspouts.
3. Add gutter system where needed.

Landscaping

1. Regrade to prevent erosion.
2. Fill in and regrade low spots.
3. Trim overgrown vegetation.

Site Utilities

1. Replace irrigation box covers.
2. Fix broken irrigation pipe.
3. Place a concrete pad under and in front of the dumpsters.

Tennis Courts

1. Repair fencing around the court.
2. Fill in cracks on the court.

Soccer/Multi-purpose

1. Remove material/debris from field area.

Baseball/Softball Fields

1. Replace irrigation box cover.
2. Remove outdoor water fountain.

Track

1. Remove debris from inside track.

Football Field

1. Unclog area inlet
2. Regrade area around inlet to drain properly

Green Space

1. Fix broken pipe.
2. Refill and compact walkway.

DRAFT

0 25 50 100 150
Feet

Legend

- (1) Recommended Improvements
- Drainage Improvement
- Pavement Improvement
- Sidewalk Improvement

NOTES:

1. THERE IS RUTTING IN THIS AREA.
2. THERE ARE BLOCK CRACKS IN THIS AREA.
3. THERE IS ALLIGATOR CRACKING IN THIS AREA.
4. THERE IS A UTILITY PATCH IN THIS AREA THAT NEEDS TO BE REDONE.
5. THERE IS A POTHOLE IN THIS AREA.
6. THE CONCRETE PAVEMENT IS BROKEN.
7. THE SIDEWALK IS BROKEN/HEAVING/SUNKEN IN.
8. THERE IS EROSION UNDER AND/OR ADJACENT TO THE SIDEWALK.
9. THE SIDEWALK DRAINAGE CUT IS CLOGGED.
10. THERE IS A WOODEN SIDEWALK SECTION.
11. THE SIDEWALK IS COVERED BY SEDIMENT.
12. REFILL AND RECOMPACT WALKWAY.
13. THE FENCE IS BENT AND BROKEN IN NEED OF REPAIR.
14. AREAS OF MATERIAL/DEBRIS/CONCRETE NEED TO BE REMOVED.
15. BIKE RACK
16. BLEACHERS
17. THERE IS EVIDENCE OF PEST HOLES.
18. RESLOPE CONCRETE AWAY FROM BUILDING.
19. REGRADING NEEDED TO SLOPE AWAY FROM BUILDING.
20. THERE IS EROSION UP AGAINST THE BUILDING.
21. THE DOWNSPOUT DOES NOT TIE TO THE UNDERDRAIN.
22. THE SPLASH BLOCK IS PLACED INCORRECLTY.
23. CONDENSATE DRAIN DOES NOT TIE TO AN UNDERDRAIN.
24. THERE IS A RAIN BARREL COLLECTION SYSTEM.
25. FLUME NEEDS TO BE ADJUSTED.
26. FLUME IS NOT PROPERLY DRAINING.
27. THE WATER IS NOT DRAINING.
28. GUTTERS ARE NEEDED IN THIS AREA.
29. BROKEN GUTTER
30. GUTTERS ARE CLOGGED.
31. THE AREA INLET NEEDS TO BE REGRADED TO MAINTAIN POSITIVE DRAINAGE.
32. THERE IS OVERGROWN LANDSCAPING THAT NEEDS TRIMMING/PRUNING.
33. THE IRRIGATION BOXES ARE MISSING A COVERS.
34. ABANDONED IRRIGATION
35. BROKEN IRRIGATION PIPE.
36. THERE IS EROSION IN THIS AREA.
37. THERE ARE LOW SPOTS THAT NEED TO BE FILLED IN.
38. FIBERGLASS GREASE SAMPLING ENCLOSURE.
39. THE AREA INLET IS NOT ADEQUATELY SIZED.
40. THE AREA INLET IS CLOGGED
41. THERE IS NOT A CONCRETE PAD AT THE DUMPSTERS.
42. REMOVE THE OUTDOOR WATER FOUNTAIN.
43. THERE ARE CRACKS ON THE COURT.
44. THE FENCE AROUND THE COURT IS BENT OR DAMAGED.
45. WATER PONDING IN THIS AREA.
46. DRAINAGE ELEMENTS NEED READJUSTING OR REPLACING.
47. CRAWL SPACE UNCOVERED.
48. SEDIMENT BUILD UP.
49. EXPOSED PIPE NEEDS TO BE COVERED.
50. THERE ARE LONGITUDINAL CRACKS IN THIS AREA.
51. THE CLEANOUT IS DAMAGED AND/OR THE CAP IS BROKEN.

Map Date: 3/8/2017

AUSTIN Independent School District

AECOM

Reagan HS
7104 Berkman Dr