Cowan Elementary School Site Summary

Address	2817 Kentish Drive Austin, TX 78748
Number of Permanent Campus Facilities	1
Original Year of Construction	1999
Total Campus Building Area (combined)	70,234 SF

Introduction

The Cowan Elementary School campus is located at 2817 Kentish Drive in Austin, Texas. Cowan Elementary School was established in 1999, and consists of the primary school building, referred to as the Main School Building (BLDG-183A).

Main School Building – BLDG-183A

Building Purpose	Administrative, Cafeteria Classrooms, Gymnasium, and Kitchen
Building Area	70,234 SF
Inspection Date	July 19, 2016
Inspection Conditions	97°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 a split-faced block made from CMU (concrete masonry unit) and shotcrete façade. The exterior walls were in average condition, with isolated areas where staining was present from a lack of downspouts and gutters causing rain splash back on the exterior CMU and shotcrete. Minor cracks and small penetrations were observed around the exterior of the facility. Divots were present in the shotcrete siding of the southeast side of the facility. Cracks were apparent in the southeast side of the school entry awning.	Average
	Exterior Windows	The exterior windows consist of single-pane glazing units with metal frames. The windows are original to the facility's construction. There were no reported deficiencies with the exterior windows. It was observed that the windows were in good condition.	Good
	Exterior Doors	There is one main public entryway located at the northwest side of the building. This consists of a pair of double doors that are metal with interior glazing and a metal frame. The remaining service doors around the facility are metal double doors with interior glazing and metal frames. It was observed that the mullion located at the northeast end of corridor N is corroded along the base. It was observed that the exterior doors to the kitchen storage room had no mullion and did not close properly. The	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		exterior doors were in average condition due to age, high usage, and minor rusting of the metal frames.	
Roofing	The material covering the roofing of the building consists entirely of a standing seam metal roof. There is a covered walkway for access to the roof top mechanical equipment over the kitchen and library. The roof surfaces were in average condition. It was reported that the facility was experiencing multiple roof leaks along corridor N, the southeast end of corridor W, the library, the teachers' lounge, room S1, and corridor E adjacent to room E1. Most of these roof leaks were reported as having unknown origins. The exception was the leak in corridor W adjacent to room N1 which was reported and observed to be caused by a gap in the roof construction.		Poor
Interior Construction	Interior Walls	The interior partitions original to the building are predominantly constructed of painted CMU. The administrative offices and the library have painted gypsum board construction. The interior partitions appeared to be in average condition. At the intersection of corridor E and corridor 7, a minor crack was observed along the ceiling and cascading down corridor E. Based on these observations, the interior walls were rated as having an average condition.	Average
	Interior Doors	The building interior doors consist of wood doors with metal frames and metal-framed interior windows. The interior doors and frames were reported and observed to be in good condition given the age of the system and typical signs of wear and use.	Good
	Interior Specialties	System not present.	
Stairs	Exterior Stairs	System not present.	N/A
	Interior Stairs	System not present.	N/A
Interior Finishes	Interior Wall Finishes	The school's interior wall finishes consist of painted articulating concrete block in the common spaces, gymnasium, kitchen, cafeteria, and classrooms, and gypsum board in the library and office spaces. The restrooms consist of painted CMU's on the upper portions of the wall and painted tile on the lower portion of the walls. The interior wall finishes were in good condition due to age and showing signs of normal wear and use. The wood window sills in 25% of the classrooms had experienced water damage due to staff placement of inside plant pottery.	Good
	Interior Floor Finishes	Vinyl composition floor tile is found throughout the building and is original to construction. Ceramic tile floor is present in the restrooms. The administrative offices,	Average

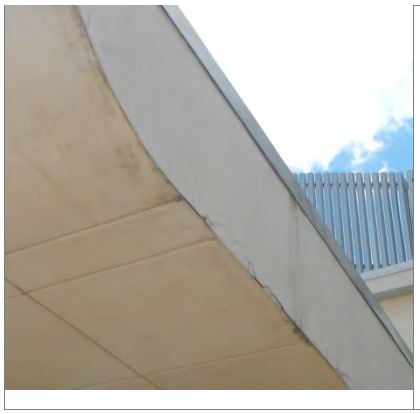
System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		music room, and library are finished with carpet. The flooring appeared to be in average condition as minor scuffing was observed throughout the vinyl tile flooring system. Roof leaking was reported and observed throughout the library as damaging the carpeting. It was reported that rooms N11 and N12 experienced water intrusion along the base of the floors during high-intensity rain events, causing minor flooding and damage in the rooms. The flooring was in average condition.	
	Interior Ceiling Finishes	The interior ceiling consists of standard 2x4 acoustical fiberglass ceiling panels located throughout the facility and painted gypsum board in the classroom restrooms and mechanical and janitorial closets. The interior ceiling tiles were observed to have water damage on 5% of the tiles from potential roof leaks. The staff had been replacing the tiles as they were damaged. The ceiling was reported and observed to be in average condition, based on the aforementioned deficiency.	Average
Conveying	System not present.		N/A
Plumbing	Plumbing Fixtures	The building has public restrooms for males, females, and students, and separate staff restrooms located throughout the facility. These restrooms typically have vitreous china hand sinks in counters with manual faucets, along with vitreous china floor-mount/wall toilets with manual flushing mechanisms, and vitreous china wall-hung urinals in the male restrooms with manual flushing mechanisms. There are floor-mounted service sinks in the janitorial closets, and water coolers located throughout the facility, typically near the public restrooms. The classrooms have stainless steel sinks, faucets, and drinking fountains. The building has other specialty locations with plumbing fixtures, including a kitchen for the school cafeteria. It was reported that the toilets throughout the facility were in need of new wax rings. It was reported that the water coolers throughout the facility were experiencing corrosion and would require replacement. Based on these reports, the plumbing fixtures were reported as being in average condition.	Average
	Domestic Water Distribution	All of the plumbing fixtures are serviced with hot water from multiple gas water heaters located throughout the building. The water heaters are primarily near the	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		cafeteria kitchen. The plumbing distribution equipment was reported and observed to be in average condition.	
	Other Plumbing	The school utilizes cast iron piping in the walls to discharge sewer gases and PVC (polyvinyl chloride) piping on the roof to move the gases away from HVAC air intake vents. It was reported that the cast iron ventilation piping in the facility walls had experienced corrosion, causing sewer gas to emanate throughout the facility. It was observed that the PVC piping was corroding on the roof. The floor drains in the kitchen were reported as having nonfunctional p-traps, allowing sewer gas to emanate into the kitchen. The kitchen staff have to cover the floor drains to contain the gas odors. Based on these reports, other piping was in average condition.	Average
Mechanical/ HVAC	The major mechanical equipment consists of classroom console units and AHUs (air handling units) located primarily on the roof of the school. There is a cooling tower to service the AHUs located on the southeast side of the facility. These serve the HVAC (heating, ventilating, and air conditioning) system. The school boilers that service the kitchen are gas fired. There are six RTUs (roof top units) and two ERUs (energy recovery units) are located on the roof of the facility. Supplemental mechanical equipment for the HVAC system includes exhaust fans. These units are original to the facility and were reported to reach the end of their useful life within the next ten years. It was observed that insulation on the HVAC ductwork of RTU4 was peeling from the HVAC conduit. The HVAC system was reported and observed to be in average condition.		Average
Fire Protection	Fire Alarm	The building has a fire alarm system that consists of alarm and signaling devices such as horns/ annunciators, strobes, horn/strobe combos, pull stations, and detectors. The fire alarm system was reported to be in good condition.	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 (January 2016) as required. It was reported that the fire protection system was in good condition.	Good
Electrical	Electrical Distribution	The electrical service enters the building at the 277/480-volt 3-phase, 4-wire main switchboards located in the electrical room near the gymnasium. The service feeds	Good

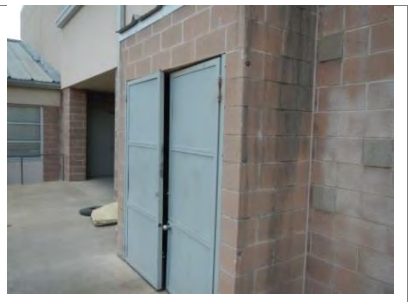
System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		transformers and high-voltage panelboards located in various electrical rooms throughout the building. The distribution transformers are 200-amp and rated at 480-volt primary and step-down to 120/208-volt secondary, which feeds power to 120/208-volt panelboards. The building does not have a lightning protection system. The facility electrical staff reported that there was a need for more low-voltage panels throughout the facility, and the main distribution panel was limited on space for more amperage for high-power distribution. This facility does not have lightning protection. The existing electrical distribution equipment was reported to be in good condition.	
	Lighting	The building's exterior lighting consists of HID (high-intensity discharge) luminaires located along the entire perimeter. The interior lighting consists primarily of T8 fluorescent luminaires. The staff requested a two-light LED (light-emitting diode) emergency fixture system in this facility. The lighting for the building was reported and observed to be in average condition. Many interior and exterior luminaires appeared to be aged.	Average
	Communications & Security	There is a security system including surveillance cameras in the building. There is a communications system for the school that consists of an intercom system. The building is equipped with telecommunications systems with the main backbone equipment located in an inaccessible room. It was reported that there were no noticeable problems with the telecommunications systems. It was observed that an outside intercom speaker was dislodged from its mount and hanging by electrical wiring. The communications and security system was reported and observed to be in average condition.	Average

Exterior System Deficiency Examples

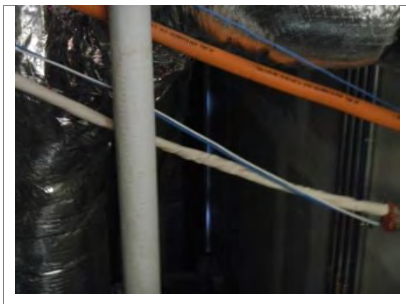
Exterior Walls



Exterior Doors

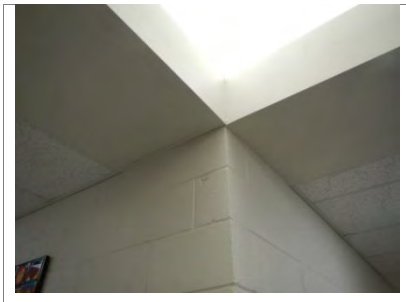


Roofing Deficiency Examples



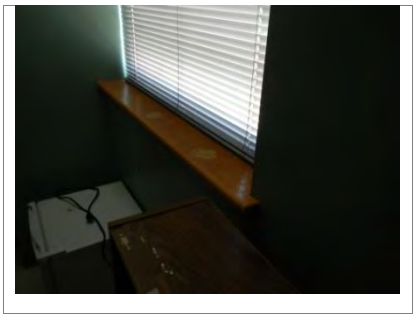
Interior Construction Deficiency Examples

Interior Walls



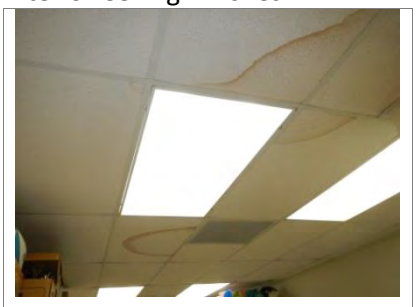
Interior Finish Deficiency Examples

Interior Wall Finishes



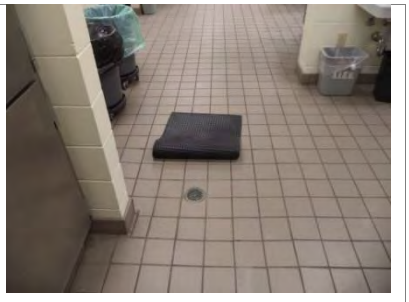
Interior Floor Finishes

Interior Ceiling Finishes



Plumbing System Deficiency Examples

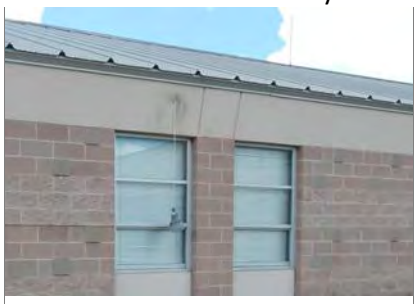
Other Plumbing



Mechanical/HVAC System Deficiency Examples

Electrical System Deficiency Examples

Communications & Security



Cowan Elementary 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.

Main School Building Recommendations

Exterior

1. Clean the stained brick façade where splash back stain is present. Install gutters and downspouts to collect and discharge rain runoff away from the base of the facility walls.
2. Repair cracks located in the entryway awning.
3. Repair divots in the shotcrete.
4. Repair all exterior doorway mullions that exhibit corrosion.

Roofing

1. Locate and repair leaks in the roof.

Interior Construction

1. Repair cracks in the walls as indicated in the report with appropriate sealant. Monitor going forward.
2. Repair or replace water-damaged window sills located in classrooms.
3. Seal the building where water intrusion occurs adjacent to rooms N12 and N11.

Interior Finishes

1. Repair and seal roof leaks, and replace damaged ceiling tiles with new matching ceiling tiles and replace impacted carpeting.

Plumbing

1. Replace toilet wax rings and reset toilets to seat properly.
2. Test the sewer gas discharge system to locate pipe leaks and replace piping as needed to contain and discharge sewer gases properly.
3. Replace the PVC piping for roof sewer gas discharge so as not to discharge gas adjacent to an HVAC intake.
4. Repair or replace the kitchen floor drain traps that are not functional.

Electrical

1. Provide additional panels for additional electrical capacity.
2. Provide additional low-voltage panels throughout the facility.
3. Repair and remount exterior intercom speakers to a secure foundation against the exterior of the facility.