# **Austin High School Site Summary**

Address	1715 West Cesar Chavez Street Austin, TX 78703
Number of Permanent Campus Facilities	2
Original Year of Construction	1975
Total Campus Building Area (combined)	340,540 SF



### Introduction

The Austin High School campus is located at 1715 West Cesar Chavez Street in Austin, Texas. Austin High School was established in 1881, but was relocated to its current location and built in 1975. The Austin High School campus consists of the primary school along with one additional campus building. These permanent campus buildings include the Main School Building (BLDG-002A) and the Theater (BLDG-002B) that was constructed in 2000.

Meeting Log		Revision Log		Revision Log
Date	Meeting	Revision	Date	Summary of Content
6/23/16	Interview	00	6/1/16	Draft Issue
5/17/1/6 and 5/18/16	Assessment	01	12/21/16	Added comments from PE Rumman Zamir as indicated on
				email dated 10/28/16. See page 25.
9/29/16	Cluster Meeting			
	(Attended)			
10/6/16	Follow-Up			
10/26/16	Follow-Up			



# Main School Building - BLDG-002A

Building Purpose	Administrative, Classrooms
Building Area	316,969 SF
Inspection Date	May 17-18, 2016
Inspection Conditions	May 17 - 80° and sunny May 18 - Overcast with rain
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 main building exterior consists of concrete walls with an exposed aggregate finish. The exterior walls of the Cohlmia Chemistry Wing are clad with metal panels. The exterior façade was in good condition with few deficiencies. Substantial vine and plant growth was observed climbing the façade along the north and east elevation of the building. There was minor staining of the lower façade around the east elevation from backsplash during heavy rain. The sidewalk adjacent to the building was sagging west of the gymnasium. This may be indicative of water infiltration of the building foundation. The north penthouse exterior was stained, most noticeably on the north wall.	Good
	Exterior Windows	The main building windows are metal framed. The windows of the Cohlmia Chemistry Wing have exterior window shades.  The main building metal framed windows were observed to be leaking; they appeared to be original to construction and aged beyond their useful lives. The Cohlmia Chemistry Wing exterior window shades were in good condition.	Poor
	Exterior Doors	There are two secure entries: one is located on the east side main entrance and the other is located at the administration and gymnasium entrance. The majority of the exterior personnel and roll-up doors around the facility are metal. There is a storefront door with glazing on the east side of the Chemistry Wing, and a pair of glazed doors on the west side. There are additional	Good



System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		exterior glazed doors leading out of the cafeteria.  The storefront door with glazing on the east side of the wing and the pair of glazed doors on the west side were in good condition. The exterior metal doors and roll-up doors appeared to be in average to good condition showing signs of wear. The metal doors at the two roof top penthouses were corroded and the hardware bent and damaged.	
Roofing			Poor
Interior Construction	Interior Walls	The classrooms are separated from one another by a series of CMU and partition walls.  The CMY and partition walls separating the classrooms had typical wear and tear associated with general everyday use. There were some isolated areas observed with wall damage from water intrusion.	Good
	Interior Doors	The interior doors throughout the building include both metal and wood doors with metal frames.  The majority of the metal and wood doors were in good condition.	Good
	Interior Specialties	There are metal lockers in the hallways and in the locker rooms. They appear to be in good condition.	Good



System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Stairs	Exterior Stairs	The exterior stairs on the north side of the building leads to a pair of metal doors to allow access to the gymnasium on the second story.  The exterior stairs were in good condition overall.	Good
	Interior Stairs	The interior stairs are of concrete construction.  These stairs were observed to have the typical wear and tear associated with general everyday use.	Average
Interior Finishes	Interior Wall Finishes	The interior wall finishes in the hallway and classroom areas are painted GWB walls or painted concrete in some areas. The kitchen and restrooms are finished with wall tile. The restrooms have metal toilet partitions. The interior finishes appeared to be in average condition showing signs of age and wear. The restroom finishes, including the partitions, were in good condition.	Average
	Interior Floor Finishes	The interior floor finishes in the hallway and classroom areas are linoleum floor tile. The library area flooring is finished with carpet. The kitchen and cafeteria are finished with ceramic floor tile. The three gyms on the second level have hardwood floors. The restrooms have tile floor finishes.  The interior finishes appeared to be in average condition showing signs of age and wear. Much of the VCT floor tile appears to be original construction and is well maintained; however, the flooring system was showing signs of age, deterioration, and uneven surfaces. The gym hardwood floors are in good condition. The restroom finishes were in good condition.	Average
	Interior Ceiling Finishes	The interior ceilings in the hallway and classroom areas are acoustical ceiling tiles (ACT). The kitchen and cafeteria ceilings are finished with ACT.  The existing ACT system was observed to be aged, damaged, stained, and/or missing in some of the classroom areas. Water infiltration has damaged ceiling tiles throughout the building including classrooms, labs, corridors, mechanical/electrical rooms, the sports equipment storage area, and the Preas Theater and its orchestra office area. There were signs of water infiltration within the fire sprinkler riser room located on the south side, although the source of the infiltration was not known. It was observed that maintenance was performed in order to route the water to drain.	Average
Conveying	three floors, one was	assenger elevators that use hydraulic systems to service noted as having a maximum weight capacity of 2,100 as a maximum weight capacity of 2,000 pounds.	Good



System	Subsystem	Condition and Deficiency Overview	System Condition Rating
	inspection certification was the missing call building staff and i	re in good condition and both were observed with an a within the last year as required. The only deficiency noted button on the second floor. This elevator is only used by s key operated; therefore, the missing pushbutton is a hole where the button should be, which could be a safety	
Plumbing	Plumbing Fixtures	The main building has dedicated student restrooms located on the first, second, and third floors with additional single occupant restrooms in the health services, administration offices, Special Education classroom, and in the arts studio. The school also has male and female locker rooms to support athletics and the Physical Education department. The typical plumbing fixtures, including toilets, urinals and sinks, are vitreous china with manual controls. Adjacent to the gymnasium is a male and female restroom that was recently renovated for sporting event use. Within these restrooms, the fixture hardware has been upgraded to automatic control. The locker rooms also have single and multi-occupant showers. The single occupant showers have manual controls, and the multi-occupant stainless steel shower terminals have push button "timed" controls. The kitchen has a mix of wall mounted vitreous china hand wash sinks and stainless steel kitchen equipment that includes one, two, and three basing dish/prep sinks. The student lab and faculty break rooms have molded in-counter sinks with manual faucets.  The girls' coaches' office has a water tempering valve for shower temperature control that is leaking and has caused water damage to the surrounding wall. The tempering valve appears to be recently installed.	Good
	Domestic Water Distribution	Austin High School's domestic water and sanitary waste systems serve the student and faculty restrooms, boys' and girls' locker rooms, kitchen, faculty break rooms, and classroom laboratory sinks. There are janitor's closets on each floor, each with a utility mop sink, and water coolers located throughout the facility. Domestic hot water for the school is provided by two 100 gallon, 199 MBH gas water heaters in the main boiler room and one 38 gallon electric water heater in the fire sprinkler riser room located beneath the laboratory expansion.  The domestic water system is in average condition throughout the facility, with typical wear and tear associated with general everyday use.	Average



System	Subsystem	Condition and Deficiency Overview	System
			Condition Rating
	Other Plumbing	The low slope roof sections have single inlet roof drains with three inch to four inch diameter pipe depending on location and area served.	Average
Mechanical/ HVAC	air conditioning depending of the high school, refurbe that routes to ten central mechanical closets with penthouses. The chilled chillers tied to a pair of 2 by two 4,000 MBH gas to gas to hot water boiled existing building cooling five AHUs installed in miscience laboratory addition. 2,000 and 800 CFM at temperature control. The a single 90 TON air-cook while the heating hot was exhaust is provided by 2. The HVAC system is in a with R-22 refrigerant; the remodel. CU-MDF is coperationally in good conwith is in the process of chilled water piping the significant signs of considerable condensations the pump housing and pips and of the equipment creating a life safety issuit heat pump tied to a fan system is not functional six roof mounted conderemodel. At the time of they are abandoned in excessive vibration in the condenser water system beginning to penetrate	location and area served.  Tes a mixture of heating and cooling systems for building and on time of construction or remodel. The original portion pished in 1985, has a chilled and heating hot water system ally located AHUs (air handling units), eight enclosed in hin the main building and seven in two mechanical water system is made up of two 300-TON rotary screw 84-TON cooling towers. The heating hot water is supplied to hot water boilers (installed in 2016), and one 1,812 MBH are (installed during the main building renovation). The is supplemented by split system condensing units feeding techanical closets on the south side of the building. The ison, constructed in 2010, utilizes a series of 13 vertical lar to a fan coil unit) located in mechanical closets. The capacity of the vertical blower coil units vary between and have chilled water and heating hot water coils for a chilled water system for the blower coil units comes from a child color of the expansion, ter is supplied by the main building boiler system. Building 3 roof and wall mounted exhaust fans.  Average condition as the rotary screw chillers are charged are majority of the AHUs were original to the mid 1980's a condensing unit located on the main roof and is andition. However, the unit is charged with R-22 refrigerant if being phased out of production by the year 2020. The last is original to the main school remodel is showing the soriginal to the main school remodel is showing in the structure of the facility. The and leaves the art studio space unconditioned. There are not unit mounted within the structure of the facility. The and leaves the art studio space unconditioned. There are not unit mounted within the structure of the facility. The and leaves the art studio space unconditioned. There are not unit mounted within the structure of the facility. The and leaves the art studio space unconditioned. There are not unit shalt appear to be original to the main school the survey, it was unclear if the units are functional or if place. AHU-9, in the	Average
	with R-22 refrigerant, wl	boiler/mechanical room. The condensing unit is charged nich is in the process of being phased out of production. ng hot water system has a heavy gas odor around the	



System	Subsystem	Condition and Deficiency Overview	System
			Condition Rating
		where the gas odor is leaking from within the equipment. wall mounted exhaust fans were in various levels of	
Fire Protection F	Fire Alarm	The building has a fire alarm system that consists of alarm and signaling devices such as bells/horns/annunciators, strobes, horn/strobe combos, pull stations, and detectors. The fire alarm system is controlled by several fire alarm control panels located throughout the building.  The fire alarm system was in good condition. The building staff indicated the system was operating properly, but the control panel labeled IFP-1000 in the AHU 7 Mechanical Room indicated a bad horn and nonfunctional strobe on the inspection tag.	Good
	Fire Protection/ Suppression	The building does not have a sprinkler system and is instead served by multiple dry-chemical fire extinguishers. The laboratory expansion; however, is equipped with a wet pipe fire sprinkler system added in at the time of the expansion. Within the kitchen, there is a dedicated "Range Guard" chemical fire suppression system designed for grease fires.  There were multiple locations where fire extinguishers were missing. Existing fire extinguishers contained up to date inspection dates. The laboratory expansion sprinkler system is in good condition. The kitchen chemical fire suppression system is in good condition.	Good
Electrical	Electrical Distribution	The electrical utility service enters the building at the main switchgear with a capacity of 5000 amps at 480v. The switchgear is located in the main electrical room and delivers power throughout the building. There are several transformers that step down 480-volt primary to 120/208 volt secondary that feed power to 120/208 volt panelboards. These transformers and distribution panelboards are primarily located in mechanical rooms, electrical rooms, and custodial closets.  The electrical distribution equipment is in average condition. The building has had several upgrades over the years and the electrical equipment age ranges from the mid 1970's to 2015. Most of the original equipment is beyond its useful life. Many access issues and deficiencies were found during the assessment. A panelboard in Chemistry Room 271 was blocked by several filing cabinets. Stored materials blocked access to panelboard Panel	Average



System	Subsystem	Condition and Deficiency Overview	System
			Condition Rating
		1P in Office 116D. Transformer 11T was blocking access to the two panelboards in the Pease Theater Electrical Room. Stored materials blocked access to the transformer in the West Gym Electrical Room. An uncovered junction box was on the back exterior of the building near the roof. Broken and unsupported conduits were observed on the roof. There was a missing cover plate in panelboard HA in the fire sprinkler riser room. A loud hum was heard from Transformer 1 in AHU Room No. 7. A loud hum was heard from Transformer 6T located in the Book Storage. When the microwave is used in Café Austin, it trips a breaker that powers receptacles in Room 209. There was an exterior unprotected receptacle on the back of the building. The building staff also indicated that the portable classrooms are not connected to the fire alarm, paging, and security systems.	
	Lighting	The building's exterior lighting consists of wall pack high-intensity discharge (HID) lights, HID floodlights, and soffit mounted fixtures that are located near the exterior doors, under the first story soffits and along the roofline at the top of the building. The interior lighting primarily consists of recessed, pendant, and wall mounted fluorescent fixtures, decorative column fixtures, and pendant mounted HID fixtures.  The lighting for the building is in average condition. The floodlights at the top of the building appear to be in good condition. The exterior soffit mounted lights have yellowed and broken lenses with some covered in dirt and spider webs. The HID lights have unclean yellow lenses. The art room has pendant mounted fluorescent fixtures that are unreliable. During humid days, only half of the light fixtures will turn on and sometimes the circuit breaker will trip. The lighting in the kitchen is recessed fluorescent and has yellow lenses. The cafeteria lighting is recessed fluorescent with yellow lenses. Emergency and exit lights are located in the cafeteria, but may be insufficient as there is only one emergency light and only one set of doors has an exit sign.	Average



System	Subsystem	Condition and Deficiency Overview	System Condition Rating
	Communications & Security	Several security cameras are located around the perimeter of the building and throughout the interior of the building. The building staff indicated they are operating properly. Interior security cameras are present and are operational according to maintenance personnel. The police have a security office where they monitor the facilities security system.	Good



# **Exterior System Deficiency Examples**

#### **Exterior Walls**



**Exterior Windows** 



**Exterior Doors** 





# **Roofing Deficiency Examples**



# **Interior Finish Deficiency Examples**

**Interior Wall Finishes** 



Interior Floor Finishes





# **Interior Ceiling Finishes**







## **Conveying System Deficiency Example**



## **Plumbing System Deficiency Examples**

# **Plumbing Fixtures**





# Mechanical/HVAC System Deficiency Examples





# **Electrical**

### **Electrical Distribution**







Lighting





# Theater Building – BLDG-002B

Building Purpose	Auditorium
Building Area	23,571 SF
Inspection Date	May 17-18, 2016
Inspection Conditions	May 17 - 80° and sunny May 18 - Overcast with rain
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 Austin High School Theater Building exterior walls consist of concrete with exposed aggregate, clad with strips of metal paneling originating from the roof elevation. The exterior over the stage area is clad with metal paneling. There are two awnings on the south side of the building.  The exterior façade is in good condition. Vine and plant growth was observed on the façade along the northeast corner elevation and encroaching upon the gutter system.	Good
	Exterior Windows	The exterior windows are metal framed. These windows are in good condition.	Good
	Exterior Doors	The lobby entrance of the theater has two pairs of metal doors with glazing. The remaining doors around the facility are metal. There is a manual roll-up metal door at the rear of the stage.  The lobby doors are in good condition. The exterior door located at rear of the stage does not close properly exposing the stage flooring exposed to the elements and pests. The remaining building exterior doors appear to be in good condition.	Good
Roofing	The low slope roof sections are modified bituminous; there are two cantilever roofs over the sidewalks at the south elevations.  The low slope modified bituminous roof sections and the two cantilever roofs over the sidewalks at the south elevations are beyond their useful lives. Standing water was observed along the north roof sections. There was noticeable granule build up from the roof cover system near the gutters and roof drains.		Poor



System	Subsystem	Condition and Deficiency Overview	System
			Condition Rating
Interior	Interior Walls	The interior walls are in good condition	Good
Construction	Interior Doors	The interior doors are metal.	Good
		The interior doors are in good condition.	
	Interior Specialties	The theater and stage is vaulted with fixed seating.	Average
		The theater seating was observed to be in average	
		condition.	
Stairs	Exterior Stairs	System not present.	N/A
	Interior Stairs	There interior stairs are concrete.	Good
		The stairs are in good condition.	
Interior	Interior Wall Finishes	The restrooms are finished with wall tile with metal toilet	Good
Finishes		partitions.	
		The finishes are in good condition.	
	Interior Floor Finishes	The restrooms are finished with floor tile. Common	Average
		areas and dressing rooms have vinyl floor tile.	
		The theater carpet is showing signs of wear and is	
		stained in some areas. There was noticeable	
		deterioration of the stage flooring to the rear emergency	
		exit door. It is suspected the deterioration was due to	
		termites and there were other pests observed during the	
		assessment. Staff reported that the metal threshold	
		north of the stage makes it difficult to transport the piano	
		from storage area.	
	Interior Ceiling	Common areas and dressing rooms have acoustic	Average
	Finishes	ceiling tiles.	
		There were stained ceiling tiles in multiple areas.	
Conveying	System not present.		N/A
Plumbing	Plumbing Fixtures	The building has dedicated student restrooms located	Good
		adjacent to the main hall. The toilets are floor mounted	
		with manual flush valves, and the sinks and urinals are	
		wall mounted with manual controls. All of the fixtures in	
		the restrooms are vitreous china. The changing rooms	
		also have single occupant showers with manual controls. The male and female locker rooms each have	
		seven stainless steel shower terminals.	
		One terminal in each room has a broken head. The	
		sinks in the Preas Theater dressing rooms have	
		significant water damage around them and there is	
		rusting on the faucet.	
	Domestic Water	The domestic water and sanitary waste systems serve	Good
	Distribution	the student and faculty restrooms, boys' and girls'	
		dressing rooms, janitor's closet, and wall mounted water	
		coolers. Domestic hot water for the building is provided	
		by a single 100-gallon, 200 MBH gas water heater	



System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		located in the main boiler/mechanical room.  Facility-wide, the domestic water system is in good condition with typical wear and tear associated with general everyday use.	Condition Nating
	Other Plumbing	The gutter system along the north wall was observed to be clear with exception of the vine and plant growth on the northeast corner.	Average
Mechanical/ HVAC	water feeding centralized six AHUs varying in size water is provided by a heating hot water comes The HVAC system is in o	es a four pipe system with chilled water and heating hot d AHUs located in the main mechanical room. There are from an estimated 2,500 CFM to 10,000 CFM. The chilled single 125-TON air-cooled rotary screw chiller and the from a single 1,125 MBH gas to hot water boiler. good condition with isolated areas requiring repair. The air g hot water system is leaking from the drain valve and eloping due to the leak.	Good
Fire Protection	Fire Alarm	The building has a fire alarm system that consists of alarm and signaling devices such as bells/horns/annunciators, strobes, horn/strobe combos, pull stations, and detectors. The fire alarm system is controlled by several fire alarm control panels located throughout the building.  The fire alarm system was in good condition.	Good
	Fire Protection/ Suppression	The building is served by an ordinary hazard wet pipe fire sprinkler system.  The system is in good condition. It is 15 years old and is not showing any signs of corrosion or degradation.	Good
Electrical	Electrical Distribution	The electrical utility service enters the building at the main panelboard in the second floor electrical room, which delivers power throughout the building. There are several 480-volt panelboards and 480-volt primary transformers that step-down to 120/208 volt secondary that feed power to 120/208 volt panelboards. These transformers and distribution panelboards are located in the second floor electrical room.  The electrical distribution equipment is in good condition. There were some issues discovered during the assessment. Panelboard LB is missing a cover plate for a missing circuit breaker. A receptacle on the back side of the building is not weatherproof and not identified as GFCI protected.	Good
	Lighting	The building's exterior lighting consists of small and medium size wall pack HID fixtures that are located along the perimeter of the building. The interior lighting is made up of primarily two and four lamp open type	Good



System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		fluorescent fixtures, recessed compact fluorescent can lights, and indirect wall lights.  The lighting for the building is in good condition. The only issue found was a missing light switch cover plate in the Ticket Office.	
	Communications & Security	System not present.	N/A



# **Exterior System Deficiency Examples**

### **Exterior Walls**



**Exterior Doors** 



### **Roofing Deficiency Examples**









# **Interior Finish Deficiency Examples**

#### **Interior Floor Finishes**







Interior Ceiling Finishes





## **Plumbing System Deficiency Examples**

**Plumbing Fixtures** 







# **Electrical**

### **Electrical Distribution**





Lighting



### **Austin 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

- Remove vine and plant growth from exterior façade wall and monitor area for continued growth. Remove as required.
- 2. Power-wash the exposed facade to remove dirt build-up.

#### Fire Protection

- 1. Continue annual inspections.
- 2. Verify that the "non-working" alarm and strobe light have been fixed and are functioning properly.

#### Electrical

- 1. Replace broken or aged exterior lighting fixtures.
- 2. Provide proper, weather-tight covers on all exterior receptacles.
- 3. Provide blank covers in panelboards where knockouts have been removed and a circuit breaker is not present. There is a life safety issue due to the panel bus bar being exposed.

#### **Main School Building Recommendations**

#### Exterior

- 1. Seal/repair leaking exterior windows. Repair/replace aged windows as needed.
- 2. Repair sagging sidewalk west of the administration and gymnasium.
- 3. Replace the deteriorated penthouse doors with new steel doors, frame, and hardware.

#### Roofing

- 1. Replace the aged built-up, penthouse, clerestories and breezeway roofing systems of the main building. Replace the aged roofing systems of the theater; monitor and repair roof leaks as required.
- 2. Monitor water infiltration and repair deck and roof leaks as required.
- 3. Reroute downspout drainage so that it does not fall directly onto walking surfaces at grade. Adjust perimeter grading away from north side of building to reduce ponding.

#### Interior Construction

- 1. Monitor and resolve water infiltration in Fire Sprinkler Room.
- 2. Replace damaged and chipped wood doors with new wood doors and associated hardware.

#### Interior Finishes

- 1. Replace aged floor tile near administrative offices. Replaced aged floor tile throughout school as needed.
- 2. Replace any stained or damaged ceiling tiles with new ceiling tiles. Replace ceiling tiles only after source or cause of damage has been determined and addressed.

#### **Plumbing**

1. Replace the broken showerheads in the boy and girl's locker rooms.



- Repair the leaking water-tempering valve in the girls' coaches' office. The tempering valve appears to be recently installed; therefore, the plumbing connections need to be either tightened or replaced to prevent future leaks and damage.
- 3. Repair the leaking sink faucet in restroom 116C.
- Replace the water heater in the boiler room, as it appears to be original to the facility and is reaching the end of its useful life.

#### Mechanical/HVAC

- 1. Remove and replace the exterior panels of the cooling tower with new sections to prevent further deterioration.
- Replace the split system condensing unit, located on the exterior of the building, because it is charged with R-22
  refrigerant, which is in the process of being phased out of production. The unit should be replaced by the year
  2020.
- 3. Remove and replace the split system heat pump with a more efficient condensing and fan coil unit.
- 4. Schedule replacement of select AHUs. A majority of the air handling equipment throughout the main school is original to the remodel from the mid 1980's. There are eight AHU's that should be scheduled for replacement: AHU-5 located in A/H Unit Room No. 3, AHU-14 and AHU-15 located in A/H Unit Room No. 7, AHU-9, AHU-10, AHU-11, and AHU-12 in the North Mechanical Penthouse, and AHU-8 located in the South Mechanical Penthouse. Even with proper maintenance, the AHUs are reaching the end of their useful and effective lives. The AHUs should be replaced with more efficient models and should have integrated dehumidification as part of the upgrade.
- Replace chillers CH-1 and CH-2, which both utilize R-22 refrigerant for cooling generating purposes. R-22 is scheduled to be completely phased out of production by the year 2020 and will inflate the operational and maintenance costs for this equipment.
- 6. Schedule replacement of Boiler 3. Boilers 1 and 2 were replaced in 2016, but Boiler 3 remains original to the main building remodel. Based on age and appearance, it is suggested that the boiler be scheduled for replacement in the coming years.
- 7. Clean, prep, and repaint chilled water pumps CHP-1 & CHP-2 due to considerable condensation buildup on the pump housing. This will extend their life expectancy. The moisture is causing the pump housing and piping to rust prematurely and is reducing the expected life span of the equipment.
- 8. Install dehumidification into the HVAC system to reduce the amount of condensation in the interior of the building to properly maintain air humidity levels and increase the life span of the existing assets.
- Repair the chilled water piping that is original to the main school remodel, as it is showing significant signs of corrosion. The system should be flushed, pipe cleaned and treated with a rust inhibiting solution prior to being put back into regular service.
- 10. Install a shroud over the existing housing of Exhaust fan EF-22 per the manufacture's design.
- 11. Investigate further to determine if the six roof mounted condensing units are functional or if they are abandoned in place. If they are functioning, based on the age and condition, the units should be replaced with more efficient equipment.
- 12. Replace CU-MDF, a condensing unit located on the main roof by the year 2020. It is operationally in good condition. However, the unit is charged with R-22 refrigerant, which is in the process of being phased out of production, after which maintenance and operating costs will increase.
- 13. Replace AHU-9, in the North Mechanical Penthouse, due to excessive vibration in the supply fan section of the unit. The fan is most likely out of balance, but due to age of the unit, the entire air handler should be replaced.



- 14. Shut off gas to the boiler while the heating system is not necessary and inspect the valves and fittings for leaks. The boiler for the heating hot water system has a heavy gas odor around the equipment. It is unclear where the gas odor is leaking from, so further investigation is required.
- 15. Perform further investigation into water leaking from the chilled water valves throughout the mechanical room. The valves should all be inspected for proper function and then replaced to prevent further deterioration.

#### Electrical

- 1. Install proper support for conduits on the roof where unsupported conduit is separating at the couplings exposing the wire. Proper support needs to be installed at these conduit runs and the couplings reattached to the pipe.
- 2. Provide 36 inches of clear space in front of all panelboards. This requires relocation of the transformer.
- 3. Replace the broken elevator call button.

#### <u>Austin High School Theater Building Recommendations</u>

#### Exterior

1. Repair stage east exit door of the theater to eliminate pests and water infiltration and replace deteriorated flooring as required. Recommend pest control throughout the building.

#### Roofing

1. Replace the aged roofing systems. Monitor and repair roof leaks as required.

#### Interior Construction

- Replace any stained or damaged ceiling tiles with new ceiling tiles. Replace ceiling tiles only after source or cause of damage has been determined and addressed.
- 2. Clean or replace stained carpet in theatre. Replace damaged, stained, or aged flooring systems as required.
- Repair/modify the metal threshold between stage and storage area to prevent damage to piano or other wheeled assets during transport.

#### **Plumbing**

1. Replace sink hardware in the dressing rooms of the Preas Theater and consider full sink replacement.

#### Mechanical/HVAC

Drain the air separator for the heating hot water system in the Theater Building. It is leaking from the drain valve
and there is surface rust developing due to the leak. The air separator should be drained and the drain replaced
with a new spigot. With the spigot installed, insulation should be reinstalled covering the bottom of the air
separator.

#### Electrical

1. Install a new cover plate on light switch in the ticket box office of the Theater building. This will eliminate a shock hazard.



### **Austin High School Planned Future Improvements**

The following are any known planned and funded improvements scheduled to take place at this campus in the future. Their scope and schedule are subject to change.

2017 Bond Planned Improvements from PE Rumman Zamir on 10/28/16.

- > 150038 August 2017.
  - Replace one Domestic boiler serving the main building, associated exhaust vent and controls.
  - Replace existing Controls System serving air conditioning equipment in the Main Building to Lon-Tridium (Web Based) Controls System and also provide room temperature sensors.
  - Replace selected hydronic CHW & HW piping serving 13 AHUs.
  - Upgrade to electrical panel serving the kitchen.
  - Upgrade to lighting serving weight room.
  - Hydronic CHW and HW coil replacements serving 13 AHUs is an alternate in current bidding.



# CRAWL SPACE – Austin HS – Main School Building (BLDG-002A)

Building Purpose	Administrative, Classrooms, Gym, and Cafeteria
Inspection Date	September 14, 2016, Afternoon
Inspection Conditions	84° - Sunny & Dry

### **Crawl Space 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
Soil, Drainage, Ventilation & Access	Soil Below Building, Site Drainage in Crawl Space	The soil in the crawl space was saturated near the center of the building. Signs of water infiltration from around the perimeter of the building were observed. The soil slopes down towards the center of the building.  Soil/Drainage deficiencies:  Water infiltration from perimeter of building  Saturated soil, poor drainage	Average
	Soil Retainers	The building does not contain any soil retainers.	N/A
	Areaways/Ventilation	Ventilation in the crawl space was provided by areaways and large side vents. The crawl space had a stagnant smell.  Areaway pits were full of leaves.  Areaway/ventilation deficiencies:  Possibly inadequate ventilation  Mold & condensation on pipes  Blockage in areaway	Average
	Access Hatches	One access hatch located in the custodian closet on the east side of the building serviced the entire crawl space. Minor rusting was observed on the access hatch and frame.  Access hatch deficiencies:  Rusted access hatch	Good
Exposed Structure	Exposed Columns & Tops of Foundations	Observed columns appeared generally in good condition.  Column/Foundation deficiencies:	Good



		Minor surface defects	
	Exposed Faces of Perimeter Walls / Beams	All observed perimeter beams generally appeared in good condition.	Good
	Exposed Portions of Interior Floor Beams Above	Suspended floor beams are supported by columns and perimeter beams; all beams and columns are cast-in-place concrete. Generally, the floor beams appeared in good condition. Minor surface defects were observed in isolated locations.	Good
		Beam deficiencies:  • Minor surface defects	
	Underside of Suspended Floor Slabs Above	The floor system consisted of precast deck channels supported by interior floor beams and perimeter grade beams. The precast deck appeared in good condition other than for limited exposed/rusted reinforcement and minor spalling. Spalls were observed at hanger supports.	Good
		Slab deficiencies:  • Exposed/rusted reinforcement  • Spalls at hanger supports	
Pipes, Ducts, Equipment & Fireproofing	Suspended Pipes & Hangers	The crawl space had many suspended pipes. Glass, PVC, and cast iron pipes were all present in the crawl space. A broken glass pipe was observed near the north side of the crawl space. Minor rusting on cast iron pipes and hangers was observed throughout the crawl space. Pipe insulation had minor rust spots from staples. Limited mold was present on pipe insulation. Occasional sweaty pipes were observed.	Average
		Pipe deficiencies:  Leaking pipes  Broken glass pipe  Sweating pipes  Rusted cast iron pipes & pipe hangers  Pipes rusting behind insulation, rust bleeding to surface of pipe insulation  Mold on pipe insulation	
	Exposed Ductwork	No ductwork was present in the crawl space area observed.	N/A
	MEP Equipment	No MEP equipment was present in the crawl space area observed	N/A
	Spray Fireproofing/	No spray fireproofing or insulation was present in the crawl	N/A



Insulation	space area observed	

### **Crawl Space Deficiency Examples**

## Soil, Drainage, Ventilation & Access



Saturated soil



Rusted access hatch



Areaway debris

#### **Exposed Structure**



Deck spall and exposed/rusted slab reinforcement

## Pipes, Ducts, Equipment & Fireproofing



Badly leaking pipe



Broken glass pipe

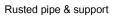


Rusting pipes behind insulation



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Rusted pipe & support



Moldy/degraded pipe insulation



Sweaty pipe



### Austin HS – Campus Summary of Crawl Space 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.

#### **Building A Recommendations**

#### Soil, Drainage, Ventilation & Access

- 1. Improve drainage in the crawl space
- 2. Investigate need for improved site drainage so water flows away from building perimeter
- 3. Investigate need for improved ventilation
- 4. Clean debris from areaway grates

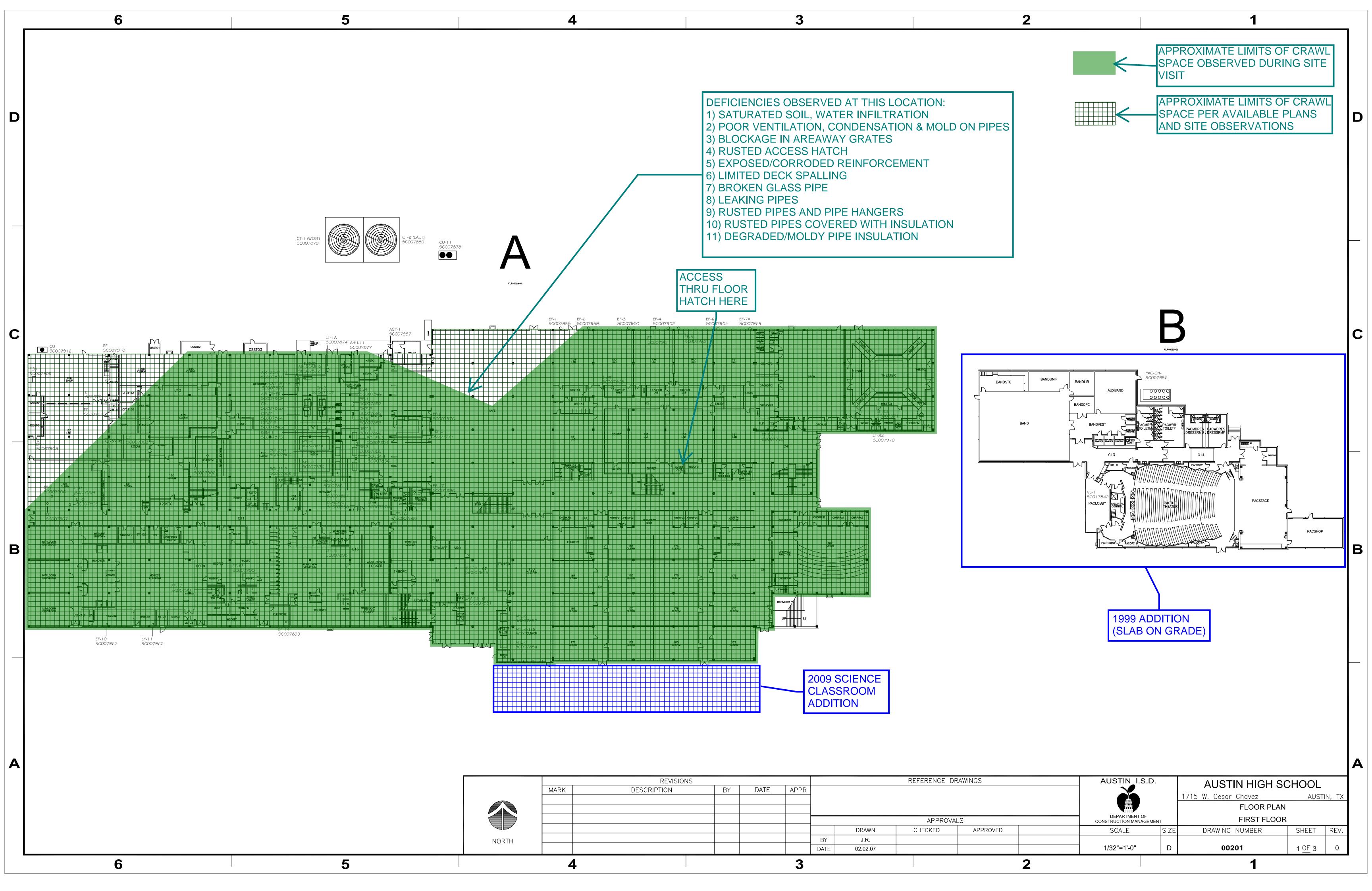
#### **Exposed Structure**

- 1. Repair spalls under precast deck
- 2. Remove corrosion and add concrete cover where reinforcement is exposed

#### Pipes, Ducts, Equipment & Fireproofing

- 1. Repair leaking pipes
- 2. Replace broken glass pipe
- 3. Replace significantly corroded pipes; clean and protect pipes with moderate corrosion
- 4. Replace significantly corroded pipe supports
- 5. Replace degraded/moldy pipe insulation





# Austin High School Site Summary

# Site/Civil Assessment

Address	1715 W. Cesar Chavez Street, Austin, TX 78703
Number of Permanent Campus Facilities	2
Original Year of Construction	1975
Total Campus Area	32 Acres
Data Collection Method	Desktop, Site Visit
Site Visit/Assessor	12/21/2016 / B. Faust



## **Introduction**

The Austin HS campus is located at 1715 W. Cesar Chavez Street in Austin, Texas. Austin HS was established in 1975 and consists of two buildings which include building A as the main building and building B for the band and theater.

The site includes tennis courts, track and field, two multipurpose/practice fields, baseball, and softball fields.

# **Development Information**

Watershed	Townlake
Total Impervious Cover	43.%
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)
R1, Drop-Off Area	Yes	16,800
R2, front with circle drive	5 V 4 HC	27,300
P1, Student Parking	Yes	29,000
P2, Visitor/Staff Parking	13 CB	10,500
P3, Visitor/Staff Parking	74 CB 3 HC	25,000
P4, Visitor/Staff Parking	37 CB 4 HC	13,700
P5, Student Parking	Yes	86,000
P6, Visitor Staff Parking	15 CB	4,600
Parent Drop-Off	-	-
Bus Drop-Off Area	-	-
Loading Dock	-	-



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\_Austin\_HS\_Site\_Civil\_ Exhibit for additional information.

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Site Improvements	Roadways	The drop off roadway, R1, is asphalt with concrete curb and gutter. There are some areas with more significant cracking and at least one pothole that needs repair. More significant cracking is located at the exit of this drive. This roadway is in poor condition.	R1: Poor R2: Average
		The main roadway, R2, with the circle drive is asphalt with concrete curb and gutter. At the entrance from Cesar Chavez, there is cracking in the asphalt near the gate post. The entire drive is in average condition.	Overall: Average
		Roadway Deficiencies:	
		Pothole in R1 drive	
		Cracking at exit of R1	
		Asphalt cracking near front entrance gate post on R2	



System	Subsystem	Condition and Deficiency Overview	System
·			Condition
	Darking Late	The student let D1 is located an the south west side of the tennic courts and is	Rating P1: Poor
	Parking Lots	The student lot P1 is located on the south west side of the tennis courts and is asphalt with concrete curb and gutter. There are areas in the parking row closest to the tennis courts with alligator cracking and some longitudinal cracking. This parking lot P1 is in poor condition.	P1: Poor
		and any time parameters to an poor contained.	P3: Poor
		The faculty/staff parking P2 on the east side of the tennis courts is asphalt with concrete curb and gutter. There is some significant alligator cracking towards the back of the building, cracking along the driveway and various pothole	P4: Average
		locations. This parking lot P2 is in poor condition.	P5: Average
		Lots P3 and P6 are located north west of the track and fields and are asphalt with concrete curbs. P3 has significant cracking and patches that have	P6: Average
		depressed. P6 has surface aging/raveling. This parking lot P3 is in poor condition and P6 is in average condition.	Overall: Average
		The lot to the west of the R2 drive towards the building, P4, is asphalt with concrete curb. This parking lot P4 is in average condition.	
		The large student lot between the R2 drive and the play fields, P5, is asphalt with concrete curb. This parking lot P5 is in average condition with some cracking, minor potholes, and a few areas of more severe cracks. The section with the portables is showing more signs of aging than the portion closer to Cesar Chavez. There is a location along the curb near the softball field that is a low spot in the asphalt needing to be filled/regraded.	
		Parking Lot Deficiencies:	
		Alligator cracking	
		Potholes	
		- Surface raveling	
		Low spot in asphalt along curb	
	Pedestrian Paving	The pedestrian paving along the parking lots and school is in average condition. The sidewalk between the P1 lot and the tennis courts has a cracked curb. There is a gravel path that runs between the building and the practice field that has some areas of erosion.	Average
		Pedestrian Paving Deficiencies:	
		There is a low spot in the concrete walk near the front entrance of the school by the flagpole.	
		- Cracked curb	
		- Gravel path erosion	
		- Exposed rebar	
	Site Development	There is chain link fencing around most of the perimeter of the school along Stephen F. Austin Drive which is in average condition. There is one portion of the fence at lot P6 that is missing the top rail. There is also a bike rack located on concrete by the circle drive that has collected debris. Three dumpsters are	Average



System	Subsystem	Condition and Deficiency Overview	System
			Condition Rating
		located in the back of the building. They are sitting on asphalt that is badly damaged.	Rating
		Parking Lot Deficiencies:	
		Missing top rail on chain link fence	
		Debris collected under bike rack	
		Dumpsters on damaged asphalt	
	Site Drainage	There are areas of erosion around the sidewalks located outside the building that is closest to the tennis courts. There is a drain in the back of the staff parking lot between the tennis courts and the school that collects water and is clogged. In the back of the school, there is a PVC pipe partially covered with asphalt along the curb. There are signs of water running off the gutter entries down the side of the building behind the school. There is a dented downspout in the back. Near the loading dock, there is a downspout that causes water to run down the steps. There is a bent and clogged drain on the concrete of the loading dock. The site drainage system is in average condition.	Average
		Sita Drainaga Daficiancias	
		Site Drainage Deficiencies:  Erosion due to water runoff	
		Drain clogged	
		PVC exposed	
		Gutter runoff and downspouts	
		Bent and clogged drain	
	Courtyards	System not present.	N/A
	Landscaping	There are some locations around the building on all sides that have vines growing up the side. There is a control box for the field irrigation that is located near the softball field. The irrigation can be turned on and off in sections and can be programed to control via a cell phone. The landscaping is in average condition.	Average
		Landscaping Deficiencies:	
		Vines growing up building walls	
Site Utilities	Water Supply	No issues with the water supply system were reported. The water supply system is in average condition.	Average
	Sanitary Sewer	Fiberglass Grease Sampling Enclosure was not located on the property. The sanitary sewer system is in average condition.	Average
		Sanitary Sewer Deficiencies:	
		Fiberglass Enclosure not found	
	Storm Sewer	There is an underground drainage system that collects storm water via area inlets or curbs inlets. The storm sewer system is in average condition.	Average
		Not all downspouts are connected to the underdrain.	
	Detention Pond	System not present.	N/A



System	Subsystem	Condition and Deficiency Overview	System Condition Rating
	Other Site Mechanical Utilities	The parking lots have area lighting. There are various locations where lighting is mounted on the building. The tennis courts have lighting that is on a timer.	Average

# Site Improvement Deficiency Examples

## Roadways



## Parking Lots



## Pedestrian Paving





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# Site Development







Top rail of chain link fence missing

Debris under bike rack

Dumpsters on asphalt behind building

# Site Drainage







Erosion

Clogged drain in P2

Covered PVC pipe behind building

## Landscaping



Vines on side of building

# Play Fields

Areas presented in table are approximate.

Playfields	Count	Size (SF)
Basketball Courts	-	-
Tennis Courts	8	55,600
Soccer/Multi-Purpose Field	1	97,500
	2	113,000
Baseball/Softball Field	1	91,000
	1	55,300
Bleacher Seating	-	-
Track	1	400 m
Green Space	-	-
Football Field	-	-
Playscapes	-	-

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Playfields	Basketball Courts	System not present.	N/A
	Tennis Courts	The tennis courts are in good condition. There are a few locations with cracks. The black tarp covering the fences is torn or missing in some locations. There are some sections of fencing along the bottom that have warped and could use a bottom rail. Also there are various locations of bleachers outside the court area.  Tennis Court Deficiencies:  Broken/missing tarp  Minor court cracking  Bottom rail of chain link fencing	Good
	Soccer/Multi-Purpose Field	The field inside the track is worn down the middle. There is an inlet cover that should be adjusted. On the west side of the field, near the location of the canopy, is some exposed rebar. The soccer field is in average condition.  SoccerMulti-Purpose Field Deficiencies:  Worn grass  Inlet cover to be adjusted  Exposed rebar	Average



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System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		The multi-purpose field spaces outside of the track are multi- purpose and some practice fields. It has areas that are uneven and divots scattered throughout. There is a sprinkler head that has created a low spot in the field. The multi- purpose fields are in average condition.	Average
		Multi-Purpose Field Deficiencies:	
		Uneven and divots	
		Low spot around sprinkler head	
	Baseball/Softball Field	The baseball field is in average condition. The chain link fence in the outfield has some holes in top of the fence and missing some tarp.	Average
		Baseball Field Deficiencies:	
		Holes/warping fence	
		Partial tarp	
		The softball field is in average condition, there are some roof tiles in the outfield.	
		Softball Field Deficiencies:	
		Roof tiles in the outfield	
	Bleacher Seating	System not present.	N/A
	Track	All along the inside and outside edges of the track, the top surface is disconnected from the base pavement. The sand pits for the long jump need to be filled in.	Poor
		Track Deficiencies:	
		Disconnected track surface	
		Hollowed sand pits	
	Green Space	System not present.	N/A
	Football Field	System not present.	N/A
	Playscapes	System not present.	N/A



# Playfield Deficiency Examples

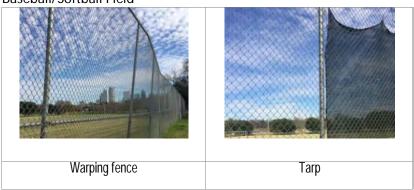
### **Tennis Courts**



# Soccer/Multi-Purpose Field



## Baseball/Softball Field



## Track





# 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. Repair and resurface asphalt cracking.
- 2. Repair/patch potholes and resurface.

### Parking Lots

- 1. Remove alligator cracking and repair asphalt.
- 2. Patch failed pothole locations and resurface.
- 3. Protect raveling surfaces.
- 4. Repair subgrade and reconstruct.

#### **Pedestrian Paving**

- 1. Repair cracked portion of sidewalk.
- 2. Repair and regrade washed out gravel.
- 3. Address removal or relocation of exposed rebar.

### Site Development

- 1. Replace top rail on fence.
- 2. Remove debris from bike rack.
- 3. Construct concrete approach pavement at dumpsters.

#### Site Drainage

- 1. Regrade area around sidewalk for better drainage.
- Clean out clogged drain and regrade area.
- 3. Remove or repair PVC pipe along curb.
- 4. Address the water running down the back of the building from the gutters.
- 5. Fix drain at the loading dock.

#### Landscape

1. Address the vines growing on the buildings, determine if they are causing damage and need to be removed.

#### Sanitary Sewer

1. Locate or install a fiberglass grease sampling enclosure.

#### Storm Sewer

1. Connect downspouts with underground storm drain system.

#### **Tennis Courts**

- 1. Fix or replace missing tarp.
- 2. Slight repair to cracks in court.
- 3. Replace bottom rail in chain link.



## Soccer/Multi-Purpose Field

- 1. Fill divots and reseed grass.
- Reposition inlet cover.
   Remove exposed rebar.
- 4. Fill divots.
- 5. Regrade and even out area around sprinkler head.

### Baseball/Softball Field

- Repair holes and straighten chain link fencing.
   Repair partial tarp on fence.
   Collect roof tiles in the outfield.

### Track

- 1. Replace the track surface.
- 2. Fill in sand pits.





1715 W Cesar Chavez St

Map Date: 2/21/2017