Travis High School Site Summary

Address	1211 E Oltorf Street Austin, TX 78704
Number of Permanent Campus Facilities	6
Original Year of Construction	1953
Total Campus Building Area (combined)	285,468 SF

Introduction

The Travis High School campus is located at 1211 E Oltorf Street in Austin, Texas. Travis High School was established in 1953, and consists of the primary school along with five additional campus buildings. These permanent campus buildings include the Main School Building (BLDG-007A), the Gymnasium (BLDG-007B), the Weight Room (BLDG-007C), the Pump Room (BLDG-007D), the Boiler House (BLDG-007E), and the Mechanical Building (BLDG-007F). The buildings are connected to one another by a series of exterior uncovered concrete sidewalks.

Meeting Log		Revision Log		
Date	**Meeting**	**Revision**	**Date**	**Summary of Content**
5/16/16	Interview	00	10/25/16	Draft Issue
5/17/16 - 5/18/16	Assessment	01	1/27/17	Added comments from the CAC and Principal Ty Davidson as indicated on email dated 10/31/16 and comments from PM Deborah James as indicated on email dated 11/25/16. See pages 2-5, 7, 9, 17-21, 26, 30, 42-43, 55-57, and 60.
10/26/16	Cluster Meeting (Attended)			

Main School Building – BLDG-007A

Building Purpose	Administration, Classrooms
Building Area	225,092 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 exterior of the building consists of a brick façade. The exterior of the IHCA (Institute of Hospitality and Culinary Arts) also incorporate split-face block on the exterior. The exterior walls were observed to be in good condition, with isolated areas in need of cleaning due to organic growth. Foundation cracks were reported surrounding the 500-wing. Foundation cracks were also noted at the corner of the building at the main entry. Significant separation was observed outside classroom 300 near the IHCA where the foundation and sidewalk have separated. Foam sealant previously used to correct the issue was deteriorated or missing. It was reported that rodents are able to enter the building through the crawlspace under the perimeter floor beam.	Good
	Exterior Windows	The exterior windows consist of single-pane glazing units with metal frames. Windows that have not been replaced include the windows adjacent to the choir/band practice rooms, and the Gymnasium windows. Facility staff indicated that windows along the 200 and 500-wings have been replaced. PM Deborah James reported that the 600-, 700-, and upper part of the 100-wing windows have been replaced since the initial assessment. Water leaks were reported at the two main entryways of the 500-wing. The windows in the 400-wing were replaced in 2009; however, water intrusion was reported	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		to be an ongoing issue due to suspected improper installation. The windows were observed to be in average condition, with the exception of locations where water intrusion was reported. In the covered breezeway, corridor 10, the windows have been punched out and damaged by students, presenting a safety issue in this area.	
	Exterior Doors	There is one main public entryway located at the northeast side of the building; these doors are metal with a wood frame. The remaining service doors around the facility are metal. The exterior doors were observed to be in average to poor condition due to age, high usage, and minor rusting.	Average
Roofing	The roof material covering the building varies between modified bitumen or EPDM (ethylene propylene diene terpolymer). The roof of the IHCA is built-up asphalt with a granular topping. There is a covered walkway near the main entryway with a corrugated metal roof. The roof surfaces were observed to be in average condition with the exception of isolated areas of ponding where patching was evident. Ponding was largely observed on the east side of the facility, over the 300 and 400-wings. Leaks were reported in the lower 100-wing and ceiling damage was visible in this area. There was rusting observed on the overhang of the 100-wing. The roof of the IHCA was reported to experience extensive ponding several inches deep. The corrugated metal roof over the walkway appeared to be in good condition.		Average
Interior Construction	Interior Walls	The interior partitions original to the building are predominately constructed of glazed tile blocks on the lower portion of the wall with plaster above. The administration offices and the library had painted gypsum board construction, CMU, or brick walls. The interior partitions appeared to be in average condition as instances of minor cracking and chipping were observed throughout all wall surfaces. In the cafeteria near the stage area, the wall was observed to be cracked and broken in two large areas.	Average
	Interior Doors	The portions of the building original to construction consist of wood doors and frames and metal framed interior windows. The kitchen has three metal overhead roll-up doors. 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. The overhead doors in the kitchen appeared to be in good operational condition. PM Deborah James reported that the original	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		doors are in poor condition and the door hardware is in need of replacement.	
	Interior Specialties	Metal lockers line many of the school's corridors. They are aged but appear to be in good condition.	Good
Stairs	Exterior Stairs	The stairs are concrete with metal railing. They were observed to be in average condition, showing minor chipping and staining.	Average
	Interior Stairs	There were two sets of interior stairs connecting the 600-wing and 700-wing, with a linoleum tile finish. There was a set of linoleum stairs near the entrance to the auditorium that connected to an electrical room with roof access. These stairs were all assumed to be concrete stairs below the finishes and were aged in average condition with no major deficiencies observed or reported. There was one set of metal stairs located behind the stage area of the auditorium, which led upstairs to the mezzanine area for storage. These stairs was assumed to be newer than original construction and were in average condition.	Average
Interior Finishes	Interior Wall Finishes	The school has undergone multiple additions and renovations since its original construction in 1953. The art room, room 128, was recently renovated and the restrooms adjacent to the cafeteria recently underwent a renovation to address ADA accessibility. Recent reconfiguration of spaces has occurred at the following locations: the current nurse's room, the family resource center, room 107, and room 123. Some of the auditorium walls have mounted sound insulating material. The interior wall finishes are in average condition due to building age showing signs of wear and use. Building staff reported mold in room 106 and the lower 100-wing. A strong chemical odor was noticed in each janitor's closet possibly caused by poor ventilation.	Average
	Interior Floor Finishes	Linoleum floor tile is found throughout the building and is original to construction. Ceramic tile floor is present in the restrooms. The auditorium has a sealed concrete floor with carpeted aisles, and there is a wood stage located at the front of the space that all appeared to be in good condition. The administration offices and library are finished with carpet. The kitchen was reportedly completely renovated in 2014 receiving mostly new interior finishes that were observed to be in good	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		condition. The cafeteria received new finishes in 2013 that appeared to be in good condition. The flooring appeared to be in average condition as minor cracking was observed throughout the linoleum flooring system. In corridor 10, the concrete floor was observed to be settling in certain areas. Several days before the assessment team arrived on site, a sprinkler pipe burst in corridor 24 which resulted in flooding and water damage of nearby areas. PM Deborah James reported minor painting is required. Structural issues were reported in the lower 100-wing and the 400-wing. Spalling was observed on the ceiling of a first floor electrical room. There was staining on the floor of a 500-wing classroom.	
	Interior Ceiling Finishes	The majority of the interior spaces are finished with ACT. The restrooms are finished with gypsum board. The ACT was observed to be stained and buckling in some areas. The interior ceiling system was observed to be in average condition showing signs of age and damage. PM Deborah James reported the majority of the ACT throughout the building is in need of replacement.	Poor
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 and no operational issues were reported by the facility staff.		Good
Plumbing	Plumbing Fixtures	The building has public restrooms for men and women, students, and separate staff restrooms located throughout the facility. These restrooms generally 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 men's restrooms with manual flushing mechanisms. There are service sinks found in the janitor 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. The building also includes other specialty locations with plumbing fixtures, including a kitchen for the school cafeteria, culinary classrooms with a full-scale kitchen, and home economics classrooms. These plumbing	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		fixtures were observed to be in good condition. The only deficiency observed was a non-functional hand sink in the home economics classroom 106.	
	Domestic Water Distribution	All of the plumbing fixtures are serviced with hot water from multiple gas or electric hot water heaters that were located throughout the building. The water heaters are primarily near the cafeteria kitchen, culinary classroom kitchen, and the home economics classrooms. The water heaters near the kitchen spaces were observed to be in good condition with no identified or reported deficiencies. However, the water heaters in the home economics classrooms were reported to operate inefficiently as the hot water frequently ran out quickly; these water heaters (30 and 40-gallon electric water heaters) appeared to be past the typical service life and thus it is recommended that these water heaters are replaced. There are three large water heaters located in the neighboring boiler plant facility that are assumed to provide supplemental hot water to the building. The plumbing distribution equipment was observed to be in average condition based upon the deficiencies of the two water heaters mentioned above, and with damaged insulation and corroded piping observed in some of the spaces.	Average
	Other Plumbing	The roof drains are equipped with metal grate covers to prevent debris from entering the drainage system, but the covers were observed to be corroded. The roof drains on the eastern roof section were observed to be clogged, as standing water was present on the roof.	Average
Mechanical/ HVAC	The major mechanical equipment consists of indoor modular air handling units (AHUs) located primarily on the roof or in roof top penthouses, with several located in larger mechanical spaces inside the school. Package units are located on the roof top or around the exterior perimeter of the facility. These serve the HVAC (heating, ventilating, and air conditioning) system along with some additional equipment at the neighboring campus facilities. A total of 30 AHUs, ranging in capacity from 1,720 CFM to 13,560 CFM, are located on the roof or in roof top penthouses. Eleven other AHUs are located throughout the interior of the facility and range from an estimated 1,050 CFM to 25,800 CFM in capacity. These AHUs serve different zone locations throughout the facility. They were observed to be in average condition with the most typical deficiency being corrosion on the housing enclosure and/or the piping associated with the AHU. Additional deficiencies observed include general aging of the equipment, damaged insulation, excessive noise/vibration, and a few leaks. Typically, the AHUs were equipped with preventative maintenance logs attached		Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
	to the housing enclosure or directly nearby for reference. The other main source of HVAC equipment located at the building were 21 package units, with 17 located on the roof or in roof top penthouses and four located around the exterior perimeter of the facility. These package units ranged from an estimated one TON to 12-TON capacities depending on the asset. They were observed to be in good-to-average condition with the most typical deficiency being that some assets used R-22 refrigerant, which is an outdated refrigerant that is being phased out of use. Supplemental mechanical equipment for the HVAC system also includes EFs (exhaust fans), VAV (variable air volume) terminals, and FCUs (fan coil units). Roof top EFs generally were from 2006 or 2015 and were observed to be in good condition. Roof top EF-3R-05 was 600 CFM and EF-10-05 was 300 CFM, both of which were observed with excessive noise/vibration; assumed to be due to a worn down fan belt requiring replacement. The roof top EFs over the kitchen are much larger, more outdated, and vibrated excessively. The VAV terminals and FCUs were observed to be in good condition with no reported or observed deficiencies. The HVAC system was observed to be in average condition with all of the prior mentioned deficiencies. The only further deficiency that was frequently reported was an ongoing issue with humidity throughout the facility. Given the climate of the facility location, humidity is a typical concern with the HVAC system.		
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 is controlled by the Silent Knight control panel. The fire alarm system was observed to be in good condition, but there are areas where fire alarm end devices are aged past their design life.	Good
	Fire Protection/ Suppression	The building has a wet standpipe system for fire protection serving the theater/auditorium expansion area. The fire protection system is serviced by fire riser, which includes a 50 horsepower, 1000 gallons/minute rated fire pump, along with a fire pump controller panel and a two horsepower jockey pump system. This fire protection system was observed to be in good condition with an inspection certification issued within the last year (dated August 2015) as required. A portion of the sprinkler system was reportedly set off the week prior to the survey assessment. The cause for the sprinkler release was unknown but caused some damage to the architectural finishes in certain spaces as a result of the water. The rest of the building is protected by portable fire extinguishers placed throughout the facility. All	Good

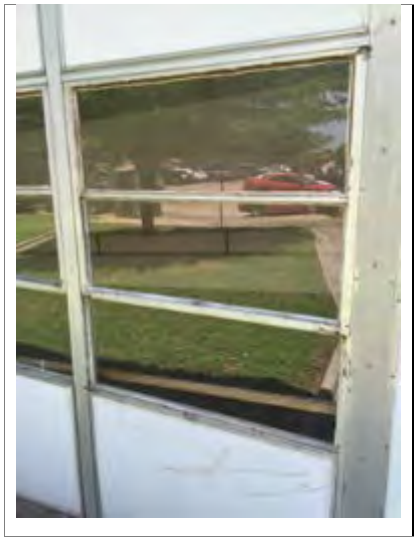
System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		observed portable fire extinguishers had inspection tags dated within the last year as required.	
Electrical	Electrical Distribution	The electrical service enters the building at the 277/480-volt 1200-amp main switchboards located in the electrical rooms near the administration area and 300-wing. The service feeds transformers and high-voltage panelboards, which are located in various electrical rooms throughout the building. There are 18 distribution transformers rated at 480-volt primary that step-downs to 120/208-volt secondary, which feeds power to 120/208-volt panelboards. The building has a diesel generator located in an exterior yard and it was observed to be in good condition. The building does not have a lightning protection system. The electrical distribution equipment was observed to be in poor condition. A majority of the assets were observed with corrosion. There were also screws missing from the housing enclosure of some of the units that should be replaced. Two panelboards were observed as missing breaker covers and the busing was exposed behind the breaker board. This condition could be considered a life safety hazard and breaker covers should be installed immediately. There is a panelboard installed partially in front of panelboard 1LAC in the second floor mechanical room; at least one of the panelboards must be relocated to comply with code for proper panel clearance. The facility staff reported that there are not enough power receptacles throughout the classroom spaces. Facility staff also reported that the entire 100, 400, and 600-wings have electrical wiring issues. Receptacles and light fixtures have sparked and even caught fire causing a life safety hazard. It is recommended that any necessary repairs or replacements are done immediately.	Poor

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
	Lighting	The building's exterior lighting consists of downlights, HID, and LED luminaires that are located along the entire perimeter. The interior lighting consists of primarily T8 fluorescent luminaires. The lighting for the building was observed to be in poor condition. Many interior and exterior luminaires appeared to be aged past their design service life. Observed deficiencies included: broken lenses, inconsistent color temperatures, and non-functional fixtures. There are exit signs present in the building; however several appeared to be non-functional at the time of assessment.	Poor
	Communications & Security	There is a Gemini security system including surveillance cameras in the building. According to facility staff, the system is aged and has reached the end of its design life. There is a Continental Instruments proximity card reader system installed for door access as well. There is public address system in the building and it was observed to be in good condition with no reported deficiencies. The building is equipped with tele/data systems, but the main backbone equipment is located in an inaccessible room. The facility staff did report that there was an insufficient quantity of data drops in the classrooms.	Average

Exterior System Deficiency Examples

Exterior Walls

Exterior Windows



Exterior Doors

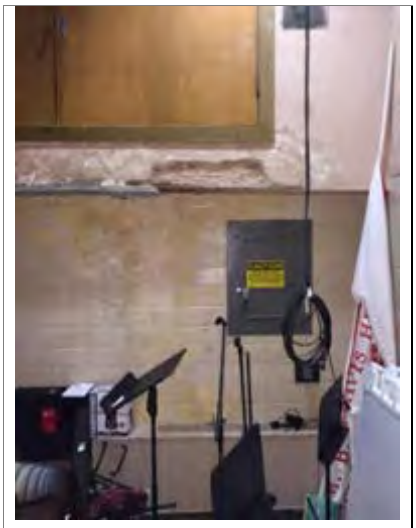
Roofing Deficiency Examples

Stair Deficiency Examples

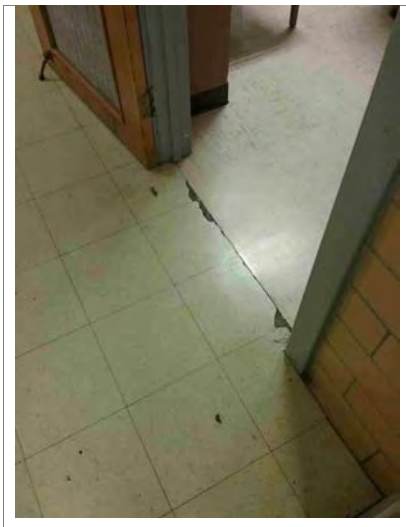
Interior Stairs

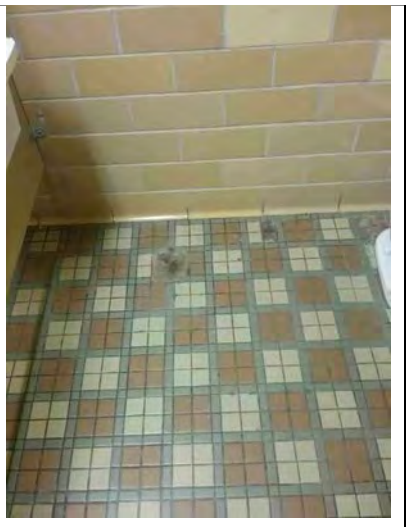
Interior Finishes Deficiency Examples

Interior Wall Finishes

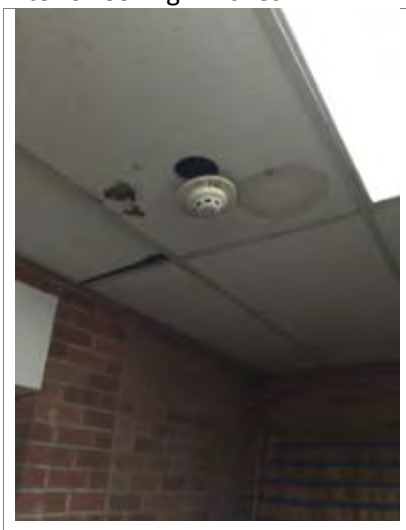


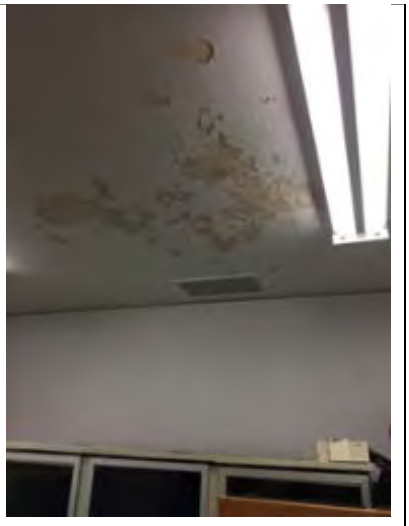
Interior Floor Finishes





Interior Ceiling Finishes



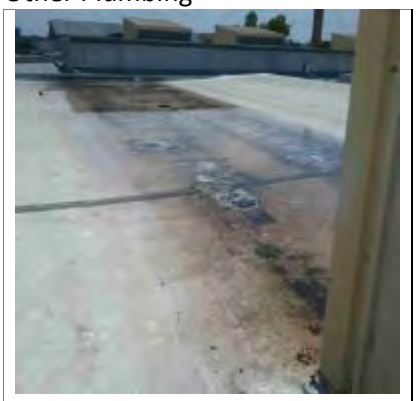


Plumbing System Deficiency Examples

Plumbing Fixtures

Domestic Water Distribution

Other Plumbing



Mechanical/HVAC System Deficiency Examples






Fire Protection

Fire Alarm


Fire Protection/Suppression

Electrical System Deficiency Examples

Electrical Distribution

Lighting

Communications & Security

Gymnasium – BLDG-007B

Building Purpose	Gymnasium
Building Area	47,962 SF
Inspection Date	May 17-18, 2016
Inspection Conditions	May 17 - 80°F and sunny May 18 - Overcast with rain
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 a brick façade. It appears to be in average condition, with minor cracks and stains.	Average
	Exterior Windows	The exterior windows consist of single-pane glazing units with metal frames. The window system was observed to be aged with cracked and broken glazing on many of the windows.	Poor
	Exterior Doors	The exterior doors consist of metal doors in metal frames. The doors were observed to be aged, showing signs of wear and use including peeling paint and scratches. Cracking was observed at the main entry door on the northeast side of the building.	Average
Roofing	The facility is comprised of low sloped and steep sloped roofing systems. The majority of the roof area is covered with an EPDM system while one low slope roof area is built-up with a granular topping; these areas were inaccessible during the time of assessment. The steep sloped roof system was not accessed. The roofs were observed to be in average to poor condition. Areas of previous patch and repair work were evident throughout the roof surface. The CAC and Principal Ty Davidson have requested that the gutters and downspouts be replaced.		Average
Interior Construction	Interior Walls	The interior partitions in the building are constructed of CMU, brick, or gypsum board/stud wall construction. The interior walls were observed to be in good condition.	Good
	Interior Doors	A new addition was recently completed and consists of the athletic trainer's room and offices. This space has	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		wood interior doors with metal frames. This space was observed to be in excellent condition. The doors within the remainder of the building show sign of wear and use and are in average condition.	
	Interior Specialties	Metal lockers are provided for athletes. Theft was reported in the locker/caging area. Building staff indicated that mesh screening is not an effective deterrent against theft.	Average
Stairs	Exterior Stairs	The concrete stairs located along the northeast side were observed to be separating from the concrete slab.	Poor
	Interior Stairs	Metal pan stairs lead into the mechanical mezzanine space. They are aged and unclean, but appear sound and to function properly.	Average
Interior Finishes	Interior Wall Finishes	Peeling paint was observed in several areas throughout the building. Instances of deterioration observed in interior facing brick walls. PM Deborah James reported that wall-mounted tile within the small Gymnasium is in poor condition.	Average
	Interior Floor Finishes	The interior floor finish of the building is largely finished with VCT (vinyl composition tile). Wood flooring is found in both of the gymnasium areas where the flooring in the large gymnasium was recently sanded and refinished. The boy's locker rooms have resilient flooring while the dance room has rubber flooring. The spaces were observed to be in good condition. In the small gymnasium area, the wood flooring was observed to be scraped and scratched in several areas.	Good
	Interior Ceiling Finishes	Acoustical ceiling tile is commonly found throughout the building including in the newly constructed athletic trainer's room and offices. The two gymnasium areas have an open ceiling, and the locker rooms are finished with tectum plaster. The ceiling finishes were observed to be in average condition. PM Deborah James reported that a large portion of the acoustical ceiling tile is in poor condition and needs to be replaced.	Average
Conveying	System not present.		N/A
Plumbing	Plumbing Fixtures	The building has public restrooms for male and female students, as well as dedicated staff restrooms located throughout the facility. These restrooms generally have vitreous china hand sinks which were stand-alone wall-mounted with manual knob faucets, along with vitreous china, floor-mount/wall toilets with manual flushing mechanisms, and vitreous china, wall-hung urinals in	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		the men's restrooms with manual flushing mechanisms. PM Deborah James reported that some restrooms feature stainless steel sinks and auto shut-off faucets. The building also has janitor closets, which have service sinks; locker and dressing rooms with shower fixtures; water coolers located throughout the facility typically near the public restrooms; and a training aid room with ice bath appliances. The restroom plumbing fixtures were observed to be in good condition. The fixtures appeared aged but still operational.	
	Domestic Water Distribution	All of the plumbing fixtures are assumed to be serviced with hot water from the three water heaters located in the neighboring boiler plant facility. This plumbing distribution equipment was observed to be in average condition with minimal damaged insulation and corroded piping observed in some the spaces. It was also reported by the facility staff that there were hot water issues in the shower areas due to missing valve deficiencies and the subsequent lack of hot water. The training staff also stated that area did not have any hot water supplied. Mixing valve cabinets were observed throughout the facility, many of which had corroded/rusted piping.	Average
	Other Plumbing	The roof drains typically had metal grates for debris prevention but they were observed to be corroded.	Average
Mechanical/ HVAC	The major mechanical equipment consists of indoor modular AHUs located primarily on the roof or in mechanical mezzanines/rooms inside the school. Additionally, three chillers are located on the southwest exterior perimeter of the facility. These serve the HVAC system along with some additional equipment at the neighboring campus facilities. A total of six AHUs, ranging in capacity from an estimated 3,170 CFM to 6,600 CFM, are located on the roof or in the roof top penthouse. Six other AHUs are located throughout the interior of the facility and range from an estimated 3,700 CFM to 17,800 CFM in capacity. These AHUs serve different zone locations throughout the facility. They were observed to be in average condition with the most typical deficiency being corrosion to the housing enclosure and/or the piping associated with the AHU. Additional deficiencies include general aging of the equipment, damaged insulation, excessive noise/vibration, and a few leaks noticed. Typically, the AHUs were observed with preventative maintenance logs attached to the housing enclosure or directly nearby. The other main source of HVAC equipment located at the facility is the three chillers. These air-cooled reciprocating chillers all have 110-TON capacities. They were observed to be in average condition with all three using R-22 refrigerant		Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		which is an outdated refrigerant being phased out of use, and all three had the bottom portions of the housing enclosure removed. Supplemental mechanical equipment for the HVAC system also includes EFs, VAV terminals, and FCUs. Roof top EFs generally were from 2006 or 2015 and were observed to be in good condition. The VAV terminals and FCUs were in good condition with no reported or observed deficiencies. The HVAC system was observed to be in average condition overall with all of the prior mentioned deficiencies taken into consideration. The only further deficiency that was frequently reported was issues with humidity throughout the facility. Given the climate of the facility location, humidity is a typical concern and not a result of the HVAC system. Deborah James reported that AHU-5 and AHU-6 servicing the male athletic locker rooms needs to be replaced. The units serving the cafeteria and stage, AC-4 and AC-5, are also in need of replacement. The male locker room was also reported to be in need of additional EF capacity.	
Fire Protection	Fire Alarm	The building has a fire alarm system that consists of alarm and signaling devices such as horn/strobe combinations, pull stations, and smoke detectors. All of the fire alarm system is assumed to be tied back to the fire alarm panel in the Main School Building. The fire alarm system was observed to be in good condition.	Good
	Fire Protection/ Suppression	The facility is solely protected by portable fire extinguishers placed throughout the facility. All portable fire extinguishers observed had inspection tags dated within the last year as required.	Good
Electrical	Electrical Distribution	The electrical service enters the building at the main switchboard rated at 277/480-volt 1600-amp, which is located in the electrical room to the south of the large gymnasium and delivers power throughout the building. Two distribution transformers were observed and are rated at 480-volt primary that step-downs to 120/208-volt secondary, which feeds power to 120/208-volt panelboards throughout the building. These transformers and panelboards are primarily located in the electrical rooms and in the corridor. The electrical distribution equipment was observed to be in poor condition. Three electrical panelboards were observed with missing breaker covers and the busing is exposed behind the breaker board; this could be considered a life safety hazard and breaker covers should be installed immediately. A number of assets were observed with corrosion/rust. There is also an exterior receptacle, which is missing its cover plate making it no longer weatherproof. Some areas were observed with electrical wirings exposed. Additionally,	Poor

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		the facility staff reported that the coach's office had insufficient power/data ports.	
	Lighting	The building's exterior lighting consists of HID luminaires that are located along the entire perimeter. The interior lighting consists of primarily T8 fluorescent, compact fluorescent and incandescent luminaires as observed. There are exit signs for the building, which appeared to be in good condition. The building does not have a lightning protection system. The lighting for the building was observed to be in average condition. Some of the interior and exterior luminaires are past their design life, along with other deficiencies noted that include rusted fixture housing, and non-functional fixtures. According to the facility staff, the lighting control board is missing.	Poor
	Communications & Security	There is a Gemini security system including surveillance cameras in the building but it has reached the end of its serviceable life according to the facility personnel. Key pad and access entry is installed in the new athletic training room but not yet programmed. The building also features a Continental Instruments proximity card system for door access. There is a public address system in the building that was observed to be in good condition. The building has tele/data devices. The devices are tied back into the tele/data system located in the Main School Building.	Average

Exterior System Deficiency Examples

Exterior Walls

Exterior Windows

Exterior Doors

Roofing Deficiency Examples

Interior Construction Deficiency Examples

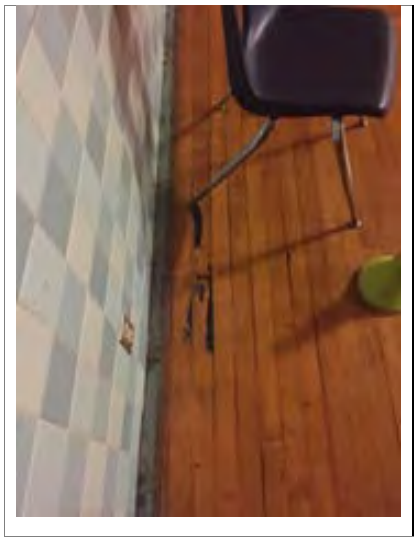
Stair Deficiency Examples

Exterior Stairs

Interior Finishes Deficiency Examples

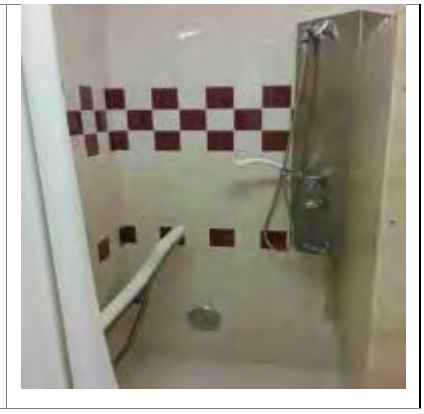
Interior Wall Finishes

Interior Floor Finishes



Plumbing System Deficiency Examples

Plumbing Fixtures



Domestic Water Distribution

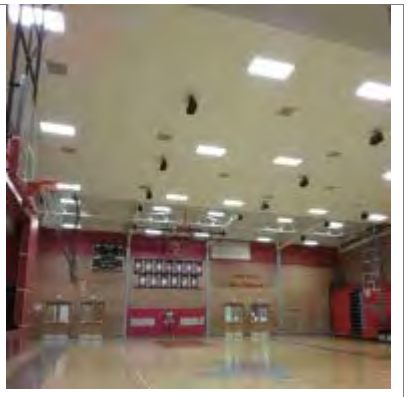
Mechanical/HVAC System Deficiency Examples



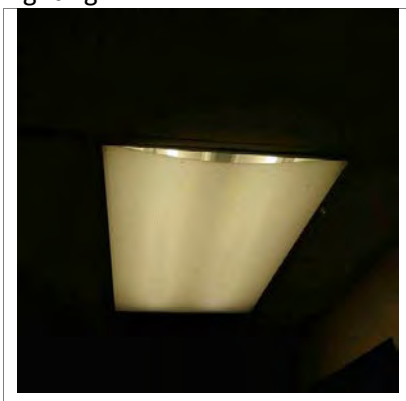
Electrical System Deficiency Examples

Electrical Distribution





Lighting




Weight Room– BLDG-007C

Building Purpose	Weight Room/Workshop
Building Area	8,049 SF
Inspection Date	May 17-18, 2016
Inspection Conditions	May 17 - 80°F and sunny May 18 - Overcast with rain
Facility Condition Index	

System Deficiency Overview

The Weight Room does not meet Austin Energy Code because it is not insulated. We have already exhausted options of trying to insulate it as all the roof and wall sheets must be removed so it can be insulated from the outside (preferred method after all other options exhausted). The last time we priced that {2014.CM at Risk) it was $500K and ·was too costly for the quality of what is there. This building· needs to remain a non-conforming building. If anything electrical or mechanical is touched by a consultant the energy code or code violations are instantly triggered. This building can only be maintained not altered. This building was originally the Automotive Shop, has been substantially renovated over the years by campus and AISD departments, and does not meet building codes or State accessibility.

In the future when funds are available, the building needs to be torn down. The Weight Room function needs to be moved back to the Gymnasium complex adjacent the new Training Facility. The Training Facility has been built with this expansion in mind.

Perhaps the replacement building could be designed to accommodate a CTE (Career Technical Education) type use such as Automotive or Welding or similar.

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 consists of standing seam metal walls. The walls were observed to be dented at various locations around the building, and not sealed properly at grade. The lack of joint sealant at grade has led to water intrusion at the building perimeter.	Average
	Exterior Windows	The windows have single-pane glazing with metal frames. The windows were observed to be aged, broken, and in poor condition.	Poor
	Exterior Doors	There are three metal overhead roll-up doors. They were observed to be aged and in average to poor condition. The service doors are metal and the mechanical room doors are metal louvered.	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Roofing	The roof is metal and original to construction. The roof was observed to be aged beyond its useful life. An active leak was observed in the Weight Room.		Poor
Interior Construction	Interior Walls	The building interior was observed to be in poor condition. There was water intrusion observed in the shop area, likely originating from the unsealed metal walls. Cracking insulation material was also observed. Wooden panel walls are broken and frayed.	Poor
	Interior Doors	The building interior was observed to be in poor condition. The interior doors were observed to be aged and damaged. Damaged wood door frames were observed and the restroom stalls were missing doors completely.	Poor
	Interior Specialties	Metal lockers are provided. They appear to be in average condition.	Average
Stairs	Exterior Stairs	System not present.	N/A
	Interior Stairs	System not present.	N/A
Interior Finishes	Interior Wall Finishes	The building interior was observed to be in poor condition. Peeling paint was observed throughout the building. There is a large hole in a tile wall.	Poor
	Interior Floor Finishes	The building interior was observed to be in poor condition. The carpet in the classroom was stained and worn. The tile in the restrooms was broken. There are portions of stained concrete flooring.	Poor
	Interior Ceiling Finishes	The ceiling was open to underneath of structure above. The ceiling was observed to be in poor condition, as there were active leaks.	Poor
Conveying	System not present.		N/A

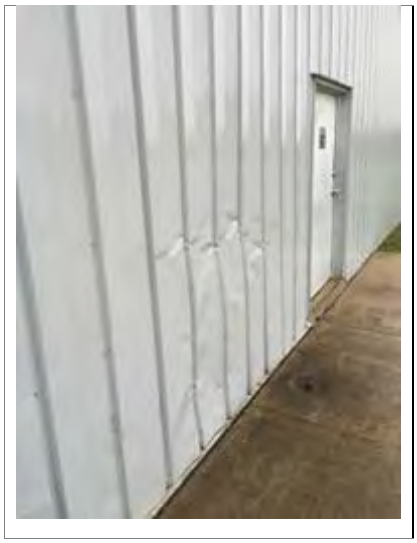
System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Plumbing	Plumbing Fixtures	The building has restrooms for male and female students in the weight room or shop, as well as staff restrooms for the maintenance lounge. These restrooms generally have vitreous china hand sinks which were stand-alone wall-mounted with manual knob faucets, along with vitreous china, floor-mount/wall toilets with manual flushing mechanisms. The building also has locker and dressing rooms with shower fixtures, a water cooler on the interior, and a drinking fountain on the exterior. The restroom plumbing fixtures are in average condition. The fixtures were typically aged but still fully operational with the exception of a missing operational handle to the interior water cooler and a missing toilet seat observed. Additionally, the exterior drinking fountain is severely outdated and should be considered for replacement.	Average
	Domestic Water Distribution	The plumbing fixtures are serviced with hot water from the 40-gallon gas water heater that is rated at 40 MBH. The water heater was installed in 2013 and was observed to be in good condition. The plumbing distribution equipment was observed to be in good condition with minimal damaged insulation and corroded piping observed in some the spaces. Overall, the plumbing system is in average condition with all of the prior mentioned deficiencies.	Average
	Other Plumbing	System not present.	N/A
Mechanical/ HVAC	The major mechanical equipment consists of package units located around the perimeter of the facility and throughout the interior spaces. These service the HVAC system along with some additional equipment at the neighboring campus facilities. A total of six split-system package units are present, with three condensing units located on the exterior and three AHUs located in the interior of the facility. These units range from 5 TON to 7.5 TON depending on the unit. These split systems serve different zone locations throughout the facility. They were observed to be in average condition with all three of the condensing units using R-22 refrigerant, which is an outdated refrigerant that is being phased out of use. One of the outdoor condensing units near the baseball field was observed with extensive damage to the fin assembly. Supplemental mechanical equipment for the HVAC system also includes EFs, gas unit heaters, and circulation fans. The EFs were observed to be in good condition with no reported or observed deficiencies. The gas unit heaters in various spaces throughout the interior of the facility appeared aged and outdated. The circulation fans observed in the weight room area appeared newer and in good condition.		Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
	The HVAC system was observed to generally be in average condition taking into consideration all of the prior mentioned deficiencies. The only further deficiency that was reported by building staff was an issue with humidity throughout the facility.		
Fire Protection	Fire Alarm	The building has a fire alarm system that consists of alarm and signaling devices such as detectors. All of the fire alarm system is believe to be tied back to the fire alarm panel in the Main School Building. The fire alarm system was observed to be in average condition as some of the devices appear aged and outdated.	Average
	Fire Protection/ Suppression	The facility is solely protected by portable fire extinguishers placed throughout the facility. All portable fire extinguishers observed had inspection tags dated within the last year as required.	Good
Electrical	Electrical Distribution	The electrical service enters the building at the 277/480-volt 350-amp panelboard, which is located in the building and delivers power throughout the building. There is one distribution transformer rated at 480-volt primary that step-downs to 120/208-volt secondary, which then feeds power to 120/208-volt panelboards. The electrical distribution equipment was observed to be in poor condition. The assets were observed with corrosion/rust. The high-voltage electrical panelboard has a missing breaker cover and the busing is exposed behind the breaker board; this could be considered a life safety hazard and a breaker cover should be installed immediately.	Poor
	Lighting	The building's exterior lighting consists of HID luminaires that are located along the entire perimeter. The interior lighting consists of primarily T8 fluorescent luminaires as observed. There are exit signs for the building, which appeared to be past their design life. The building does not have a lightning protection system. The lighting for the building was observed to be in poor condition. Many luminaires appeared to be past its design life with some of the fixtures missing their lens.	Poor

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
	Communications & Security	There is a Gemini security system including surveillance cameras in the building but it has reached the end of its serviceable life according to the facility personnel. There is a public address system in the building and it was observed to be in good condition. The building has tele/data devices. The devices were assumed to be tied back to the tele/data system located in the Main School Building. PM Deborah James reported that the building's cameras were installed in 2007.	Average

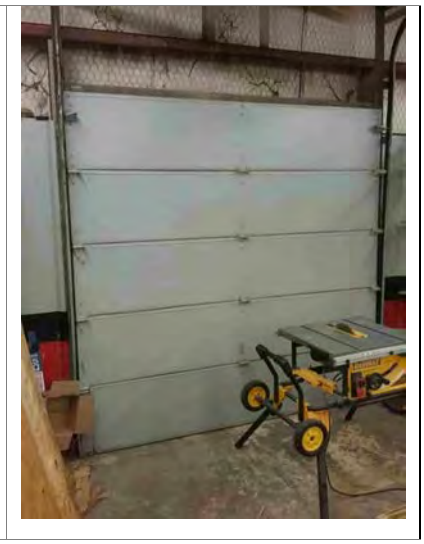
Exterior System Deficiency Examples

Exterior Walls



Exterior Windows

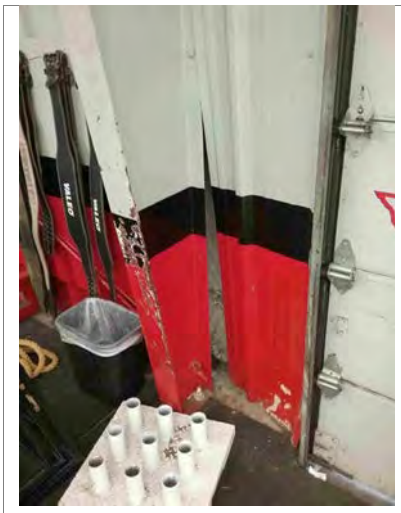
Exterior Doors



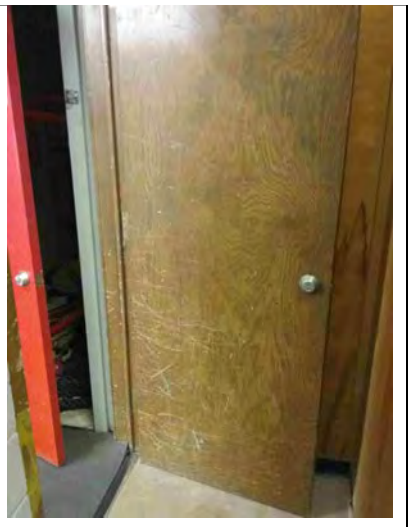
Roofing Deficiency Examples

Interior Construction Deficiency Examples

Interior Walls



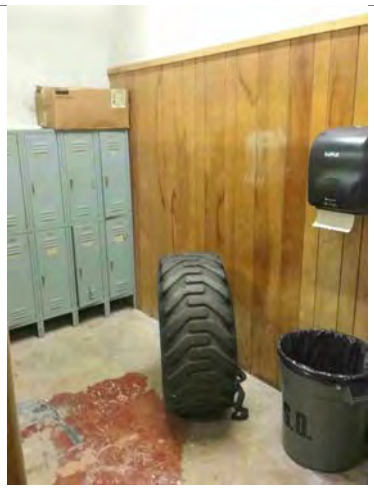
Interior Doors



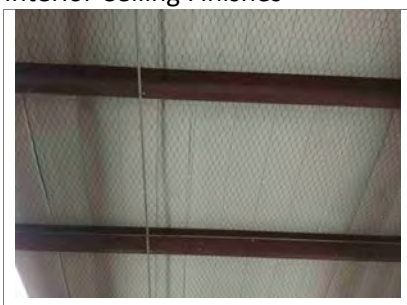
Interior Finishes Deficiency Examples

Interior Wall Finishes

Interior Floor Finishes



Interior Ceiling Finishes




Plumbing System Deficiency Examples

Plumbing Fixtures



Mechanical/HVAC System Deficiency Examples



Electrical System Deficiency Examples

Electrical Distribution

Lighting

Communications & Security

Pump Room– BLDG-007D

Building Purpose	Mechanical Equipment
Building Area	492 SF
Inspection Date	May 17-18, 2016
Inspection Conditions	May 17 - 80°F and sunny May 18 - Overcast with rain
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 façade consists of corrugated metal walls and metal louvers. The wall construction appeared to be in average condition.	Average
	Exterior Windows	System not present.	N/A
	Exterior Doors	The exterior doors are metal with a metal frame. The doors were observed to be in poor condition. The doors do not properly seal, and allow water intrusion into the interior space.	Poor
Roofing	The roof was not accessible at the time of assessment, but is a low-sloped metal roof. The roof appeared to be aged, but no active leaks were observed.		Average
Interior Construction	Interior Walls	The interior faces of the exterior walls are metal. There are no other partitions present.	Average
	Interior Doors	System not present.	N/A
	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 face is unfinished. There are no other finishes present.	N/A
	Interior Floor Finishes	The interior floor is an unfinished concrete slab on grade. Ponding water was observed in one area and water intrusion was evident at the entry doors.	Average
	Interior Ceiling Finishes	System not present.	N/A
Conveying	System not present.		N/A

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Plumbing	Plumbing Fixtures	System not present.	N/A
	Domestic Water Distribution	System not present.	N/A
	Other Plumbing	The only plumbing assets that were observed in the Pump Room were the floor drains. These were assumed to be in average condition as no standing water was observed around the floor drains but the covers appeared to be corroded.	Average
Mechanical/ HVAC	The major mechanical equipment consists of five chilled water distribution pumps that were assumed to pump chilled water for the Gymnasium facility from the chillers to the AHUs and package units at that facility. These five chilled water distribution pumps are all located in the small, open interior space of the building. They were observed to be in poor condition with all five of the pumps exhibiting damaged or missing insulation, corroded and rusted piping connections and housing, and significant condensation or possible leaks. Supplemental mechanical equipment for the HVAC system also includes one thru-wall EF and a unit heater. Both of these units were observed to be in average condition as they appeared aged and outdated, but no operational issues were reported or observed. The HVAC system at the Pump House was generally observed to be in poor condition with all of the prior mentioned deficiencies.		Poor
Fire Protection	Fire Alarm	System not present.	N/A
	Fire Protection/ Suppression	The facility is solely protected by portable fire extinguishers. All portable fire extinguishers observed had inspection tags dated within the last year.	Good
Electrical	Electrical Distribution	The electrical utility service enters the building at two 277/480-volt 1200-amp switchboards which are located in the open interior space. The switchboards primarily deliver power to mechanical assets in the building and other neighboring areas around the campus including the chillers at the Gymnasium facility. There is one distribution transformer rated at 480-volt primary that step-downs to 120/208-volt secondary, which feeds power to 120/208-volt panelboards. The building is not equipped with a lightning protection system. The electrical distribution equipment was observed to be in poor condition. The assets appeared to be past their design life. Additional deficiencies observed include assets with corrosion/rust, missing screws from housing enclosures, and areas where electrical wiring was exposed.	Poor
	Lighting	The building has no exterior lighting. The interior lighting is primarily T8 fluorescent luminaires as observed. The building does not have any exit signs or egress lighting.	Poor

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		The lighting for the building was observed to be in poor condition. Luminaires appeared to be past their design life, and some were non-functional or had lamps with different color temperatures.	
	Communications & Security	System not present.	N/A

Exterior System Deficiency Examples

Exterior Walls

Exterior Windows

Exterior Doors

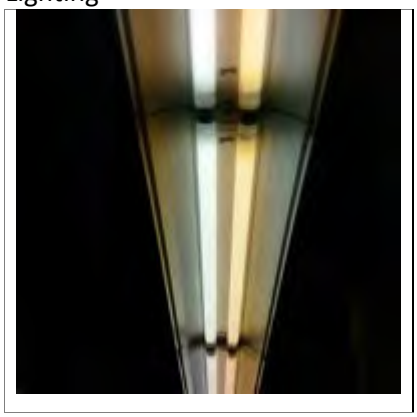
Interior Floor Finishes

Mechanical/HVAC System Deficiency Examples

Electrical System Deficiency Examples

Electrical Distribution

Lighting



Boiler House– BLDG-007E

Building Purpose	Mechanical Equipment
Building Area	2,273 SF
Inspection Date	May 17-18, 2016
Inspection Conditions	May 17 - 80°F and sunny May 18 - Overcast with rain
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 constructed with a concrete slab on grade and brick exterior walls. Several portions of the brick wall were observed to be cracked and damaged. The old tower for the boiler system shows cracking on the upper 30 feet on all sides.	Average
	Exterior Windows	The window system consists of single pane glazing in metal a metal frame assembly. The exterior window system was observed to be aged beyond its useful life. The windows are original to construction and the frames are deteriorated. The glazing is cracked and broken.	Poor
	Exterior Doors	The exterior doors of the building are metal with wood frame. The left door appears to have been recently replaced, and the right door is aged. There was a metal louvered opening above the doors, which was dented and aged.	Poor
Roofing	The roof was not accessible at the time of assessment, but is reported to be modified bitumen. There were no signs of water intrusion on the interior of the building.		Average
Interior Construction	Interior Walls	The interior consists of unpainted brick walls and CMU walls. They appeared to be in average condition. A minor deficiency was unsealed space surrounding an electrical outlet.	Average
	Interior Doors	The interior doors are wood with wood frames. They have experienced wear and appeared to be in average condition.	Average
	Interior Specialties	System not present.	N/A

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Stairs	Exterior Stairs	System not present.	N/A
	Interior Stairs	System not present.	N/A
Interior Finishes	Interior Wall Finishes	The interior walls are unfinished.	N/A
	Interior Floor Finishes	The floor of the building is an unfinished concrete slab on grade. It appeared to be in average condition.	Average
	Interior Ceiling Finishes	The interior ceiling is open to the exposed structure above. It appeared to be in average condition.	Average
Conveying	System not present.		N/A
Plumbing	Plumbing Fixtures	The building has one restroom for staff. The restroom has a vitreous china hand sink that is a stand-alone wall-mounted with manual knob faucets, along with a vitreous china, floor-mount toilet with manual flushing mechanisms. The restroom plumbing fixtures were observed to be in average condition. The fixtures were typically aged but still operational. It did not appear that the restroom was frequently used.	Average
	Domestic Water Distribution	The restroom's plumbing fixtures as well as the neighboring Main School Building and Gymnasium are assumed to be serviced with hot water from the three gas hot water heaters that are located in the open interior space. All of the gas water heaters were noted as being installed in 2015, and were rated at 119 gallons and almost 500 MBH max input. The water heaters all appeared to be in good condition with no observed or reported deficiencies.	Good
	Other Plumbing	The building has a large sump pump well. The sump pump was inaccessible, as standing water was observed in the well but it was not determined if this was by design or not.	Average
Mechanical/ HVAC	The major mechanical equipment consists of four gas, hot water boilers and two hot water distribution pumps located in the large, open interior space. The boilers and hot water pumps were assumed to supply and pump hot water for the entire campus to the AHUs and package units. The gas, hot water boilers are all observed to be in good condition. Three of the boilers were seen with nameplates stating they were manufactured in 2001 or 2003, and are each rated at a 2000 MBH input and 17000 MBH output. The additional boiler was installed in approximately 2014-2015, and was rated at a 2000 MBH input and 1854 MBH output capacity. These two hot water distribution pumps are all observed to be in good condition. Both of the pumps were seen with nameplates stating they were manufactured in 2006, and are each rated at 550 GPM with a 25 HP motor. The pumps had some dirt build-up but it did was not causing any inefficiencies nor corrosion to the		Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
	housing enclosures. Supplemental mechanical equipment for the HVAC system also includes an EF and a unit heater. Both of these units were in average as they appeared aged and outdated, but no operational issues were reported or observed. Additionally there was a large storage tank for hot water in the open interior. No nameplate information was seen for the storage tank but it estimated to be approximately 250 gallons. The storage tank was in good condition as it was assumed to have been installed or refurbished at the time of the new boilers installation. The HVAC system at the boiler plant is in good condition.		
Fire Protection	Fire Alarm	System not present.	N/A
	Fire Protection/ Suppression	The facility is solely protected by portable fire extinguishers. All portable fire extinguishers observed had inspection tags dated within the last year as required.	Good
Electrical	Electrical Distribution	The electrical service enters the building at a 277/480-volt 225-amp panelboard, which is located in the large, open interior space and delivers power primarily to mechanical units and a distribution transformer. The transformer is rated at 480-volt primary that step-downs to 120/208-volt secondary, which feeds power to the 120/208-volt panelboard. The building does not have lightning protection system. The electrical distribution equipment was observed to be in average condition. The assets were observed with some corrosion/rust. There were missing screws in the housing enclosures.	Average
	Lighting	The building does not have exterior lighting. The interior lighting is primarily T8 fluorescent with several incandescent luminaires. The building does not have exit signs or egress lighting. The lighting for the building was observed to be in poor condition. Luminaires appeared to be past their design life.	Poor
	Communications & Security	The building has tele/data devices. The devices are believed to be tied back to tele/data system located in the Main School Building. The building does not have public address system.	Average

Exterior System Deficiency Examples

Exterior Walls

Exterior Windows

Exterior Doors

Interior Construction Deficiency Examples

Interior Walls

Plumbing System Deficiency Examples

Plumbing Fixtures

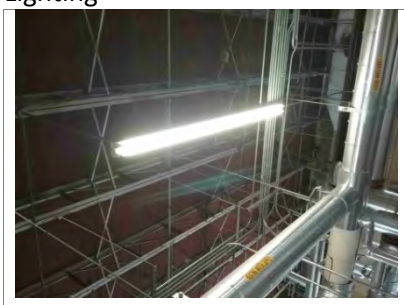
Domestic Water Distribution

Mechanical/HVAC System Deficiency Examples

Electrical System Deficiency Examples

Electrical Distribution

Lighting



Communications & Security

Mechanical Building – BLDG-007F

Building Purpose	Mechanical Equipment
Building Area	1,600 SF
Inspection Date	May 17-18, 2016
Inspection Conditions	May 17 - 80°F and sunny May 18 - Overcast with rain
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 constructed with a concrete slab on grade and corrugated metal exterior walls. There are metal louver openings on the building façade. Vines have penetrated through seams in wall panels, under gutters, and reportedly under the roof panels. The walls do not properly protect from water intrusion and are in poor condition.	Poor
	Exterior Windows	System not present.	N/A
	Exterior Doors	The exterior doors of the building are metal with metal frame. They appeared to be in average condition and were functioning; however, the paint is extremely faded.	Average
Roofing	The building has a metal roof. It was observed to be aged beyond its useful life and in poor condition.		Poor
Interior Construction	Interior Walls	The interior face of the exterior walls is unfinished metal. Corrosion and holes were observed throughout the wall surfaces.	Poor
	Interior Doors	System not present.	N/A
	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 walls are unfinished. System not present.	N/A
	Interior Floor Finishes	The interior floor is an unfinished concrete slab on grade. Standing water was observed throughout the building floor.	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
	Interior Ceiling Finishes	The ceiling is open to the metal roof structure above. It appeared to be in average condition, with minor patching observed.	Average
Conveying	System not present.		N/A
Plumbing	Plumbing Fixtures	System not present.	N/A
	Domestic Water Distribution	System not present.	N/A
	Other Plumbing	The only plumbing assets observed in the building were the floor drains. These were assumed to be in average condition as no standing water was observed around the floor drains but the covers were observed to have corrosion. It did not appear that the floor drain piping has been cleaned or flushed regularly.	Average
Mechanical/ HVAC	The major mechanical equipment consists of two cooling towers, two chillers, and eight chilled water distribution pumps. The cooling towers are located on the exterior while the chillers and pumps are located in the large, open interior space. The cooling towers, chillers, and pumps were assumed to supply and pump chilled water for the Main School Building to the AHUs and package units. The galvanized steel, crossflow cooling towers use a fan for draft assistance, and were observed to be in good condition. The cooling towers have manufacturer stamps on the housing stating they were installed in 2014, and are each rated at a 442 TON. The centrifugal, water-cooled chillers were observed to be in good condition. The chillers have nameplates that were used to determine that they were manufactured in 2003 based off of the serial numbers. The model numbers and additional nameplate information was not able to determine the TON capacity. From manufacturer product research, the YK model is a wide range chiller that ranges from 250 TON to 3,000-TON capacities. The eight chilled water distribution pumps were observed to be in average condition as they were noted as being installed in 2006. However, the majority of the pumps have damaged or missing insulation, corroded and rusted piping connections and housing, and significant condensation or possible leaks observed; particularly pumps labeled as CHZP-1, CHZP-2, CHZP-3, CHZP-4, CHLP-1, and CHLP-2. Supplemental mechanical equipment for the HVAC system also includes an EF and a unit heater. Both of these units were observed to be in average condition as they appeared aged and outdated, but no operational issues were reported or observed. The HVAC system at the chiller and cooling tower plant was observed to be in generally good condition, as the major equipment was all updated recently.		Good
Fire Protection	Fire Alarm	System not present.	N/A
	Fire Protection/ Suppression	The facility is solely protected by portable fire extinguishers. All portable fire extinguishers observed	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		had inspection tags dated within the last year as required.	
Electrical	Electrical Distribution	The electrical utility service enters the building at the 277/480-volt 2500-amp main switchboard which is located in the building and delivers power to the two MCC (motor control centers) and mechanical assets throughout the facility. Both of the MCC units were rated at 600-amp. There is a distribution transformer rated at 480-volt primary that step-downs to 120/208volt secondary, which feeds power to a 120/208-volt panelboard. The building does not have lightning protection system. The electrical distribution equipment is in average condition with the main deficiency noted that the assets appear to be aged and past their design life. Additionally, some of the assets were observed with corrosion/rust.	Average
	Lighting	The building has one exterior luminaire located above the entrance door. The interior lighting is composed primarily of T8 fluorescent luminaires. The building has no exit or emergency lighting. The lighting for the building was observed to be in poor condition as the luminaires appear to be aged and past their design life.	Poor
	Communications & Security	The building has tele/data devices. It is assumed the devices tie back to the tele/data system located in the Main School Building. The building does not have public address system.	Poor

Exterior System Deficiency Examples

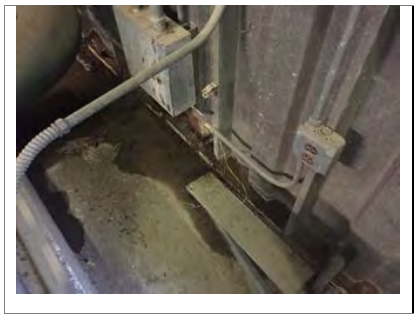
Exterior Walls

Exterior Doors

Roofing Deficiency Examples

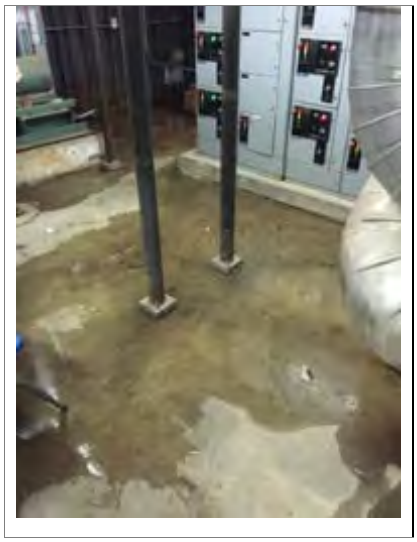
Interior Construction Deficiency Examples

Interior Walls



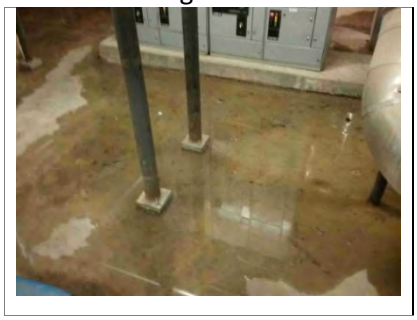
Interior Finishes Deficiency Examples

Interior Floor Finishes



Plumbing System Deficiency Examples

Other Plumbing



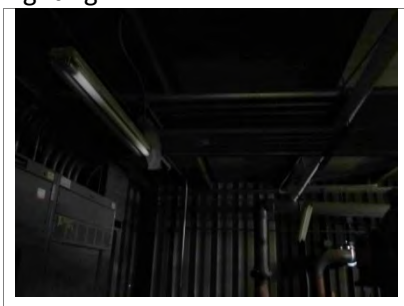
Mechanical/HVAC System Deficiency Examples



Electrical System Deficiency Examples

Electrical Distribution


Lighting




Travis 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

Roofing

1. Further investigate all roof areas observed with standing water in order to re-slope to proper drainage points.

Interior Finishes

1. Replace ceiling grid tile throughout building except for where tile is new (requested by PM Deborah James).

Plumbing

1. Continuing 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.
3. Clean and flush out all of the roof and interior floor drainage piping at all facilities, particularly on the eastern roof section of the Main School Building that was observed with standing water. Additionally, repainting or addressing the corrosion on the metal grates/covers for the drains to mitigate further deterioration and build-up around the drains.
4. Plan for replacement of the CW/HW piping, valves, and insulation for the 100-wing (followed by the 200- and 400-wings) (requested by PM Deborah James).

Mechanical/HVAC

1. Adjust HVAC controls or other equipment 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. Repair or replace any damaged or missing piping insulation as needed at all facilities.
4. 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.
5. 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.
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. Replace AHU-5 and AHU-6 within the male athletic locker rooms (requested by PM Deborah James).
9. Replace A/C-4 and A/C-5 units within the cafeteria and stage area (requested by PM Deborah James).

Fire Protection

1. Continue annual inspections of the fire protection system (at the Main School Building) and the portable fire extinguishers (at all facilities).
2. Consider the addition of a fire suppression system to wings if planned for demo and rebuild (requested by PM Deborah James).

3. Consider installing fire alarm devices/system at the pump house, boiler plant, and chiller & cooling tower plant as needed.

Electrical

1. Immediately provide missing break cover plates for all electrical equipment that were noted, as these instances should be considered life safety hazards.
2. Repair or replace all electrical equipment affected by corrosion or rust. If the corrosion/rust is beyond the enclosure then replacement is suggested.
3. Remove any floor electrical receptacles as they are being phased out of use district-wide.
4. Replace all outdated luminaires with LED luminaires with dimming capabilities.
5. Replace all existing exit signs with LED fixtures and add more exit signs where required for all buildings.
6. Replace outdated security systems and add more cameras where required for all buildings, particularly at all building entry access points. Additionally, recommend installing card access points at these access points.
7. Provide lightning protection system for all buildings as required.
8. Provide egress lighting where required for all buildings.
9. Provide public address system for pump house, boiler plant, and chiller & cooling tower plant. Repair current public address areas as the facility staff noted that many areas were non-functional. It is recommended that a new and singular public address system is provided for the entire school campus (requested by facility staff).
10. Replace all panelboards throughout the campus that are severely aged or past typical design service life (requested by PM Deborah James).

Main School Building Recommendations

Exterior

1. Repair remaining leaking exterior windows and resolve water intrusion at northeast entryways of 500-wing.
2. Ensure all windows of the covered breezeway are laminated glass, not Plexiglas.
3. Investigate and block access points for rodents through the crawlspace or the ceilings.
4. Develop a plan to demolish and re-build each wing (requested by PM Deborah James).

Roofing

1. Add and/or improve gutters and downspouts to the roof of the IHCA.

Interior Construction

1. Repair damaged walls in the stage area of the cafeteria.
2. Replace interior doors that are original to the buildings construction (requested by PM Deborah James).

Interior Finishes

1. Conduct further investigation into the settling observed in the covered breezeway. Structural monitoring may be required.
2. Clean stained floor in the classroom in the 500-wing.
3. Repair spalling observed on the concrete floor in the electrical room.
4. Further investigate a report of mold along the lower 100-wing. Conduct air quality testing.
5. Replace janitor closet doors with doors with louvers or vents to alleviate the strong chemical odors.
6. Phase replacement of all original doors, door grills, hardware, and wood door frames unless the wing is determined for future replacement (requested by PM Deborah James).

Conveying

1. Continue annual inspections of the passenger elevator.

Plumbing

1. Repair or replace the non-functional hand sink in the home economics classroom 106 as needed.
2. Develop a plan to replace plumbing sinks and faucets within the building's restrooms (requested by PM Deborah James).
3. Replace aged, inefficient electric water heaters in the home economics classrooms. Track install years of other water heaters and plan for replacement as the typical design service life for a water heater is ten to 15 years.
4. Ensure that all grease traps in the kitchens have a capacity of at least 1500 gallons. Facility staff reported that the grease trap for the cafeteria kitchen and culinary kitchen spaces was too small. It is recommended based upon feedback that all grease traps should have a capacity of at least 1500 gallons for any kitchen space. In addition, it is recommended that all kitchen fixtures and floor drains are connected to grease traps if not already done so. PM Deborah James reported that the main kitchen grease trap and all underfloor plumbing was replaced in September 2016.

Mechanical

1. 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 facilities.
2. 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. PM Deborah James reported that the return air in the main wings is through the door and wall grills and all need to be replaced in the next bond.

Fire Protection

1. Conduct a detailed inspection to determine the cause for the sprinkler system being set off in error to ensure it is not a result of defective controls.
2. Replace aged fire alarm devices throughout the building.

Electrical

3. Relocate panelboard 1LAC to comply with code for proper working clearance.
4. Address all electrical wiring issues for receptacles and lighting, particularly in the 100-, 400-, and 600-wings as multiple issues were reported by the facility staff.
5. Provide additional electrical receptacles where needed, particularly in classrooms.
6. Verify the condition of the telecommunications system/equipment, as it was inaccessible. Add additional data drops in classroom as requested by the facility staff.

Gymnasium Recommendations

Exterior

1. Replace windows.
2. Repair cracking at the main entry door on the northeast side.
3. Repair cracking at concrete stairs along the northeast side.
4. Replace exterior doors that are aged and beyond useful life.

Roofing

1. Monitor for areas of ponding and repair as required.
2. Replace gutters and downspouts (requested by the CAC and Principal Ty Davidson).

Interior Construction

1. Replace mesh with a new material in locker/caging area to stop theft.

Interior Finishes

1. Repair and repaint areas of peeling paint.
2. Repair areas of deteriorated brick.

Plumbing

1. Repair or replace all mixing valves to provide sufficient hot water to all spaces.

Mechanical/HVAC

1. 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 facilities.
2. 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. Replace aged fire alarm devices throughout the building.

Electrical

1. Provide a lock for panelboard mounted on exterior wall of the building for security/safety purposes.
2. Install a lighting control board that was reported missing in the building.
3. Provide missing cover plates for the exterior receptacle on the building facade.
4. Remove the observed exposed wiring back to the source at the facility. It is recommended as a standard that any and all new wiring be placed in conduit with J-boxes for access points.

Weight Room Recommendations

Exterior

1. Replace the windows in the building with a new window assembly system.
2. Replace the overhead doors with new overhead doors.
3. Seal the connection of the metal walls and concrete slab to prevent water intrusion.
4. Repair portions of dented wall.

Roofing

1. Replace the roof of the building with a new roof.

Interior Construction

1. Repair or replace all cracked, deteriorated insulation.
2. Repair the splitting metal walls in the weightlifting room.
3. Replace the broken, frayed wooden panel walls.
4. Repair the hole in the tile wall.

Interior Finishes

1. Repaint the interior.
2. Replace the carpet in the classroom of the Weight Room/Shop area.
3. Replace the broken floor tile in the restrooms.
4. Repair the stained concrete flooring.

Plumbing

1. Repair the damaged plumbing fixtures at the weight room / shop facility; including the interior water cooler, exterior drinking fountain, and missing toilet seat.

Mechanical/HVAC

1. 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.

Fire Protection

1. Replace aged fire alarm devices throughout the building.

Pump Room Recommendations

Exterior

1. Replace the doors to the Pump Room.
2. Seal the connection of the metal walls and concrete slab of the Pump House to prevent water intrusion.
3. Repair rusting on exterior of the Pump House.

Electrical

1. Remove any observed exposed wiring back to the source. It is recommended as a standard that any and all new wiring be placed in conduit with J-boxes for access points.

Boiler House Recommendations

Exterior

1. Repair cracking on the old tower of the Boiler House.
2. Replace the right door of the entryway and repair louvers above.
3. Replace windows of the Boiler House.

Mechanical Building Recommendations

Exterior

1. Replace the roof of the Chiller & Cooling Tower Plant.
2. Trim vines to ensure they do not penetrate the building enclosure or gutters.
3. Provide a seal between the metal walls and the concrete slab to prevent water intrusion.

Roofing

1. Replace the existing roof with a new roof.

Interior Construction

1. Patch and repair all holes that exist in the metal walls.

Travis 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.

2013 Bond Planned Improvements from PM Deborah James on 11/25/16.

- To Be Determined
  - A phased plan to replace all asphalt paving starting 1) east asphalt drives with parking lot behind; 2) culinary in front of Gymnasium; 3) kitchen parking; 4) north half of rear Gymnasium parking; 5) front parking; 6) Weight Room and 600 BLDG; and 7) south half of Gymnasium rear parking.
  - Band Hall Complex (all choir, guitar, mariachi, orchestra band hall, counseling, and associated areas) - plan/bid documents underway to re-grade and re-ventilate through mechanical fans and series of area ways and openings in perimeter retainer panels. Lack of ventilation caused by additions blocking area units has extensive underslab condensation and has caused sever mold outbreak in 2015 (see highlighted floor plan).

CRAWL SPACE – Travis HS – Main School Building (BLDG-007A)

Building Purpose	Administrative, Classrooms, Gym & Cafeteria
Inspection Date	August 08 and 12, 2016, Morning
Inspection Conditions	95° Sunny (8/8) and 84° Sunny (8/12)

Crawl Space System Deficiency Overview

NOTES CONCERNING CRAWL SPACE OBSERVATIONS: Due to large amount of stored equipment over some of the floor hatches, we were unable to access the crawl spaces at the northeast corner of the northeast wing and below the library. The crawl space below the choir room could not be accessed as a beam was blocking the floor hatch opening. Access to the crawl space at the stage was not possible because the hatch was locked and the proper tools to unlock the hatch were unavailable.

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	Soils in the crawl spaces are relatively flat and typically had no drainage system. Soil was typically dry and in many locations appeared to be comprised of weathered limestone. The northeast addition of the school has a large area drain close to the access hatch. Soil/Drainage deficiencies: · Drain basin in northeast addition appears to be clogged and has approximately one foot of standing water	Average
	Soil Retainers	Plastic soil retainers located in the northeast addition could be observed; soil retainers at other locations, if present, were below ground and could not be observed. The soil retainers observed appeared in relatively good condition. No deficiencies observed.	Good
	Areaways / Ventilation	Ventilation is achieved through small vents in exterior walls and perimeter beams. Condensation was present in several crawl spaces indicating insufficient ventilation. Areaway/ventilation deficiencies: · Poor ventilation in crawl space areas where condensation is present	Average
	Access Hatches	The access hatch near the band room had no handle and required a crowbar to access. Once open, access to crawl space was impeded by an interior beam running beneath the slab opening. Access hatch behind library and close to	Average

		Cafeteria had a ladder resting on pipes so access down into crawl space was precarious. Access hatch deficiencies: · The two access hatches in the southeast corner of the school both showed signs of rusting and the slabs adjacent to the hatches were spalling and cracking. · Access hatch by band room requires pry-bar to open and is located over a floor beam so is inaccessible.	
Exposed Structure	Exposed Columns & Tops of Foundations	Piers were located underneath interior and exterior grade beams throughout the crawl space. Piers were typically square in shape, but piers on the northwest side of the building were round. Foundation deficiencies: · Mushrooming and concrete spillage at top of pier was typical across entire building · Crawl space behind library / near cafeteria has piers that appear to have been poured with a void near the surface.	Average
	Exposed Faces of Walls / Perimeter Beams	The perimeter of the building is enclosed by cast-in-place walls/grade beams that extend below grade. Interior walls were also present; most interior walls were located at divisions in school geometry (i.e. end of a wing). Wall/beam deficiencies: · Minor honeycombing throughout building · Formwork nails left in place have corroded over time · Sporadic exposed, rusted rebar · Exposed rebar around the vent at the north most wall of northeast addition	Good
	Exposed Portions of Suspended Floor Beams Above	Perimeter and interior suspended floor beams were located throughout all areas of the building. Most observed beams appeared to be in good condition. Beam deficiencies: · Minor to major honeycombing throughout building · Exposed/rusted rebar in southeast corner	Average
	Underside of Suspended Floor Slabs Above	Multiple floor systems were found throughout the building. On the north side of the administrative offices the slab was cast-in-place. On the south side of the administrative offices the floor was hollow core panels with concrete topping. The southwest block of classrooms use precast c-joists for the	Average

		slab. The west wing of classrooms uses a cast-in-place floor slab. The east side of the school uses a pan joist system. Slab deficiencies: · Spalling in the cast-in-place slab under the west wing of classrooms · In cast-in-place slab across from the theater there was honeycombing and exposed/corroded rebar. This area also had large amounts of condensation. · Spalling in pan joists ranged from minor to significant and was found throughout the entire west side of the building. · Exposed/corroded reinforcing · Honeycombing was very prevalent in pan joist systems	
Pipes, Ducts, Equipment & Fireproofing	Suspended Pipes & Hangers	Tarps have been placed over soil at locations where pipes are leaking. Pipe deficiencies: · Minor rusting on pipes was prevalent · Minor leak in pipe under administrative offices · Major leak in pipe behind library and next to cafeteria. Water continuously flowing (similar to water fountain). · Some pipes observed bearing both on grade and suspended Some pipes running along grade and not suspended · Leaking pipe in west wing in the northeast side of building. Ponding water under pipe. · In west wing of classrooms there is a failed pipe support and leaking pipe. Leak is constant and has created a pool of standing water · Degraded and/or missing pipe insulation	Poor
	Exposed Ductwork	N/A – No ductwork was seen in crawl space	N/A
	MEP Equipment	MEP Equipment Deficiencies: · Wires are draped over pipes carrying liquids across from theater. · Broken electrical line in crawl space behind library and next to cafeteria.	Average
	Spray Fireproofing/ Insulation	No fire proofing was found. Insulation was prevalent in the west side of the building only. Insulation Deficiencies: · Insulation was degrading & falling off across entire building	Average

Crawl Space Deficiency Examples

Soil, Drainage, Ventilation & Access

 Drain Basin in standing water	 Condensation on underside of slab	 Slab splitting at access hatch
 Access hatch with no handle	 Interior beam restricting access to crawl space	

Exposed Structure

 Pier with mushroom top and concrete mass (presumably filling a void near surface) behind library	 Honeycombing in basement wall	 Spalling & exposed/corroded rebar in beam


Exposed rebar in wall at ventalation louver, spalling & honeycombing


Typical honeycombing in pan joist webs


Major honeycombing in beam


Exposed rebar, spalled slab


Honeycombing and exposed rebar in slab


Formwork left in place

Pipes, Ducts, Equipment & Fireproofing


Leaking pipe near exterior wall


Water pooling on tarp under broken pipe


Leaking pipe behind library


Suspended pipe resting on grade


Broken hanger rod


Constantly leaking pipe

 Wires draped over pipes	 Broken Wiring	 Rigid Insultion detached and falling off of underside of slab

CRAWL SPACE – Travis HS – Gymnasium (BLDG-007B)

Building Purpose	Gymnasium
Inspection Date	August 08 and 12, 2016, Morning
Inspection Conditions	95° Sunny and 84° Sunny

Crawl Space System Deficiency Overview

NOTES CONCERNING CRAWL SPACE OBSERVATIONS: The crawl space below the dance gym was inaccessible via the areaway as the void height between the bottom of the perimeter beam and the soil was too small.

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	Minor water infiltration was observed near the access hatch by the locker rooms. No drainage system was observed in the crawl space. Soil was typically dry and in many locations appeared to be comprised of weathered limestone. Soil deficiencies: · Soil was damp near sidewall access hatch	Good
	Soil Retainers	Southern side of gym had exposed soil retainers that could be observed. All appeared in good condition. No deficiencies observed.	Good
	Areaways/Ventilation	Ventilation consisted of small wall openings around perimeter; the small openings likely do not provide adequate ventilation to the space. Areaway/ventilation deficiencies: · Ventilation likely inadequate	Average
	Access Hatches	One wall access hatch and two floor access hatches were found for the gym building. Access Hatch deficiencies: · Minor honeycombing in the north floor access hatch · Exposed, corroded reinforcing in slab around the south floor access hatch	Average
Exposed Structure	Exposed Columns & Tops of Foundations	Piers were located underneath interior and exterior grade beams throughout the crawl space.	Average

		Foundation deficiencies: · Mushrooming at top of pier was observed in several locations · Minor honeycombing · At the north access hatch, a pier was noticeably out of plumb	
	Exposed Faces of Perimeter Walls / Beams	Perimeter of crawl space was comprised of cast-in-place walls and/or suspended beams. Basement wall deficiencies: · Exposed, rusted formwork rods and nails were prominent on the walls · Minor honeycombing	Good
	Exposed Faces of Suspended Floor Beams Above	Beam deficiencies: · Spalling on the exterior face of beam. · Exposed, rusted primary longitudinal reinforcement · Honeycombing	Average
	Underside of Suspended Floor Slabs Above	Floor slab consists of pan joists. Slab deficiencies: · Spalling in pan joists · Exposed longitudinal reinforcement in pan joist beams · Honeycombing	Average
Pipes, Ducts, Equipment & Fireproofing	Suspended Pipes & Hangers	Pipe deficiencies: · Rust on cast iron pipes · Failed pipe hangers · South crawl space had severely rusted pipes	Average
	Exposed Ductwork	N/A - No ductwork was present in the crawl space areas observed.	N/A
	MEP Equipment	N/A – No MEP equipment was present in the crawl space areas observed.	N/A
	Spray Fireproofing/ Insulation	N/A - No fire proofing or insulation was present in the crawl space areas observed.	N/A

Crawl Space Deficiency Examples

Soil, Drainage, Ventilation & Access

 Underside of slab at south access hatch	 Inadequate ventilation	

Exposed Structure

 Formwork ties for walls left in place	 Exposed, corroded longitudinal bars in pan joists	 Exposed, corroded longitudinal bars in pan joist webs
 Exposed, corroded longitudinal bars in pan joists and exposed longitudinal bars in beam beyond	 Honeycombing in walls	

Pipes, Ducts, Equipment & Fireproofing

 Minor rusting in pipes	 Severely Rusted Pipes	

Travis 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.

Main School Building Recommendations

Soil, Drainage, Ventilation & Access

1. Clean and/or repair non-draining inlet in northeast addition, re-grade soils as needed to drain into inlet
2. Repair slabs at damaged access hatch entrances
3. Repair/replace hatches as needed so all are operable (with handles, with keys to open, etc.)
4. Clear stored items off floor hatches so all crawl space areas can be accessed
5. Investigate need for additional ventilation
6. Repair or replace detached/degraded rigid insulation

Exposed Structure

1. Repair moderate-to-major honeycombing, spalling and exposed/corroded rebar in underside of slabs, beams, pan joists and walls

Pipes, Ducts, Equipment & Fireproofing

1. Repair leaking and/or broken pipes
2. Suspend pipes that are now bearing on the ground
3. Clean heavily rusted pipes and protect from further corrosion
4. Repair/replace degraded or missing pipe insulation
5. Repair broken support hangers

Gym Building Recommendations

Soil, Drainage, Ventilation & Access

1. Repair damaged slabs at damaged access hatch entrances
2. Investigate need for additional ventilation

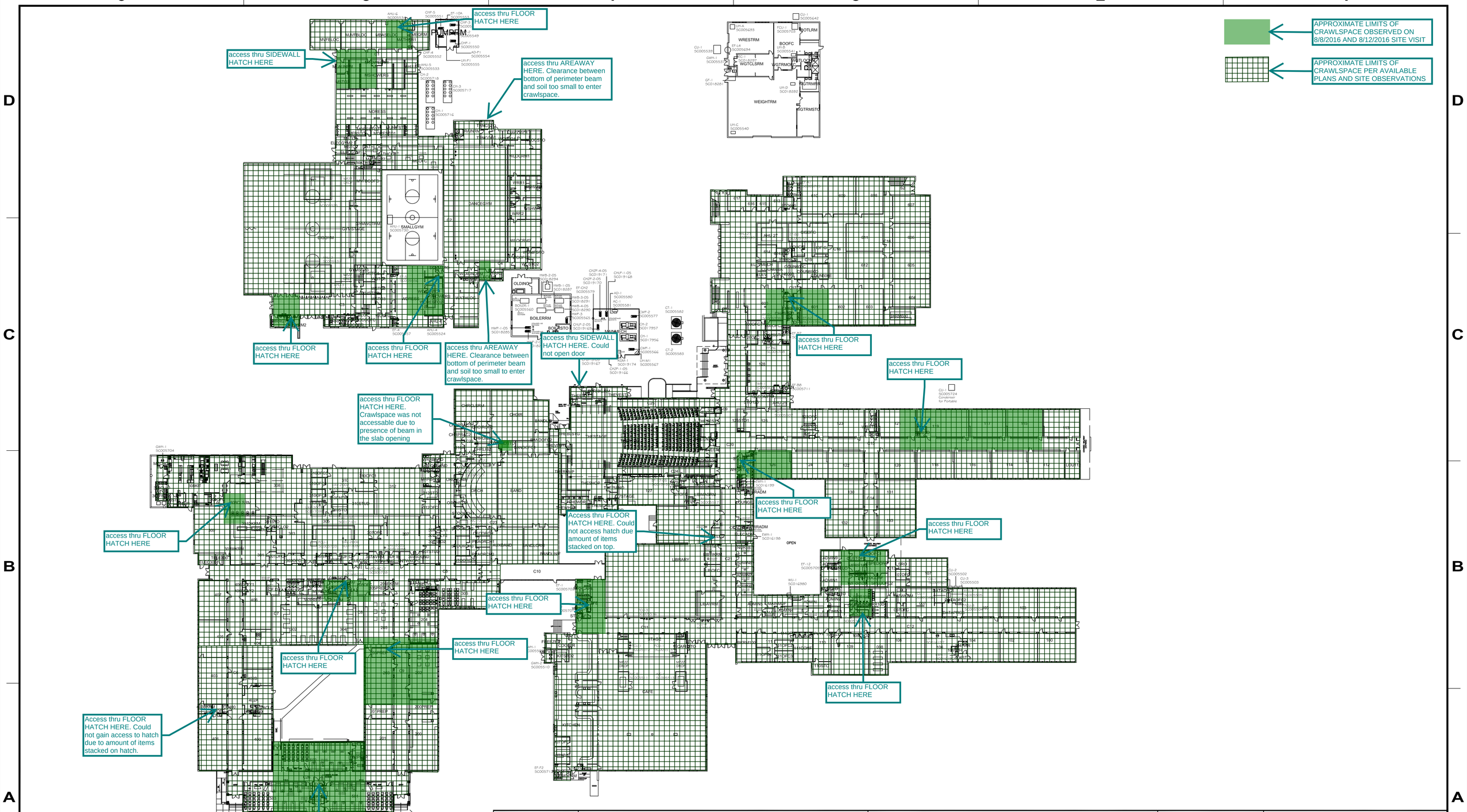
Exposed Structure

1. Repair moderate-to-major honeycombing, spalling and exposed/corroded rebar in underside of slabs, beams, pan joists and walls

Pipes, Ducts, Equipment & Fireproofing

1. Clean heavily rusted pipes and protect from further corrosion
2. Repair broken support hangers

DRAFT



NORTH

REVISIONS				
MARK	DESCRIPTION	BY	DATE	APPR

REFERENCE DRAWINGS

APPROVALS	DRAWN	CHECKED	APPROVED
BY	J.R.		
DATE	02.24.09		

AUSTIN I.S.D.
DEPARTMENT OF CONSTRUCTION MANAGEMENT

TRAVIS HIGH SCHOOL

1211 E. Oltorf AUSTIN, TX

FLOOR PLAN
FIRST FLOOR

SCALE	SIZE	DRAWING NUMBER	SHEET	REV.
N.T.S.	D	00701	1 OF 2	0

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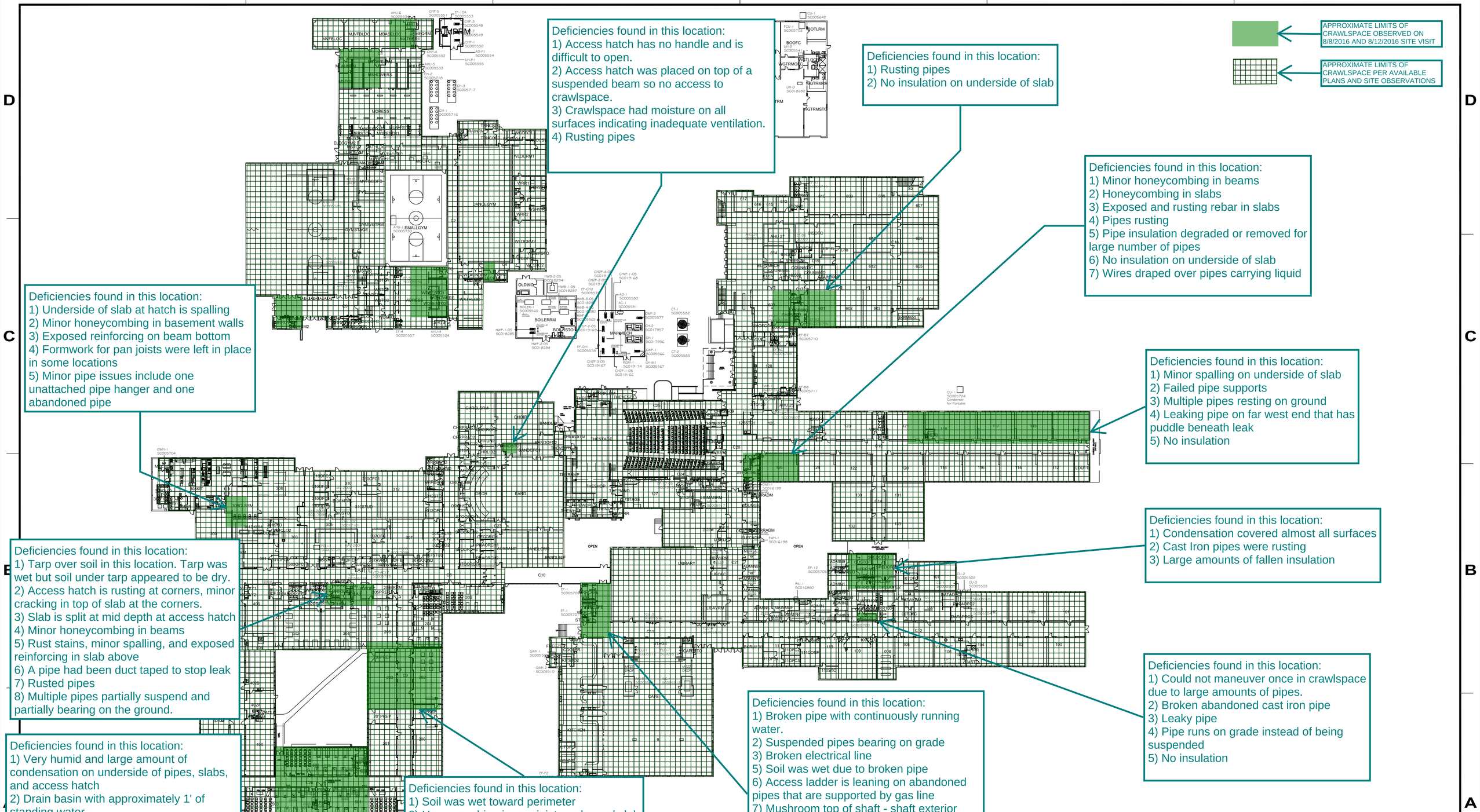


Deficiencies found in this location:
1) Access hatch has no handle and is difficult to open.
2) Access hatch was placed on top of a suspended beam so no access to crawlspace.
3) Crawlspace had moisture on all surfaces indicating inadequate ventilation.
4) Rusting pipes

Deficiencies found in this location:
1) Rusting pipes
2) No insulation on underside of slab

Deficiencies found in this location:
1) Minor honeycombing in beams
2) Honeycombing in slabs
3) Exposed and rusting rebar in slabs
4) Pipes rusting
5) Pipe insulation degraded or removed for large number of pipes
6) No insulation on underside of slab
7) Wires draped over pipes carrying liquid

Deficiencies found in this location:
1) Underside of slab at hatch is spalling
2) Minor honeycombing in basement walls
3) Exposed reinforcing on beam bottom
4) Formwork for pan joists were left in place in some locations
5) Minor pipe issues include one unattached pipe hanger and one abandoned pipe

Deficiencies found in this location:
1) Minor spalling on underside of slab
2) Failed pipe supports
3) Multiple pipes resting on ground
4) Leaking pipe on far west end that has puddle beneath leak
5) No insulation

Deficiencies found in this location:
1) Condensation covered almost all surfaces
2) Cast Iron pipes were rusting
3) Large amounts of fallen insulation

Deficiencies found in this location:
1) Tarp over soil in this location. Tarp was wet but soil under tarp appeared to be dry.
2) Access hatch is rusting at corners, minor cracking in top of slab at the corners.
3) Slab is split at mid depth at access hatch
4) Minor honeycombing in beams
5) Rust stains, minor spalling, and exposed reinforcing in slab above
6) A pipe had been duct taped to stop leak
7) Rusted pipes
8) Multiple pipes partially suspend and partially bearing on the ground.

Deficiencies found in this location:
1) Could not maneuver once in crawlspace due to large amounts of pipes.
2) Broken abandoned cast iron pipe
3) Leaky pipe
4) Pipe runs on grade instead of being suspended
5) No insulation

Deficiencies found in this location:
1) Broken pipe with continuously running water.
2) Suspended pipes bearing on grade
3) Broken electrical line
5) Soil was wet due to broken pipe
6) Access ladder is leaning on abandoned pipes that are supported by gas line
7) Mushroom top of shaft - shaft exterior shaped like reinf'g (reinf'g not exposed)
8) Formwork nails left in wall
9) Honeycombing in walls, beams, and slabs
10) Exposed rebar at pipes in slab
11) Significant spalling in slab

Deficiencies found in this location:
1) Very humid and large amount of condensation on underside of pipes, slabs, and access hatch
2) Drain basin with approximately 1' of standing water
3) Minor spillage and mushrooming at top of piers
4) Minor honeycombing in walls
5) Exposed/rusted rebar at vents in walls
6) Slight rusting and spalling on underside of slab
7) Minor rusting of cast iron pipes

Deficiencies found in this location:
1) Soil was wet toward perimeter
2) Honeycombing in pan joists webs and slab
3) Abandoned pipes
4) Mild rusting in cast iron pipes
5) Main gas line is in the dirt, offshoots from the pipe are suspended
6)Leaking pipe at east perimeter wall, 4'x1' pool of water under leaking pipe

REVISIONS		REFERENCE DRAWINGS			AUSTIN I.S.D. DEPARTMENT OF CONSTRUCTION MANAGEMENT	TRAVIS HIGH SCHOOL 1211 E. Oltorf AUSTIN, TX		
DESCRIPTION		APPROVALS				FLOOR PLAN FIRST FLOOR		
		CHECKED	APPROVED		SCALE	DRAWING NUMBER	SHEET	REV.
					N.T.S.	00701	1 OF 2	0

DRAFT

Deficiencies found in this location:
1) Slab is Pan Joists
2) Vents have minor spalling/honeycombing around them in the walls
3) Exposed formwork rods and nails in walls
4) Honeycombing present in the walls
5) Exposed rebar and spalling in one beam
6) Large spalling and exposed and corroded rebar in 3 visible span joists
7) Cast iron pipes have rust

Deficiencies found in this location:
1) Access hatch had to be held open and no ladder to access crawlspace was present.
2)Exposed/rusted reinforcing in slab at access hatch
4) Honeycombing in basement walls, beams, and underside of floor
5) Significant rusting in cast iron pipes
6) Pipe leaks

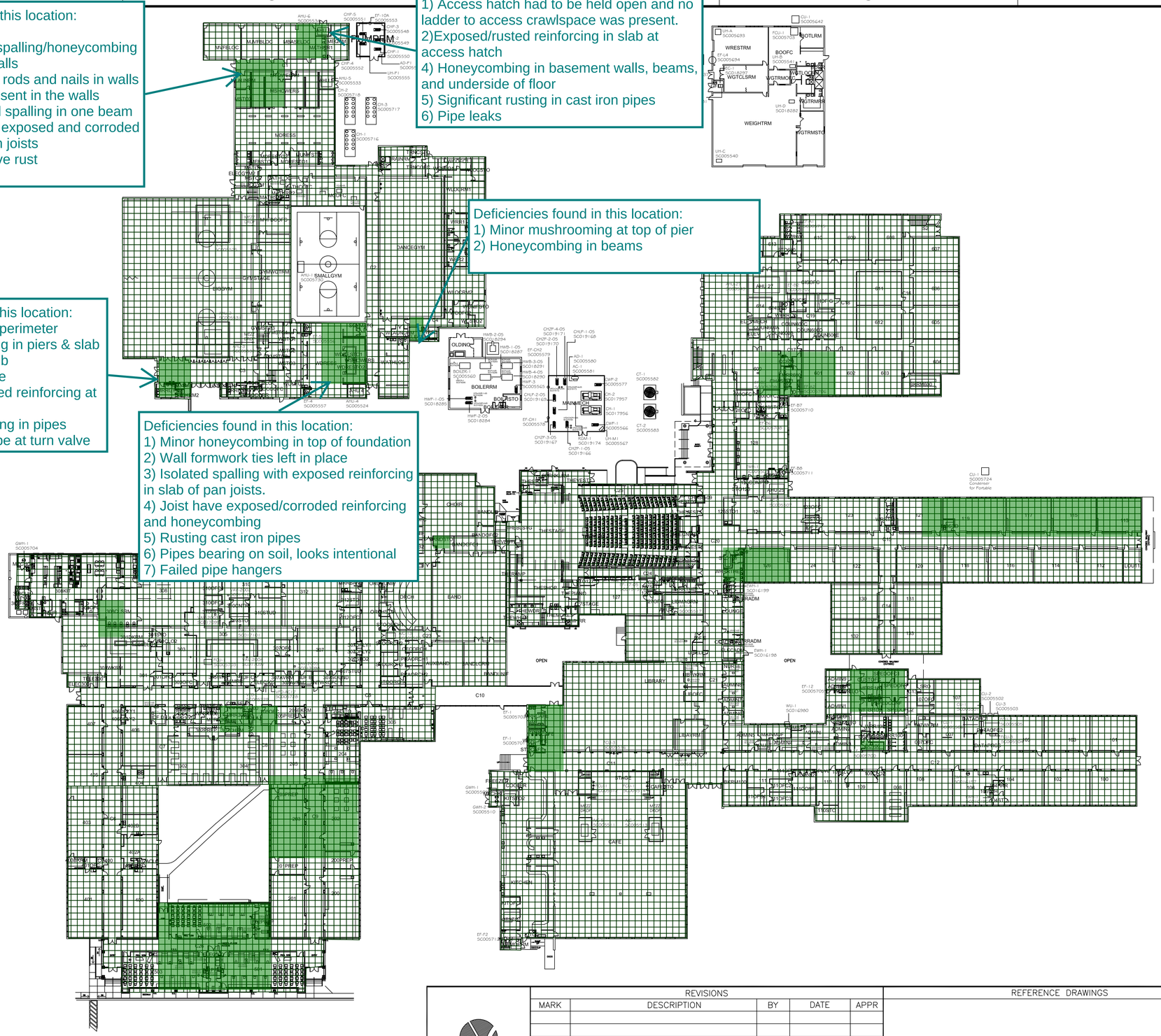
Deficiencies found in this location:
1) Minor mushrooming at top of pier
2) Honeycombing in beams

Deficiencies found in this location:
1) Soil was wet at the perimeter
2) Minor honeycombing in piers & slab
3) 1 pier is out of plumb
4) Wall ties left in place
5) Spalling and exposed reinforcing at pipe openings in slab
6) Fair amount of rusting in pipes
7) Leak in cast iron pipe at turn valve

Deficiencies found in this location:
1) Minor honeycombing in top of foundation
2) Wall formwork ties left in place
3) Isolated spalling with exposed reinforcing in slab of pan joists.
4) Joist have exposed/corroded reinforcing and honeycombing
5) Rusting cast iron pipes
6) Pipes bearing on soil, looks intentional
7) Failed pipe hangers

APPROXIMATE LIMITS OF CRAWLSPACE OBSERVED ON 8/8/2016 AND 8/12/2016 SITE VISIT

APPROXIMATE LIMITS OF CRAWLSPACE PER AVAILABLE PLANS AND SITE OBSERVATIONS



NORTH

REVISIONS				
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AUSTIN I.S.D.
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TRAVIS HIGH SCHOOL

1211 E. Oltorf AUSTIN, TX

FLOOR PLAN
FIRST FLOOR

SCALE	SIZE	DRAWING NUMBER	SHEET	REV.
N.T.S.	D	00701	1 OF 2	0

Travis HS Site/Civil Summary

Site/Civil Assessment

Address	1211 E. Oltorf, Austin, TX 78704
Number of Permanent Campus Facilities	6
Original Year of Construction	1953
Total Campus Area	35 Acres
Data Collection Method	Desktop, Site Visit
Site Visit/Assessor	12/27/2016 / C. Morris

Introduction

The Travis HS campus is located at 1211 E. Oltorf in Austin, Texas. Travis HS was established in 1953, and consists of six campus buildings. The athletic facilities include four tennis courts, one soccer/football field with track, one multi-purpose field, one baseball field and one softball field.

Revision Log		
Revision	Date	Summary of Content
00	8/26/16	Draft Issue
01	1/27/17	Added comments from PM Deborah James as indicated on email dated 11/25/16. See pages 9, 12, and 13.
02	3/10/17	2nd Draft Issue

Development Information

Watershed	Harper's Branch / Blunn / Country Club
Total Impervious Cover	31 %
Allowable Impervious Cover	89 %
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)
Visitor Parking	15 CB	3,300
Staff Parking	140 CB	49,500
Student Parking	10 HC 140 CB	65,000
Parent Drop Off	Yes	4,000
Service / Mechanical Yard	No	-
Bus Drop-Off Area	Yes	13,000

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_Travis_HS_Site_Civil_Exhibit for additional information.

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Site Improvements	Roadways	There are 3 roadways which include a parent drop off road in the front of the school for Roadway 1 (R1), a service road on the West side of the campus for Roadway 2 (R2), and a roadway leading to parking areas along the East side of the campus for Roadway 3 (R3). Roadway 1 (Concrete Raised Curb) – Roadway 1 runs in front of the school and includes a parent drop off area. As you enter the property from Oltorf on the	Poor

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		West side of campus, there is heavy alligator cracking that leads to exposed base material resembling lattice style patterning at the intersection of Roadway 1 and Roadway 2. Moderate cracking continues throughout the parent drop off / bus loading and unloading area and dissipates once you pass Parking Lot 1. There is damage to the raised concrete curb at entrance from E. Oltorf. Roadway 2 (Concrete Ribbon Curb) – Roadway 2 along the West side of the campus is in average condition with minor raveling throughout the length of the roadway. Topsoil level-up is required along portions of the interior ribbon curb with steep side slopes on the exterior. Steep side slopes along the exterior side are marked with vertical panels. The ribbon curb is in average condition throughout Roadway 2. Roadway 3 (Concrete Raised with Median) – Roadway 3 enters and exits from Oltorf along the East side of the campus and dead ends after you pass the portable building at the baseball field. Heavy alligator cracking was observed as you turn into the campus with rutting beginning as you get closer to the end of the median. A large utility pole is anchored in the center of the pavement with steel pipes protecting the pole. Yellow mesh is attached to the portable and fencing and hangs across the Roadway. Roadway Deficiencies: · Roadway 1 - Heavy alligator cracking, Exposed Lattice Base Material, Minor Raveling · Roadway 2 - Minor raveling, Topsoil Level-up · Roadway 3 - Heavy alligator cracking, Raveling, Rutting, Utility Pole, Makeshift play area	
	Parking Lots	There are 7 lots that combined to serve as faculty and student parking. Each parking lot has moderate to heavy alligator and/or traverse cracking. Parking lot 1 serves the main parking area for faculty while each of the remaining 6 lots has limited faculty, visitor, and specialty parking such as police and on-campus organizations sprinkled in. Parking lot 5 has two large potholes with base exposure. Handicapped parking sign has been knocked down at Parking lot 4. Faded pavement markings and painted curbs were observed throughout the majority of parking lots. Parking Lot Deficiencies: · Heavy alligator and/or traverse cracking · Large potholes with base exposure · Handicapped parking sign knocked down · Faded pavement markings and painted curbs	Poor
	Pedestrian Paving	The sidewalks overall were in average condition with little variations between sections, the exception being along Roadway 1 at the West entrance to the campus. There are several areas in need of additional sidewalks (Approx. 150 LF) as foot traffic has worn away the grass to topsoil. There is a small 8 LF section of sidewalk that is broken in this area. Sidewalk level-up and removal	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		are required in several locations. Two wooden sidewalk bridges were observed as well. Each deficiency listed above are shown and noted on the Exhibit. Pedestrian Paving Deficiencies: · Broken sidewalk section at West entrance · Topsoil level-up at sidewalk · Sidewalk construction and removal · Wooden sidewalk bridges	
	Site Development	Serval pest holes were observed on campus and have been identified on the overall site map. Fencing campus-wide was in average condition. Dumpsters in Parking lots 1 and 3 do not have concrete approach pads. Site Development Deficiencies: · Dumpsters without concrete pads · Pest holes	Average
	Site Drainage	The overall slope of the land is good however there is one area that does not drain away from the building. This area is located along the front of the main classroom building on the Northwest side of the campus. This area has been shown and noted on the overall site map. A steep elevation difference between the baseball field and the track has caused erosion of topsoil along the West side of the track. This runoff seems to flow into an underground French drain before it gets to the track surface. Erosion of topsoil was observed along the South end of the track at the storm sewer outfall and around the headwall. Evidence of an erosion and ponding issue was found along the corner of Parking area 2. A majority of the gutter systems were not draining to underground systems. Downspouts were split with about 40 percent discharging into underground drainage systems while 60 percent discharged onto sidewalks and/or splash pads. A missing downspout on a column along south building along Parking lot 4 was observed. Additionally, gutter spill with mildew was seen at Northeast corner of Courtyard 1. Site Drainage Deficiencies: · Flat drainage at building foundation · Erosion of topsoil at track · Erosion and ponding issue at Parking lot 2 · Majority of downspouts draining onto sidewalks or splash pads · Missing downspout · Gutter spill with mildew along face of building.	Average
	Courtyards	Two courtyards were observed on campus. Courtyard 1 connects Parking area 3 to Parking area 4 and is closed off to traffic by swinging pipe gates. A majority of this area looks to be newly constructed and seems to have adequate lighting between buildings. Courtyard 2 in located in the middle of the buildings found on the Northeast side of the campus. This area was not inspected as buildings	Good

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		were locked over the holiday break. Courtyard Deficiencies: · N/A	
	Landscaping	The landscaping was in average condition. Heavy leaves and debris were observed at culvert headwall located at Parking lot 6. The landscaping, trees and shrubs at the portables along the West side of campus need to be maintained. Landscaping Deficiencies: · Leaves blocking drainage headwall · Trim trees / bushes and remove weeds	Average
Site Utilities	Water Supply	A water vault was observed at the West entrance between the E. Oltorf Street and Roadway 1. It looks to be in average condition with minor chipping along the lid. Water Supply Deficiencies: · Minor Chipping of Water Vault lid	Average
	Sanitary Sewer	The concrete cap over a sanitary sewer line / riser at Roadway 3 and Parking Lot 4 has major pavement failure along the surface. There is a large hole with exposed sanitary sewer and miscellaneous utilities exposed. This location is shown on the overall site map. There was not a grease sampling enclosure observed on site. Sanitary Sewer Deficiencies: · Broken Concrete Cap at riser · Exposed sanitary sewer and utilities · No grease sampling enclosure was located	Average
	Storm Sewer	The observed storm sewer was in good condition overall. One inlet behind the baseball field backstop is several inches above the surrounding natural ground. A protective screen covering the storm sewer pipe has fallen off on the Northwest side of the campus along Roadway 2. An area inlet between Court 3 and Courtyard 1 has sediment control fence and debris partially covering the inlet. Storm sewer outfall at Northeast corner of track is full of silt and debris. Storm Sewer Deficiencies: · Inlet higher than surround area · Detached RCP Screen · Inlet blockage	Average

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
		· Outfall blockage	
	Detention Pond	Detention ponds were in average condition and looked to be properly maintained and functioning as intended. No standing water was observed in detention ponds. Detention Pond Deficiencies: · N/A	Average
	Other Site Mechanical Utilities	A cracked meter box lid was found at the main entrance at the front of the school. This box is also 4-6" above the natural ground. A broken street light conduit was observed on the East side of Parking lot 5. A drooping overhead utility line seemed to be detached from the other bundle of wiring at the back of the main classroom building, north of parking lot 6. Additionally, a possible abandoned electrical conduit / wiring was noticed on the building North of Parking lot 2. Condensate french drain line was stubbed out into Parking lot 3 and had ponded water along the gutter. Also observed was an exposed conduit with pressure gauge along the East side of Court 3 (basketball). Other Utilities Deficiencies: · Cracked irrigation meter box lid · Exposed irrigation box · Broken street light conduit · Detached Cable · Possible abandoned electrical conduit / wiring · Condensate line French drain ponding water · Exposed conduit with pressure gauge at Court 3	Average

Site Improvement Deficiency Examples

Roadways

West Entrance from Oltorf R1

East Entrance from Oltorf R3

Longitudinal Cracking East end of R1

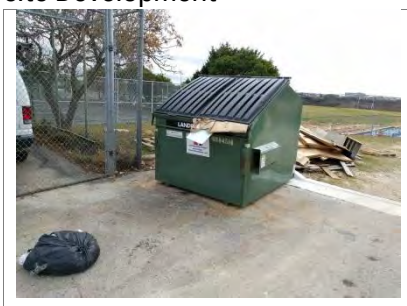
Parking Lots

		
Alligator Cracking P5	Heavy Cracking at failing utility cut P4	Pothole with base exposure P5

Pedestrian Paving

		
Broken Sidewalk, West Ent. of R1	Level-up along entire sidewalk with removal	Wooden Sidewalk Bridge

Site Development

	
Dumpster without concrete approach P3	Pest hole

Site Drainage

		
Flat Drainage at Building Foundation	Erosion of Topsoil	Ponding issue at corner of P2

Landscaping

	
Landscaping Maintenance at portable	Description of photo (one line)

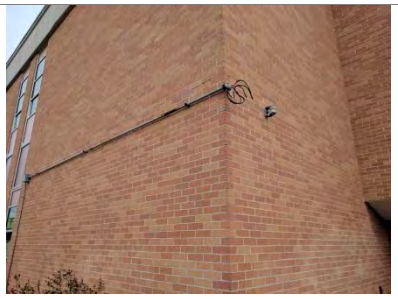
Site Utilities

		
Minor Chipping at Water Vault along R1	Broken Concrete Cap R3 & P4	Exposed Utilities

Storm Sewer

		
Area inlet higher than surround area	Detached RCP Screen	Outfall at Track with silt

Other Site Mechanical Utilities

		
Detached Cable	Possible Abandoned Conduit / Wiring	Condensate French drain; exposed at P3

Play Fields

Areas presented in table are approximate.

Playfields	Count	Size (SF)
Basketball Half Courts	2	7,900
Tennis Courts	4	23,600
Track/Soccer	1	147,700
Baseball Field	1	93,600
Softball Field	1	43,300
Bleacher Seating	4	850
Multi-purpose	1	44,400
Green Space	0	-
Playscapes	1	2,900

System	Subsystem	Condition and Deficiency Overview	System Condition Rating
Playfields	Basketball Courts	The basketball court is asphalt pavement and has alligator cracking throughout a majority of the court. The goals are rusted and have no nets. There is no lighting for any of the courts. Basketball Court Deficiencies: · Alligator cracking and worn surface · Missing nets · No lighting	Poor
	Tennis Courts	There are 2 tennis court areas with 2 individual courts each. Court 1 has heavy dark patches and minor cracking while Court 2 has larger cracks. Fencing seems to be in average condition around both courts. PM Deborah James reported that the east court was replaced in 2013 and that the west court is in need of replacement. Tennis Court Deficiencies:	Poor

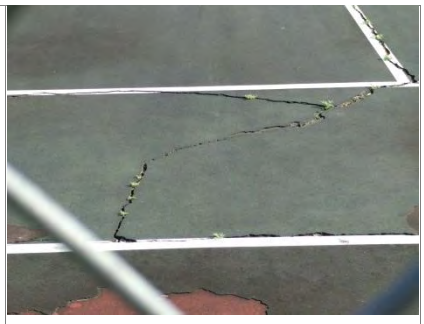
		· Dark patches and cracking at Court 1 (tennis) · Large Cracks at Court 2 (tennis)	
	Track	The track and field event surfaces are in good condition. Pole vault concrete runway has recently been repaired but no topsoil leveled up at edges. There is no lighting on the track. Track Deficiencies: · Lacking topsoil at Pole Vault Runway	Good
	Soccer/ Football Field	The soccer / football field seems to be in good condition. No evidence of standing water and/or erosion issues was observed. There is no lighting on the Soccer/Football field.. Soccer/Football Field Deficiencies: · N/A	Good
	Multi-Purpose Field	The multi-use field seems to be in average condition with no visible erosion conditions. The vegetation seems to be sufficient given the time of the year. There is no lighting on the multi-purpose field. Multi-Purpose Fields · N/A	Average
	Playscape	The playground / equipment seem to be in good condition. No evidence of standing water and/or erosion issues were observed. The fencing was in average condition surrounding the playground area. Playground Deficiencies: · N/A	Good

Playfield Deficiency Examples

Basketball

	
Alligator cracking and worn surface on Court	Alligator cracking and worn surface

Tennis

	
Dark patches with cracks	Tennis court cracks

Track

	
Pole vault drop-off	Pole vault drop-off

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. Resurface asphalt roadways.
2. Repair curb & gutter sections that have cracks.
3. Repaint fire lane markings.
4. Replace east driveways and culinary parking (requested by PM Deborah James).

Parking Lots

1. Remove, reconstruct majority of parking lots.
2. Restripe pavement markings.

Pedestrian Paving

1. Replace pedestrian paving that is heaving or level changes greater than 1/2 -inch (requested by PM Deborah James).
2. Add topsoil to level-up sidewalks
3. Construct sidewalk where foot traffic is apparent
4. Remove random sidewalk leading to nowhere
5. Replace wooden bridges with metal plates.

Site Development

1. Construct concrete approach slabs at dumpsters
2. Fill pest holes
3. In 2015, major drainage improvement to training site areas was completed to relieve some issues created by the addition.

   Install a major fire line extension through the main courtyard to tie east and west fire lines together for pressure improvement to the west fire line. PRV box installed at southeast corner of BLDG 600-700 to modify pressure differences between higher pressures from east line. This improvement was a pre-requisite to obtaining building permit approvals from Austin Fire Department for the 2013 Bond improvements.

Site Drainage

1. Regrade topsoil away from foundation
2. Replace topsoil as necessary
3. Regrade at curb cut to allow water to leave parking area
4. Add underground drainage system as necessary to contain building runoff
5. Add/Replace downspout and connect to underground drainage

Courtyard

1. N/A

Landscape

1. Clean / remove leaves and debris from drainage systems
2. Trim trees / bushes and remove weeds from flowerbeds

Site Utilities, Water/Sanitary

1. Remove and replace failing utility concrete cap at steel riser

2. Install grease sampling enclosure

Storm Sewer

1. Regrade around Inlet to allow water to enter inlet
2. Attach RCP Screen
3. Clean debris from inlet grate
4. Clean silt from all outfalls

Detention Pond

1. N/A

Other Site Mechanical Utilities

1. Fix cracked irrigation meter box lid
2. Fix exposed irrigation box
3. Fix broken street light conduit
4. Reattach cable
5. Remove electrical conduit / wiring if abandoned
6. Fix condensate line French drain ponding water
7. Fix exposed conduit with pressure gauge at Court 3

Basketball Courts

1. Resurface basketball court
2. Replace missing nets
3. Add lighting

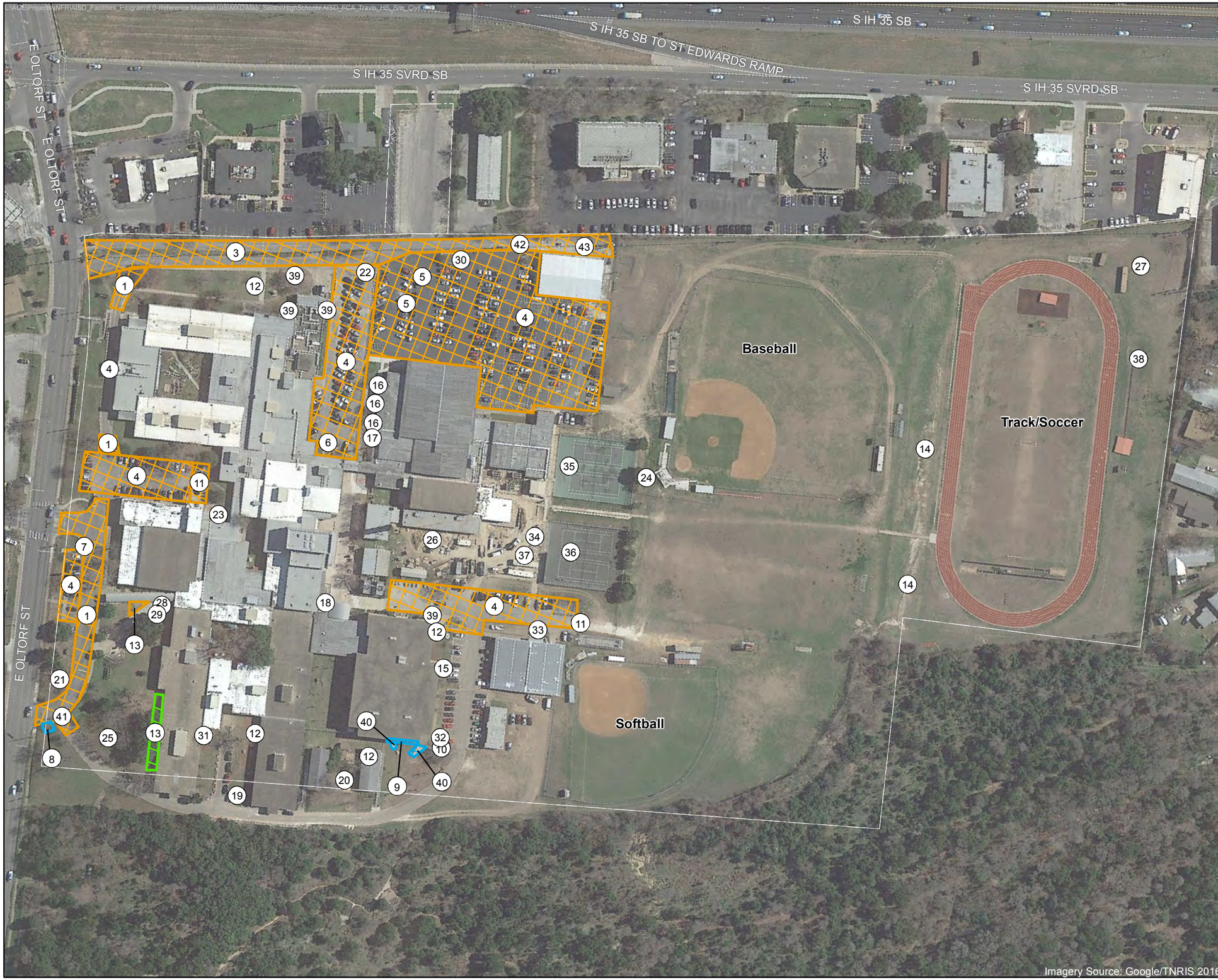
Tennis Courts

1. Replace west-side tennis court (requested by PM Deborah James).
2. Add lighting

Track

1. Add fill topsoil material to account for pole vault track drop-off

DRAFT



0 25 50 100 150
Feet

Legend

(1) Recommended Improvements

Drainage Improvement

Pavement Improvement

Sidewalk Improvement

NOTES:

1. ROADWAY 1 (R1) WITH PARENT DROP OFF AREA – HEAVY ALLIGATOR CRACKING, MINOR RAVELING.
2. ROADWAY 2 (R2) – MINOR RAVELING, TOPSOIL LEVEL-UP.
3. ROADWAY 3 (R3) – HEAVY ALLIGATOR CRACKING, RAVELING, RUTTING.
4. HEAVY ALLIGATOR AND/OR TRAVERSE CRACKING.
5. LARGE POTHOLES WITH BASE EXPOSURE.
6. HANDICAPPED PARKING SIGN KNOCKED DOWN
7. FADED PAVEMENT MARKINGS AND PAINTED CURBS
8. BROKEN SIDEWALK SECTION.
9. TOPSOIL LEVELUP AT SIDEWALK
10. WOODEN SIDEWALK BRIDGES
11. DUMPSTERS WITHOUT CONCRETE APPROACH SLABS.
12. PEST HOLES.
13. FLAT DRAINAGE AREA
14. EROSION OF TOPSOIL
15. EROSION AND PONDING
16. DOWNSPOUTS DRAINING ONTO SPLASH PADS OR SIDEWALKS.
17. MISSING DOWNSPOUT
18. GUTTER SPILL WITH MILDEW
19. LEAVES BLOCKING DRAINAGE HEADWALL
20. TRIM TREES / BUSHES AND REMOVE WEEDS
21. MINOR CHIPPING OF WATER VAULT LID
22. BROKEN CONCRETE CAP AT STORM SEWER RISER
23. EXPOSED SANITARY SEWER AND UTILITIES
24. INLET HGHER THAN SURROUNDING AREA
25. DETACHED RCP SCREEN
26. INLET BLOCKAGE
27. OUTFALL BLOCKAGE
28. CRACKED IRRIGATION METER BOX LID
29. EXPOSED IRRIGATION BOX
30. BROKEN CONDUIT FOR STREET LIGHT
31. DETACHED CABLE
32. ABANDONED ELECTRICAL CONDUIT / WIRING
33. EXPOSED CONDENSATE LINE FRENCH DRAIN
34. EXPOSED CONDUIT WITH PRESSURE GAUGE
35. DARK PATCHES AND CRACKING
36. LARGE CRACKS
37. ALLIGATOR CRACKS AND NO STRIPING
38. LEVEL-UP TOPSOIL AT POLE VAULT RUNWAY
39. SIDEWALK ADDITION
40. SIDEWALK REMOVAL
41. LATTICE BASE MATERIAL
42. UTILITY POLE
43. PLAY AREA

Map Date: 2/22/2017

AUSTIN Independent School District

AECOM

Travis HS
1211 E Oltorf St