

PROJECT
6712

APRIL 2017

Freedom Area School District

District-Wide Facilities Feasibility Study

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ADMINISTRATIVE CONTACT INFORMATION

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High School	Kurt Erickson	Principal	920-788-7940	kerickson@freedomschools.k12.wi.us
Middle School	Ken Fisher	Principal	920-788-7945	kfisher@freedomschools.k12.wi.us
Elementary School	Tammy Lipsey	Principal	920-788-7950	tlipsey@freedomschools.k12.wi.us

SCHOOL BOARD MEMBERS

NAME	POSITION	TERM EXPIRES	AREA BOARD MEMBER REPRESENTS
Tom Harke	President	2018	Town of Oneida
Gary Schumacher	Vice President	2017	Town of Center
Steve Garvey	Treasurer	2019	Town of Freedom, Town of Osborn, City of Appleton
Al Tiedt	Clerk	2017	Town of Center
Kevin Schuh	Member	2018	Town of Freedom, Town of Osborn, City of Appleton
Kevin Ver Voort	Member	2019	Town of Freedom, Town of Osborn, City of Appleton
George Van Wychen	Member	2019	Town Of Kaukauna



INTRODUCTION

The Freedom Area School District currently includes two existing facilities:

Freedom Elementary School

(Grades Pre-K – 5)
N3569 County Road E
Freedom, Wisconsin

Freedom Middle / High School

(Grades 6-8 and 9-12)
N4021 County Road E
Freedom, Wisconsin

The purpose of the Facilities Feasibility Study is to assist the Freedom Area Public School District in ascertaining the condition of their existing buildings as they are today and to have a better understanding of the current and future replacement and/or repair needs for building components and systems. The assessment has been broken into two separate reports for each respective school.

Architects and Engineers from Somerville spent time in each of the buildings, as well as time with the board of education, administration, and staff listening, observing and evaluating to thoroughly understand the building conditions, function, and deficiencies as it pertains to facilities and education. This study is intended to provide the District with information to make informed decisions on future planning for the District.

Overall, the two buildings are in good condition. On-going maintenance has kept the buildings from falling into disrepair, regardless of their age. The major concerns for the facilities fall into one or more of the following categories:

- Safety and Security
- Capacity
- Building Function
- Modernization

The following report provides information on the two existing facilities and their sites. The individual reports cover a variety of topics: space and room inventory, present use of all existing spaces, current conditions of the buildings, descriptions and conditions of the plumbing, HVAC, and electrical systems, an evaluation of circulation, accessibility, safety, applicable codes and accessibility. The report also includes options to meet current and future curriculum and capacity needs.



FREEDOM ELEMENTARY SCHOOL Site Plan





FREEDOM ELEMENTARY SCHOOL Basement Floor Plan





FREEDOM ELEMENTARY SCHOOL

First Floor Plan





FREEDOM ELEMENTARY SCHOOL

Second Floor Plan





FREEDOM MIDDLE / HIGH SCHOOL Site Plan





FREEDOM MIDDLE / HIGH SCHOOL

Lower Level Floor Plan





FREEDOM MIDDLE / HIGH SCHOOL

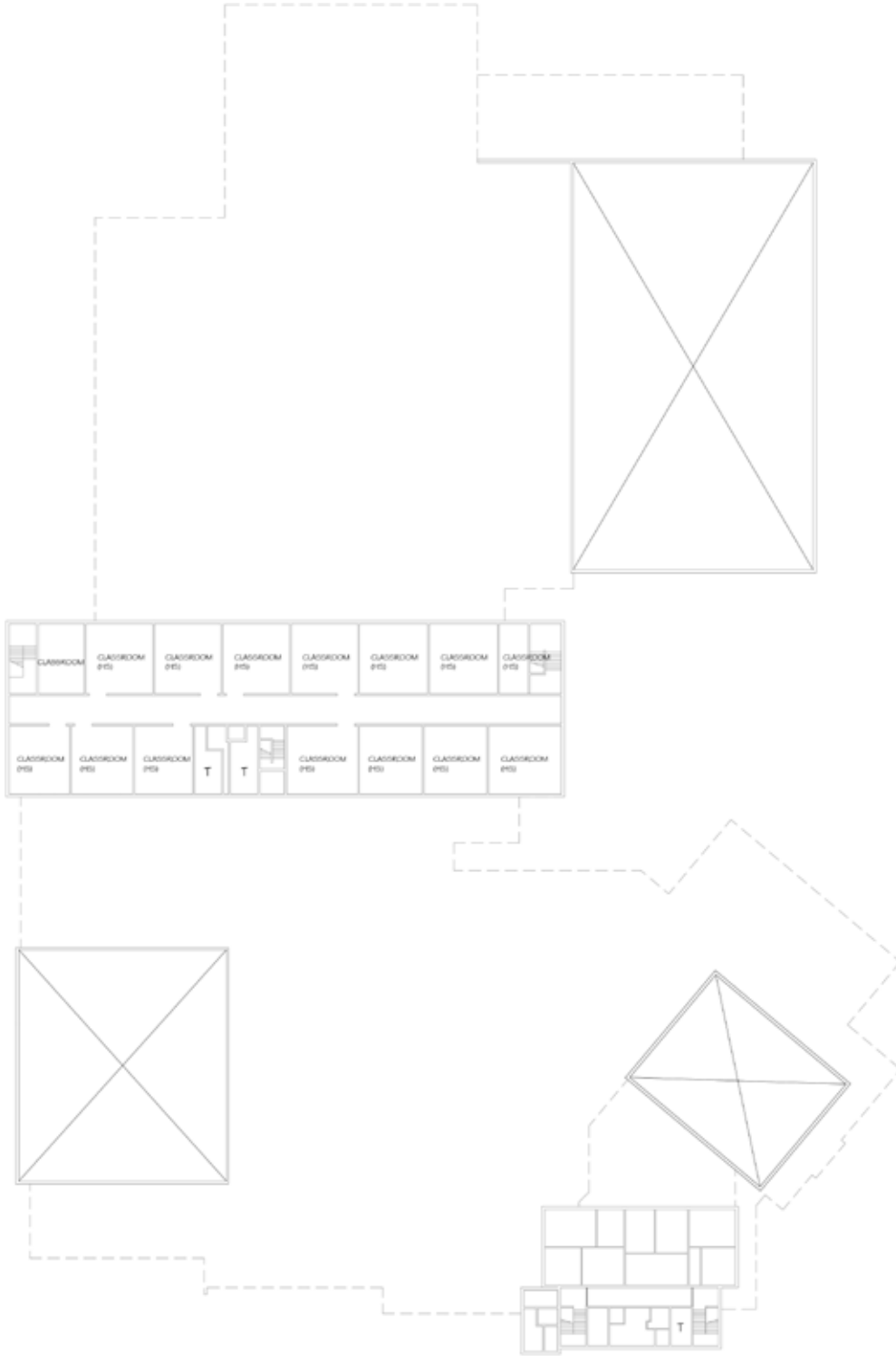
First Floor Plan





FREEDOM MIDDLE / HIGH SCHOOL

Second Floor Plan





FREEDOM ELEMENTARY SCHOOL

Architectural Description / Condition

The Elementary School was built in 1964. Multiple additions and remodeling projects have occurred over the years. In 1988, an entrance and elevator were added. In 1995, an addition was created to the north, extending a classroom wing, along with two classrooms to the west. In 2002, significant upgrades were made for accessibility (ADA) and to the mechanical systems in the original southern part of the building. The overall building is in good condition. The additions, remodeling and diligent maintenance through the years have keep the building in good, solid condition. The major concerns with the Freedom Elementary School are related to the safety and security of the site and building and the ability to house the current and future population of students while providing educational opportunities in modern, flexible facilities.

The Elementary School has had 2 significant upgrades over the past 2 decades. The first upgrade occurred in 1995 when the north wing was added. The second upgrade occurred in 2002 when significant upgrades were made to the mechanical systems in the original southern part of the building.

ROOFING:

- The elementary school has ballasted type roofs. The roofs appear in good condition. The west side of the north addition had some window damage to the roofing and insulation. The District is aware of this condition and is working on the repairs.

WINDOWS:

- The crank type casement windows in the elementary school have issues with air and water leaking.

ADA AND BUILDING CODE:

- The Americans with Disabilities Act is not a building code; it is a civil rights law. Many believe that any building built before ADA became law in 1990 is “grandfathered” in. However, buildings built before ADA were required as of January 26, 1992 to begin removing barriers and working toward compliance. It is an ongoing process.
- The 1995 addition to the elementary school was designed and built after the Americans with Disabilities Act was signed into law. This addition was designed to accommodate the ADA features at that time. The ADA Analysis included in the appendix of this report is based on current ADA compliance and provides a thorough review of ADA components in the building. There are newer ADA requirements that have been adopted in the Act that were not part of the Act prior to the 1995 addition. Where there are duplicated services/components (i.e. drinking fountains, restrooms) not all of them are required to meet the ADA requirements, at least one does, depending on the component and building conditions.
- The major ADA components, including the accessible path of travel to all areas containing a primary function are compliant, including classrooms, restrooms, and drinking fountains.

BUILDING CAPACITY:

- The Freedom Elementary School houses 702 students. The District’s goal for student-to-teacher ratio is as follows:
 - 4K – 2 grade = 1:20
 - 3-5 grade = 1:25
- Based on these goals and the current use of spaces available in the building, the goal capacity is 775 students at a 90% operational efficiency equals 697. The target capacity number is below the current school population.



MODERN / FLEXIBLE LEARNING SPACE:

The District is interested in providing modern and flexible learning spaces for their staff and students. The current facility is designed with traditional classrooms. The classrooms sizes are 900 SF and larger; these are typical sized classrooms. The pre-k and kindergarten classrooms have individual toilet rooms that are directly accessible from the classroom.

The school includes one gym, one multipurpose room and a separate cafeteria. The District has moved elementary school concerts to the middle/high school building due to lack of space in the elementary building to hold such events.

The staff noted that the restroom quantity are not adequate, especially at the lower level. Also, there are not adequate staff restrooms.

The building lacks storage rooms. This may be a result from storage rooms being used as offices.

The building does not have any break-out, collaboration, conference, or professional development rooms.

The building is well maintained, but is lacking inspiration, energetic colors and design promoting learning. The rooms do not have flexible furniture, nor do they open to each other, allowing for collaboration.

SAFETY AND SECURITY:

The current facility does not have a secure entrance where the visitors are required to enter through the office prior to proceeding into the remainder of the building. The elevator and one office are located within the vestibule prior to the locked doors into the building. The main office is remote, up a flight of stairs with no visibility to the front doors. These are major security concerns for the District.

SITE SUMMARY:

The Freedom Elementary School sits on 18.3 acres on County Road E. There is one parking lot that is used for all of the parent, staff, and bus traffic. Approximately 22 buses pick up and drop off students at the Elementary School. The parking lot does not allow for adequate and safe space for all the traffic on-site. Students walk through the line of busses to access the parking lot where parents are parked. The parking lot does not accommodate the number of vehicles on-site for events. There is not adjacent on-street parking since the school is located on County Road E.



FREEDOM ELEMENTARY SCHOOL

Summary and Needs

- All rooms are being used at or near (not necessarily as designed) capacity
- Lacking modern learning spaces
 - Break-out / collaboration spaces / learning labs
 - Flexible furniture
 - Outdated / not inspirational (finishes)
 - Technology availability
- No staff / professional collaboration space
- No conference room
- Lack of storage
- Lack of restrooms (staff and student)
- Already one of the largest elementary schools in the state
- Safety and security (site and building)
- As population increases, additional classrooms will be needed
- Additional gym and cafeteria space needed as student population increases

RECOMMENDATIONS / OPTIONS:

- Remodel main office to increase safety and security
- Remodel within existing building to accommodate needs
 - This option requires removing grades from this building
- Building addition to accommodate needs is an option, but not a recommendation due to the school already being one of the largest elementary schools in the state



FREEDOM ELEMENTARY SCHOOL

Plumbing Description / Condition:

- No areas of concern were noted during the site visit. Fixtures are old but are functioning. The fixtures and faucets will need regular maintenance to keep any leaks to a minimum.
- The water heaters are fairly new and look to be in good shape.

RECOMMENDATIONS:

- The expected service life of the water heaters are 10 – 20 years, depending on water quality.
- Plumbing fixtures have a service life of 30 years, but the faucets and valves have a service life between 10 and 15 years with regular maintenance and part replacement.



FREEDOM ELEMENTARY SCHOOL

Electrical Systems Description / Condition:

LIGHTING:

- Most light fixtures are in fair/good condition and utilize energy efficient T8 lamps.
- Ongoing maintenance items include relamping fixtures every 2-3 years.
- With some exceptions, the useful life of the fixtures is approximately 10 years.

EXTERIOR LIGHTING:

- Building mounted and pole mounted lights are high pressure sodium type. These fixtures are functional, but significantly less efficient than a comparable LED fixture.
- The payback on projects that upgrade exterior high pressure sodium lighting is typically less than 2 years.
- Ongoing maintenance items include relamping fixtures every 2-3 years.

POWER:

- The existing service was upgraded in 2002 to a 208Y/120VAC, 1600A service entrance which is in good condition and appears to be sufficient to accommodate most typical renovation projects. This assumes that current peak demand is lower than 800A, which needs to be confirmed through review of previous utility bills.
- A few panels are in poor condition (the emergency panel) and should be replaced, but the majority of the panels were installed during the 1995 or 2002 renovations and are in good condition.
- In general, disconnects, receptacles, and other electrical devices are in fair to good condition. The devices that are original to the building have reached the end of their useful life, but most equipment installed since 1988 is in good condition.

FIRE ALARM:

- The existing fire alarm system is a Simplex 4100U addressable panel that combines older non-addressable fire alarm devices with newer addressable devices. The panel was installed in 1992, is in good condition, but existing devices do not meet current codes. This system must be upgraded to a new fully addressable system, and every room that is renovated shall receive new devices (horns, strobes, pull stations, etc.)
- Any existing areas within the building where walls are not modified do not require new fire alarm devices. It is acceptable by code to allow the existing devices to be served by the existing 4100U panel which will be monitored by the new addressable panel.



TELE/DATA:

- Tele/data infrastructure is in good condition. Classrooms appear to have adequate access for Smart Boards and teacher computers.
- The Main Distribution Frame (MDF) room has dedicated cooling and adequate rack capacity.
- The school district's desire for additional wireless access points must be considered to determine if existing system requires modification to meet future needs.
- The existing Simplex clock system is in good condition - it is recommended that research be completed to determine if the maintenance required for a centralized system remains appropriate or if stand-alone battery operated atomic clocks are acceptable in the future.
- The existing Dukane sound system is in good condition.

EMERGENCY:

- An existing natural gas emergency generator is located on an exterior concrete pad outside of the boiler room.
- A single transfer switch feeds the emergency panel that serves minimal emergency and exit lighting.

ELEVATOR:

- The existing elevator was installed in 1988, and appears to be in fair condition, but does not appear to have a code required shunt-trip circuit breaker.

SECURITY:

- If the district is interested in an added layer of security, further clarification is required to determine the scope of security devices such as card readers, electric strikes, security cameras, etc.



FREEDOM ELEMENTARY SCHOOL

HVAC Description / Condition:

- The main heat source for the building is four natural gas fired hot water boilers. These provide hot water for the entire building. The boilers were installed during the 2002 remodeling project, making them 14 years old. The typical service life of a boiler is usually 25 years depending on regular maintenance of the units.
- Each boiler has an individual in-line circulating pump. If these pumps were from the original installation, they have exceed the expected service life of 10 years. Over the next few years these pumps may need additional service or replacement. Two base mounted pumps distribute hot water throughout the building, and are most likely part of the 2002 remodel project, making them 14 years old. The expected service life of base mounted pumps is 20 years, but with continued maintenance additional years of service life can be expected.
- The cooling system consists of a combination of system types.
 - The original building was remodeled in 2002 and the existing classroom unit ventilators were replaced with unit ventilators with cooling capabilities. The expected service life for unit ventilators is between 20 and 25 years.
 - ◆ Some classrooms in the basement have finned pipe radiation along the walls, in addition to the unit ventilators to provide additional heat.
 - ◆ Several of the unit ventilators have an outside air louver with a sheet metal hood over the louver. There could be issues with water entering the louver or around the louver into the building.
 - ◆ A chiller was added to provide chilled water (glycol mixture) for the unit ventilators, fan coils and air handling unit coils. The chiller is an air cooled screw type chiller and is located on the roof. The service life is 20 years, depending on maintenance and actual numbers of operation hours.
 - ◆ An air handling unit with hot water and chilled water coils was added in 2002 to provide cooling for the cafeteria.
 - The addition in 1995 added air handling units to serve the classrooms.
 - ◆ One air handling unit is a variable air volume (VAV) system. Air is distributed to the classroom on the first and second floors of the addition. A VAV box in each classroom varies the air flow to maintain the cooling set point. If heat is required the VAV box closes to it's preset heating air flow and the hot water valve on the hot water coil of the VAV box opens to provide heat. The service life of the VAV boxes is 20 years. The boxes have reached this time frame where service may become more numerous. The control valves may start to fail and the damper bearing/bushings may become worn making control of the damper less efficient.
 - ◆ The second air handling unit serves a multi-purpose room. The unit is a constant volume unit.
 - ◆ Both air handling units have a hot water coil and direct expansion (DX) cooling coils. Air cooled condensing units are located on grade just outside of the air handling unit mechanical room. The service life of the air handling units and air cooled condensing units is between 20 and 25 years.
 - The air handling unit that serves the gym does not have air conditioning. The air handling unit only has a hot water coil. There does not appear to be space to add a cooling coil.



- The small toilet rooms adjacent to the classrooms have ceiling exhaust fans and are ducted to a wall louver or cap. These ceiling fans have a service life of about 15 years. The large toilet rooms are exhaust by a fan located on the roof.
- The kitchen has exhaust hoods over the cooking equipment and the dishwasher. Make-up air is provided by the air handling unit serving the cafeteria and transfers into the kitchen. The exhaust fans have a useful service life of 25 years with proper maintenance.
- The computer classroom areas and server areas are served with split system cooling units. These units have a useful service life of 15 years.

RECOMMENDATIONS:

- The general condition of the mechanical equipment appears to be good shape. There was nothing that jumped out as needing immediate attention. Most of the equipment has been replaced either 14 or 21 years ago. Continued maintenance can extend the life of the equipment past the average service life.
- There were few areas with water damaged ceiling tiles. This could be caused by the heating valves. Finding leaky valves is an after the occurrence event and general review of the piping would not indicate a future problem. It is a fix as you go item.
- The major equipment that may be nearing the end of useful service life are the air cooled condensing units in the 1995 addition. The air cooled condensing units providing cooling for the DX coils in the 1995 air handling units could start to see more maintenance calls. These units may need to be replaced in the next 5 years so this should be taken into account for future maintenance budgets. New units would have better efficiency ratings and could utilize a more environmentally safe refrigerant. New cooling coils may also be needed as they may not be compatible with the new refrigerants.
- The only area of the school that does not have air conditioning is the gym. The gym is used as a classroom, for sporting events and assemblies. It does not appear a cooling coil can be added to the air handling unit serving this space. The discharge air ductwork from the air handling units could possibly be modified for the installation of a cooling coil. If there is enough diversity on the existing chiller, a chilled water coil could be provided and piped from the existing chilled water system. If there is not capacity available on the existing chiller a new air cooled condensing unit could be provided and a DX coil and refrigerant piping added to provide the cooling.
- Control systems keep changing. Some components of pneumatic or electric systems need to be replaced due to parts becoming unavailable. Even Direct Digital Controls need to be replaced because they become obsolete. An open protocol BACnet system should be considered. This would allow parts to be supplied from multiple vendors or equipment manufacturers and still be compatible with the system.



FREEDOM ELEMENTARY SCHOOL

Basement Floor Plan





FREEDOM ELEMENTARY SCHOOL

Second Floor Plan





FREEDOM ELEMENTARY SCHOOL Site Plan





FREEDOM MIDDLE / HIGH SCHOOL

Architectural Description / Condition

The original High School was built in 1905, with several significant renovations and additions over the past 100+ years (1941, 1950, 1956, 1972, 1990, 1995, 2002, 2005). In 1927 a fire burned the wooden school building and in 1929 a brick building was built for the High School. There was a classroom addition in 1972, and in 1990, Freedom Middle School was added to the High School to house grades 6 through 8. In 1995, the field house was added and portions of the 1929 section of the building were remodeled for the District Office. Additional construction work in 2002 included a new Middle School Entrance, remodeling to the Guidance, Spanish, High School Offices, and various other areas. The District Office was remodeled in 2005. The major concerns with the Freedom Middle/ High School are safety and security of the building, as well as space inadequacies (see below).

ROOFING:

- The middle / high school building has a variety of roof types. The roofs appear to be in good condition; there was one area on the 1995 roof that had a build-up of sawdust on the roof. This could cause issues with drainage and membrane failure. The District has been made aware of this condition.
- Portions of the building noted by their construction age (not necessarily date of last roofing installation)
 - 1929: Adhered membrane
 - 1939: Shingles over Dome Gym; Adhered membrane on adjacent lower roofs
 - 1956: Adhered membrane (Built-up roof at lower entry roof)
 - 1972: Adhered membrane
 - 1990: Ballasted
 - 1995: Ballasted
 - 2002: Adhered membrane

ADA AND BUILDING CODE:

- The Americans with Disabilities Act is not a building code; it is a civil rights law. Many believe that any building built before ADA became law in 1990 is “grandfathered” in. However, buildings built before ADA were required as of January 26, 1992 to begin removing barriers and working toward compliance. It is an ongoing process.
- The major ADA components, including the accessible path of travel to all areas containing a primary function, are compliant, including classrooms, restrooms, and drinking fountains; with the exception of the wrestling room. There is not accessible access to the current wrestling room.

BUILDING CAPACITY:

- The Freedom Middle / High School is currently housing 919 students. Currently – 6th grade is 141 students, 7th grade is 132 students, 8th grade is 110 students, 9th grade is 128 students, 10th grade is 147 students, 11th grade is 142 students and 12th grade is 119 students. The District goal for student to teacher ratio is 1:27 +/- 2.
- Based on these goals and the current use of spaces available in the building, the goal capacity is 1,092 students at a 85% operational efficiency equals 928. The target capacity number is under the current population.



EDUCATIONAL ADEQUACY:

- The District is interested in providing modern / flexible learning spaces for their staff and students. The current facility is designed with traditional classrooms. The building is lacking in modern learning spaces. There are no break-out / collaboration spaces. There is not flexible furniture. Many of the spaces are outdated and uninspiring, particularly the cafeteria. There are a number of spaces that are not sized appropriately to support the capacity or curriculum needs including: music, performance space, art, tech ed, agriculture.
 - The art rooms are undersized to offer the curriculum goals of the instructors. There is not adequate storage space. The rooms are interior and there is not any natural light into the spaces and they lack areas to display art work.
 - The music department is in the lower level. The band room is small for use by the middle school and high school band program. The room has a tiered/pit layout and the acoustics in the band room are poor. The instrument storage is in the band room, which magnifies the size constraints in the room. The practice rooms in the music department do not get used because the remote location does not allow for visibility and supervision of the students practicing.
 - The LMC is an interior space, lacking natural light. It is a traditional library space. Most schools are looking at their LMC spaces as modern learning labs, reducing their collection stacks and re-evaluating their use of space. Most learning labs provide flexible furniture, soft seating, break-out collaboration rooms and maker-spaces.
 - The Tech Ed and Agriculture Spaces have amazing instructors doing amazing things within their current spaces, however, the current spaces are undersized and oddly configured with poor access. Additional space and exterior access is needed for the various labs. The Ag department has an inadequate green house. The Tech Ed labs are remotely located in the building and hidden from view; the CTE programs are a high priority based on a community survey and should be given priority and prominence in the school building.
 - The Science labs and their storage differ significantly throughout the building. Equity in the science department should be realized. There is a lack of ventilation in some of the labs.
- The school is lacking an auditorium. It has a lecture hall that seats 196. It is not an accessible space with ADA seating. The school does use the facility for their musicals/plays, however, the facility is not designed to accommodate performances. It does not have an adequate stage or accessory spaces needed for performance – storage, scene shop, greenrooms, etc. It does not have the adequate lighting and sound systems for a typical high school auditorium. The lack of seating requires numerous (more than typical neighboring high schools) performances to accommodate the families, staff, community wishing to attend a performance.
- The building is lacking in storage rooms. This may be a result of rooms originally designed for storage being used for other functions.
- The building does not have any break-out, collaboration, conference, or professional development rooms.
- The school has a kitchen and cafeteria in the lowest level. It is inefficient for deliveries. The space is adjacent to the fitness area and a locker room, the ventilation does not appear adequate to remove the odor and humidity in the space. There is no natural light into the space. The students have referred to the cafeteria as the ‘dungeon’.
- The school has a Fieldhouse, the ‘green’ gym and the ‘dome’ gym. They are all used for physical education classes and practices. The ‘dome’ gym is a large multipurpose space; it does not have adequate space for viewing or appropriate floor for competition athletics. The ‘green’ gym is metal building construction. It is a nice gym space with bleachers, but is not suitable for high school competitions. The ceiling obstructions (HVAC) are low. The Fieldhouse does not have air conditioning, which renders the space unusable in times of high humidity. The floor sweats, creating unsafe conditions for the students. The space is uncomfortable for spectators. The cross courts are too close together for multiple physical education classes to appropriately function in the gym at the same time. It has also been noted by the District and community that there are not adequate gym spaces in the District for athletic practices; students come in early or stay late to use the gym spaces for practices.



- The Fieldhouse lobby is undersized. The local fire department has indicated the space that must be left clear for egress access. The space was not designed to provide for pre-function staging or mingling space. During a student interview, the students noted that people aren't gathering by the concessions because there is nowhere to go to hang out and eat their food. Food is not allowed in the Fieldhouse and there is not adequate space to remain in the lobby.
- The wrestling room is located on an upper level and is not accessible. The space is undersized for the wrestling program.
- The school has both a dance and cheer program. Neither of these programs has a dedicated space to practice.
- The school has a wellness center in the lower level. It is not easily secured or accessible by the public. The wellness center has new equipment, but the space is not adequately sized for all the equipment and use.
- The Middle / High School building includes the District Offices. The District Offices are on the second floor with remote visitor access. Visitors are visible via camera only and once provided access in, they have access to the entire school. The visitors are required to navigate through the building (via elevator or multiple levels of stairs) to reach the District Office at the back of the building on the second floor. It is awkward and not inviting for visitors, and the remote access is a major security concern. The District has a conference room that is used as a board room. The conference room is undersized for a board room. The District would like to provide a community room for meetings and activities, however this space is too small and remotely located in the building. There is no adequate space for a large group or community room at this time.

SAFETY AND SECURITY:

- The current facility does not have secure entrance where the visitors are required to enter through the office prior to proceeding into the remainder of the building.

SITE SUMMARY:

- The Freedom Middle / High School sits on 39.3 acres. Approximately 22 buses pick up and drop off at the Middle / High School. There are traffic concerns with the layout and student drivers. There is currently a football stadium on the site that is used for all District football games (middle and high school). There is not adequate space or bleachers for viewing; it has been noted that at high school football game the spectators may be standing seven people deep. There is a soccer field on the site. There are not baseball or softball diamonds on District property. The District rents the municipal ball diamonds; this causes difficulty with scheduling and access. There is not adequate practice field space for athletics and additional space for middle school recess is needed. There is not any outdoor learning; the various staff members indicated outdoor learning space would be used.



FREEDOM MIDDLE / HIGH SCHOOL

Summary and Needs

- No commons / cafeteria
- Lacking modern learning spaces
 - Break-out / collaboration spaces
 - Flexible furniture
 - Outdated / not inspirational
- No auditorium / cafetorium / performance center
- Fieldhouse and locker room concerns
- Inconsistent temperatures
- Spaces being used not as designed (storage as offices)
- Technology availability

RECOMMENDATIONS / OPTIONS:

- Addition and remodeling to accommodate student growth and needs noted above is an option but not recommended due to site and building constraints
- Realign grades to accommodate growth at Elementary, Middle and High school levels and build a new school
 - Recommend a new high school to accommodate needs, particularly in CTE spaces and modern learning environments



FREEDOM MIDDLE / HIGH SCHOOL Plumbing Description / Condition

- No areas of concern were noted during the site visits.
- The facility has used a well as its water source in the past. Now the well is only used for the agricultural area fish tanks.
- The toilet rooms in the south entrance of the “green” gym do not look like they have been remodeled since 1956.
 - The men’s toilet room has floor mounted urinals with a common flush valve that is activated from a door switch. This generally has been changed in most facilities that have this style of flushing operation to save on water. With this system the all the urinals flush even if only one or if none are used. It would require work to modify the supply piping but the option should be reviewed to switch to either manual flush valves or sensor operated flush valves.
 - The water closet is a tank flush style. Because of pipe sizes to the toilet room it is unlikely the water closet could be switched to a flush valve type. The tank did not seem to have a locking lid. The tank should be replaced with a locking lid to prevent tank from becoming a storage location for contraband or the cover becoming a weapon.
- The remaining toilet rooms vary from having a floor mounted water closet to a wall hung water closet. These all appear to be in good shape. The lavatories are all wall hung. Some have push button faucets and others have lever handles. Some have ADA insulation shields over the drain pipe and supply pipes. A couple lavatories have push button faucets for ADA access but do not have traps and supplies covered.
- Water heaters are located in several areas of the building. The water heaters located near the 1956 boiler room appear to have been replaced in 2007 and 2012. These are natural gas fired and are in good shape.
- There is a water heater in the mechanical room of the district office area. This is an electric water heater that is showing corrosion at its base.
- In the old coal bin are three water softener mineral tanks and one brine tank. They did not appear to be operating.
- The mechanical room off the “dome” gym has an electric water heater that serves the fish tanks. This was installed in 2013 but it is already showing signs of corrosion.

RECOMMENDATIONS:

- The expected service life of water heaters is 10 – 20 years depending on water quality.
- Plumbing fixtures have a service life of 30 years but the faucets and valves have a service life between 10 and 15 years with regular maintenance and part replacement.



FREEDOM MIDDLE / HIGH SCHOOL

Electrical Systems Description / Condition

LIGHTING:

- Most light fixtures are in fair/good condition and utilize energy efficient T8 lamps.
- Ongoing maintenance items include relamping fixtures every 2-3 years.
- With some exceptions, the useful life of the fixtures is approximately 10 years.

EXTERIOR LIGHTING:

- Building mounted and pole mounted lights are a combination of metal halide and high pressure sodium type. These fixtures are functional, but significantly less efficient than a comparable LED fixture.
- The payback on projects that upgrade exterior metal halide and high pressure sodium lighting is typically less than 2 years.
- Ongoing maintenance items include relamping fixtures every 2-3 years.

POWER:

- The existing was service was updated in 1971 to a 208Y/120VAC, 3000A service entrance, which is in fair condition.
 - The existing utility transformer serving the building was upgraded in 2002.
 - A 3000A busway was added in 1995 to serve an additional switchgear section to add physical breaker space for additional electrical distribution for panelboards and mechanical equipment.
 - This assumes that current peak demand is lower than 2000A, which needs to be confirmed through review of previous utility bills.
- A few panels are in poor condition and should be replaced, but the majority of the panels were installed during the 1972 and later renovations. In general, all panels installed prior to 1972 should be replaced. Panels installed in 1972, not including service entrance equipment, are nearing the end of their useful life and should be replaced with priority given to panels in worse condition. All panels installed in 1990, 2002, and 2005 are in good condition.
- In general, disconnects, receptacles, and other electrical devices installed after 1972 are in fair to good condition. The devices installed prior to 1972 have reached the end of their useful life.

SECURITY:

- If the district is interested in an added layer of security, further clarification is required to determine the scope of security devices such as card readers, electric strikes, security cameras, etc.



FIRE ALARM:

- The existing fire alarm system is a Simplex 4100U addressable panel that combines older non-addressable fire alarm devices with newer addressable devices. The panel was installed in 1995, is in good condition, but existing devices do not meet current codes. This system must be upgraded to a new fully addressable system, and every room that is renovated shall receive new devices (horns, strobes, pull stations, etc.)
 - Any existing areas within the building where walls are not modified do not require new fire alarm devices. It is acceptable by code to allow the existing devices to be served by the existing 4100U panel which will be monitored by the new addressable panel.

TELE/DATA:

- Tele/data infrastructure is in good condition. Classrooms appear to have adequate access for Smart Boards and teacher computers.
- The Main Distribution Frame (MDF) room has dedicated cooling and adequate rack capacity.
- There is a significant amount of obsolete or abandoned cable and junction boxes that should be removed.
- The school district's desire for additional wireless access points must be considered to determine if existing system requires modification to meet future needs.
- The existing Simplex clock system is in good condition.
 - It is recommended that research be completed to determine if the maintenance required for a centralized system remains appropriate or if stand-alone battery operated atomic clocks are acceptable in the future.
- The existing Dukane sound system is in good condition.

EMERGENCY:

- An existing 30 kW emergency generator is located in the mechanical room near the auto shop space. This generator is at the end of its useful life and should be replaced.
- A single transfer switch feeds the emergency panels that serves minimal emergency and exit lighting.

ELEVATOR:

- The existing elevator was installed prior to 1995, and appears to be in fair condition, but does not appear to have a code required shunt-trip circuit breaker, and does not have a physical guard on the controller.
- The existing room does not appear to have the code required containment and disposal system for a potential hydraulic fluid spill.



FREEDOM MIDDLE / HIGH SCHOOL

HVAC Description / Condition

- The building has had many addition and remodeling projects over the years. There are several boilers rooms and air handling rooms. Natural gas provides the energy source for the boilers.
 - The boiler room located under the locker room by the “green” gym serves the original building, the 1939 “dome” gym, the 1956 building, the “AG” and shop areas, along with the 1972 addition.
 - ◆ Five Patterson-Kelley boilers were installed in 2002. These boilers are aluminum boilers. The useful service life of these boilers is usually 25 years depending on maintenance of the units. Aluminum boilers require additional chemicals to maintain the correct water chemistry compared to copper or cast iron boilers.
 - ◆ Each boiler has individual in-line circulating pumps. If these pumps were from the original installation, they have exceed the expected service life of 10 years. Over the next few years these pumps may need additional service or replacement. Two base mounted pumps distribute hot water throughout the building. These pumps are most likely part of the remodel project, making them 14 years old. The expected service life of base mounted pumps is 20 years, but with continued maintenance additional years of service life can be expected.
 - A boiler room in the 1990 addition serves just that part of the building. In that room there are two Burnham boilers that appear to be original, making them over 25 years old. These boilers are constructed of cast iron which has a useful service life of 30 years. Some maintenance will start to be more numerous in the years ahead.
 - ◆ There is a lot of corrosion of the piping and supports in the boiler room which would indicate past leaks. No leaks were noticed during the site investigation.
 - ◆ The door to the boiler room was open during our site investigation. The boilers are not sealed combustion boilers so the room must be fire rated. Open doors negate the rating.
- During our second site visit, the boiler room was open to the air handling room. The system was designed with the intent for the boiler door to be closed. Because of this there would not be switches on the air handling unit doors to shut down the air handling units if the air handling unit’s access doors are open. This is to prevent the air handling units from drawing the boiler flue gases back into the building. Without the switches there can be a health concern if the access doors are open and the boilers are firing.
 - In the 1995 addition portion of the building, the boilers were replaced in 2004. The boilers are Thermal Solutions Evolution boilers. These boilers are copper-finned boilers and have a useful service life of 25 years.
 - ◆ Hot water is piped across the 1990 addition to the west side 1995 addition to provide hot water to the air handling units and variable air handling units.
- The original building (administrative offices) was remodeled in 1995 and the HVAC system was converted to a variable air volume (VAV) system.
 - Spaces are served by VAV boxes to adjust the air flow to the space for heating and cooling. The VAV boxes have hot water coils to provide heat for the space. Rooms with exterior walls also have baseboard finned-pipe radiation to assist heating the spaces.
 - An air handling unit is located in the old boiler room. This unit consists of a hot water heating coil and direct expansion (DX) cooling coils. The air cooled condensing unit is located on grade adjacent to the building.
- The “dome” gym is heated with unit ventilators located on the floor. These were installed as part of the 2002 addition and remodeling. The units are heating only.



- The aqua-culture area and animal lab is served by an air handling unit with energy reclaim. The unit has a hot water heating coil, a DX cooling coil and energy wheel. This unit is a constant volume unit. The air cooled condensing unit is located on grade adjacent to the mechanical room. Hot water heating coils are provided to heat each space in these areas. The space is exhausted at 50% of the air flow with an option to go to 100% of the air flow of the air handling unit.
 - An adjacent classroom is heated and cooled with a unit ventilator. The unit ventilator uses a small air cooled condensing unit for cooling and hot water for heating. The unit ventilator was part of the 2002 project. The useful service life for unit ventilators is 20 to 25 years.
- The shop area is served by a combination of heating only units, make-up air units, a rooftop cooling unit and exhaust fans. These were part of the 1995 addition and remodeling project. The useful life of this equipment is 25 to 30 years. Equipment and course curriculum has changed in the past 20 years so the HVAC system may not be laid out or operating at what is best for today.
- The “green” gym is served by a heating only air handling unit. The unit is mounted at the ceiling of the gym at the divider curtain. The age of the unit is unknown.
 - The south entry to the gym has hot water convectors heating the space. There is no air conditioning in this part of the building. Heating hot water pipes to the front area are run in a tunnel around the “old” perimeter of the 1956 addition. We did not get access to the tunnel. The piping in the tunnel was added in 2002 and is assumed to be in good condition. The control valves are outside the tunnel and can be serviced from the first floor.
- The classrooms in the 1956 addition are served by a rooftop unit. The age of this unit is unknown.
- The lecture hall air handling unit appears to be from the 1972 addition and is over 40 years old. Fan bearings and damper bushings need to be checked and maintenance may be required. A chilled water cooling coil was added to the unit in 2002.
- Adjacent to the lecture hall air handling unit there is a small air handling unit that serves the high school office area. This unit is cooling only and does not have a heating coil. Cooling is provided with an air cooled condensing unit located on the roof. There is an intake hood located on the roof that is damaged. How it was damaged is unclear as it does not appear there would have been a snow slide from an upper roof that could have caused this.
 - The offices are zoned and heat is provided by electric duct heaters. The age of this equipment is unknown.
- There are two air handling units that serve the 1972 classrooms. Both units are located adjacent to the west stairs. One is located on the lower level and the other on the first floor level. Both units do not have a heating option, but in 2002 they were provided with a chilled water cooling coil. Both units are constant volume units.
 - The classroom areas are zoned and heat is provided with hot water booster coils.
- The 1990 addition has an air handling unit with hot water heating coils and DX cooling coils. There is a cabinet fan as a return fan. The air cooled condensing unit is located on the roof. The air handling unit is original to the addition but it is unknown if the air cooled condensing unit is that old. During the site visit in the summer sweating on the supply ductwork in the mechanical room was present. It appears that some of the internal duct lining is coming loose resulting in cold air coming in contact with the metal duct. The sweating then occurs on the warm mechanical room side of the duct. This needs to be corrected.
 - The classrooms are served by variable air volume (VAV) units with hot water coils.



- The 1995 addition added classrooms to the northwest side of the building and the field house to the northeast side of the building. Two mechanical rooms were added, one in each addition.
 - An air handling unit located on the first floor of the west addition serves the lower level of the west addition. A second air handling unit was added in the 2002 remodel and that unit serves the first floor of this addition. The air handling units have a hot water heating coil and DX cooling coils. Each unit has an air cooled condensing unit located on the roof. The age of the air handling units are the same as the addition or remodeling. While they are nearing the end of their useful service life, minor maintenance can be done to each unit to extend the life. This may include fan bearings, coils cleaning or replacement and damper bushing replacement.
 - In the first floor mechanical room on the east side by the field house are three air handling units. One unit serves the field house; a second serves the locker areas on the lower level while the third unit serves the first floor wrestling area. These units have a heating coil only. All three units have space for the addition of a cooling coil. The age of the air handling units are the same as the addition or remodeling. As with the units on the west side, the units are nearing the end of their useful service life, minor maintenance can be done to each unit to extend the life. This may include fan bearings, coils cleaning or replacement and damper bushing replacement.
- An air cooled chiller rated at a 150 ton cooling capacity was part of the 2002 remodeling project. The chiller is located on a mechanical room roof on the building east side. The chilled water is pumped to mechanical rooms in the 1972 addition, serving the lecture hall and the units serving the classrooms.

COMMENTS / CONCERNS FROM STAFF:

- One comment was how cold the classrooms in the 1972 portion of the building are during the summer months. This most likely is the result of how the HVAC system is operated in the summer months. The air handling units that serve these classrooms are constant volume units. Air flow to the rooms is designed for a peak design outdoor temperature day with the space being fully occupied. The air flow is at maximum volume. Each classroom has a hot water booster coil in the duct serving that room. During the heating season the thermostat registers a lower than set point temperature and opens the hot water valve to warm the space. During the summer months air from the air handling units is provided at 55°F. This is no matter what temperature the outside air is or if the spaces are occupied or not. The wall thermostat opens the hot water coil valve to warm the room up. But unlike during the heating months the boilers are most likely shut down for the summer. The hot water coils do not have any heat available and the rooms over cool.
 - This can even be possible with variable air volume systems that are not allowed to reduce the air flow below the code required air flow. If the boilers are off, the spaces can over cool but not to the same degree as constant volume systems.
- Also, in the 1972 part of the building, it was noted that ceiling tiles need to be replaced because the ductwork is sweating. This is the result of the duct insulation not completely covering the metal duct. This could be caused either by section of duct lining coming loose and exposing the metal or the exterior duct insulation vapor barrier becoming damaged and allowing moisture to enter the insulation and reach the dew point. This vapor barrier can be damaged by other work above the ceiling such as plumbing work or wiring being pulled for data or communication.
- There are some comments about odor coming down the corridor to the cafeteria from the weight lifting room. This could be caused by a number of reasons or a combination of reasons.
 - There may not be adequate exhaust air for this space. In parts of the school the return air is transferred to the corridor before it returns to the air handling units. We could not find a large exhaust system for this area so it is possible the air is simply transferred to the corridor.
 - It could be possible the kitchen exhaust and make-up air fans are not properly balanced. If there is not enough make-up air the exhaust fans will try to draw air from wherever they can. If classroom air or weight room air is transferred to the corridor it will be drawn down to the cafeteria.



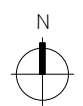
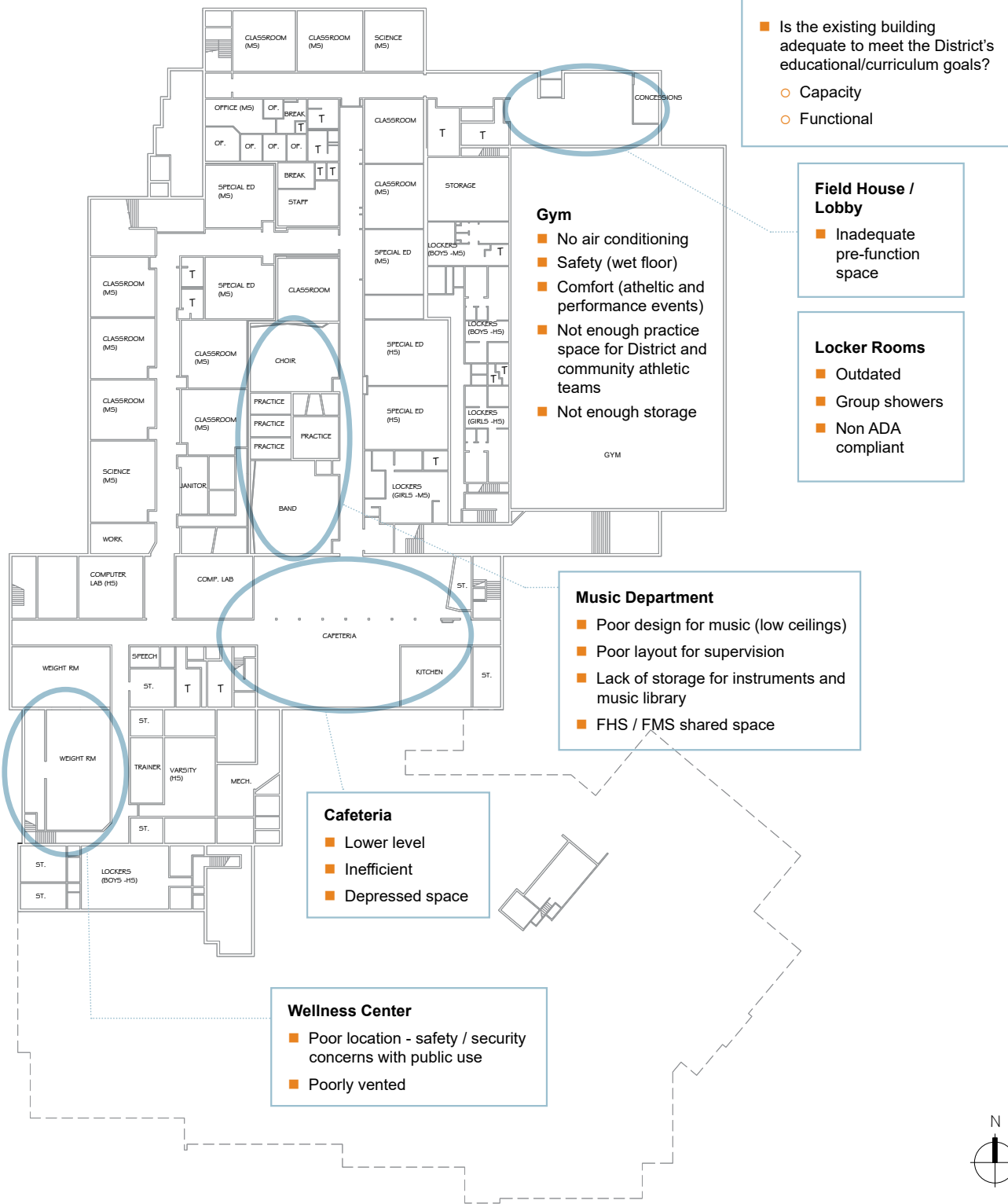
RECOMMENDATIONS:

- The general condition of the mechanical equipment appears to be good shape. There was nothing that jumped out as needing immediate attention. Most of the heating equipment has been replaced either 14 years ago or 21 years ago. Continued maintenance can extend the life of the equipment past the average service life. The boilers in the 1990 addition will need to be replaced in the near future.
- The air handling units are in good shape. Some are older and may need to have the inside of the unit and coils cleaned.
- The building has numerous air cooled condensing units on grade or on the roof. These units have a useful service life that is half of inside equipment. These units need to be monitored and when service becomes more frequent they will need to be replaced. The corresponding DX cooling coil more than likely will need to also be replaced, as the old coil may not be compatible with the new refrigerant used by the air cooled condensing units. Future maintenance budgets should consider costs to replace these air cooled condensing units in the near future.
- Most of the school is air conditioned with the exception of the gyms, locker areas and the industrial shops. Generally we do not air condition the shops. However, today all gyms are getting air conditioning, especially if they are also used for assembly spaces.
 - The “dome” gym is served by unit ventilators. These are heating only and would need to be replaced to add cooling. Depending if other areas will be air conditioned, a new chiller could be provided to provide chilled water to the new unit ventilators. If not, each unit ventilator could be provided with its own small air cooled condensing unit. Both options could get expensive and the use of this gym would need to be reviewed to see if the cost would be worth it.
 - The “green” gym is served by a heating only air handling unit mounted in the center of the gym. A partition wall/soffit runs down the middle of the unit and divides the unit and ductwork in half. There is not any space in the air handling unit to add a cooling coil. A cooling coil would need to be added in the ductwork if the existing unit was to remain. This would not be a feasible option as much of the partition wall/soffit would need to be removed. One option would be to provide two smaller air handling units, one for each half of the gym. This will allow for better air distribution as the ductwork can be run along further to allow for the installation of diffusers for even air flow.
 - The lobby to the south of the gym does not have any ventilation. A new unit would need to be provided to ventilate and cool this space.
 - ◆ The field house and locker areas are served by several air handling units. These units have provisions to add cooling coils. Because the load on the field house can vary from one extreme to the other, it is recommended chilled water coils and an air cooled chiller be added to cool these spaces. The chiller would probably need to be located on grade with the pumps up in the mechanical room with the air handling units.



FREEDOM MIDDLE / HIGH SCHOOL

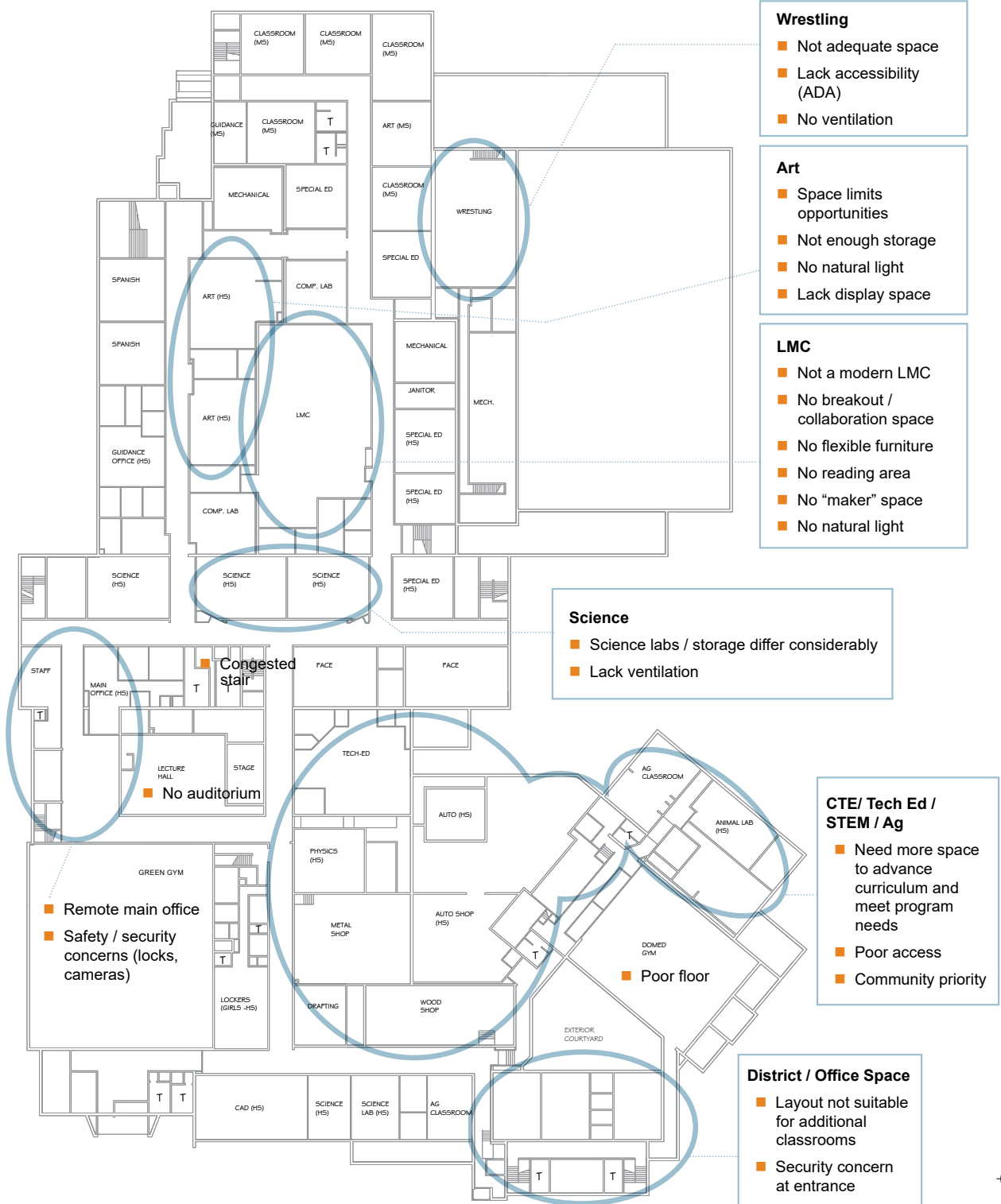
Lower Level Floor Plan





FREEDOM MIDDLE / HIGH SCHOOL

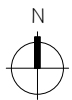
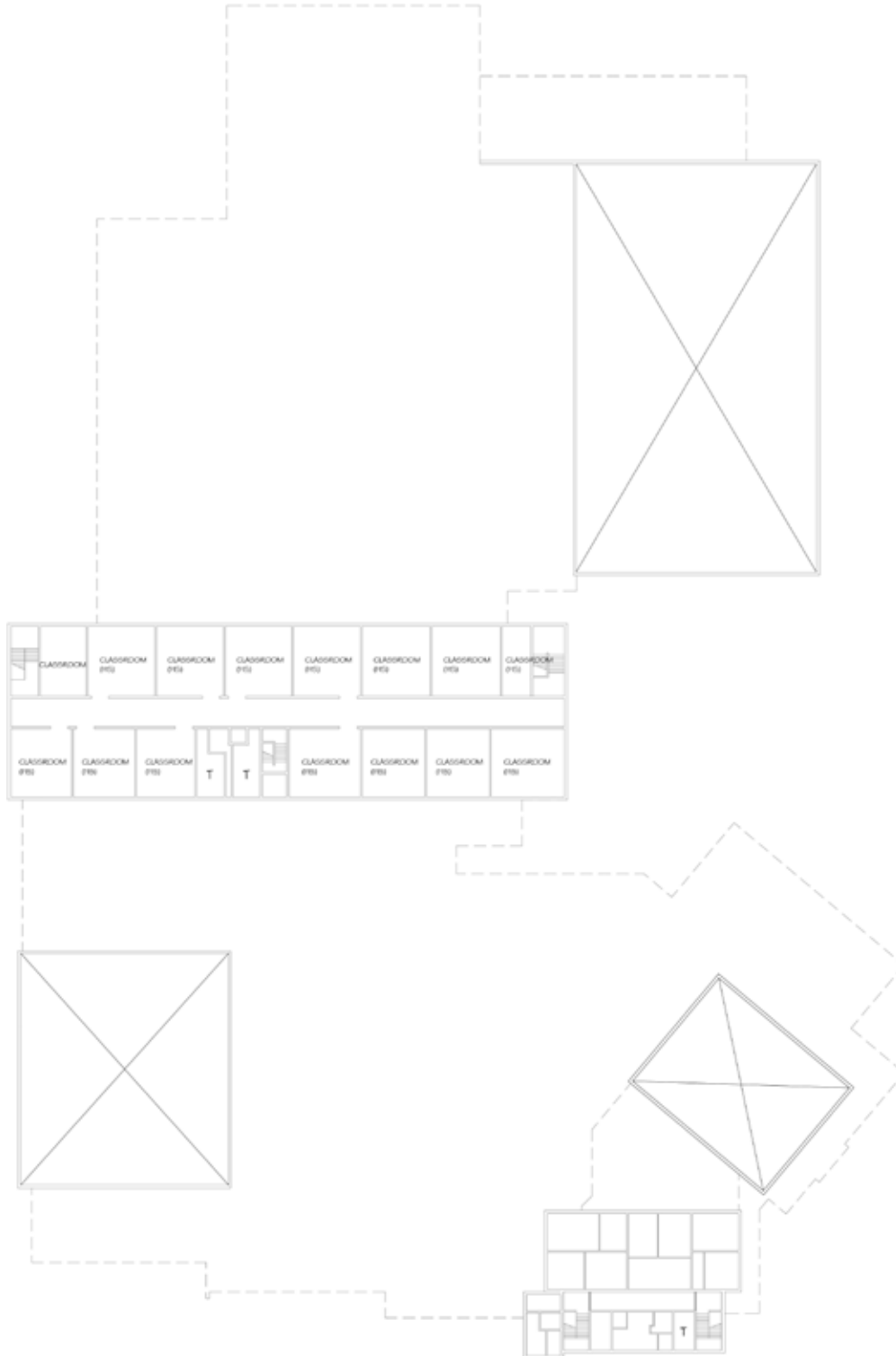
First Floor Plan





FREEDOM MIDDLE / HIGH SCHOOL

Second Floor Plan





FREEDOM MIDDLE / HIGH SCHOOL Site Plan



NOTES:

Bus / Traffic / Safety Concerns

- 22 buses
- Traffic concerns with student drivers

Outdoor Spaces

- Need space for Middle School Playground
- Additional bleachers needed
- Track & field amenities
- Fence around track
- No on-site baseball and softball diamonds
- Outdoor learning space



APPENDIX A

ADA (Americans with Disabilities Act) Analysis



FREEDOM ELEMENTARY SCHOOL - ADA ANALYSIS
APPROACH AND ENTRANCE

ADA REQUIREMENT - PARKING		PARKING AREA NUMBER			
		AREA #1			
There is an adequate number of accessible spaces provided Total parking spaces: 133 Accessible spaces required: 5 Van accessible spaces required: 1		Total ADA parking: 5 (1 Van Accessible)			
Total number of accessible spaces		4			
Total number of van accessible spaces		1			
ACCESSIBLE PARKING	The accessible spaces are at least 8' wide with an access aisle at least 5' wide	Y			
	The van accessible spaces are at least 11' wide with 5' aisle or 8' wide with 8' wide aisle	Y			
	There is at least 98" of vertical clearance provided for the van accessible space	Y			
	The access aisles are marked so as to discourage parking in them	Y			
	The slope of the accessible spaces and aisles are no steeper than 1:48 in all directions	Y			
	Access aisles adjoin an accessible route	Y			
	Accessible spaces are identified with a sign that includes the International Symbol of Accessibility	Y			
	The bottom of the sign is at least 60" above the ground	Y			
	There are sign reading "van accessible" at van accessible spaces	N			
	Of the total parking spaces, the accessible spaces are located closest to the entrances	Y			
	The accessible route is stable, firm and slip resistant	Y			
	The route is at least 36" wide	Y			
	The slope of the route is no steeper than 1:20	Y			

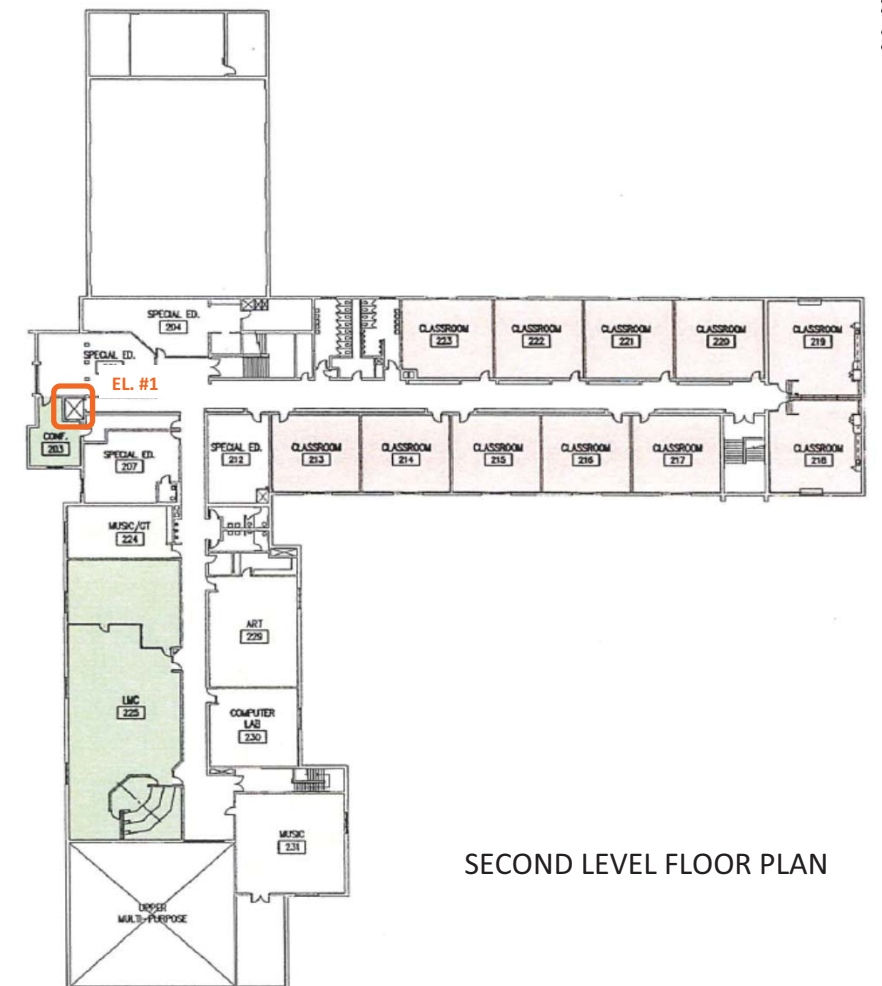
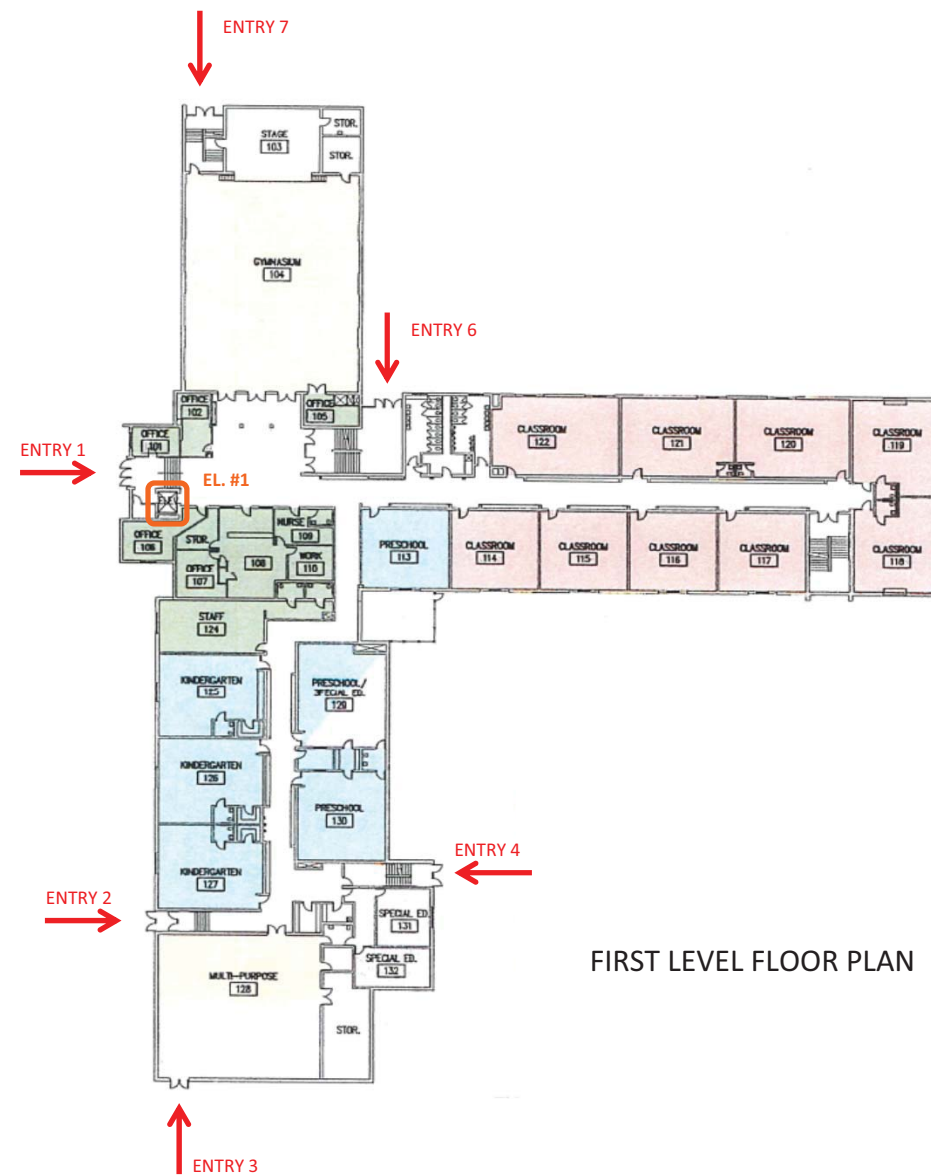
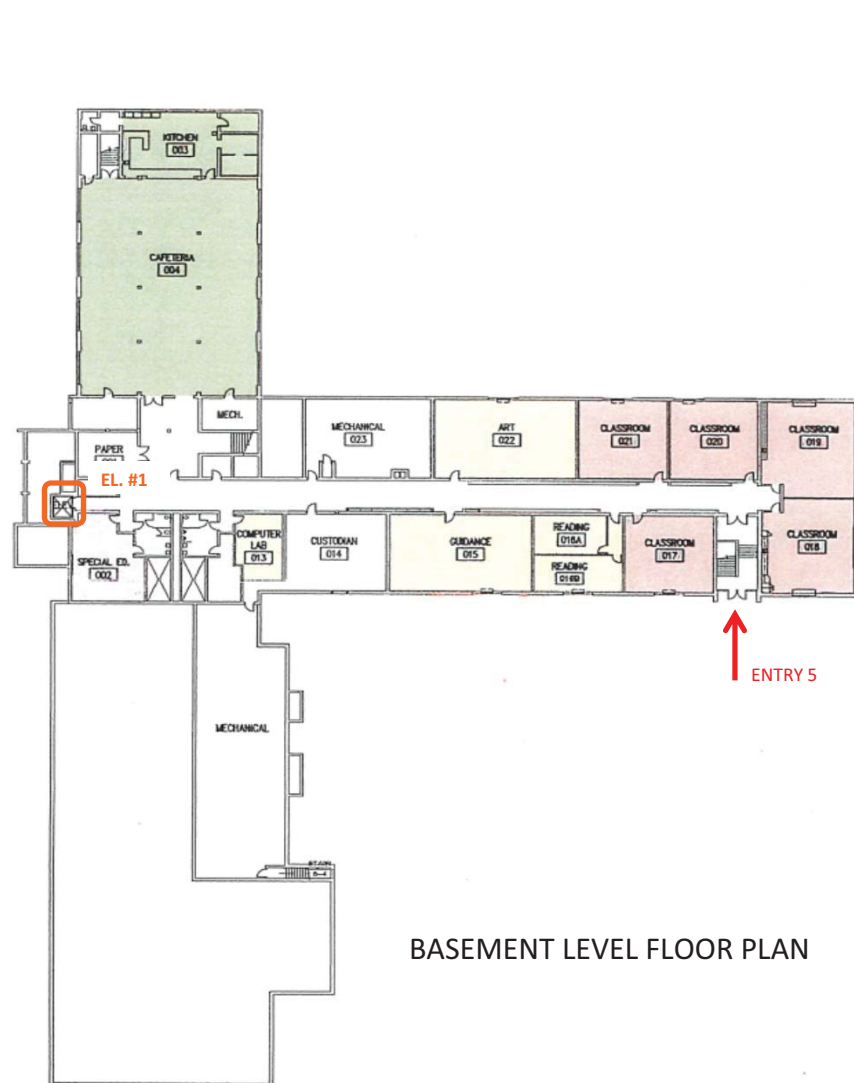
ADA REQUIREMENT - CURB RAMPS		CURB RAMP NUMBER			
CURB RAMPS	The running slope is no steeper than 1:12				
	The width is at least 36" (excluding flares)				
	The slope of the curb flares are no steeper than 1:10				
	There is a level landing at the top of the curb ramp that is at least 36" long				

ADA REQUIREMENT - RAMPS		RAMP NUMBER			
RAMPS	The ramp is at least 36" wide				
	The surface is stable, firm and slip resistant				
	The running slope is no steeper than 1:12				
	The top of the handrail is between 34" - 38" above the ramp surface				
	The handrail diameter is between 1 1/4" - 2"				
	The handrail extends at least 12" beyond top and bottom of ramp				



ADA REQUIREMENT - ENTRANCE	ENTRANCE NUMBER							
	ENTRY 1	ENTRY 2	ENTRY 3	ENTRY 4	ENTRY 5	ENTRY 6	ENTRY 7	ENTRY 8
Entrance is accessible	Y	N	Y	N	N	N	N	N
Entrance have signs indicating accessible entrance or location of nearest one	N	N	N	N	N	N	N	N
The clear opening width of entrance doors are at least 32"	Y		Y					
There is at least 18" clearance on pull side of door	Y		Y					
The threshold is no more than 1/4" high or 3/4" if beveled	Y		Y					
Doors are equipped with hardware that is operable with one hand and does not require tight grasping, pinching or twisting of the wrist	Y		Y					
The operable door hardware is between 34" - 48" above the floor	Y		Y					
If the door has a closer, it takes at least 5 seconds for door to close	Y		Y					
If there are two door in a series, the distance between the doors is at least 48" plus the width of the doors	Y		N/A					
Carpets or mats are no higher than 1/2" thick	Y		Y					
Edges of carpets or mats are securely attached	Y		Y					

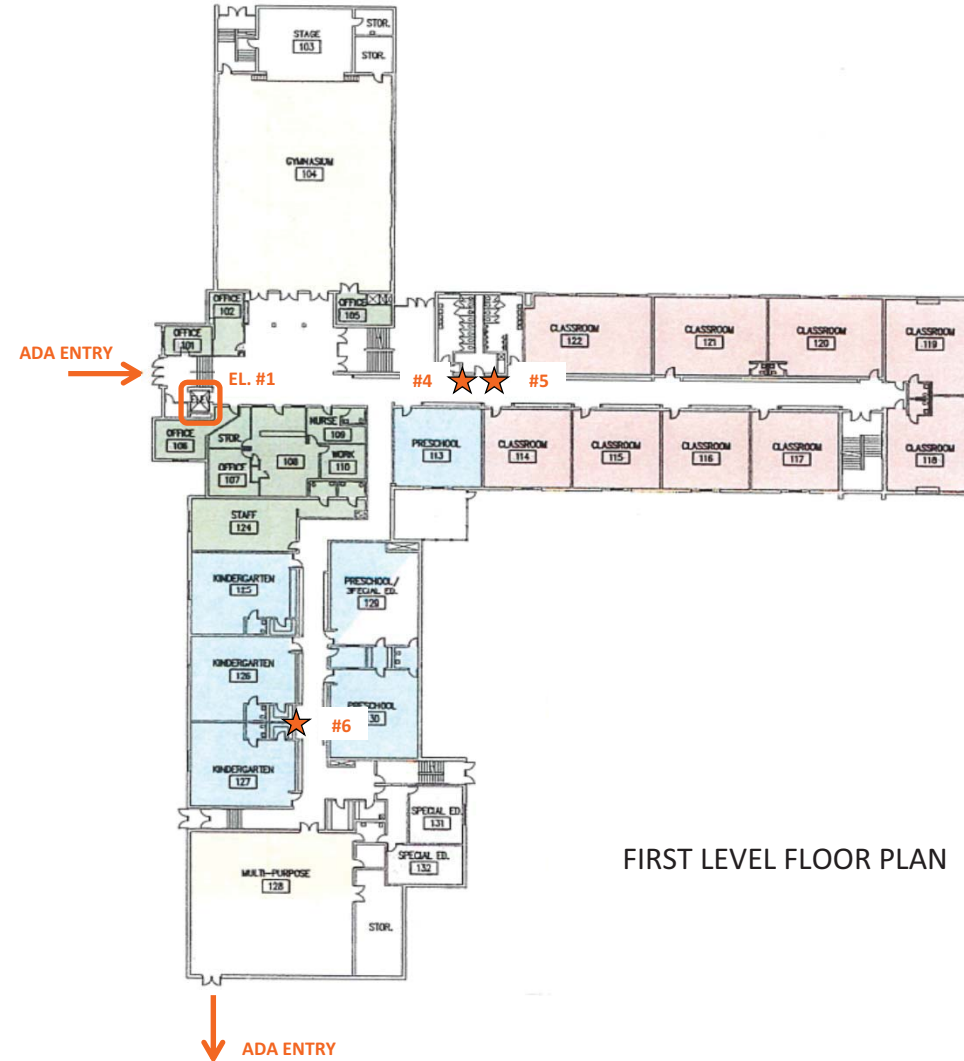
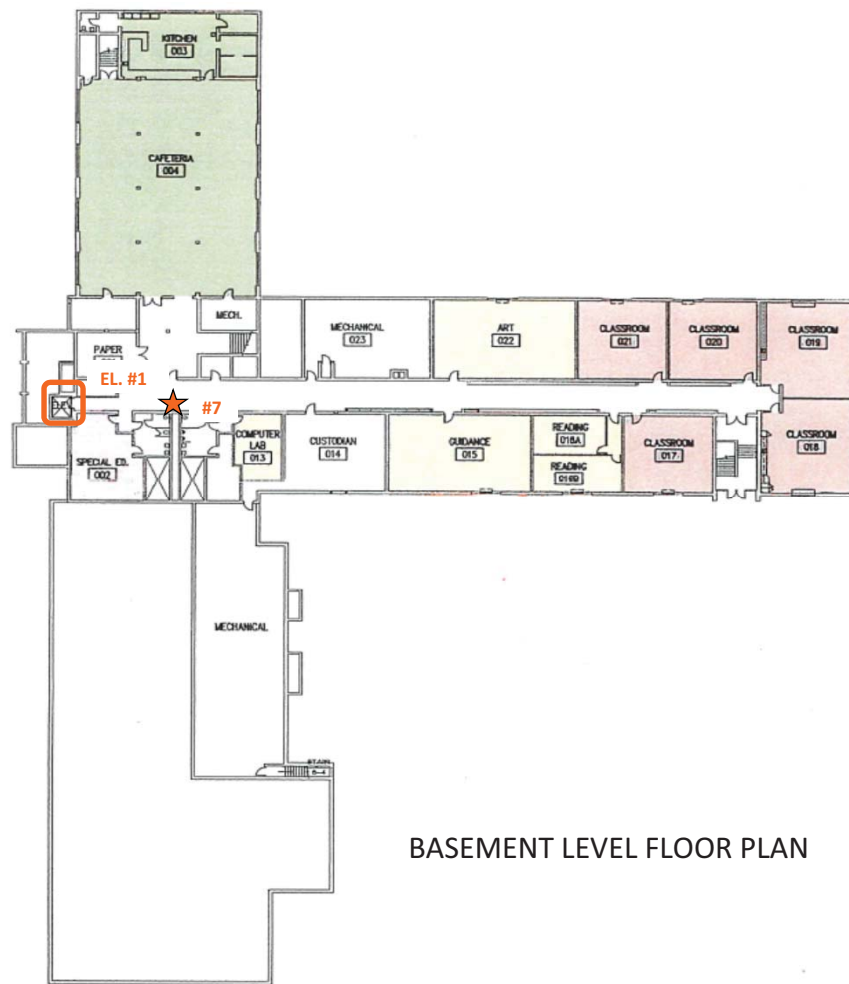
ADA REQUIREMENT - ELEVATORS	NO. EL. #1
The elevator call buttons are no higher than 54" above the floor	Y
There is a sign on both door jambs at every floor identifying the floor	Y
· There is a tactile star on both jambs at the main entry level	N
· The text characters contrast with their backgrounds, characters are raised, there is Braille	Y
· The sign is mounted between 48" to baseline of lowest character and 60" of highest	Y
The sliding door reopens automatically when obstructed by an object or person	Y
If there is a full size elevator, the interior is at least 54" deep and 36" wide with at least 16 SF of clear floor area and a minimum of 32" door opening width	Y
If there is a LULA elevator, the interior is at least:	N/A
· 51" wide by 51" deep with a door opening width of 36" min	N/A
· OR 54" deep by 36" wide with at least 15 SF clear floor area and door opening width of 32" min	N/A
The in-car controls are between 15" - 48" above the ground (or 54" max for a parallel approach)	Y
The car control buttons are designated with raised characters and Braille	Y
There are audible signals which sounds as the car passes or is about to stop at a floor	Y



FREEDOM ELEMENTARY SCHOOL - ADA ANALYSIS
INTERIOR ACCESSIBLE ROUTE AND ACCESS TO DRINKING FOUNTAINS

ADA REQUIREMENT - INTERIOR ACCESSIBLE ROUTE		FLOOR NUMBER		
		BSMT	1ST	2ND
PATH	All public spaces are on at least one accessible route	Y	Y	Y
	The route is at least 36" wide and no steeper than 1:20	Y	Y	Y
	All objects (e.g. fire extinguishers, drinking fountains, sign, etc.) on circulation paths through public areas protrude no more than 4" into path, OR: If an object protrudes more than 4", the bottom edge is no more than 27" above floor or at least 80" above floor	-	-	-
SIGNS	Signs designating permanent rooms have contrasting text and background, text characters are raised, there is Braille, and sign is mounted on the wall on latch side of the door.	-	-	-
	Permanent room signs are mounted so that baseline of characters are between 48" - 60" high	-	-	-
	Sign that provide direction have contrasting text and background and are mounted so that characters are at least 40" above floor	-	-	-
	Fire alarm systems have both flashing lights and audible signals	-	-	-

ADA REQUIREMENT - DRINKING FOUNTAINS	DRINKING FOUNTAIN NUMBER						
	1	2	3	4	5	6	7
At least one drinking fountain has a clear floor space of a min 30" wide by 48" long	Y	Y	Y	Y	Y	Y	Y
There is a clear floor space between 17" - 25" that extends under fountain	Y	Y	Y	Y	Y	Y	Y
Operable parts are no higher than 48" above floor (if fountain is < 20" deep) or 44" above floor (if fountain is between 20" - 25" deep)	Y	Y	Y	Y	Y	Y	Y
The control can be easily operated with one hand without tight grasping, pinching or twisting of the wrist	Y	Y	Y	Y	Y	Y	Y
The accessible spout outlet is no higher than 36" above the floor	Y	N	N	N	N	Y	N
The spout is at least 15" from rear of fountain and no more than 5" from the front of fountain	Y	Y	Y	Y	Y	Y	Y
If there is more than one fountain, there is at least one for standing persons with the spout between 38" - 43" above floor	Y	Y	Y	Y	Y	Y	Y
If leading edge of fountain is above 27", the front of it does not protrude more than 4" into path	Y	Y	Y	Y	Y	Y	N



FREEDOM ELEMENTARY SCHOOL - ADA ANALYSIS
ACCESS TO GOODS AND SERVICES

ADA REQUIREMENT - DINING AREAS (CAFETERIA)		ROOM NUMBER		
		004		
ENTRANCE	Door opening clearance width is at least 32" wide	Y		
	There is at least 18" clearance on the pull side of the door	Y		
	Door is equipped with hardware that is operable with one hand that does not require tight grasping, pinching or twisting of the wrist	Y		
	Operable door hardware is mounted between 34" - 48" above the floor	Y		
	Door can be opened easily	Y		
	Door takes at least 5 seconds to close (if it has a closer)	Y		
CONTROLS	There is a clear floor space at least 30" wide by 48" long in front of the control (e.g. light switches, security and intercom systems, emergency/alarm boxes, etc.) for a forward or parallel approach	Y		
	The operable parts are no higher than 48" above the floor	Y		
	The control can be operated with one hand and without tight grasping, pinching or twisting of the wrist	Y		
SEATING	There are at least 5%, but no fewer than one, of seating and standing spaces accessible for people who use wheelchairs	Y		
	There is at least a 36" wide accessible route/aisle	Y		
	At accessible spaces, the top of the accessible surface is between 28" - 34" above the floor (26"-30" for children)	Y		
	· There is a clear floor space at least 30" wide by 48" long for a forward approach to the space	Y		
	· Clear floor space extends between 17" - 25" under the surface	Y		
FOOD SERVICE LINES	· There is knee space at least 27" high and 30" wide (24" high for children)	Y		
	At least one of each type of self-service or dispensing device for tableware, dishware, condiments, food and beverages has a forward or parallel approach	Y		
	If there is an unobstructed parallel or forward approach, the shelf or dispensing device is no higher than 48" above the floor	Y		
	If there is a shallow obstruction (where device is set back on counter) with parallel approach, the shelf or dispensing device is no higher than 48" (if < 10" deep) or 46" (if 10" - 24" deep)	N/A		
	If there is an obstruction with a forward approach, the clear floor space extends under the obstruction at least the same depth as the obstruction	N/A		
	· If the obstruction is < 20" deep, the dispensing device is no higher than 48" or no higher than 44" if obstruction is between 20" - 25" deep	N/A		
	If there is a tray slide, the top is between 28" - 34" above the floor	Y		

ADA REQUIREMENT - GENERAL AREAS (LIBRARIES, RECEPTION AREAS, CONFERENCE ROOMS, LABS, ETC.)		ROOM NUMBER			
		013	108	225	230
ENTRANCE	Door opening clearance width is at least 32" wide	Y	Y	Y	Y
	There is at least 18" clearance on the pull side of the door	Y	Y	Y	Y
	Door is equipped with hardware that is operable with one hand that does not require tight grasping, pinching or twisting of the wrist	Y	Y	Y	Y
	Operable door hardware is mounted between 34" - 48" above the floor	Y	Y	Y	Y
	Door can be opened easily	Y	Y	Y	Y
	Door takes at least 5 seconds to close (if it has a closer)	N/A	N	N/A	N/A
CONTROLS	There is a clear floor space at least 30" wide by 48" long in front of the control (e.g. light switches, security and intercom systems, emergency/alarm boxes, etc.) for a forward or parallel approach	Y	Y	Y	Y
	The operable parts are no higher than 48" above the floor	Y	Y	Y	Y
	The control can be operated with one hand and without tight grasping, pinching or twisting of the wrist	Y	Y	Y	Y
SEATING	There are at least 5%, but no fewer than one, of seating and standing spaces accessible for people who use wheelchairs	Y	Y	Y	Y
	There is at least a 36" wide accessible route/aisle	Y	Y	Y	Y
	At accessible spaces, the top of the accessible surface is between 28" - 34" above the floor (26"-30" for children)	Y	N/A	Y	Y
	· There is a clear floor space at least 30" wide by 48" long for a forward approach to the space	Y	N/A	Y	Y
	· Clear floor space extends between 17" - 25" under the surface	Y	N/A	Y	Y
SERVICE COUNTER	· There is knee space at least 27" high and 30" wide (24" high for children)	Y	N/A	N	Y
	In reception / waiting room areas, there is at least one space at least 36" wide and 48" long for a person in a wheelchair	N/A	Y	N/A	N/A
	There is a portion of at least one of each type of counter that is no higher than 36" above the floor and at least 36" long	N/A	Y	Y	N/A
	The accessible portion of the counter extends the same depth as the counter top	N/A	Y	Y	N/A
	There is a clear floor space at least 30" wide by 48" long for a forward or parallel approach	N/A	Y	Y	N/A
	· For the parallel approach, the 48" is adjacent to the accessible length of the counter	N/A	Y	Y	N/A
	· For the forward approach, the clear floor space extends between 17" - 25" under counter	N/A	N/A	N/A	N/A
· For the forward approach, there is at least 27" clearance from the floor to the bottom of the counter	N/A	N/A	N/A	N/A	

TOILET ROOMS

RECORD DATE: 8/31/16 - 9/23/16

ADA REQUIREMENT	TOILET ROOM NUMBER																						
	003	004D	007	110A	118A	119A	120	121	123W	123M	124A	124B	125A	126A	127A	128A	129/130A	207A	220W	220M	223W	223M	226
SIGN																							
Text characters contrast with background	Y	Y	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Text characters are raised	Y	Y	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
There is Braille	Y	Y	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Sign is mounted on the wall on latch side of the door	Y	Y	Y	Y		Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	Y	Y	Y	Y
Sign is mounted so that the baseline of the lowest character is at least 48" above floor and the baseline of the highest character is no more than 60" above floor	Y	Y	Y	Y	Y	Y	N	N	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
There is a sign with the International Symbol of Accessibility	N	N	N	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
ENTRANCE																							
Door opening clearance width is at least 32" wide	Y	N	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
There is at least 18" clearance on the pull side of the door	N	N	Y	Y	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N
Door is equipped with hardware that is operable with one hand that does not require tight grasping, pinching or twisting of the wrist	Y	N	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Operable door hardware is mounted between 34" - 48" above the floor	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Door can be opened easily	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N/A	Y	Y	Y	Y	N/A
Door takes at least 5 seconds to close (if it has a closer)	Y	N/A	Y	N/A	N/A	N/A	N/A	N/A	N	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Y	Y	Y	Y	N/A
If there are two doors in a series, the distance between the doors is at least 48" plus width of doors	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
If there is a privacy wall and the door swings in, there is at least 24" on the pull side of the door and at least 54" clearance to the wall	Y	N/A	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	N	N/A	N/A	N/A
IN TOILET ROOM																							
There is a clear path to at least one of each type of fixture that is at least 36" wide	Y	N	Y	Y	N/A	N/A	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	N/A	Y	Y	Y	Y	Y
There is a clear floor space of at least a 60" diameter	Y	N	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
If this is a single user toilet room and the door swings in, there is at least a 30x48" clear floor space beyond the swing of the door	N/A	N	N/A	Y	Y	Y	N	N	N/A	N/A	Y	Y	Y	Y	Y	Y	Y	Y	N/A	N/A	N/A	N/A	Y
The mirror mounted no higher than 40" above floor if over a lavatory or countertop or 35" above floor if not.	N	Y	N	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N	Y	Y
LAVATORY																							
At least one lavatory has a clear floor space of at least 30" wide and 48" long	Y	N	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
There is at least 17" and no more 25" of clear floor space under the lavatory	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
The height of the lavatory is no more than 34" above the floor	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
There is at least 27" clearance from the floor to the bottom of the lavatory and that extends at least 8" under	Y	Y	N	Y	Y	Y	N	N	Y	Y	Y	Y	N	N	N	Y	N	Y	Y	Y	Y	Y	Y
There is at least 9" toe clearance	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	N	Y	Y	Y	Y	Y	Y
The pipes below the lavatory are insulated or protected against contact	N	N	Y	Y	Y	Y	N	N	Y	Y	Y	Y	N	N	N	Y	N	Y	Y	Y	N	N	Y
The faucet can be operated easily without tight grasping, pinching or twisting of the wrist	N	N	N	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
DISPENSERS																							
The height of the operable part of the soap dispenser is no higher than: 44" above floor (if above 20-25" deep lavatory) or 48" above floor (if above < 20" deep lavatory or if not over an obstruction)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
The height of the operable part of the towel dispenser is no higher than: 44" above floor (if above 20-25" deep lavatory) or 48" above floor (if above < 20" deep lavatory or if not over an obstruction)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Operable parts of towel dispenser or hand dryer can be easily operated without tight grasping, pinching or twisting of the wrist	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
TOILET AND ACCESSORIES																							
The centerline of toilet in between 16" - 18" from side wall or partition	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y
The clearance around the toilet is at least 60" from side wall and 56" from rear wall	N	N	N	Y	N	N	N	N	Y	Y	Y	Y	N	N	N	Y	N	N	Y	Y	N	N	Y
The height to the top of the toilet seat is between 17" - 19" above the floor	N	N	N	Y	Y	Y	N	N	N	N	Y	Y	12" H	12" H	12" H	Y	12" H	N	Y	Y	N	N	Y
There is a grab bar at least 42" long on the <u>side</u> wall:	Y	N	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
· Located no more than 12" from rear wall	Y	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	N	N	Y	Y	Y	N	N	Y
· Extends at least 54" from rear wall	Y	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	N	N	Y	Y	Y	N	Y	N
· Mounted between 33" - 36" above floor	Y	N	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
· There is at least 12" clearance between grab bar and protruding objects <u>above</u>	N	N	N	N	N	N	N	N	Y	Y	N	N	N/A	N/A	N/A	N	N/A	N	N	N	N	N	N
· There is at least 1 1/2" clearance between grab bar and projecting objects <u>below</u>	N/A	N	N/A	N/A	N/A	N/A	N	N	N/A	N/A	N/A	N/A	N	N	N	N/A	N	N/A	N/A	N/A	N	N/A	N/A
· The space between wall and grab bar is at least 1 1/2"	Y	N	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
There is a grab bar at least 36" long on the <u>rear</u> wall:	N	N	N	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	Y
· Extends at least 12" from centerline of toilet on one side (side wall)	N	N	N	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	Y
· Extends at least 24" on the other (open) side	N	N	N	Y	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	Y
· Mounted between 33" - 36" above floor	N	N	N	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	Y
· There is at least 12" clearance between grab bar and protruding objects <u>above</u>	N	N	N	N/A	N/A	N/A	N	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	N	N/A
· There is at least 1 1/2" clearance between grab bar and projecting objects <u>below</u>	N	N	N	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	Y
· The space between wall and grab bar is at least 1 1/2"	N	N	N	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	Y
If flush is hand operated, the operable part is no higher than 48" above floor	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
The flush control can be easily operated without tight grasping, pinching or twisting of the wrist	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
The flush control is on the open side of the toilet	N/A	Y	N/A	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N	Y	Y	Y	N	N/A	Y
The toilet paper dispenser is located between 7" - 9" from the front of the toilet to the centerline of the dispenser	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	N	Y	N
The outlet of the toilet paper dispenser is located between 15" - 48" above floor	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
The toilet paper dispenser allow continuous paper flow	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y

TOILET ROOMS

RECORD DATE: 8/31/16 - 9/23/16

ADA REQUIREMENT	TOILET ROOM NUMBER																							
	003	004D	007	110A	118A	119A	120	121	123W	123M	124A	124B	125A	126A	127A	128A	129/130A	207A	220W	220M	223W	223M	226	
PARTITION STALL	The compartment is at least 60" wide	N	N/A	N	N/A	N/A	N/A	N/A	Y	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Y	Y	N	N	N/A	
	The compartment is at least 56" deep (if toilet is wall hung) or 59" deep (if toilet is floor mounted)	Y	N/A	Y	N/A	N/A	N/A	N/A	Y	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Y	Y	N	Y	N/A	
	Door opening width is at least 32" clear	Y	N/A	Y	N/A	N/A	N/A	N/A	Y	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Y	Y	N	Y	N	
	There is at least 18" clearance on the pull side of the door	Y	N/A	Y	N/A	N/A	N/A	N/A	Y	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Y	Y	N	Y	N/A	
	Door is self-closing	N	N/A	N	N/A	N/A	N/A	N/A	N	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	N	N	N	N/A	
	There are door pulls on both sides of the door that are operable with one hand	N	N/A	N	N/A	N/A	N/A	N/A	N/A	N	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	N	N	N	N/A
	The lock is operable with one hand without tight grasping, pinching or twisting of the wrist	Y	N/A	Y	N/A	N/A	N/A	N/A	Y	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Y	Y	N	Y	N/A	
	Operable door hardware is mounted between 34" - 48" above the floor	Y	N/A	Y	N/A	N/A	N/A	N/A	Y	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Y	Y	N	Y	N/A	

FREEDOM MIDDLE / HIGH SCHOOL - ADA ANALYSIS
APPROACH AND ENTRANCE

ADA REQUIREMENT - PARKING		PARKING AREA NUMBER				
		AREA #1	AREA #2	AREA #3	AREA #4	AREA #5
There is an adequate number of accessible spaces provided Total parking spaces: 595 Accessible spaces required: 12 Van accessible spaces required: 2		Total ADA parking: 18 (8 Van Accessible)				
Total number of accessible spaces		3	4	1	1	1
Total number of van accessible spaces		1	1	0	5	1
ACCESSIBLE PARKING	The accessible spaces are at least 8' wide with an access aisle at least 5' wide	Y	Y	Y	Y	Y
	The van accessible spaces are at least 11' wide with 5' aisle or 8' wide with 8' wide aisle	Y	Y	Y	Y	Y
	There is at least 98" of vertical clearance provided for the van accessible space	Y	Y	Y	Y	Y
	The access aisles are marked so as to discourage parking in them	Y	Y	Y	Y	Y
	The slope of the accessible spaces and aisles are no steeper than 1:48 in all directions	Y	Y	Y	Y	Y
	Access aisles adjoin an accessible route	Y	Y	Y	Y	Y
	Accessible spaces are identified with a sign that includes the International Symbol of Accessibility	Y	Y	Y	Y	Y
	The bottom of the sign is at least 60" above the ground	N	Y	N	Y	Y
	There are sign reading "van accessible" at van accessible spaces	Y	N	N/A	Y	Y
	Of the total parking spaces, the accessible spaces are located closest to the entrances	Y	Y	Y	Y	Y
	The accessible route is stable, firm and slip resistant	N	Y	Y	Y	Y
	The route is at least 36" wide	N	Y	Y	Y	Y
	The slope of the route is no steeper than 1:20	Y	Y	Y	Y	Y

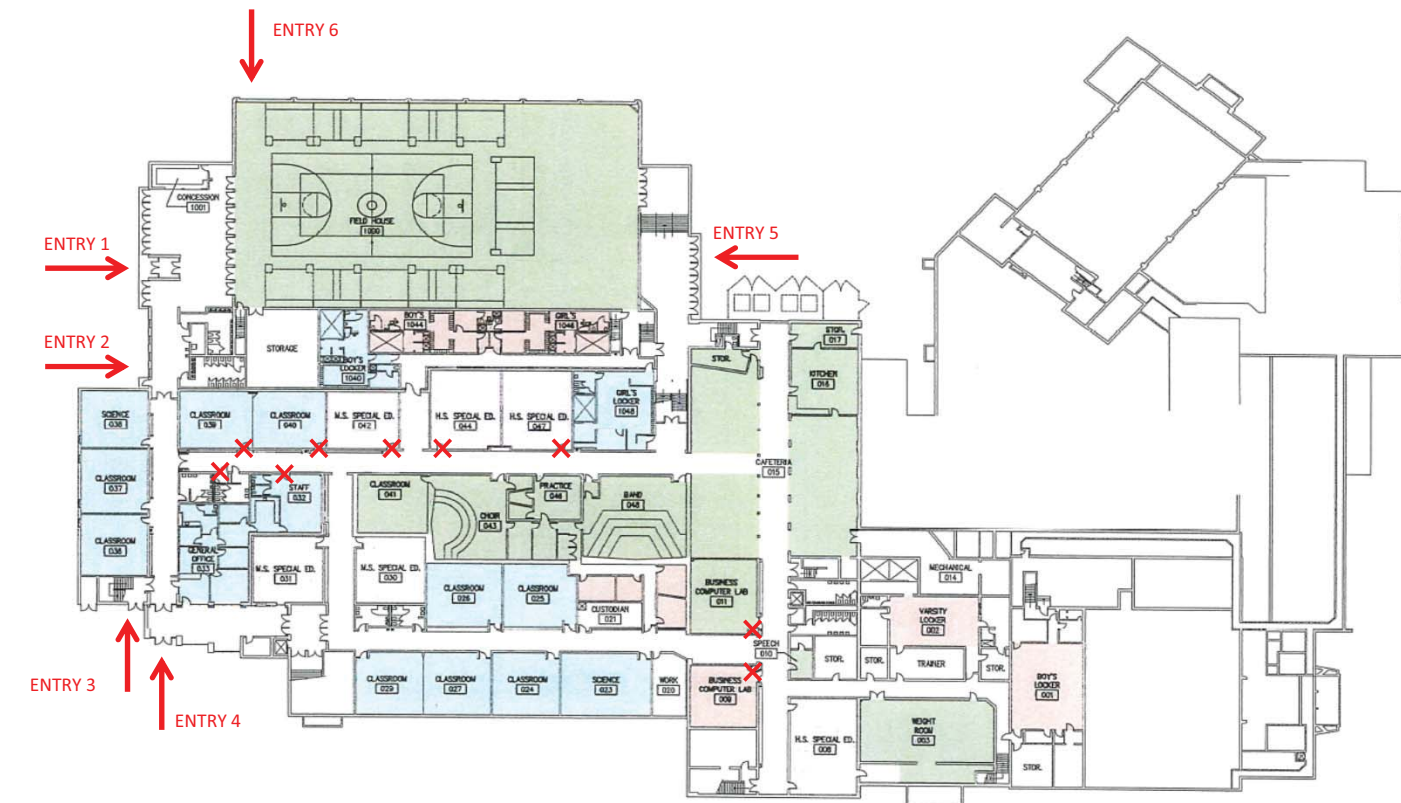
ADA REQUIREMENT - CURB RAMPS		CURB RAMP NUMBER			
		CURB #1	CURB #2		
CURB RAMPS	The running slope is no steeper than 1:12	Y	Y		
	The width is at least 36" (excluding flares)	Y	Y		
	The slope of the curb flares are no steeper than 1:10	Y	Y		
	There is a level landing at the top of the curb ramp that is at least 36" long	Y	Y		

ADA REQUIREMENT - RAMPS		RAMP NUMBER			
		RAMP #1	RAMP #2		
RAMPS	The ramp is at least 36" wide	Y	Y		
	The surface is stable, firm and slip resistant	Y	Y		
	The running slope is no steeper than 1:12	Y	Y		
	The top of the handrail is between 34" - 38" above the ramp surface	Y	N/A		
	The handrail diameter is between 1 1/4" - 2"	Y	N/A		
The handrail extends at least 12" beyond top and bottom of ramp	Y	N/A			

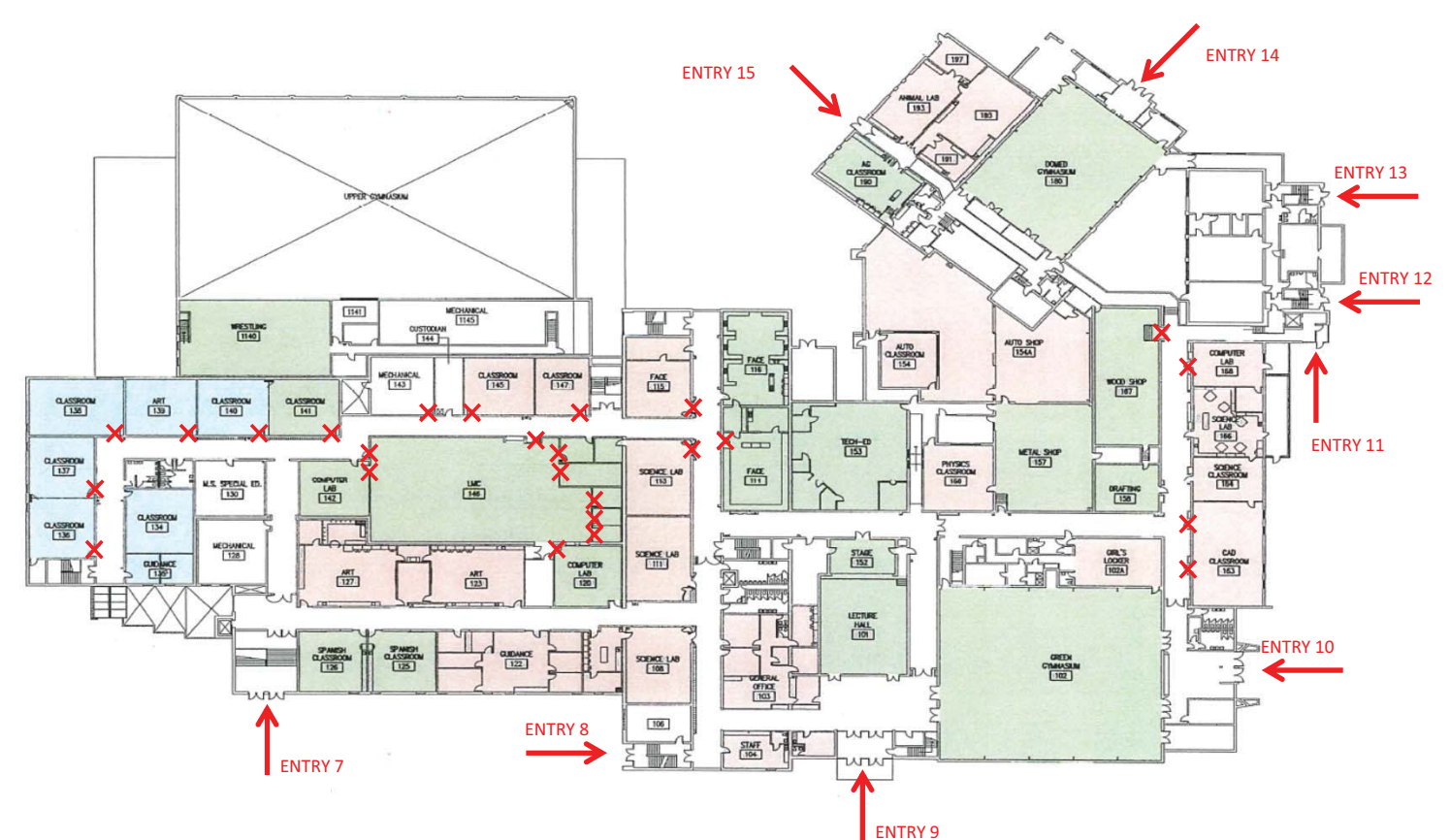


ADA REQUIREMENT - ENTRANCE	ENTRANCE NUMBER														
	ENTRY 1	ENTRY 2	ENTRY 3	ENTRY 4	ENTRY 5	ENTRY 6	ENTRY 7	ENTRY 8	ENTRY 9	ENTRY 10	ENTRY 11	ENTRY 12	ENTRY 13	ENTRY 14	ENTRY 15
Entrance is accessible	Y	Y	N	Y	N	Y	N	N	Y	Y	Y	N	N	Y	Y
Entrance have signs indicating accessible entrance or location of nearest one	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
The clear opening width of entrance doors are at least 32"	Y	Y		Y		Y			Y	Y	Y			Y	Y
There is at least 18" clearance on pull side of door	Y	Y		Y		Y			Y	Y	Y			Y	Y
The threshold is no more than 1/4" high or 3/4" if beveled	Y	Y		Y		Y			Y	Y	Y			Y	Y
Doors are equipped with hardware that is operable with one hand and does not require tight grasping, pinching or twisting of the wrist	Y	Y		Y		Y			Y	Y	Y			Y	Y
The operable door hardware is between 34" - 48" above the floor	Y	Y		Y		Y			Y	Y	Y			Y	Y
If the door has a closer, it takes at least 5 seconds for door to close	Y	Y		Y		N			Y	Y	Y			N	Y
If there are two door in a series, the distance between the doors is at least 48" plus the width of the doors	Y	N/A		Y		N/A			Y	N/A	Y			Y	Y
Carpets or mats are no higher than 1/2" thick	Y	N/A		Y		N/A			Y	Y	Y			Y	Y
Edges of carpets or mats are securely attached	Y	N/A		Y		N/A			Y	Y	Y			Y	Y

✗ Represent doors that are not ADA compliant (knob hardware)



LOWER LEVEL FLOOR PLAN



FIRST LEVEL FLOOR PLAN

FREEDOM MIDDLE / HIGH SCHOOL - ADA ANALYSIS
INTERIOR ACCESSIBLE ROUTE, RAMPS AND ELEVATORS

ADA REQUIREMENT - INTERIOR ACCESSIBLE ROUTE		FLOOR NUMBER		
		LOWER	1ST	2ND
PATH	All public spaces are on at least one accessible route	Y	N	Y
	The route is at least 36" wide and no steeper than 1:20	Y	Y	Y
	All objects (e.g. fire extinguishers, drinking fountains, sign, etc.) on circulation paths through public areas protrude no more than 4" into path, OR: If an object protrudes more than 4", the bottom edge is no more than 27" above floor or at least 80" above floor	-	-	-
SIGNS	Signs designating permanent rooms have contrasting text and background, text characters are raised, there is Braille, and sign is mounted on the wall on latch side of the door.	-	-	-
	Permanent room signs are mounted so that baseline of characters are between 48" - 60" high	-	-	-
	Sign that provide direction have contrasting text and background and are mounted so that characters are at least 40" above floor	-	-	-
	Fire alarm systems have both flashing lights and audible signals	-	-	-

ADA REQUIREMENT - INTERIOR RAMPS		RAMP NUMBER	
		RAMP #1	RAMP #2
RAMPS	The ramp is at least 36" wide	Y	Y
	The level landing is at least 60" long and at least as wide as the ramp	Y	Y
	The running slope is no steeper than 1:12	Y	Y
	The top of the handrail is between 34" - 38" above the ramp surface	Y	Y
	The handrail diameter is between 1 1/4" - 2" and at least 1 1/2" away from wall	Y	Y
	The handrail extends at least 12" beyond top and bottom of ramp	N	N/A
	The surface of the ramp extends at least 12" beyond the inside face of the handrail	N	Y

ADA REQUIREMENT - ELEVATORS		ELEVATOR NUMBER		
		EL. #1	EL. #2	EL. #3
ELEVATORS	The elevator call buttons are no higher than 54" above the floor	Y	N	Y
	There is a sign on both door jambs at every floor identifying the floor	N	N	Y
	· There is a tactile star on both jambs at the main entry level	N	N	N
	· The text characters contrast with their backgrounds, characters are raised, there is Braille	Y	N	Y
	· The sign is mounted between 48" to baseline of lowest character and 60" of highest	Y	N	Y
	The sliding door reopens automatically when obstructed by an object or person	Y	-	Y
	If there is a full size elevator, the interior is at least 54" deep and 36" wide with at least 16 SF of clear floor area and a minimum of 32" door opening width	Y	-	Y
	If there is a LULA elevator, the interior is at least:	N/A	-	N/A
	· 51" wide by 51" deep with a door opening width of 36" min	N/A	-	N/A
	· OR 54" deep by 36" wide with at least 15 SF clear floor area and door opening width of 32" min	N/A	-	N/A
The in-car controls are between 15" - 48" above the ground (or 54" max for a parallel approach)	Y	-	Y	
The car control buttons are designated with raised characters and Braille	Y	-	Y	
There are audible signals which sounds as the car passes or is about to stop at a floor	Y	-	Y	



SECOND LEVEL FLOOR PLAN



LOWER LEVEL FLOOR PLAN



FIRST LEVEL FLOOR PLAN

FREEDOM MIDDLE / HIGH SCHOOL - ADA ANALYSIS
ACCESS TO DRINKING FOUNTAINS

FREEDOM AREA SCHOOL DISTRICT - FACILITY STUDY
RECORD DATE: 8/31/16 - 9/23/16

ADA REQUIREMENT - DRINKING FOUNTAINS	DRINKING FOUNTAIN NUMBER														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
At least one drinking fountain has a clear floor space of a min 30" wide by 48" long	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
There is a clear floor space between 17" - 25" that extends under fountain	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Operable parts are no higher than 48" above floor (if fountain is < 20" deep) or 44" above floor (if fountain is between 20" - 25" deep)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
The control can be easily operated with one hand without tight grasping, pinching or twisting of the wrist	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
The accessible spout outlet is no higher than 36" above the floor	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
The spout is at least 15" from rear of fountain and no more than 5" from the front of fountain	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
If there is more than one fountain, there is at least one for standing persons with the spout between 38" - 43" above floor	Y	Y	N/A	Y	N/A	N/A	N/A	N/A	N/A	Y	N/A	N/A	N/A	Y	Y
If leading edge of fountain is above 27", the front of it does not protrude more than 4" into path	Y	Y	N	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y



SECOND LEVEL FLOOR PLAN



LOWER LEVEL FLOOR PLAN



FIRST LEVEL FLOOR PLAN

ACCESS TO GOODS AND SERVICES

ADA REQUIREMENT - ASSEMBLY AREAS (THEATRES, AUDITORIUMS, LECTURE HALLS, ETC.)		ROOM NUMBER	
		101	
ENTRANCE	Door opening clearance width is at least 32" wide	Y	
	There is at least 18" clearance on the pull side of the door	Y	
	Door is equipped with hardware that is operable with one hand that does not require tight grasping, pinching or twisting of the wrist	Y	
	Operable door hardware is mounted between 34" - 48" above the floor	Y	
	Door can be opened easily	Y	
	Door takes at least 5 seconds to close (if it has a closer)	Y	
CONTROLS	There is a clear floor space at least 30" wide by 48" long in front of the control (e.g. light switches, security and intercom systems, emergency/alarm boxes, etc.) for a forward or parallel approach	Y	
	The operable parts are no higher than 48" above the floor	N	
	The control can be operated with one hand and without tight grasping, pinching or twisting of the wrist	Y	
SEATING	There is an adequate amount of wheelchair spaces provided	N	
	· 1 space (4-25 seats), 2 (26-50 seats), 4 (51-150 seats), 5 (151-300 seats)	0	
	Wheelchair spaces are dispersed to allow location choices and viewing angles equivalent to other seats	N	
	Where people are expected to be seated, people in wheelchair spaces have a clear line of site over and between heads of others in front of them	N	
	Where people are expected to stand, people in wheelchair spaces have a clear line of site over and between heads of others in front of them	N	
	There is a single wheelchair spaces at least 36" wide	N	
	If there are two adjacent wheelchair spaces, they are each at least 33" wide	N	
	The wheelchair space is at least 48" deep if it can be entered from the front or rear	N	
	The wheelchair space is at least 60" deep if it can only be entered from the side	N	
	Wheelchair spaces adjoin but do not overlap accessible routes	N	
	There is at least one companion seat for each wheelchair space	N	
	· It is located so the companion is shoulder-to-shoulder with person in wheelchair	N	
	· It is equivalent in size, quality, comfort and amenities to seating in the immediate area	N	

ADA REQUIREMENT - GENERAL AREAS (LIBRARIES, RECEPTION AREAS, CONFERENCE ROOMS, LABS, ETC.)		ROOM NUMBER					
		1001	035	100	LMC	SCIENCE	FACE
ENTRANCE	Door opening clearance width is at least 32" wide	N/A	Y	Y	Y	Y	Y
	There is at least 18" clearance on the pull side of the door	N/A	Y	Y	Y	Y	Y
	Door is equipped with hardware that is operable with one hand that does not require tight grasping, pinching or twisting of the wrist	N/A	Y	N	N	N	N
	Operable door hardware is mounted between 34" - 48" above the floor	N/A	Y	Y	Y	Y	Y
	Door can be opened easily	N/A	Y	Y	Y	Y	Y
	Door takes at least 5 seconds to close (if it has a closer)	N/A	Y	Y	N/A	N/A	N/A
CONTROLS	There is a clear floor space at least 30" wide by 48" long in front of the control (e.g. light switches, security and intercom systems, emergency/alarm boxes, etc.) for a forward or parallel approach	N/A	Y	Y	Y	Y	Y
	The operable parts are no higher than 48" above the floor	N/A	Y	Y	N	N	N
	The control can be operated with one hand and without tight grasping, pinching or twisting of the wrist	N/A	Y	Y	Y	Y	Y
SEATING	There are at least 5%, but no fewer than one, of seating and standing spaces accessible for people who use wheelchairs	N/A	Y	Y	Y	Y	Y
	There is at least a 36" wide accessible route/aisle	N/A	Y	Y	Y	Y	Y
	At accessible spaces, the top of the accessible surface is between 28" - 34" above the floor (26"-30" for children)	N/A	N/A	N/A	N	N	Y
	· There is a clear floor space at least 30" wide by 48" long for a forward approach to the space	N/A	N/A	N/A	Y	N	Y
	· Clear floor space extends between 17" - 25" under the surface	N/A	N/A	N/A	Y	N	Y
	· There is knee space at least 27" high and 30" wide (24" high for children)	N/A	N/A	N/A	N	N	Y
SERVICE COUNTERS	In reception / waiting room areas, there is at least one space at least 36" wide and 48" long for a person in a wheelchair	N/A	Y	Y	Y	N/A	N/A
	There is a portion of at least one of each type of counter that is no higher than 36" above the floor and at least 36" long	N	Y	Y	N	Y	Y
	The accessible portion of the counter extends the same depth as the counter top	N/A	Y	Y	N/A	N/A	N/A
	There is a clear floor space at least 30" wide by 48" long for a forward or parallel approach	Y	Y	Y	Y	Y	Y
	· For the parallel approach, the 48" is adjacent to the accessible length of the counter	Y	Y	Y	Y	Y	Y
	· For the forward approach, the clear floor space extends between 17" - 25" under counter	N/A	N/A	N/A	N/A	N	N/A
· For the forward approach, there is at least 27" clearance from the floor to the bottom of the counter	N/A	N/A	N/A	N/A	N	N/A	

ADA REQUIREMENT - DINING AREAS (CAFETERIA)		ROOM NUMBER	
		015	
ENTRANCE	Door opening clearance width is at least 32" wide	Y	
	There is at least 18" clearance on the pull side of the door	Y	
	Door is equipped with hardware that is operable with one hand that does not require tight grasping, pinching or twisting of the wrist	Y	
	Operable door hardware is mounted between 34" - 48" above the floor	Y	
	Door can be opened easily	Y	
	Door takes at least 5 seconds to close (if it has a closer)	Y	
CONTROLS	There is a clear floor space at least 30" wide by 48" long in front of the control (e.g. light switches, security and intercom systems, emergency/alarm boxes, etc.) for a forward or parallel approach	Y	
	The operable parts are no higher than 48" above the floor	N	
	The control can be operated with one hand and without tight grasping, pinching or twisting of the wrist	Y	
SEATING	There are at least 5%, but no fewer than one, of seating and standing spaces accessible for people who use wheelchairs	Y	
	There is at least a 36" wide accessible route/aisle	Y	
	At accessible spaces, the top of the accessible surface is between 28" - 34" above the floor (26"-30" for children)	Y	
	· There is a clear floor space at least 30" wide by 48" long for a forward approach to the space	Y	
	· Clear floor space extends between 17" - 25" under the surface	Y	
	· There is knee space at least 27" high and 30" wide (24" high for children)	Y	
FOOD SERVICE LINES	At least one of each type of self-service or dispensing device for tableware, dishware, condiments, food and beverages has a forward or parallel approach	Y	
	If there is an unobstructed parallel or forward approach, the shelf or dispensing device is no higher than 48" above the floor	Y	
	If there is a shallow obstruction (where device is set back on counter) with parallel approach, the shelf or dispensing device is no higher than 48" (if < 10" deep) or 46" (if 10" - 24" deep)	N/A	
	If there is an obstruction with a forward approach, the clear floor space extends under the obstruction at least the same depth as the obstruction	N/A	
	· If the obstruction is < 20" deep, the dispensing device is no higher than 48" or no higher than 44" if obstruction is between 20" - 25" deep	N/A	
If there is a tray slide, the top is between 28" - 34" above the floor	N/A		

ADA REQUIREMENT - LOCKER ROOMS		ROOM NUMBER					
		001	159	1048	1040	1046	1044
ENTRANCE	Door opening clearance width is at least 32" wide	Y	Y	Y	Y	Y	Y
	There is at least 18" clearance on the pull side of the door	N	Y	Y	N	Y	Y
	Door is equipped with hardware that is operable with one hand that does not require tight grasping, pinching or twisting of the wrist	Y	Y	Y	Y	Y	Y
	Operable door hardware is mounted between 34" - 48" above the floor	N	Y	Y	Y	Y	Y
	Door can be opened easily	Y	Y	Y	Y	Y	Y
	Door takes at least 5 seconds to close (if it has a closer)	Y	Y	Y	Y	Y	Y
CONTROLS	There is a clear floor space at least 30" wide by 48" long in front of the control (e.g. light switches, security and intercom systems, emergency/alarm boxes, etc.) for a forward or parallel approach	Y	Y	Y	Y	Y	Y
	The operable parts are no higher than 48" above the floor	N	N	Y	Y	Y	Y
	The control can be operated with one hand and without tight grasping, pinching or twisting of the wrist	Y	Y	Y	Y	Y	Y
SEATING - BENCHES	There is at least one room with a bench	Y	Y	Y	Y	Y	Y
	There is a clear floor space at least 30" wide by 48" long at the end of the bench and parallel to the short axis of the bench	Y	Y	Y	Y	Y	Y
	The bench seat is at least 42" long and between 20" - 24" deep	N	N	N	N	N	N
	The bench has a back support or is affixed to a wall	N	N	N	N	N	N
	The top of the bench seat is between 17" - 19" above the floor	Y	Y	Y	Y	Y	Y

TOILET ROOMS

RECORD DATE: 8/31/16 - 9/23/16

ADA REQUIREMENT	TOILET ROOM NUMBER																							
	110W	110M	132W	132M	162W	162M	1003W	1003M	033W	033M	028W	028M	001M	172	176	182	189	276U	208W	208M	104U	100W	100M	
SIGN	Text characters contrast with background	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Text characters are raised	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	There is Braille	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Sign is mounted on the wall on latch side of the door	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Sign is mounted so that the baseline of the lowest character is at least 48" above floor and the baseline of the highest character is no more than 60" above floor	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
There is a sign with the International Symbol of Accessibility	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N	N	N	N	N	
ENTRANCE	Door opening clearance width is at least 32" wide	Y	Y	N	N	N	Y	Y	N	N	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	N	N	N
	There is at least 18" clearance on the pull side of the door	Y	Y	Y	Y	N	Y	Y	Y	Y	N	N	Y	N	N	Y	Y	N	Y	Y	N	Y	N	
	Door is equipped with hardware that is operable with one hand that does not require tight grasping, pinching or twisting of the wrist	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N
	Operable door hardware is mounted between 34" - 48" above the floor	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Door can be opened easily	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	Door takes at least 5 seconds to close (if it has a closer)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N/A	Y	Y	Y	Y	Y	N	Y	N/A	N/A	N/A
	If there are two doors in a series, the distance between the doors is at least 48" plus width of doors	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	If there is a privacy wall and the door swings in, there is at least 24" on the pull side of the door and at least 54" clearance to the wall	N/A	N/A	N	N	N/A	N/A	N	N	N	N	Y	Y	Y	N/A	N/A	N	Y	N/A	N/A	N/A	N/A	N/A	N/A
IN TOILET ROOM	There is a clear path to at least one of each type of fixture that is at least 36" wide	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	N	N	N
	There is a clear floor space of at least a 60" diameter	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N
	If this is a single user toilet room and the door swings in, there is at least a 30x48" clear floor space beyond the swing of the door	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	N	N
The mirror mounted no higher than 40" above floor if over a lavatory or countertop or 35" above floor if not.	N	N	N	N	N	Y	N	N	N	Y	Y	Y	N/A	N	Y	Y	Y	Y	Y	Y	N	N	N	
LAVATORY	At least one lavatory has a clear floor space of at least 30" wide and 48" long	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	N	N	N	
	There is at least 17" and no more 25" of clear floor space under the lavatory	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	The height of the lavatory is no more than 34" above the floor	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	There is at least 27" clearance from the floor to the bottom of the lavatory and that extends at least 8" under	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	There is at least 9" toe clearance	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
DISPENSERS	The pipes below the lavatory are insulated or protected against contact	Y	Y	N	N	N	Y	Y	N	N	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N
	The faucet can be operated easily without tight grasping, pinching or twisting of the wrist	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	Y
	The height of the operable part of the soap dispenser is no higher than: 44" above floor (if above 20-25" deep lavatory) or 48" above floor (if above < 20" deep lavatory or if not over an obstruction)	Y	Y	Y	N	Y	Y	N	N	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	The height of the operable part of the towel dispenser is no higher than: 44" above floor (if above 20-25" deep lavatory) or 48" above floor (if above < 20" deep lavatory or if not over an obstruction)	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
	Operable parts of towel dispenser or hand dryer can be easily operated without tight grasping, pinching or twisting of the wrist	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
TOILET AND ACCESSORIES	The centerline of toilet in between 16" - 18" from side wall or partition	N	Y	Y	Y	N	N	Y	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
	The clearance around the toilet is at least 60" from side wall and 56" from rear wall	N	N	N	N	N	N	Y	Y	N	N	Y	Y	N	Y	Y	Y	N	Y	N	N	N	N	N
	The height to the top of the toilet seat is between 17" - 19" above the floor	N	Y	Y	N	N	N	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N
	There is a grab bar at least 42" long on the side wall:	N	Y	N	N	N	N	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N	Y	Y	N	N	N
	- Located no more than 12" from rear wall	N	N	Y	Y	N	N	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	N	Y	Y	N	N	N
	- Extends at least 54" from rear wall	N	Y	N	N	N	N	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	N	Y	Y	N	N	N
	- Mounted between 33" - 36" above floor	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N
	- There is at least 12" clearance between grab bar and protruding objects above	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
	- There is at least 1 1/2" clearance between grab bar and projecting objects below	N/A	N/A	Y	N/A	N	N	N/A	N/A	N/A	N/A	N/A	N/A	N	N/A	N/A	Y	N/A	N/A	N/A	N/A	N	N	N
	- The space between wall and grab bar is at least 1 1/2"	Y	Y	Y	Y	N	N	Y	X	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	N	N	N
	There is a grab bar at least 36" long on the rear wall:	N	N	N	N	N	N	Y	Y	N	N	Y	Y	N	Y	Y	Y	Y	Y	N	N	N	N	N
	- Extends at least 12" from centerline of toilet on one side (side wall)	N	N	N	N	N	N	Y	Y	N	N	Y	Y	N	Y	Y	Y	Y	Y	N	N	N	N	N
	- Extends at least 24" on the other (open) side	N	N	N	N	N	N	Y	Y	N	N	Y	Y	N	Y	Y	Y	Y	Y	N	N	N	N	N
	- Mounted between 33" - 36" above floor	N	N	N	N	N	N	Y	Y	N	N	Y	Y	N	Y	Y	Y	Y	Y	N	N	N	N	N
	- There is at least 12" clearance between grab bar and protruding objects above	N	N	N	N	N	N	N/A	N/A	N	N	N/A	N/A	N	N/A	N/A	N/A	N/A	N/A	N	N	N	N	N
- There is at least 1 1/2" clearance between grab bar and projecting objects below	N	N	N	N	N	N	Y	Y	N	N	Y	Y	N	Y	Y	Y	N	Y	N	N	N	N	N	
- The space between wall and grab bar is at least 1 1/2"	N	N	N	N	N	N	Y	Y	N	N	Y	Y	N	Y	Y	Y	Y	Y	N	N	N	N	N	
PARTITION STALL	If flush is hand operated, the operable part is no higher than 48" above floor	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
	The flush control can be easily operated without tight grasping, pinching or twisting of the wrist	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
	The flush control is on the open side of the toilet	N/A	N/A	N/A	N/A	N	N	Y	Y	N/A	N/A	Y	Y	N	Y	Y	Y	N	Y	N/A	N/A	N	Y	Y
	The toilet paper dispenser is located between 7" - 9" from the front of the toilet to the centerline of the dispenser	Y	Y	Y	Y	N	N	Y	Y	N	N	N	Y	N	Y	Y	Y	N	N	Y	Y	N	N	N
	The outlet of the toilet paper dispenser is located between 15" - 48" above floor	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	N	N	Y	Y	Y
	The toilet paper dispenser allow continuous paper flow	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	The compartment is at least 60" wide	N	N	N	N	N	N	Y	Y	N	N	Y	Y	N	Y	Y	Y	N	N/A	N	N	N/A	N/A	N/A
	The compartment is at least 56" deep (if toilet is wall hung) or 59" deep (if toilet is floor mounted)	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	N/A	Y	Y	N/A	N/A	N/A
	Door opening width is at least 32" clear	N	N	N	Y	N	N	Y	Y	N	Y	Y	Y	N	Y	Y	Y	Y	N/A	Y	Y	N/A	N/A	N/A
	There is at least 18" clearance on the pull side of the door	Y	Y	Y	N	N	N	Y	Y	Y	N	Y	Y	N	Y	Y	Y	Y	N/A	Y	Y	N/A	N/A	N/A
Door is self-closing	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N/A	N	N	N/A	N/A	N/A	
There are door pulls on both sides of the door that are operable with one hand	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N/A	N	N	N/A	N/A	N/A	
The lock is operable with one hand without tight grasping, pinching or twisting of the wrist	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	N/A	Y	Y	N/A	N/A	N/A	
Operable door hardware is mounted between 34" - 48" above the floor	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	N/A	Y	Y	N/A	N/A	N/A	

TOILET ROOMS

ADA REQUIREMENT	TOILET ROOM NUMBER								
	105U	012W	012M	159W	1048W	1040M	1046W	1044M	
SIGN	Text characters contrast with background	Y	Y	Y	N	Y	Y	Y	Y
	Text characters are raised	Y	Y	Y	N	Y	Y	Y	Y
	There is Braille	Y	Y	Y	N	Y	Y	Y	Y
	Sign is mounted on the wall on latch side of the door	Y	Y	Y	N	Y	Y	Y	Y
	Sign is mounted so that the baseline of the lowest character is at least 48" above floor and the baseline of the highest character is no more than 60" above floor	Y	Y	Y	N	Y	Y	Y	Y
	There is a sign with the International Symbol of Accessibility	Y	N	N	N	Y	Y	Y	Y
ENTRANCE	Door opening clearance width is at least 32" wide	Y	Y	Y	N	Y	Y	Y	Y
	There is at least 18" clearance on the pull side of the door	Y	Y	Y	Y	Y	N	Y	Y
	Door is equipped with hardware that is operable with one hand that does not require tight grasping, pinching or twisting of the wrist	Y	Y	Y	Y	Y	Y	Y	Y
	Operable door hardware is mounted between 34" - 48" above the floor	Y	Y	Y	Y	Y	Y	Y	Y
	Door can be opened easily	Y	Y	Y	Y	Y	Y	Y	Y
	Door takes at least 5 seconds to close (if it has a closer)	N/A	N	Y	N/A	N	Y	Y	Y
	If there are two doors in a series, the distance between the doors is at least 48" plus width of doors	N	N/A	N/A	N/A	N/A	Y	N/A	N/A
	If there is a privacy wall and the door swings in, there is at least 24" on the pull side of the door and at least 54" clearance to the wall	N/A	N/A	N/A	N/A	N/A	N/A	Y	Y
IN TOILET ROOM	There is a clear path to at least one of each type of fixture that is at least 36" wide	N	Y	Y	Y	Y	Y	Y	Y
	There is a clear floor space of at least a 60" diameter	Y	Y	Y	Y	Y	Y	N	Y
	If this is a single user toilet room and the door swings in, there is at least a 30x48" clear floor space beyond the swing of the door	Y	N/A	N/A	Y	N/A	N/A	N/A	N/A
	The mirror mounted no higher than 40" above floor if over a lavatory or countertop or 35" above floor if not.	Y	Y	Y	N	Y	Y	Y	Y
LAVATORY	At least one lavatory has a clear floor space of at least 30" wide and 48" long	N	Y	Y	Y	Y	Y	N	Y
	There is at least 17" and no more 25" of clear floor space under the lavatory	Y	Y	Y	Y	Y	Y	Y	Y
	The height of the lavatory is no more than 34" above the floor	Y	Y	Y	Y	Y	Y	Y	Y
	There is at least 27" clearance from the floor to the bottom of the lavatory and that extends at least 8" under	Y	Y	Y	Y	Y	Y	Y	Y
	There is at least 9" toe clearance	Y	Y	Y	Y	Y	Y	Y	Y
	The pipes below the lavatory are insulated or protected against contact	Y	Y	Y	Y	N	Y	Y	Y
	The faucet can be operated easily without tight grasping, pinching or twisting of the wrist	Y	Y	Y	Y	Y	Y	Y	Y
DISPENSERS	The height of the operable part of the soap dispenser is no higher than: 44" above floor (if above 20-25" deep lavatory) or 48" above floor (if above < 20" deep lavatory or if not over an obstruction)	Y	Y	Y	Y	Y	Y	Y	Y
	The height of the operable part of the towel dispenser is no higher than: 44" above floor (if above 20-25" deep lavatory) or 48" above floor (if above < 20" deep lavatory or if not over an obstruction)	Y	Y	Y	Y	Y	Y	Y	Y
	Operable parts of towel dispenser or hand dryer can be easily operated without tight grasping, pinching or twisting of the wrist	Y	Y	Y	Y	Y	Y	Y	Y
TOILET AND ACCESSORIES	The centerline of toilet in between 16" - 18" from side wall or partition	N	Y	Y	Y	Y	Y	Y	Y
	The clearance around the toilet is at least 60" from side wall and 56" from rear wall	N	N	N	Y	N	Y	Y	Y
	The height to the top of the toilet seat is between 17" - 19" above the floor	Y	Y	Y	N	Y	Y	Y	Y
	There is a grab bar at least 42" long on the side wall:	Y	Y	Y	N	N	Y	Y	Y
	· Located no more than 12" from rear wall	Y	Y	Y	N	Y	Y	Y	Y
	· Extends at least 54" from rear wall	Y	Y	Y	N	N	Y	Y	Y
	· Mounted between 33" - 36" above floor	Y	Y	Y	N	Y	Y	Y	Y
	· There is at least 12" clearance between grab bar and protruding objects above	N	N	N	N	N	N	N	N
	· There is at least 1 1/2" clearance between grab bar and projecting objects below	N/A	N/A	N/A	N	Y	N/A	N/A	N/A
	· The space between wall and grab bar is at least 1 1/2"	Y	Y	Y	N	Y	Y	Y	Y
	There is a grab bar at least 36" long on the rear wall:	Y	N	N	N	N	Y	Y	Y
	· Extends at least 12" from centerline of toilet on one side (side wall)	N	N	N	N	N	Y	Y	Y
	· Extends at least 24" on the other (open) side	N	N	N	N	N	Y	Y	Y
	· Mounted between 33" - 36" above floor	Y	N	N	N	N	Y	Y	Y
	· There is at least 12" clearance between grab bar and protruding objects above	N/A	N	N	N	N	N/A	N/A	N/A
	· There is at least 1 1/2" clearance between grab bar and projecting objects below	Y	N	N	N	N	Y	Y	Y
	· The space between wall and grab bar is at least 1 1/2"	Y	N	N	N	N	Y	Y	Y
	If flush is hand operated, the operable part is no higher than 48" above floor	Y	Y	Y	Y	Y	Y	Y	Y
	The flush control can be easily operated without tight grasping, pinching or twisting of the wrist	Y	Y	Y	Y	Y	Y	Y	Y
	The flush control is on the open side of the toilet	Y	N/A	N/A	Y	N/A	Y	Y	Y
The toilet paper dispenser is located between 7" - 9" from the front of the toilet to the centerline of the dispenser	Y	Y	Y	N	Y	Y	N	N	
The outlet of the toilet paper dispenser is located between 15" - 48" above floor	Y	N	N	Y	Y	Y	Y	Y	
The toilet paper dispenser allow continuous paper flow	Y	Y	Y	Y	Y	Y	Y	Y	
PARTITION STALL	The compartment is at least 60" wide	N/A	N	N	N/A	N	Y	Y	Y
	The compartment is at least 56" deep (if toilet is wall hung) or 59" deep (if toilet is floor mounted)	N/A	Y	Y	N/A	Y	Y	Y	Y
	Door opening width is at least 32" clear	N/A	Y	Y	N/A	Y	Y	Y	Y
	There is at least 18" clearance on the pull side of the door	N/A	Y	Y	N/A	N	Y	Y	Y
	Door is self-closing	N/A	N	N	N/A	N	N	N	N
	There are door pulls on both sides of the door that are operable with one hand	N/A	N	N	N/A	N	N	N	N
	The lock is operable with one hand without tight grasping, pinching or twisting of the wrist	N/A	Y	Y	N/A	Y	Y	Y	Y
Operable door hardware is mounted between 34" - 48" above the floor	N/A	Y	Y	N/A	Y	Y	Y	Y	



APPENDIX B
PowerPoint Presentation 11/22/2016



design matters

TUESDAY, NOVEMBER 22, 2016

FREEDOM AREA SCHOOL DISTRICT District-Wide Facilities Feasibility Study



design matters



FREEDOM AREA
SCHOOL DISTRICT



Why:

- Society has changed
 - Creative, service focus
 - Parents and students have more opportunities
 - Expectations and opportunities
 - Open Enrollment
- Students have changed
 - Before and after school
 - Opportunities with local business and colleges
- Technology has changed
 - Teaching tools
 - Access
- Safety/security
 - School buildings
 - Site Safety
 - Procedures
- Teaching styles
 - Customized / individual learning
 - Active learning / project-based
- Family/community needs
 - Resource center
 - Wellness
 - Daycare
- Education Requirements
 - Special education spaces
 - Reading specialist
 - Math specialist
 - Computer labs
 - Speech/language specialist
- Kindergarten / 4 year old Kindergarten
 - Programming changes over the years
 - Result more space needed
- Population Growth
 - Population continues to increase



design matters



FREEDOM AREA SCHOOL DISTRICT



Student Enrollment

Wisconsin Department of Instruction



design matters

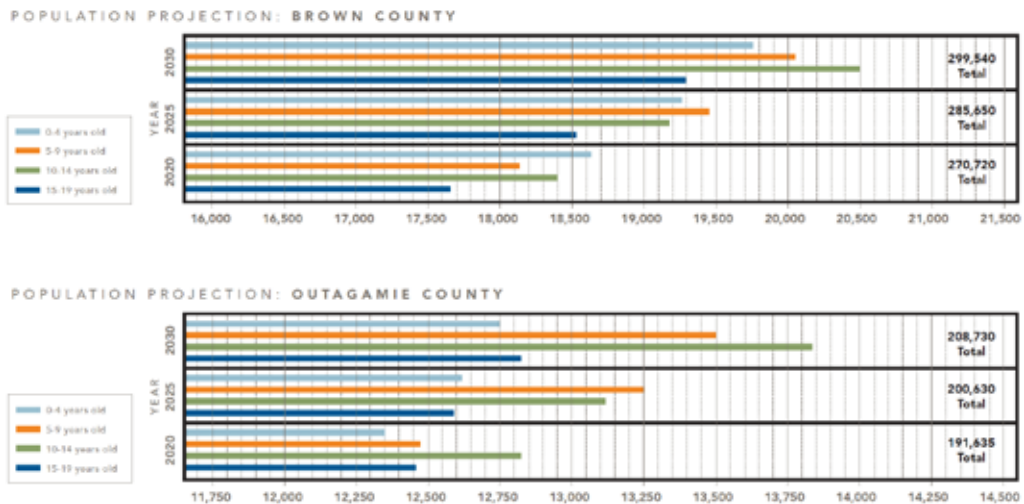


FREEDOM AREA SCHOOL DISTRICT



Population

Wisconsin Department of Administration





design matters



FREEDOM AREA
SCHOOL DISTRICT



What:

- Listening:
 - Board of Education - Buildings and Grounds Committee
 - Students
 - Staff
 - Administration
- Observation:
 - Middle / High school
 - Elementary school
 - Site / traffic
- Evaluation:
 - Mechanical
 - Electrical
 - Building / grounds
 - Roofs
 - ADA / codes

design matters



FREEDOM AREA
SCHOOL DISTRICT



Findings

- Plumbing / HVAC
 - Majority of the water heaters are fairly new, energy efficient type
 - Energy efficiency will be gained when 20+ year old equipment is replaced
 - Gym spaces are not air conditioned
 - Controls (Constant volume vs. variable air volume systems)
- Electrical
 - Interior light fixtures are fair/good condition and utilize energy efficient T8 lamps
 - Exterior metal halide and high pressure sodium lighting is functional but less efficient than comparable LED fixtures
 - Existing service to building is in fair/good condition
 - A few panels are in poor condition and should be replaced



Findings

- **Building Condition**
 - Building have been well maintained and are in good condition
 - Casement (crank type) windows at the Elementary school are causing issues; leaking (water and cold air)
- **Americans with Disabilities Act (ADA) and Codes**
 - Wrestling Room is not accessible
 - Miscellaneous ADA compliance issues
- **Roofs**
 - Elementary School roofs are in good condition
 - MS / HS roofs are in good condition



Freedom Elementary School Findings

- **Building Capacity:**
 - Goal capacity is the point where the building functions best for educational (teaching and learning) purposes.
 - Number of adequate 'grade' classrooms per grade level x goal class size = Capacity

- **Elementary School:**

		Goal	Actual (±1)
(Special Education students are included in these numbers; additional classroom spaces are required/ provided)	○ 4K	5 @ 20	5 @ 19
	○ K	5 @ 20	5 @ 18
	○ 1 st	5 @ 20	5 @ 22
	○ 2 nd	5 @ 20	5 @ 23
	○ 3 rd	5 @ 25	5 @ 20
	○ 4 th	5 @ 25	5 @ 20
	○ 5 th	<u>5 @ 25</u>	<u>5 @ 19</u>
		775	702

- **Recommendation for operational efficiency is to operate at 90% capacity (775 x 90% = 697)**



Elementary School

**BASEMENT
FLOOR PLAN**



Elementary School

**FIRST
FLOOR PLAN**





design matters



FREEDOM AREA
SCHOOL DISTRICT



Elementary School

SECOND FLOOR PLAN



design matters



FREEDOM AREA
SCHOOL DISTRICT



Elementary School Site Plan





design matters



FREEDOM AREA
SCHOOL DISTRICT



Elementary School Summary

- All rooms are being used at or near capacity (not necessarily as designed)
- Lacking modern learning spaces
 - Break-out / collaboration spaces
 - Flexible furniture
 - Outdated / not inspirational
 - Technology availability
 - No staff / professional collaboration space
- No conference room
- Lack of storage (storage rooms being used for other purposes)
- Lack of restrooms (staff and student)
- Safety and security
 - Building entrance / Main Office location
 - Traffic – bus, vehicle, pedestrian traffic flow
- Inadequate parking (events / parent teacher conferences)

design matters



FREEDOM AREA
SCHOOL DISTRICT



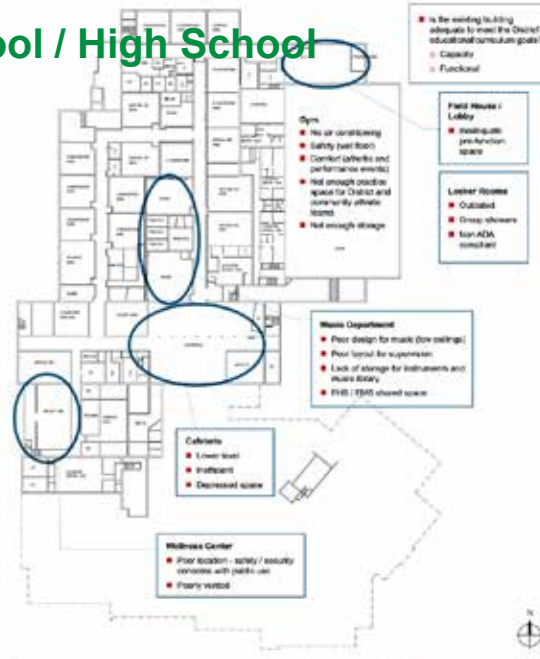
Freedom Middle School / High School Findings

- Building Capacity:
 - Goal capacity is the point where the building functions best for educational (teaching and learning) purposes.
 - Goal Classroom (general classrooms + science labs) class is 27 +/- 2
 - Along with educational guidelines for student capacity based on function on space (science labs)
- Middle School / High School:
 - 6 – 12 Actual Population = 919
 - Capacity is based on guidelines and goals = 1,092
 - **Recommendation for operational efficiency is to operate at 85% capacity (1,092 x 85% = 928)**



Middle School / High School

LOWER LEVEL FLOOR PLAN



Middle School / High School

FIRST FLOOR PLAN





design matters

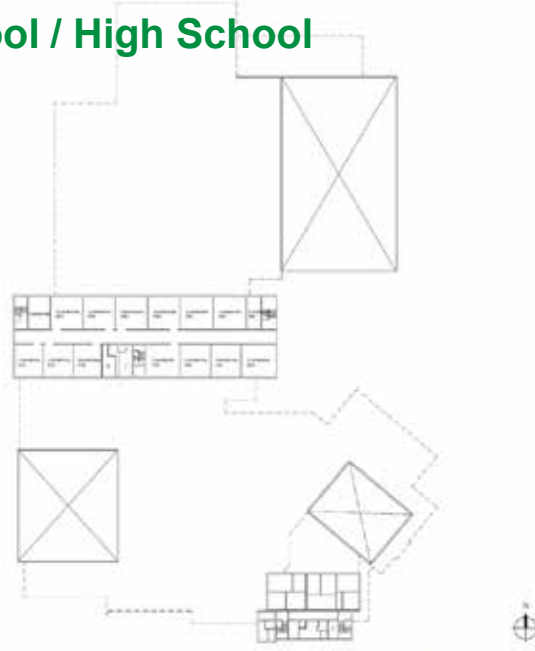


FREEDOM AREA SCHOOL DISTRICT



Middle School / High School

SECOND FLOOR PLAN



design matters



FREEDOM AREA SCHOOL DISTRICT



Middle School /High School Site Plan





design matters



FREEDOM AREA
SCHOOL DISTRICT



Middle School / High School Summary

- No commons / cafeteria limited
- Lacking modern learning spaces
 - Break-out / collaboration spaces
 - Flexible furniture
 - Outdated / not inspirational
 - Not appropriate size space to meet curriculum goals (Music dept, Art dept, Tech Ed dept, Ag dept. etc)
- Very limited lecture hall (no auditorium / cafetorium / performance center)
- Fieldhouse concerns (air conditioning, pre-function space)
- Inconsistent temperatures
- Ventilation concerns
- Spaces being used not as designed (storage as offices)
- Technology availability

design matters



FREEDOM AREA
SCHOOL DISTRICT



What is next?...Some basic options to consider.

- **Elementary School**
 - Add again to the existing building site to accommodate needs and growth
 - Add additional classrooms
 - Add additional gym space
 - Add additional cafeteria space
 - Consider new construction within the District to allow for growth throughout the District at all building levels
 - Realign grade levels (move grade levels out of the elementary school to allow for space in the existing elementary facility)
 - Remodel the existing elementary school to meet current learning needs
 - Create break-out / collaboration spaces
 - Provide flexible furniture
 - Make technology more readily available
 - Create staff / professional collaboration space



design matters



FREEDOM AREA
SCHOOL DISTRICT



What is next?...Some basic options to consider.

▪ Middle School / High School

- Add again and remodel high school / middle school facility to accommodate capacity and more modern functional needs.
- Consider new construction of a high school facility
 - Realign grades to accommodate growth throughout the District at all building levels
 - Upgrade current high school / middle school facility to address learning needs and grade realignment





APPENDIX C
PowerPoint Presentation 1/25/2017



WEDNESDAY, JANUARY 25, 2017



**FREEDOM AREA
SCHOOL DISTRICT**

Initial Concept Drawings & Plans



January 25, 2017

FREEDOM AREA SCHOOL DISTRICT
Initial Concept Drawings & Plans



Grade Realignment

- Elementary School
 - Pre-K – 3rd Grade
- Intermediate / Middle School
 - 4th Grade – 8th Grade
- High School
 - 9th Grade – 12th Grade




 January 25, 2017
FREEDOM AREA SCHOOL DISTRICT
 Initial Concept Drawings & Plans



Elementary School




 January 25, 2017
FREEDOM AREA SCHOOL DISTRICT
 Initial Concept Drawings & Plans



Elementary School





 January 25, 2017
FREEDOM AREA SCHOOL DISTRICT
Initial Concept Drawings & Plans



High School Program

 January 25, 2017
FREEDOM AREA SCHOOL DISTRICT
Initial Concept Drawings & Plans



High School Program



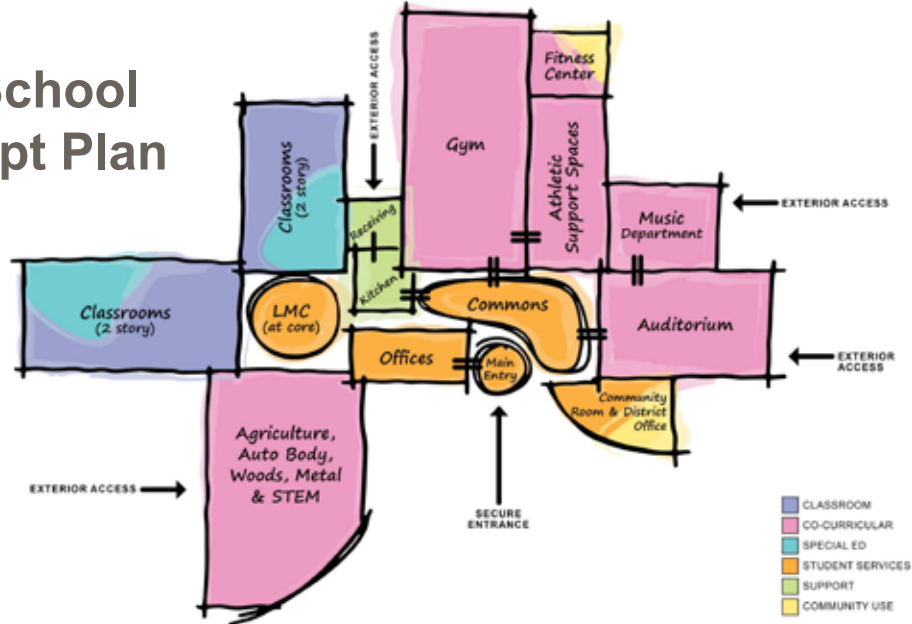
January 25, 2017

FREEDOM AREA SCHOOL DISTRICT
Initial Concept Drawings & Plans



somerville
architects & engineers

High School Concept Plan



January 25, 2017

FREEDOM AREA SCHOOL DISTRICT
Initial Concept Drawings & Plans



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Discussion



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