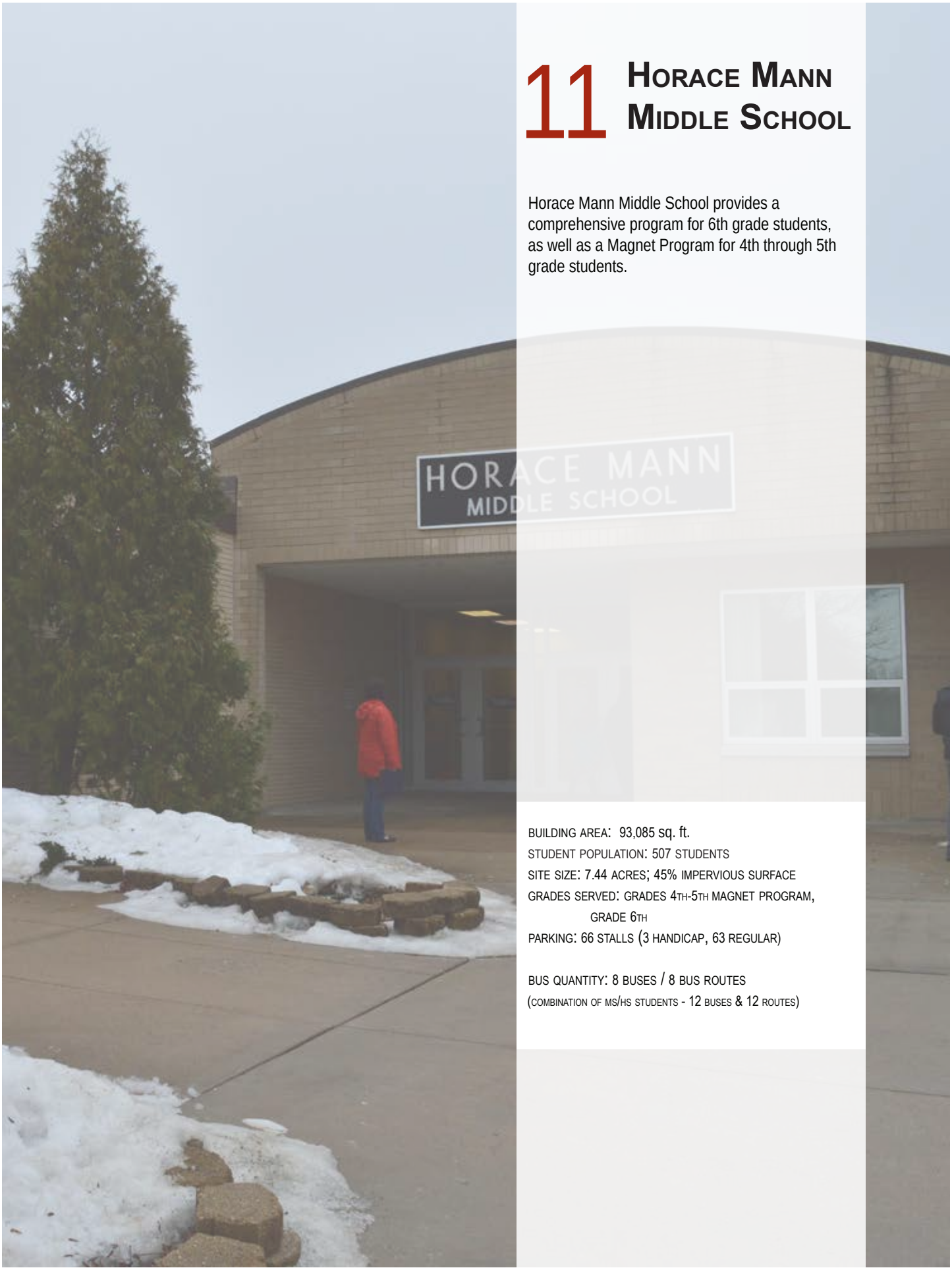


11 Horace Mann Middle School

Horace Mann Middle School provides a comprehensive program for 6th grade students, as well as a Magnet Program for 4th through 5th grade students.

BUILDING AREA: 93,085 sq. ft.
STUDENT POPULATION: 507 STUDENTS
SITE SIZE: 7.44 ACRES; 45% IMPERVIOUS SURFACE
GRADES SERVED: GRADES 4TH-5TH MAGNET PROGRAM, GRADE 6TH
PARKING: 66 STALLS (3 HANDICAP, 63 REGULAR)

BUS QUANTITY: 8 BUSES / 8 BUS ROUTES
(COMBINATION OF MS/HS STUDENTS - 12 BUSES & 12 ROUTES)

HORACE MANN MIDDLE SCHOOL: BUILDING EVOLUTION

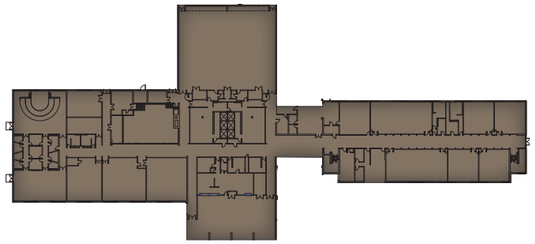
Horace Mann Middle School was originally constructed in 1960. A classroom addition was completed in 1965, an elevator in 1996, and another classroom addition in 2002.

The following building evolution diagram outlines the additions made to the original building over time due primarily to student enrollment growth.

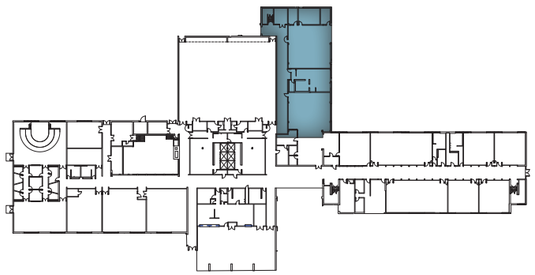
Horace Mann Middle School Main Office

Horace Mann Middle School Classroom

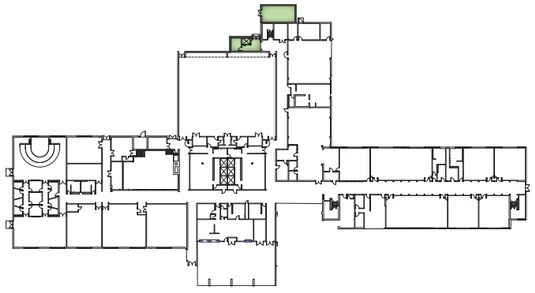
Horace Mann Middle School Corridor



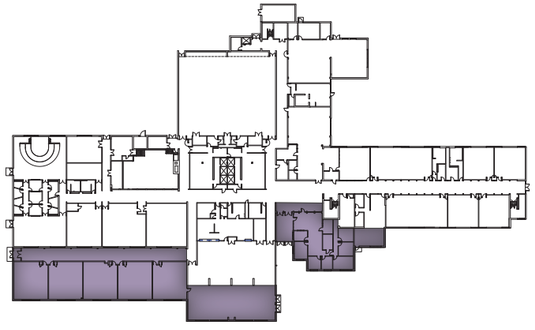
1960



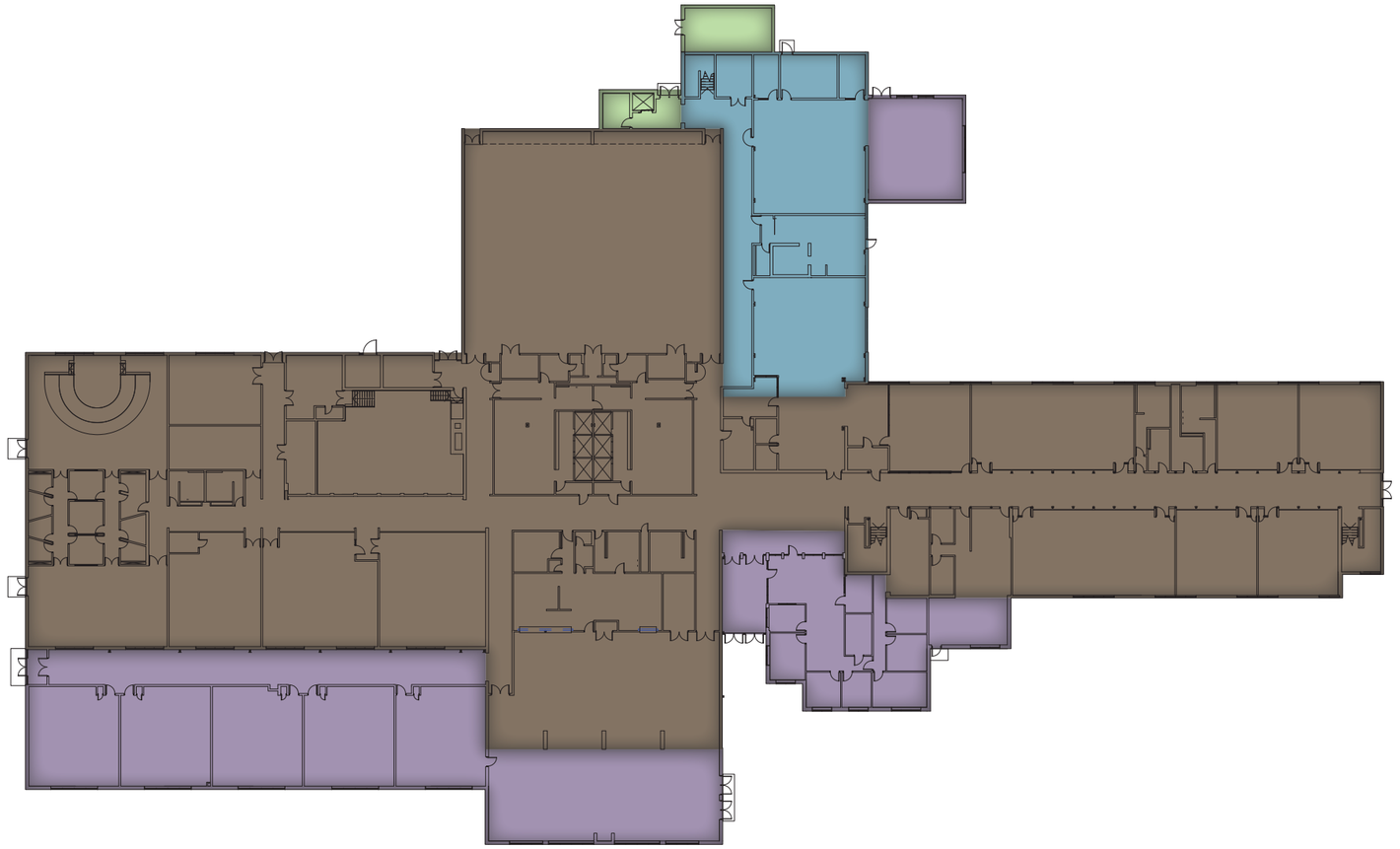
1965



1996



2002



= 1960 - Original

= 1965 - Classroom Addition

= 1996 - Elevator Addition

= 2002 - Classroom Addition

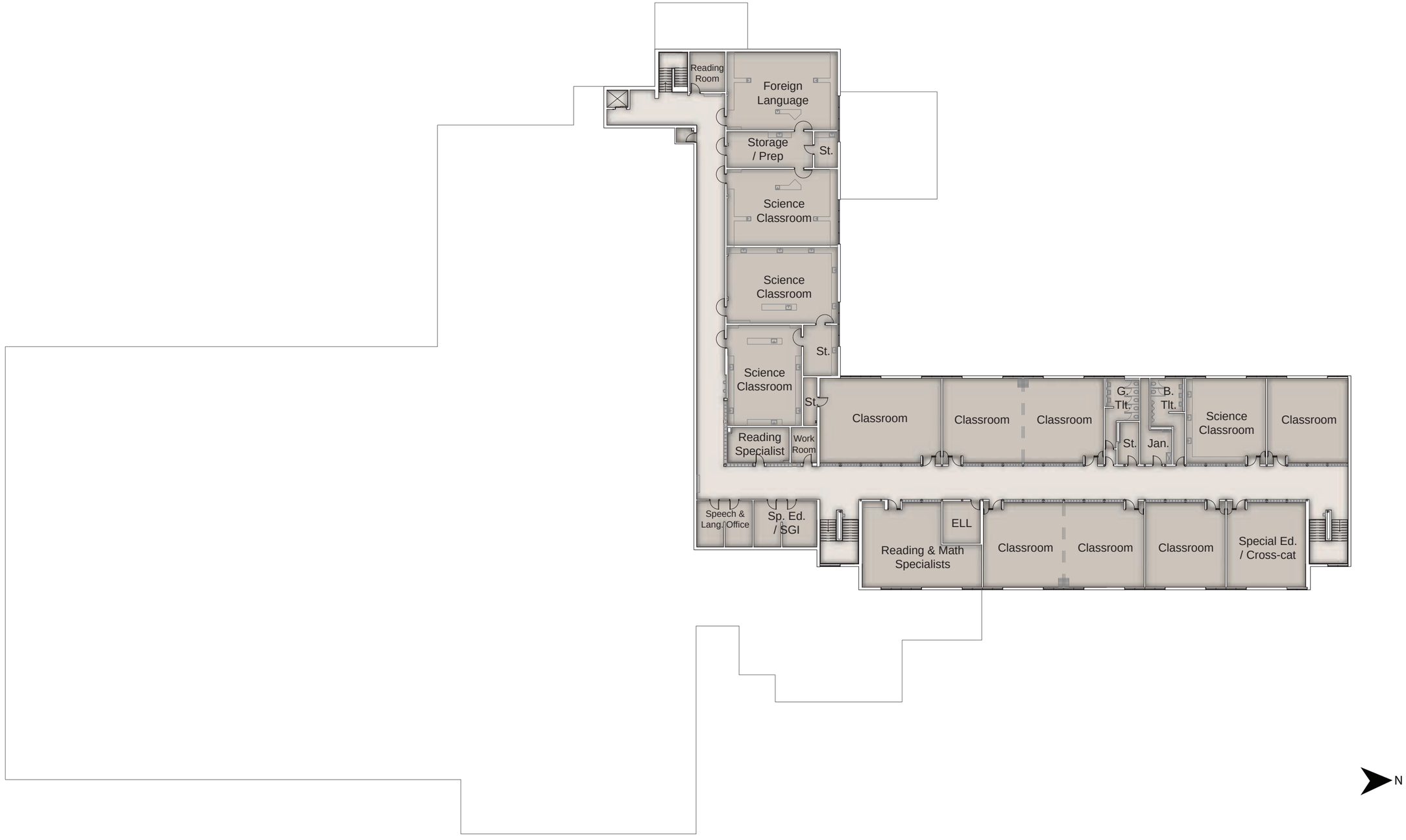
N

SITE PLAN

not to scale

FIRST FLOOR PLAN

not to scale



SECOND FLOOR PLAN

not to scale

HORACE MANN MIDDLE SCHOOL: PARENT SURVEY FEEDBACK

In February 2017, the District sent out a survey via email to all parents of students within the District with the focus on identifying and prioritizing needs at each school. Parents where asked to respond to a series of questions, as well as provide open-ended comments if desired.

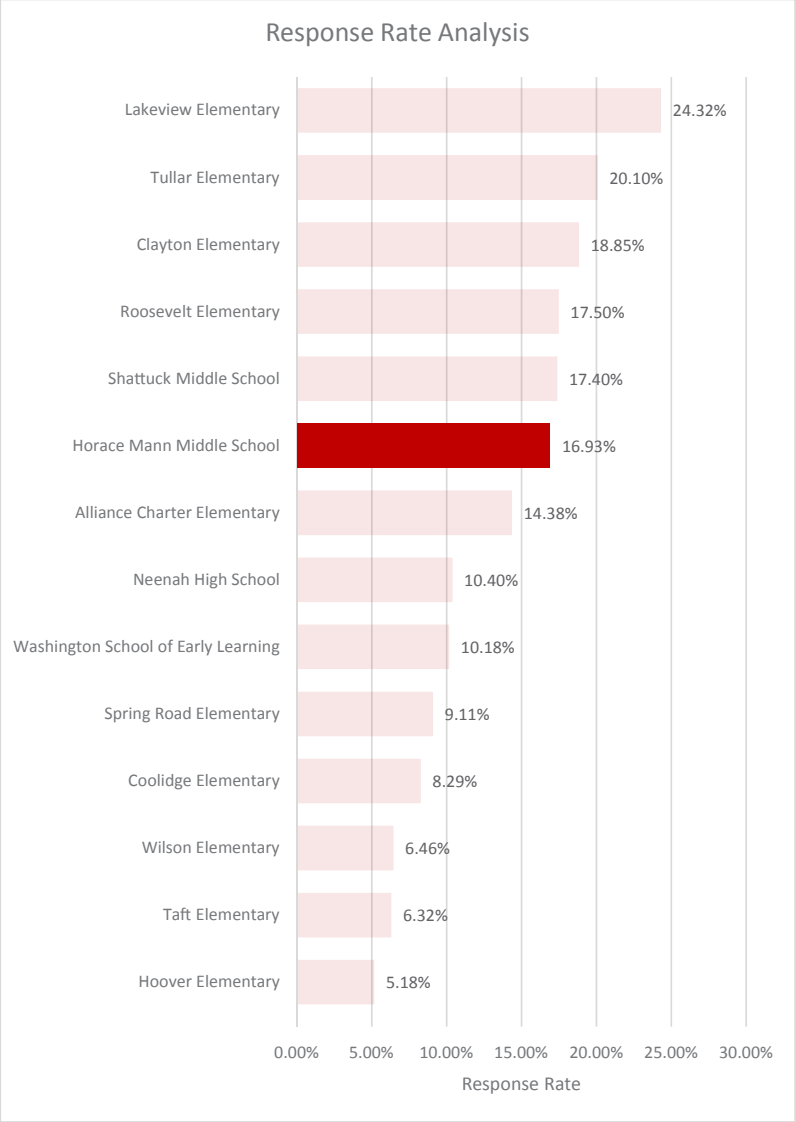
The following information reflects feedback and response rate for Horace Mann Middle School.

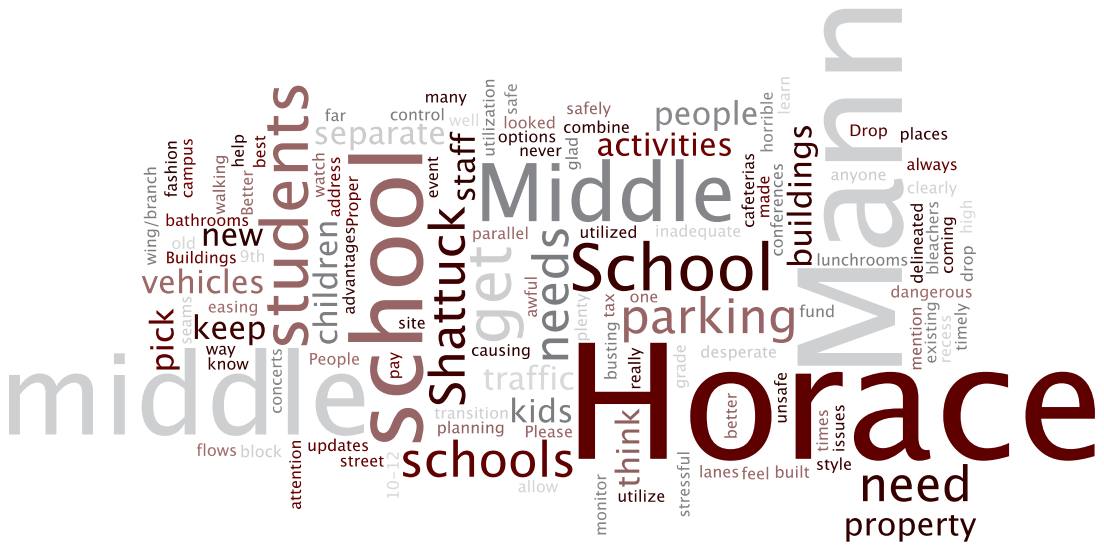
TOTAL PARENTS TO RECEIVE SURVEY: 508
TOTAL NUMBER OF RESPONSES: 86

RESPONSE RATE: 16.93%

ADDITIONAL NOTES

- Horace Mann Middle School accounts for 15.01% of all parent survey feedback





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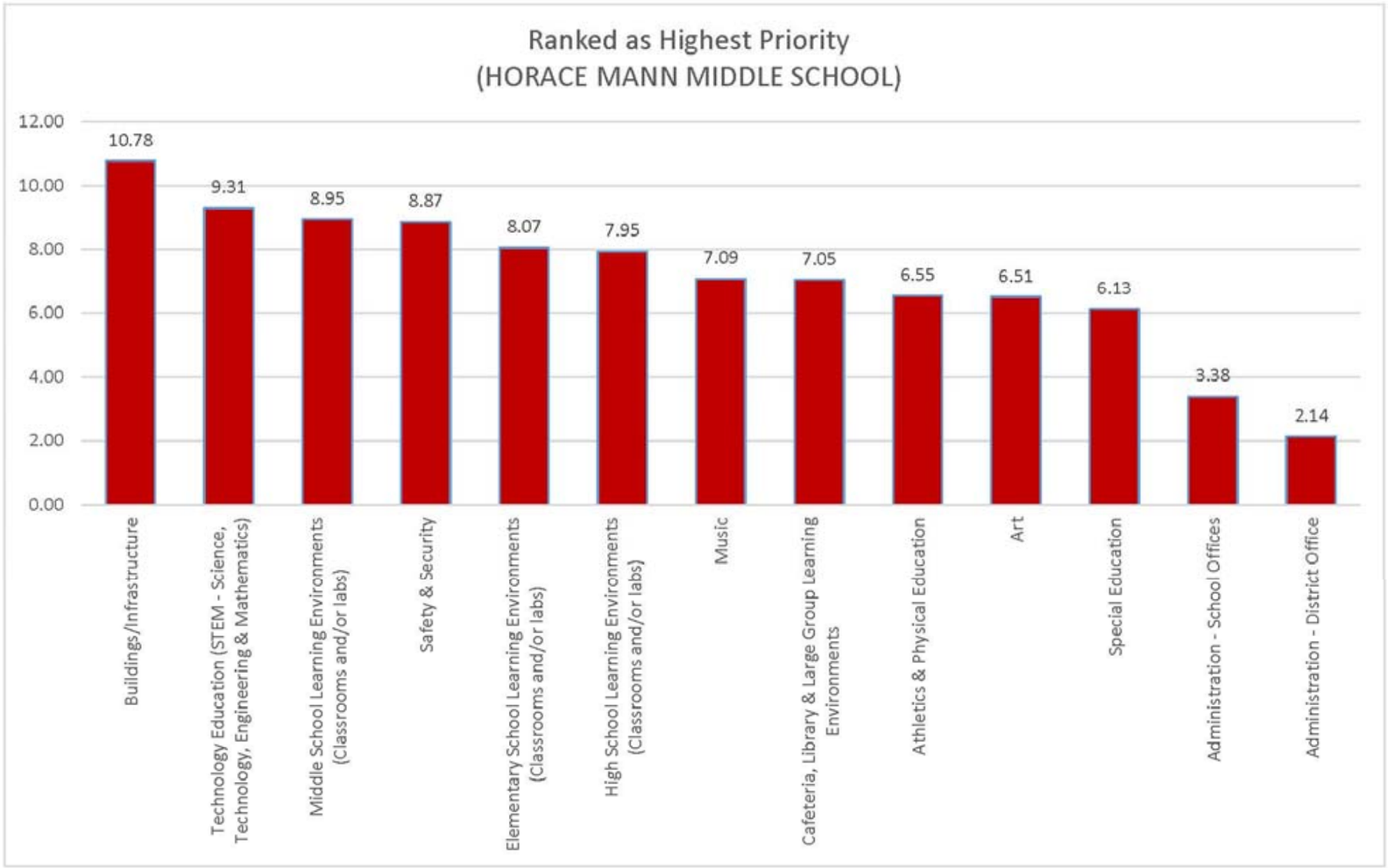
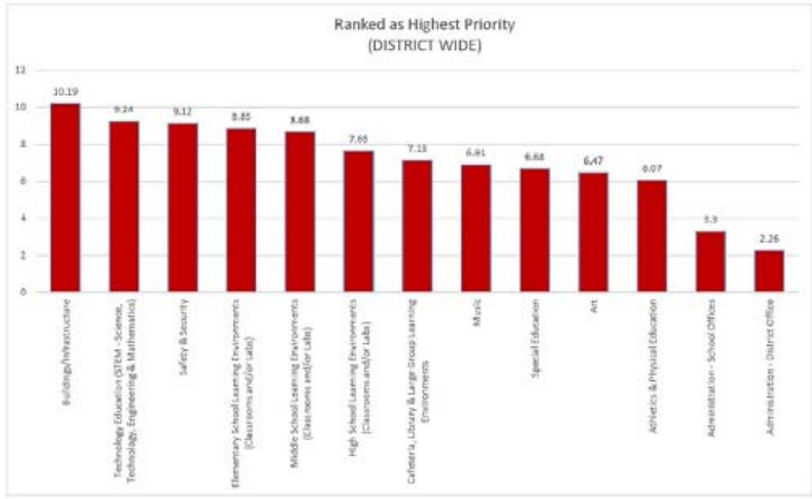

Ranked as Highest Priority
(HORACE MANN MIDDLE SCHOOL)
12.00
10.00
8.00
6.00
4.00
2.00
0.00
10.78
9.31
8.95
8.87
8.07
7.95
7.09
7.05
6.55
6.51
6.13
3.38
2.14
Buildings/Infrastructure
Technology Education (STEM - Science, Technology, Engineering & Mathematics)
Middle School Learning Environments (Classrooms and/or labs)
Safety & Security
Elementary School Learning Environments (Classrooms and/or labs)
High School Learning Environments (Classrooms and/or labs)
Music
Cafeteria, Library & Large Group Learning Environments
Athletics & Physical Education
Art
Special Education
Administration - School Offices
Administration - District Office


Ranked as Highest Priority
(DISTRICT WIDE)
12
10
8
6
4
2
0
10.19
9.24
9.12
8.85
8.68
7.65
7.13
6.91
6.68
6.47
6.07
3.3
2.26
Buildings/Infrastructure
Technology Education (STEM - Science, Technology, Engineering & Mathematics)
Safety & Security
Elementary School Learning Environments (Classrooms and/or labs)
Middle School Learning Environments (Classrooms and/or labs)
High School Learning Environments (Classrooms and/or labs)
Cafeteria, Library & Large Group Learning Environments
Music
Special Education
Art
Athletics & Physical Education
Administration - School Offices
Administration - District Office

HORACE MANN MIDDLE SCHOOL: SUMMARY OF STAFF SURVEY FEEDBACK

The following is a summary of potential improvements at Horace Mann Middle School. This is not intended to be a comprehensive list, but a summary of possible upgrades as identified by staff. The following information was obtained from staff survey responses and numerous meetings and listening sessions held by district leadership and Bray Architects with the objective of casting a broad net to try and gather as much feedback regarding needs as possible.

1. Academic & Educational Improvements:

CLASSROOMS
- Undersized
- Flexible/movable and updated furniture desired
- Flexible walls/openings desired
- Additional outlets, phone jacks, and charging stations desired; charging stations for (30) chromebooks desired
- Sound-proof walls between classrooms desired
- Access to natural daylight for all classrooms desired
- Additional storage/updated cabinets and shelving desired within the classroom for supplies, book storage, etc.

SCIENCE
- Updated sinks desired with updated/adequate faucets, drain plugs and strainers
- Re-caulking of counters desired

MUSIC
- Auditorium desired that can accommodate (500+) people
  - For guest speakers, plays, award ceremonies, house meetings
  - Currently have to bus students to NHS or Shattuck to use their auditorium spaces or utilize the gymnasium, which is not ideal
- Dedicated space for drama desired

GYMNASIUM & PHYSICAL EDUCATION
- Adequate/additional gym space desired
- Additional Basketball courts desired

CONFERENCE ROOMS & LARGE/SMALL GROUP INSTRUCTION
- Large group instruction/multi-purpose/commons space desired
  - Accommodates (50+) students desired that would allow for large team meetings, team/co-teaching, and collaboration
  - Additional multi-purpose/gym space that accommodates (150+) people and includes a kitchenette, projector, sound-proof capabilities; can accommodate indoor recess and physical exercise
- Dedicated conference/meeting rooms desired
- Outdoor workspaces/classrooms desired; renovations to existing outdoor classroom desired

MAIN OFFICE
- Dedicated space/room for I.S.S./detention; currently detention students utilize the visitor waiting area

SUPPORT
- Dedicated support space for teachers desired to store supplies outside of the classroom
- Larger staff lounge/break room desired; bathroom located in the staff lounge is undersized

SCIENCE/STEM & TECHNOLOGIES
- Science/STEM center/centralized science department with adequate space, casework/lab stations, sinks, gas jets, chemical hood vents, and furnishings to support science and STEM curriculum desired
- Smartboards and additional white boards within the science classrooms desired
- Additional outlets and charging stations desired
- (1) common science storage room and additional storage space within science classrooms desired
- Dedicated DIY/FAB Lab/maker space desired for exploration, design and construction curriculum (10 Stations)
- Dedicated Robotics Lab with adequate space, casework/lab stations, robot storage space, and a competition field.

MUSIC
- New/upgraded blinds in practice rooms
  - Clear view into practice rooms to monitor student activity
  - Adequate to meet safety (lock down) needs
- Sound-proof walls desired
- Increase/update riser sitting

FAMILY AND CONSUMER EDUCATION
- Dedicated space/classroom

LIBRARY
- Undersized

SPECIAL ED.
- Dedicated sensory and cool-down rooms/space desired

STORAGE
- New/updated lockers for students desired that are large enough to house backpacks, coats, boots, etc. and are easy to operate

2. Facility & Site Improvements:

TECHNOLOGY

- Projectors that are movable/can rotate
- Improved WiFi capabilities
- Smartboards (for every classroom)
- New/improved P.A. system desired that is audible throughout the building
- Recording capabilities desired for lessons

BUILDING SYSTEMS

- HVAC
  - Consistent temperatures/heating/cooling throughout the building desired
  - Temperature/climate control within the classroom desired
  - Adequate ventilation/fans in the classroom desired
  - Quieter units in the office desired
  - Air conditioning desired
- Lighting
  - Updated, energy efficient lighting desired
- Plumbing
  - Adequate/updated water fill stations and drinking fountains desired

INFRASTRUCTURE

- Finishes - Flooring, Ceiling, etc.
  - Newly/brightly painted walls desired
  - Additional sound proofing between floors; minimal movement on upper floor causes doc camera to shake, which is a distraction for students
  - Exterior finish/facade updates desired
- Windows
  - New/updated windows desired
  - New/upgraded screens desired
- Doors
  - New/updated doors desired

SITE

- Age-appropriate playground equipment desired, especially for younger grade level students
- Outdoor track is in poor condition; repaving track surface desired
- Additional outdoor activity space for students desired
- Improved paving/resurfacing of parking lot desired
- Additional staff parking stalls desired
- Improved parent/bus pick-up/drop-off sequence desired
- Improvements to space in front of main entrance for students to socialize before/after school hours

MISCELLANEOUS

- Access to natural daylight throughout the building desired
- New/improved vestibule at building entrance desired; single door system often lets weather into the building
- Bathrooms
  - Update bathroom facilities
  - Energy efficient fixtures desired
  - Additional student/staff bathrooms desired

HORACE MANN MIDDLE SCHOOL: SUMMARY OF STAFF INTERVIEW FEEDBACK

The following is a summary of potential improvements at Horace Mann Middle School. This is not intended to be a comprehensive list, but a summary of possible upgrades as identified by staff. The following information was obtained from staff interviews and numerous meetings and listening sessions held by district leadership and Bray Architects with the objective of casting a broad net to try and gather as much feedback regarding needs as possible.

1. Academic & Educational Improvements:

CLASSROOMS
- Undersized
- Flexible/movable and updated furniture desired
- Flexible walls/openings desired
- Additional outlets, phone jacks, and charging stations desired; charging stations for (30) chromebooks desired
- Sound-proof walls between classrooms desired
- Access to natural daylight for all classrooms desired
- Additional storage/updated cabinets and shelving desired within the classroom for supplies, book storage, etc.
- Additional foreign language room needed
- Team offices for house/pods desired

MUSIC
- Better soundproofing/acoustics desired
- Auditorium desired that can accommodate (500+) people
  - For guest speakers, plays, award ceremonies, house meetings
  - Currently have to bus students to NHS or Shattuck to use their auditorium spaces or utilize the gymnasium, which is not ideal

GYMNASIUM & PHYSICAL EDUCATION
- Adequate/additional gym space desired
- Additional Basketball courts desired

CONFERENCE ROOMS & LARGE/SMALL GROUP INSTRUCTION
- Large group instruction/multi-purpose/commons space desired
  - Accommodates (50+) students desired that would allow for large team meetings, team/co-teaching, and collaboration
  - Additional multi-purpose/gym space that accommodates (150+) people and includes a kitchenette, projector, sound-proof capabilities; can accommodate indoor recess and physical exercise
- Dedicated conference/meeting rooms desired
- Outdoor workspaces/classrooms desired; renovations to existing outdoor classroom desired

MAIN OFFICE
- Dedicated room for health aide with office and restroom
- Additional offices for guidance desired
- Psychologist office desired

CAFETERIA
- Three lunch periods; one for challengers/magnet students, two others for remaining students (150 and 220)
- Two lunch periods of 250-300 desired

SUPPORT
- Dedicated support space for teachers desired to store supplies outside of the classroom
- Larger staff lounge/break room desired; bathroom located in the staff lounge is undersized
- Larger staff work room desired; currently undersized

SCIENCE/STEM & TECHNOLOGIES
- Five classrooms desired; one for each house + one additional space
- Dedicated Robotics Lab with adequate space

FAMILY AND CONSUMER EDUCATION
- Dedicated space/classroom

LIBRARY
- Undersized
- Additional maker space desired

SPECIAL ED.
- Dedicated sensory and cool-down rooms/space desired
- Restroom and sensory desired within classrooms

STORAGE
- New/updated lockers for students desired that are large enough to house backpacks, coats, boots, etc. and are easy to operate

2. Facility & Site Improvements:

TECHNOLOGY

- New/improved P.A. system desired that is audible throughout the building

BUILDING SYSTEMS

- HVAC
  - Consistent temperatures/heating/cooling throughout the building desired
  - Temperature/climate control within the classroom desired
  - Adequate ventilation/fans in the classroom desired
  - Quieter units in the office desired
  - Air conditioning desired
- Lighting
  - Updated, energy efficient lighting desired
- Plumbing
  - Adequate/updated water fill stations and drinking fountains desired

INFRASTRUCTURE

- Finishes - Flooring, Ceiling, etc.
  - Additional sound proofing between floors; minimal movement on upper floor causes doc camera to shake, which is a distraction for students
- Windows
  - New/updated windows desired
  - New/upgraded screens desired

MISCELLANEOUS

- Access to natural daylight throughout the building desired
- Bathrooms
  - Update bathroom facilities
  - Energy efficient fixtures desired
  - Additional student/staff bathrooms desired

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HORACE MANN MIDDLE SCHOOL: NEEDS ASSESSMENT

The following is a summary of potential improvements at Horace Mann Middle School. This is not intended to be a comprehensive list. The following information was obtained through notations made by Bray Architects at extensive tours of the building and grounds, as well as needs identified by school maintenance personnel.

1. Interior Infrastructure/Maintenance:

WALLS

a. Some interior brick walls have staining present, especially near the top portion of the wall

b. Acoustical panels in the Gymnasium and Music Rooms are worn and stained

c. Concrete masonry wall near door #3 has cracking at the door frame

CEILING

d. Ceiling tiles are dated, with some tiles stained/showing signs of water damage and many bowing, bending and separating from the ceiling grid; there are a mix of tile types throughout the building

FLOORING

e. Much of the hard-surface flooring is stained, worn, and cracking/heaving; there are multiple types of flooring throughout the building

f. Staff reported that floors in the addition to the fitness room often have problems with moisture collecting on the surface; tile in this area is stained, possibly due to water damage

g. Staff indicated areas of potential asbestos tile throughout the building

MISCELLANEOUS

h. Locker room lockers are dented and damaged

2. Building Envelope:

WALLS

a. Exterior brick is crumbling/cracking, especially at building corner conditions and near the foundation wall

b. Exterior walls are stained, possibly due to water damage; this is especially prevalent at corner conditions, sills, and gutter and scupper locations; staff indicated concern with staining at the sill and base of the foundation wall at the Fitness area

c. Exterior concrete steps are stained, cracking and crumbling, and railings at these locations are dated and rusting

WINDOWS

d. Windows along the East side of the Northeast classroom wing are drafty and have issues with water leaking into the building, as indicated by staff

e. Some windows have staining on the exterior panels

DOORS

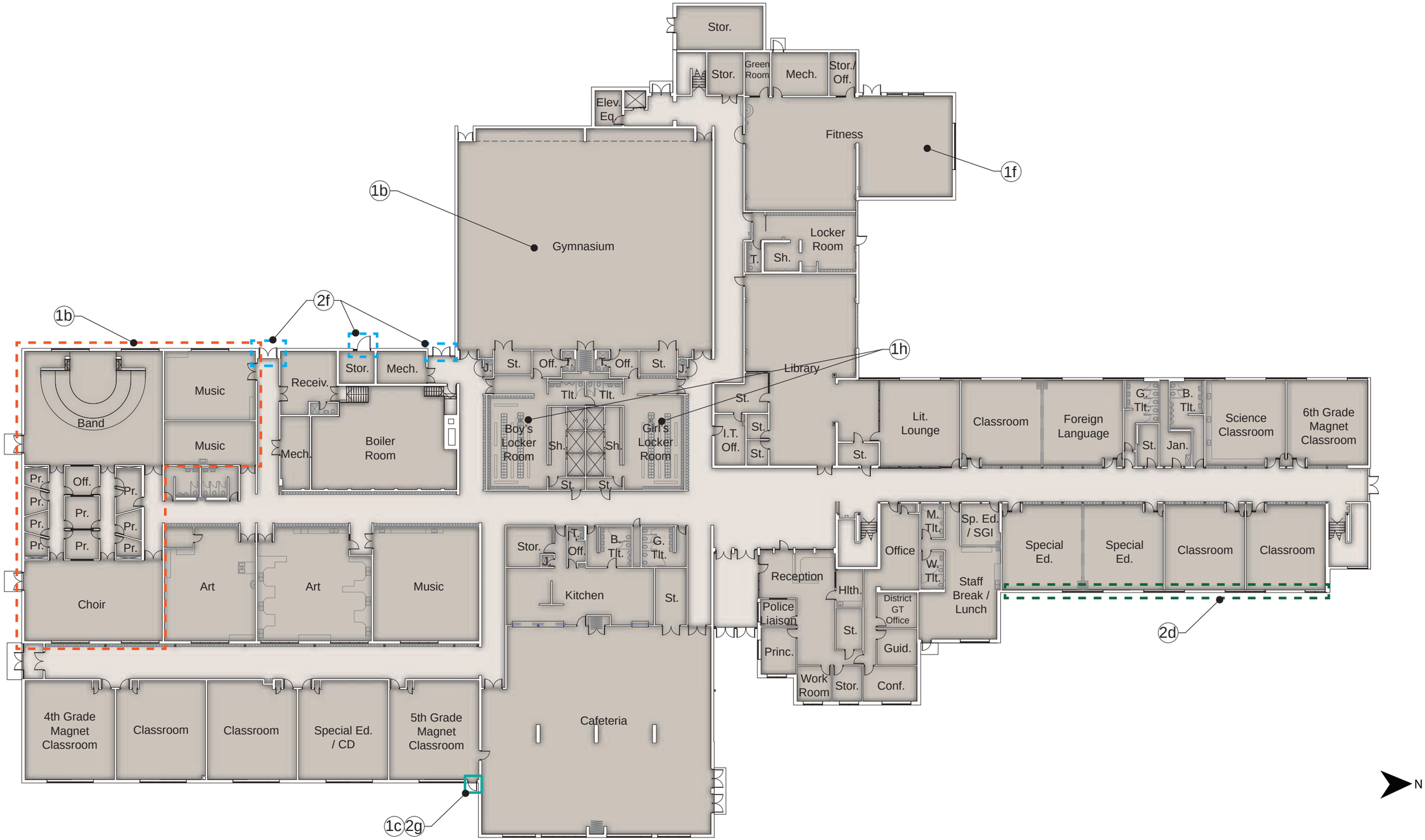
f. Many exterior doors are original to the building, are damaged and bent at the thresholds, and have openings within the frame that allow for drafts, especially aluminum doors; staff reported that doors #7, #7a, and #8 are scheduled for replacement

g. Staff reported that door #3 has cracking and issues with water coming into the building

ROOFS

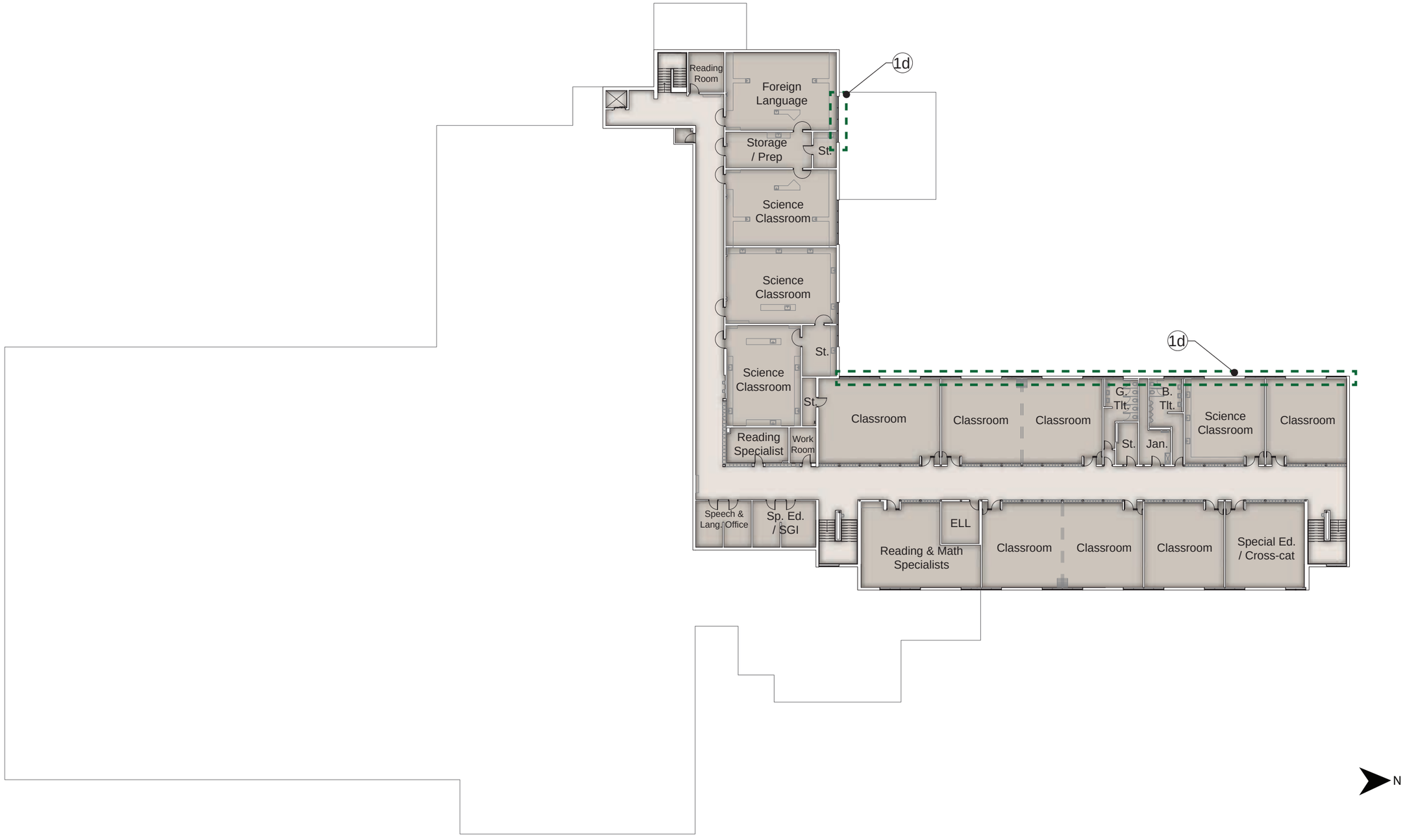
h. Metal fascia at the roof is rusting

i. Underside of roof overhangs are stained and have paint peeling



FIRST FLOOR PLAN

not to scale



SECOND FLOOR PLAN

not to scale

HORACE MANN MIDDLE SCHOOL: BUILDING SYSTEMS SUMMARY

The following is summary of Plumbing, HVAC and Electrical needs. This is not intended to be a comprehensive list, but a summary of existing building system needs and possible recommendations as identified by the engineering team. Full engineers' reports are located later in this document.

Plumbing:

• Water is supplied by a 6" water service which connects to the Municipal water system; new additions or major renovation would require a new larger water service.

• Water distribution piping is mostly copper tube and fittings with some galvanized pipe and fittings in the original building and appears to be in fair condition.

• There is no sprinkler system; if a complete fire sprinkler system is desired, a new 6" water service may be required.

• Sanitary waste flows by gravity out of the building and connects to the Municipal sanitary sewer system. Sanitary waste and vent piping is reported to be in satisfactory condition, and sanitary sewer systems in the original building and 1965 addition should be inspected with a camera; replacement pending outcome of scope.

• Replacing the cover to the interior grease interceptor with a new cover with a manway opening so the entire cover does not have to be removed for cleaning is recommended.

• One art room has a kitchenette with kitchen style sink, dishwasher, washer and dryer. The other art room has sinks that do not have solids traps installed on the waste piping, which is not code compliant; add solids traps to the waste piping for art room sinks.

• Roof water is collected by internal roof drains and conductors which connect to the Municipal storm sewer system.

• There are multiple clearwater sump pumps in fair to good condition, some of which have been replaced with new pumps; monitor and repair/ replace as necessary.

• Storm sewer systems in the original building and 1965 addition should be inspected with a camera; replacement pending outcome of scope.

• The domestic water heater is in good condition.

• The water softening system serves the HVAC system only.

• Plumbing fixtures are a combination of various styles and ages, with most of the fixtures original to the building age they were installed and some of the fixtures having been replaced with newer water efficient and ADA compliant fixtures. Water closets, urinals, and lavatories should be replaced with new water conserving and ADA compliant fixtures, and older electric water coolers should be replaced with new ADA compliant fixtures with a bottle filler. Faucets on classroom sinks should be replaced with new ADA compliant faucets. Showers are in good condition but reported to be rarely used.

HVAC:

• Boiler plant has no reserve capacity as indicated by owner and has two Thermal Solutions hot water boilers that are fired with natural gas, were installed in 2014, are in good condition, and have an estimated life expectancy of 30 years. Continue preventative maintenance on the system.

• Hot water pumps are in good condition and have an estimated life expectancy of 20 years.

• Unit ventilators in the 2002 addition classrooms were installed in 2002, are in good condition, and have an estimated life expectancy of 25 years. All other unit ventilators are original to the building, in fair condition, and have exceeded their estimated life expectancy of 25 years; plan for the eventual replacement of the aging unit ventilators.

• Packaged constant volume rooftop units serving the cafeteria were installed in 2002, are in fair condition, and have an estimated life expectancy of 25 years.

• Packaged variable air volume rooftop unit serving the offices was installed in 2002, is in fair condition and has an estimated life expectancy of 15 years. Owner noted that noise from the unit is disruptive and the roof curb has also leaked on occasion.

• Constant volume air handling units serving the cafeteria, locker rooms and fitness rooms are original, in fair condition, and have exceeded the estimated life expectancy of 30 years; plan for their eventual replacement.

• Constant volume, multi-zone air handling unit serving the music area is original, in fair condition, and has exceeded its estimated life expectancy of 30 years.

• Constant volume air handling unit serving the second floor classrooms is original, in fair condition, and has exceeded the estimated life expectancy of 30 years; plan for its eventual replacement.

HVAC (cont.):

• With any renovation, plan to replace the door transfer grille relief system with a code approved system, as door transfer grilles are currently used to transfer relief air from the classrooms to the corridor, and current building code does not allow transfer air into a path of emergency egress.

• The building has a mixture of pneumatic and digital temperature controls. The pneumatic control system has limitations that result in comfort complaints and requires frequent calibration to maintain accuracy; continue to maintain and operate the system as long as the current mechanical equipment remains. When renovations to the existing equipment are made, a changeover to digital controls is strongly recommended.

Electrical:

• Main electric service is about 15 years old, is in good working condition, and has capacity for 1 additional breaker; exercising of circuit breakers and performing thermal imaging analysis for predictive maintenance purposes is recommended. Provide surge suppression, as none exists.

• Panelboards vary in age, with some nearing the end of their useful lifespan, and some having been replaced or added during the most recent service upgrade and are in good condition; vintage circuit breaker panelboards should be scheduled for replacement within the next 10 years.

• Utility service consists of a pad mounted transformer adjacent to the building with an underground electrical service.

• An emergency generator provides emergency lighting for the facility, is continually maintained, is in good working order, and is near the end of its useful lifespan; replace the existing generator with a new exterior generator and automatic transfer switch if desired.

• Ensure proper working clearances are maintained in front of all panelboards at all times by using safety tape to physically indicate clearances on floor/wall around panelboards. Working clearance areas may not be used for storage.

• Much of interior lighting throughout the building consists of a variety of T8 fluorescent or incandescent light fixtures that range in age and are in good condition, while the gymnasium has high bay metal halide fixtures; replace fixtures with LED equivalents and provide dimming controls and occupancy sensors to maximize on energy savings.

• General lighting controls in rooms consist of toggle switches with a minimal amount of rooms having occupancy sensors, most classrooms utilize split area zones, and corridors have toggle switches with occupancy sensors, although occupancy sensor coverage is lacking in some areas. There are some rooms where dual level lighting controls are wired incorrectly, making controls confusing and difficult to use. Provide corridors with occupancy sensors and remove light switches.

• Schedule exterior light fixtures with LED equivalents and control via existing timeclock/photocell controls.

• If new LED lighting is provided, emergency lighting should be reconfigured through egress paths and rooms with an occupant load greater than 50 people. Currently emergency lighting is available in some corridors, but is minimal in meeting today's standards, and the gymnasium has no emergency lighting.

• Replace existing 15A rated receptacles with 20A rated type and provide additional receptacles throughout working spaces as necessary, as there is currently a general lack of receptacles throughout the building. Replace existing receptacles within 6'-0" of plumbing fixtures with GFI protected type.

• Shoretel IP based phone system is in good working condition; no recommendations.

• Data service is provided via fiber optic utility service, is in good working condition, and fiber optic wiring interconnects all schools to the main district network. While it is unknown if the facility has ceiling plenums, riser rated data cabling should be replaced with plenum rated cabling if there are plenums in the ceiling.

• Data cabling consists of a variety of Cat5e and Cat6 cabling, in plenum and riser rated varieties, and the data rack has reached full capacity and has no space for future needs. Data cabling at the data rack should be reinstalled in a clean workmanlike manner with proper labeling; if additional data is needed, a new data rack would have to be provisioned.

• Provide a UPS battery backup system to provide battery backup power to the data rack, as there are no provisions for backup power.

• Keyless entry system is in good working condition; access controlled doors are controlled via magnetic door locks and card readers, and none of the exterior doors have door position contacts. Provide door monitor contacts on all exterior doors to help monitor and control access to the facility. Replace existing magnetic door locks with electric strike to ensure doors remain locked during a power outage.

Electrical (cont.):

• Dukane intercom system is nearing the end of its useful lifespan, office staff indicated the intercom lacks coverage outside, intercom speakers are nearing the end of their useful lifespan, and office staff indicated that announcements can be hard to hear with background static noise issues. Bell schedule system is controlled via intercom handset and has no reported issues. Schedule the existing intercom system for full replacement with a new IP-based intercom system, schedule speakers for replacement, and provide additional speakers in areas lacking coverage.

• CCTV system has 14 cameras, seems to be in good working condition, and the District plans to add about 13 more cameras to the system in the future; provide new cameras where additional coverage is necessary.

• Simplex fire alarm system is about 15 years old and in good working condition, but lacking in notification coverage. The kitchen has an ansul fire suppression system that is monitored by the fire alarm system, and some areas of the building are covered by a vintage fire alarm system that is interconnected to the new system and lacks notification coverage per today's standards. Provide additional fire alarm notification devices in areas where coverage is lacking, and add smoke detectors per today's standards to corridors with open cubby storage.

• Add a security system to control and monitor access to the facility, as none exists.

• Replace existing clocks with a synchronized clock system such as a GPS wireless clock system.

• Building has a monitoring system to ensure boilers in the facility are operational.

The following is a summary of potential improvements at Horace Mann Middle School. This is not intended to be a comprehensive list, but a summary of possible upgrades as identified by Bray Architects and the engineering team. The following information was obtained through notations made by architects and engineers at extensive tours of the building and grounds, as well as needs identified by maintenance personnel.

4. Site Improvements:

AREA 1 - SIDEWALK ADDITION

- Concerns:
  - Sidewalk is not wide enough
- Recommended Repair:
  - Grade the area
  - Place 6 inches of base
  - Install a 4 inch concrete walk

AREA 2 - TRACK

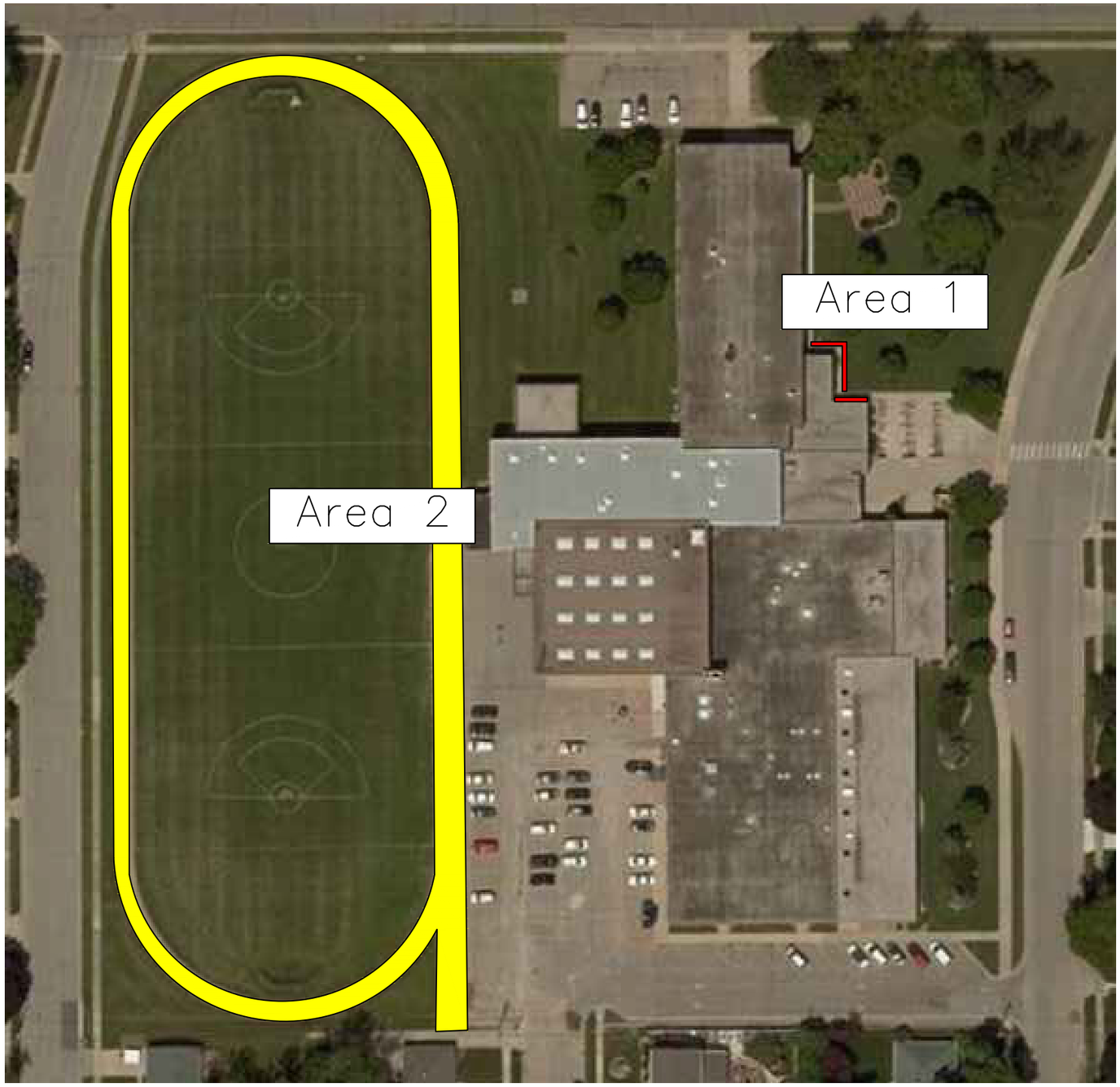
- Distresses Present:
  - Thermal cracking
  - Fatigue cracking due to base failure
  - Raveling
  - Surface weathering
  - Edge Failure
- Recommended Repair:
  - Remove existing pavement and 12 inches of base and/or subgrade
  - Place 12 inches of base aggregate dense
  - Pave 3 inches of asphaltic pavement
  - Pavement markings for a track

SITE CONCRETE

- Distresses Present:
  - Large cracks in the sidewalk which pose a tripping hazard
- Recommended Repair:
  - Remove and replace the areas of sidewalk that have cracked

ADDITIONAL NOTES

- There is limited parking on site, especially for visitors
- No dumpster enclosure exists



SITE PLAN
not to scale

HORACE MANN MIDDLE SCHOOL: ADA ACCESSIBILITY ASSESSMENT

The following is an analysis of Horace Mann Middle School in regards to meeting building code requirements under the Americans with Disability Act (ADA) and regulated by the American National Standard (ANSI) Accessible and Usable Buildings and Facilities. This is not intended to be a comprehensive list, but an analysis as identified by Bray Architects and engineers gathered through extensive tours and assessment of the existing building facility.

1. Building Entrance:

There is at least (1) accessible route of travel. Entry at grade level or ramps with slope no greater than 1:12, and has 5'-0" long landings every 30'-0".

1a. The building has multiple accessible entrances at this level that meet the above criteria.

2. ADA Parking:

Designated/marked ADA stalls are located near the entrance of the building and have 5'-0" access aisles between stalls (502.4.1; 502.4.2).

2a. The site does not contain marked ADA stalls located near the nearest accessible entrance.

3. Ramps & Lifts:

There is at least (1) accessible route to each floor level. Changes in level greater than 1/2" in height shall be ramped (303); ramps have a slope no greater than 1:12 and have 5'-0" long landings every 30'-0" (405.2).

3a. There are areas of limited accessibility where the building does not meet the criteria for accessibility standards.

4. Railings:

Handrails shall be provided on both sides of stairs and ramps, except for aisle stairs and ramps, which may be provided with a handrail either at the side or within the aisle width (505.2). Ramp runs with a rise greater than 6 inches shall have handrails (405.8).

Ramp handrails shall extend horizontally above the landing 12 inches minimum beyond the top and bottom of ramp runs. Extensions shall return to a wall, guard, or floor, or shall be continuous to the handrail of an adjacent ramp run.

Handrails shall be continuous within the full length of each stair flight or ramp run. Inside handrails on switchback or dogleg stairs or ramps shall be continuous between flights or runs, except for handrails in aisles serving seating (505.3).

At the top of a stair flight, handrails shall extend horizontally above the landing for 12 inches minimum beginning directly above the nosing. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight (505.10.2).

At the bottom of a stair flight, handrails shall extend at the slope of the stair flight for a horizontal distance equal to one tread depth beyond the bottom tread nosing. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight (505.10.3).

4a. There are handrails that meet the above criteria for accessibility standards.

5. Maneuvering, Thresholds, & Push/Pull:

On the pull side, a minimum clearance of 18" is required parallel to the doorway. On the push side, a minimum of 12" is required parallel to the doorway (404.2.3.1). Distance between two hinged or pivoted doors in series shall be 48" minimum plus the width of any door swinging into the space (404.2.5). Doors have a minimum 32" wide clearance. Maneuvering clearances on either side of the door are a minimum of 60" from the pull side and 48" from the push side.

Thresholds at doorways shall be maximum 1/2" high otherwise a ramp is required (303.2; 303.3).

5a. There are areas where the requirements for push/pull do not meet the above criteria for accessibility standards.

5b. There are areas where the requirements for maneuvering do not meet the above criteria for accessibility standards.

5c. There are areas where the requirements for thresholds do not meet the above criteria for accessibility standards.

6. Door Hardware & Panic Hardware:

Doors have open, lever-styled hardware (no round/knob hardware) (404.2.6). Egress doors have panic hardware.

6a. There are doors that do not meet the above criteria for accessibility standards

7. Restrooms:

Public restrooms have at least 5'-0" clearance space for a wheelchair to turn around, at least (1) ADA accessible stall (sized 60" min. depth x 56" min. width, for wall-mounted stalls, and 59" min. depth for floor-mounted stalls) with 5'-0" clearance (604.3.1), and at least (1) sink at a 34" maximum height (606.3). The compartment door clearance between the door side of the compartment and any obstruction shall be 42" minimum. Compartment doors shall not swing into the required minimum area of the compartment (604.9.3)

There is at least (1) unisex restroom per floor level, and unisex restrooms have at least 5'-0" clearance space for a wheelchair to turn around, as well as a sink/counter-top height at a maximum of 34".

Mirrors located above the sink or counter shall have the bottom edge at a maximum height of 40" above the floor. Mirrors not located above a sink or counter shall have a bottom edge at a maximum height of 35" above the floor (603.3).

Fixed stall grab bars shall be 42" minimum in length located 12" maximum from the rear wall. Vertical fixed grab bars shall be 18" minimum in length, the bottom edge of the bar shall be 39" to 41" above the floor, and 39" to 41" from the rear wall (604.5.1). Rear fixed grab bars shall be 36" minimum in length and extend 12" from the centerline of the toilet. Rear grab bars shall be 24" minimum in length centered from where wall space doesn't permit 36" grab bar (604.5.2).

Bottom edge of urinals shall be 17" maximum above the floor (604.10.4).

ADA showers shall be 36" by 36" minimum with an entry of 36" by 48" minimum. A 36" minimum depth shall be provided adjacent to the open face of the compartment (608.2.1). A roll in shower shall be 60" x 30" minimum with a 60" minimum opening adjacent to the stall (608.2.2). A seat shall be 24" minimum to 36" maximum in length shall be provided at the entry side of the compartment (608.2.3).

Horizontal shower grab bars shall be provided across the control wall and on the back wall to a point 18" from the control wall (608.3.1.1). Vertical shower grab bars shall be 18" minimum in length on the control wall and 3" minimum to 6" maximum above the horizontal grab bar and 4" maximum inward from the front edge of the shower (608.3.1.2).

7a. There are restrooms that do not meet the above criteria for accessibility standards.

8. Drinking Fountains & Protruding Objects:

At least (1) fountain has a clear foot space of at least 30" x 48" in front and has a spout height at a maximum of 36" off the ground. Children's fountain spout shall be 30" maximum above the floor. Wheelchair fountain spout shall be 36" maximum and standing 38" to 43" above the floor (602.4).

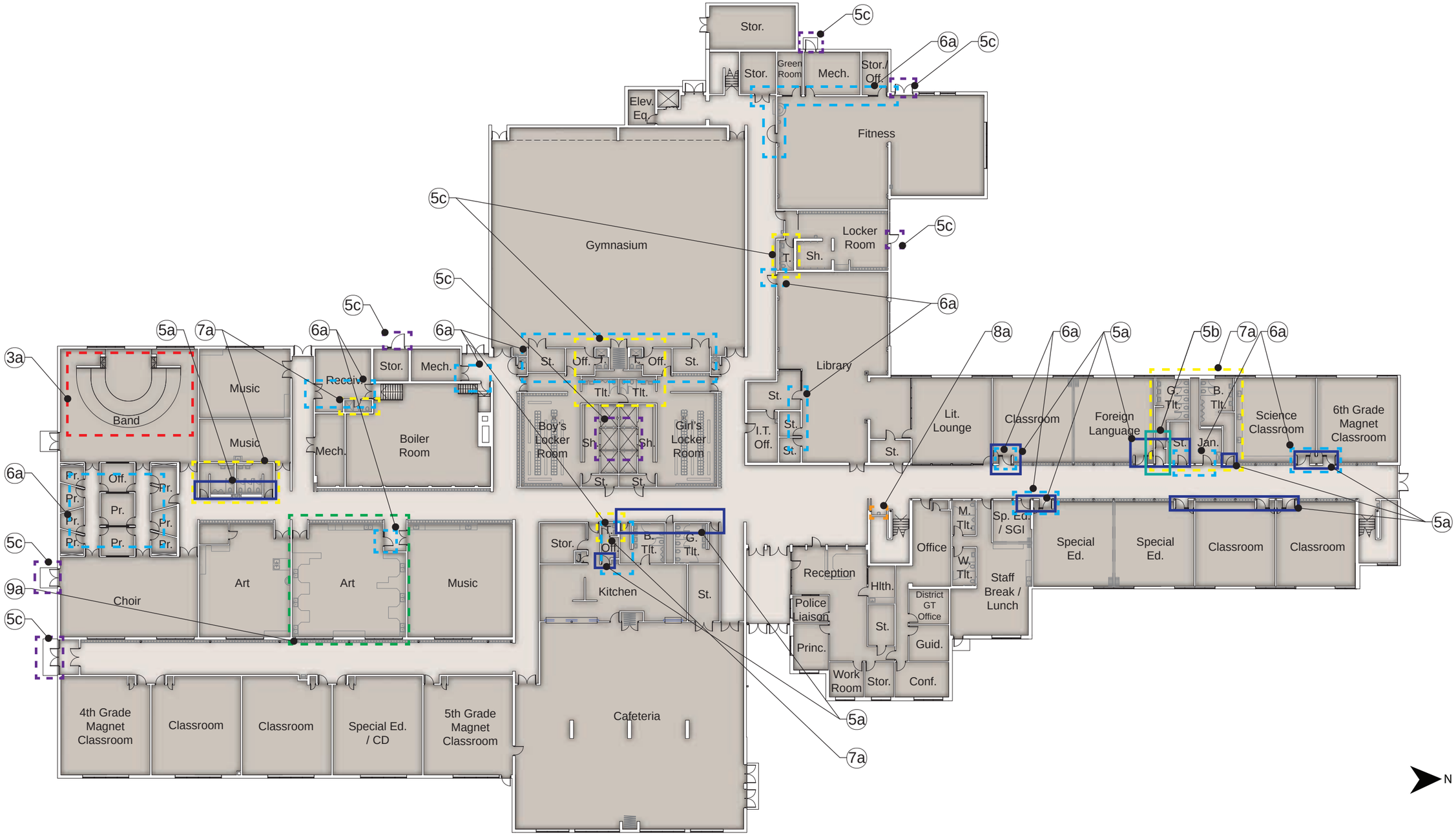
Objects more than 27" and not more than 80" above the floor shall protrude 4" maximum into the circulation path (307.2). Objects shall not reduce clear width required for accessible routes (307.5). Guardrails or other barriers shall be provided where object protrusion is beyond the limits allowed, and where the vertical clearance is less than 80 inches above the floor. The leading edge of such guardrail or barrier shall be 27 inches maximum above the floor (307.4).

8a. Drinking fountains do not meet the above criteria for meeting accessibility standards.

9. Casework,Transaction Counters, & Counters with Sinks:

Counter-tops have a maximum 34" height, and transaction counters have an accessible portion that is at a maximum 34" height for wheelchair accessibility (606.3). Counters and work surfaces for children's use shall be 26" minimum and 30" maximum above the floor (902.4.2).

9a. There are counter-tops that do not meet the above criteria for meeting accessibility standards.



FIRST FLOOR PLAN

not to scale

HORACE MANN MIDDLE SCHOOL: ADA ACCESSIBILITY ASSESSMENT

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1. Building Entrance:

There is at least (1) accessible route of travel. Entry at grade level or ramps with slope no greater than 1:12, and has 5'-0" long landings every 30'-0".

1a. This criteria does not apply at this level.

2. ADA Parking:

Designated/marked ADA stalls are located near the entrance of the building and have 5'-0" access aisles between stalls (502.4.1; 502.4.2).

2a. This criteria does not apply at this level.

3. Ramps & Lifts:

There is at least (1) accessible route to each floor level. Changes in level greater than 1/2" in height shall be ramped (303); ramps have a slope no greater than 1:12 and have 5'-0" long landings every 30'-0" (405.2).

3a. There are areas of limited accessibility where the building meets the criteria for accessibility standards.

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Handrails shall be provided on both sides of stairs and ramps, except for aisle stairs and ramps, which may be provided with a handrail either at the side or within the aisle width (505.2). Ramp runs with a rise greater than 6 inches shall have handrails (405.8).

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4a. There are handrails meet the above criteria for accessibility standards.

5. Maneuvering, Thresholds, & Push/Pull:

On the pull side, a minimum clearance of 18" is required parallel to the doorway. On the push side, a minimum of 12" is required parallel to the doorway (404.2.3.1). Distance between two hinged or pivoted doors in series shall be 48" minimum plus the width of any door swinging into the space (404.2.5). Doors have a minimum 32" wide clearance. Maneuvering clearances on either side of the door are a minimum of 60" from the pull side and 48" from the push side.

Thresholds at doorways shall be maximum 1/2" high otherwise a ramp is required (303.2; 303.3).

5a. There are areas where the requirements for push/pull do not meet the above criteria for accessibility standards.

5b. There are areas where the requirements for maneuvering meets the above criteria for accessibility standards.

5c. There are areas where the requirements for thresholds meets the above criteria for accessibility standards.

6. Door Hardware & Panic Hardware:

Doors have open, lever-styled hardware (no round/knob hardware) (404.2.6). Egress doors have panic hardware.

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Public restrooms have at least 5'-0" clearance space for a wheelchair to turn around, at least (1) ADA accessible stall (sized 60" min. depth x 56" min. width, for wall-mounted stalls, and 59" min. depth for floor-mounted stalls) with 5'-0" clearance (604.3.1), and at least (1) sink at a 34" maximum height (606.3). The compartment door clearance between the door side of the compartment and any obstruction shall be 42" minimum. Compartment doors shall not swing into the required minimum area of the compartment (604.9.3)

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7a. There are restrooms that do not meet the above criteria for accessibility standards.

8. Drinking Fountains & Protruding Objects:

At least (1) fountain has a clear foot space of at least 30" x 48" in front and has a spout height at a maximum of 36" off the ground. Children's fountain spout shall be 30" maximum above the floor. Wheelchair fountain spout shall be 36" maximum and standing 38" to 43" above the floor (602.4).

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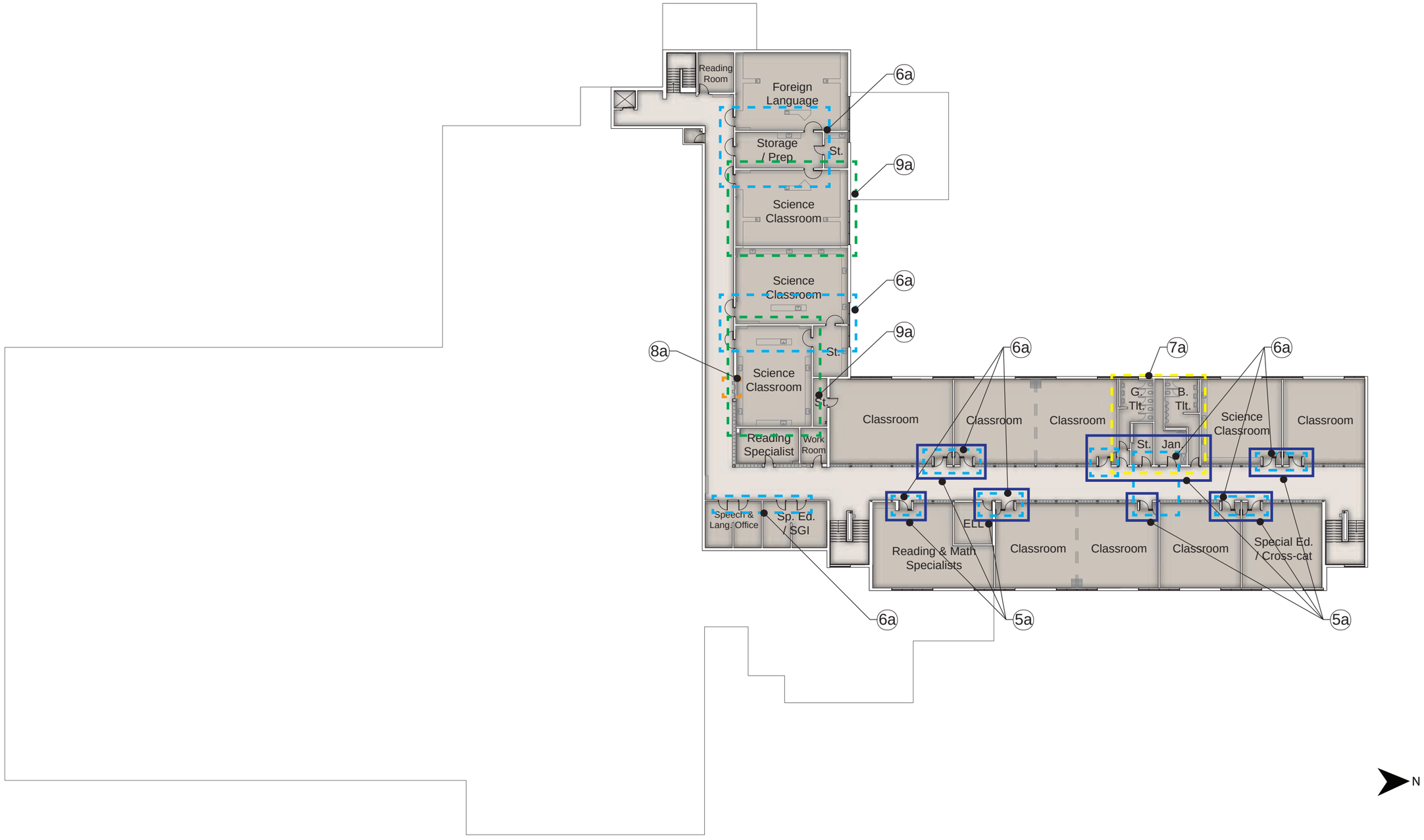
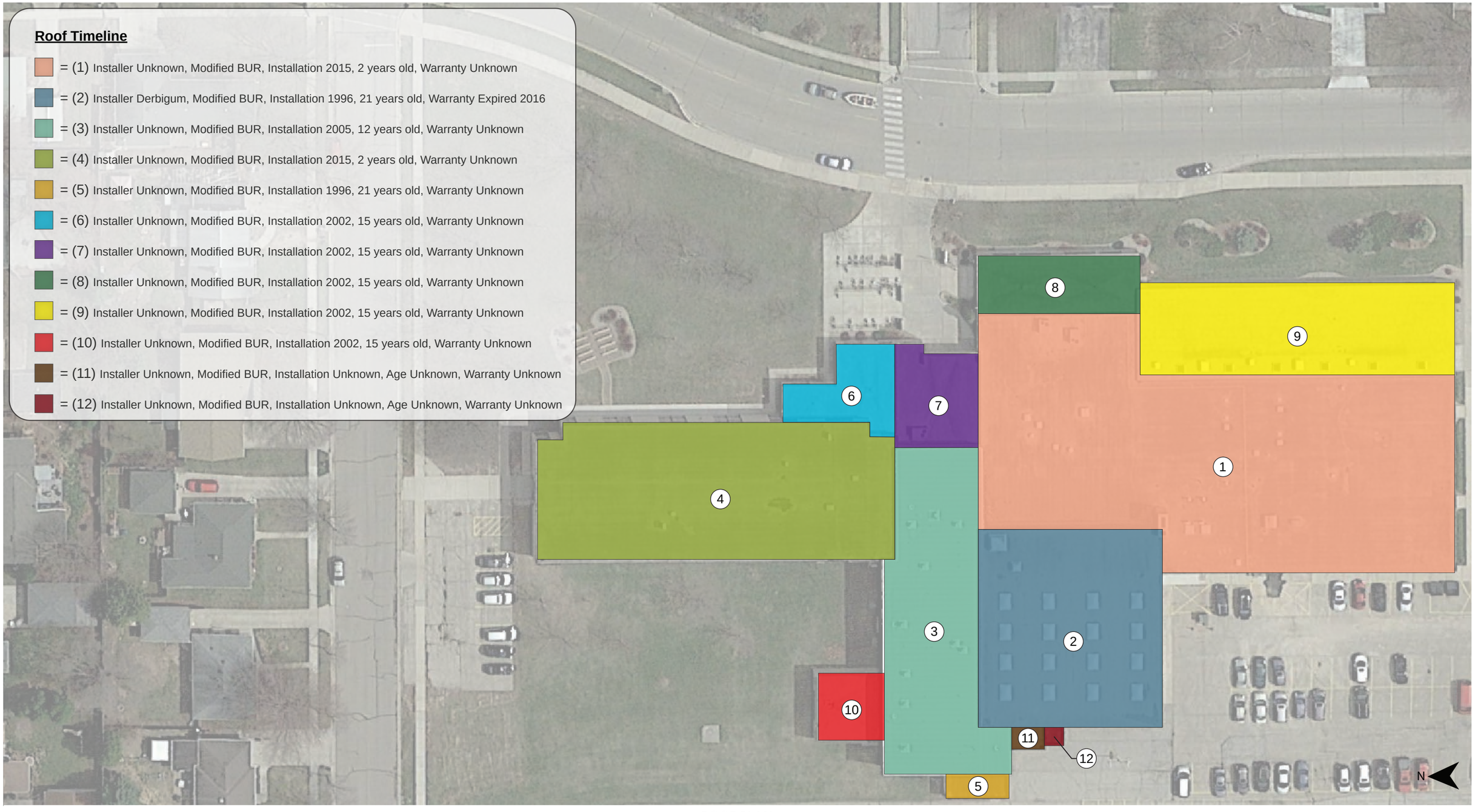
9a. There are counter-tops that do not meet the above criteria for meeting accessibility standards.



SECOND FLOOR PLAN

not to scale



ROOF PLAN

not to scale

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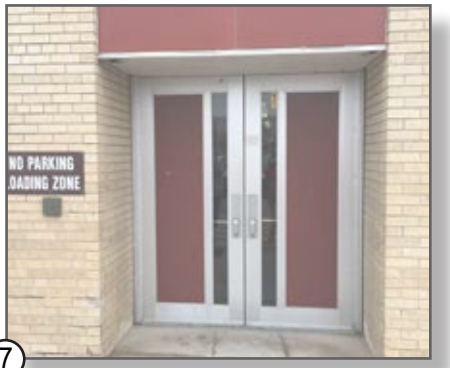
HORACE MANN MIDDLE SCHOOL: EXTERIOR DOOR ANALYSIS

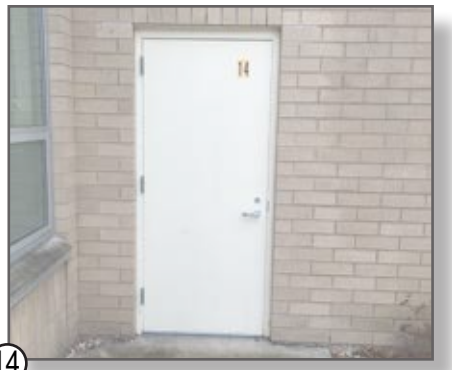
No.	Door Type	Frame Type
1	Aluminum	Aluminum Storefront
2	Hollow Metal	Hollow Metal
3	Hollow Metal	Hollow Metal
4	Aluminum	Aluminum Storefront
5	Aluminum	Aluminum
6	Aluminum	Aluminum
7	Aluminum	Aluminum
7A	Hollow Metal	Hollow Metal
8	Aluminum	Aluminum Storefront
9	Aluminum	Aluminum
10	Aluminum	Aluminum
10A	Hollow Metal	Hollow Metal
11	Hollow Metal	Hollow Metal
12	Hollow Metal	Hollow Metal
12A	Aluminum	Aluminum
13	Aluminum	Aluminum Storefront
14	Hollow Metal	Hollow Metal

2 ALUMINUM DOORS & ALUMINUM STOREFRONT



7 ALUMINUM DOORS & ALUMINUM FRAME, STAFF INDICATED SCHEDULED FOR REPLACEMENT

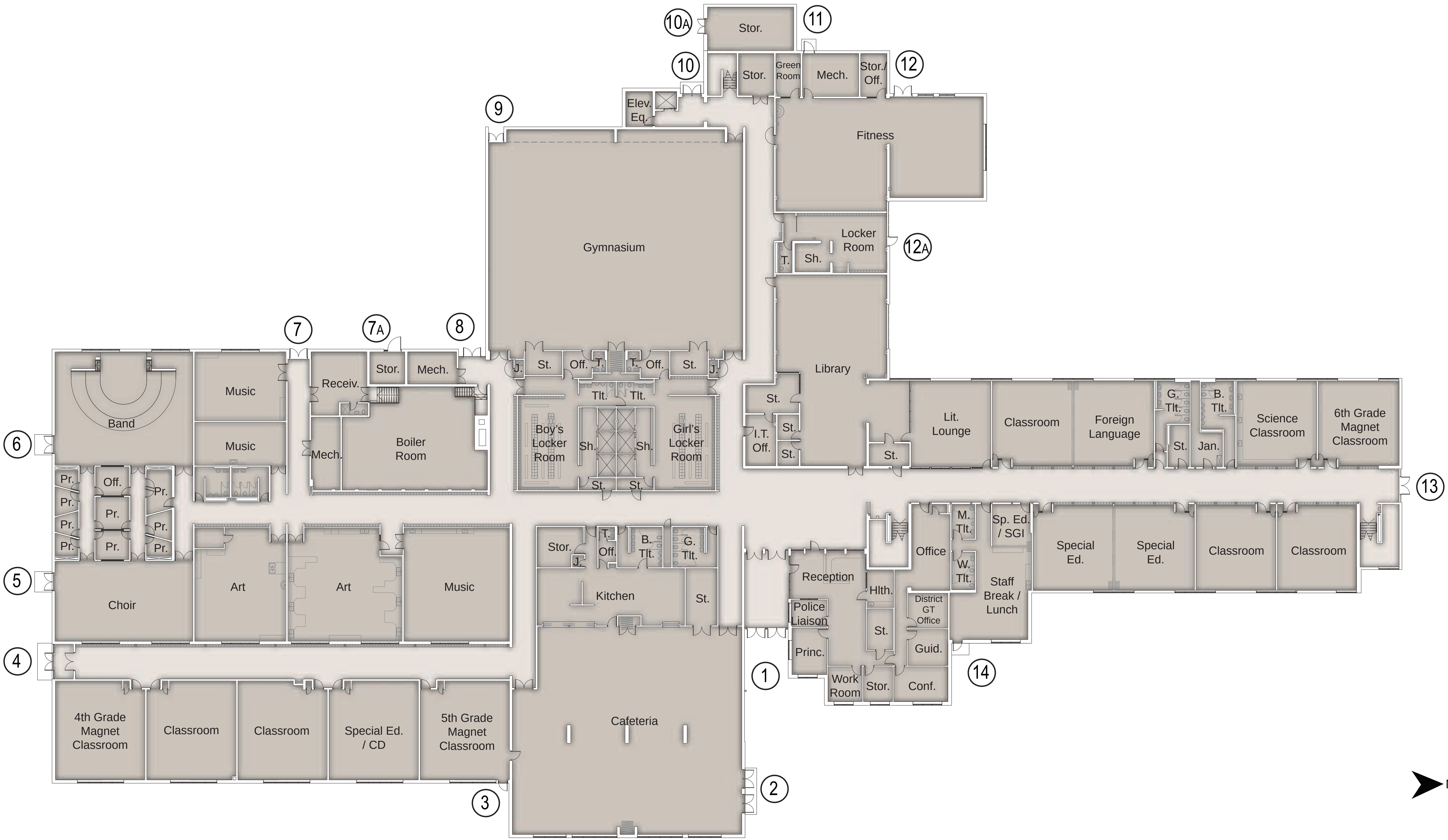
7A HOLLOW METAL DOOR & HOLLOW METAL FRAME; STAFF INDICATED SCHEDULED FOR REPLACEMENT



14 HOLLOW METAL DOOR & HOLLOW METAL FRAME

13 ALUMINUM DOORS & ALUMINUM STOREFRONT

10 ALUMINUM DOORS & ALUMINUM FRAME



10A
Stor.
11
10
Stor.
Green Room
Mech.
Stor./ Off.
12
9
Elev. Eq.
Fitness
Gymnasium
Locker Room
12A
T.
Sh.
7
7A
8
Library
Stor.
Mech.
Receiv.
St.
Off.
T.
T.
Off.
St.
J.
J.
Music
Tlt.
Tlt.
St.
G. Tlt.
B. Tlt.
Band
Boiler Room
Boy's Locker Room
Sh.
Sh.
Girl's Locker Room
Lit. Lounge
Classroom
Foreign Language
Science Classroom
6th Grade Magnet Classroom
6
Music
Mech.
I.T. Off.
St.
St.
St.
St.
Jan.
Pr.
Off.
Pr.
St.
St.
13
Pr.
Pr.
Pr.
Pr.
Pr.
Pr.
Pr.
M. Tlt.
Sp. Ed. / SGI
Stor.
T.
Off.
B. Tlt.
G. Tlt.
J.
Office
Special Ed.
Special Ed.
Classroom
Classroom
5
W. Tlt.
Art
Art
Music
Kitchen
St.
Reception
Hlth.
Staff Break / Lunch
Choir
District GT Office
Police Liaison
St.
4
Princ.
Guid.
14
1
Work Room
Stor.
Conf.
4th Grade Magnet Classroom
Classroom
Classroom
Special Ed. / CD
5th Grade Magnet Classroom
Cafeteria
2
3
N

HORACE MANN MIDDLE SCHOOL: FLOORING ANALYSIS

ACT - 9x9 (Asbestos)
ACT1 - 12x12 (Asbestos)
ACT2 - 6x6 (Asbestos)
CA - Carpet Broadloom
CAT - Carpet Tile
CT1 - 1x1 Ceramic Tile
CT2 - 2x2 Ceramic Tile
CT12 - 1x2 Ceramic Tile
CTH - Hex Ceramic Tile
CONC. - Concrete
PT - 8x8 Paver Tile
PT1 - 6x6 Paver Tile
PT2 - 3x3 Paver Tile
PT3 - 3x6 Paver Tile
RT - Rubber Tile
RTT - Rubber Tile Tread
SS - Seamless Synthetic
SV - Sheet Vinyl
TER - Terrazzo Tile
TER1 - 12x12 Terrazzo Tile
VCT - 12x12
WD - Wood
WDP - 4x4 Wood Parquet
WM - Walk-off Mat

* Flooring Types Identified by Gries Architectural Group

N

FIRST FLOOR PLAN
not to scale

HORACE MANN MIDDLE SCHOOL: FLOORING ANALYSIS

ACT - 9x9 (Asbestos)
ACT1 - 12x12 (Asbestos)
ACT2 - 6x6 (Asbestos)
CA - Carpet Broadloom
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CTH - Hex Ceramic Tile
CONC. - Concrete
PT - 8x8 Paver Tile
PT1 - 6x6 Paver Tile
PT2 - 3x3 Paver Tile
PT3 - 3x6 Paver Tile
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RTT - Rubber Tile Tread
SS - Seamless Synthetic
SV - Sheet Vinyl
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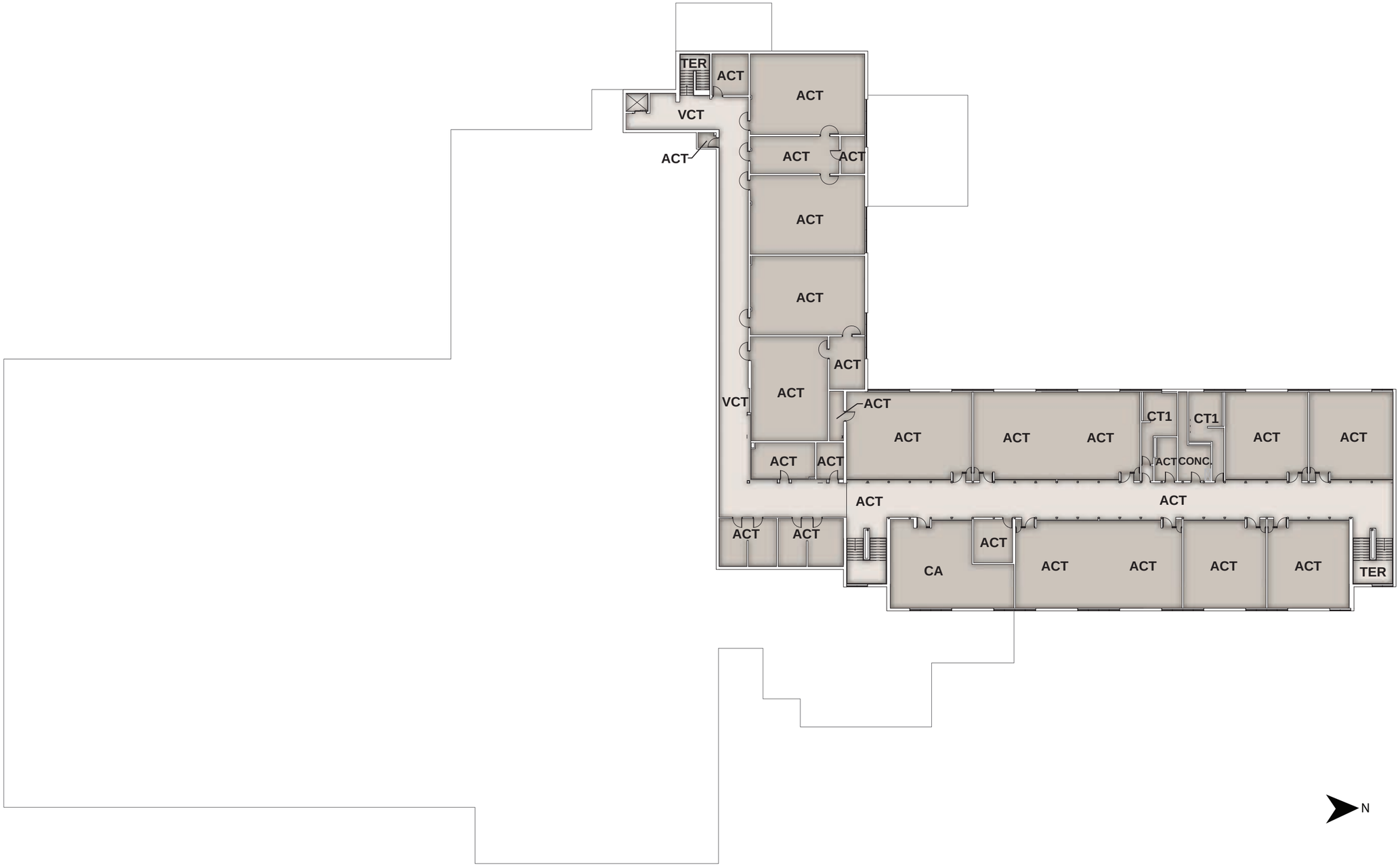

SECOND FLOOR PLAN
not to scale

Plumbing System Review:

The following report is the result of a site visit by Leslie Fry of Muermann Engineering, LLC that occurred in January 23, 2017. Site observations and interviews with staff were used in the preparation of this report.

The original building was built in 1960 with additions completed in 1965 and 2002.

Domestic Water

Observations

A. Water is supplied to the building by what appears to be 6" water service which connects to the Municipal water system. There is a water meter located in the building. The water service is at its limit and could not support any future additions.

B. The majority of the water distribution piping in the building appears to be copper tube and fittings with some galvanized pipe and fittings in the original building. The water distribution piping appears to be in fair condition.

C. There is no fire sprinkler system in the building.

Recommendations

A. If there are any new additions or major remodeling planned, a new larger water service will need to be provided.

B. If a complete fire sprinkler system is preferred for the building, a new water service may be need to be provided.

Sanitary and Storm Piping

Observations

A. The sanitary waste from the building flows by gravity out the building and connects to the Municipal sanitary sewer system.

B. The sanitary waste and vent piping is reported to be in satisfactory condition.

C. The building has a prep kitchen with a stainless steel sinks and dishwasher.

D. There are two art rooms; one has a kitcheneete with a kitchen style sink, dishwasher, washer and dryer. The other has sinks that do not have solids traps installed on the waste piping. This is not code compliant.

E. The existing roof water is collected by internal roof drains and conductors which flow by gravity out the building and connect to the Municipal storm sewer system.

F. There are multiple clearwater sump pumps located in the basement level for removing groundwater. Some of the pumps have been replaced with new pumps. The sump systems appear to be in fair to good condition.

Recommendations

MUERMANN ENGINEERING
Solid planning, superior solutions

A. The sanitary sewer system in the original building and 1965 should be inspected with a camera. Some piping may need to be replaced pending results of scope.

B. To make cleaning the interior grease interceptor easier, we would recommend replacing the cover with a new cover that has a manway opening so the entire cover does not have to be removed for cleaning.

C. The existing art room sinks should have solids traps added to the waste piping.

D. The storm sewer system in the original building and 1965 should be inspected with a camera. Some piping may need to be replaced pending results of scope.

E. The existing clearwater sump pumps should be monitored and repaired or replaced as necessary.

Plumbing Equipment

Observations

A. The building has one water domestic water heater that is in good condition.

B. A water softening system serves the HVAC system only.

Plumbing Fixtures

Observations

A. The existing plumbing fixtures in the building are a combination of various styles and ages. Most of the fixtures are original to the building age they were installed. Some of the fixtures have been replaced with newer water efficient and ADA compliant fixtures.

B. The water closets are floor set with flush valves. They do not appear to be water conserving or ADA compliant. The fixtures are old and in fair condition.

C. The urinals in the building are floor set with mostly sensor operated flush valves. The fixtures are old and are in fair condition.

D. The lavatories in the building are wall hung with multiple styles of faucets. They do not appear to be water conserving or ADA compliant and are in fair condition.

E. The showers in the building are in good condition but are reported to be rarely used.

F. The drinking fountains in the building are mix of vitreous china drinking fountains and wall hung electric water coolers. Some EWCs have bottle fillers. Some water coolers are ADA compliant and are in fair condition. The fixtures are in good condition.

G. The classroom sinks are single bowl, stainless steel drop-in sinks with gooseneck faucet. The fixtures are not ADA compliant and are in fair condition.

MUERMANN ENGINEERING
Solid planning, superior solutions

Recommendations

A. The water closets should be replaced with new water conserving and ADA compliant fixtures.

B. The urinals should be replaced with new water conserving and ADA compliant fixtures.

C. The lavatories should be replaced with new water conserving and ADA compliant fixtures.

D. The older electric water coolers should be replaced with new ADA compliant fixtures with a bottle filler.

E. The faucets on the classroom sinks should be replaced with new ADA compliant faucets.

HVAC SYSTEM

The following report is the result of a site visit by Jason Testin of Fredericksen Engineering that occurred on January 19, 2017. Site observations, construction plan review, and interviews with staff were all used in the preparation of this report.

The original building was constructed in 1960, with additions being constructed in 1965 and 2002.

1.1 Heating System

A. Existing Data

1. The boiler plant consists of two Thermal Solution hot water boilers, each fired with natural gas. The boilers were installed in 2014. Each boiler has a capacity of 3,000,000 btu.
2. Hot water is pumped throughout the building by base mounted pumps. If the primary pump fails, the secondary (stand-by) pump will provide hot water circulation to the system.

B. Observations

1. According to information obtained by the Owner, the boiler plant has no reserve capacity at this point, as both boilers are needed in the winter.
2. The boilers are in good condition. They have an estimated life expectancy of 30 years.
3. The hot water pumps are in good condition. They have an estimated life expectancy of 20 years.

C. Recommendations

1. Continue preventative maintenance on the system.

1.2 Ventilation and Air Conditioning Systems

A. Existing Data

1. There are three systems that provide ventilation for the facility. The three systems are unit ventilators, variable air volume air handling systems and constant volume air handling systems.
2. The majority of the classrooms are ventilated using unit ventilators. Unit ventilators house a fan, hot water heating coil, DX cooling coil (for the units installed in 2002), condensing unit, fresh air damper, return air damper and controls in a single cabinet mounted in the space. Hot water piping (and refrigerant piping where applicable) is run to each unit ventilator.
3. The offices are ventilated by a package variable air volume rooftop unit. A packaged variable air volume rooftop unit consists of a central supply fan, gas fired heat exchanger, DX cooling section, outside air damper, return air damper, relief fan and controls. Hot water variable air volume boxes are added to the ductwork to provide individual room temperature control.
4. The cafeteria is served by packaged constant volume rooftop units. Packaged constant volume rooftop systems consist of a central supply fan, gas fired heat exchanger, DX cooling section, fresh air damper, return air damper, relief fan and controls. A room thermostat is used to control the temperature of the air supplied to the space.

5. The gymnasium, locker rooms and fitness room are served by multiple constant volume air handling units. Constant volume systems consist of a central supply fan, which contains a hot water heating coil, fresh air damper, return air damper and controls.
6. The music area is served by an indoor constant volume, multi-zone air handling unit. A constant volume, multi-zone unit consists of a central supply fan, a hot water heating coil, hot deck, cold deck and zone dampers for each zone. Each zone has a room thermostat that controls the hot deck and cold deck zone dampers for that space. The dampers are modulated to control the temperature of the air supplied to each space.
7. The second floor classrooms in the center of the building are served by a constant volume air handling unit that only supplied outside air to the classrooms. Constant volume systems consist of a central supply fan, which contains a hot water heating coil, fresh air damper, return air damper and controls. Hot water radiant ceiling tiles are installed in each classroom for temperature control.

B. Observations

1. With the exception of the unit ventilators installed in the 2002 addition, the unit ventilators are original to the building and are in fair condition. The units have exceeded the estimated life expectancy of 25 years. The units installed in the 2002 addition are in good condition and have an estimated life expectancy of 25 years.
2. The packaged constant volume rooftop units serving the cafeteria were installed in 2002 and in fair condition. The units have an estimated life expectancy of 15 years.
3. The packaged variable air volume rooftop unit serving the offices was installed in 2002 and is in fair condition. The unit has an estimated life expectancy of 15 years. The Owner noted that the noise from the unit can be disruptive at times due to being located directly above the offices. The roof curb has also leaked on occasion.
4. The constant volume air handling units serving the cafeteria, locker rooms and fitness rooms are original and are in fair condition. The units have exceeded the estimated life expectancy of 30 years.
5. The constant volume, multi-zone air handling unit is original and in fair condition. The unit has exceeded the estimated life expectancy of 30 years.
6. The constant volume air handling unit serving the second floor classrooms is original and in fair condition. The unit has exceeded the estimated life expectancy of 30 years.
7. Door transfer grilles are currently utilized to transfer relief air from the classrooms to the corridor.

C. Recommendations

1. Plans should be made for the eventual replacement of the aging unit ventilators.
2. Plans should be made for the eventual replacement of the aging constant volume air handling units.
3. With any remodel or renovation, plans should be made to replace the door transfer grille relief system with a code approved system. The current building code does not allow transfer air into a path of emergency egress.

1.3 Control Systems

A. Existing Data

1. A mixture of pneumatic temperature controls and digital temperature controls serve the building.

B. Observations

1. The limitations of the pneumatic system do result in comfort complaints. Pneumatic systems require frequent calibration to maintain accuracy. The newer digital controls are more accurate and more flexible. In addition, the industry has made such a complete changeover to digital controls that it is becoming difficult to find good pneumatic service technicians.

C. Recommendations

1. Continue to maintain and operate the pneumatic control system as long as the current mechanical equipment remains. When any renovations to the existing equipment are made, a changeover to digital controls is strongly recommended.

Electrical System Review:

The following report is the result of a site visit by Daniel Cedeno of Muermann Engineering, LLC that occurred on January 23, 2017. Site observations, existing plan review and interviews with staff were all used in the preparation of this report. The facility was built in 1960, with additions occurring in 1965 and 2002.

Electric Service

Observations

A. The facility has a 1200-amp, 120/208V 3-phase 4 wire main electric service that is about 15 years old and is in good working condition. The main switchboard has capacity for 1 additional breaker for potential future loads. There is no surge suppression provision on the main electric service.

B. The electric panelboards throughout the facility vary in age between old circuit breaker panelboards that are nearing the end of their useful lifespan, and some panelboards that were replaced or added during the most recent service upgrade that are in good working condition.

C. Utility service to the building consists of a pad mounted transformer adjacent to the building with an underground electric service terminating at an exterior wall mounted CT cabinet and electric meter.

D. There is a 7.5kw emergency generator in the electric service room that provides emergency lighting for the facility. The generator is continually maintained and is in good working order, even though it is nearing the end of its useful lifespan.

Main Electric Service

Existing Emergency Generator

Recommendations

A. The main electric service is in good working condition, recommendations include excercising of circuit breakers and possibly performing thermal imaging analysis for predictive maintenance purposes.

B. Provide surge suppression to prevent equipment damage in the building during power surges.

C. Vintage circuit breaker panelboards should be scheduled for replacement within the next 10 years.

D. A possible recommendation is to replace the existing emergency generator with a new exterior generator and automatic transfer switch.

E. Ensure proper working clearances are maintained in front of all panelboards at all times. Working clearance area may not be used for storage. Recommendations include using industrial vinyl safety tape to physically indicate clearance on floor/wall around panelboards.

New Panelboard and VFD's

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Light Fixtures & Controls

Observations

A. Much of the interior lighting throughout the facility consists of a variety of T8 fluorescent or incandescent light fixtures, including recessed, surface, and pendant mounted varieties. The fixtures range in age but all are in good working condition.

B. The gymnasium uses high bay metal halide fixtures to provide general lighting in the space. There are no provisions for emergency lighting in the space.

C. General lighting controls in rooms consist of toggle switches with a minimal amount of rooms having occupancy sensors. Most classrooms utilize split area zones to split lighting controls in room, some have dual level lighting controls. There were some rooms where the dual level lighting controls are wired incorrectly making the controls very confusing and hard to use.

D. Corridor lighting controls consist of local toggle switches with occupancy sensors. Occupancy sensor coverage is lacking in some areas.

E. Emergency is available in some corridors but is minimal and not meeting today's standards. The gymnasium also has no emergency lighting.

F. Exterior lighting consists of a mixture of LED and high pressure sodium wall packs. There does not seem to be a standard fixture type.

G. Exterior lighting is controlled via a combination of photocell and time clock controls.

Gymnasium Lighting

Classroom Lighting

Corridor Lighting

Recommendations

A. Recommendations to interior lighting include replacing fixtures with LED equivalents, providing dimming controls and occupancy sensors to maximize on energy savings.

B. Schedule existing exterior light fixtures with LED equivalents and control via existing timeclock/photocell controls.

C. Corridors should be provided with occupancy sensors and light switches removed to automatically control the lighting and maximize on energy savings.

D. If new LED lighting is provided, it is recommended that emergency lighting be reconfigured through egress paths and rooms with an occupant load greater than 50 persons to ensure light levels meet today's standards.

Wiring Devices

Observations

A. Most receptacles throughout the facility are 15A rated.

B. There was a general lack of receptacles throughout the facility. Facility staff indicated they have problems finding available receptacles often. Some classrooms only have 4 receptacles in

the whole room. Librarian also indicated they are lacking outlets in the library for their multimedia needs.

C. There are receptacles within 6 feet of plumbing fixtures that are not GFI protected.

Recommendations

A. Recommendations include replacing existing 15A rated receptacles with 20A rated type.

B. Provide additional recpetacles throughout working spaces as necessary to meet needs of space.

C. Replace existing receptacles within 6' of plumbing fixtures with GFI protected type.

Non-GFI Receptacle

Phone System

Observations

A. The facility has a Shoretel IP based phone system that is in good working condition.

Recommendations

A. No recommendations at this time.

IP Telephone

Data System

Observations

A. Data service is provided via fiber optic utility service. The system seems to be in good working condition.

B. Fiber optic wiring interconnects all of the schools to the main district network.

C. General data cabling consists of a variety of Cat5e and Cat6 cabling, both in plenum and riser rated varieties.

D. The school has (1) data rack, which has has reached full capacity and has no space for future needs. Data cabling management at the rack is run in a disorganized fashion with no labeling. There are also no provisions for backup power.

Data Racks

Recommendations

A. It was unknown at the time of the site visit if the facility has ceiling plenums, but if there are plenums in the ceiling spaces, the riser rated data cabling should be replaced with plenum rated cabling.

B. Data cabling at the data rack should be reinstalled in a clean workmanlike manner. Proper labeling of data cabling should also be considered to facilitate cable management and traceability.

C. If additional data is needed, a new data rack would have to be provisioned as the existing rack has no spare capacity.

D. A possible recommendation is to provide a UPS battery backup system to provide backup power to the data rack in the event of power loss.

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Keyless Entry System

Observations

A. The building has a keyless entry system that is in good working condition.

B. Access controlled doors are controlled via magnetic door locks and card readers.

C. None of the exterior doors have door position contacts to monitor if doors are shut or left open.

Magnetic Door Lock

Recommendations

A. It is recommended to provide door monitor contacts on all exterior doors to help monitor and control access to the facility at all times.

B. It is recommended to replace existing magnetic door locks with electric strike to ensure doors remain locked during a power outage.

Intercom System

Observations

A. The building has a Dukane 7A1100E intercom system that is nearing the end of its useful lifespan.

B. Office staff indicated the intercom lacks coverage outside.

C. Intercom speakers throughout are nearing the end of their useful lifespan, office staff indicated announcements can be hard to hear with background static noise issues.

D. The bell schedule system is controlled via the intercom handset. Staff reported no issues with system.

Intercom System Handset

Recommendations

A. The existing intercom system should be scheduled for full replacement with a new IP-based intercom system. Existing speakers should be scheduled for replacement in addition to providing additional speakers in areas lacking coverage.

CCTV System

Observations

A. The building has a CCTV system consisting of 14 cameras throughout the facility. The system seems to be in good working condition. The district plans to add about 13 more cameras to the system in the future.

CCTV Camera

Recommendations

A. Provide new CCTV cameras where additional coverage is necessary.

Fire Alarm System

Observations

A. The building has a Simplex fire alarm system that is about 15 years old and is in good working condition.

B. The system is monitored and dials out to the fire department during a fire alarm event.

C. Notification coverage is lacking by today's standards.

D. The kitchen has an ansul fire suppression system that is monitored by the fire alarm system.

E. Some areas of the building are covered by a vintage fire alarm system interconnected to the new system. These areas lack notification coverage per today's standards.

Fire Alarm Control Panel

Vintage Fire Alarm Devices

Recommendations

A. A possible recommendation would be to provide additional fire alarm notification devices in areas where coverage is lacking.

B. Corridors with open cubby storage should be protected with smoke detectors per today's standards.

Other Low Voltage Systems

Observations

A. The building does not have a security system.

B. The building has a monitoring system to ensure the boilers in the facility are operational. The system is programmed to dial facility management in the event of a boiler failure.

C. The building does not have a synchronized clock system.

Recommendations

A. Other possible recommendations include adding a security system to control and monitor access to the facility.

B. Replacing the existing clocks with a synchronized clock system such as a GPS wireless clock system may be a recommended upgrade to minimize labor efforts required when updating clocks during daylight savings time changes.

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