BEECHER ROAD ELEMENTARY SCHOOL

EXISTING FACILITY CONDITION ASSESSMENT | 40 BEECHER ROAD, WOODBRIDGE, CT

March 4, 2026

ANTINOZZI ASSOCIATES
ARCHITECTURE + INTERIORS

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1.0

Use and Reliance Restrictions

1.0 Use and Reliance Restrictions

Antinozzi Associates PC, Consulting Engineering Services (CES), Michael Horton Associates, and Stantec, Inc., hereinafter referred to as the "Assessment Team", produced the content of this document under agreements between Antinozzi Associates PC and the Town of Woodbridge. All terms and conditions of that agreement are included within this document by reference. Other than to the Town of Woodbridge, the Assessment Team disclaims any obligations to any other person with respect to any material presented in this document, and no person may rely upon this document without advance and express written consent from Antinozzi Associates PC and such person's written agreement is to be bound by the limitations, qualifications, terms, conditions, and indemnities to Antinozzi Associates PC set forth in that agreement.

The Assessment Team specifically states that its review of the property in question is subject to monetary and time restraints, as well as scope limitations. Given those restraints and limitations, they have made what is in their opinion a reasonable investigation. The materials presented in this document shall be considered "to the best of Antinozzi Associates PC collective knowledge." This phrase means to the facility assessment team's actual knowledge of the subject matter after such inquiry as Antinozzi Associates PC considered reasonable in light of the restraints and limitations upon the contracted scope of work.

The extent of the physical observation for the production of this report has been limited to "walk-around" visual inspections of the building and minimal test cutting to examine the material make-up of each roof. Assumptions regarding the overall condition of the property have been developed based upon observation of representative areas of the building. As such, the development of schematic methods and associated costs for the correction of identified deficiencies is based upon the overview observation and is also limited with respect to completeness.

2.0
Executive Summary

INTRODUCTION

The Woodbridge Board of Education commissioned Antinozzi Associates in March, 2025 to conduct a Feasibility Study including multiple design options for renovation or replacement of Beecher Elementary School in Woodbridge, Connecticut. This Existing Facility Assessment is provided to complement the overall study and to support an eventual State Grant submission.

OVERVIEW

The Beecher Road School, located at 40 Beecher Road in Woodbridge, is the district's sole elementary school, currently serving over 870 students, projected to increase to 960 within the next eight years, from pre-kindergarten through 6th grade. Originally built in 1960, the 146,885 SF facility sits on a 43-acre site and has undergone several additions (1964, 1970, 1994, 1997) and renovations, most recently in 2016 and 2024.

While the school provides ample area overall on a per-student basis, in practice the spaces do not meet current educational goals and programmatic requirements. Core classrooms are inconsistently sized, ranging from 700-1500 square feet, and sufficient resource spaces are not present. The existing layout is fragmented due to long corridors, ramps, and dispersed program areas. Although school functions are all on the ground floor, this "floor" is composed of sixteen separate levels traversing nearly 30 vertical feet (38 feet counting the pool deck) connected via an extensive network of ramps, many of which are not ADA compliant. Between the level changes and the facility's large, linear footprint, the building is inherently difficult to navigate between classes. For example, in order to get to the music room or the main gymnasium, a current second-grader will walk nearly 1000 feet, descending 30 feet vertically over ten ramps.

The facility also has insufficient ADA-compliant restroom facilities, with a few cramped multi-stall toilet rooms along with a multitude of very small single restrooms. While the 1997 renovations brought roughly a third of the toilet rooms into ADA compliance with requirements of that era (1991 ADA Accessibility Guidelines, published a year after the ADA was enacted in 1990) most do not comply with the clearances of current accessibility requirements.

The facility and site are well-maintained; recent projects brought upgrades to HVAC systems, partial roof replacements, upgrades to windows in the 1960 wings, new entrance canopies, and exterior doors throughout. Security film has been installed at most exterior windows and site improvements are implemented on a regular basis. Despite this responsible and timely upkeep of the facility, original systems and finishes are near the end of their useful life, the building envelope is energy-inefficient, extensive, and prone to leaks, so the repair cycle continues.

Thanks to roofing replacement projects in 2016 and 2024, approximately two-thirds of the building has newer roofing, with solar panels arrayed over approximately half of the new roof area. Insulation thicknesses under new roofing had to match existing eave heights and are therefore less than optimal. Additionally, many new roof areas lack sufficient pitch based on observed ponding. Older roof systems on the remaining third of the building are nearing the end of service life.

Most of the building is faced with concrete masonry, under-insulated in all but the most recent construction. 1960s portions of the building are composed of stone end walls on block backup, infilled with newer metal panels. Exterior block at 1970 and 1994 wings is dirty and worn; the eaves at the tops of these walls are compromised and should be replaced.

Most main entrance and exit doors have been replaced recently, along with windows in the 1960s wings. The majority of the building's windows are at the end of useful life, with the possible presence of PCB sealants complicating window replacement in an occupied school. Many classrooms are equipped with doors directly to the exterior; most of these doors should be removed and infilled in keeping with modern security requirements.

The attached indoor pool is currently offline and in need of significant repairs and upgrades to return to service. The primary entrance to the pool is via non-ADA compliant ramps from the entrance corridor serving the Central Office and south assembly space. The pool has the potential to be a valuable community amenity, but use by the public during school hours is problematic from a safety and security standpoint due to insufficient separation from the school.

The building site provides a beautiful parklike setting for Beecher Road School. The site contains wooded areas, ball fields, tennis courts, playgrounds, walking trails and other similar amenities, maintained and repaired on an ongoing basis. Paved areas are in various states of aging; parking is adequate but distributed throughout the site, so large areas of parking are distant from the main entrance to the school. While efforts have been made to safely accommodate bus traffic and parent drop-off, this is less effective than separate bus and car loops.

The varied topography of the site creates challenges for ADA accessibility, exacerbated by the many levels of the school itself. While there are many pitched walkways with railings on either side, most of these are not ADA-compliant ramps, due to length, pitch, railing design/condition, or a combination of the three. Where possible, sloped walkways, which do not require handrails and cannot exceeding 1:20 pitch, are recommended.

STUDY SCOPE

The assessment of the buildings included a field survey to investigate and evaluate the current conditions of the facility, as well as to identify and prioritize elements requiring repairs and restoration.

The survey included the following elements:

- Architectural Systems
- Structural Systems
- Plumbing Systems
- Mechanical/HVAC Systems
- Electrical Systems
- Fire Protection Systems
- Technology & Security Systems Infrastructure
- Site Conditions

Survey procedures did not include removal of the building fabric or destruction of finishes in order to view concealed items. Unless specifically noted within this report, no engineering calculations, disassembly of building components, or material testing was completed by the Study Team for this Facility Assessment, including a detailed review of the possible presence of any hazardous materials. This report describes the condition of the building and site components at the time of the observations in July of 2024. The report of an item functioning at the time of the observation should not be taken as a guarantee. This report provides no guarantee or warranty, either expressed or implied.

ASSESSMENT TEAM

The Assessment Team for this Existing Facility Condition Assessment consisted of Antinozzi Associates and their engineering consultants, all listed below.

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4.0
Existing Facility Survey

Existing Building

The Beecher Road School is an expansive building originally constructed in 1960, sitting on a little over 43 acres of sloping hills. As previously noted, the school serves as the sole elementary school for the Woodbridge School District, with over 870 students from pre-kindergarten through 6th grade. It is also utilized as an Extended Day program and for the Woodbridge Recreation Department.

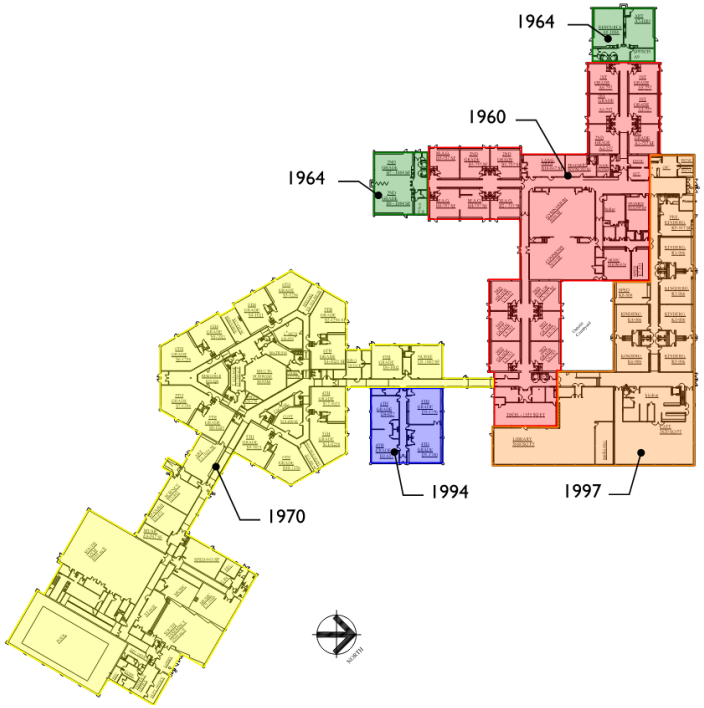
The nearly 147,000 square foot structure has had multiple renovations and additions built over the following 30+ years, creating an arrangement of three distinct parts linked by long corridors and ramps. The courtyard layout of the 1960/1997 northern wing provides a mixture of Classrooms for younger students, Administration, Cafeteria, and Library services. The central node provides Classrooms for the upper 4th-6th grades. The southern wing of the 1970's addition provides office space for district administrators, the Gymnasium, Arts and Music Spaces, as well as an indoor pool that is no longer in use.

The building, infrastructure, and site are typically in good condition; major investments made within the last 10 years include:

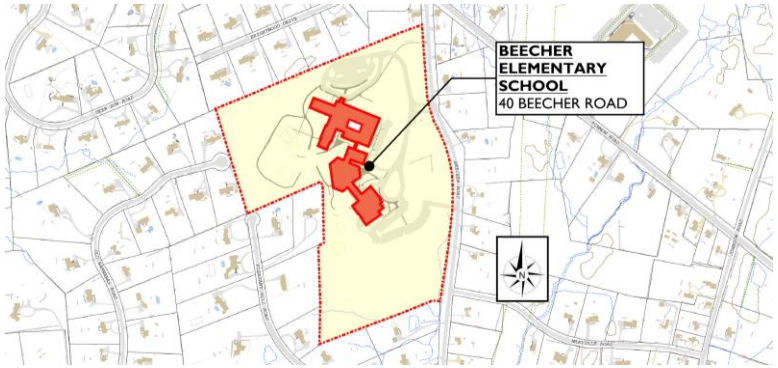
- ✓ New HVAC units, A/C, and fluorescent lighting
- ✓ Plumbing fixture replacement
- ✓ Roof replacement at two-thirds of the building (2016 & 2024) with solar at south end
- ✓ New windows and metal panel infill @ 1960 wings
- ✓ Security upgrades and entry-resistant window film
- ✓ New entrance canopies
- ✓ Painting, lighting, and ceilings at corridors
- ✓ Ongoing repaving and site amenity work

Despite responsible, timely, and expensive replacement of some systems, many remain original and are nearing the end of useful life, so the repair cycle continues. Many parts and components are original to the school's construction. Most windows, doors, flooring, and ceilings are older and at or near the end of useful life. Older portions of the mechanical and electrical systems, although well maintained, lack the efficiency of newer equipment. Building security could be further improved by removal of unnecessary exterior doors and by more extensive upgrades.

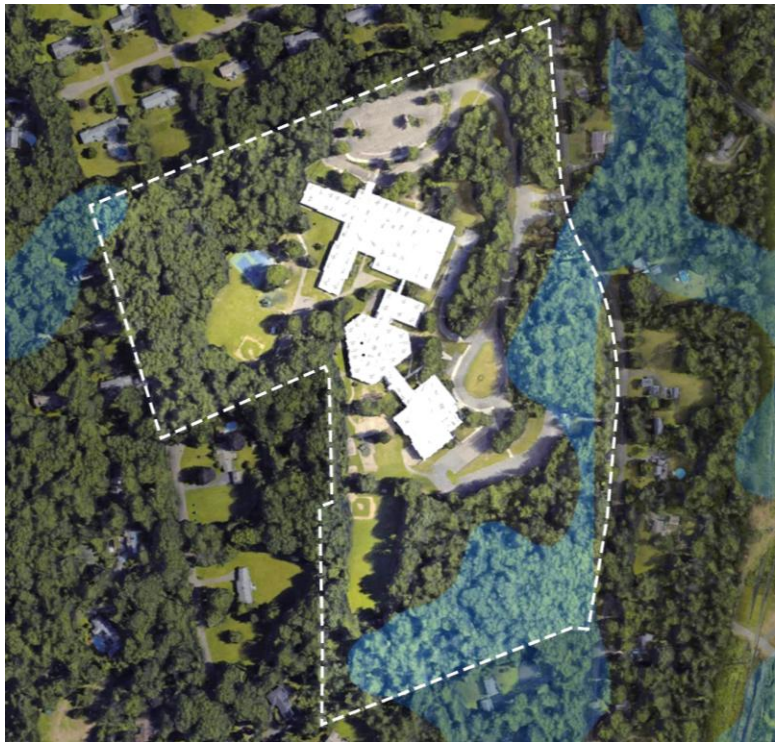
In addition to the physical state of the school and its systems, the condition of a building is also defined by the spaces and programming. The Beecher Road School provides sufficient space; however, long ramping corridors complicate travel between the classrooms, administration, and common areas. The existing indoor swimming pool is offline and not programmatically necessary.



Floor plan showing year of construction for each wing



Site location plan



Aerial view with plan showing property line and wetlands (in blue).

Building Profile

Original Construction:	1960
Additions:	1964, 1970, 1994, 1997
Lot Size:	43.44 acres
Building Façade:	Split Face Concrete, Exposed Masonry, Metal Cladding
Roof Construction:	EPDM, Buillt-Up- Roof
Occupancy Classification:	E – Education (Primary) A-3 – Assembly B – Business
Construction Type:	2C Non-Combustible Unprotected 4 Heavy Timber
Fire Protection System:	No
Handicap Accessible:	Yes
Number of Floors:	One story with basement
Number of Parking Spaces:	228 spaces, incl. eleven (11) ADA spaces
Existing Total Floor Area:	146,885 SF (gross area)

Zoning

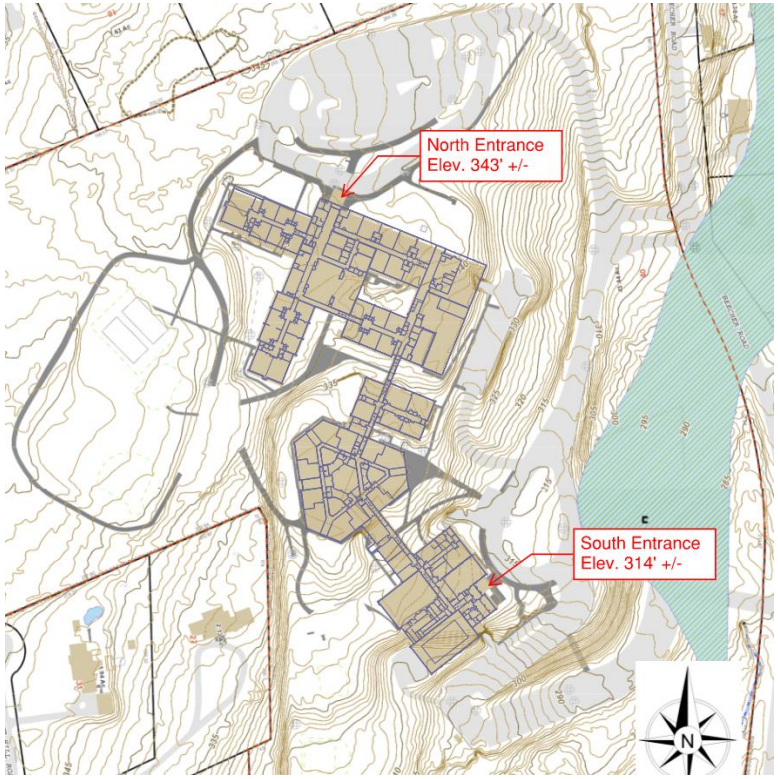
40 Beecher Road and all abutting properties are located in Residence A District, "Low Density Residential with a minimum gross lot size of 65,000 sq. ft. This District covers approximately 90% of the Town of Woodbridge. Schools appear to be allowed in District A by Special Exception. While wetlands exist onsite as shown in blue, there are no FEMA flood zones on this property. The front lot line is along Beecher Road. The rear lot line is furthest from the front (near Old Barnabas Road). All other lot lines are considered "side." Bulk requirements include:

- Maximum Building Coverage: 15% (43.44 acres ~ 1,892,246 sf x 0.15 = 283,837 sf max.)
- Minimum Front Setback: 75 feet
- Minimum Side and Rear Setbacks: 25 feet
- Maximum Height (stories) 2 1/2

Building Site

Site Conditions

Beecher Road School is located at 40 Beecher Road amid a residential neighborhood with convenient access to Routes 243 and 313. It is situated on a little over 43 acres of forested and grassy land, and the hilly terrain ranges in elevation from a low point of about 260 feet, up to the elevation of 355 feet. Grade at the northern entrance of the 1960/1997 wing of the school is at approximately 343 feet. Grade at the south entry of the 1970 wing of the school is at approximately 318 feet.



Site contour plan

South West elevation 1970 wing. South entrance.

West elevation 1970 wing

West elevation 1970 central node

West elevation transition from the 1970 wing to the 1960/96 wing

North east elevation 1997 wing. North entrance.

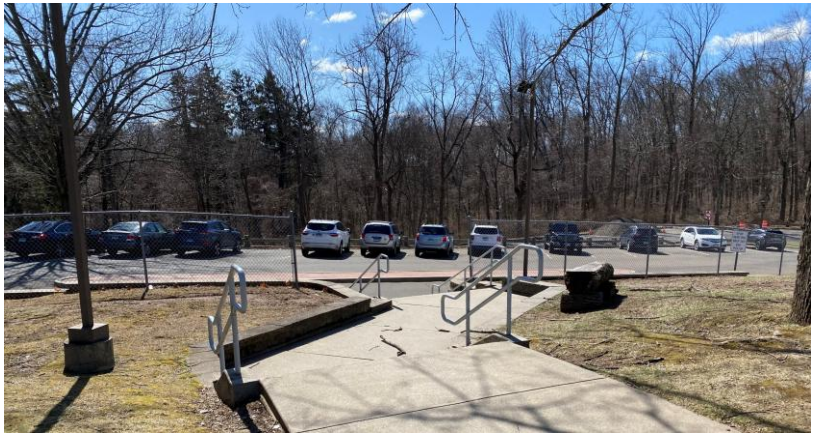
North east elevation 1997 wing

Vehicular access to the site is provided via Beecher Road, with parking available in two main lots: one located to the north of the school and the other to the south. Both lots include designated drop-off locations. A smaller third lot is situated to the east of the 1997 addition.

The northern lot is situated at an elevation approximately level with the North Entrance and has recently been repaved and restriped. This lot includes accessible parking spaces, providing convenient ADA access to the school.

The southern lot, with an elevation ranging from 290 to 310 feet, requires some hills and steps to navigate before reaching the Southern Entrance. However, there are several accessible spaces located adjacent the drop off area, as well as in the upper level of the lot. The paving surfaces in these lots are worn and showing signs of alligator cracking and large gaps with organic material growth.

Parking lot locations



Stair and path leading to the south parking lot

Visible alligator cracking and organic growth. South parking lot.

Accessible parking at the south parking lot. Visible alligator cracking.

Visible alligator cracking in the paving. Mid-level parking lot.

Asphalt-paved walking and car paths run along the perimeter of the school. These paths are generally in fair condition, but there are many areas with large cracks, and several areas worn down to gravel. Concrete walkways line the eastern perimeter at the drop-off zones and entrances, and are in good condition. New concrete sidewalks have been recently installed at the North Entrance.

Sidewalk in need of repair

Typical sidewalk and car path at perimeter of school

Asphalt paved walk at the MAG garden

Concrete walk at south entry

Concrete walk at north entry

New sidewalk and parking lot installation at north parking lot

An asphalt paved walk traces the edge of the 1970's central node of the school. The walkway has numerous cracks with grass and weeds sprouting through them.

Asphalt paved walk at perimeter of the 1970's central node

Playgrounds, baseball fields, and tennis courts are located to the west of the building. The playgrounds provide specialized equipment and swings on rubberized turf and wood mulch. The equipment appears to be in good condition, however the rubber surface is showing signs of wear and cracking. Some play areas are currently undergoing renovation.

Typical playground area

Typical playground area

Cracking and wear at rubber playground surface

Building Envelope

Exterior Walls

The exterior wall construction of the Beecher Road School varies with the multiple additions of the building. The façade incorporates a mix of several materials including split face block, exposed masonry, river rock, and metal cladding. The typical backup is CMU. Construction details were not available for the 1960/64 portion of the school. Original drawing details for the 1970 portion of the school appear to show 8-inch CMU backup with approximately 2 inches of insulation behind 4-inch CMU cladding; the details show no air space in the cavity and do not call out any kind of air vapor barrier at the backup wall.

The exterior walls of the original 1960/64 school feature a 2016 assembly consisting of storefront windows with insulated metal panels beneath them, interrupted by the original 1960/64 river rock pilasters and CMU end walls. The 1997 addition introduced a modernized façade on the north side, designed to complement the original 1960/64 structure. The split-faced CMU blocks are also interrupted by storefront windows, with insulated metal panels below. While the blocks, stone, and metal panels are generally in good condition, several areas require cleaning.

1960 and 1964. Metal panels and river rock façade

1960 and 1964. Metal panels and river rock façade

1997. Split face CMU and store front windows at north entry façade

1997. North east façade. Split face CMU and store front windows.

The façade for the 1970 addition to the school is primarily painted CMU block. While the block is generally in good condition, there are several areas that require cleaning, and the paint is peeling in many spots.

1970. South west façade. Painted CMU.

1970. Painted masonry exterior walls.

The west perimeter of the central node is adorned with colorful murals that brought color and creativity to the exterior walls. Over time, however, these works have lost their vibrance, now softened and faded, bearing the marks of age and weather.

Typical faded mural

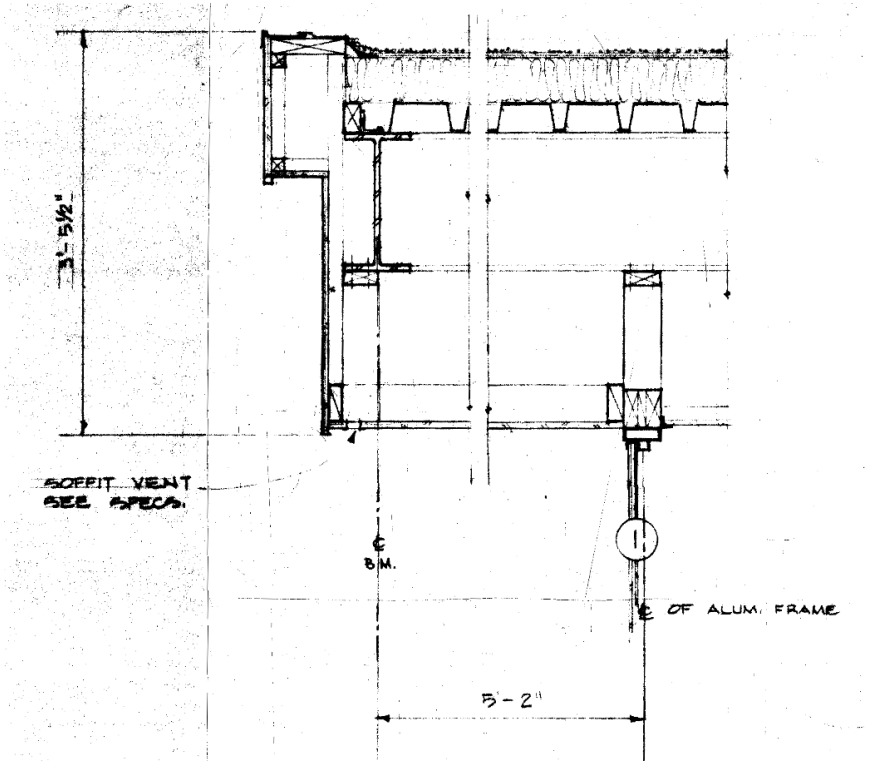
The fascia and frieze in various parts of the school exhibit noticeable dirt and staining, and require cleaning.

Examples of stained and dirty fascia and frieze

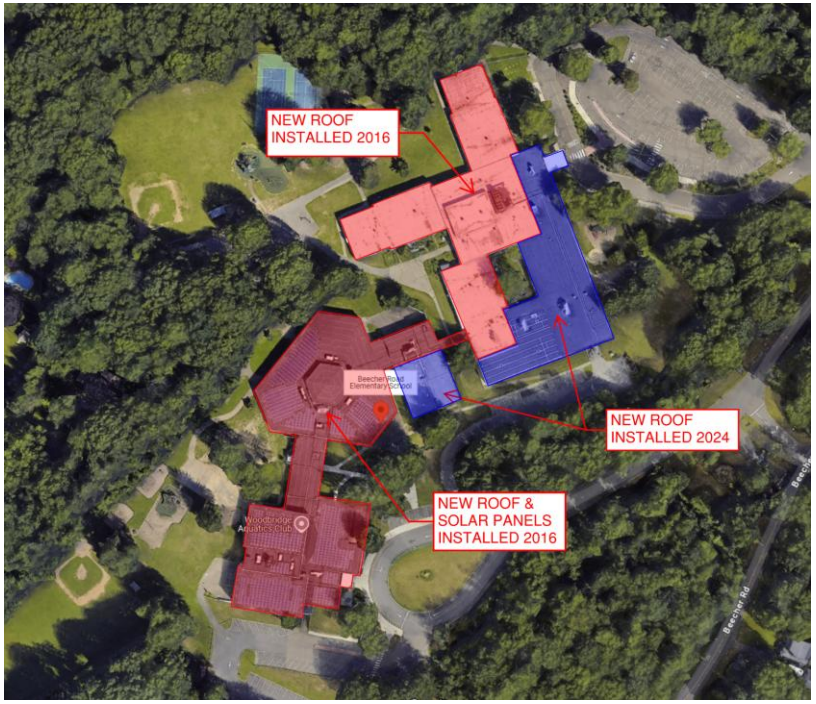
A significant number of soffit vents are located along the perimeter of the 1970 additions. It is unclear how necessary these vents are, but they may represent a substantial source of heat loss. Additionally, the original detail for the eave shows a lack of insulation, providing an open thermal pathway from exterior to interior. The originally details show vents only at the lower eave, but vents have since been added at the upper eave as well. Based on interviews with facilities staff, no vents have been added in the recent past. Facilities reported that the eaves are attractive to nesting insects.

Soffit vents

Soffit vents



Original detail for 1970 additions showing uninsulated eave condition with significantly fewer soffit vents than exist currently.



Roof replacement timeline

Roofs and Gutters

The EPDM roof was replaced in two separate periods, in 2016 and 2024. The 2016 installation included the roofs of the 1960/64 and 1970's wings of the school, and also included the installation of 970 solar panels. The 2024 installation replaced the roofs on the 1994 and 1997 additions. Both roofs remain in good condition.

Solar panels on the 1970s central node.

Roof drains are critical components of a building's drainage system, and are located at most roofs. They have all been replaced at their respective locations when the roofs were replaced in 2016 and 2024. These drains are installed in low points of the roof and are connected to internal plumbing systems to guide the water away from the structure and prevent water from accumulating. Properly functioning roof drains help to reduce the risk of water damage, roof leaks, and potential structural issues that can arise from standing water, such as mold growth or weakened building materials.

While the drains appear to be well maintained, ponding was noted in several locations on the 1960/64 portion of the roof. Based on interviews with WPS facilities, we understand that portions of the roof throughout the facility experience regular ponding due to insufficient or incorrect roof slopes.

Ponding water on the 1960/64 wing

Metal gutters and downspouts were replaced during the 2024 roof replacement at the 1994 addition. They are in good condition.

Metal downspouts and gutters at 1994 addition.

<u>Exterior Doors</u>

The exterior doors of the school vary in materials and conditions based on their locations and the periods of construction. The North entrance doors, made of glass and aluminum, were installed during the 1997 addition/renovation and are in good condition, however, at nearly 30 years old are nearing the end of their useful life. Similarly, the South entrance doors, also glass and aluminum, are well maintained and in good condition, though their installation date is unknown, but precedes the 2016 renovation. If they were installed over 20 years ago, they too are approaching the end of their useful life.

Aluminum and glass doors at North and South entrances.

Corridor egress doors differ by location: the 1960/64 portion had its doors replaced with FRP and glass doors during the 2016 renovation, and the 1970

addition has insulated metal panel doors with a single vision lite which pre-date the 2016 renovation, and are near the end of their useful life. The aluminum and glass doors in the 1997 addition are in good condition but are original to the building and approaching the end of their service life.


FRP and glass doors


Hollow metal doors, 1970


Aluminum and glass doors, 1997

Classrooms typically feature exterior egress doors; monitoring such a large number of doors presents a security challenge. As with the corridor egress doors, materials and ages vary depending on location and construction period. The 1960/64 classrooms have FRP doors, frames, and hardware dating from the 2016 renovation; these openings are in good condition. The 1970s classrooms have insulated metal panel doors with a single vision lite which pre-date the 2016 renovation and are near the end of their useful life. The aluminum and glass doors in the 1997 addition are in good condition but are original to the building and approaching the end of their service life.


Typical FRP door, 1960/64


Typical metal door with vision lite, 1970s


Typical aluminum and glass, 1997


Metal doors at south gym

Windows

While we understand that all exterior glazing received security film as part of the 2016 renovation. the exterior windows of the school vary in material and style based on their locations and the periods of construction. The windows in the 1960/64 original construction were replaced during a 2016 renovation with aluminum storefront windows featuring 1inch insulated glass. These windows have a large fixed pane beside a smaller slider unit, with an insulated metal panel below, and a glass transom above.


Typical windows at the 1960/64 wing

The 1970 addition has bronze anodized aluminum storefront windows with fixed panes and awnings above and below. They are in fair condition; frames are chipped, scratched, and faded, and caulking appears to be failing. These windows are near the end of their useful life.


Typical windows at the 1970 addition

Windows in the 1994 addition are also bronze anodized aluminum storefronts with fixed panes, awnings above and below, and triple

casements. These windows appear to be original to the construction and are nearing the end of their useful life.

Typical windows at the 1994 addition

The 1997 addition has white aluminum storefront windows with hopper windows framed by fixed insulated glass and insulated metal panels below. These windows are original to the construction and, while in good condition, are nearing the end of their useful life.

Typical windows at the 1997 addition

Canopies, Steps, and Ramps

Two new steel shed entry canopies were installed at Beecher Road School during the 2016 renovation. The canopies do not tie into the existing roof system, but they pitch to drain onto the existing roof. The red canopy marks the north entrance, while the blue canopy indicates the south entrance. Both canopies appear well-maintained and in good condition.

North entrance canopy

South entrance canopy

Most of the school's entrances are at grade level. However, it was observed that the exterior doors to several classrooms in the 1960/64 section of the building lead to a small landing with a step down to the ground. While this step is considered acceptable as a secondary means of egress according to the building code, the height of the landing exceeds the maximum allowable limit at several locations.

Landing and step at classroom doors to exterior 1960/64 door.

Landing and step at classroom riser height exceeds code requirements

The sidewalks around the perimeter of the school connect to several ramps, providing wheelchair access to various areas of the building. The slope of these ramps typically appeared to meet current accessibility regulations. However, the handrails are not ADA compliant because they lack extensions on the top and bottom of runs, and they also lack bottom rails or curbs to prevent a wheelchair from catching on a post. Concrete ramps also show signs of heaving at control joints, causing tripping hazards.

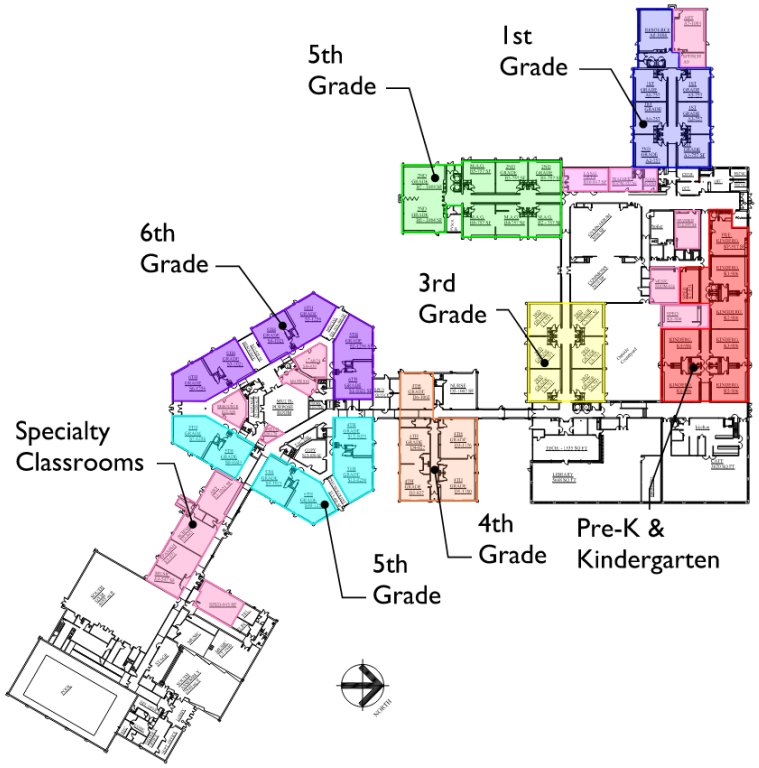
Non-compliant ramp at the Library

Non-compliant ramp at the South Assembly

Non-compliant ramp between the 1970 and 1994 addition

Building Interior

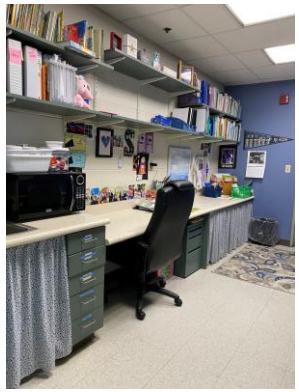
Classrooms



Classrooms within the school vary in both shape and size, with these differences largely depending on the location of the room within the building and the era in which it was constructed. In general, while the facility itself is large, the school has reported issues finding spaces for all programs currently offered. The building has many oversize classrooms and lacks smaller spaces suitable for resource classrooms, which are therefore often shared by multiple teachers. The layout of the school is organized by grade range, with different wings dedicated to different age levels. Additionally, the school features multiple specialty classrooms dedicated to subjects such as science, language, arts, and Special Education. These spaces are located throughout the building.

Rooms for students in Pre-K through 3rd grade are situated in the 1960/64 section of the school. The typical classroom size for Pre-K and Kindergarten is approximately 1,000 square feet, while classrooms for 1st to 3rd grade students are usually around 750 square feet. Pre-K and Kindergarten classrooms are paired, with two classrooms connected by a small workroom for the teachers. These classrooms do not have dedicated toilet facilities; instead, they are typically adjacent to extremely small non-ADA-compliant single toilet rooms opening onto the corridor.

Typical Pre-K & Kindergarten Class



Typical Workroom between Pre-K & Kindergarten

Typical cabinets in Pre-K & Kindergarten Class

Typical 1st & 2nd Grade Classroom

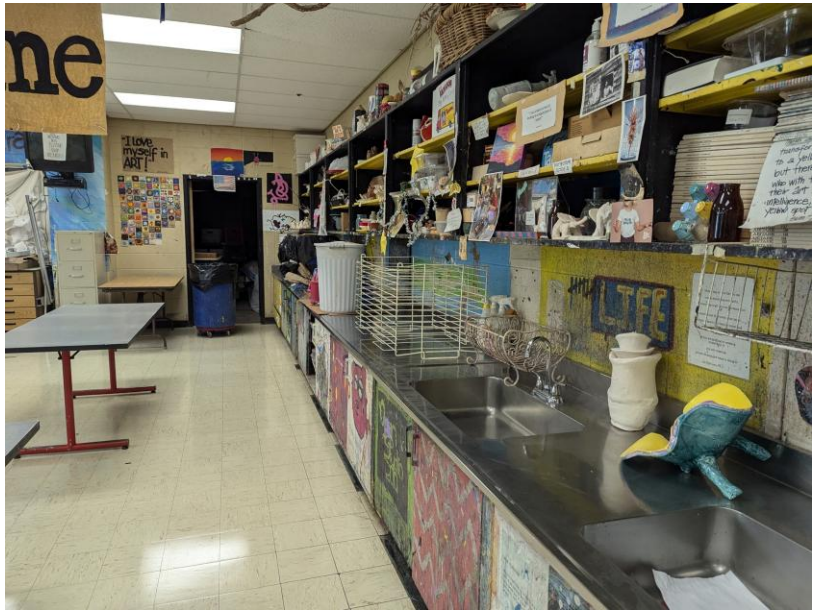
The classrooms for 4th-grade students are located in the 1994 wing of the school, with sizes ranging from 850 square feet to 1,400 square feet. This wing is somewhat isolated from the primary school wings, providing a distinct space for 4th-grade students. The original plans for this wing show three classrooms at the north side of the wing. Over the intervening years, modifications were made to convert this area into two 1,400 sf classrooms. This results in classrooms of dramatically different size within the grade level.

Typical 4th Grade Classroom

Classrooms for 5th and 6th graders are housed in the central 1970s node, with classroom sizes ranging from 1,000 square feet to 1,400 square feet.

Typical 5th/6th Grade Classroom

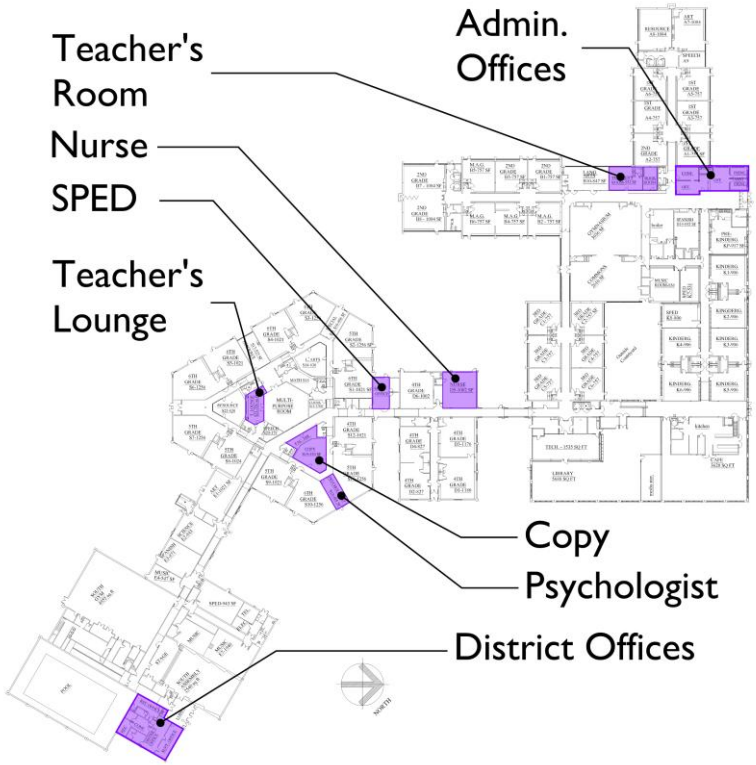
Science Classroom



Art Classroom

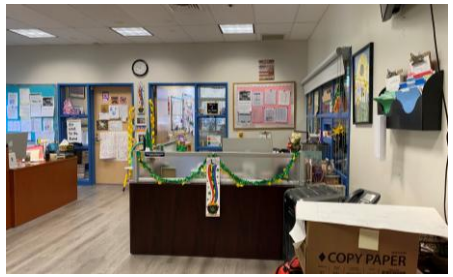
All classrooms throughout the school are generally well-maintained and well-equipped, featuring cabinets, shelves, and smart boards. However, despite the good condition of the classrooms overall, some of the ACT ceilings and VCT flooring in many rooms are beginning to show signs of age and could benefit from updates.

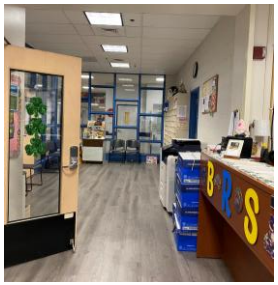
Administrative Spaces



Administrative spaces throughout Beecher Road School offer spaces for health services, faculty, and various support functions. The key administrative spaces within the school include district offices, the school administration office, the nurse's office, the teacher's lounge, and the psychologist's office.

The Beecher Road School administration is located in the 1960/64 portion of the building, near the north entrance. This area is appropriately situated at the school's entry point to provide a controlled check-in system for visitors. The enclosed vestibule at this entrance provides a secure space where visitors can check in at the reception desk before gaining further access to the building. This administrative area also houses several workstations for support staff in an open workspace, as well as private offices for the principal and assistant principal. The administration space also includes a kitchenette.





Beecher Road School Administrative offices

Located in the 1970s addition near the south entrance of the school, the Woodbridge District Offices provide administrative support for district-level functions. Access to the District Offices is restricted, requiring visitors to be buzzed in from the exterior. These offices are also separated from the main school area, with access to the school itself requiring an authorized access card.

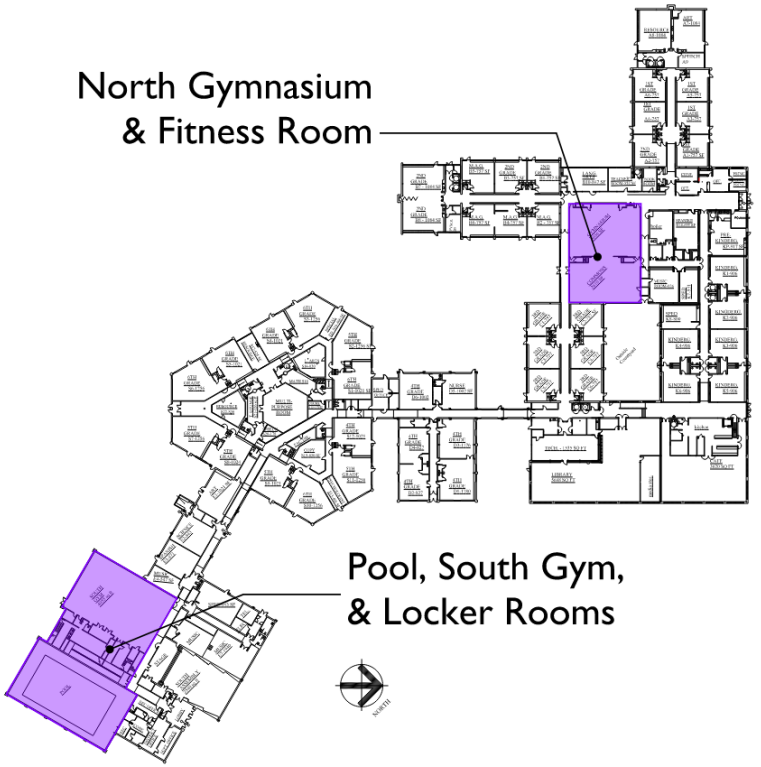
The Nurse's Office is centrally located in the 1970s addition, near the 1994 wing of the school. Despite the central location, due to the size of the school and the overall layout, the furthest first-grade classrooms are roughly 530 feet away – the same distance as one and a half football fields. The office is spacious, with sufficient room for multiple beds and workstations for the nurse(s). However, the space offers limited privacy for patients. The nurse's office is equipped with a private toilet room, ensuring that students have access to necessary facilities during their visit.

Nurse space

The teacher's lounge is positioned within the 1970's addition, adjacent to the Multi-Purpose Room. Approximately 400 square feet, the lounge offers adequate space for staff for the teachers and is conveniently located for teachers of grades 4-6. However, it is remote from teachers of the lower grades.

Teacher's Lounge

Gymnasiums, Pool, Commons



The school provides several recreational and athletic spaces that support a variety of physical activities, including a pool, two gymnasiums, and a fitness room. These facilities contribute to both the physical education program and extracurricular activities for students. The facilities are located in different sections of the building, offering spaces for students and the broader community.

The pool is located in the 1970's portion of the building near the south entrance. Previously considered a valuable community asset, the pool was utilized by local programs and the school system. However, it is currently

closed due to rising operational costs and the expenses associated with necessary repairs.

Pool


Tile pool deck

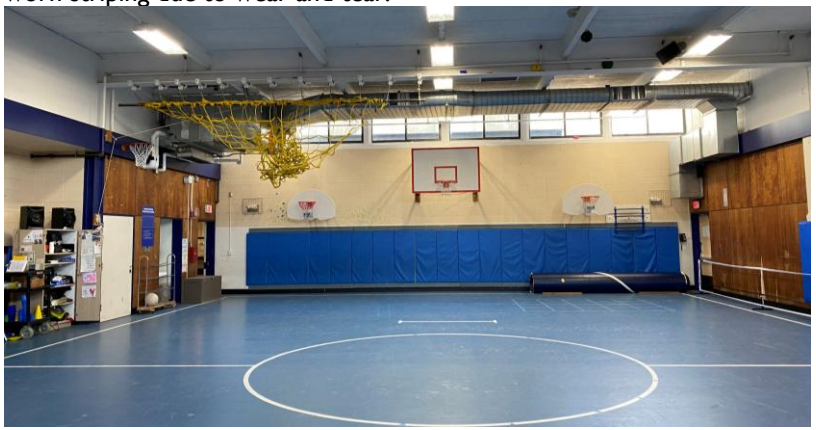

Metal benches


Wood ceiling

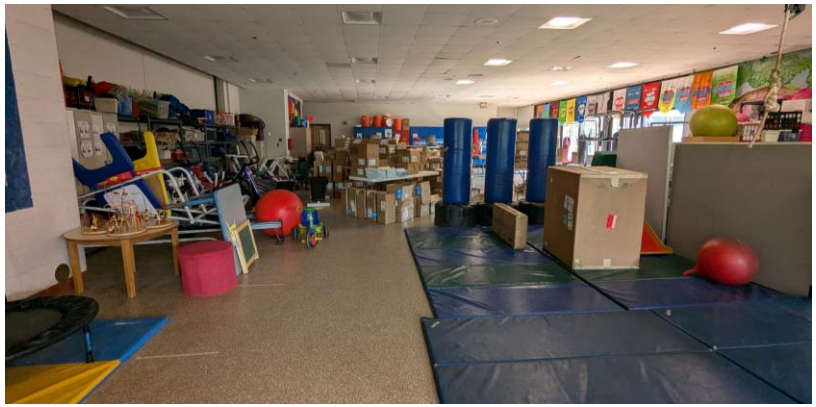
The South Gymnasium is situated in the 1970's portion of the building, adjacent to the pool, and is approximately 5,000 square feet. It features multiple basketball hoops with a full-size court and telescopic wooden bleachers, which are in fair condition. The modular tile flooring system is durable and easy to maintain, however the striping has faded and, deteriorated from wear and tear. Additionally, the gym includes several equipment storage closets and an office directly off the main space, offering functional support for sports and other activities.


South Gym

Located in the original 1960/64 portion of the building, the North Gymnasium is approximately 3,200 square feet. It features multiple basketball hoops, with two positioned in standard locations and others placed awkwardly near doors or mechanical equipment. While the ceiling is notably high, large HVAC equipment and ducts at the north and south ends of the gym limit the height. The wood panel walls, though functional, are scratched and dated in appearance. The gym includes several small equipment closets but lacks office space directly connected to the area. Its synthetic flooring remains in fair condition but exhibits scuff marks and worn striping due to wear and tear.

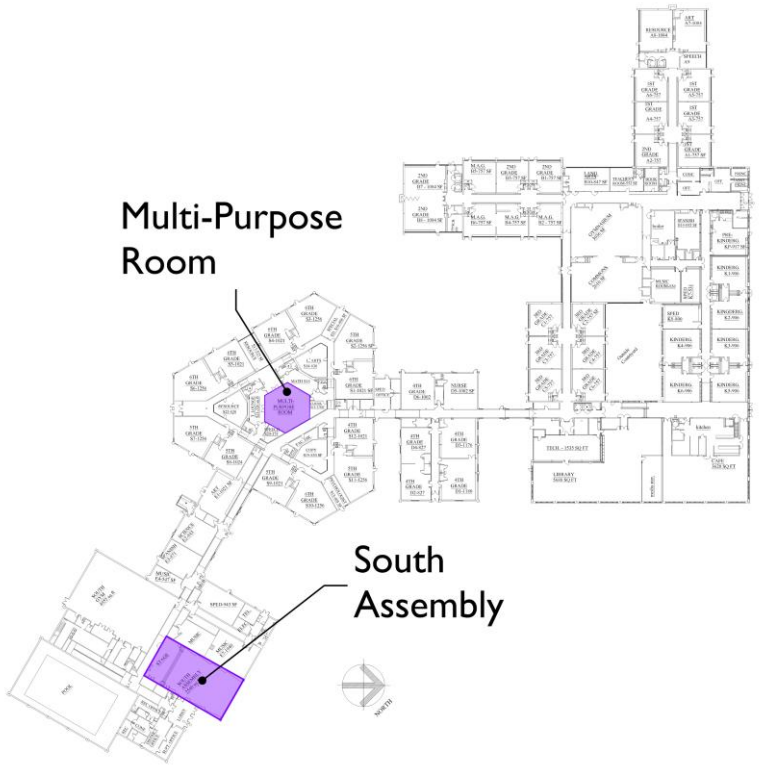

North Gym

Adjacent to the North Gymnasium is the Fitness Room. At approximately 2,700 square feet, the fitness room provides ample space for a variety of athletic exercises, including gymnastics and fitness routines. It is equipped with tumble mats and climbing ropes. The fitness room is also designed with large partition doors that can be opened to extend the space into the North Gymnasium.



Fitness Room

South Assembly & Multi-Purpose Room



Beecher Road School features two distinct spaces designed to accommodate large gatherings and assemblies. Both areas are located in the 1970's addition and are integral to the school's ability to host events and activities.

The South Assembly Room is approximately 2,500 square feet and is conveniently situated near the south entrance to the school. Its location makes it ideal for hosting outside events, as it can be isolated from the rest of the school building. The room features a higher ceiling and an elevated stage area suitable for performances. While ADA access to the stage is not available directly from the assembly space, it is accessible from the adjacent

corridor. The South Assembly Room's CMU walls are lined with acoustic panels, though these panels are cracked and chipping, indicating a need for maintenance or replacement.

South Assembly – View towards the assembly area

South Assembly – View towards the stage

South Assembly stage area

Typical acoustic wall panel

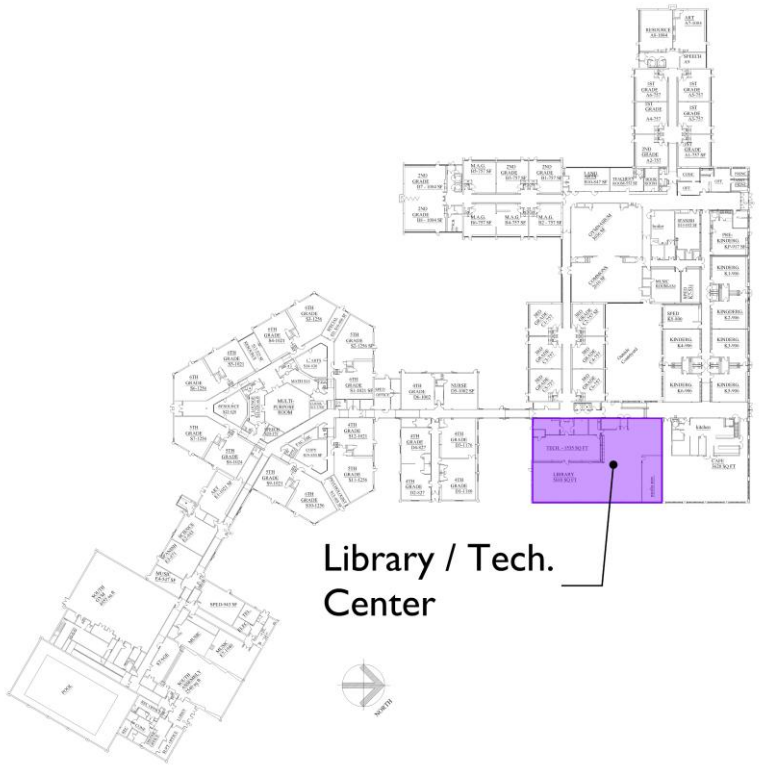
The Multi-Purpose Room is centrally located within the building and is approximately 1,700 square feet in size. This hexagonal-shaped room is designed to support multiple classes or groups at the same time, making it an ideal venue for various school activities, such as group gatherings, presentations, and events. The room's unique cupola-like ceiling features clerestory windows that allow natural light to fill the space. The wood plank ceiling is in good condition, with no obvious issues. The room's painted CMU walls are lined with acoustic panels that have become dull, stained, and worn over time.

Multi-Purpose Room

Multi-Purpose Room – Wood plank ceiling

Stained acoustic wall panel

Library / Technology Center



As part of the 1997 addition at the northern end of the school, the library and technology/computer lab offer resources to meet the academic and technological needs of students.

The technology/computer lab occupies approximately 1,400 square feet, larger than the typical elementary school. This facility is well-maintained and provides a spacious setting with organized equipment and a clear circulation path for ease of use. Cables are efficiently concealed within wire tracks.

View of the Computer Lab

The library at Beecher Road School is just under 5,700 square feet, which is larger than a typical elementary school library. However, this expansive space is designed to accommodate the school's student population of over 850, providing room for both individual and group activities. The library features numerous bookshelves, work desks, and computer stations, ensuring that students have access to a wide range of resources for research, reading, and study.

Despite the size and overall good condition of the space, some structural concerns have been identified. Notably, several large cracks in the concrete masonry unit (CMU) walls were observed, indicating the need for further structural analysis.

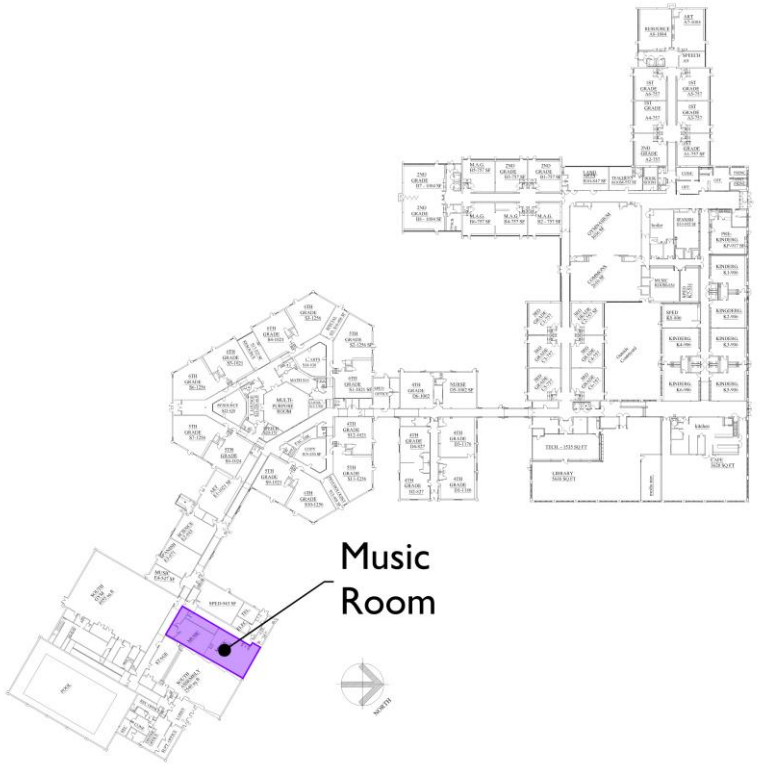
View of the Library

View of the Library

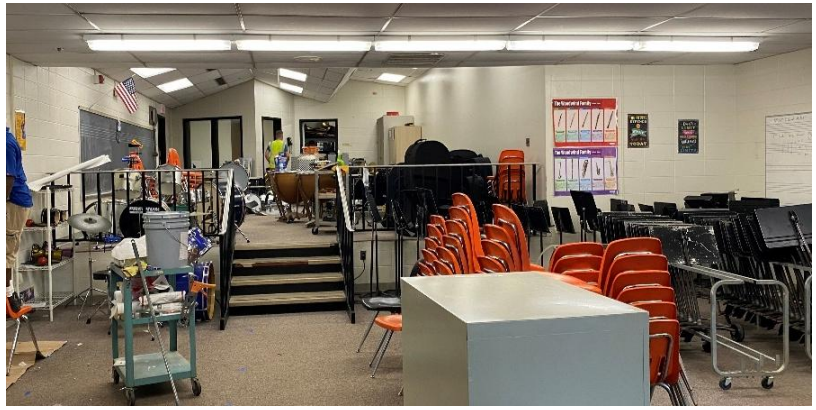
View of the Library

View of the Library

Music Room



The Music Room is located in the 1970's addition, adjacent to the South Assembly. Its proximity to the stage area allows easy access for performances and events, while the room itself serves as a dedicated environment for students to learn and practice musical instruments. The room is a little over 1,700 square feet and is divided into two distinct levels, connected by a small staircase. The upper level is ADA accessible only via the South Assembly stage.



View of the Music Room

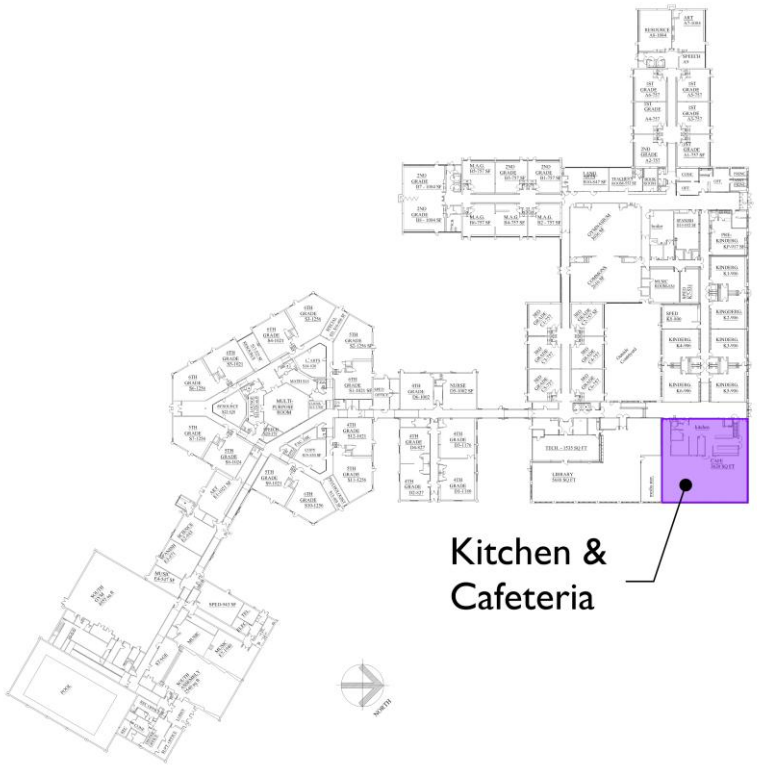
The room lacks acoustic features essential for a space dedicated to music instruction. The ACT ceiling is sagging, stained, and dated in appearance, suggesting the need for repair or replacement. Carpet flooring is torn in multiple locations and the vinyl treads on the steps are chipped and broken. The space does not provide adequate storage options for musical instruments or equipment.

Chipped vinyl tread

Old faded carpet

2x4 ACT ceiling tiles

Cafeteria & Kitchen



The cafeteria and kitchen are located in the northeast corner of the building, forming part of the 1997 addition. These spaces provide essential dining services for the students and are well-designed to support a large student population.
The cafeteria is approximately 3,800 square feet and is characterized by its abundance of natural light, due to large windows that form the exterior walls. The vinyl flooring and ACT ceiling are well-maintained. Additionally, the walls are adorned with colorful murals.

View of the Cafeteria Dining Area

View of the Cafeteria murals

Adjacent to the cafeteria, the kitchen covers approximately 1,200 square feet. The quarry tile flooring is in good condition, providing durability and practicality for daily operations. Similarly, the moisture-resistant ACT ceiling is well-maintained, ensuring the kitchen remains a clean and efficient space for food preparation and service.

View of the Cafeteria Servery

View of the Kitchen

Locker Rooms

The locker room facilities are located in the 1970's addition, adjacent to the pool. These areas are designated for both boys and girls and provide essential amenities for lockers and showers.

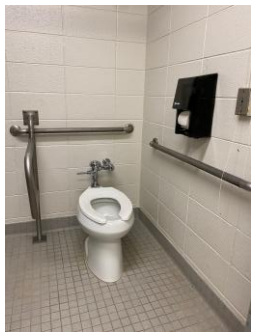
Locker Rooms

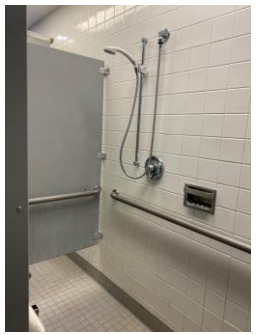
The locker rooms are equipped with metal lockers and affixed benches, which are generally in good condition and offer functional storage for students. Toilets, urinals, and lavatories are also in good condition, with partitions that remain undamaged but exhibit fading and signs of rust. ADA-compliant shower areas and toilet stalls are available, ensuring accessibility for individuals with disabilities.

Shower areas

Shower area

Toilet stalls

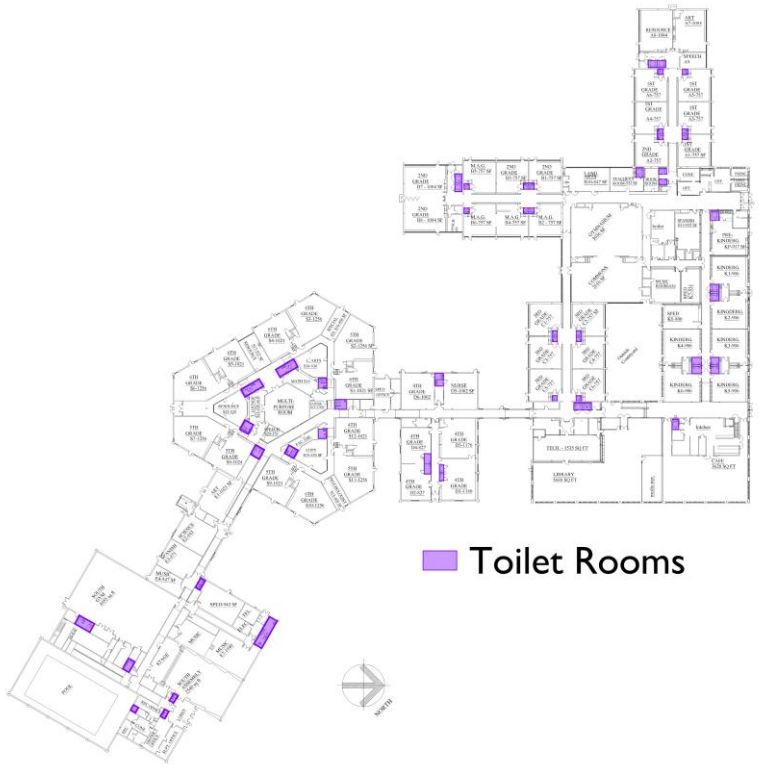




Accessible grab bars at toilets and showers

The floor and wall tiles are undamaged, however, the grout is often stained, and the tiles have a dated appearance that may benefit from aesthetic updates. The gypsum board ceiling is mostly in good condition, but areas of water damage have been noted, indicating the need for repairs or further evaluation.

Toilet Rooms



There are multiple toilet rooms distributed throughout the building, each reflecting the design standards and construction practices of their respective era. These facilities vary in size, layout, accessibility, and condition, based on the period of construction and renovation. There are only five multi-stall toilet rooms in the facility; three for boys, and two for girls. Most toilet rooms are single-occupancy, with 43 separate toilet rooms opening onto corridors, and more within classrooms and other spaces. While these spaces are generally clean and well-maintained, caring for such a large number of toilet rooms is a big job for facilities staff.

1960/64 Typical single user toilet

In the original portion of the school, toilet rooms are located in pairs on either side of the corridor directly outside each classroom. These rooms are typically single-user and contain floor-mounted, child-height toilets paired with wall-mounted sinks. The spaces are notably cramped, particularly where in-swinging doors obstruct toilet access.

ADA-accessible and single-user toilets are positioned at the ends of each wing corridor. These rooms are outfitted with standard-height toilets, as well as both wall-mounted and floor-mounted grab bars, supporting full compliance with accessibility standards of the time. Flooring in toilet rooms outside the classrooms is generally terrazzo, which remains in good condition. Larger toilet rooms at the ends of corridors are finished with tile flooring, which, while still structurally sound, appears dated and faded. The grout in these areas is notably dirty and in need of replacement.

The 1970s addition includes mostly ganged toilet rooms. Several single-user toilet rooms were also installed for staff use. ADA-accessible stalls are present in the ganged facilities and include proper clearances and grab bars. Fixtures in this section are typically standard-height, floor-mounted toilets and wall-mounted sinks. No major functional issues were observed. Flooring throughout these restrooms is tile, but like the earlier additions, the surfaces appear worn and faded, and the grout is dirty.

Typical 1970's ganged toilet

1970 single user toilet

1997 ADA accessible single user toilet

Toilet rooms in the 1994 addition were designed as single-use and are located within individual classrooms. These rooms are ADA-accessible and appear to be in good condition.

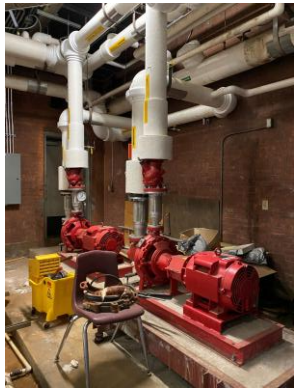
Toilet rooms constructed in the 1997 expansion mirror the single-user design of the original 1960/64 wing but incorporate ADA accessibility. Fixtures in this section are in good condition. Flooring is tiled and solid,

though, as in other parts of the school, fading and dirty grout are consistent concerns.

Mechanical Rooms

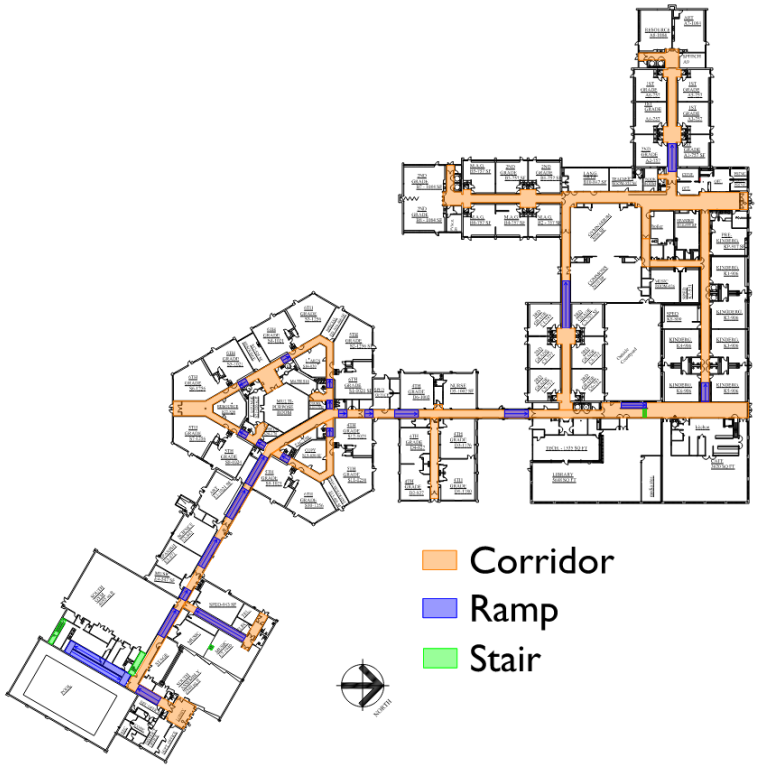
Mechanical spaces are located in several locations throughout the school and are typically in good condition. Refer to the MEP portion of this report for additional information.


Various mechanical spaces



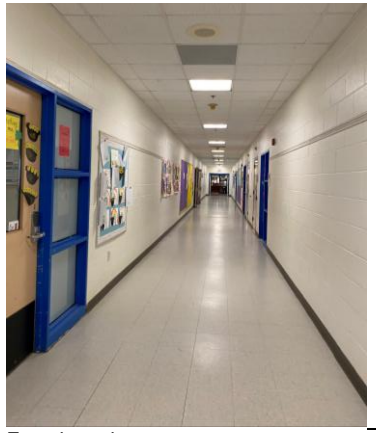

Various mechanical spaces

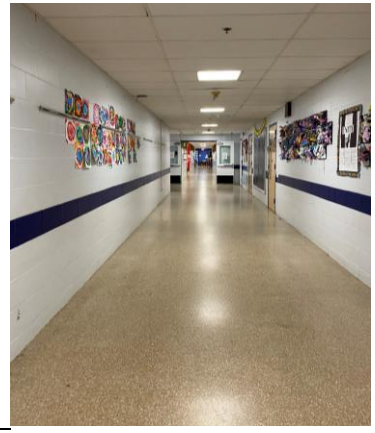
Corridors, Stairs & Ramps



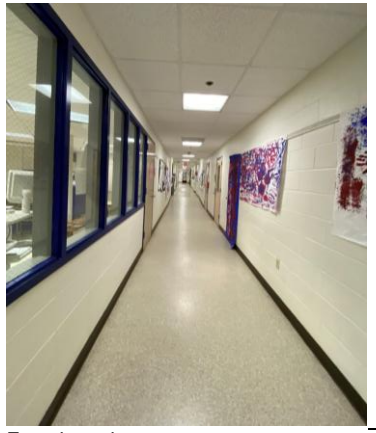
The school is a single-story facility composed of multiple additions constructed over several decades. As a result, its spatial organization and circulation patterns vary depending on the era of construction. Despite being technically a single level, the site's natural topography results in an approximate elevation change of 25 feet from the north entrance to the south entrance. This change is accommodated through the integration of multiple ramps throughout the primary corridor network.

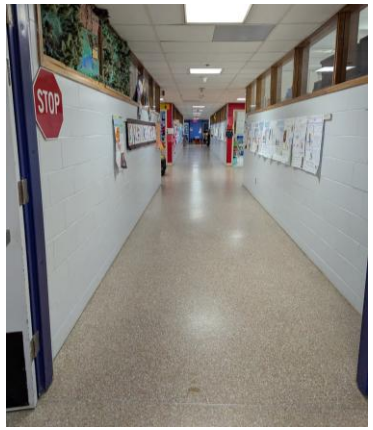
Corridors throughout the building are generally wide and straight. The primary flooring materials include terrazzo and vinyl composition tile (VCT), with isolated areas utilizing quarry tile. Ceilings are typically acoustical ceiling tile (ACT) systems with recessed fluorescent lighting. Walls are painted concrete masonry units (CMU).





Typical corridors



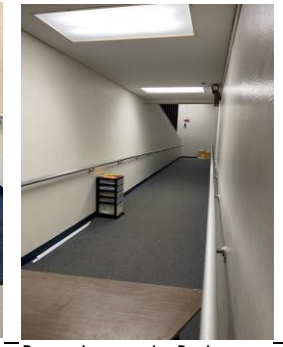


Typical corridors

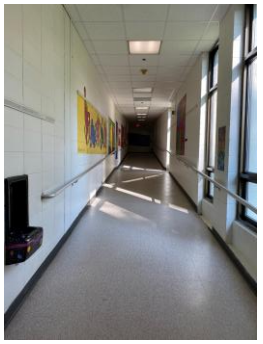
Although vertical circulation is limited due to the building's single-story design, elevation changes are managed via a series of ramps located within extended corridor runs. Most ramps appear to meet the maximum slope requirement of 1:12 (approximately 4.76°); however, a few exceed this threshold and may warrant further evaluation. Handrails are generally compliant with ADA guidelines, though some ramp segments lack the required 12-inch horizontal extension at the top and bottom landings. Staircases are minimal and primarily located in service areas providing access to mechanical rooms and storage. These stairs are constructed to code, with compliant risers, treads, and handrails.

Ramp outside the Commons/North Gymnasium

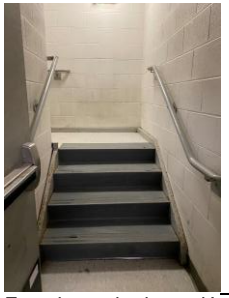
Ramp outside the Music Room



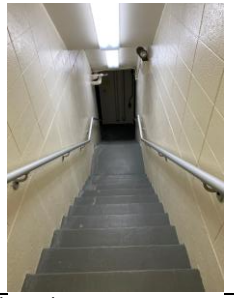
Ramp down to the Pool

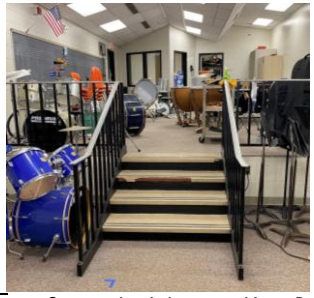


Ramp 1970's Corridor



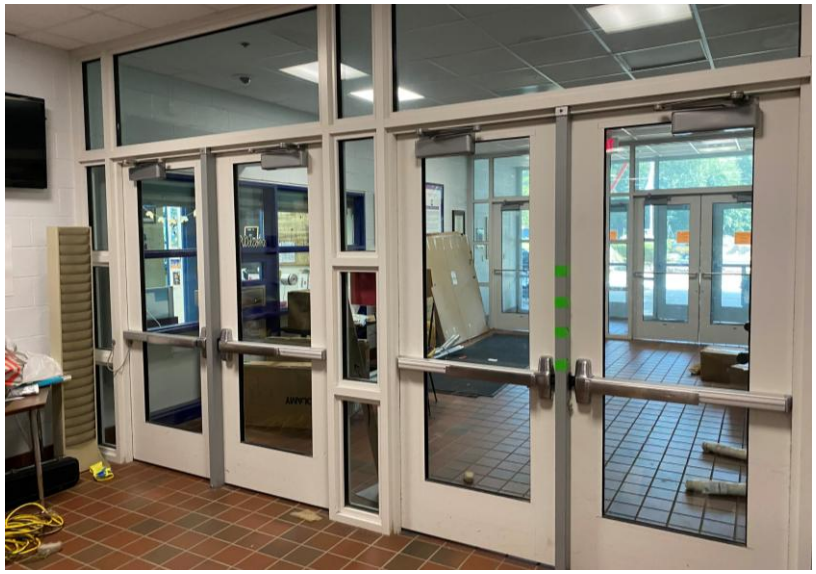
Typical stairs leading to Mechanical spaces



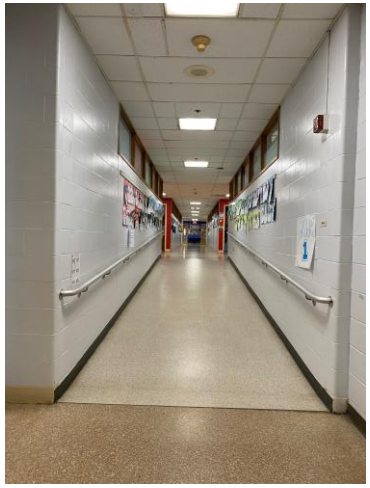


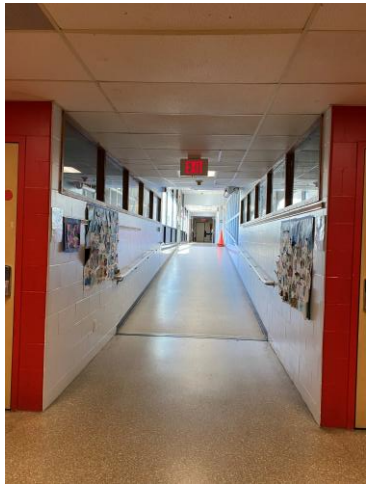
Stairs at level change in Music Room

The original 1960/64 section of the building, located at the highest elevation, is organized around an axial circulation pattern. Corridors in this zone are aligned along straight horizontal and vertical lines, with classrooms symmetrically arranged on either side. This wing also contains the primary north entrance, which includes a secure vestibule where visitors are required to check in and present identification prior to gaining access to the rest of the school.

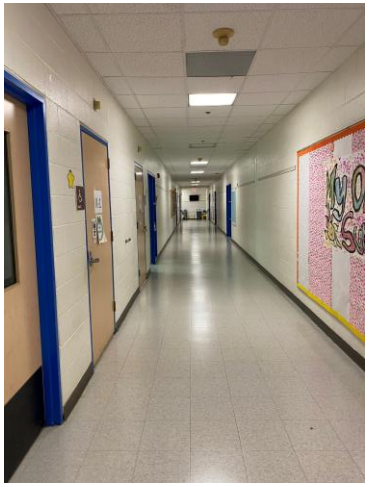


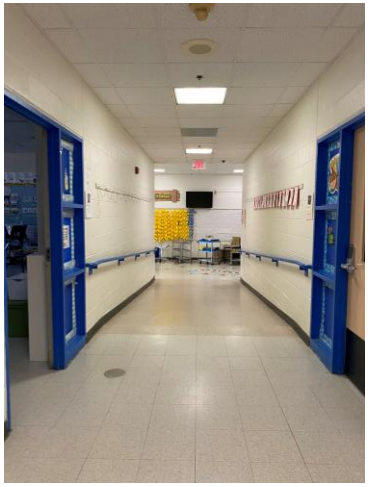
Entry vestibule, North Entrance





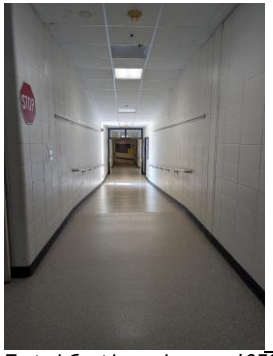
Typical corridor and ramp, 1960/64

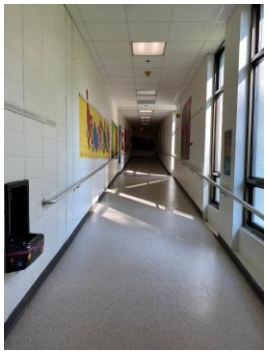


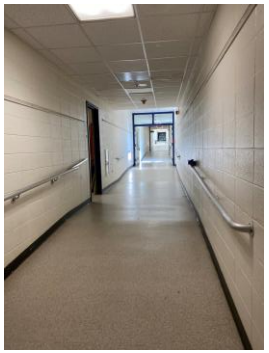


Typical corridor and ramp, 1997

A long, linear corridor connects the 1960/64 portion of the school to the 1970s wing. Along this corridor, the 1994 addition branches off and leads toward the south entrance.







Typical Corridor and ramps, 1970

The central node of the 1970's addition interrupts the linear passageway with classrooms arranged in a radial pattern around the Multi-Purpose Room. Typical to most of the school, several ramps are located here in order to accommodate the varying change in elevation.

View of corridors outside the Copy Room, 1970

The corridor continues past the Multi-Purpose Room, providing access to several specialized classrooms and terminating at the building's south entrance. A series of additional ramps is used to accommodate the final elevation change as the building descends to its lowest point.

Interior Doors and Hardware

The doors throughout the building vary in material based on their location and functional use, including metal, wood, aluminum, and glass. In general, the doors are in good condition and are equipped with ADA-compliant hardware. The majority of the doors appear to be original to the era of the building's construction.

Hollow metal frames are also in generally good condition; however, instances of chipped paint and rust—particularly at the base of some frames—were noted during the assessment.

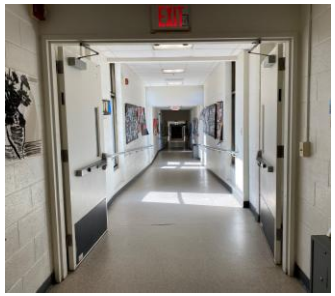
In vestibule areas, doors typically consist of metal with glass panels, set within hollow metal frames. These doors are well-maintained and fitted with ADA-compliant hardware.

Inner vestibule doors at the North Entrance

Corridor doors are usually hollow metal with glass. These doors are well-maintained and fitted with ADA-compliant hardware. They are commonly installed in 3' pairs and include hold-open devices. All corridor doors are UL fire-rated and remain in good condition with compliant accessibility features.

Typical Corridor doors.

UL fire rating



Typical Corridor doors

Classrooms and Administrative Offices doors are predominantly solid wood veneer with vision lites. These doors are in good condition and fitted with ADA-compliant hardware and security hardware that requires a key fob for access.

Typical Classroom doors with key fob security locks.

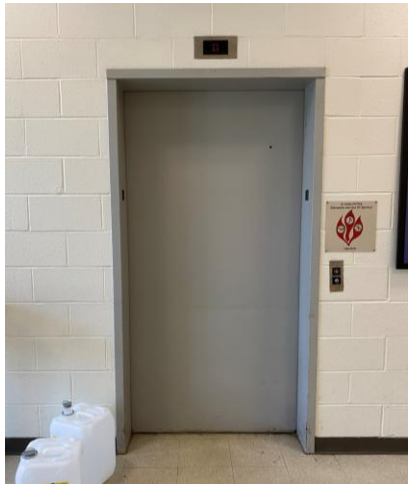
Toilet room doors are constructed from solid wood veneer installed in hollow metal frames. They are generally in good condition and feature ADA-compliant hardware, although rusting at the base of the metal frames has been noted across multiple locations.

Typical Toilet Room doors.

<u>Elevator</u>

The school is equipped with a single elevator, located in the 1997 addition. This portion of the building includes a lower-level area primarily used for mechanical systems and storage. The elevator's primary function is to facilitate deliveries from the storage and loading dock area below.

The existing elevator is a Thyssenkrupp model and appears to be original to the construction of the 1997 addition. Given that the typical service life for an elevator is approximately 20 to 25 years, this unit is approaching the end of its expected operational lifespan and should be considered for an upgrade in the near future.



Elevator

Flooring

Flooring throughout the school varies based on the era of construction and the functional use of each space. Overall, the flooring is in good condition, though several areas were noted to have cracking, fading, staining, and/or tearing.
In the pool area, adjacent locker rooms, and multiple toilet rooms, the tile flooring and grout are in fair condition. These materials appear original to the 1970s construction and show signs of aging, including fading and staining.

Typical tile flooring at toilet rooms and locker rooms

In the Music Room, the carpet exhibits multiple tears and is both stained and faded. Vinyl stair treads in this area are chipped and cracked, indicating the need for replacement or repair.

Music Room carpet

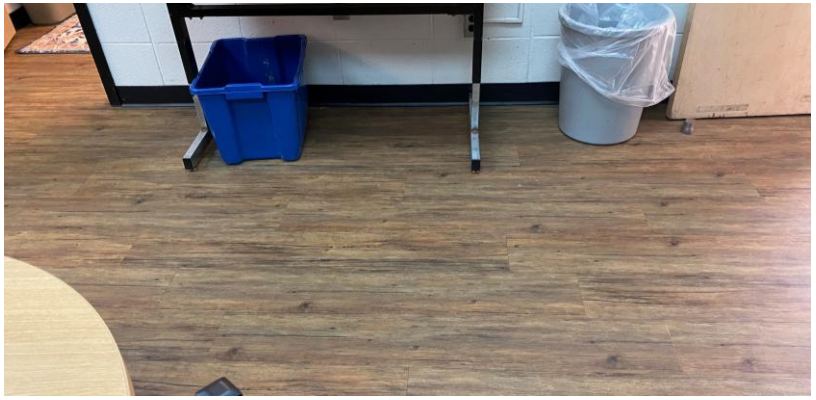
Music Room vinyl steps

Vinyl composition tile (VCT) is the predominant flooring type found in classrooms and hallways. While generally well maintained and in good condition, the VCT appears dated. Notably, in the 1994 addition, several areas of VCT were observed with cracking and signs of wear.

VCT flooring in the South Assembly Room. Typical to Classrooms, as well.

Cracked VCT in the 1994 addition

Luxury vinyl tile (LVT) is used in administrative and specialty areas and was found to be in good condition, reflecting more recent upgrades.



Typical newer LVT flooring

The South Gymnasium features a modular tile flooring system, which is in good condition overall. However, the game line striping is significantly faded and worn. Similarly, the North Gymnasium has a synthetic flooring system that is also in good condition, but like the South Gym, its striping is faded and shows signs of wear.

South Gym tile floor system

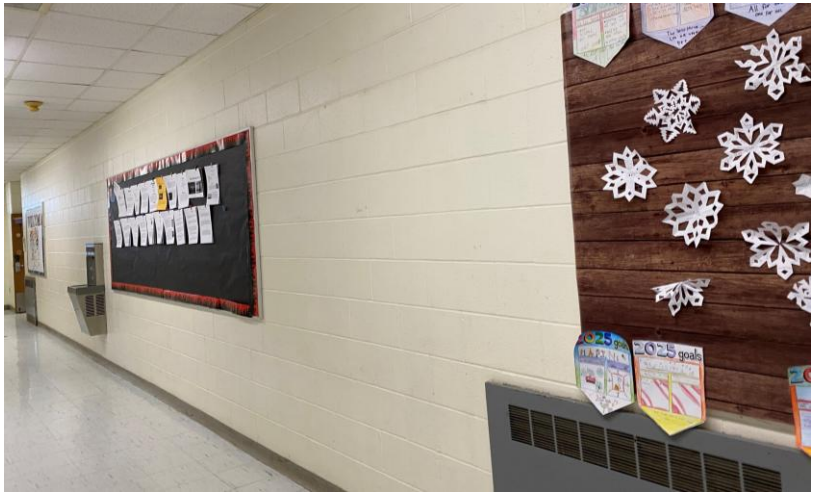
Corridors in the original 1960/64 portion of the building are finished with terrazzo flooring. While this material is durable, multiple cracks were observed, placing it in fair condition.

Cracked terrazzo flooring, 1960/64 portion of the school

Quarry tile flooring is used in both the kitchen and at the North Entry. These areas were found to be in good condition, with no major deficiencies noted

Walls

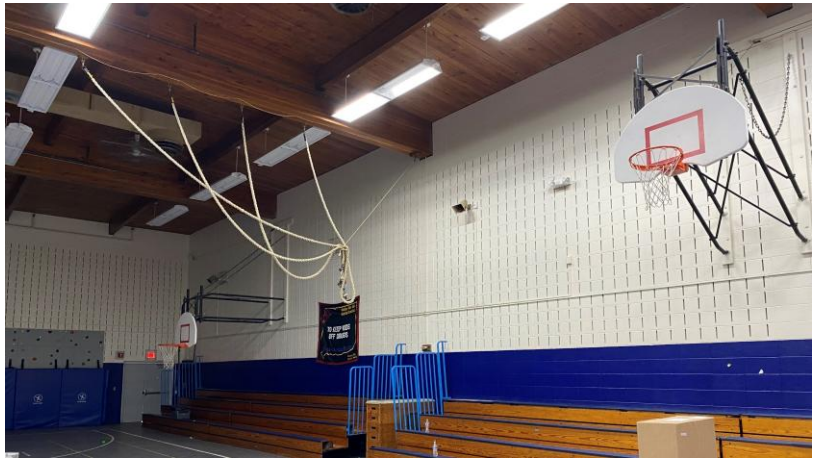
Interior walls throughout the school—particularly in corridors and classrooms—are primarily constructed of painted CMU. These surfaces are generally in good condition, with no significant issues observed during the assessment.



Typical CMU walls in the corridors

Several specialty spaces feature additional wall treatments tailored to their specific functional needs. In the South Assembly area, sound-absorbing panels have been installed to enhance acoustics. Similarly, the South Gymnasium and Pool areas utilize acoustic soundblox to aid in noise control and reverberation reduction. These specialized materials also appear to be in good condition, with no apparent deficiencies noted.

South Assembly walls



South Gymnasium walls

<u>Ceilings</u>

Ceiling materials throughout the school vary by space type and era of construction. The most common ceiling finish in classrooms and offices is acoustical ceiling tile (ACT). In classrooms and corridors, ceiling systems vary between 2x2 and 2x4 ACT configurations. Ceilings in the 1964 additions appear to be constructed of Tectum panels, while specialty spaces such as the Pool Room, South Gymnasium, and the Multi-Purpose Room feature exposed wood ceilings.

Overall, ceilings are generally in good condition; however, areas of water damage were noted, and further investigation is recommended to determine whether the source is mechanical equipment failure or active leaks in the building envelope.

Typical 2x4 ACT ceiling in a Classroom

Typical 2x2 ACT ceiling in a Classroom

Typical tectum ceiling in a Classroom

Gypsum board ceiling in the Assembly Space

Dirty and sagging ceiling tiles

Wood Ceiling in Pool Room

Wood Ceiling in South Gym

Wood Ceiling in Multi-Purpose Room

Overview

Originally constructed in 1960 with subsequent additions in 1970, 1994 & 1997, the Beecher Road elementary School is a one level structure extending to two levels following grade at the southern portion of the site. The primary structural system consists of a steel structure with heavy timber framing at open areas such as the gymnasium and other multipurpose open spaces. The roof construction is a combination of metal decking, and tongue and groove wood at the timber framed areas. Exterior wall construction varies, consisting of concrete masonry units (CMU), natural stone, and metal curtain wall depending on the era of construction. Interior walls are stacked and running bond CMU. The lower floor levels are a concrete slab on grade with a supported reinforced concrete slab at the two-story portions of the building.

Aerial view looking west

Foundations

Observed Conditions:

- Cast in place concrete foundation frost walls with cracking observed throughout, and in some cases, exposed reinforcing. This was observed predominantly in the 1960 and 1970 portions of the building, but also in the connecting corridors, and the 1994 addition, refer to Exhibits #1thru #6.
- Exposed aggregate in the concrete foundations and delamination was observed around the 1960 portion of the building foundation, at multiple areas. Refer to Exhibits #7 and #8.
- Severe delamination, cracking and efflorescence were observed at the loading dock and storage area adjacent to the pool, refer to Exhibits #9 and #10.
- Severe cracking in the concrete slab on grade was observed at multiple locations in the 1960 area of the building, including slight heaving of the concrete slab. Refer to Exhibits #11thru #13.
- Cracks in the elevated slab at the mechanical/equipment room adjacent to the gymnasium/pool area, were observed at several areas. Refer to Exhibit #14.

Summary:

- The overall concrete foundation and slab on grade were observed to be in fair condition. The observed conditions are consistent with a building of this age. Efforts should be taken to continue to keep rain water away from the perimeter of the building. The deficiencies noted should be repaired to prevent further deterioration and potential failure.

Structural Frame

Observed Conditions:

- Cracking was observed in the CMU wall at various areas of the building, both interior and exterior. Refer to Exhibits #15 thru #21.
- Severe spalling and separation were observed at the CMU pilaster at the rear of the pool area. Refer to Exhibit #22.
- The exposed portions of the structural frame (timber and steel) did not exhibit any significant signs of distress or deterioration. Areas of the steel frame are exposed to the elements at exterior overhang of the 1960 portion of the building and exhibited slight signs of surface corrosion. Refer to Exhibit #23.
- Surface corrosion was also observed at the base of canopy steel column at the entrance. Refer to Exhibit #23.

Summary:

- Observations were limited due to in place finishes and lack of visual access throughout the building. The overall condition of the observed structural framing was found to be in good condition. Thermal and volumetric cracks observed are customary with buildings of this size and age. There were no potential signs of immediate failure observed, however, the noted items need to be addressed to prevent future structure issues which will compromise the integrity of the structure.

Special Conditions

Interior:

- Interior ceiling areas exhibited signs of water infiltration in some areas. Refer to Exhibit #24 and #25.

Exterior:

- Deterioration of exterior joints fillers and waterproofing was observed in several areas which will lead to water infiltration and eventually compromise the structural integrity of components. Refer to Exhibit #26 and #27
- Exterior finishes: Deterioration and damage was observed, including exposed wood and EIFS at the exterior soffits in several areas of the building. Refer to Exhibit #28 and #29.

Exhibit #2: Exposed reinforcing

Exhibit #1: Foundation Cracks Typical

Exhibit #3

Exhibit #5

Exhibit #4

Exhibit #6

Exhibit #7: Exposed aggregate and deterioration

Exhibit #8

Exhibit #9: Severe cracking and delamination

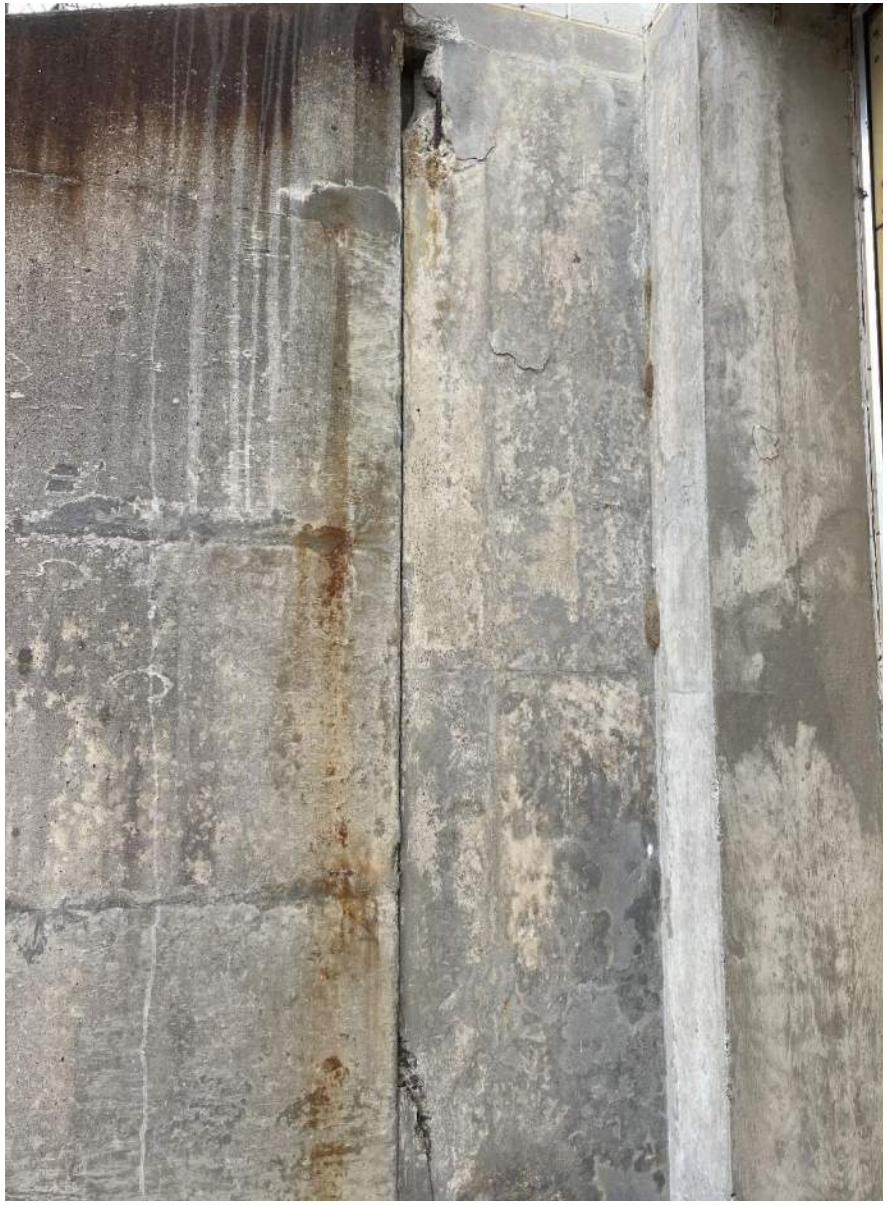


Exhibit #10

Exhibit #11: Cracking and heaving at slab on grade

Exhibit #12

Exhibit #13

Exhibit #14: Slab on deck cracking at mechanical room

Exhibit #15: Cracking at CMU stacked bond (typical)

Exhibit #16

Exhibit #17

Exhibit #18

Exhibit #19: Cracking at split face CMU (typical)

Exhibit #20: Spalling and separation of CMU at pool

Exhibit #21

Exhibit #22: Exposed steel at soffit

Exhibit #23: Surface corrosion at base of canopy column

Exhibit #24: Interior water damage (typical)

Exhibit: 25

Exhibit #26: Joint sealant failure (typical)

Exhibit #27

Exhibit #28: Exposed sheathing at soffit

Exhibit #29: Damaged EIFS (typical)

Overview

This report is based on field visits with direct observation of existing building systems, along with interviews with building staff.

Many of the building's systems, particularly major components of HVAC, were replaced in 2015. These components are noted throughout this section, along with an estimate of total useful life from the date of installation. For instance, a unit installed in 2015 with a useful life of 20-25 years now has approximately 10-15 years of useful life remaining at the time of publication of this Existing Facility Condition Assessment in early 2026.

View from North wing rooftop showing multiple rooftop units, ductwork runs above roof deck, and solar panels beyond.

Mechanical

Heating and Cooling Systems

The existing heating system is in good condition. Three (3) heating hot water boilers were installed in 2013. The boilers have a useful life of 25 to 30 years. Heating hot water pumps and heat exchangers were installed in 2015. The Pumps and heat exchangers both have a useful life of 20-25 years. The building water distribution is a dual temperature system.

Central Cooling is provided by a 275 Ton air cooled chiller located on the roof. The chiller was installed in 2015. The chiller has a useful life of 20-25 years.

Rooftop chiller and microturbine

The heating system also utilizes a roof mounted Microturbine. The Microturbine generates hot water from its waste exhaust. The Microturbine was installed in 2015 and has a useful life of 20-25 years.

Classrooms:

The existing cooling to classrooms is provided by unit ventilators or fan coil units. Both of these types of units have a useful life of 20-25 years.

Classrooms equipped with Fan Coil Units are provided ventilation air via four (4) Energy Recovery Units (ERV). ERV-1, ERV-2, ERV-3 and ERV-4 include a plate and frame heat exchanger. These units were installed in 2015 and have a useful life of 20-25 years.

Music Room:

The Music room is heated, cooled and ventilated via an Air Handling Unit (AHU-1). The unit is equipped with a chilled (16 Tons) and hot water coil. The unit was installed in 2015 and has a useful life of 20-25 years.

Gyms:

The north Gym is provided both heating and cooling via two air handing units (AHU-2 & AHU-3). Each unit has a chilled and hot water coil. The units were installed in 2015 and have a useful life of 20-25 years.

The south Gym is provided both heating and cooling an air handing unit (AHU-5). Each unit has a chilled (36 Tons) and hot water coil. The units were installed in 2015 and have a useful life of 20-25 years.

Auditorium:

The Auditorium is heated, cooled and ventilated via an Air Handling Unit (AHU-4). The unit is equipped with a chilled (25 Tons) and hot water coil. The unit was installed in 2015 and has a useful life of 20-25 years.

Multipurpose Room:

The Auditorium is heated, cooled and ventilated via an Air Handling Unit (AHU-6). The unit is equipped with a chilled (9.5 Tons) and hot water coil. The unit was installed in 2015 and has a useful life of 20-25 years.

District Offices:

The district offices are heated, cooled and ventilated via a Rooftop unit (RTU-1). The unit is equipped with a chilled (3 Tons) and hot water coil. The unit was installed in 2015 and has a useful life of 20-25 years.

Administrative Offices:

The cafeteria is heated, cooled and ventilated via a Rooftop unit (RTU-2). The unit is equipped with a chilled (9 Tons) and hot water coil. The unit was installed in 2015 and has a useful life of 20-25 years.

Cafeteria:

The cafeteria is heated, cooled and ventilated via a Rooftop unit (RTU-3). The unit is equipped with a chilled (35 Tons) and hot water coil. The unit was installed in 2015 and has a useful life of 20-25 years.

Media Center:

The Media Center is heated, cooled and ventilated via a Rooftop unit (RTU-4). The unit is equipped with a chilled (23.5 Tons) and hot water coil. The unit was installed in 2015 and has a useful life of 20-25 years.

Tech Center:

The Tech Center is heated, cooled and ventilated via a Rooftop unit (RTU-5). The unit is equipped with a chilled (11.5 Tons) and hot water coil. The unit was installed in 2015 and has a useful life of 20-25 years.

Pool Area:

The Pool is provided with a Pool dehumidification unit. The unit provides heating, cooling and ventilation via a Air Handling Unit (DH-1). The unit is equipped with DX cooling (20 Tons) and hot water coil. This unit is also equipped with pool water heat recovery. The unit is pair with a roof mounted condenser. The unit was installed in 2015 and has a useful life of 20-25 years.

Unit and ductwork serving pool area.

As previously noted, the pool itself is currently offline. The pool's existing pump and filtration system was not thoroughly analyzed as part of this study. However, it is understood that these systems are at the end of useful life and in need of replacement if the pool is to be brought back on line.

Automatic Sprinkler Systems

The building is protected by a wet pipe automatic sprinkler system. Automatic sprinkler coverage is currently provided in all areas of the building. Coverage of the building is divided into 4 zones. Zone #1 serves, Rec. Center and Gym, Zone #2 serves the South School. Zone #3 serves the North Building 2nd Grade. Zone #4 serves the North building Boiler Room.

There is a combination of existing Upright and pendant sprinklers.

The Automatic Sprinkler system was installed in approximately 1996. Per NFA 25 - Inspection, Testing, And Maintenance of Water-Based Fire Protection Systems, sprinklers manufactured using fast-response elements that have been in service for 20 years shall be replaced or representative samples shall be tested and then retested at 10-year intervals. Where one sprinkler within a representative sample fails to meet the test requirement, all sprinklers within the area represented by that sample shall be replaced.

Fire Service

The building's sprinkler system is supplied from two 6" fire services, connected to the water main beneath Beecher Road. One of the services feeds Zones #1 and #2 and the other feeds Zones #3 and #4. Both services are provide with backflow preventers.

Plumbing

Natural Gas System

The building has an existing natural gas service. The natural gas service serves the Microturbine, boilers and kitchen equipment.

The gas service is provided with two meters. One meter is regulated down to a pressure of 2 psig. The other meter is provided with two service regulators in series that provide a final pressure of 5 psig. All of the gas piping pressure is regulated down at the individual equipment served.

Gas distribution piping is threaded steel and appears to be in good condition.

Domestic Water Heating System

Domestic water heaters are DWH-1 and DWH-2 are by Aerco, model SPDW61 Smart Plate. The water heaters are indirect and fed from the heating hot water system.

Plumbing Piping, Fixtures and Specialties

Plumbing fixtures appear to be in fair condition.

Sanitary piping appears to be in good condition.

Storm piping and roof drains appear to be in good condition.

Electrical

The building is fed with by two electrical services as follows:

1. **Located in the New Building wing:** 2000A, 480/277V, 3-Phase electrical service supplied from pad mounted utility transformer. The service runs underground from the transformer to the main switchboard located in the main electrical room located in the building at grade. The service equipment, manufactured by Square D, appears to be approximately 20 years old and consists of a service entrance main switch section, a CT, and a single distribution section. The building has a 65kW micro-turbine system on the premises, which is back-fed into the existing switchboard via a 125Amp/3-pole circuit breaker. The micro-turbine was observed to only handle life-safety loads. The United Illuminating (UI) utility meter is mounted on the exterior of the building near the cafeteria.
2. **Located at the Recreation Building wing:** 2000A, 480/277V, 3-Phase electrical service supplied from pad mounted utility transformer. The service runs underground from the transformer to the main switchboard located in the main electrical room located in the building at grade. The service equipment, manufactured by ITE Imperial Corporation (Uni Power), was manufactured in 1970 and consists of a service entrance main switch with CT section, and a single distribution section. The building has a 220kW ballasted roof-mounted, solar photovoltaic system on the premises, which is back-fed into the existing switchboard via a 400Amp/3-pole circuit breaker. The United Illuminating (UI) utility meter is mounted in the main electrical room.
    a. The 400A, 208V, 3 phase circuit breaker is installed in the main switchboard for the building's solar PV system and is tied to disconnect and metering equipment located on the exterior of the building. The solar disconnect panel feeds a collector panelboard tied to nine grid-tied inverters. The roof mounted solar panels are supplied by UV rated cable. The solar system is generally in good condition.

Applicable to both wings:

The facility currently does not have a standby generator for backup power.

The electrical distribution consists of conduit and feeders from the main distribution switchboard to branch circuit panelboards located throughout the building.

The electrical distribution, equipment and wiring are approximately 20 years old (New Building wing) and 55 years old (Recreation Building wing). Although in operating condition, the electrical distribution and wiring in New Building wing is nearing the end of its useful life. The electrical distribution and wiring in the Recreation Building wing at the end of its useful life.

The lighting throughout the building consists of a combination of 2'x2', 2'x4', and surface/recessed linear that have been retrofitted with LED bulbs in most areas. Lighting is functional and lighting levels were observed to be appropriate in most of the occupied areas. Lighting level could be improved with a complete upgrade to better performing LED volumetric style lighting replacements.

Exit signage consist of combination self-contained units with remote heads in various areas. The type and condition of the exit signage vary by location. Exit signs were observed at required areas.

Emergency lighting for the building, mainly the New Building Wing, is mainly handled by designated fixtures tied to a distribution system supported by the micro-turbine on the premises. Selective areas such as utility spaces are supported by self-contained battery backed emergency lighting units with twin heads. The Recreating Building Wing is mostly supported by self-contained battery backed emergency lighting units, varying in type, condition, and age. Most areas have adequate coverage, while others need improvement.

Interior lighting control consists mainly of wall-mounted toggle switches arranged in single or dual-zone; key operated toggle switches. Ceiling mounted occupancy sensors were observed in a few classrooms and other areas. Exterior lighting is controlled by timeclock and photocell.

Fire Alarm

The fire alarm system is by Honeywell Notifier. A Notifier fire alarm annunciator was observed in the main vestibule, but no microphone was observed in the vicinity. Throughout the building, there are speaker/strobe units, strobe only units, smoke detectors and pull stations located in most areas. Smoke detector coverage was observed in required areas. Although there are no signs of failure and the system appears to be in working condition, initiation and notification devices are nearing the end of their useful life.

Telecommunications

The building lacks a clear designation of a Main Distribution Frame room (MDF). Telecommunication network rooms are provided in various areas of the building, in conformance with network cabling distance limitations. Building horizontal cabling is primarily Category 5e or 6 for work area outlets at desks, wireless access points and IP based cameras. Fiber demarc is in the main electrical room of the New Building wing.

Security

Security is provided through card readers at entrances and cameras located in the entry vestibule, main lobby, and exterior entrances. The S2 security system headend is in one of the network rooms. The building is fitted with video intercom equipment for visitors' communication and access into the building. Equipment is minimal but functioning and appears to have years of useful life.

An intrusion detection system by Honeywell with cellular communication is existing and consists of door position sensors, motion sensors, and keypads. The type, condition, and age of peripherals vary by location.

Audio Visual Systems

The building is equipped with a public address system by Valcom. Ceiling and wall mounted speakers are provided throughout and on the building exterior for general paging and the system is in serviceable condition. The clock system is manufactured by Lorell with the master clock located in the admin office. The system appears to be operable but may be nearing the end of its useful life.

Audiovisual infrastructure consists of portable or permanently mounted displays with patch cords for connection to external devices, or ceiling mounted projectors. The configuration varies by location. No supplementary speech reinforcement was observed.

The multi-purpose room is fitted with a local sound system and wall mounted audio rack. The room is also fitted with theatrical lighting fixtures, which appear to be using incandescent lamps.

Overview

Refer to the architectural narrative for planning & zoning information, a general description of the site, and condition of site paving. Evidence of regular site maintenance is apparent throughout the site. This section focuses on base infrastructure related to drainage and site utilities.

Evidence of regular maintenance: new riprap at grade change

Site Drainage & Sanitary

Drainage

This existing drainage infrastructure consists of a combination of piping materials installed during the original 1960 construction and as modified and supplemented in subsequent addition and renovation projects. The drainage network contains of a series of catch basins and manholes and generally flows from north to south-southeast with discharge points located within the wooded area between the south drop-off loop and Beecher Road. Additional discharges for the south parking lot and areas west of the school are located south of the southern lot.

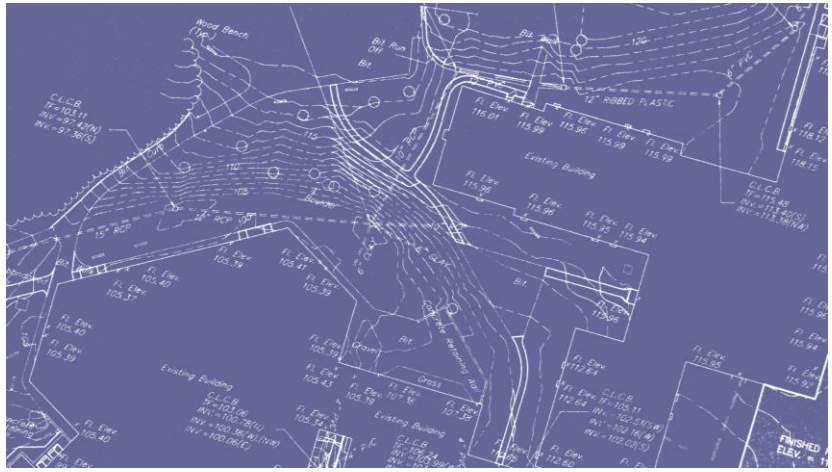
The existing drainage network appears to adequately provide stormwater runoff collection and conveyance. However, several areas of sediment accumulation were observed. These areas can be attributed to poor catch basin spacing, an overall lack of infrastructure, and/or poor drainage patterns.

There does not appear to be any stormwater infrastructure providing runoff rate or volume control, nor does there appear to be any systems dedicated to improving stormwater runoff quality located on the school property.

Sanitary

Sanitary sewer is collected via building lateral discharges to an 8" polyvinyl chloride pipe (PVC) gravity main that flows south and connects to an existing main located within Beecher Road. There were no visible signs of sanitary sewer failure.

Record plans indicate the school was once serviced by an onsite sewage disposal system that has since been abandoned. The original septic field was located near the 1997 building addition and east parking lot.



Site layout detail from 1994 drawings

Appendix A

Beecher Road School Infrastructure Upgrade Building Committee

Existing Condition

PHOTOGRAPHS

BEECHER ROAD SCHOOL

40 Beecher Road, Woodbridge, CT

EXISTING CONDITIONS – SCHOOL

Site: Parklike Setting

ANTINOZZI ASSOCIATES ARCHITECTURE + INTERIORS

EXISTING CONDITIONS – SCHOOL

Site: Parklike Setting

ANTINOZZI ASSOCIATES ARCHITECTURE + INTERIORS

EXISTING CONDITIONS – SCHOOL

Site: Amenities

EXISTING CONDITIONS – SCHOOL

Sprawling Footprint, Multi-level, Mixed Facades

ANTINOZZI ASSOCIATES ARCHITECTURE + INTERIORS

EXISTING CONDITIONS – SCHOOL

Sprawling Footprint, Multi-level, Worn Facades

ANTINOZZI ASSOCIATES
ARCHITECTURE + INTERIORS

EXISTING CONDITIONS – SCHOOL

Sprawling Footprint, Multi-level, Worn Facades

ANTINOZZI ASSOCIATES ARCHITECTURE + INTERIORS

EXISTING CONDITIONS – SCHOOL

Sprawling Footprint, Multi-level, Worn Facades

ANTINOZZI ASSOCIATES
ARCHITECTURE + INTERIORS

EXISTING CONDITIONS – SCHOOL

Sprawling Footprint, Multi-level, Worn Facades

ANTINOZZI ASSOCIATES ARCHITECTURE + INTERIORS

EXISTING CONDITIONS – SCHOOL

Sprawling Footprint, Multi-level, Difficult Intersections

ANTINOZZI ASSOCIATES
ARCHITECTURE + INTERIORS

EXISTING CONDITIONS – SCHOOL

Sprawling Footprint, Multi-level, Difficult Intersections

ANTINOZZI ASSOCIATES
ARCHITECTURE + INTERIORS

EXISTING CONDITIONS – SCHOOL

Sprawling Footprint, Multi-level, Difficult Intersections

ANTINOZZI ASSOCIATES
ARCHITECTURE + INTERIORS

EXISTING CONDITIONS – SCHOOL

Exterior Level Changes – Site Stairs

EXISTING CONDITIONS – SCHOOL

Exterior Level Changes - Site Ramps

ANTINOZZI ASSOCIATES ARCHITECTURE + INTERIORS

EXISTING CONDITIONS – SCHOOL

Thermal Bridging and Ventilation Issues at Eaves

ANTINOZZI ASSOCIATES ARCHITECTURE + INTERIORS

EXISTING CONDITIONS – SCHOOL

1960 (left) and 1970 (right)

ANTINOZZI ASSOCIATES ARCHITECTURE + INTERIORS

EXISTING CONDITIONS – SCHOOL

Worn Facades – Inadequate Insulation, Thermal Bridging

ANTINOZZI ASSOCIATES
ARCHITECTURE + INTERIORS

EXISTING CONDITIONS – SCHOOL

Worn Facades – Inadequate Insulation, Thermal Bridging

ANTINOZZI ASSOCIATES ARCHITECTURE + INTERIORS

EXISTING CONDITIONS – SCHOOL

Older Doors & Windows at 1970/94 Wings

ANTINOZZI ASSOCIATES ARCHITECTURE + INTERIORS

EXISTING CONDITIONS – SCHOOL

Newer Doors & Windows at 1960 Wings

ANTINOZZI ASSOCIATES ARCHITECTURE + INTERIORS

EXISTING CONDITIONS – SCHOOL

Courtyard: Difficult to Maintain, Multi-Level

ANTINOZZI ASSOCIATES
ARCHITECTURE + INTERIORS

EXISTING CONDITIONS – SCHOOL

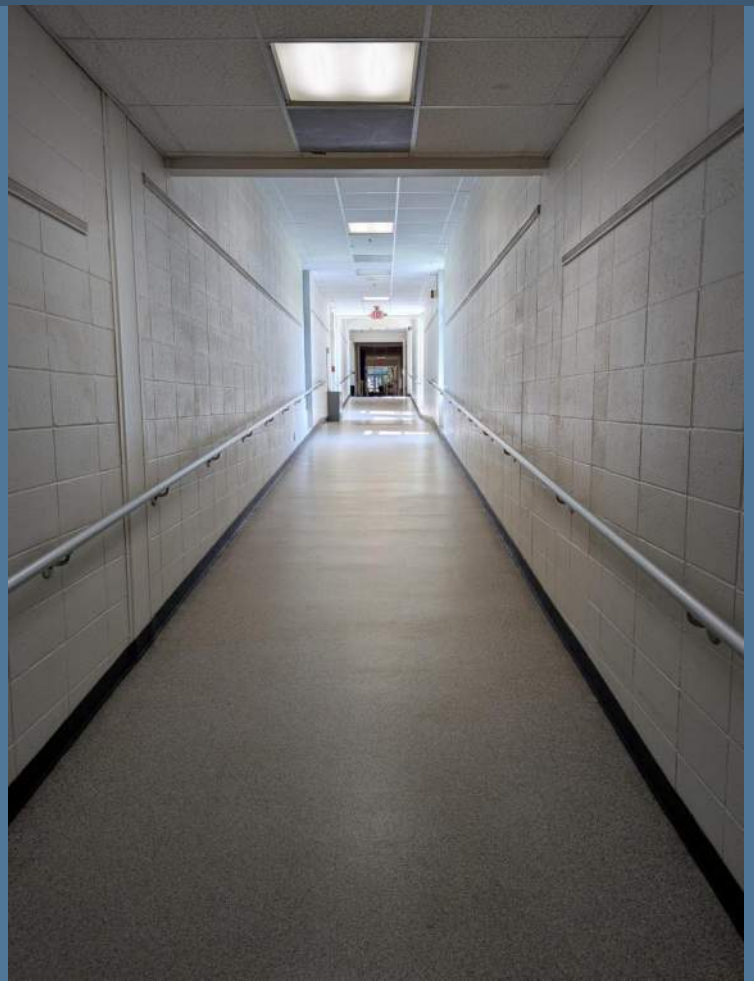
Newer Canopies at Main Entrances

ANTINOZZI ASSOCIATES
ARCHITECTURE + INTERIORS

EXISTING CONDITIONS – SCHOOL

Interior Ramps

ANTINOZZI ASSOCIATES ARCHITECTURE + INTERIORS



EXISTING CONDITIONS – SCHOOL

Interior Ramps

ANTINOZZI ASSOCIATES
ARCHITECTURE + INTERIORS

EXISTING CONDITIONS – SCHOOL

Restrooms: Numerous, Undersized, Non-ADA-Compliant

ANTINOZZI ASSOCIATES ARCHITECTURE + INTERIORS

EXISTING CONDITIONS – SCHOOL

Oversized Classrooms

EXISTING CONDITIONS – SCHOOL

Classrooms – Slightly smaller than Ideal

EXISTING CONDITIONS – SCHOOL

Resource Classrooms – Not enough spaces like this

ANTINOZZI ASSOCIATES ARCHITECTURE + INTERIORS

EXISTING CONDITIONS – SCHOOL

Commons: Substitute for Resource Space

ANTINOZZI ASSOCIATES ARCHITECTURE + INTERIORS

EXISTING CONDITIONS – SCHOOL

Auxiliary Gymnasium: Adjacent to Commons

ANTINOZZI ASSOCIATES ARCHITECTURE + INTERIORS

EXISTING CONDITIONS – SCHOOL

Multi-Purpose: Fishbowl

EXISTING CONDITIONS – SCHOOL

Library: Oversized

ANTINOZZI ASSOCIATES ARCHITECTURE + INTERIORS

EXISTING CONDITIONS – SCHOOL

Main Gymnasium: Remote, Pool-Adjacent

ANTINOZZI ASSOCIATES ARCHITECTURE + INTERIORS

EXISTING CONDITIONS – SCHOOL

Music Room: Multi-level & Remote

EXISTING CONDITIONS – SCHOOL

Greenhouse: Repairs Required

ANTINOZZI ASSOCIATES ARCHITECTURE + INTERIORS

EXISTING CONDITIONS – SCHOOL

Cafeteria

ANTINOZZI ASSOCIATES
ARCHITECTURE + INTERIORS

EXISTING CONDITIONS – SCHOOL

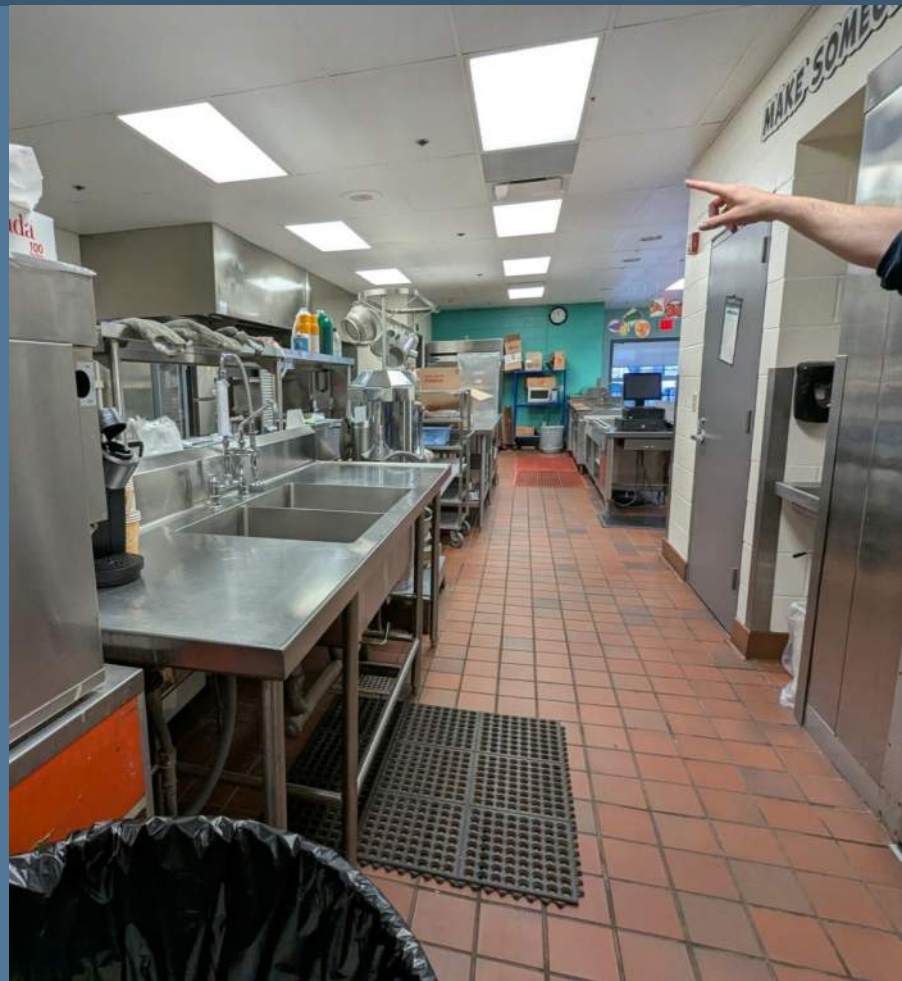
Cafeteria

ANTINOZZI ASSOCIATES ARCHITECTURE + INTERIORS

EXISTING CONDITIONS – SCHOOL

Kitchen

ANTINOZZI ASSOCIATES ARCHITECTURE + INTERIORS



EXISTING CONDITIONS – SWIMMING POOL

Pool and South wing Mechanicals

ANTINOZZI ASSOCIATES
ARCHITECTURE + INTERIORS

EXISTING CONDITIONS – SWIMMING POOL

Pool and South wing Mechanicals - Corrosion

ANTINOZZI ASSOCIATES
ARCHITECTURE + INTERIORS

EXISTING CONDITIONS – SWIMMING POOL

Pool and South wing Mechanicals - Corrosion

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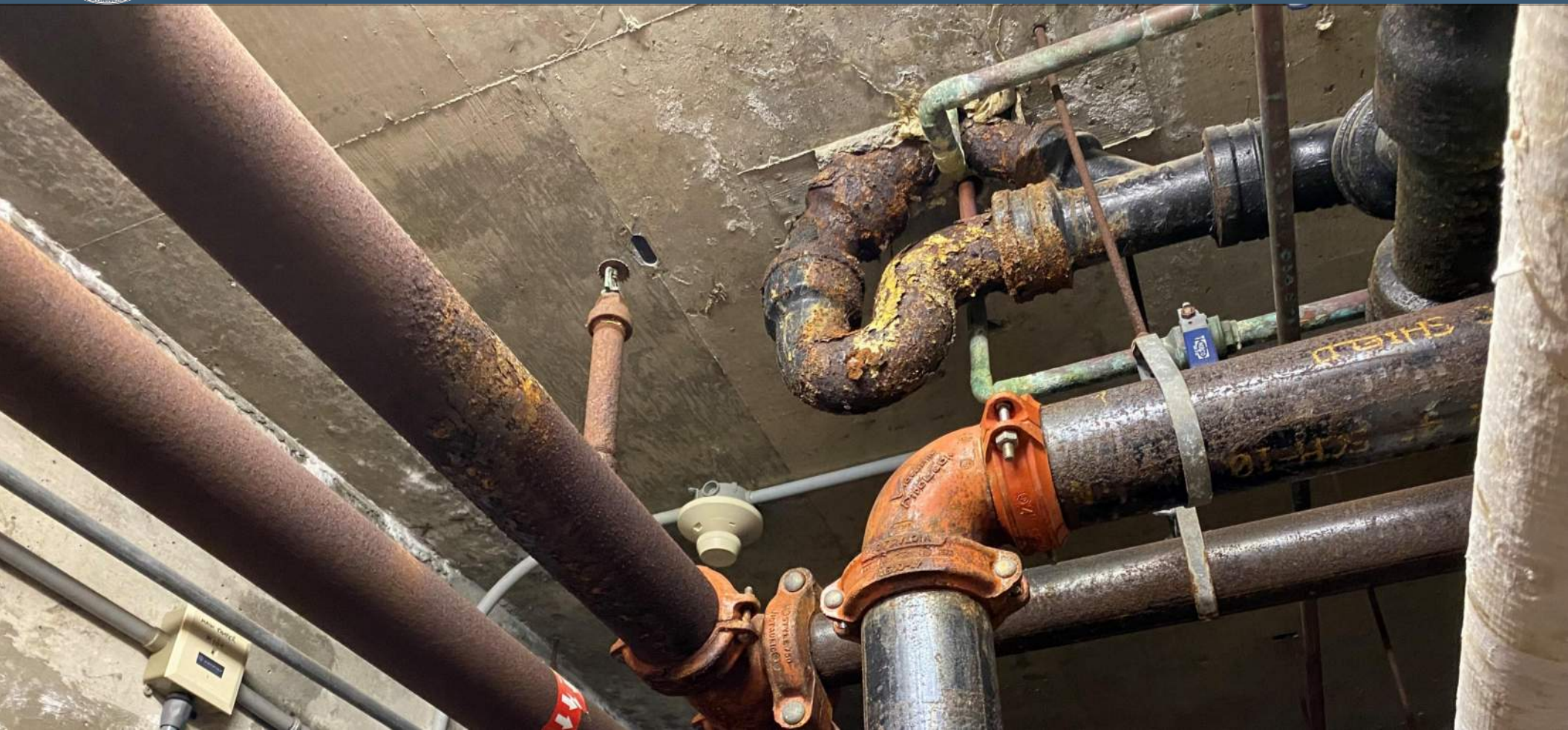
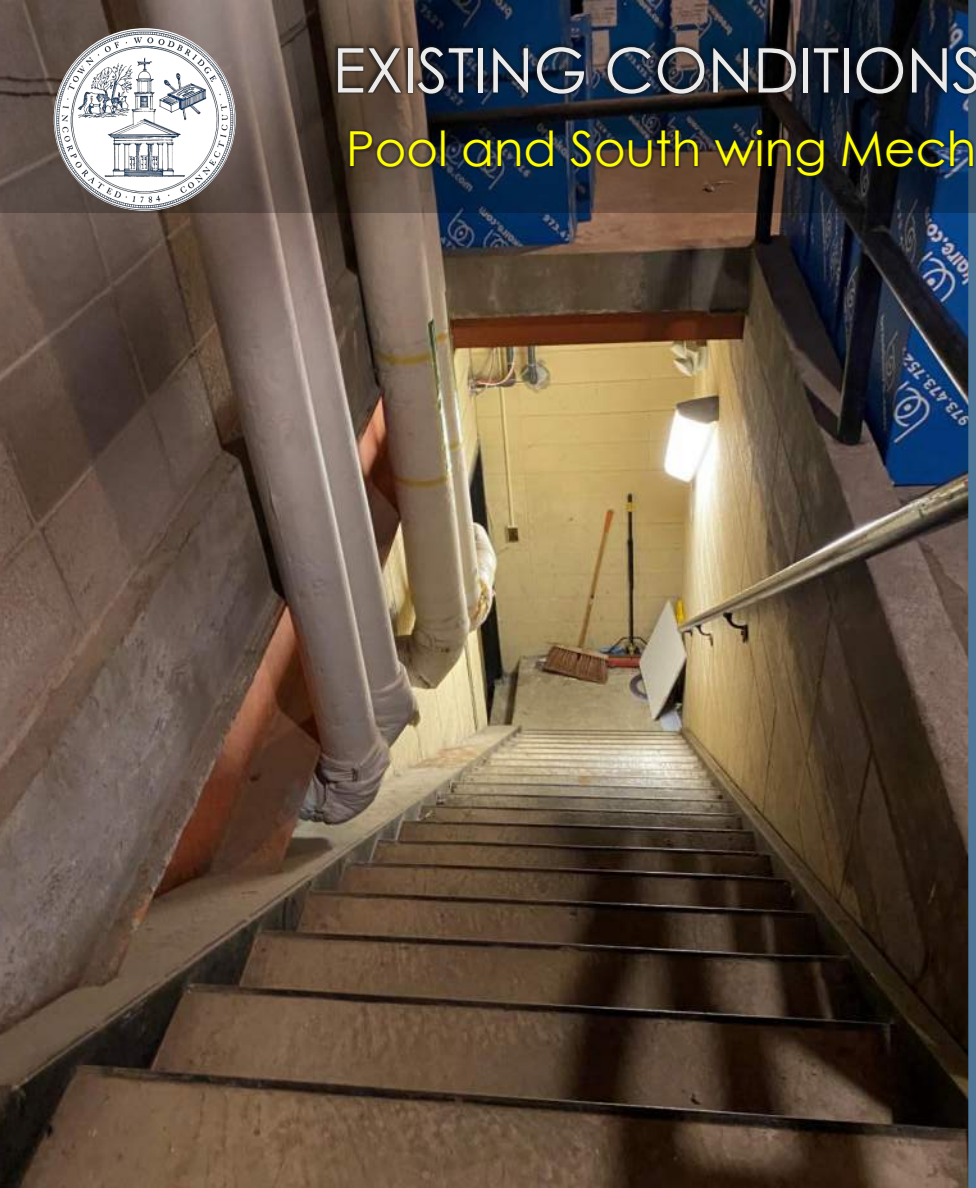


EXISTING CONDITIONS – SWIMMING POOL

Pool and South wing Mechanicals – Filter Storage



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EXISTING CONDITIONS – SWIMMING POOL

Pool and South wing Mechanicals – Filter Storage

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EXISTING CONDITIONS – SWIMMING POOL

Pool and South wing Mechanicals

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EXISTING CONDITIONS – SWIMMING POOL

Pool and South wing Mechanicals

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EXISTING CONDITIONS – SWIMMING POOL

Closed pending repair and future use decisions

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EXISTING CONDITIONS – SWIMMING POOL

Access ramps exceed 30 feet in length

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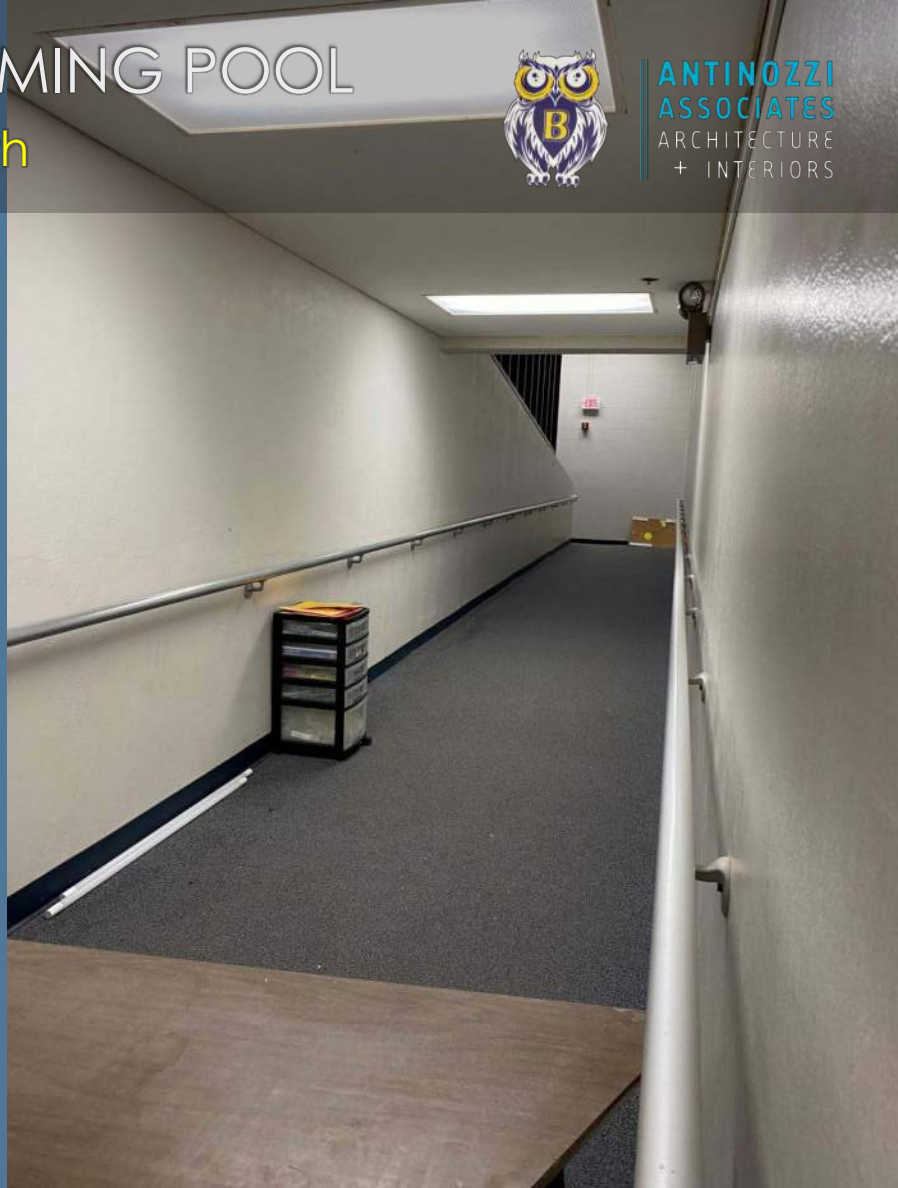

EXISTING CONDITIONS – SWIMMING POOL

Community Locker Facilities – Locker Room

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EXISTING CONDITIONS – SWIMMING POOL

Community Locker Facilities – Water Damage

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EXISTING CONDITIONS – SWIMMING POOL

Community Locker Facilities

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EXISTING CONDITIONS – SWIMMING POOL

Community Locker Facilities

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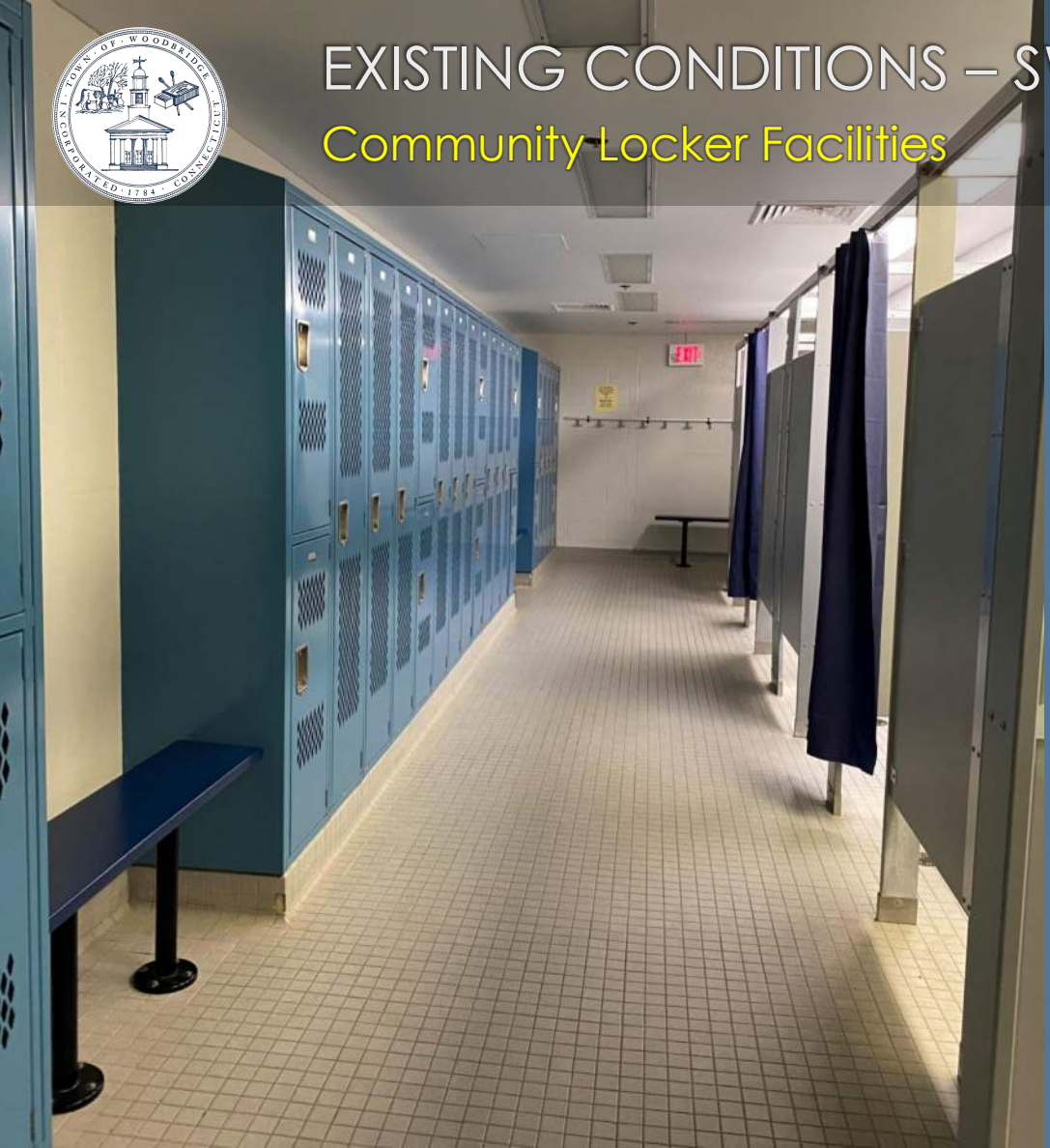

EXISTING CONDITIONS – SWIMMING POOL

Community Locker Facilities – Water Damage

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EXISTING CONDITIONS – SWIMMING POOL

Community Locker Facilities

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