Facility Study and Master Plan

Vernon Center Middle School

777 Hartford Turnpike, Vernon CT 06066

SUMMER 2023

FRIAR

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Section 1 : Introduction

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Introduction

Background

Friar Architecture Inc. was engaged by Vernon Public Schools to prepare a facilities study for several district maintained buildings in Vernon Connecticut. The buildings included in the study are:

- Rockville High School
- **Vernon Center Middle School**
- Center Road School
- Lake Street School
- Maple Street School
- Northeast School
- Skinner Road School
- Vernon Public School Central Administration Building
- Next Step Building
- Maintenance Building, 166 Union Street

Purpose of this Study

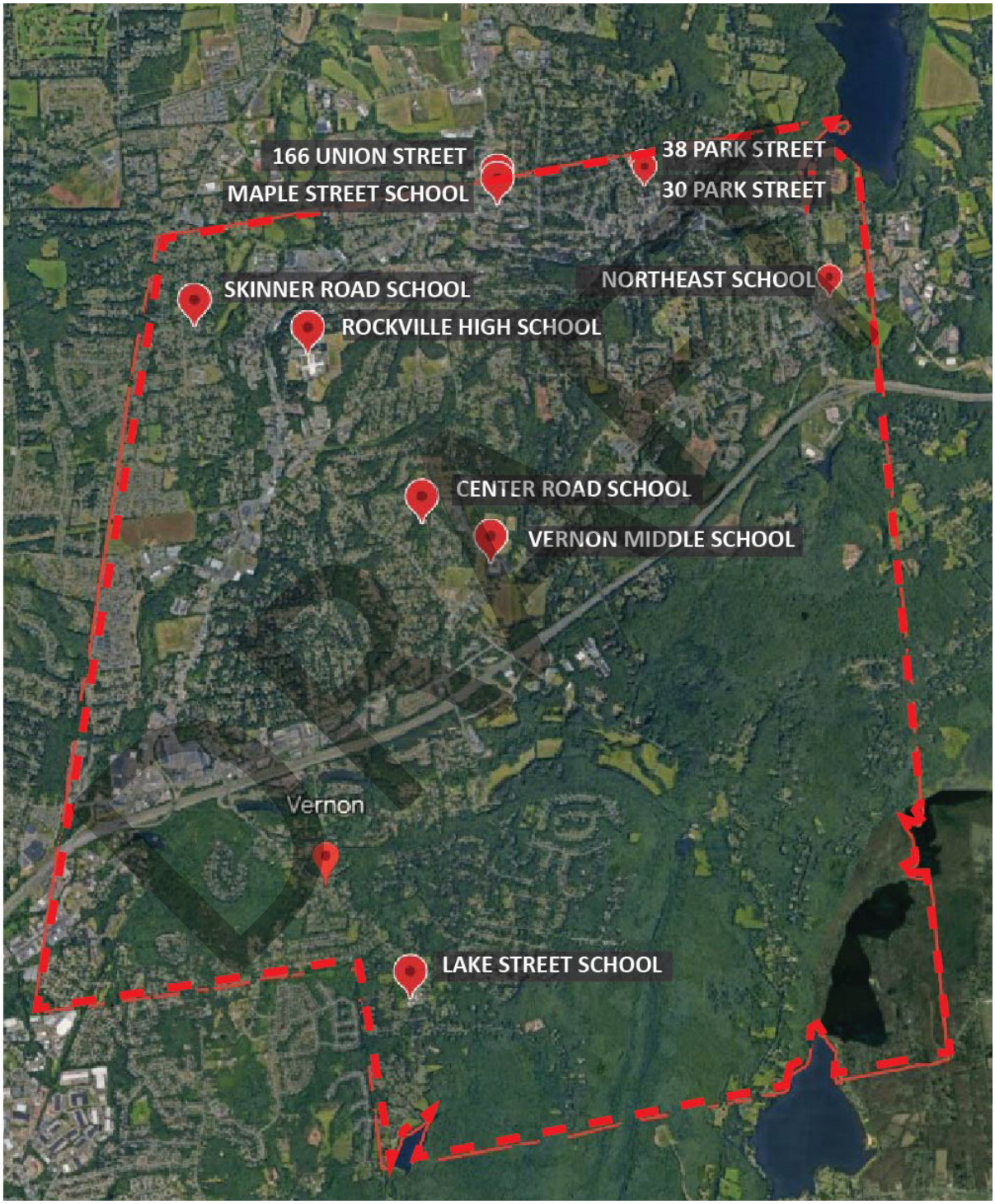
The purpose of this study is to provide the client with an understanding of the current challenges and in the near future, a comprehensive view of the range of possible options with cost implications, and a means to reach consensus on the best possible solution to those challenges.

The intent of the facility study process is:

- To offer a transparent process to move the community toward consensus
- To present information clearly to decision makers
- To present the final recommendations as foundation for future actions

Building Location Plan

A plan of the area is provided below, identifying the location of each building evaluated under this Existing Conditions Survey.



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Map Data: Google Earth

Section 2 : Executive Summary

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Building Information

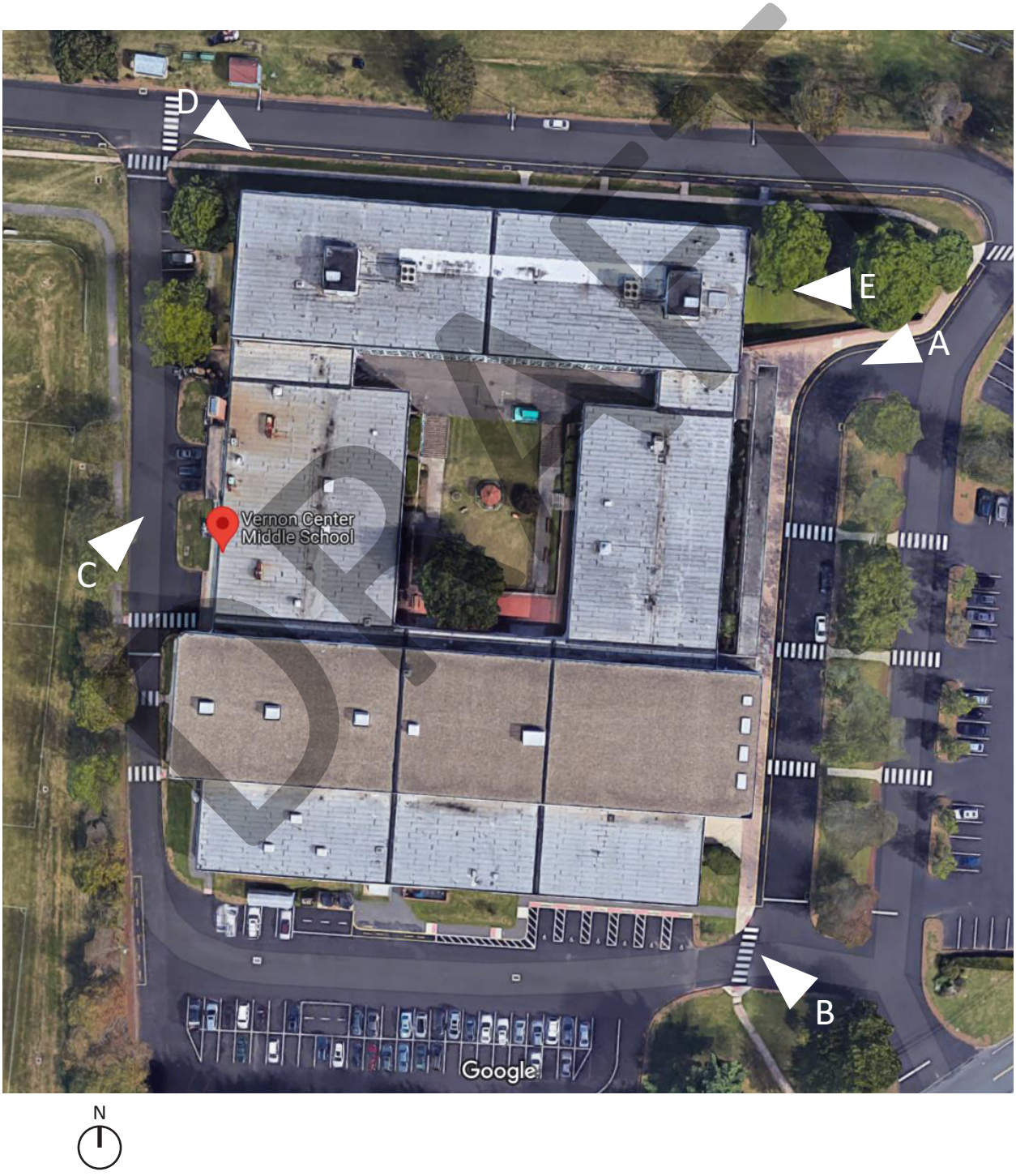
This section contains the executive summary, which provides an overview of the building and summarizes the survey results. Graphs are included to represent current conditions of the building's components and conformity with IBC, NFPA and ADA requirements. Photographs of various elevations of the building are provided for reference. This section also provides a summary of the opinion of probable costs, presenting a graphic comparison of the work required to address the deficiencies uncovered during the survey versus the cost of replacing the structure. At the end of Section 2, a chart provides an overview of the required work addressed by the building survey and potential replacement costs.

Vernon Center Middle School

Stories	3
Area	188,775 s.f.
Address	777 Hartford Turnpike, Vernon, CT 06066
Original Construction	1977
Addition(s) / Renovations	2007
Grades	6th to 8th
Condition	Fair to Good
Description	Masonry school building housing grades 6-8.

Building Overview- Photographs

The following is a selection of photographs showing the main exterior elevations of the building. These photographs are keyed by letter on the site plan below. The elevation marks show the location and direction from which the photographs were taken.



Building Overview - Photographs

East Elevation - A

Southeast Elevation - B

Building Overview - Photographs

West Elevation - C

North Elevation - D

Building Overview - Photographs

East Elevation (Classroom Wing) - E

Architectural Survey

The exterior skin of Vernon Center Middle School is brick, which is in good condition.

Typical windows are in good condition. Exterior aluminum doors are in good condition while the hollow metal doors are in fair condition due to various damage and fading finish.

The school has courtyard adjacent to the cafeteria and a metal canopy at the entry.

The building interior is in good condition overall.

The work recommended to address architectural conditions includes:

- Replace or refinish faded metal panels
- Repair deteriorating expansion joint
- Replace sealant at all exterior doors
- Consider replacing exterior doors with new and provide doors with a weather resistant finish
- Replace damaged screens at windows
- Remove and replace sealant between overhang and brick
- Paint wood gazebo roof
- Repair cracks at courtyard stairs and replace areas of missing brick pavers
- Provide consistent hardware at exit doors - remove and replace knob style hardware
- General cosmetics (painting) needed
- Repair or replace damaged VCT
- Repair or replace delaminating casework
- Investigate water damage visible on ceiling tiles and replace tiles as needed
- Touch up paint on walls and repair gouges
- Repair missing or damaged wall base
- Refinish damaged and worn wood doors
- Provide new durable finish to stair risers to address noise concerns
- Repair chipped Terrazzo on stair treads

Structural Survey

The building is typically constructed of masonry with a steel frame. The concrete foundation is in good condition though some cracking was visible at the exterior of the building. In general, the building appears to be in good condition structurally. Although observations could not be made of many structural elements without demolition, no dangerous conditions were observed.

The work recommended to address structural conditions includes:

- Repair cracks at foundation walls to avoid deterioration and water infiltration.

Mechanical Survey

The heating system consists a cast iron mid-efficiency hot water and boilers. Classrooms are served by air handling units supplying both heating and cooling. Two air-cooled condensing units provide refrigerant for cooling. There are additional air handling units serving some of the larger assembly spaces in the building.

The work recommended to address mechanical systems conditions includes:

- Heating Plant: The existing building is served by (2) mid-efficiency hot water boilers. The boilers are 17

years old and while not at the end of life we would recommend replacing with high efficiency condensing boilers for increased energy savings.
- Hot water pumps are nearing end of life and are recommended to be replaced in kind.
- Ventilation: Provide an energy efficient, code compliant ventilation system that meets present day ASHRAE and building code requirements. This system would include energy recovery to maximize ventilation and energy efficiency.
- Exhaust: Kitchen exhaust fan located in mechanical mezzanine is in poor condition and beyond its useful life. Recommend replacement of unit with upblast kitchen exhaust fan.
- Cooling: Classrooms are cooled by air handling units with remote condensers on roof. Recommend replacement of condenser units and rebuild of air handling units.
- Controls: Recommend replacement of all pneumatic controls with updated digital controls integrated to centralized building management system.
- Provide air handling unit including heating, cooling, energy recovery wheel, and mechanical ventilation for classrooms if window free area does not meet code requirements for natural ventilation.
- Library roof top unit is 17 years old and nearing its end of useful life. Recommend replacement with single zone variable air volume heating, cooling and ventilation roof top unit with outside air.
- Small gymnasium air handling units are past their useful life and should be replaced. Recommend replacement with single zone variable air volume heating, cooling and ventilation roof top unit with outside air.
- Large gymnasium air handling units are past their useful life and should be replaced. Recommend replacement with single zone variable air volume heating, cooling and ventilation roof top unit with outside air.
- Cafeteria unit is past its useful life, not functioning, and should be replaced. Recommend replacement with single zone variable air volume heating, cooling and ventilation roof top unit with outside air.
- Auditorium unit is past its useful life and should be replaced. Recommend replacement with single zone variable air volume heating, cooling and ventilation roof top unit with outside air.
- Admin Office Area unit is past its useful life and should be replaced. Recommend replacement with multi zone variable air volume heating, cooling and ventilation roof top unit with outside air.

Electrical Survey

The electrical service originates from a utility pole which runs to the main pad mounted transformer. There are additional transformers on the site. The transformers appears to be in good condition.

The work recommended to address electrical system conditions includes:

- Switchboard and distribution equipment is original to the building and nearing the end of its serviceable lifespan. Recommend replacement in 5-7 years. Branch panelboards that were installed as part of more recent renovations and / or upgrades, should provide service for another 15-20 years before replacement is necessary
- The generator and emergency distribution systems were installed as part of recent renovations. All equipment is in excellent condition. If maintained properly, it should provide reliable service for 20-30 years.
- There is no evidence of a lightning protection system for the building. Recommend installing a lightning protection system in the immediate future, to safeguard people and property from fire risk and related hazards associated with lightning exposure.

Plumbing Survey

The building's water supply is provided from an underground water main leading directly into the boiler room. There are both wall hung and floor mounted toilets.

The work recommended to address plumbing systems conditions includes:

- Domestic water service and piping is nearing the end of its useful life and we recommend it be replaced in its entirety.
- Domestic Water heater is nearing the end of its useful life and we recommend it be replaced with a high-efficiency gas-fired water heater.
- Sanitary system (above and below grade) is nearing the end of its useful life and we recommend it be replaced in its entirety.
- Natural Gas service and system is nearing the end of its useful life and we recommend it be replaced in its entirety.
- Sanitary system (above and below grade) is nearing the end of its useful life and we recommend it be replaced in its entirety.
- Storm water system (above and below grade) is nearing the end of its useful life and we recommend it be replaced in its entirety.

Fire Protection Survey

The fire protection system is fed from the underground water main. There is both wet and dry systems in the building that appear to e in good condition.

The work recommended to address the fire protection system conditions includes:

- Fire service and associated piping is nearing the end of its useful life and we recommend it be replaced in its entirety.

Lighting Survey

The building has fluorescent light fixtures retrofitted with LED lamps. There are a combination of HID and LED lighting on the exterior of the building.

The work recommended to address lighting system conditions includes:

- Lighting systems in the building are old technology fluorescents retrofitted with LED lamps and drivers with wall toggle switches and occupancy sensor controls. As capital funding becomes available, recommend replacing existing lighting and control systems throughout the building with new technology LED fixtures, along with new low voltage controls, for improved efficiency and to comply with current energy code requirements.

Fire Alarm Survey

The building is equipped with an addressable fire alarm control panel with signal booster power supplies, networked with remote annunciators for voice evacuation.

No improvements or repairs are required at this time. Average life expectancy for fire alarm systems is 15 years. System equipment should be updated or replaced in the next 7-10 years to ensure system reliability.

Telecommunications Survey

The building has a telephone system equipment backboard and equipment within the main electrical room. From there cabling runs to the data systems rack in the MDF room. All telecommunications systems appear to be in good condition overall.

No improvements or repairs are required at this time. Upgrades to these systems (i.e. backbone cabling, workstation outlets, etc.) should be anticipated to accommodate new program requirements as they occur.

Security System Survey

The building uses an access control system made up of card readers located a the main points of entry and at some interior doors. Surveillance cameras are located at various points around the interior and exterior of the building. All systems appear to be in good condition.

The work recommended to address security system conditions includes:

- Recommend a review of all access controlled doors and end-user operations be performed in the next 1-2 years, or as program needs dictate.
- Recommend a full system assessment be performed to verify all devices are connected and tested for proper operation in the next 1-2 years, or as program needs dictate.
- Recommend additional high definition cameras be added inside the school and any remaining analog cameras replaced with new HD units in the next 1-2 years, or as improvements in technology dictate.
- Recommend installation and implementation of an intrusion detection or silent alarm system within the next year.

Low Voltage Survey

The building uses program bells for class scheduling, controlled via a programmable timer. Combination analogue clock/speakers are installed in classrooms.

No improvements or repairs are required at this time. Improvement and / or replacement of these systems is recommended in the next 7-10 years, or as program needs dictate.

International Building Code Survey

Vernon Center Middle School was evaluated for compliance with the 2022 Connecticut State Building Code, including the 2021 IBC with Connecticut Supplements and Amendments, for Use Group E (Education). This report does not address alterations to the existing building, because the scope of an alteration project has not been defined. In this case, a change of use would be very unlikely.

The work recommended to address IBC code violations includes:

- Maintain clear path of egress
- Provide exit signs for the exterior courtyard.

NFPA Code Survey

A review of Vernon Center Middle School's compliance with the NFPA Life Safety Code 2015 was made. The Life Safety Code is a retroactive code for existing buildings and review of applicable systems is required. This building will require updates. There are no recommended updates at the time of the survey.

ADA Compliance Survey

Vernon Center Middle School was also evaluated based on the Americans with Disabilities Act (ADA), Title II, for public building accessibility. ADA is an act of Congress mandating certain standards for accessibility that are enforceable through the civil courts. Vernon Center Middle School fails to meet some of these requirements, evident in the “ADA Compliance Survey”.

The building was evaluated based on a review of existing documentation, field verification of existing space usage and discussions with building staff to confirm existing space allocation and usage.

The work recommended to address ADA compliance issues includes providing:

- Modify existing light switches and existing casework to ensure there is an 18” x 18” clear space centered on the light switch.
- Modify or replace any existing door hardware that does not meet accessibility requirements. Mainly related to knob type door handles.
- Modify seating in auditorium so that companion seats sit should to should with accessible seating.
- Modify drain piping routing for hand sink in kitchen to provide proper pull under distance.
- Correctly identify all toilet rooms that are not accessible and provide proper signage. Currently there are several toilet rooms that are marked as accessible but do not meet multiple requirements. Rather than modify all toilet rooms to be accessible, signage can be used to point toward the nearest accessible toilet room.
- Modify handrails for ramp to exterior courtyard to extend 12” past the end the ramp.
- Modify existing signage so that the bottom of the top most line of text is below 60” min.
- Modify mirror mounting heights in all accessible bathrooms to the minimum 40” requirement.
- Modify doors locations at existing classrooms and restrooms to provide adequate push/pull offsets.
- Provide clearly indicated accessible lockers throughout the school.
- Modify layout of classroom storage spaces to provide proper clear width and turning radius.
- Provide an accessible route from the gymnasium to the athletic fields. Currently students will either need to walk through a sloped parking lot, or walk to the main entrance and around the entire school to access the fields.

Site Survey

The site at Vernon Center Middle School was evaluated. Traffic flow at this facility appears to be sufficient but the building was not occupied at the time of the survey so a full evaluation of the flow could not be made. Walkways are in fair to good condition. Available parking accommodates 189 vehicles, with 6 handicap accessible spaces available. The playing fields consist of soccer and baseball fields and are in good condition.

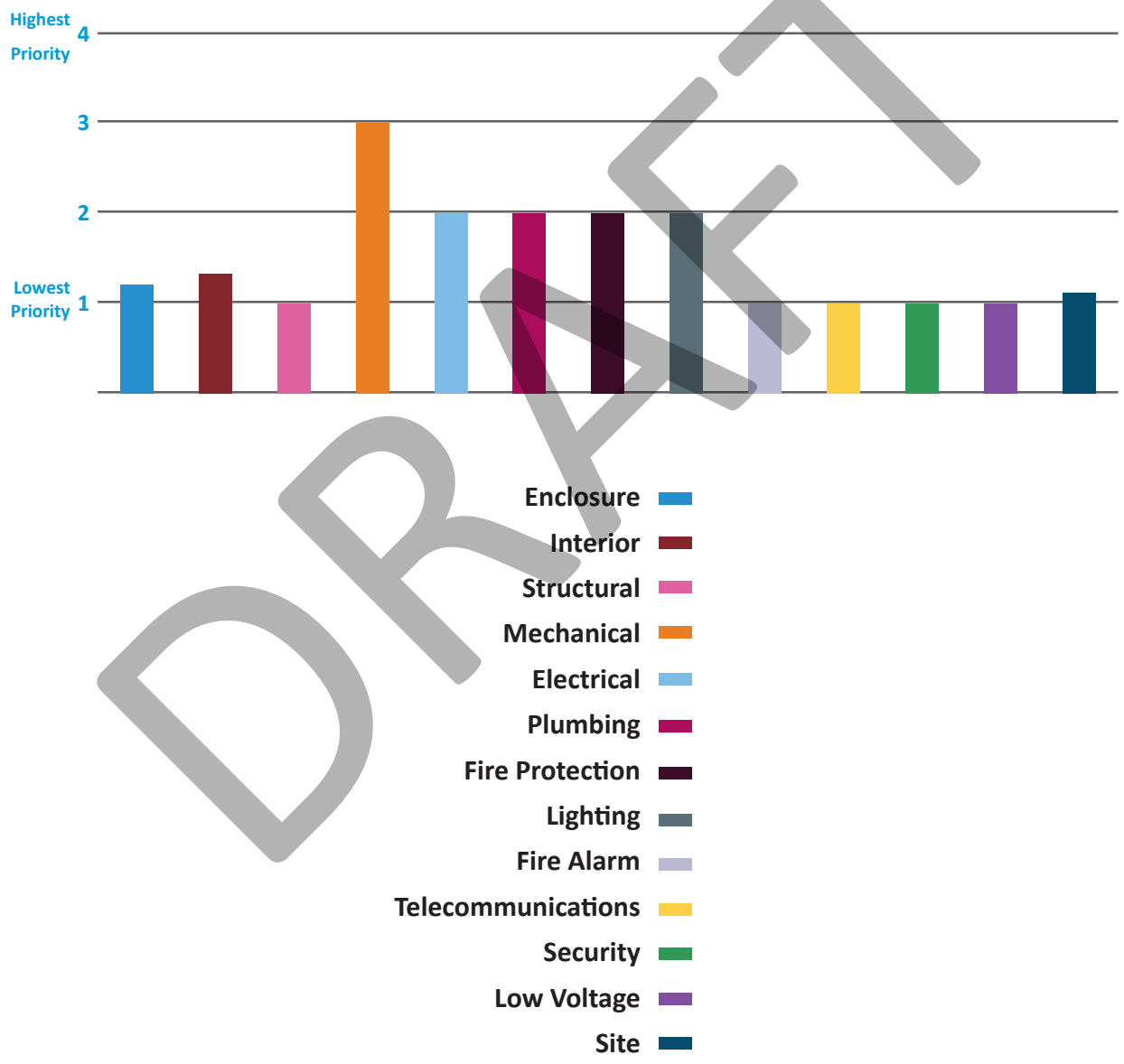
The work recommended to address site conditions includes:

- Repair damaged bituminous curbs in parking area
- Repair damaged concrete and bituminous walkways
- Provide signage at service areas
- Reseed grass in patchy areas

Survey Results

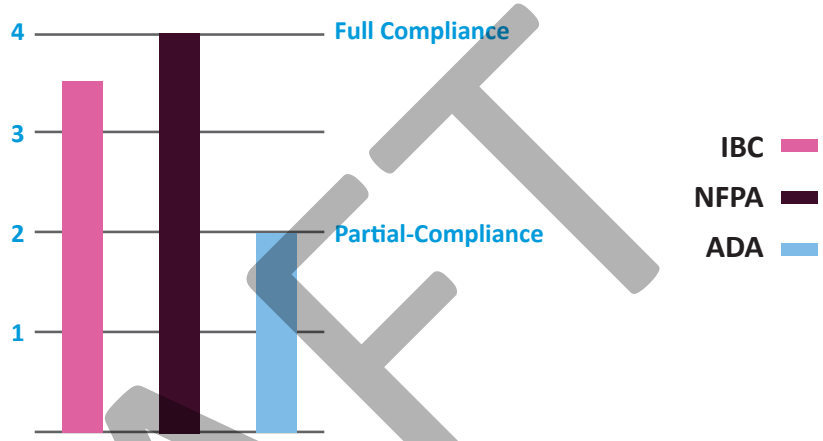
Each of the elements that were reviewed under this assessment was ranked on a scale of 1-4, with a 4 rating equating to the highest priority. Components that received a ranking of 3 should be considered to be moderate priorities, while rankings of 2 and 1 are considered to be low priorities. The following chart graphically presents the survey results (reference Section 4 for a detailed description for each category).

Prioritization of Required Work



The graph below represents the building's overall conformity with IBC, NFPA and ADA requirements. Compliance was rated on a scale of 1-4, with a 4 rating equating to full compliance. A rating of 2 or under indicates that the building requires moderate to substantial code compliance updates in order to protect the safety of the building's occupants.

Code Compliance Evaluation



Summary of Recommendations & Costs

Opinion of Probable Costs	The estimate of probable costs included in Section 8 of this report is designed as a planning tool for Vernon Public Schools. Estimates do not account for a possible change of use.
Required Work	The estimates reflect bringing the building, in its present configuration, into compliance with current applicable codes and addressing the needs of the various building components (architectural, structural, mechanical / electrical / plumbing / fire protection and site). The projected renovations for these components would upgrade the building to a … condition. Projected costs are based on 2023 dollars and include no soft costs or contingencies. Based on analysis, over the next 10 years, the required work at this building will cost approximately $... At xxx square feet, renovations at this building equate to approximately $... per square foot. This cost-per-square-foot figure falls / does not fall within industry standards for renovations / upgrades of this nature.
Replacement Cost	A similarly constructed building would cost $... per square foot. Using this figure, the replacement cost for this building is approximately $..., which follows state standards for structures of this type. The $... per square foot replacement cost was obtained from R.S. Means Construction Cost Data and current local market conditions for buildings of this type. The estimate includes hard construction costs, demolition costs, construction contingencies, design costs, and other "soft costs".
State Reimbursement	The municipality's reimbursement from the State of Connecticut Department of Education for eligible items is xxxx. This would adjust the community's portion of the renovation costs from $xxxx to $xxxx, before taking enrollment and other potential ineligible items into account.

The chart below indicates the estimated value of the required work addressed by the building survey alongside the potential replacement cost. The replacement cost is provided as a guideline for comparative purposes and is based on replacing the building as is, i.e. size and use. Information considered includes the type of structure, year built and existing area for the building.

Survey Estimate **$0**

Replacement Estimate **$0**

The required work addressed in this survey equates to approximately … percent of the cost of an entire building replacement project.

Section 3 : Architectural & Structural Survey

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Architectural Existing Conditions

This section provides a listing of existing conditions of the various architectural and structural components of the building, followed by summary descriptions. A space utilization plan is provided to identify the current locations / number of spaces available and adjacencies. Photographs of existing conditions are included for clarification purposes, identifying areas that require attention. The floor plans indicate the building layout and are keyed to photograph locations. Recommendations for improvements to the various components are discussed to provide Vernon Public Schools with an overview of the required work.

Vernon Center Middle School

Plan Drawings	2007 Additions & Alterations
Photos	2023 Survey
Date Built	1965
Architect	JCJ Architecture (Addition)
Date(s) Additions / Renovations	2007
Construction	II-B
Type of Occupancy	Education
Number of Stories	3 stories
Gross Square Feet*	188,775 s.f.

* Gross Square Footage defined as: The sum of all areas on all floors of a building included within the outside faces of its exterior walls, including all vertical penetration areas, for circulation and shaft areas that connect one floor to another.

Condition Codes	
Excellent	16-20 years useful life
Good	Good at present (11-15 years)
Fair	Minor / cosmetic repairs needed to maintain condition (6-10 years)
Poor	Immediate repairs needed to prevent deterioration (0-5 years)

Architectural Conditions - Enclosure

Exterior Skin	Material	Condition
Primary Surface	Brick	Good
Secondary Surface	Metal Panels	Fair to Good
Insulation	Unknown	Assumed Good
Features	Entry Canopy	Good
Windows		
Lintel	Steel	Good
Jamb	Brick	Good
Sill	Concrete	Good
Frame	Aluminum	Good
Glazing	Insulated	Good
Sealant	Yes	Good
Operable	Yes	Good
Exiting	No	N/A
Doors		
Lintel	Steel	Fair - Good
Jamb	Brick	Good
Sill	Concrete , steel	Good
Frame	Aluminum Hollow Metal (HM)	Good Fair
Door	Aluminum Hollow Metal	Good Fair
Glazing	Tempered	Good
Flashing	Yes	Good
Sealant	Yes	Fair
Hardware	Stainless Steel	Fair to Good

Architectural Conditions - Enclosure (continued)

Courtyard Exit Stairs	Material	Condition
Tread	Concrete	Fair
Riser	Concrete	Fair - Good
Landing	Concrete	Good
Handrail	Metal	Good
Ramp	Concrete	Good

Vernon Center Middle School has a brick exterior that is in good condition. There are metal panels wrapping the top of the building which appear to be in good condition but are discolored due to age and weather. Newer metal panels above the connectors from the main building to the classroom wing are in excellent condition.

There is a metal canopy at the main entrance. The paint is peeling and some rust is forming in those areas.

The windows are in good condition but many of the screens need to be replaced.

The exterior aluminum doors and frames are in good condition. The exterior hollow metal doors are in fair condition. The finish is faded and there are areas of damage on several of these doors. Sealant at the doors is missing at several door locations. The hardware on the doors varies from knobs to levers to pulls. The doors at the lower level leading out to the courtyard need cleaning throughout and repair at the sealant joints.

The courtyard area is in fair to good condition overall. Some of the concrete steps are damaged and in need of repair. The patio seating area is missing some bricks. The ramp is discolored due to age and mildew build up.

Architectural Conditions - Interior

Corridors	Material	Condition
Interior Walls	Painted Brick / Gypsum	Good
Interior Door & Frame	Wood, hollow metal frames, Wood frames	Fair to Good
Hardware	Stainless steel	Good
Flooring	12”x12” Vinyl Composition Tile	Good
Ceilings	2x4 ACT 2X2 ACT (corridor between gym and cafeteria)	Good Poor
Interior Stairwells		
Interior Walls	Gypsum / Painted Tile Plaster	Good Fair to Good
Interior Door & Frame	Hollow Metal, hollow metal frames	Good to Excellent
Hardware	Stainless Steel	Good
Flooring	Terrazzo with abrasive nosing - Tread VCT, Terrazzo - Landing	Fair to Good Fair to Good
Ceilings	2X2 ACT 2x4 ACT	Fair Good
Stringer	Metal	Good
Baluster	Metal	Good
Handrails	Metal	Good
Risers	Metal	Fair
Offices - Main		
Interior Walls	CMU / Brick / Gypsum with soft wall covering on bottom	Good
Interior Door & Frame	Wood, hollow metal frames	Fair to Good
Hardware	Stainless steel Lever	Good
Flooring	Carpet / VCT (workrooms & storage)	Good
Ceilings	2x4 ACT	Good
Toilet Rooms		
Interior Walls	4x4 tile full height	Fair to Good
Interior Door & Frame	Hollow Metal with hollow metal frame Wood with hollow metal frame	Good Fair to Good
Hardware	Stainless steel Lever	Good
Flooring	1x1 tile, marble threshold	Fair to Good
Ceilings	2x2 ACT / 2x4 ACT	Fair to Good

Architectural Conditions - Interior (continued)

Classrooms	Material	Condition
Interior Walls	Gypsum Wall System, wired clerestory windows, metal frame	Fair to Good Good
Interior Door & Frame	Wood, hollow metal frame	Fair
Hardware	Stainless steel Lever	Good
Flooring	Carpet VCT	Good Fair
Ceilings	2x4 ACT	Fair to Good
Art Classroom(s)		
Interior Walls	CMU Wood framing with glazing	Good Fair to Good
Interior Doors & Frame	Wood, hollow metal frame	Fair
Hardware	Stainless steel Lever	Good
Flooring	12”x12” VCT	Fair
Ceilings	2x4 ACT / Gypsum	Good
Music Classroom(s)		
Interior Walls	CMU, Acoustic panels	Good
Interior Door & Frame	Wood, Hollow Metal Frame	Good
Hardware	Stainless steel	Good
Flooring	VCT	Good
Ceilings	2X4 ACT (higher value acoustic rating)	Good
Cafeteria		
Interior Walls	Brick , 12X12 Acoustic tile	Good
Interior Door & Frame	N/A (Open to corridors)	N/A
Hardware	N/A	N/A
Flooring	VCT	Good
Ceilings	2X4 ACT, Exposed Structure, 9x9 tiles	Good
Kitchen		
Interior Walls	CMU / Tile	Good
Interior Door & Frame	Metal rolling grills / Wood, hollow metal frame	Good
Hardware	Stainless steel	Good
Flooring	Quarry tile / VCT (Servery)	Good
Ceilings	2X4 ACT (Discolored due to age)	Fair to Good
Glazing	45 minutes fire rated (crack in glass)	Poor

Architectural Conditions - Interior (continued)

Gymnasiums	Material	Condition
Interior Walls	CMU / Wall pads	Good
Interior Door & Frame	Wood doors, hollow metal frame	Good
Glazing	45 minutes fire rated	Good
Hardware	Stainless steel	Good
Flooring	Wood	Good
Ceilings	Exposed structure	Good
Locker Rooms		
Interior Walls	4X4 Tile / CMU	Good
Interior Door & Frame	Wood , Hollow metal frame, Wood frame	Fair to Good
Hardware	Stainless steel	Good
Flooring	1x1 tiles	Good
Ceilings	Exposed structure / 2 x 4 ACT	Good
Glazing	Single pane glass	Good
Media Center / Library		
Interior Walls	Brick Wood framing with glazing and metal grill	Good Fair to Good
Interior Door & Frame	Wood , wood frame	Good
Hardware	Stainless steel Lever	Good
Flooring	Carpet	Good to Excellent
Ceilings	2 x 4 ACT	Good
Auditorium		
Interior Walls	CMU / Brick	Good
Interior Door & Frame	Wood , hollow metal frame	Good
Hardware	Stainless steel	Good
Flooring	Carpet VCT	Good Fair to Good
Ceilings	Hard ceiling , acoustical tiles	Good
Features	Wood dividers , cloth seating on chairs	Good
Auditorium Stairs		
Materials	Wood / Carpet	Good
Handrails	Metal	Good

Architectural Conditions - Interior (continued)

Auditorium Stage	Material	Condition
Interior Walls	CMU	Good
Interior Door & Frame	Hollow metal	Good
Hardware	Stainless steel	Good
Flooring	Wood	Good
Ceilings	Exposed Structure	Good
Features	Storage door under stage	Poor (broken)

Overall the interior of the building is in fair to good condition.

The condition of the casework throughout the building is fair to good condition. The plastic laminate is delaminating and chipped in several areas. In some spaces, cabinet doors and wall base are completely detached from the rest of the unit.

Lockers are in good condition with the exception of the wood end panels which are in fair condition. Tile/block under the lockers and display cases are damaged and cracked in a few areas.

Metal stair risers are not connected properly to the terrazzo tread that results in loud noises when hit. In certain areas, pieces of terrazzo tread are chipped off completely. Parts of the terrazzo stair nosing and visual strip are worn.

The flooring in the school mainly consists of vinyl composite tile (VCT) which is fair to good condition. Cracking, bubbling, and discoloring of VCT is visible in many locations. Further exploration of the moisture levels of the slab is recommended. A large patch of VCT is missing in a main level corridor near an exit door. This area needs to be addressed immediately. Carpeting where installed is in good condition overall.

The interior doors are typically solid wood core with hollow metal frames and are in good condition. However, some doors show signs of general wear and tear especially towards the bottom. The door frame paint is also chipping.

The ceilings consist mostly of acoustical ceiling tiles (ACT) and are overall in good condition, but water damage, cracks and holes were seen in some areas. Refer to photographs for examples.

The walls throughout the building show general wear and tear, especially on outside corners, but generally are in good condition. The wall base overall was in fair to good condition, but has some damaged or missing sections in a few areas.

Toilet stall partitions are in fair condition and show general wear and tear.

Architectural Conditions - Conveying Systems

Component	Elevator 1
Hydraulic	Yes
Passenger / Freight	Passenger
Weight	2000 lbs
Floors - #	3
Floors - From	Lower Level
Floors - To	Upper Level
Inspection Expiration Date	03/13/2024

Structural Existing Conditions

The following is a data summary of the structural conditions that were observed and noted during the survey. This information was gathered by a field survey, reviewing the existing drawings and discussions with various building personnel.

The following codes are used throughout this report to identify the condition of various elements.

Condition Codes	
Excellent	16-20 years useful life
Good	Good at present (11-15 years)
Fair	Minor / cosmetic repairs needed to maintain condition (6-10 years)
Poor	Immediate repairs needed to prevent deterioration (0-5 years)

Structural Conditions - Exterior Condition

	Material	Condition
Enclosure	Masonry	Good
Foundation	Concrete	Good
Footings	Concrete	Assumed Good
Deck	Metal	Assumed Good
Exterior Frame	Steel	Good
Other	N/A	N/A

Structural Conditions - Interior Condition

	Material	Condition
Framing	Steel	Good
Walls	Metal Stud / CMU	Good
Ground Floor Slab	Concrete	Assumed Good
Flooring System (other levels)	Concrete	Assumed Good
Stairs	Assumed Concrete	Good

The structural components of Vernon Center Middle School were evaluated.

In general, the building appears to be in good condition structurally. Although observations could not be made of many structural elements without demolition, no dangerous conditions were observed.

Architectural & Structural Survey Photographs

1. Location:

Main Entrance

Description:

Expansion joint to the right of the main entry doors is degraded.

2. Location:

Canopy at Main Entrance

Description:

Finish peeling at columns and some rusting visible on the roof structure.

3. Location:

Canopy at Main Entrance

Description:

Rusting and peeling visible at beam and column - typical of several locations.

Architectural & Structural Survey Photographs

4. Location:

Canopy at Main Entrance

Description:

Typical bottom of column

5. Location:

East Elevation

Description:

Cracking at foundation wall

6. Location:

East Elevation

Description:

Holes in exterior door. Finish faded - typical of exterior doors.

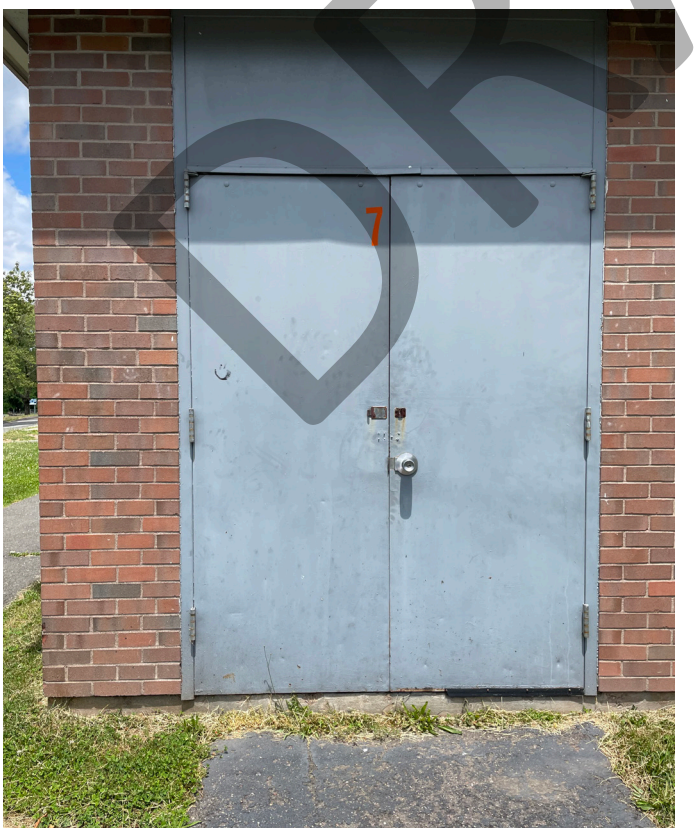
Architectural & Structural Survey Photographs

7. Location:

South Elevation

Description:

Residue from tape leftover on door. Door finish is faded and rusting is present near the bottom - this is a typical condition of hollow metal exterior doors with glazing.



8. Location:

South Elevation

Description:

Example of missing weatherstripping. Hardware varies on exterior doors. Lock on this door is broken

Architectural & Structural Survey Photographs

9. Location:

West Elevation

Description:

Finish breaking away from facade. No sealant between frame and adjacent surface.

10. Location:

West Elevation

Description:

Typical condition - sealant between roof overhang and brick is crumbling.

11. Location:

West Elevation

Description:

Missing sealant between door frame and brick.

Architectural & Structural Survey Photographs

12. Location:

West Elevation

Description:

Window screens torn - typical condition in several locations

13. Location:

West Elevation

Description:

Deterioration, discoloration and cracking of retaining wall.

14. Location:

Exterior

Description:

Concrete sill cracked

Architectural & Structural Survey Photographs

15. Location:

West Elevation

Description:

Soffit at entrance to Courtyard

16. Location:

South Elevation

Description:

Metal finish is faded and stained.

Architectural & Structural Survey Photographs

17. Location:

South Elevation - Retaining Wall

Description:

Crack in foundation wall concrete

18. Location:

Courtyard

Description:

Concrete ramp discolored due to mildew. Gap between ramp and storefront

19. Location:

Courtyard

Description:

Bricks missing in walkway

Architectural & Structural Survey Photographs

20. Location:

Courtyard

Description:

Wooden benches are showing their age

21. Location:

Courtyard

Description:

Paint finish on Gazebo is fading.

22. Location:

Courtyard

Description:

Damaged concrete steps.

Architectural & Structural Survey Photographs

23. Location:

Courtyard

Description:

Lower entrance to classroom wing. Door is covered in debris and the adjacent surface is missing the finish, insulation is exposed to the elements and the door frame is rusting.

24. Location:

Courtyard

Description:

At lower entrance to classroom wing. Column finish is peeling away and columns are rusting.

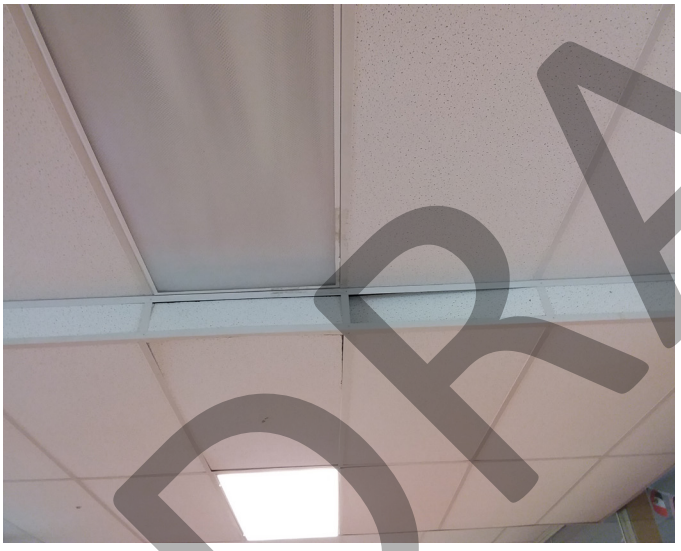
Architectural & Structural Survey Photographs

25. Location:

Lower Level Corridor

Description:

Lockers are chipped/scratched and locks are missing on several.



26. Location:

Lower Level Corridor

Description:

Ceiling Tile damaged.

27. Location:

Lower Level Stair

Description:

Ceiling tile is damaged and patched. The ceiling tile finish is unfinished.

Architectural & Structural Survey Photographs

28. Location:

Main Level Science Room

Description:

Missing and damaged wall base.

29. Location:

Main Level Science Room

Description:

Delaminating casework - typical in a few classrooms.

30. Location:

Main Level Science Room

Description:

VCT is damaged and broken off in several areas.

Architectural & Structural Survey Photographs

31. Location:

Main Level Stair

Description:

Stained ceiling tile appears to be from water damage.

32. Location:

Main Level Stair

Description:

VCT is demolished at transition to terrazzo stair tread.

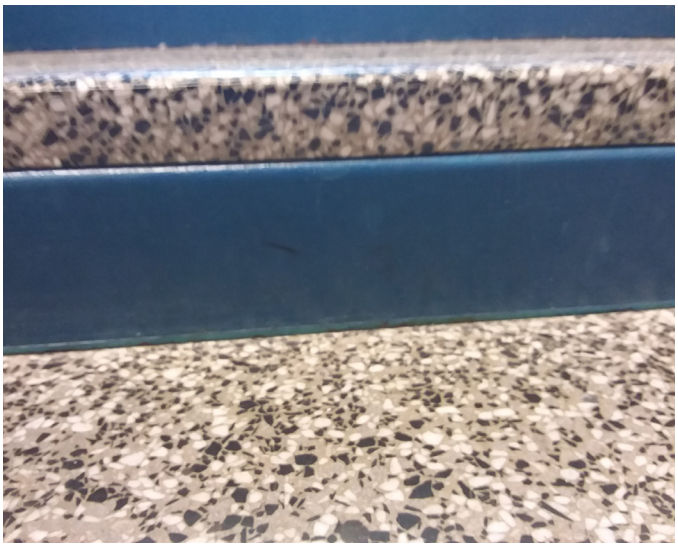
33. Location:

Main Level Stair

Description:

Part of terrazzo stair is chipped off completely. The abrasive nosing strip is also missing and peeling off.

Architectural & Structural Survey Photographs



34. Location:

Main Level Stair

Description:

Stair risers do not all connect to the treads properly resulting in loud banging whenever the tread is hit.

35. Location:

Main Level Toilet

Description:

Floor tile is damaged and should be repaired.

36. Location:

Food Lab

Description:

VCT is heavily destroyed and needs to be replaced.

Architectural & Structural Survey Photographs

37. Location:

Cafeteria

Description:

Appeared water damage on ceiling tile.

38. Location:

Kitchen

Description:

Chipped paint on door frame and faded finish on door.

39. Location:

Kitchen

Description:

Broken glass in door glazing.

Architectural & Structural Survey Photographs

40. Location:

Gymnasium

Description:

Chipped door frame and damaged VCT at transition.

41. Location:

Locker Room

Description:

Rusted and dented lockers.

Architectural & Structural Survey Photographs

42. Location:

Main Level Corridor

Description:

VCT is damaged and needs to be replaced.

43. Location:

Main Level Corridor

Description:

Door is dented and scratched in several areas.

44. Location:

Main Level Corridor

Description:

Flooring is missing completely and sub floor is exposed. The surrounding floor has some chips and light damage.

Architectural & Structural Survey Photographs

45. Location:

Auditorium

Description:

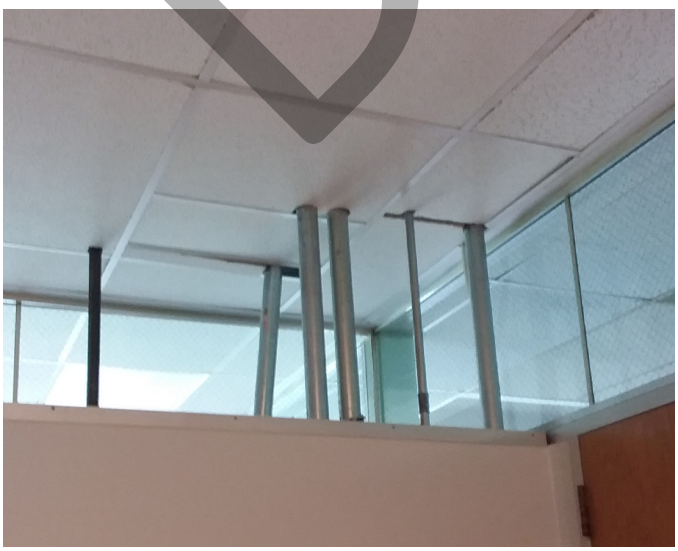
Wood paneling appears damaged and worn.

46. Location:

Auditorium

Description:

Broken storage doors under stage need repair.



47. Location:

Upper Level Corridor

Description:

Exposed conduit tubing and disturbed ceiling tiles.

Architectural & Structural Survey Photographs

48. Location:

Upper Level Corridor

Description:

Damaged ceiling tiles.

49. Location:

Upper Level Corridor

Description:

Damaged plywood end panel.

50. Location:

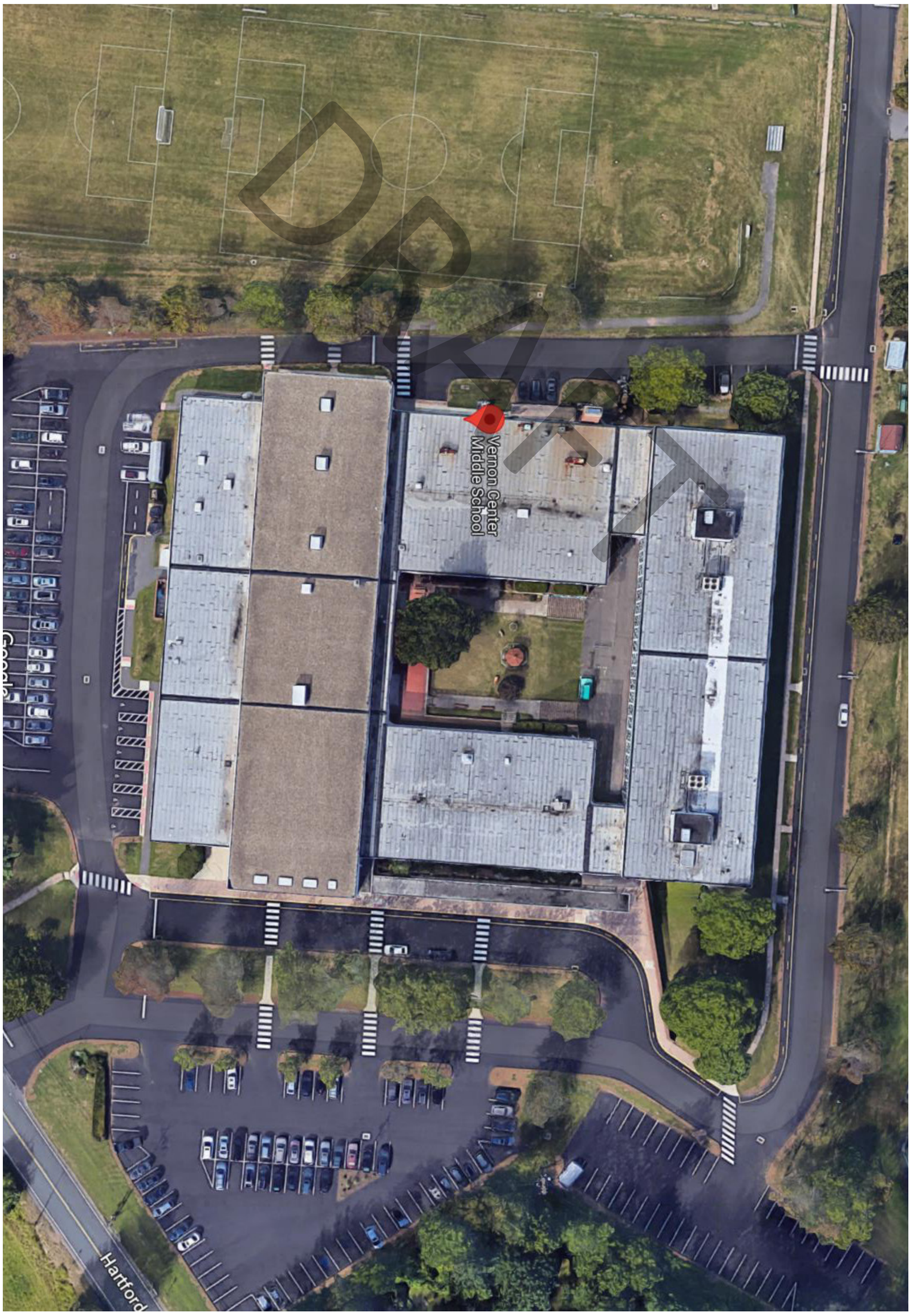
Upper Level Corridor

Description:

VCT is deteriorating and should be replaced.

Architectural & Structural Photograph Key Plan

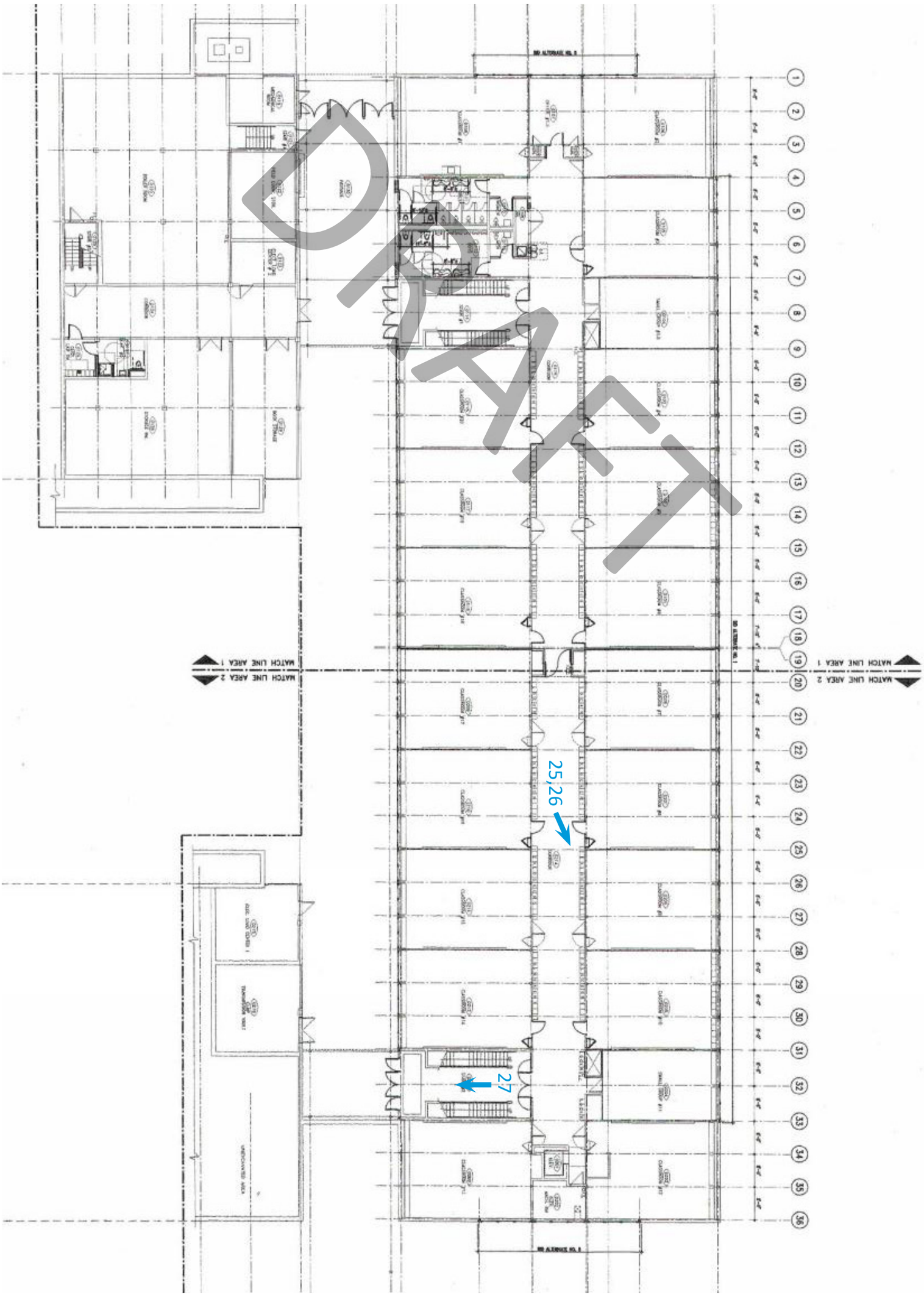
The following plan shows the actual building plan as verified during field surveys. Photographs from the previous pages are keyed into the building plans with numbered arrows at the approximate photograph site and direction from which the photographs were taken.



Vernon Center Middle School

Site Plan

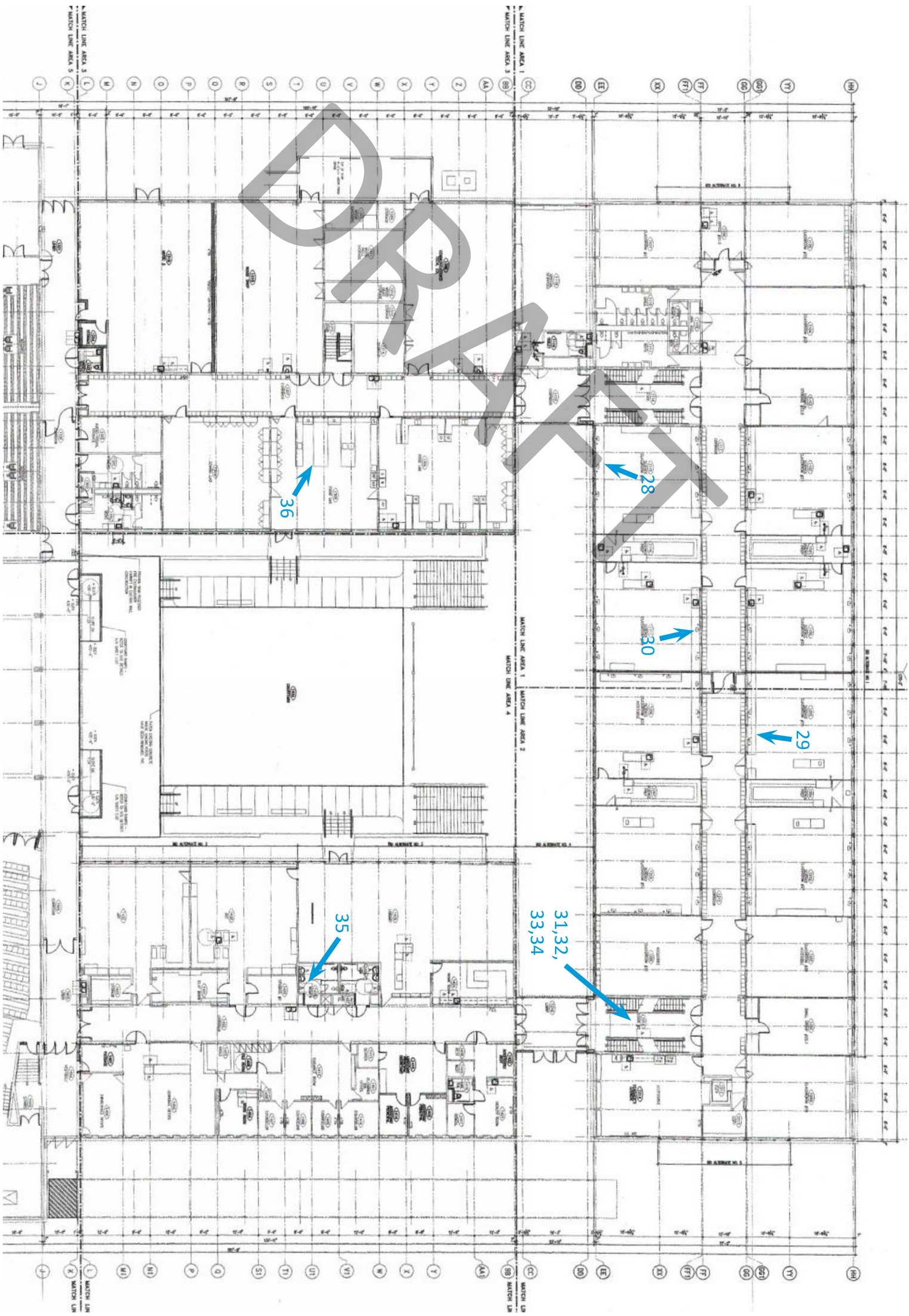
Arch/Struc Survey



Vernon Center Middle School

Lower Level Plan

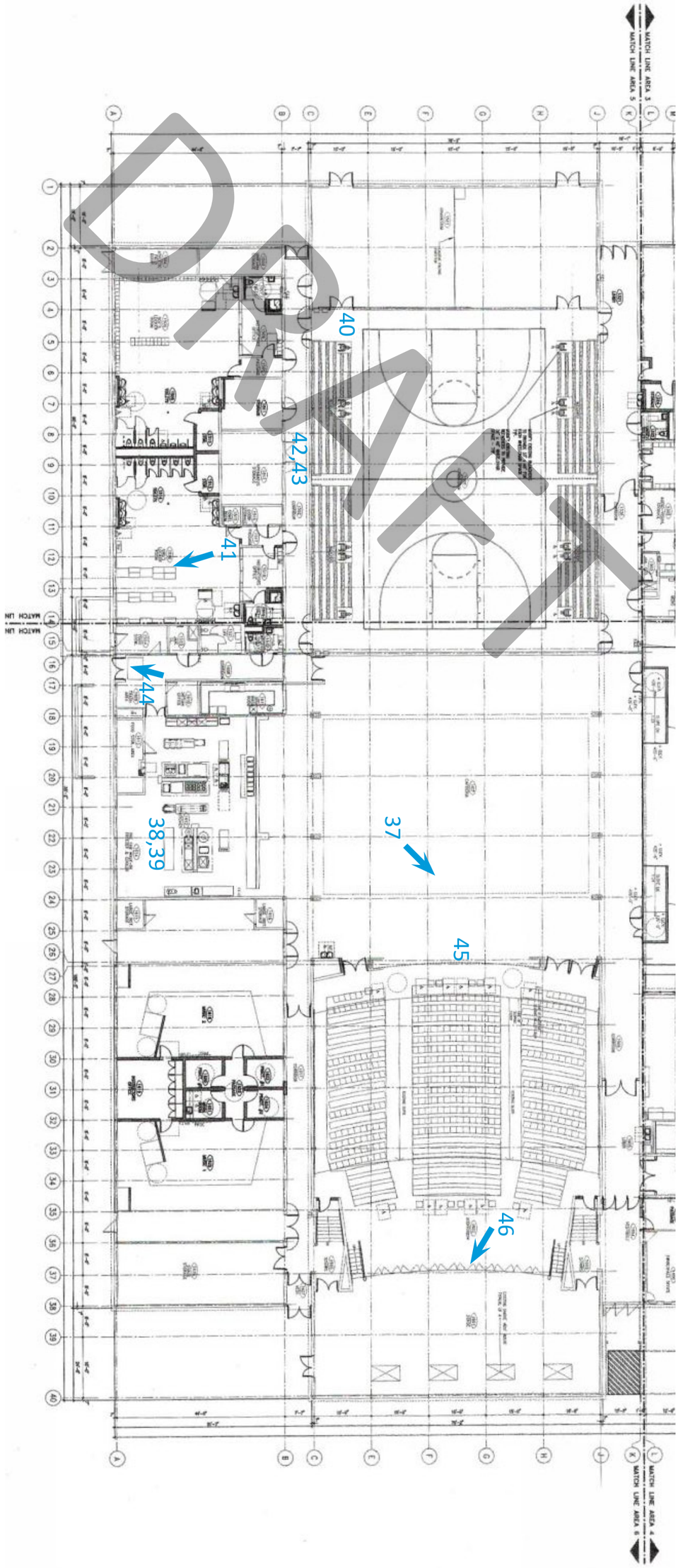
Arch/Struc Survey



Vernon Center Middle School

Upper Level

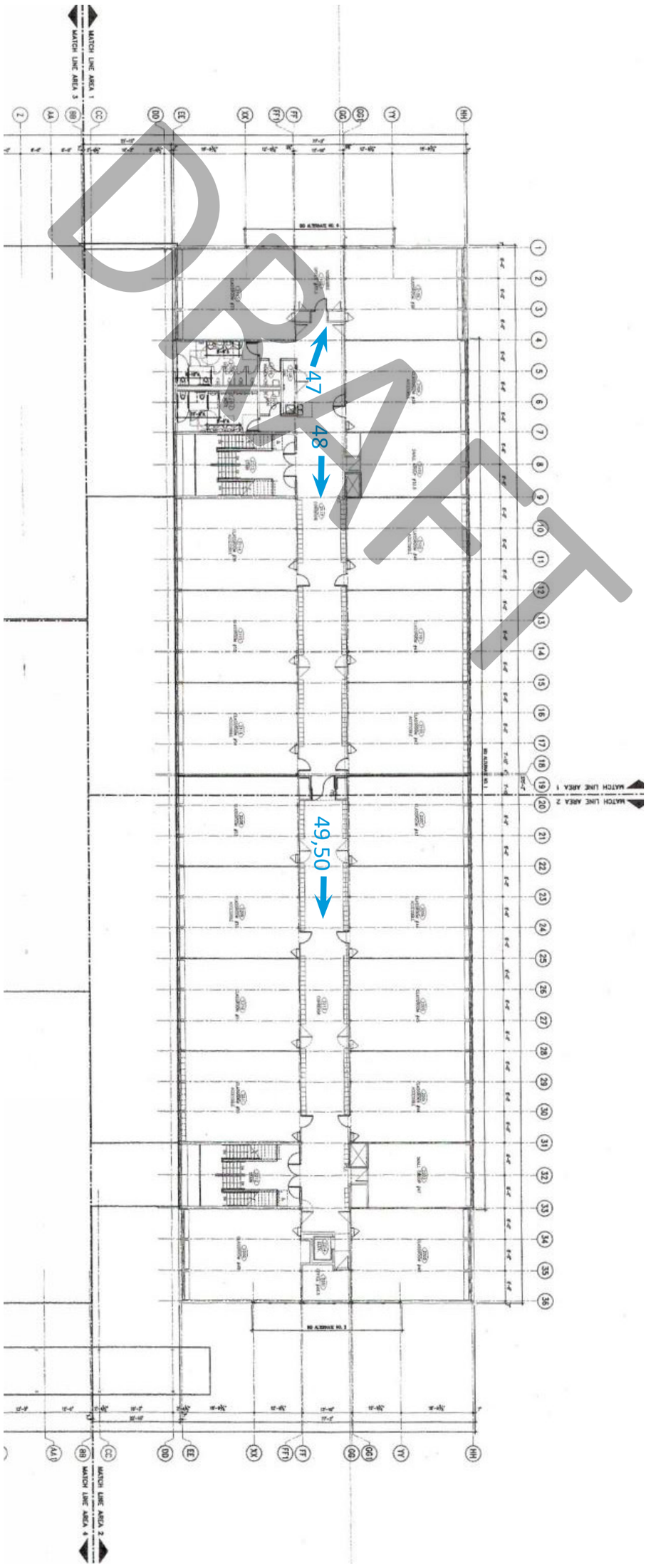
Arch/Struc Survey



Vernon Center Middle School

Main Level Plan

Arch/Struc Survey



Vernon Center Middle School

Upper Level

Arch/Struc Survey

Architectural & Structural Recommendations

The architectural and structural components of Vernon Center Middle School are in fair to good condition.

The following represents areas of necessary architectural improvements and / or required work.

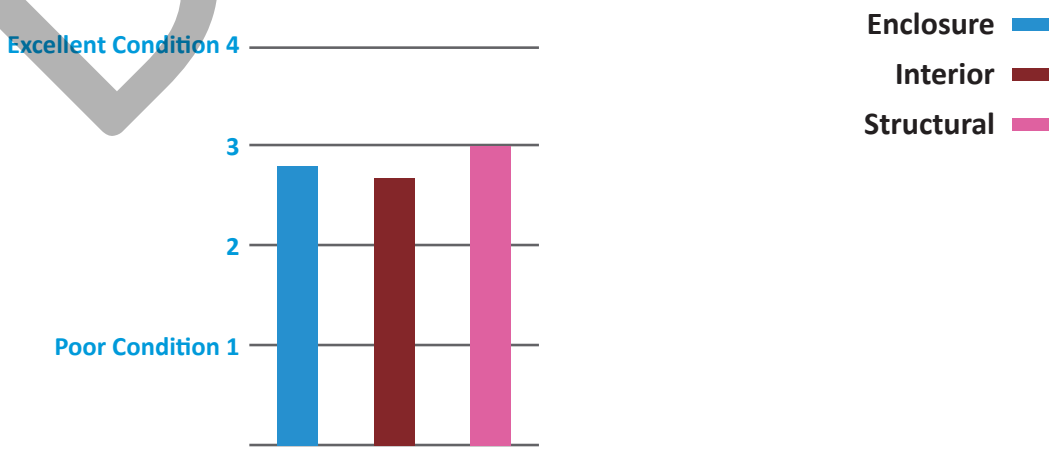
- Replace or refinish faded metal panels
- Repair deteriorating expansion joint
- Replace sealant at all exterior doors
- Consider replacing exterior doors with new and provide doors with a weather resistant finish
- Replace damaged screens at windows
- Remove and replace sealant between overhang and brick
- Paint wood gazebo roof
- Repair cracks at courtyard stairs and replace areas of missing brick pavers
- Provide consistent hardware at exit doors - remove and replace knob style hardware
- General cosmetics (painting) needed
- Repair or replace damaged VCT
- Repair or replace delaminating casework
- Investigate water damage visible on ceiling tiles and replace tiles as needed
- Touch up paint on walls and repair gouges
- Repair missing or damaged wall base
- Refinish damaged and worn wood doors
- Provide new durable finish to stair risers to address noise concerns
- Repair chipped Terrazzo on stair treads

The following represents areas of necessary structural improvements and / or required work.

- Repair cracks at foundation walls

Existing Conditions Evaluation:

The elements reviewed under this assessment were ranked on a scale of 1-4, with a 4 rating equating to excellent conditions. Components that received a ranking of 3 are considered to be in good condition, while rankings of 2 and 1 are considered to be in fair and poor condition, respectively. The following chart graphically presents the results and their expected life spans.



Note: Ratings range from 1 (poor condition) to 4 (excellent condition)

Section 4 : Mechanical, Electrical, Plumbing & Fire Protection Survey

4

M/E/P/FP Existing Conditions

The mechanical / electrical / plumbing / fire protection survey results are presented within this section. Included are a chart of existing components and their conditions, summary descriptions, photographs, plans, and recommendations.

Mechanical

The following is a data summary of the Mechanical system's existing conditions that were observed and noted during the survey. This information was gathered by a field survey, reviewing the existing drawings and discussions with various building personnel.

Condition Codes	
Excellent	16-20 years useful life
Good	Good at present (11-15 years)
Fair	Minor / cosmetic repairs needed to maintain condition (6-10 years)
Poor	Immediate repairs needed to prevent deterioration (0-5 years)

Mechanical Conditions

System	Condition	Comments
Boilers	Fair	Boilers were observed to be in fair working condition however are nearing the end of their life span.
Heating System	Fair	Heating system piping was observed to be worn but in working condition.
Heating System Pumps	Poor	Pumps were observed to be worn down and in poor condition.
A/C Roof-Top Units	Poor	Roof top units were observed to be in poor working condition or not working at all.
Air Distribution / Ductwork	Good	Ductwork was observed to be insulated and in good working condition.
Condensate Piping (A/C)	Fair	Condensate piping was observed to be in fair working condition.
Exhaust Fans	Good	Exhaust fans were observed to be in good working condition.
Controls	Fair	Pneumatic controls were observed to be outdated but in fair working condition. BMS controls were observed to be in good working condition.

Heating system is served by cast iron mid-efficiency hot water. The system is in fair condition and appears to be from 2006 (17 years old). Cast iron boiler system have an approximately 25 year life expectancy and while not near end of life we would recommend replacing with high efficiency condensing boilers for increased energy savings.

Classroom are served by AHU-1 and AHU-2 located on roof top of classroom wing. Air handling units provide heating, and cooling supply air. Units are comprised of hot water heating coil, DX cooling coil, filter section, economizer, and supply fan with VFD. A separate external return fan with VFD is located along with unit in mechanical penthouse.

Mechanical (continued...)

Two (2) 100 ton air-cooled condensing units are located next to mechanical penthouse on roof and provide refrigerant for cooling

Gymnasium has (4) ceiling hung heating and ventilation units located in the space. Unit is comprised of supply fan, hot water coil, and filter section. Units provide mixed heating and ventilation air directly to the space with bottom air return.

Cafeteria air handling unit is located in mechanical penthouse above cafeteria wing. Unit is comprised of supply fan, filter section, and hot water heating coil. Unit is ducted supply and return with mixed outside air. Unit has MERV- 7 filters installed currently and pneumatic control. Unit is in poor condition and past its useful life.

Kitchen exhaust fan is located in mechanical penthouse above cafeteria wing. Unit is ducted to kitchen and exhaust out of the penthouse wall. Unit is in poor condition and past its useful life.

Auditorium air handling unit is located in mechanical penthouse above cafeteria wing. Unit is comprised of supply fan, filter section, and hot water heating coil. Unit is ducted supply and return with mixed outside air. Unit has MERV- 7 filters installed currently and pneumatic controls. Unit is in poor condition and past its useful life

Administration Office Area air handling unit is located in mechanical penthouse above cafeteria wing. Unit is comprised of supply fan, filter section, DX cooling coil and hot water heating coil. Unit is ducted supply and return with mixed outside air. Unit has MERV- 7 filters installed currently. Controls have been upgraded to direct digital controls and system is controlled by BMS. Unit is in generally poor condition and past its useful life

Library ventilation is provided by RTU-1 on roof above. Unit is gas fired heating with DX cooling and has outside air damper with relief. Unit has MERV- 7 filters installed. Outside air is mixed with conditioned supply air to space.

Control system is a mix of direct digital controls and pneumatics. Classroom air handling units, AHU-1 & 2, are fully controlled by BMS system along with AHU-3 for Admin area. Boilers have been fully integrated into BMS system also.

Large spaces including Cafeteria, Gymnasiums, and Auditorium are on pneumatic system with local controls in spaces.

Electrical

The following is a data summary of the electrical system's existing conditions that were observed and noted during the survey. This information was gathered by a field survey, reviewing the existing drawings and discussions with various building personnel.

Condition Codes	
Excellent	16-20 years useful life
Good	Good at present (11-15 years)
Fair	Minor / cosmetic repairs needed to maintain condition (6-10 years)
Poor	Immediate repairs needed to prevent deterioration (0-5 years)

Electrical Distribution Conditions

System	Condition	Comments
Main Service	Good	Equipment is well Maintained and in Good Condition.
Power Distribution	Good	Well Maintained and in Good Condition Overall.
Life Safety Power	N/A	There is No Life Safety Power to the Building.
Emergency Power	Excellent	Generator, Transfer Switch and Distribution Equipment is Well Maintained and in Excellent Condition.
Transformers	Good	Transformers are Part of Distribution Switchboard and are in Good Condition.
Grounding	Good	Service Equipment Grounding, Where Observed, Appeared Undamaged and in Good Condition.
Lightning Protection	N/A	There is No Lightning Protection System for the Building.

Power to the building originates at a utility pole located in the parking area on the east side of the facility. The utility company primary runs underground to a utility owned 480Y/277V, 3-phase, 4-wire pad mounted transformer located in a vault next to the Main Electrical Room. Secondary feeder bus runs from the utility vault to the Main Distribution Switchboard in the Main Electrical Room, off the courtyard at the north end of building Area 4.

The Main Distribution Switchboard is original to the building and consists of a 480Y/277V, 3-phase, 4-wire main switch, CT and distribution section, manufactured by General Electric and rated for 2000 amperes. The metering cubicle is arranged cold sequence with the meter mounted on a wall adjacent to the switchboard. The main switch section feeds a 2000A, 480Y/277V, 3-phase, 4-wire distribution section, which contains branch circuit breakers that feed panels and equipment at 480V located throughout building Areas 4, 5 and 6. A 480V primary/208Y/120V secondary transformer feeds a 208Y/120V distribution section that feeds branch circuit panelboards and equipment at 208/120V. All service entrance and distribution equipment that is part of this system is well maintained and in good condition.

A second distribution switchboard resides in a room near the southwest corner, lower level of building Area 1. This switchboard is fed from the main switchboard in building Area 4 and consists of a 480Y/277V, 3-phase, 4-wire main

Electrical (continued...)

switch section, manufactured by General Electric and rated for 1000 amperes. The main switch feeds a 1000A, 480Y/277V, 3-phase, 4-wire distribution section, which contains branch circuit breakers that feed panels and equipment at 480V located in building Areas 1, 2 and 3. A 480V primary/208Y/120V secondary transformer feeds a 208Y/120V distribution section that serves 208/120V loads. All service and distribution equipment that is part of this system is just over 20 years old and in good condition.

There is a third distribution switchboard located in the mechanical penthouse above building Areas 5 and 6. This consists of a 480Y/277V, 3-phase, 4-wire main switch, CT and distribution section, manufactured by General Electric and rated for 800 amperes. The main switch feeds a 800A, 480Y/277V, 3-phase, 4-wire distribution section, which contains branch circuit breakers that feed panels and equipment in the penthouse at 480V. A 480V primary/208Y/120V secondary transformer feeds a 208Y/120V distribution section that serves 208/120V loads. All service and distribution equipment that is part of this system is just over 20 years old and in good condition, with some minor cosmetic issues.

Branch circuit panelboards vary in age between those original to the building to those installed as part of later renovations. 480/277V panels serve mechanical equipment and lighting loads. 208/120V panels serve receptacles, small motors and various other loads. Branch circuit wiring is in EMT/armored cable, where observed. All wiring systems appear in good to excellent condition.

Optional Stand-by power to the building is provided by a 250kW @ .8 P.F., 480/277V, 3-phase, 4-wire diesel-fired generator with skid mounted fuel tank., manufactured by Generac, which resides outside in the courtyard, between building Areas 3 and 4. The generator is fed from a 600A automatic transfer switch for Optional Stand-by power, connected to 600A, 480/277V distribution panel, which serves mechanical equipment heating and cooling loads.

There is no separate source of Life Safety power for the building.

There is no evidence of a lightning protection system for the building.

Plumbing

The following is a data summary of the plumbing system's existing conditions that were observed and noted during the survey. This information was gathered by a field survey, reviewing the existing drawings and discussions with various building personnel.

Condition Codes	
Excellent	16-20 years useful life
Good	Good at present (11-15 years)
Fair	Minor / cosmetic repairs needed to maintain condition (6-10 years)
Poor	Immediate repairs needed to prevent deterioration (0-5 years)

Plumbing Conditions

System	Condition	Comments
Water Service	Fair	4" Service Size, Corrosion Forming on Piping
Fixtures	Good	Wall Hung and Floor Mounted Toilets, Manual Flush Valves, Manual and Sensor Type Faucets, Pipe Jacketing Coming Off of Some Fixtures
Domestic Cold Water Pipe	Good	Copper Piping
Domestic Hot Water Pipe	Fair	Indirect Storage Tank Water Heater
Sanitary & Vent Piping	Fair	Piping Showing Signs of Rust Forming
Storm Piping	Fair	Storm Piping Fittings in Gymnasium are Dented and Damaged, Roof Drains Appear to be in Good Condition
Natural Gas Piping	Good	
Irrigation	N/A	N/A

The water originates from the underground water main running under Hartford Turnpike and enters the building the boiler room which is located in the basement of the school. This water service coming into the building is a 4" service and appears to have rust beginning to form on some of the piping and pipe fittings.

There are both wall-hung and floor mounted toilets in this building. Each of these types of toilets are made of vitreous china and have manual flush valves attached to them. This building also has booth wall hung and floor mounted urinals in the bathrooms. Similarly to the toilets in the school, the urinals also have manual flush valves connected to them. There are wall hung lavatories in the bathrooms, both a vitreous china type of lavatory with manual faucets as well as a two-bay and a three-bay pre-fabricated lavatory with sensor type faucets can be found. Each of the classrooms has a counter-top drop-in type sink made of stainless steel. These classroom sinks also have manual twist faucets.

The copper piping in the building that flows the domestic water appeared to be in good condition for the most part, however there are some places, for example in the boiler room, where the copper piping appears to have

Plumbing (continued...)

corrosion starting to form on them.

This building's hot water comes from an older indirect gas fired water heater. This water heater appears to be older but still in fairly good working condition.
Both the sanitary and storm piping appeared to be in fair condition as the sanitary piping appeared to have rust beginning to for on the piping and on the pipe fittings. The storm piping however, appeared to be in better condition except for the piping and pipe fittings that were banged up and dented in the gymnasium.

There are no irrigation systems or piping within this building.

Fire Protection

The following is a data summary of the fire protection system's existing conditions that were observed and noted during the survey. This information was gathered by a field survey, reviewing the existing drawings and discussions with various building personnel.

Condition Codes	
Excellent	16-20 years useful life
Good	Good at present (11-15 years)
Fair	Minor / cosmetic repairs needed to maintain condition (6-10 years)
Poor	Immediate repairs needed to prevent deterioration (0-5 years)

Fire Protection Conditions

System	Condition	Comments
Fire Service	Fair	Service is 6"
Backflow Preventer	Fair	Service and Testing Up to Date, Insulation is Falling Off
Standpipe System	Good	Standpips in Auditorium, Stairwells
Sprinkler System	Good	Wet and Dry System
Fire Department Connection	Good	Post Mounted Siamese Connection
Heads	Fair	Concealed, Exposed Uprights with Guards
Piping	Good	Black Steel Piping
Fire Pump	N/A	N/A
Booster Pumps	N/A	N/A

This buildings fire protection service is fed by a 6" fire water service that originates from the underground water main.

The backflow preventer and fire protection risers inside of the boiler room appear to be in fair condition with the piping insulation falling off at the backflow preventer and rust and corrosion starting to form on some of the piping in that room. Service and testing appear to be up to date on the fire protection service with testing record being shown every year since 2016.

There are fire protection standpipes located in this building with one being located in the stairwell of the building and the other being located on the stage of the auditorium. Both of these standpipes appear to be in good condition with no signs of damage or corrosion on the piping.

There are both wet and dry fire protection risers at the fire protection service and both the piping and all of the associated valves are in good condition.

Black steel piping spreads the firewater throughout the building to concealed pendant sprinkler heads in the

Fire Protection (continued...)

classrooms and corridors and upright sprinkler heads with guards being found in the gymnasium. It was noted that some of the upright heads in the gymnasium were missing guards.

There is a free-standing post-mounted Siamese type fire department connection.

There are no fire or booster pumps in the fire protection system in this building.

Lighting

The following is a data summary of the lighting system's existing conditions that were observed and noted during the survey. This information was gathered by a field survey, reviewing the existing drawings and discussions with various building personnel.

Condition Codes	
Excellent	16-20 years useful life
Good	Good at present (11-15 years)
Fair	Minor / cosmetic repairs needed to maintain condition (6-10 years)
Poor	Immediate repairs needed to prevent deterioration (0-5 years)

Lighting Conditions

System	Condition	Comments
General Lighting	Fair	Fluorescent Fixtures Retrofitted with LED Lamps, Lighting Levels Adequate.
Emergency Lighting	Fair	Battery Powered Emergency Light Fixtures in Utility Areas and Along Paths of Egress
Exit Signs	Good	Battery Powered LED Fixtures at All Exits and Along Paths of Egress
Exterior Lighting	Good	LED and HID Building Mounted Fixtures Light Walkways and Parking Areas
Lighting Control	Fair	Occupancy Sensors with Manual Override
Theatrical Lighting	Good	Equipment is Well Maintained and in Good Working Condition

Interior lighting fixtures throughout the building consist mostly of 2'x4' recessed lay-in troffers with prismatic lenses in corridors and vestibules and 2'x4' recessed troffers with parabolic diffusers in office areas. Fixtures in classrooms are 1'x4' surface mounted with wraparound style lenses. Fixtures in the Gymnasium are pendant mounted LED high-bays with wire-guards. House lights in the Auditorium are recessed downlight cans. All interior fixtures have been retrofitted with LED lamps and drivers and are in fair to good condition. Light levels throughout the facility appeared adequate.

Battery operated emergency lights and remote emergency light heads are used to light egress paths in corridors, stairwells and above exit doors. Emergency fixtures were not tested for operation, but appear correctly installed and maintained.

Exit signs are LED with battery backup. Exit signage in all areas appears in compliance with current codes. All signage appears to be in good condition and operating properly.

A combination of HID wall packs and LED floods light the building exterior. Pole arm mounted style luminaires light roadways and parking areas.

A theatrical lighting and control system is installed in the Auditorium. All of this equipment is just over 20 years old, is well maintained and in good operating condition.

Lighting (continued...)

Lights in corridors and public spaces are controlled with toggle switches and ceiling mounted occupancy sensors. Lights in classrooms are controlled with toggle switches and wall mounted occupancy/vacancy sensors. Offices utilize wall occupancy sensors with manual override. Exterior lights are controlled via timeclock and photocell. No daylighting was observed.

Fire Alarm

The following is a data summary of the fire alarm system's existing conditions that were observed and noted during the survey. This information was gathered by a field survey, reviewing the existing drawings and discussions with various building personnel.

Condition Codes	
Excellent	16-20 years useful life
Good	Good at present (11-15 years)
Fair	Minor / cosmetic repairs needed to maintain condition (6-10 years)
Poor	Immediate repairs needed to prevent deterioration (0-5 years)

Fire Alarm System Conditions

System	Condition	Comments
Fire Alarm Control Panel	Good	Panels and Equipment Appear Well Maintained and in Good Working Condition
Initiating Devices	Good	Devices are Installed Properly and Appear in Good Working Condition
Indicating Devices	Good	Devices Appear Sufficient and in Good Working Condition
Area of Rescue	Fair	System Appears Undamaged with No Reported Issues
Voice Evacuation	Good	System Appears Well Maintained and in Good Working Condition
Elevator Recall	Good	System Appears to be Functioning with No Reported Issues

The building fire alarm system consists of an Edwards iO Series addressable fire alarm control panel with signal booster power supplies, networked with remote annunciators for voice evacuation. The Fire Alarm Control Panel is located in the Main Electrical Room and serves devices in all areas of the building. Remote annunciator panels are located in the Gymnasium and Cafeteria. The annunciator panels contain a microphone handset to allow annunciation over the building's speaker horn/strobe devices. Fire alarm speaker/strobe coverage throughout the building appears sufficient. Locations of manual pull stations are in compliance. All fire alarm devices appear to be mounted at the correct ADA height. Monitor and control modules for duct smoke detectors were not observed.

The building is equipped with a sprinkler system with supplemental smoke detection devices in corridors, storage areas and electrical rooms, heat detectors in mechanical spaces, tamper and flow alarm switches at the service entrance and standpipes. All systems appear operational and in compliance.

The Area of Rescue call system control panel is located in the main entrance vestibule with call for assistance stations in stair landings located throughout the facility.

Smoke detectors for elevator recall are located on the ceiling at each elevator landing.

Telecommunications

The following is a data summary of the telecommunications system's existing conditions that were observed and noted during the survey. This information was gathered by a field survey, reviewing the existing drawings and discussions with various building personnel.

Condition Codes	
Excellent	16-20 years useful life
Good	Good at present (11-15 years)
Fair	Minor / cosmetic repairs needed to maintain condition (6-10 years)
Poor	Immediate repairs needed to prevent deterioration (0-5 years)

Telecommunications System Conditions

System	Condition	Comments
Backbone Cabling	Good	Well Maintained with No Visible Damage
Rack System	Good	Well Maintained with No Visible Damage
Telecommunication Ground	Good	No Visible Damage - Observed at Telephone Equipment Backboard Only
Telephone Service Entrance	Good	Well Maintained with No Visible Damage
Data Horizontal Cabling	Good	Well Maintained with No Visible Damage
MDFs / IDFs	Good	Well Maintained and Functioning with No Apparent Issues
Pathways	Good	Well Maintained with No Visible Damage
Coaxial Cable	N/A	None Observed

Telecommunications services originate at a utility pole located in the parking area on the east side of the facility. Cabling runs underground and enters the building in the Main Telecommunications Demarc in the Main Electrical Room, where the telephone systems equipment backboard and equipment are located. From this location, service cabling runs to the data systems racks in the MDF. All equipment is well maintained and in good condition.

The main data systems rack is located in data closet in the Administration area. Data communications consists of a fiber backbone and a combination of wired outlets and wireless access points located throughout the facility. Typical classrooms contain a hardwired data drop approximate to the Teacher's desk and convenience drops that vary in quantity depending on room type. Wireless Access Point (WAP) devices are distributed throughout the facility – one per classroom or office suite and throughout corridors and common areas. All equipment and cabling appeared well maintained and in good condition.

General telephone utilization for the building is VoIP. This system operates through speaker handsets in classrooms and offices, and is tied into the building paging/public address system via ceiling and wall mounted speakers

Telecommunication Systems (continued...)

located throughout the facility. Combination analogue clock/ paging speakers are installed in classrooms. All systems appeared operational with no reported issues.

The building appears to contain elements of TV infrastructure at the data systems rack. This could not be confirmed as Video IPTV streaming provisions for the building.

Security System

The following is a data summary of the security system's existing conditions that were observed and noted during the survey. This information was gathered by a field survey, reviewing the existing drawings and discussions with various building personnel.

Condition Codes	
Excellent	16-20 years useful life
Good	Good at present (11-15 years)
Fair	Minor / cosmetic repairs needed to maintain condition (6-10 years)
Poor	Immediate repairs needed to prevent deterioration (0-5years)

Security System Conditions

System	Condition	Comments
Intrusion Alarm System	N/A	N/A
Video Monitoring	Good	Well Maintained and Functioning with No Apparent Issues
Access Control	Good	Functions Well with No Apparent Issues
Intercom System for Entrance	Good	Functions Well with No Apparent Issues

The building uses an access control system made up of card readers located at the main points of entry and at some interior doors. Headend equipment is by Altronix. Surveillance cameras are located at various points around the interior and exterior of the building. The video system is networked with a dedicated HD display located in the Administration and Facilities offices. All systems appear in good condition and functioning properly.

The Building is equipped with an Aiphone video entry/monitoring system, which allows communication between the two main points of entry and the Administration Office. The system is functioning properly and is in fair condition.

There was no evidence of an intrusion detection alarm system for the building.

Low Voltage Systems

The following is a data summary of the low voltage system's existing conditions that were observed and noted during the survey. This information was gathered by a field survey, reviewing the existing drawings and discussions with various building personnel.

Condition Codes	
Excellent	16-20 years useful life
Good	Good at present (11-15 years)
Fair	Minor / cosmetic repairs needed to maintain condition (6-10 years)
Poor	Immediate repairs needed to prevent deterioration (0-5 years)

Low Voltage System Conditions

System	Condition	Comments
Clock System	Good	Well Maintained with No Issues Reported
Public Address System	Fair	Working Condition with No Issues Reported
Stand-Alone Sound System(s)	Good	Well Maintained and in Good Working Condition
Assisted Listening	Good	Well Maintained and in Good Working Condition

The building uses program bells for class scheduling, controlled via a programmable timer located in the Administration Office. Combination analogue clock/speakers are installed in classrooms. This system also functions for public address announcements. All systems appear to be in good condition and fully operational.

A sound system equipment rack wired with the local assisted listening system is located in the Auditorium. The Auditorium is equipped with a complete stereo sound system with amplifier/mixer, speakers, microphones, etc. and infrared emitters for assisted listening wireless headsets. These systems were installed as part of renovations done in 2007-2008 and are in good condition.

M/E/P/FP Survey Photographs

1. Location:

Boiler Room

Description:

Water Service

2. Location:

Boiler Room

Description:

Fire Service and Risers

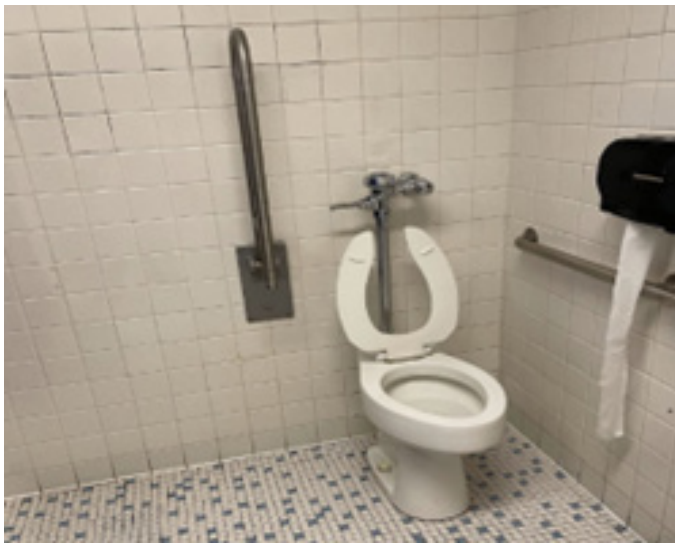
3. Location:

Boiler Room

Description:

Water Heater

M/E/P/FP Survey Photographs



4. Location:

Group Toilet Room

Description:

Toilet Room Fixtures

5. Location:

Group Toilet Room

Description:

Toilet Room Fixtures

6. Location:

Description:

M/E/P/FP Survey Photographs

7. Location:

Roof

Description:

Library Ventilation Roof Top Unit

8. Location:

Mechanical Penthouse

Description:

Cafeteria Air Handling Unit

M/E/P/FP Survey Photographs

9. Location:

Storage Room

Description:

Building Pneumatic Control Systems

10. Location:

Mechanical Penthouse

Description:

Pneumatic Controls Systems

11. Location:

Roof

Description:

Roof Top Chiller

M/E/P/FP Survey Photographs

12. Location:

Mechanical Room

Description:

Cast Iron Boilers

13. Location:

Mechanical Room

Description:

Hydronic Heating System Pumps

M/E/P/FP Survey Photographs

14. Location:

Main Electrical Room

Description:

Main Switchboard

15. Location:

Lower Level

Description:

Area 1 Switchboard

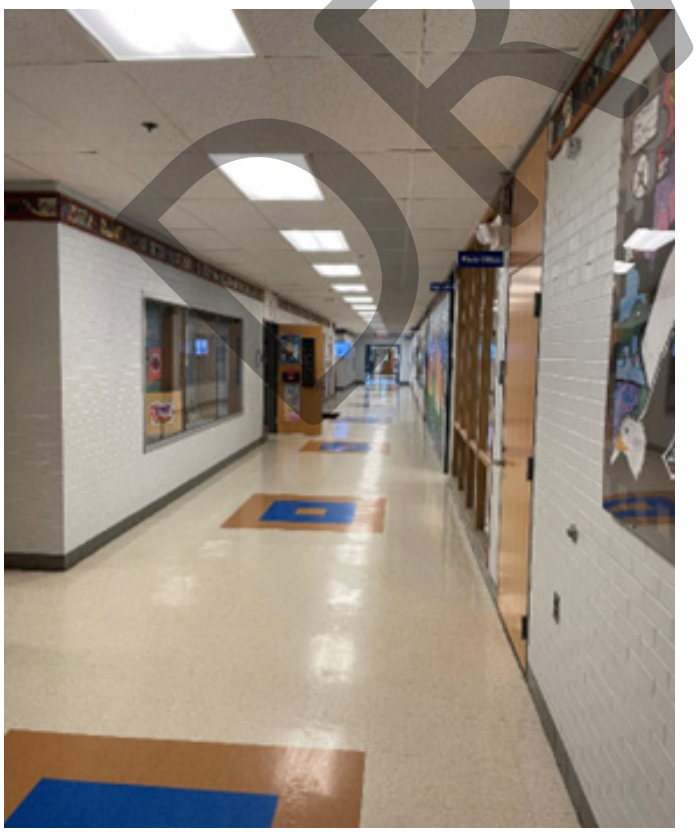
M/E/P/FP Survey Photographs

16. Location:

Exterior Courtyard

Description:

Generator



17. Location:

Main Level

Description:

Typical Corridor Lighting

M/E/P/FP Survey Photographs

18. Location:

Main Level

Description:

Typical Classroom Lighting

19. Location:

Main Level

Description:

Exit Signage with Area of Refuge

M/E/P/FP Survey Photographs

20. Location:

Main Electrical Room

Description:

Fire Alarm Control Panel

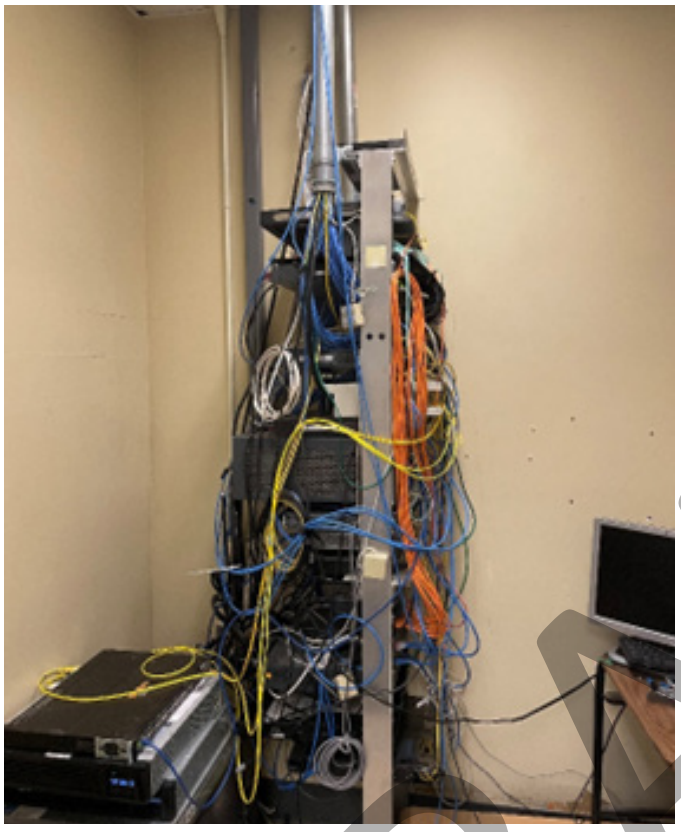
21. Location:

Entry Vestibule

Description:

Remote Annunciator Panel

M/E/P/FP Survey Photographs



22. Location:

Main Level

Description:

Data Systems Rack

23. Location:

Main Level

Description:

Typical Classroom Wall Phone

M/E/P/FP Survey Photographs

24. Location:

Exterior

Description:

Access Control Systems

25. Location:

Exterior

Description:

Surveillance Cameras and Building Egress Lighting

M/E/P/FP Recommendations

Recommendations for the existing building systems are listed below by trade.

The following represents areas of necessary **mechanical** improvements and / or required work.

- Heating Plant: The existing building is served by (2) mid-efficiency hot water boilers. The boilers are 17 years old and while not at the end of life we would recommend replacing with high efficiency condensing boilers for increased energy savings.
- Hot water pumps are nearing end of life and are recommended to be replaced in kind.
- Ventilation: Provide an energy efficient, code compliant ventilation system that meets present day ASHRAE and building code requirements. This system would include energy recovery to maximize ventilation and energy efficiency.
- Exhaust: Kitchen exhaust fan located in mechanical mezzanine is in poor condition and beyond its useful life. Recommend replacement of unit with upblast kitchen exhaust fan.
- Cooling: Classrooms are cooled by air handling units with remote condensers on roof. Recommend replacement of condenser units and rebuild of air handling units.
- Controls: Recommend replacement of all pneumatic controls with updated digital controls integrated to centralized building management system.
- Provide air handling unit including heating, cooling, energy recovery wheel, and mechanical ventilation for classrooms if window free area does not meet code requirements for natural ventilation.
- Library roof top unit is 17 years old and nearing its end of useful life. Recommend replacement with single zone variable air volume heating, cooling and ventilation roof top unit with outside air.
- Small gymnasium air handling units are past their useful life and should be replaced. Recommend replacement with single zone variable air volume heating, cooling and ventilation roof top unit with outside air.
- Large gymnasium air handling units are past their useful life and should be replaced. Recommend replacement with single zone variable air volume heating, cooling and ventilation roof top unit with outside air.
- Cafeteria unit is past its useful life, not functioning, and should be replaced. Recommend replacement with single zone variable air volume heating, cooling and ventilation roof top unit with outside air.
- Auditorium unit is past its useful life and should be replaced. Recommend replacement with single zone variable air volume heating, cooling and ventilation roof top unit with outside air.
- Admin Office Area unit is past its useful life and should be replaced. Recommend replacement with multi zone variable air volume heating, cooling and ventilation roof top unit with outside air.

The following represents areas of necessary **electrical** improvements and / or required work.

- Switchboard and distribution equipment is original to the building and nearing the end of its serviceable lifespan. Recommend replacement in 5-7 years. Branch panelboards that were installed as part of more recent renovations and / or upgrades, should provide service for another 15-20 years before replacement is necessary
- The generator and emergency distribution systems were installed as part of recent renovations. All equipment is in excellent condition. If maintained properly, it should provide reliable service for 20-30 years.
- There is no evidence of a lightning protection system for the building. Recommend installing a lightning protection system in the immediate future, to safeguard people and property from fire risk and related hazards associated with lightning exposure.

The following represents areas of necessary **plumbing** improvements and / or required work.

- Domestic water service and piping is nearing the end of its useful life and we recommend it be replaced in its entirety.

- Domestic Water heater is nearing the end of its useful life and we recommend it be replaced with a high-efficiency gas-fired water heater.
- Sanitary system (above and below grade) is nearing the end of its useful life and we recommend it be replaced in its entirety.
- Natural Gas service and system is nearing the end of its useful life and we recommend it be replaced in its entirety.
- Sanitary system (above and below grade) is nearing the end of its useful life and we recommend it be replaced in its entirety.
- Storm water system (above and below grade) is nearing the end of its useful life and we recommend it be replaced in its entirety.

The following represents areas of necessary **fire protection** improvements and / or required work.

- Fire service and associated piping is nearing the end of its useful life and we recommend it be replaced in its entirety.

The following represents areas of necessary **lighting** improvements and / or required work.

- Lighting systems in the building are old technology fluorescents retrofitted with LED lamps and drivers with wall toggle switches and occupancy sensor controls. As capital funding becomes available, recommend replacing existing lighting and control systems throughout the building with new technology LED fixtures, along with new low voltage controls, for improved efficiency and to comply with current energy code requirements.

The following represents areas of necessary **fire alarm** improvements and / or required work.

- No improvements or repairs are required at this time. Average life expectancy for fire alarm systems is 15 years. System equipment should be updated or replaced in the next 7-10 years to ensure system reliability.

The following represents areas of necessary **telecommunication system** improvements and / or required work.

- No improvements or repairs are required at this time. Upgrades to these systems (i.e. backbone cabling, workstation outlets, etc.) should be anticipated to accommodate new program requirements as they occur.

The following represents areas of necessary **security system** improvements and / or required work.

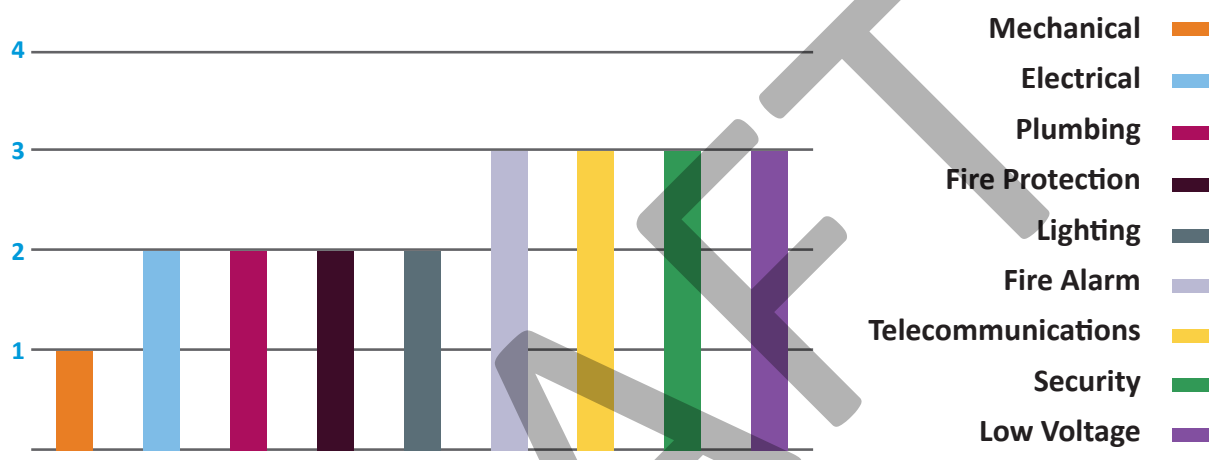
- Recommend a review of all access controlled doors and end-user operations be performed in the next 1-2 years, or as program needs dictate.
- Recommend a full system assessment be performed to verify all devices are connected and tested for proper operation in the next 1-2 years, or as program needs dictate.
- Recommend additional high definition cameras be added inside the school and any remaining analog cameras replaced with new HD units in the next 1-2 years, or as improvements in technology dictate.
- Recommend installation and implementation of an intrusion detection or silent alarm system within the next year.

The following represents areas of necessary **low voltage** improvements and / or required work.

- No improvements or repairs are required at this time. Improvement and / or replacement of these systems is recommended in the next 7-10 years, or as program needs dictate.

Existing Conditions Evaluation:

The elements reviewed under this assessment were ranked on a scale of 1-4, with a 4 rating equating to excellent conditions. Components that received a ranking of 3 are considered to be in good condition, while rankings of 2 and 1 are considered to be in fair and poor condition, respectively. The following chart graphically presents the results and their expected life spans.



Note: Ratings range from 1 (poor condition) to 4 (excellent condition)

Section 5 : Code Survey

5

IBC Code Survey

This section outlines the results of the code evaluation survey, listing the building's compliance with the IBC code regulations.

Vernon Center Middle School has been evaluated for compliance with the 2022 Connecticut State Building Code, including the 2021 IBC with Connecticut Supplements and Amendments, for Use Group E (Education). Since the scope of a potential alteration project is not yet defined, this report does not address code compliance with regard to future alterations. A change of use would require code compliance upgrades. Other required code upgrades are contingent upon the nature and extent of a specific alteration and are determined on a case-by-case basis.

Corrective work is required for compliance with IBC, under it's existing use and conditions. The majority of the IBC defines new construction requirements and is not a retroactive code.

IBC Summary Sheet	
Existing Use	Education
Year Constructed	1965, 2007
Type of Construction	IIB
% Open Perimeter	100%
Fire Suppression	Complete NFPA 13 System
Compartmentalization	10,357 sf
Fire Resistance Rating of Vertical Opening Enclosures	1 Hour
Automatic Alarms	Yes
Automatic Alarms Type	Smoke Detector
Smoke Control	Yes, limited
Smoke Control Type	(4) Smoke Hatches at Auditorium Stage
Mixed Use	Separated Use (Education, Assembly)
Dead End	<20'
Maximum Exit Access Travel Distance	<250'
Number of Stories	3 Stories
Floor Area(s)	26,695 sf (Ground Floor), 85,470 sf (First Floor), 20,649 sf (Second Floor), 3,174 sf (Roof Fan Rooms)
Reduction of Area Limitations	None
Corridor Wall Rating	None Required
Door Closers	Exit Doors, Classrooms
Adequate Exit Routes	Yes
Elevator Controls	Yes
Emergency Lights	Yes

IBC Code Survey (continued...)

Plan Conditions Verified for:	Yes / No
Fire Safety	Yes
Means of Egress	Yes
General Safety	Yes
Handicapped Accessibility	Yes

NFPA Code Survey

This section outlines the results of the code evaluation survey, listing the building's compliance with the NFPA code regulations. Vernon Center Middle School was evaluated for compliance with NFPA 101 Life Safety Code, 2021. Chapter 13, Existing Assembly Occupancies and Chapter 15, Existing Educational Occupancies, of the NFPA Code apply to this building.

NFPA Code Compliance

A listing of required elements per NFPA 101 code follows:

Classification of Occupancy	Description
Date of Original Construction	1965
Date of Addition(s)	2007
Primary Occupancy	Existing Education
Secondary Occupancy	N/A
Mixed Use	Existing Assembly (Incidental)

Fire Regulations	Description	Conforms (Y/N)
Stair Separation	1 Hour	Yes
Corridor Separation	None Required	N/A
High Hazard Occupancy	N/A	N/A
Doors		
Width	32" Minimum Clear Width	Yes
Swing Direction	In Direction of Egress unless serving < 50 Persons	Yes
Locks / Latches	Operable from direction of Egress	Yes
Exit Hardware	Panic Hardware at Exit Doors	Yes
Closers	At Mixed Use and Exit Doors	Yes
Stairs		
Classification	Existing	Yes
Width	48"	Yes
Riser	7"	Yes
Tread	11"	Yes
Guards	>30" Tall, Protected Openings	Yes
Handrails	Extend 1'-0" Beyond Top and Bottom of Run	Yes
Enclosure	1 Hour	Yes
Horizontal Exits	At all levels of 3 story portion of facility	Yes
Ramps	1:12 Per AnSI A117.1	Yes
Fire Escapes	N/A	N/A

NFPA Code Survey (continued...)

Means of Egress		
Occupant Load	4,887	N/A
Factor	20 Classrooms, 7/15 Assembly	N/A
Area per Floor	26,695 sf (Ground Floor), 85,470 sf (First Floor), 20,649 sf (Second Floor), 3,174 sf (Roof Fan Rooms)	N/A
Occupants per Floor	763 (Ground Floor), 2,588 (First Floor), 740 (Second Floor)	N/A
Exit Unit Widths	None < 32" Clear Width	Yes
Number of Exits	~18	Yes
Exit Location	Exterior	Yes
Exits through Spaces	Yes	Yes
Dead Ends/Common Travel	Dead End < 50' Common Path of Travel < 100'	Yes
Travel Exit	< 200'	Yes
Discharge	At Grade or Through Proper Egress Court	Yes
Illumination of Exits	-	Yes
Emergency Lighting	-	Yes
Exit Marking	Ceiling Mounted Signage	Yes
Fire Protection Features	Description	Conforms (Y/N)
Construction & Compartmentalization		
Construction - Minimum	II(000)	Yes
Requirements	N/A	N/A
Compartmentalization	10,357 sf	Yes
Flooring Openings Enclosed	1 Hour	Yes
Floor Openings Unenclosed	N/A	N/A
Concealed Spaces	N/A	N/A
Smoke Protection		
Smoke Barriers	Corridor/Classroom Separation (20 Min.)	Yes
Smoke Doors	At Classrooms	Yes
Smoke Dampers	Not Observed	N/A
Penetrations Sealed	Not Observed	N/A
Special Protection	N/A	N/A
Fire Rated Enclosure		
Trash	N/A	N/A

NFPA Code Survey (continued...)

Mixed Use	1 Hour (Assembly)	Yes
Corridors	None	Yes
Sprinklers - Entire Building	-	Yes
Selected Hazards	N/A	N/A
Other		
Interior Finish	-	Yes
Corridors & Stairwells	-	Yes
Non-Conforming Locations	None	Yes
Sprinkler Protection	Description	Conforms (Y/N)
Sprinkler Service	Wet and Dry sprinkler system	Yes
Area Serviced	Whole Building	Yes
Pressure	130 PSI Static 80 PSI Residual	Yes
Alarm Valve Size	4”	Yes
Service Size	6” fire service	Yes
Fire Department Connection	Post Mounted Siamese Connection	Yes
Sprinkler Spacing	Standard	Yes

Discharge from Exits	Conforms (Y/N)
50% required directly to exterior	Yes
Other through areas on level of discharge with protection	Yes
Building Service & Fire Protection Equipment	Conforms (Y/N)
Utilities	Yes
Smoke Control	Yes
Elevators, Dumbwaiters & Vertical Conveyors	Yes
Rubbish Chutes, Incinerators & Laundry Chutes	N/A
Detection, Alarm & Communication Systems	Fire Alarm
Automatic Sprinklers	Yes

Code Survey Recommendations

The code components of Vernon Center Middle School are considered mostly compliant with IBC and NFPA code requirements. Additional items, that pertain to life safety and ADA accessibility, are addressed under other sections of this report. Some issues are covered by more than one code. Estimates for required work are provided in the Opinion of Probable Costs section of this report.

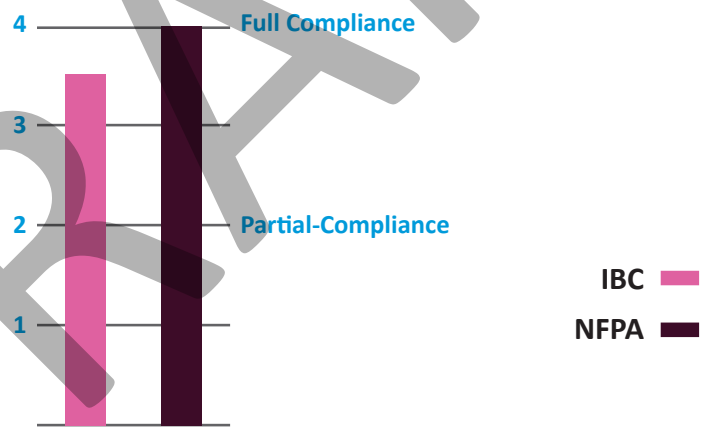
The following represents areas of necessary improvements and / or required work to meet IBC regulations.

- Install door closers on all classroom doors
- Maintain clear path of egress

There are no necessary improvements and/or required work to meet NFPA regulations at this time.

Existing Conditions Evaluation:

The graph below represents the building's overall conformity with IBC and NFPA requirements. Compliance was rated on a scale of 1-4, with a 4 rating equating to full compliance. A rating of 2 or under indicates that the building requires moderate to substantial code compliance updates in order to protect the safety of the building's occupants.



Section 6 : ADA Compliance Survey

6

ADA Compliance Survey Introduction

This section contains an ADA compliance report, consisting of a list of conditions which fail to meet code requirements, and brief descriptions.

The ADA compliance survey for Vernon Center Middle School was completed after data gathering and fieldwork. The Americans with Disabilities Act is a far-reaching civil rights law comprised of four parts. Title I affects employment practices. Title II addresses government-owned buildings and facilities. Title III is similar to Title II except that it addresses privately owned properties. Title IV addresses federally-regulated telecommunication.

This report solely addresses ADA Title II, and the report may serve as a basis for Vernon Public Schools Barrier Reduction Plan. However, this report does not propose specific design solutions for each ADA violation.

A survey checklist was also prepared during the on-site data collection process. Each survey element contains detailed items that reference specific ADA - Title II requirements from the Federal Register. The survey checklist consists of the following elements:

Item	Section
01	Site Access Route
02	Accessible Parking
03	Curb Ramps
04	Entrances
05	Accessible Route - Interior
06	Ramps
07	Stairs - Exterior
08	Stairs - Interior
09	Elevators
10	Platform Lifts
11	Doors
12	Drinking Fountains
13	Bathroom / Toilets
14	Telephones
15	Signage
16	Storage
17	Alarms
18	Seating & Tables
19	Libraries / Assembly Areas / Cafeteria

ADA Survey Failures

To complete this report the survey team walked through the building to evaluate and record the ADA elements. During this process, the team assessed whether the building "Passed" or "Failed" accessibility requirements. An item may have occurred several times within the building; however, if the item failed in one location only, the element was recorded as a "Fail". For example, "Handrails" are an item in the ADA checklist under the element "Stairs". A building may have two or three stairs. Handrails on one stair may fail to meet ADA Guidelines, where the others may meet such guidelines. In this instance, the item "Handrails" would be deemed to have failed to meet ADA Guidelines.

Another critical purpose of the survey is to determine if items that fail are "Readily Achievable." Although the Americans with Disabilities Act places both an architectural and legal definition to the term, this report focuses only on the architectural issues. The category "Readily Achievable" applies to existing building alterations / renovations and does not apply to new construction. The term "Readily Achievable" may also be defined as technically feasible. For example, a specific item may not be "Readily Achievable" due to existing structural or site conditions.

Finally, the survey team reviewed each ADA – Title II "Failed" item and assessed the extent of failures.

The following report documents the ADA requirements that Vernon Center Middle School failed to meet. Plan and photograph references, notes and whether or not the item is readily achievable are noted.

Entry #	Priority	Code Reference	Element	Item	Compliance Requirement	Readily Achievable	Pass/ Fail	Photo Ref #	Plan Ref #	Notes	Cost to Fix
7	0	403.5.2	Site Access Route	Walking Surfaces: Changes in Level: Passing Spaces	An accessible route with a clear width less than 60 inches shall provide passing spaces at intervals of 200 feet maximum. Passing spaces shall be either: a space 60 inches minimum by 60 inches minimum; or, an intersection of two walking surfaces providing a T-shaped space complying with 304.3.2 where the base and arms of the T-shaped space extend 48 inches minimum beyond the intersection.	Y	F	24			
11	0	403.3	Site Access Route	Walking Surfaces: Slope	The running slope of walking surfaces shall not be steeper than 1:20. The cross slope of walking surfaces shall not be steeper than 1:48	Y	F	28			
12	0	303.2	Site Access Route	Changes in Level: Vertical	Changes in level of ¼ inch high maximum shall be permitted to be vertical.	Y	F	26			
22	0	402.2	Curb Ramps	Components	Accessible routes shall consist of one or more of the following components: walking surfaces with a running slope not steeper than 1:20, doorways, ramps, curb ramps excluding the flared sides, elevators, and platform lifts. All components of an accessible route shall comply with the applicable portion of the standard.	Y	F	27,28			
25		405.5	Ramps	Clear Width	The clear width of a ramp run shall be 36 inches (915mm) minimum. Handrails and handrail supports that are provided on the ramp run shall not project into the required clear width of the ramp run. 405.6 Rise: The rise for any ramp run shall be 30 inches (760mm) maximum.	Y	F	8			
28	0	406.6	Curb Ramps	Location	Curb ramps and the flared sides of curb ramps shall be located so that they do not project into vehicular traffic lanes, parking spaces, or parking access aisles. Curb ramps at marked crossings shall be wholly contained within the markings, excluding any flared sides.	Y	F	29			

Date Prepared: 8/22/2023

ADA Compliance Survey

Vernon Center Middle School

Entry #	Priority	Code Reference	Element	Item	Compliance Requirement	Readily Achievable	Pass/ Fail	Photo Ref #	Plan Ref #	Notes	Cost to Fix
32		404.1	Entrances	Doors, Doorways	Doors and doorways that are part of an accessible route shall comply with Section 404.		F	1,5,11,20			
36		303.3	Access Route Interior	Changes in Level: Beveled	Changes in level greater than ¼ inch (6.4 mm) in height andnot more than ½ inch (13 mm) maximum in height shall be beveled with a slope not steeper than 1:2.	Y	F	30			
41		308.2.1	Access Route Interior	Forward Reach: Unobstructed	Where a forward reach is unobstructed, the high forward reach shall be 48 inches (1220 mm) maximum and the low forward reach shall be 15 inches (380 mm) minimum above the finish floor.	Y	F	10			
42		308.2.2	Access Route Interior	Forward Reach: Obstructed High Reach	Where a high forward reach is over an obstruction, the clear floor space complying with Section 305 shall extend beneath the element for a distance not less than the required reach depth over the obstruction. The high forward reach shall be 48 inches (1220 mm) maximum above the floor where the reach depth is 20 inches (510 mm) maximum. Where the reach depth exceeds 20 inches (510 mm), the high forward reach shall be 44 inches (1120 mm) maximum above the floor and the reach depth shall be 25 inches (635 mm) maximum.	Y	F	10,19			
43		309.4	Access Route Interior	Operable Parts: Operation	Operable parts shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate operable parts shall be 5 pounds (22.2 N) maximum. EXCEPTION: Gas pump nozzles shall not be required to provide operable parts that have an activating force of 5 pounds (22.2 N) maximum.	Y	F	4,5			
54		405.7.3	Ramps	Landings: Length	landings shall have a clear length of 60 inches (1525mm) minimum.	Y	F			Courtyard Entry	

Entry #	Priority	Code Reference	Element	Item	Compliance Requirement	Readily Achievable	Pass/ Fail	Photo Ref #	Plan Ref #	Notes	Cost to Fix
55		405.7.4	Ramps	Landings: Change in Direction	Ramps that change direction at ramp landings shall be sized to provide a turning space complying with Section 304.3.	Y	F			Courtyard Entry	
56		405.7.5	Ramps	Landings: Doorways	Where doorways are located adjacent to a ramp landing, maneuvering clearances required by 404.2.3 and 404.3.2 shall be permitted to overlap the required landing area. Where a door that is subject to locking is located adjacent to a ramp landing, the landing shall be sized to provide a turning space complying with Section 304.3	Y	F			Courtyard Entry	
57		405.8	Ramps	Handrails	Ramp runs with a rise greater than 6 inches (150mm) shall have handrails complying with 505.	Y	F			Courtyard Entry	
59		405.9.1	Ramps	Extended Floor Surfaces	The floor surface of the ramp run or ramp landing shall extend 12 inches (305mm) minimum beyond the inside face of a railing complying with 505.	Y	F				
62		505.2	Ramps	Handrails: Where Required	Handrails shall be provided on both sides of stairs and ramps. EXCEPTION: In assembly seating areas, handrails shall not be required on both sides of aisle stairs, provided with a handrail either at the side or within the aisle.	Y	F			Courtyard Entry	

Date Prepared: 8/22/2023

ADA Compliance Survey

Vernon Center Middle School

Entry #	Priority	Code Reference	Element	Item	Compliance Requirement	Readily Achievable	Pass/ Fail	Photo Ref #	Plan Ref #	Notes	Cost to Fix
66		505.6	Ramps	Handrails: Gripping Surface	Gripping surfaces shall be continuous, without interruption by newel posts, other construction elements, or obstructions. EXCEPTIONS: 1. Handrail brackets or balusters attached to the bottom surface of the handrail shall not be considered obstructions, provided the brackets or balusters comply with the following criteria: a. Not more than 20% of the handrail length is obstructed. b. Horizontal projections beyond the sides of the handrail occur 1 1/2 inches (38mm) minimum below the bottom of the handrail, and provided that for each 1/2 inch (13mm) of additional handrail perimeter dimension above 4 inches (100mm), the vertical clearance dimension of 1 1/2 inch (38mm) can be reduced by 1/8 inch (3.2mm) and c. Edges shall be rounded. 2. Where handrails are provided along walking surfaces with slopes not steeper than 1:20, the bottom of handrail gripping surfaces shall be permitted to be obstructed along their entire length where they are intergal to crash rails or bumper guards.	Y	F				
67		505.7.1	Ramps	Handrails: Circular Cross Section	Handrail gripping surfaces with a circular cross section shall have an outside diameter of 1¼ inches (32mm) minimum and 2 inches (51mm) maximum.	Y	F				

Entry #	Priority	Code Reference	Element	Item	Compliance Requirement	Readily Achievable	Pass/ Fail	Photo Ref #	Plan Ref #	Notes	Cost to Fix
71		505.10	Ramps	Handrails: Handrail Extensions	Handrails shall extend beyond and in the same direction of stair flights and ramp runs in accordance with 505.10. EXCEPTIONS: 1. Continuous handrails at the inside turn of stairs and ramps. 2. Handrail extensions are not required in aisles serving seating where the handrails are discontinuous to provide access to seating and to permit crossovers within aisles. 3. In alterations, full extensions of handrails shall not be required where such extensions would be hazardous due to plan configuration.	Y	F				
72		505.10.1	Ramps	Handrails: Top and Bottom Extension at Ramps	Ramp handrails shall extend horizontally above the landing for 12 inches (305 mm) minimum beyond the top and bottom of ramp runs. Extensions shall return to a wall, guard, or floor, or shall be continuous to the handrail of an adjacent ramp run.	Y	F				
77		505.2	Handrails	Handrails: Where Required	Handrails shall be provided on both sides of stairs and ramps. EXCEPTION: In assembly seating areas, handrails shall not be required on both sides of aisle stairs, provided with a handrail either at the side or within the aisle.	Y	F				

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ADA Compliance Survey

Vernon Center Middle School

Entry #	Priority	Code Reference	Element	Item	Compliance Requirement	Readily Achievable	Pass/ Fail	Photo Ref #	Plan Ref #	Notes	Cost to Fix
81		505.6	Handrails	Handrails: Gripping Surface	Gripping surfaces shall be continuous, without interruption by newel posts, other construction elements, or obstructions. EXCEPTIONS: 1. Handrail brackets or balusters attached to the botom surface of the handrail shall not be considered obstructions, provided the brackets or balusters comply with the following criteria: a. Not more than 20% of the handrail length is obstructed, b. Horizontal projections beyond the sides of the handrail occur 1 1/2 inches minimum below the bottom of the handrail, and provided that for each 1/2 inch of additional handrail perimeter dimension above 4 inches, the vertical clearance dimension of 1 1/2 inch can be reduced by 1/8 inch, and c. Edges shall be rounded. 2. Where handrails are provided along walking surfaces with slopes not steeper than 1:20, the bottom of the handrail gripping surfaces shall be permitted to be obstructed along the entire length where they are integral to crash rails or bumper guards.	Y	F				
82		505.7.1	Handrails	Handrails: Circular Cross Section	Handrails with a circular cross section shall have an outside diameter of 1¼ inches (32 mm) minimum and 2 inches (51 mm) maximum.	Y	F				
117		404.1	Doors	General	Doors, doorways, and gates that are part of an accessible route shall comply with 404. EXCEPTION: Doors, doorways, and gates designed to be operated only by security personnel shall not be required to comply with 404.2.6, 404.2.7, and 404.2.8.	Y	F				

Entry #	Priority	Code Reference	Element	Item	Compliance Requirement	Readily Achievable	Pass/ Fail	Photo Ref #	Plan Ref #	Notes	Cost to Fix
119		404.2.2	Doors	Clear Width	Doorways shall provide a clear width of 32 inches (815 mm) minimum. Clear opening width of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees. Openings more than 24 inches (610 mm) in depth at doors and doorways without doors shall provide a clear opening width of 36 inches (915 mm) minimum. There shall be no projections into the clear opening width lower than 34 inches (865 mm) above the floor. Projections into the clear opening width between 34 inches (865 mm) and 80 inches (2030 mm) above the floor shall not exceed 4 inches (100 mm). EXCEPTIONS: 1. Door closers and door stops shall be permitted to be 78 inches (1980 mm) minimum above the floor. 2. In alterations, a projection of 5/8 inch (16 mm) maximum into the required clear opening width shall be permitted for the latch side stop.	Y	F	1			
120		404.2.3	Doors	Maneuvering Clearances	Minimum maneuvering clearances at doors shall comply with 404.2.3 and shall include the full clear opening width of the doorway. Required door maneuvering clearance shall not include knee and toe clearance.	Y	F	11,20			

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ADA Compliance Survey

Vernon Center Middle School

Entry #	Priority	Code Reference	Element	Item	Compliance Requirement	Readily Achievable	Pass/ Fail	Photo Ref #	Plan Ref #	Notes	Cost to Fix
123		404.2.6	Doors	Door Hardware	Handles, pulls, latches, locks, and other operable parts on accessible doors shall have a shape that is easy to grasp with one hand and does not require tight grasping, pinching, or twisting of the wrist to operate. Operable parts of such hardware shall be 34 inches minimum and 48 inches maximum above the floor. Where sliding doors are in the fully open position, operating hardware shall be exposed and usable from both sides. EXCEPTION: Locks used only for security purposes and not used for normal operation shall not be required to comply with Section 404.2.6.	Y	F	4,5			
138		604.9.2.1	Toilet Compartments	Wheelchair Accessible Compartments: Size	Toilet compartments shall comply with Section 604.9.2.1 or 604.9.2.2 as applicable.	Y	F	7			
139		604.8.1.2	Toilet Compartments	Wheelchair Accessible Compartments: Doors	Toilet compartment doors, including door hardware, shall comply with 404, except that if the approach is to the latch side of the compartment door, clearance between the door side of the stall and any obstruction shall be 42 inches minimum. The door shall be self-closing. A door pull complying with Section 404.2.6 shall be placed on both sides of the door near the latch. Toilet compartment doors shall not swing into the required minimum area of the compartment.	Y	F	13,14			
143		604.9.6	Toilet Compartments	Ambulatory Accessible Compartments: Grab Bars	Grab bars shall comply with 609. Sidewall grab bar complying with 604.5.1 located on the wall closest to the water closet and a rear wall grab bar complying with Section 604.5.2 shall be provided.	Y	F	13			

Entry #	Priority	Code Reference	Element	Item	Compliance Requirement	Readily Achievable	Pass/ Fail	Photo Ref #	Plan Ref #	Notes	Cost to Fix
147		309.4	Mirrors / Accessories	Operation	Operable parts shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate operable parts shall be 5 pounds (22.2 N) maximum.	Y	F	10			
148		308	Mirrors / Accessories	Reach Ranges	Reach ranges shall comply with 308.	Y	F	10			
151		606.2, 305, 306	Lavatories / Sinks	Clear Floor Space	A clear floor space complying with 305.3, positioned for a forward approach, shall be provided. Knee and toe clearance complying with 306 shall be provided. The dip of the overflow shall not be considerd in determining knee and toe clearances. EXCEPTIONS: 1. A parallel approach complying with 305 and centered on the sink, shall be permitted to a kitchen sink in a space where a cook top or conventional range is not provided. 2. The requirement for knee and toe clearance shall not apply to a lavatory in a toilet or bathing facility for a single occupant, accessed only through a private office and not for common use or public use. 3. A knee clearance of 24 inches minimum above the floor shall be permitted at lavatories and sinks used primarily by children 6 through 12 years where the rim or counter surface is 31 inches maximum above the floor. 4. A parallel approach complying with 305 and centered on the sink, shall be permitted at lavatories and sinks used primarily by children 5 years and younger. 5. The requirement for the knee and toe clearance shall not apply to more that one bowl of a multibowl sink. 6. A parallel approach complying with Section 305 and centered on the sink, shall be permitted at wet bars.	Y	F	10			

Date Prepared: 8/22/2023

ADA Compliance Survey

Vernon Center Middle School

Entry #	Priority	Code Reference	Element	Item	Compliance Requirement	Readily Achievable	Pass/ Fail	Photo Ref #	Plan Ref #	Notes	Cost to Fix
152		606.3	Lavatories / Sinks	Height	The front of lavatories and sinks shall be 34 inches maximum above the floor, measured to the higher of the rim or counter surface. EXCEPTIONS: 1. A lavatory in a toilet or bathing facility for a single occupant accessed only through a private office and not for common use or public use shall not be required to comply with 606.3.2.	Y	F	10			
160		608.2.2	Shower Compartments	Standard Roll-In Type Shower Compartments	Standard roll-in type shower compartments shall be 30 inches wide minimum by 60 inches deep minimum clear inside dimensions measured at center points of opposing sides and shall have a 60 inches wide minimum entry on the face of the shower compartment.	Y	F				
161		608.2.2.1	Shower Compartments	Standard Roll-In Type Shower Compartments: Clearance	A clearance of 60 inches minimum in length adjacent to the 60 inch width of the open face of the shower compartment, and 30 inches minimum in depth, shall be provided. EXCEPTION: A lavatory complying with Section 606 shall be permitted at the end of the clearance opposite the seat.	Y	F				
162		608.2.3.1	Shower Compartments	Alternate Roll-In Type Shower Compartments	Alternate roll-in type shower compartments shall have a clear inside dimension of 60 inches minimum in width, and 36 inches in depth, measured at the center point of opposing sides. An entry 36 inches minimum in width shall be provided at one end of the 60 inch width of the compartment. A seat wall, 24 inches minimum and 36 inches maximum in length, shall be provided on the entry side of the compartment.	Y	F				

Entry #	Priority	Code Reference	Element	Item	Compliance Requirement	Readily Achievable	Pass/ Fail	Photo Ref #	Plan Ref #	Notes	Cost to Fix
168		608.6	Shower Compartments	Thresholds	Thresholds in roll-in type shower compartments shall be ½ inch maximum in height in accordance with Section 303. In transfer type shower compartments, thresholds ½ inch maximum in height shall be beveled, rounded, or vertical. EXCEPTION: In existing facilities, in transfer-type shower compartments where provision of a threshold 1/2 inch in height would disturb the structural reinforcement of the floor slab, a threshold 2 inches maximum in height shall be permitted.	Y	F				
182		704.2.1.1	Telephones	Parallel Approach	Where a parallel approach is provided, the distance from the edge of the telephone enclosure to the face of the telephone shall be 10 inches maximum.	Y	F	19			
183		704.2.1.2	Telephones	Forward Approach	Where a forward approach is provided, the distance from the front edge of a counter within the enclosure to the face of the telephone shall be 20 inches (510 mm) maximum.	Y	F	19			
184		704.2.2	Telephones	Wheelchair Accessible Telephones: Operable Parts	Operable parts shall comply with Section 309. Telephones shall have push-button controls where such service is available.	Y	F	19			
191		703.1	Signage	General	Accessible signs shall comply with Section 703. Tactile signs shall contain both raised characters and braille. Where signs with both visual and raised characters are required, either one sign with both viaual and raised characters, or two separate signs, one with visual, and one with raised characters, shall be provided.	Y	F	12,18			

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ADA Compliance Survey

Vernon Center Middle School

Entry #	Priority	Code Reference	Element	Item	Compliance Requirement	Readily Achievable	Pass/ Fail	Photo Ref #	Plan Ref #	Notes	Cost to Fix
192		703.1.1	Signage	Designations	Interior and exterior signs identifying permanent rooms and spaces shall comply with sections 703.1, 703.2, and 703.3. EXCEPTION: Exterior signs that are not located at the door to the space they serve shall not be required to comply with 703.3.	Y	F	12,18			
196		703.4.5	Signage	Installation Height and Location	Braille shall be 48 inches and 60 inches maximum above the floor, measured from the baseline of the braille cell. EXCEPTION: Elevator car controls shall not be required to comply with 703.4.5.	Y	F	18			
200		308	Storage	Reach Ranges	Reach ranges shall comply with Section 308.	Y	F			Low Casework	
201		309	Storage	Operable Parts	Operable parts required to be accessible shall comply with Section 309.	Y	F				
204		902.2	Dining Surfaces and Work Surfaces	Clear Floor Space	A clear floor space complying with Section 305, positioned for a forward approach, shall be provided. Knee and toe clearance complying with Section 306 shall be provided. EXCEPTIONS: 1. At drink surfaces 12 inches or less in depth, knee and toe space shall not be required to extend beneath the surface beyond the depth of the drink surface provided. 2. Dining surfaces that are 15 inches minimum and 24 maximum in height are permitted to have a clear floor space complying with Section 305 positioned for a parallel approach.	Y	F	17			
214		802.2	Assembly Areas	Wheelchair Spaces: Floor Surface	The floor surface of wheelchair space locations shall have a slope not steeper than 1:48 and shall comply with Section 302.	Y	F	2			
219		802.7	Assembly Areas	Companion Seats	A companion seat, complying with Section 802.7, shall be provided beside each whellchair space.	Y	F				

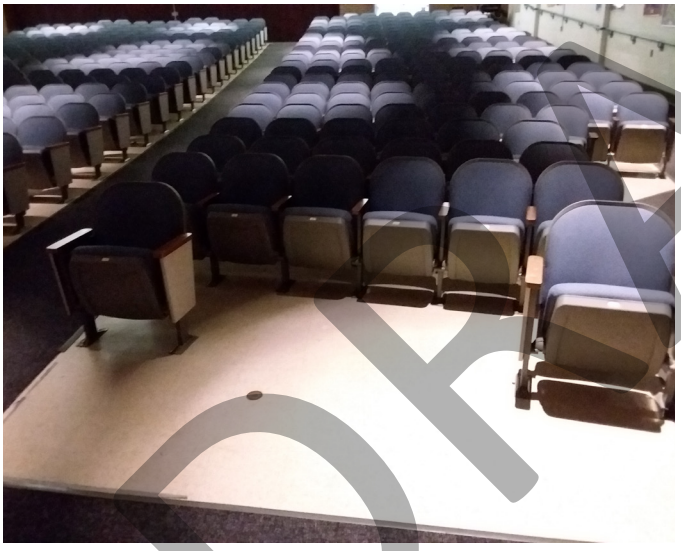
ADA Survey Photographs

1. Location:

Main Office

Description:

Door does not meet required clear width of 34” in order to provide a 32” clear space when fully opened.



2. Location:

Auditorium

Description:

Accessible Seating does not allow companion seats to be seated shoulder to shoulder.

3. Location:

Boys Toilet Room

Description:

The urinals are original, they do not provide the required clear width for a front approach with the required screens, and control height.

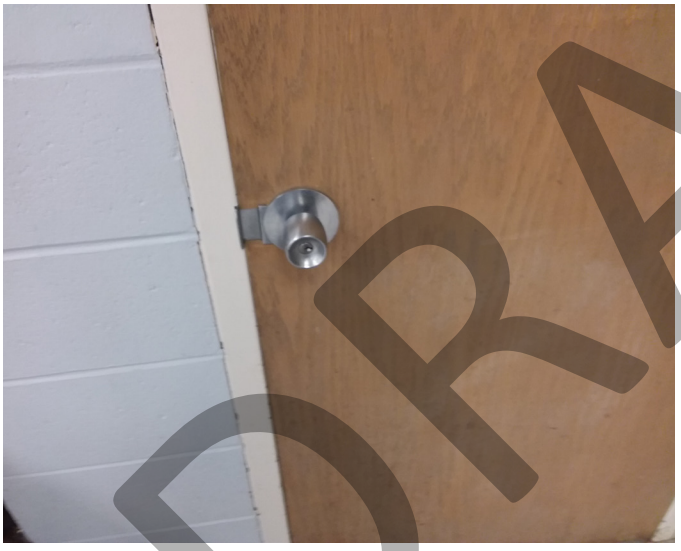
ADA Survey Photographs

4. Location:

Music Room

Description:

Storage cabinet hardware requires tight gripping to operate.



5. Location:

Music Room

Description:

Practice room doors require tight gripping and wrist movement to operate.

6. Location:

Kitchen

Description:

There is not an accessible hand sink located in the kitchen prep area. Drain piping interferes with required pull under distances.

ADA Survey Photographs

7. Location:

Toilet Room

Description:

Marked Accessible Toilet Room is does not meet clear space requirements of 56” x 60”.

8. Location:

Courtyard

Description:

Accessible entrance to courtyard, handrails are not present on both sides of the ramp. Handrail does not extend required 12” beyond end of ramp.

9. Location:

Boy’s Locker Room

Description:

Shower transition is greater than 3/4”.

ADA Survey Photographs

10. Location:

Wood Shop

Description:

This is the ony sink available in this room. Sink does not meet height requirements for pull under distance. Accessories are mounted above maximum required 48”. Mirror is mounted above maximum required 40”.

11. Location:

Food Lab

Description:

Minimum required clear width of 18” is not achieved on latch side of front approach pull door. Typical at many classrooms throughout the facility.

12. Location:

Corridor

Description:

Signage does not meet accessibility requirements of having raised lettering and braille characters. Typical at most classrooms in newer addition wing.

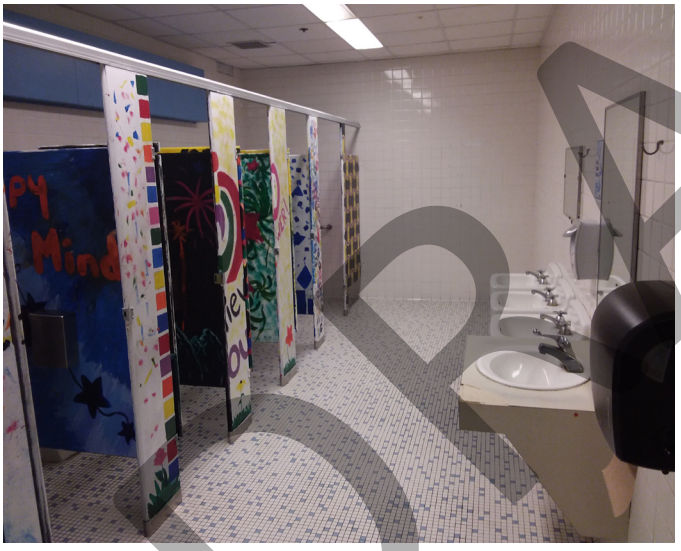
ADA Survey Photographs

13. Location:

Girl's Toilet Room

Description:

No vertical grab bar provided in accessible stall.



14. Location:

Girl's Toilet Room

Description:

Stall doors are not self closing. There is not an ambulatory stall provided as required for every 6 total stalls.

15. Location:

Classroom

Description:

Eyewash station impedes on the required 18" clear width on the latch side of a front approach pull door.

ADA Survey Photographs

16. Location:

Science Classroom

Description:

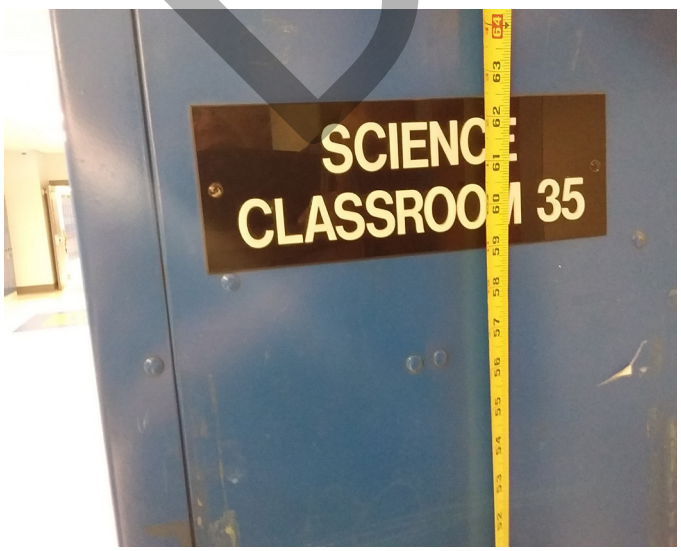
This sink is the only available in this room. Does not meet accessibility requirements for counter height or pull under distance. Typical at science classrooms.

17. Location:

Science Classroom Storage

Description:

Storage room does not meet clear width requirement of 36”, and a turning space is not provided.



18. Location:

Corridor

Description:

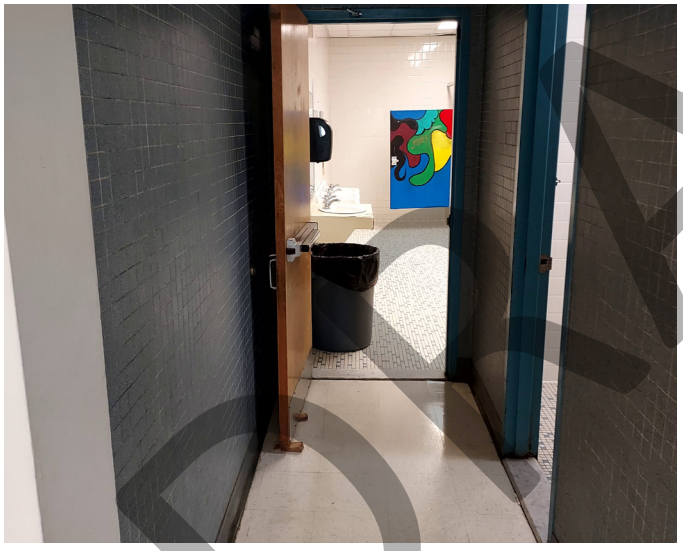
Signage does not include raised letters or braille characters. Signage has critical information located above the maximum required 60”.

19. Location:

Science Classroom

Description:

Telephone is located above the maximum required height of 48”.



20. Location:

Boys Toilet Room

Description:

Does not meet required clear distance of 12” on latch side of door for a front approach pull door.

21. Location:

Site

Description:

Accessible route from gymnasium to field is not continuous. The accessible route from the gym to the fields involves an overly complex path.

22. Location:

Building Exit at Gymnasium

Description:

23. Location:

Athletic Fields - North of the Building

Description:

Accessible parking and an accessible route to the fields has not been provided.

24. Location:

Northwest Corner of the Building

Description:

The curb ramp is not in compliance at the intersection, and tactile warning needs to be provided.

25. Location:

Northwest Corner of the Building

Description:

The crosswalk to the fields from the building is not connected to an accessible route.

26. Location:

Northeast Corner of the Building

Description:

Tactile warning is not provided at the curb ramp.

27. Location:

Northeast Corner of the Building

Description:

The sloped walkway from the entrance to the accessible route is greater than 1 in 20

28. Location:

Access to the Public Way

Description:

Access is provided but the slope of the walkway exceeds 1 in 20.

29. Location:

Access to Parking Area

Description:

The accessible crosswalk leads into vehicular traffic.

30. Location:

Southwest Corner of the Building

Description:

The double doors are not on grade and require a ramped exit / entrance

31. Location:

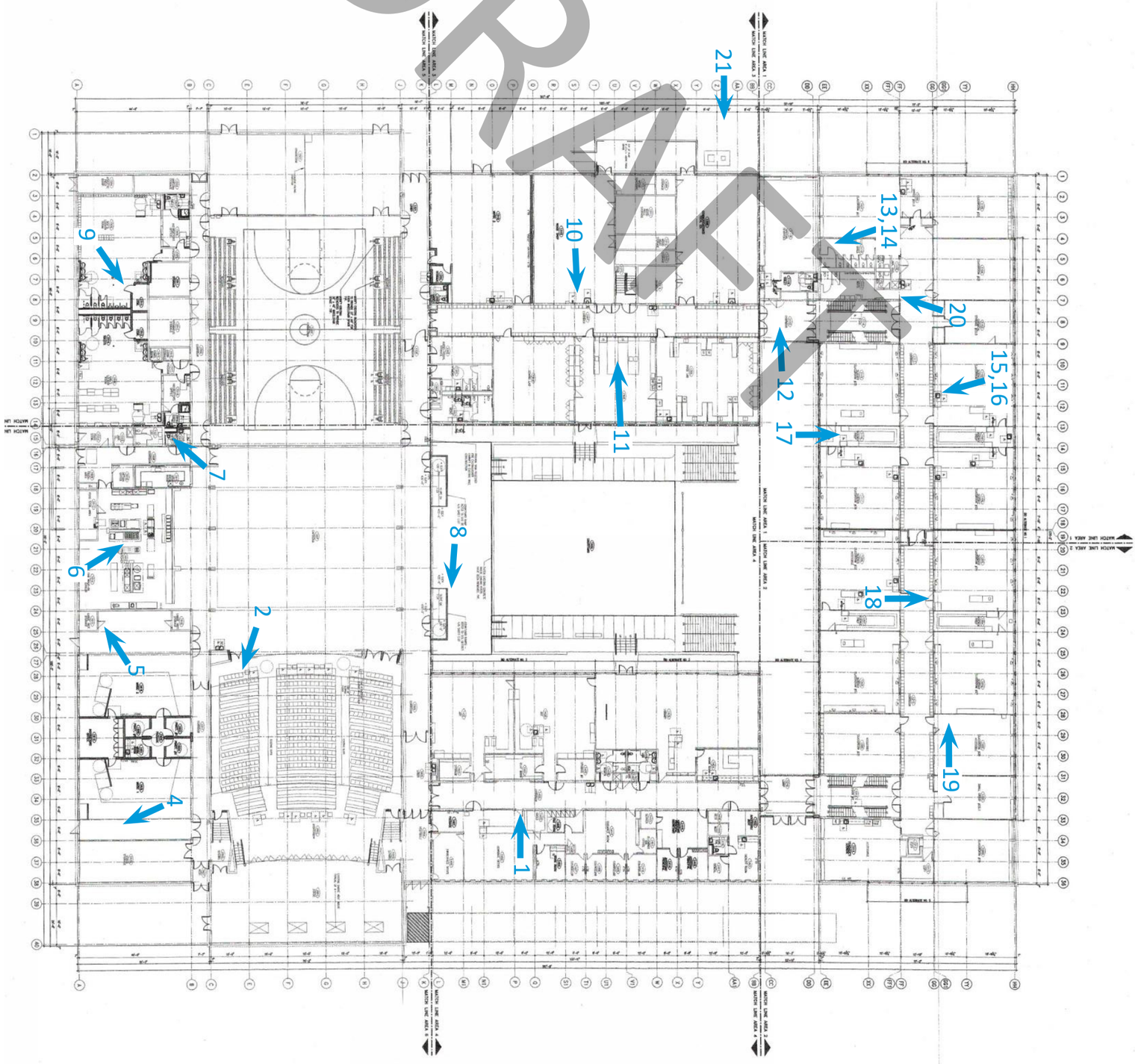
Courtyard

Description:

All of the levels of the courtyard are not accessible, therefore exiting is not provided from each level. The tables provided are not accessible

ADA Survey Photograph Key Plans

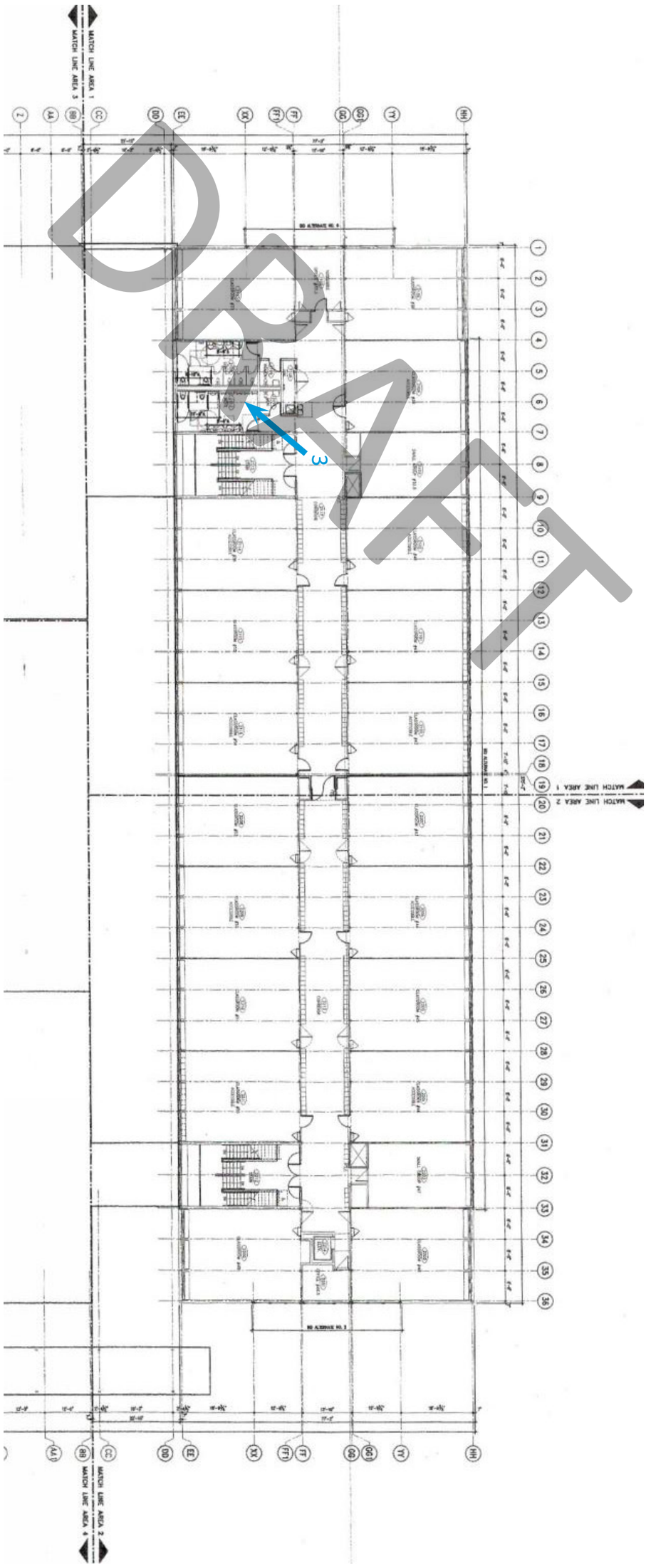
The following plan shows the actual building plan as verified during field surveys. Photographs from the previous pages are keyed into the building plans with numbered arrows at the approximate photograph site and direction from which the photographs were taken.



Vernon Center Middle School

Main Level Plan

ADA Survey



Vernon Center Middle School

Upper Level Plan

ADA Survey

Vernon Center Middle School

Site Plan

ADA Survey Recommendations

Vernon Center Middle School was evaluated based on the Americans with Disabilities Act (ADA), Title II, for public building accessibility. ADA is an act of Congress mandating certain standards for accessibility that are enforceable through the civil courts. Vernon Center Middle School fails to meet some of these requirements, evident in the "ADA Compliance Survey".

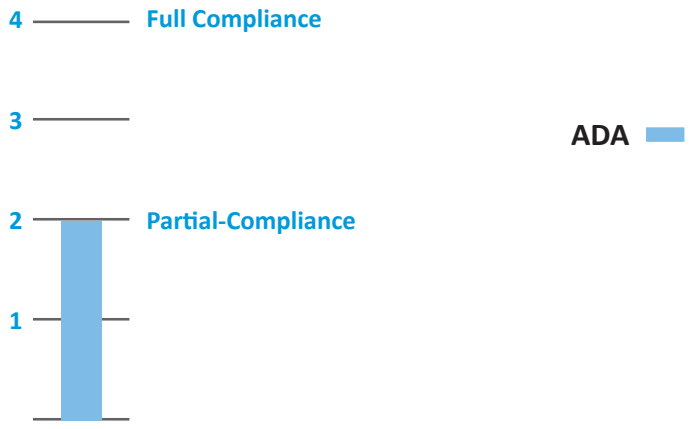
The building was evaluated based on a review of existing documentation, field verification of existing space usage and discussions with building staff to confirm existing space allocation and usage.

The work recommended to address ADA compliance issues includes providing:

- Modify existing light switches and existing casework to ensure there is an 18" x 18" clear space centered on the light switch.
- Modify or replace any existing door hardware that does not meet accessibility requirements. Mainly related to knob type door handles.
- Modify seating in auditorium so that companion seats sit should to should with accessible seating.
- Modify drain piping routing for hand sink in kitchen to provide proper pull under distance.
- Correctly identify all toilet rooms that are not accessible and provide proper signage. Currently there are several toilet rooms that are marked as accessible but do not meet multiple requirements. Rather than modify all toilet rooms to be accessible, signage can be used to point toward the nearest accessible toilet room.
- Modify handrails for ramp to exterior courtyard to extend 12" past the end the ramp.
- Modify existing signage so that the bottom of the top most line of text is below 60" min.
- Modify mirror mounting heights in all accessible bathrooms to the minimum 40" requirement.
- Modify doors locations at existing classrooms and restrooms to provide adequate push/pull offsets.
- Provide clearly indicated accessible lockers throughout the school.
- Modify layout of classroom storage spaces to provide proper clear width and turning radius.
- Provide an accessible route from the gymnasium to the athletic fields. Currently students will either need to walk through a sloped parking lot, or walk to the main entrance and around the entire school to access the fields.

Existing Conditions Evaluation:

The graph below represents the building's overall conformity with ADA requirements. Compliance was rated on a scale of 1-4, with a 4 rating equating to full compliance. A rating of 2 or under indicates that the building requires moderate to substantial code compliance updates in order to protect the safety of the building's occupants.



Section 7 : Site Survey

7

Existing Site Conditions

This section provides a listing of existing conditions followed by summary descriptions for the site components. A site plan is provided along with photographs of existing conditions that identify areas requiring attention. Existing site utilities are also identified. Recommendations for site improvements are discussed to provide Vernon Public Schools with an overview of the required work.

Map Data: Google

Vernon Center Middle School

Plan Drawings	2007 Additions & Alterations
Photos	2023 Survey
Date Built	1965
Site / Civil & Landscape Architect	2007 Additions & Alterations: Ferrero, Hixon Associates / Diversified Technology Consultants
Date(s) Additions	2007
Zone	R- 27
Gross Area (site)	74.13 Acres

The following is a data summary of the site conditions that were observed and noted during the survey. This information was gathered by a field survey, reviewing the existing drawings and discussions with various building personnel.

Site Conditions

The following codes are used throughout this report to identify the condition of various elements.

Condition Codes	
Excellent	16-20 years useful life
Good	Good at present (11-15 years)
Fair	Minor / cosmetic repairs needed to maintain condition (6-10 years)
Poor	Immediate repairs needed to prevent deterioration (0-5 years)

	Material	Condition
Entry Drive		
Primary Surface	Bituminous	Good
Curbs	Bituminous	Good
Striping	Minimal	Fair
Signage	Yes	Good
Walkways		
Primary Surface	Concrete, Bituminous	Fair to Good
Curbs	Concrete, Bituminous	Good
Signage	Yes	Good
Handicap Access	Yes	Good
Parking		
Total Spaces	189	Good
Designated Handicap Spaces	6	Good
Primary Surface	Bituminous	Fair to Good
Curbs	Bituminous, Concrete	Fair to Good
Striping	Yes	Fair to Good
Signage	Yes	Good
Fields/Play Areas		
Field(s)	Grass	Good
Play Area(s)	N/A	N/A
Play Scape(s)	N/A	N/A
Planting/Features		
Plant Beds	Yes, various	Good
Trees/Shrubs	Various	Good

Service Drive/ Loading Area		
Primary Surface	Bituminous	Good
Curbs	Bituminous	Good
Striping	Minimal	Fair
Signage	No	N/A

The following is a summary of the site survey of this building.

Item	Summary
Site Lighting	Parking lots and driveways have pole lighting. There are wall mounted light fixtures on the exterior of the building. See MEP Survey for additional utility information.
Driveways/Walkways	Walkways are a mix of bituminous and concrete. A few need to be replaced - see photographs for examples.
Parking	The Northeast parking lot was being used for construction lay down at the time of the visit so it was not fully surveyed. Overall the parking areas were in fair to good condition but the curbs and striping in some areas need to be redone.
Topography	The main entrance from Hartford Turnpike is flat and continues to be relatively flat. The site begins to slope at the retaining wall toward the north end of the main parking area. The site slopes on the west side of the building down to grassy field areas. The three story portion of the building is on the north end of the site where the slope is the greatest.
Drainage	Drainage on the site is composed of sloped bituminous areas and site drains.
Field/Play Areas	Grassy areas for soccer fields. Baseball field with metal bleachers
Plantings	There is a planting bed with the school sign at the main entrance off of Hartford Turnpike. Trees separate the school site from adjacent properties.
Service Area	An area along the South side of the site has dumpsters and a striping on the pavement designating a no parking area. This area is adjacent to the Kitchen. Another area on the West side of the site also had dumpsters at the time of the survey. This area is adjacent to the Wood Shop and Tech Ed classrooms.
Other	Gravel drive leading to disc golf course.

Site Survey Photographs

1. Location:

East Parking lot

Description:

Parking lot was used as a staging area for ongoing construction. Areas of vegetation overgrowth visible at curbs. Reseed grass in patchy areas throughout site.

2. Location:

East Parking lot

Description:

Pavement sloped and no curbing for drainage

3. Location:

East Parking lot

Description:

Damaged bituminous curb.

Site Survey Photographs

4. Location:

South Parking Lot

Description:

Concrete around walkway handicap access damaged.

5. Location:

South Parking Lot

Description:

Service area to the right. Additional signage for loading and unloading would be beneficial.

6. Location:

West Driveway

Description:

Crack in bituminous pavement

Site Survey Photographs

7. Location:

Southwest Corner

Description:

Bituminous pavement cracking in several locations. Vegetation overgrowth onto tactile warning pad.

8. Location:

North Parking

Description:

Gravel parking area / driveway leading to disc golf course.

Site Survey Photographs

9. Location:

North Drive

Description:

Concrete walkway very cracked - needs to be replaced.

10. Location:

North Play Fields

Description:

Tire tracks leading to baseball field

Site Survey Photographs

11. Location:

East Walkway Adjacent to Retaining Wall

Description:

Missing concrete in walkway

Site Photograph Key Plan

The following plan shows the actual building plan as verified during field surveys. Photographs from the previous pages are keyed into the building plans with numbered arrows at the approximate photograph site and direction from which the photographs were taken.

Site Survey

Vernon Center Middle School

Site Plan

Site Recommendations

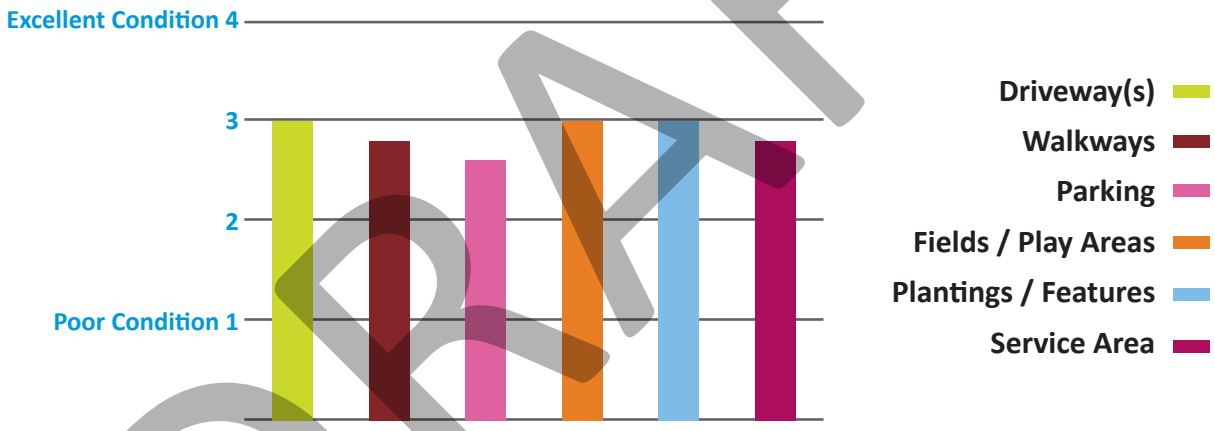
The site components of Vernon Center Middle School are in fair to good condition.

The following represents areas of necessary site improvements and / or required work.

- Repair damaged bituminous curbs in parking area
- Repair damaged concrete and bituminous walkways
- Provide signage at service areas
- Reseed grass in patchy areas

Existing Conditions Evaluation:

The elements reviewed under this assessment were ranked on a scale of 1-4, with a 4 rating equating to excellent conditions. Components that received a ranking of 3 are considered to be in good condition, while rankings of 2 and 1 are considered to be in fair and poor condition, respectively. The following chart graphically presents the results and their expected life spans.



Notes:

- Ratings range from 1 (poor condition) to 4 (excellent condition)
- Please refer to MEP survey for complete utility prioritization.

Section 8 : Opinion of Probable Costs

8

Opinion of Probable Costs

This section provides an estimate of probable costs for the work required to bring the building into compliance with applicable codes and meet safety requirements. Non-code related items are also included to identify the costs associated with meeting suitable architectural, structural and site standards. The estimates for this work are compared to the cost of replacing the existing structure.

The following opinion of probable costs was developed utilizing data obtained by conducting a survey of the existing building as well as knowledge of upgrades required at similar facilities and industry standards. The estimate was generated on the basis of a 20-year life expectancy for all building elements. The need for the building to be provided with the same features and upgrades as a typical building was taken into account. This estimate can be used as a tool to help facilitate prudent fiscal decisions relating to future projects at Vernon Center Middle School.

The estimate of work required at Vernon Center Middle School is based on meeting current applicable code and safety requirements. Non-code related items necessary to meet suitable architectural standards for occupancy are also included. Both unit and square-footage prices were utilized to prepare the estimate, based on Means Building Construction Cost Data and recent bid data. The itemized ADA Compliance Survey Information estimates were used as a basis in determining the costs related to ADA compliance. Items were reviewed for duplicity.

The estimate includes the following modifications:

- xxxx
- xxxx
- xxxx
- xxxx
- xxxx
- xxxx
- xxxx

Section 9 : Appendix

9

Appendix

This section contains miscellaneous items that support information provided within this report and is included for reference.

This appendix includes the following items:

- Roof Survey Report - Garland
- AHERA Six Month Periodic Surveillance

Facility Summary

Client: Vernon Public School District

Facility: Vernon Center Middle School

Facility Data

Address 1	777 Hartford Turnpike
City	Vernon
State	Connecticut
ZIP	06066
Type of Facility	School
Square Footage	89,121
Contact Person	Mr. Mark Rizzo

Asset Information

Name	Date Installed	Square Footage	Roof Access
Low Slope Section's	2016	92,000	Ladder Needed

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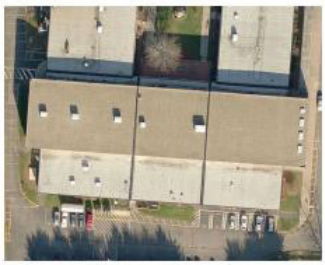
ROOF MEASUREMENT REPORT

777 Hartford Turnpike, Vernon, CT 06066

Report Contents

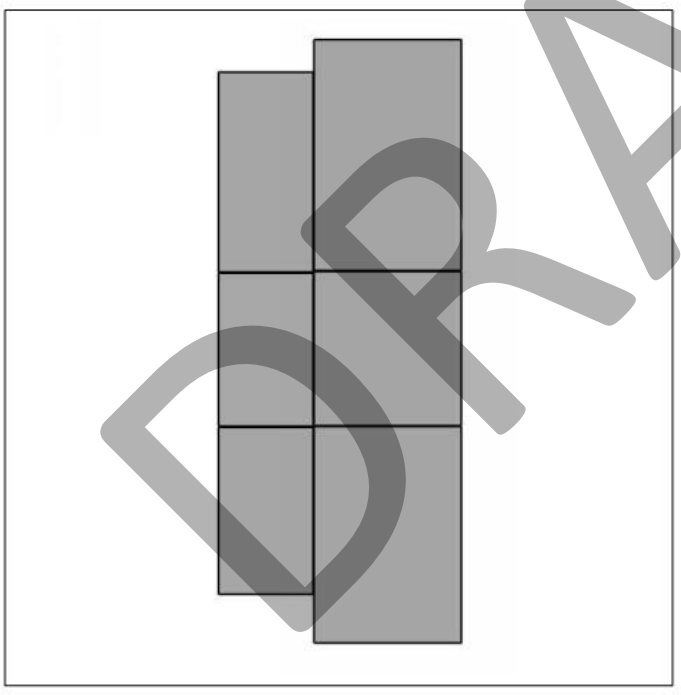


Report Details

Date:	02/28/2013
Report:	5464584
Building:	1

Roof Details

Total Area:	39,120 sq ft
Total Roof Facets:	6
Predominant Pitch:	0/12
Number of Stories:	>1
Total Ridges/Hips:	0 ft
Total Valleys:	0 ft
Total Rakes:	0 ft
Total Eaves:	0 ft
Total Penetrations:	17
Total Penetrations Perimeter:	325 ft
Total Penetrations Area:	435 sq ft



In this 3D model, facets appear as semi-transparent to reveal overhangs.

Report Run By:

Contact:	Jeremy Cogdill
Company:	The Garland Company, Inc.
Address:	3800 East 91St Cleveland OH 44105
Phone:	802-598-2974

Contact Us:

--

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Jeremy Cogdill
Territory Manager - Southern & Eastern CT
The Garland Company, Inc.
m: (802) 598-2974
p: (860) 204-1006
e: Jcogdill@garlandind.com
s: www.garlandco.com

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ROOF MEASUREMENT REPORT

REPORT IMAGES

The following aerial images show different angles of this structure for your reference.

Top View

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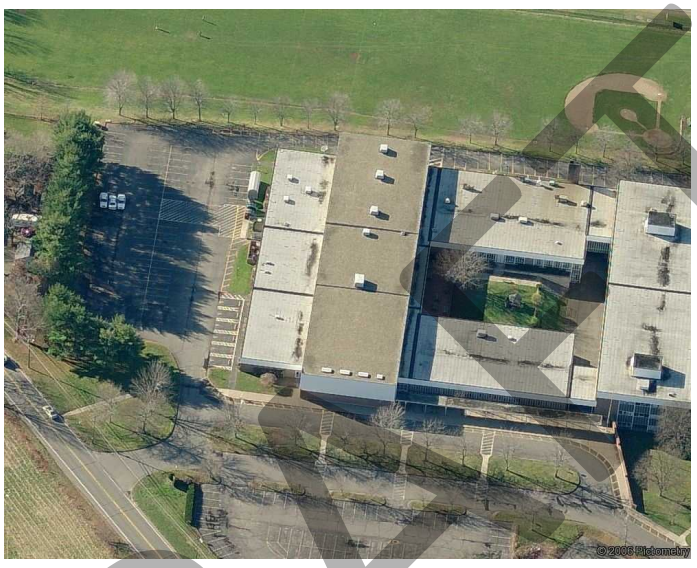
ROOF MEASUREMENT REPORT

REPORT IMAGES



West View

East View

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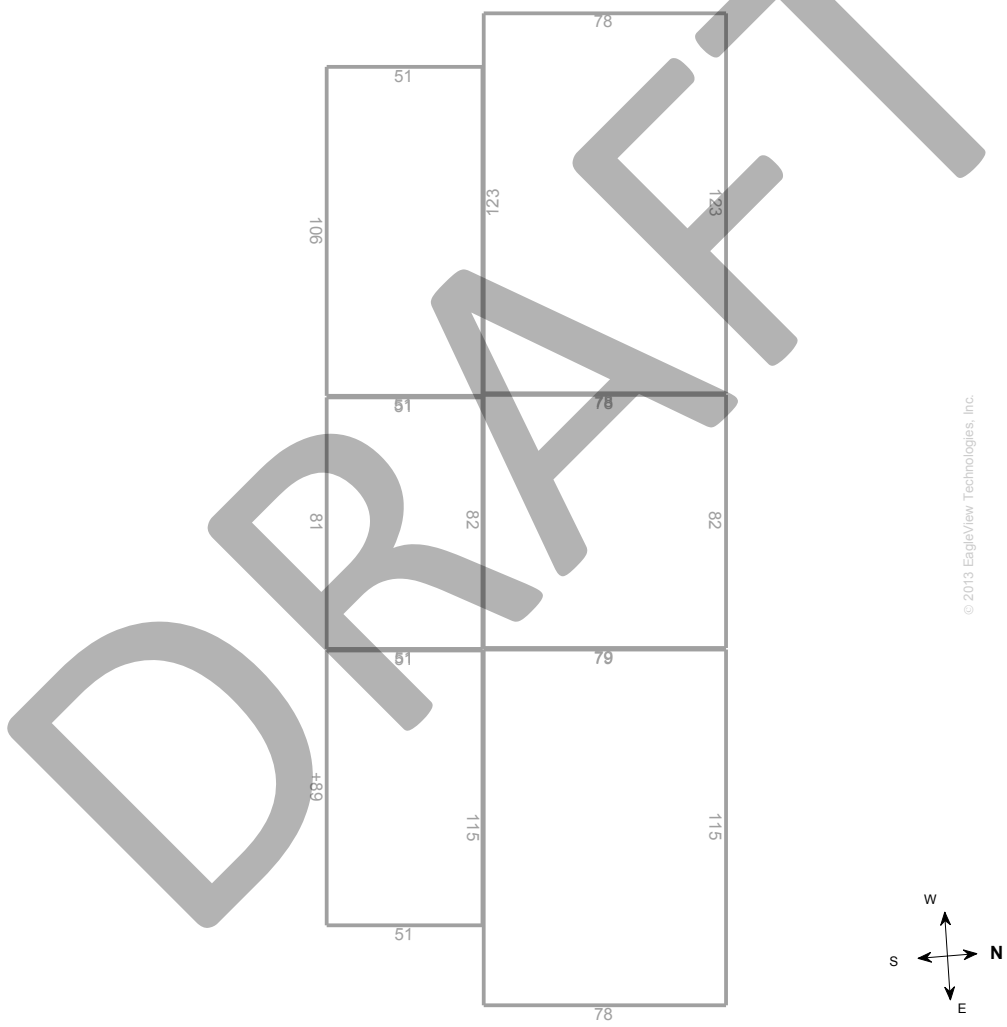
ROOF MEASUREMENT REPORT

LENGTH DIAGRAM

Total Line Lengths: Ridges = 0 ft | Hips = 0 ft | Valleys = 0 ft | Rakes = 0 ft | Flashing = 0 ft | Step flashing = 0 ft | Eaves = 0 ft | Parapets = 1,969 ft



Note: This diagram contains segment lengths (rounded to the nearest whole number) over 5 feet. In some cases, segment labels have been removed for readability. Plus signs preface some numbers to avoid confusion when rotated (e.g. +6 and +9).

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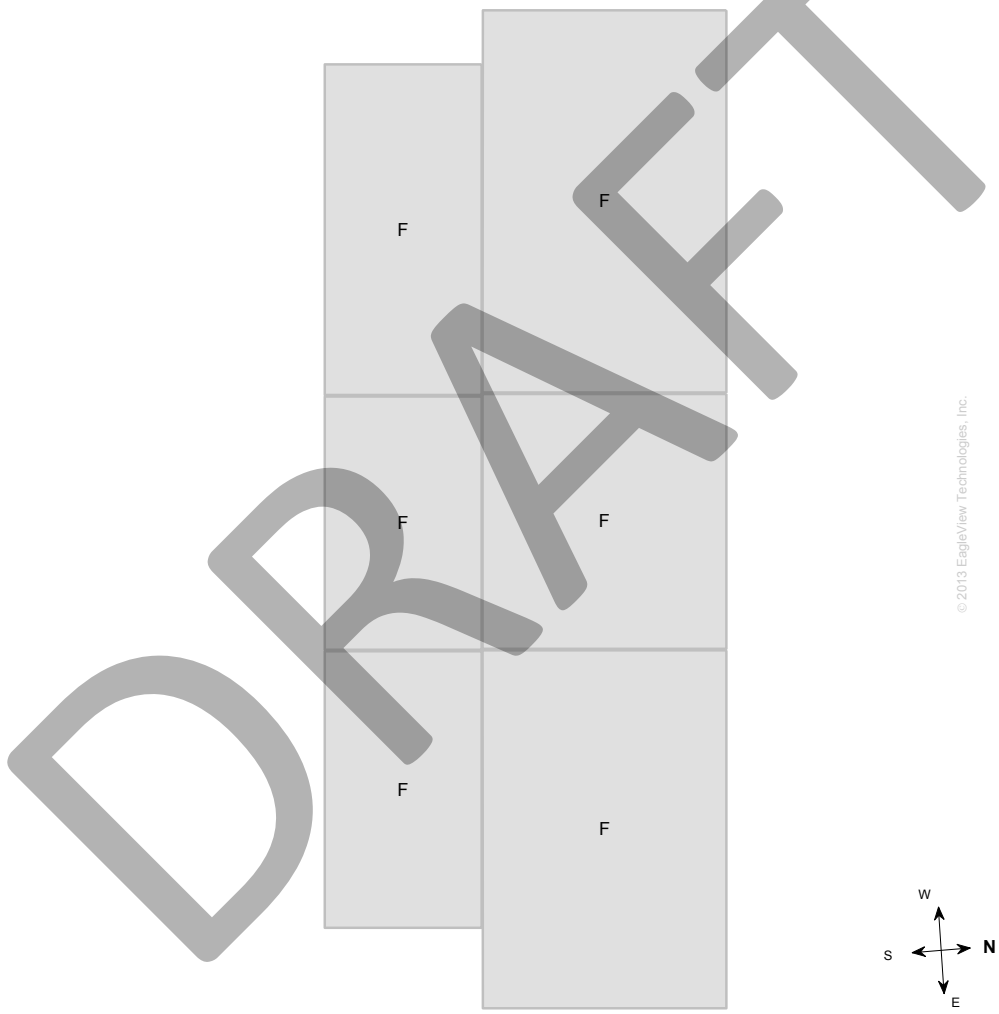
ROOF MEASUREMENT REPORT

PITCH DIAGRAM

Pitch values are shown in inches per foot, and arrows indicate slope direction. The predominant pitch on this roof is 0/12.



Note: This diagram contains labeled pitches for facet areas larger than 20 square feet. In some cases, pitch labels have been removed for readability. Gray shading indicates flat, 1/12 or 2/12 pitches. If present, a value of "F" indicates a flat facet (no pitch).

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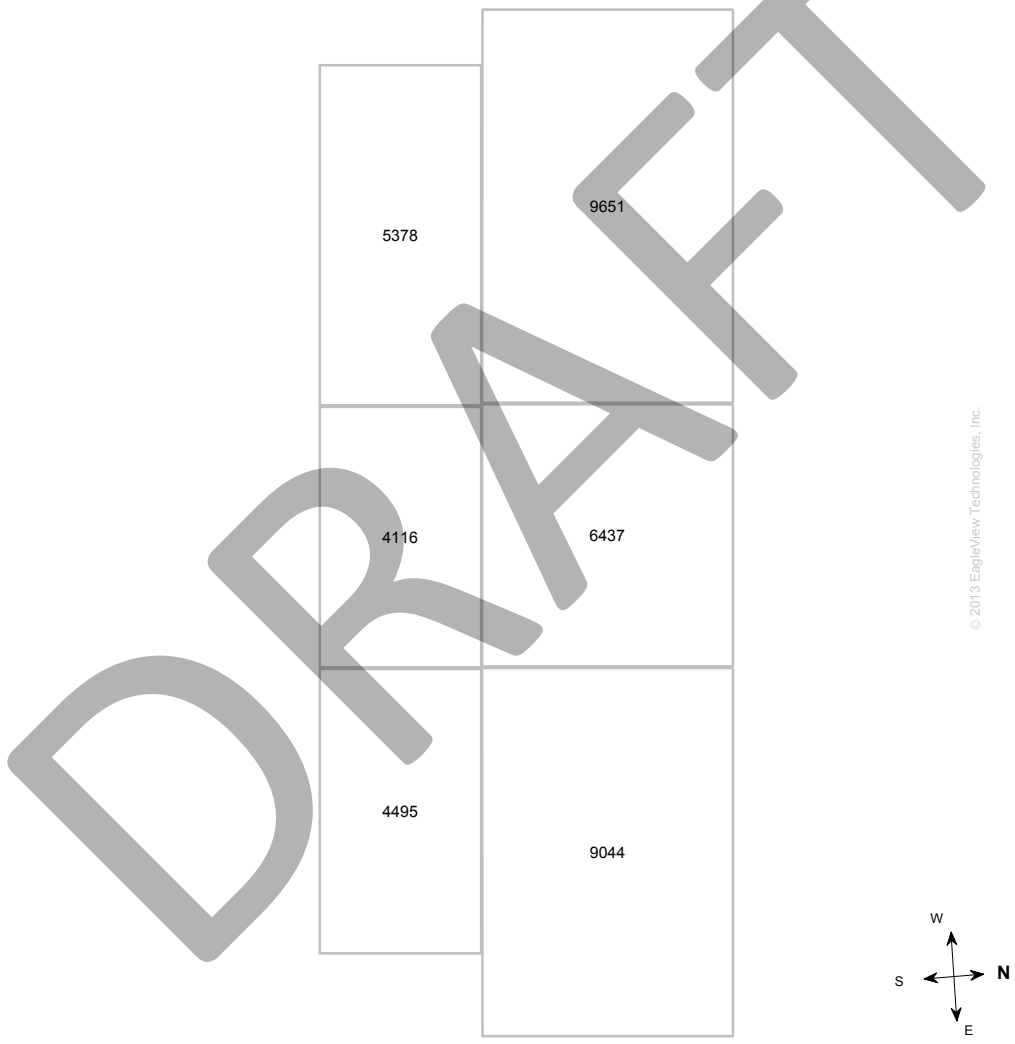
ROOF MEASUREMENT REPORT

AREA DIAGRAM

Total Area = 39,120 sq ft, with 6 facets.



Note: This diagram shows the square feet of each roof facet (rounded to the nearest foot). The total area in square feet, at the top of this page, is based on the non-rounded values of each roof facet (rounded to the nearest square foot after being totaled).

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ROOF MEASUREMENT REPORT

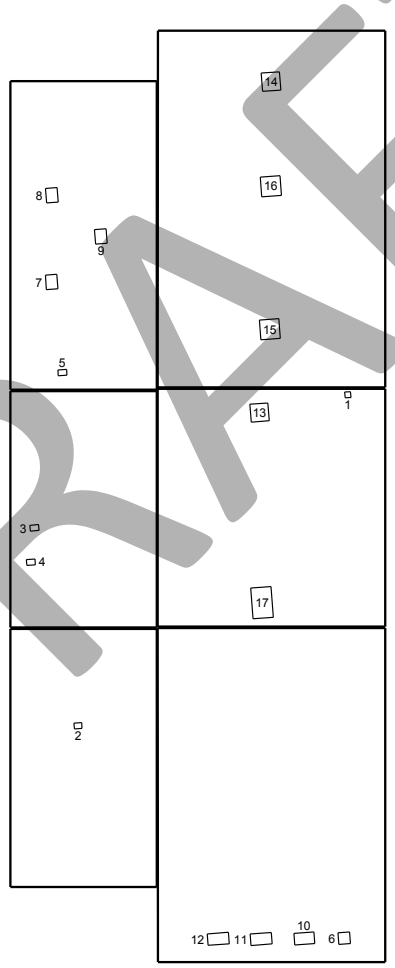
PENETRATIONS

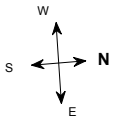
Penetrations Notes Diagram

Penetrations are labeled from smallest to largest for easy reference.

Total Penetrations: 17
Total Penetrations Perimeter = 325 ft

Total Penetrations Area: 435 sq ft
Total Roof Area Less Penetrations = 38,686 sq ft



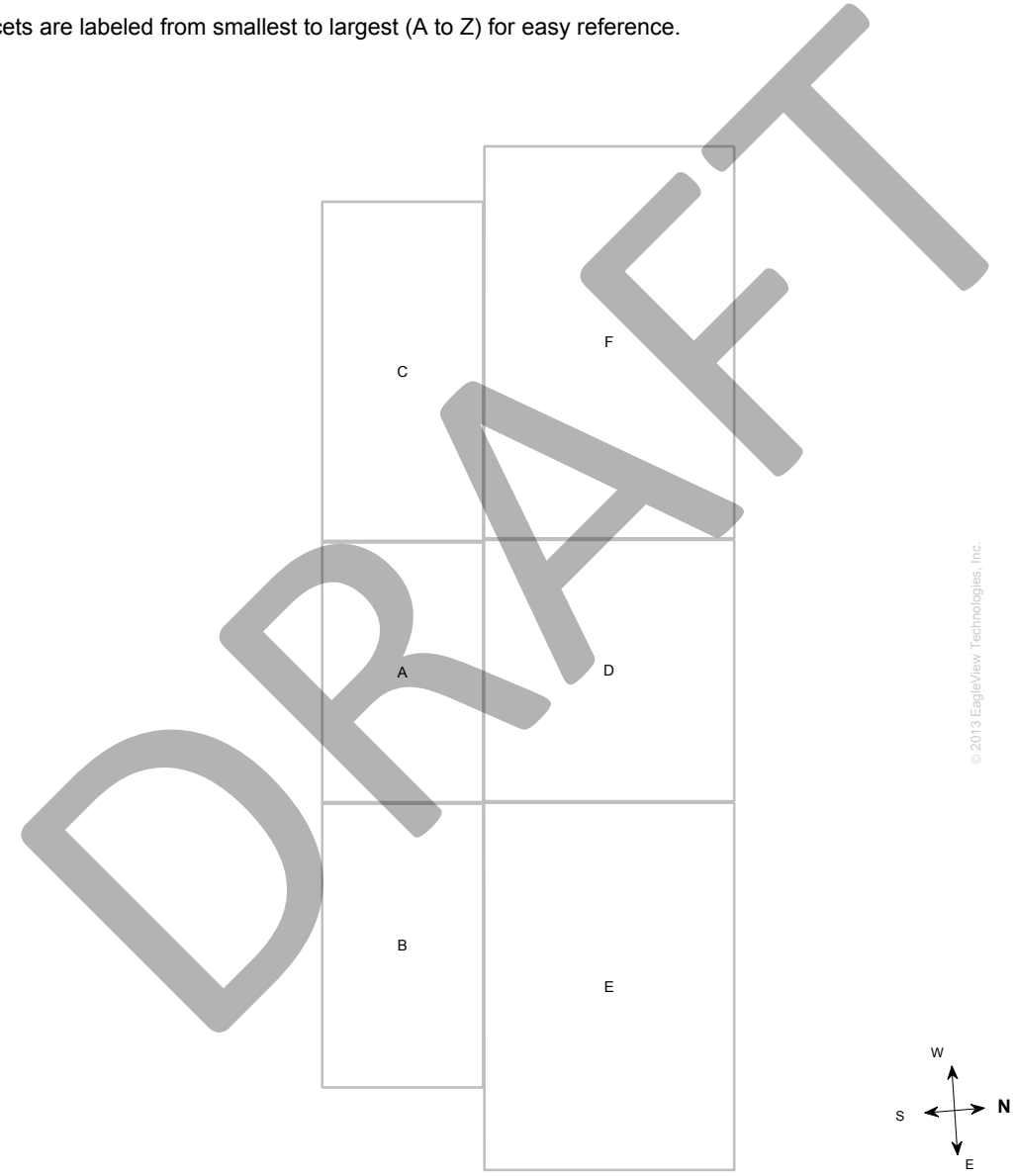


Note: Any measured penetration smaller than 3x3 feet may need field verification. Accuracy is not guaranteed. The total penetration area is not subtracted from the total roof area.

ROOF MEASUREMENT REPORT

NOTES DIAGRAM

Roof facets are labeled from smallest to largest (A to Z) for easy reference.



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ROOF MEASUREMENT REPORT

Property Info

Property Location

Longitude = -72.4626944 Latitude = 41.8418919

Online map of property:
http://maps.google.com/maps?f=g&source=s_q&hl=en&geocode=&q=777+Hartford+Turnpike,Vernon,CT,06066

Property Info

Year Built: 1977

Effective Year Built: N/A *

Last Known Roof Permit: N/A

**Effective Year Built is when the property's major components were revised to meet that year's code..*

Weather Data

Last Hail Event: 8/10/2009 Hail Count: 6 †

†Last hail event is the date of the last recorded hail event (greater than or equal to 3/4") within a one-mile radius. Hail count is the number of recorded hail events (greater than or equal to 3/4") within a one-mile radius in the past three years.

Notes

This was ordered as a commercial property. It was reported to be single structure. There were no changes to the structure in the past four years.

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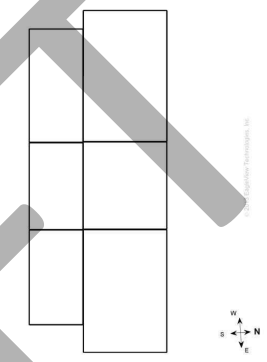
ROOF MEASUREMENT REPORT

REPORT SUMMARY

Below is a measurement summary using the values presented in this report.

Lengths, Areas and Pitches

Ridge .....0 ft (0 Ridges)
Hips.....0 ft (0 Hips)
Valleys .....0 ft (0 Valleys)
Rakes* .....0 ft (0 Rakes)
Eaves/Starter** .....0 ft (0 Eaves)
Drip Edge (Eaves + Rakes) .....0 ft (0 Lengths)
Parapet Walls.....1,969 ft (24 Lengths)
Flashing .....0 ft (0 Lengths)
Step Flashing .....0 ft (0 Lengths)
Total Area .....39,121 sq ft
Total Penetrations Area.....435 sq ft
Total Roof Area Less Penetrations .....38,686 sq ft
Total Penetrations Perimeter.....325 ft
Predominant Pitch.....0/12



Total Roof Facets = 6

Rakes are defined as roof edges that are sloped (not level).
*** Eaves are defined as roof edges that are not sloped and level.*
.

Areas per Pitch

Roof Pitches	0/12
Area (sq ft)	39120.6
% of Squares	100%

The table above lists each pitch on this roof and the total area and percent (both rounded) of the roof with that pitch.

Waste Calculation Table

Waste %	0%	10%	12%	15%	17%	20%	22%
Area (sq ft)	39,120	43,033	43,816	44,989	45,772	46,945	47,728
Squares	391.2	430.3	438.2	449.9	457.7	469.5	477.3

This table shows the total roof area and squares (rounded up to the nearest decimal) based upon different waste percentages. The waste factor is subject to the complexity of the roof, individual roofing techniques and your experience. Please consider this when calculating appropriate waste percentages. Note that only roof area is included in these waste calculations. Ridge, hip, valley, and starter lengths may require additional material.

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ROOF MEASUREMENT REPORT

Parapet Calculation Table

Wall Height (ft)	1	2	3	4	5	6	7
Vertical Wall Area (sq ft)	1969	3938	5907	7876	9845	11814	13783

This table provides common parapet wall heights to aid you in calculating the total vertical area of these walls. Note that these values assume a 90 degree angle at the base of the wall. Allow for extra materials to cover cant strips and tapered edges.

Penetration Table	1	2	3-5	6	7-9	10	11-12	13	14	15
Area (sq ft)	4	5.3	6	16	20	28	29.4	38.4	39.7	46.2
Perimeter (ft)	8	9.4	10	16	18	22	22.6	24.8	25.2	27.2

	16	17
Area (sq ft)	46.2	74.3
Perimeter (ft)	27.2	35.2

Any measured penetration smaller than 3x3 feet may need field verification. Accuracy is not guaranteed. The total penetration area is not subtracted from the total roof area.

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ROOF MEASUREMENT REPORT

Parapet Calculation Table

Wall Height (ft)	1	2	3	4	5	6	7
Vertical Wall Area (sq ft)	2927	5854	8781	11708	14635	17562	20489

This table provides common parapet wall heights to aid you in calculating the total vertical area of these walls. Note that these values assume a 90 degree angle at the base of the wall. Allow for extra materials to cover cant strips and tapered edges.

Penetration Table	1-2	3-4	5-6	7	8	9	10	11	12	13
Area (sq ft)	4	8	9	11.6	12.2	12.3	12.3	17.6	23.4	28
Perimeter (ft)	8	12	12	13.8	14	14	16.2	16.8	20.2	22

	14-15	16
Area (sq ft)	28	99.8
Perimeter (ft)	22	40.4

Any measured penetration smaller than 3x3 feet may need field verification. Accuracy is not guaranteed. The total penetration area is not subtracted from the total roof area.

Construction Details

Client: Vernon Public School District

Facility: Vernon Center Middle School

Roof Section: Low Slope Section's

Information			
Year Installed	2016	**Square Footage**	92,000
Slope Dimension	1/4:12"	**Eave Height**	20
Roof Access	Ladder Needed	**System Type**	Garland

Photo Report

Client: Vernon Public School District
Facility: Vernon Center Middle School
Roof Section: Low Slope Section's

Report Date: 03/03/2023
Title: Visual Inspection

Photo 1

Overview of the west facing mid section

Photo 2

Overview of the east facing mid section

Photo 3

Upper north section- Penthouse walls are leaking

Photo 4

Chimney needs attention- Wall panels recommended

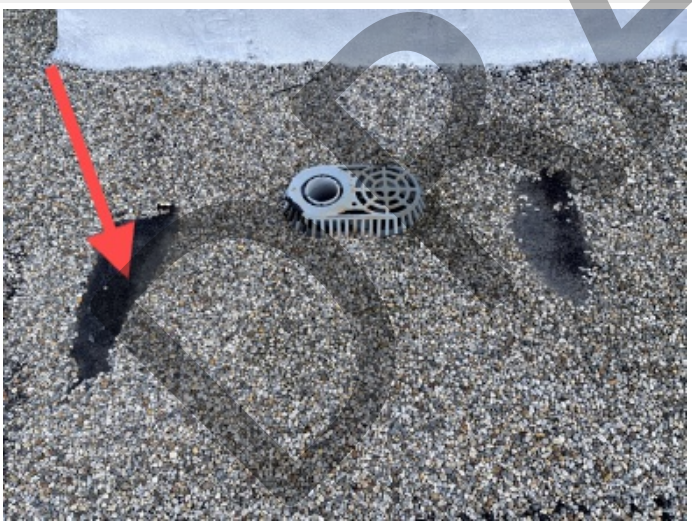

Photo 5

Few areas of exposed membrane- UV Protectant needed

Photo 6

Overview of the southern low slope above kitchen- New pitch boxes added for cold storage

Photo 7

Overview of the south facing section

AHERA SIX MONTH PERIODIC SURVEILLANCE
Vernon Center Middle School
777 Hartford Turnpike
Vernon, CT 06066

MATERIAL DESCRIPTION	*LOCATION(S)*	*PREVIOUS CONDITION*	*CHANGE IN CONDITION (Y/N)*	*COMMENTS*
Concealed 9" floor tile and associated mastic	Classrooms and office areas (under Wall Partitions, cabinetry)	No damage	N	Material assumed to be present beneath existing built-in cabinetry. Partially abated during renovations 2008. *Visually noticed under adjoining wall at room 46 and 47.* ← ***Not visible anymore.*** *Known*
Pipe fitting insulation	Assumed present within all wall/ceiling cavities.	No damage	N	Material assumed to be present within wall/ceiling cavities. Partially abated during renovations *Known*
Transite Board	Room ~~36~~, Sewing Room ~~1~~	No damage	N	Material in good condition *Presumed*
Interior window glazing	Classroom to corridor walls, Library to corridor wall, Office to corridor wall.	No damage	N	Material in good condition *Presumed*
Blackboard glue daubs	Classroom ~~1, 3, 5, 6, 8 – 12, 13, 16, 17, 19, 20, 21, 23, 24, 25, 26, 27, 28, 31, 32, 35, 38, 39, 41, 44, 45,~~ 47 – ~~53~~	No damage	N	Material in good condition, most remain behind new Whiteboards. *Presumed*
Old White Sink Undercoating	~~Food Lab 2~~ Sewing Room 2 Home ECON	No damage	N	Material in good condition **Food Lab 2 Metal Sinks No Undercoating** Removed from Food Lab 3 – 2015 *Known ACM - Cardno ATC 8/2015*

SURVEILLANCE CONDUCTED BY Brendan McClure **DATE** 3-17-23