Facility Study and Master Plan

Lake Street School

201 Lake Street, 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

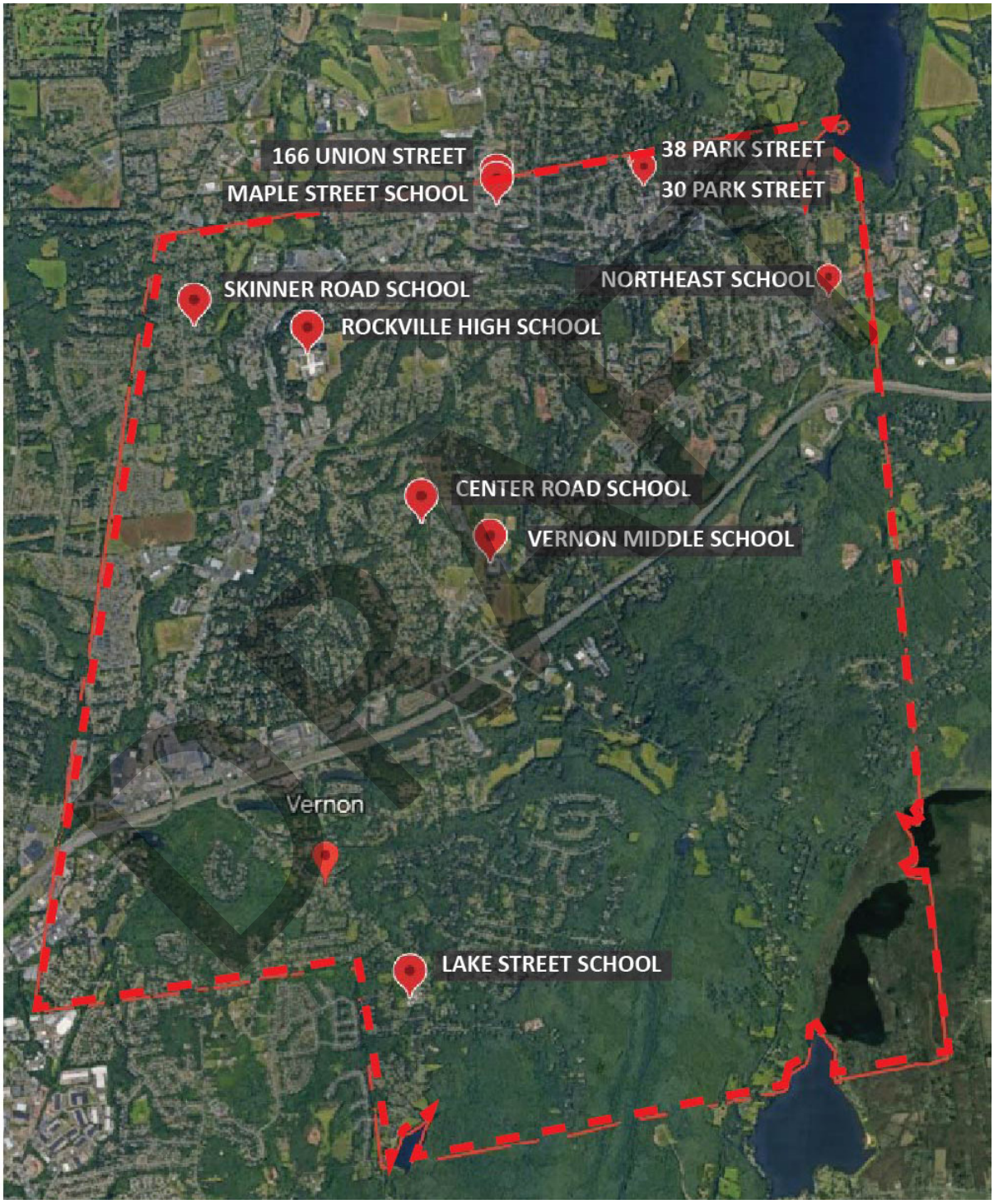
The purpose of this study is to provide the client with an understanding of the current challenges and in the near future, a comprehensive view of the range of possible options with cost implications, and a means to reach consensus on the best possible solution to those challenges.

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

2

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.

Lake Street School

Stories	1
Area	31,889 sf
Address	201 Lake St, Vernon, CT 06066
Original Construction	1975
Addition(s) / Renovations	1988 Renovation
Grades	Kindergarten to 5th
Condition	Fair to Good
Description	The one story masonry structure houses an educational facility with an accessory assembly occupancy.

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

North Elevation - A

South Elevation - B

Building Overview - Photographs

South Elevation- C

North Elevation - D

Building Overview - Photographs

South Elevation- E

North Elevation - F

Architectural Survey

Lake Street School has a variety of exterior skins including CMU, metal panels, glass block and vinyl siding.

Windows consist of vinyl frames and are in fair to good condition. The exterior doors are a mix of aluminum and hollow metal. The sealants for both doors and windows are in fair to good condition.

The building interior is in fair to good condition.

The work recommended to address architectural conditions includes:

- Window lintels need to be refinished due to rusting.
- Replace any damaged or broken glazing or glass blocks
- Provide sealant at all window and glass block locations
- Review weatherproofing of existing foundation and repair where deterioration has occurred.
- Direct roof drainage away from facade of building to reduce deterioration of finishes
- Replace damaged vinyl siding at Gymnasium/Cafeteria
- Further investigation into the water content of the slab is needed - many areas of bubbling under the VCT was visible at time of the survey.
- Replace damaged and broken blinds
- Replace any damaged ceiling tiles
- Replace damaged wood floor in Gymnasium
- Repaint walls and door frames where wear and tear is seen
- Repair delaminating casework in classrooms

Structural Survey

The building is constructed of steel and wood frame that are in good condition. The concrete slab on grade appears to be in good condition.

The work recommended to address structural conditions includes:

- The rusting support rods at each exterior exit door require further review.
- Repoint CMU exterior facades

Mechanical Survey

The mechanical system is comprised of boilers and heat pumps for heating. Classroom ventilation is provided by Make-Up Air Units (MAU) located in each pod. The Gymnasium and Cafeteria are served by separate air handling units and other areas are served by roof top units.

The work recommended to address mechanical systems conditions includes:

- Heating Plant: The existing building is served by hot water boilers and pumps. The boilers are nearing the end of their useful life and are recommended to be replaced with high efficiency condensing boilers for energy savings.
- Hot water pumps were observed to be corroded and at the end of their useful life we recommend units to be replaced in kind.
- Ventilation: Provide an energy efficient, code compliant ventilation system that meets current ASHRAE and building code requirements. This system would include energy recovery to maximize ventilation and energy efficiency.
- Exhaust: Recommend replacing all classroom gravity relief ventilators with down blast roof top exhaust

fans.
- Controls: Recommend replacement of all controls with digital controls integrated to centralized building management system.
- Gymnasium 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.
- Cafeteria 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.

Electrical Survey

The electrical service is comprised of equipment that is original to the building. There is no life safety or emergency standby power.

The work recommended to address electrical system conditions includes:

- Switchgear that is original to the building is past its serviceable lifespan and in need of immediate replacement. Equipment that is disconnected and out of service is recommended for immediate removal. Disconnects and equipment that were installed to backfeed the existing service and PV system are in good condition and should provide reliable service for another 10-15 years before improvements and / or repairs are required.
- Distribution equipment that is original to the building is in poor condition and in need of immediate replacement. 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.
- 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 toilets consist of both wall hung and floor mounted fixtures. Sinks are wall hung with both manual and sensor type faucets. There are both electric and gas fired water heaters within the building.

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.
- 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 comprised a wet system. There are a mix of concealed pendant and upright sprinkler heads throughout the building.

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 interior of the building has fluorescent fixtures retrofitted with LED lamps. Exterior lighting consists of LED building mounted fixtures and pole arm mounted LED luminaries in the parking areas.

The work recommended to address lighting system conditions includes:

- Lighting systems 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 fire alarm service is comprised of an addressable system control panel with voice evacuation. There are manual pull stations, fire alarm speaker / strobe coverage throughout the building.

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 5-7 years to ensure system reliability.

Telecommunications Survey

The telecommunications system is comprised of a main data systems rack located in a storage room off the main hallway.

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 security system is comprised of an access control system made up of card readers located at 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.

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 digital time control center 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

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

Lake Street 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:

- Provide door closers at all Classroom Doors accessing corridor. Any door intended to remain closed regularly should be equipped with an automatic closer.
- Compartmentalization appears to be greater than 30,000 sf based on indicated fire barriers on Code Plans.
- Modify ramp leading from gymnasium, required modifications include providing landings at 30' increments and providing complying guardrails at both sides of ramp.

NFPA Code Survey

A review of Lake Street 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.

The work recommended to address NFPA code violations includes:

- Provide door closers at all classroom doors.
- Address dead end corridors where travel distance exceeds 50' to the closest exit.
- Ensure compartmentalization of building is limited to <30,000 sf.
- Provide 30 min. smoke barriers at all classroom/corridor partitions.

ADA Compliance Survey

Lake Street 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. Lake Street 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:

- Interior - Provide accessible toilet rooms for faculty and staff, upgrade all accessible toilet rooms to full compliance w/ required accessories and clearances. Provide accessible room signage at all doors throughout the building. Upgrade classrooms with accessible sinks, workstations, exit doors, clear floor

space & accessories. Upgrade all knob type door hardware to levers.
- Exterior - Provide an accessible route throughout the site. Compliant doors, landings & sloped walkways from the classrooms to the accessible route. Compliant ramp from the gym to the Passenger Loading Zone, compliant ramp and cross walk from the passenger loading zone to the new playground, signage to direct visitors to the accessible entrance, accessible curb ramps and tactile warning at the Lake Street entrance, and accessible parking at and/or access to the play field.

Site Survey

The site at Lake Street School was evaluated. Traffic flow at this facility appears to be good, but limited directional signage is available. Available parking accommodates 72 vehicles, with 2 handicap accessible spaces available. The walkways are in poor condition. The playing fields consist of a baseball field and grassy soccer areas. The playscapes are in good condition.

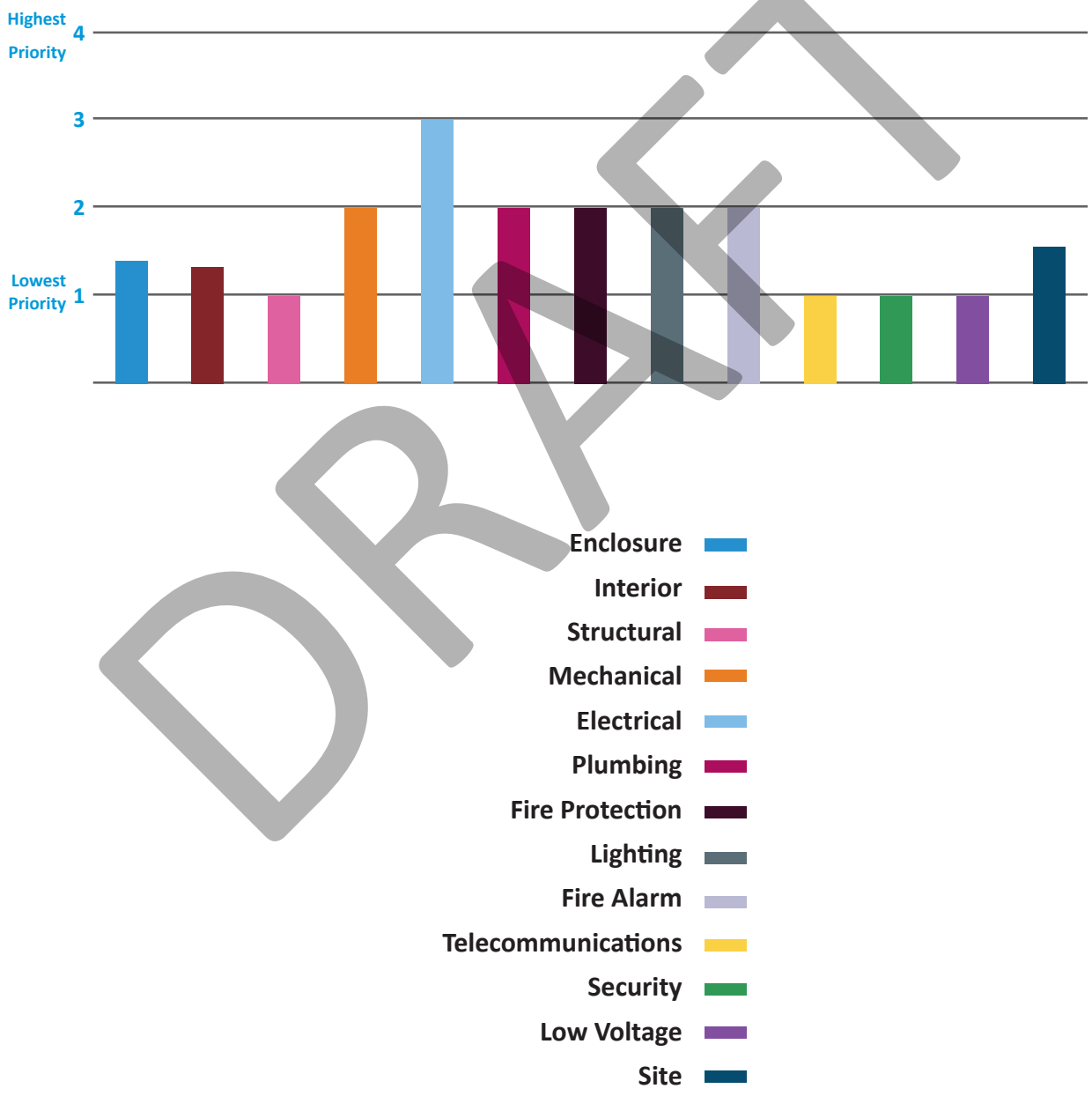
The work recommended to address site conditions includes:

- Demolish and provide all new walkways to exterior exits of classroom wings
- Provide handrails / guardrails at any sloped walkways
- Repair damaged concrete walkways adjacent to handicap parking spaces
- Existing shed at South area of site should be removed is not needed. If still needed repair damaged CMU, replace garage door and replace roof. Provide signage to avoid cars parking and blocking off door.
- Repair areas of damaged metal fencing.
- Provide site drainage and separate rock drainage areas from grassy areas with curbing
- Exterior ramp: Repair damaged areas of concrete, refinish handrails and clean concrete of mildew.
- Playscape: Replace areas of missing bricks, fill in areas of missing mulch and refinish handrails where paint has deteriorated.
- Provide signage indicated loading area(s) as well as directional signage for clarity.
- Provide drainage at entrances to Kitchen
- Clean and repair concrete pavers at West side of building.
- Replace walkways at bike rack.

Survey Results

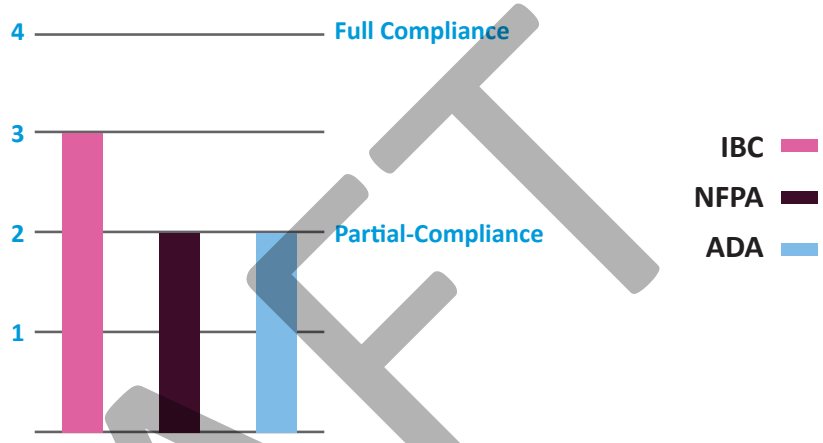
Each of the elements that were reviewed under this assessment was ranked on a scale of 1-4, with a 4 rating equating to the highest priority. Components that received a ranking of 3 should be considered to be moderate priorities, while rankings of 2 and 1 are considered to be low priorities. The following 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

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 2020 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

3

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.

Lake Street School

Plan Drawings	1988 Renovation / 2006 Addition & Alterations
Photos	2023 Survey
Date Built	1959
Architect	Rossetti-Mileto
Date(s) Additions / Renovations	1988 Renovation
Construction	II-B
Type of Occupancy	Education
Number of Stories	1 story
Gross Square Feet*	31,889 sf

* 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	CMU Metal Panel Glass Block Vinyl Siding	Fair to Good Fair Fair to Good Fair
Insulation	Unknown	Assumed Good
Windows		
Lintel	Steel	Poor to Fair
Jamb	CMU, Vinyl	Fair to Good
Sill	Aluminum, Concrete or Vinyl	Fair to Good
Frame	Vinyl	Fair to Good
Glazing	Glass Block Tempered	Fair to Good Good
Sealant	Yes	Fair to Good
Operable	Some	Good
Exiting	No	N/A
Doors		
Lintel	Steel	Good
Jamb	Masonry	Good
Sill	Concrete with Metal Threshold	Fair to Good
Frame	Aluminum Hollow Metal	Good Fair to Good
Door	Aluminum Hollow Metal	Good Fair to Good
Glazing	Tempered	Good
Flashing	Yes	Fair to Good
Sealant	Yes	Good
Hardware	Pull, Lever	Good

Architectural Conditions - Enclosure (continued)

Exterior Stair(s)	Material	Condition
Tread	Concrete	Good
Riser	Concrete	Good
Landing	Concrete	Good
Handrail	Painted Metal	Fair
Exterior Ramp(s)		
Ramp	Concrete	Fair
Landing	Concrete	Good
Handrail	Painted Metal	Fair

The exterior of the building has many different exterior skins. The main entrance has glazing with metal panels. The classroom pods mainly consists of vinyl windows with glass blocks above and a concrete foundation wall below. The steel lintels at the windows are rusting throughout the building. The glass blocks are in overall good condition but a few were noted as damaged and some areas require grout repair. Sealant was in good condition overall but a few areas require sealant repair. See photographs for examples.

The exterior doors appear to be in good condition. Where the concrete pads meet with the thresholds there is typically a gap which can lead to water build up. At the classroom exit doors, exposed metal rods have significantly rusted.

The Gymnasium and Cafeteria consists mainly of CMU and vinyl siding. The vinyl siding is in poor to fair condition with many areas of damage and a large about of mold build up. Some areas of repointing is required at the CMU facade.

The exterior ramps leading to the Cafeteria and Gymnasium are in fair to good condition. The concrete ramps need to repair where concrete is missing. The concrete walls along the ramps are covered in mildew. The metal handrails at the ramp need to be refinished. The exterior concrete stair leading to the Cafeteria is in good condition though large chunks of concrete were found on the landing that could be a potential hazard.

Architectural Conditions - Interior

Corridors	Material	Condition
Walls	CMU / Wood Paneling	Fair to Good
Doors & Frames	Wood, hollow metal frames	Good
Door Hardware	Stainless Steel Lever	Good
Flooring	12x12 Vinyl Composition Tile (VCT)	Fair
Ceilings	2x2 Acoustical Ceiling Tile (ACT)	Good
Offices - Main		
Walls	Gypsum	Good to Excellent
Doors & Frames	Wood, hollow metal frame, glazing in frame	Excellent
Door Hardware	Stainless Steel Lever	Excellent
Flooring	Carpet Tile	Good to Excellent
Ceilings	2x2 ACT / Gypsum Soffits	Excellent
Toilet Rooms		
Walls	CMU / Wall tile	Good
Doors & Frames	Hollow metal, hollow metal frame	Good
Door Hardware	Stainless Steel Lever	Good
Flooring	Tile	Fair to Good
Ceilings	2X4 ACT	Good
Classrooms		
Walls	Gypsum / Wood Paneling	Good
Doors & Frames	Wood, hollow metal frame	Good
Door Hardware	Stainless Steel Lever	Good
Flooring	12x12 VCT	Fair to Good
Ceilings	9x9 Spline Ceiling / 2X4 ACT	Fair to Good
Cafeteria		
Walls	CMU / Wood Paneling	Good
Doors & Frames	Hollow Metal, hollow metal frame	Good
Door Hardware	Stainless Steel, type varies	Good to Excellent
Flooring	12x12 VCT	Fair to Good
Ceilings	2x4 ACT	Fair to Good

Kitchen		
Walls	CMU / Gypsum with metal framing	Fair to Good
Doors & Frames	Hollow Metal, hollow metal frame	Good
Door Hardware	Stainless Steel, type varies	Good
Flooring	12x12 VCT	Poor to Fair
Ceilings	2x4 ACT	Fair to Good
Gymnasium		
Walls	CMU / Wood Paneling / Wall Pads	Good
Doors & Frames	Hollow metal, hollow metal frame	Good
Door Hardware	Stainless Steel, Push Bars	Good
Flooring	Wood	Fair to Good
Ceilings	2x4 ACT Gypsum Soffit around perimeter	Good Poor to Fair
Media Center / Library		
Walls	CMU, Full Height Glazing Acoustic Wall Panels	Good to Excellent Excellent
Doors & Frames	Wood, hollow metal frame	Good to Excellent
Door Hardware	Stainless Steel Lever	Excellent
Flooring	Carpet Tile	Excellent
Ceilings	2x2 ACT / Gypsum Soffits	Excellent
Stage		
Walls	CMU	Good
Doors & Frames	N/A	N/A
Door Hardware	N/A	N/A
Flooring	Wood	Fair to Good
Ceilings	2x4 ACT	Good

The interior of Lake Street school is overall in fair to good condition.

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 Gymnasium has several areas of peeling and discoloration on the gypsum soffits. The areas around diffusers have been patched but require further investigation to see where the leaks are originating. Touch up paint is needed at many gypsum soffit locations.

Flooring in the school mainly consists of vinyl composite tile (VCT) which is in poor to fair condition. Cracking, bubbling, and discoloring of VCT was visible in many locations. Further exploration of the moisture levels of the slab is recommended. A large patch of VCT is missing in the Kitchen. This area needs to be addressed immediately. The wood floors at the gymnasium and stage are in mostly good condition, but have warped over time in some spots. The finish of the painted handrails at the stage needs refinishing. The carpeting at the Main Office and Media Center are in excellent condition.

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. The tile in the Main Office toilet room is in excellent condition. The tile in the toilet rooms throughout the rest of the building is in good condition with the exception of a couple areas that show general wear and tear of the tile. There were a few areas with damaged blinds, such as the Gymnasium, but generally the blinds throughout the building are in good condition.

The plastic laminate desk in the Main Office is in excellent condition. The casework in the classrooms are in fair to good condition, but are delaminating. The Media Center desk is in good condition but has areas where the surface is minimally scratched and the cabinet is slightly chipped.

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.

There is no elevator in this building.

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	Fair to Good
Footings	Assume Concrete	Assumed Good
Deck	Metal Deck	Assumed Good
Exterior Frame	Masonry	Good

Structural Conditions - Interior Condition

	Material	Condition
Framing	Masonry and Wood	Good
Walls	Metal Stud	Good
Ground Floor Slab	Concrete	Good
Flooring System (other levels)	N/A	N/A
Stairs	N/A	N/A

The structural components of the building were reviewed.

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:

Peeling of the decorative film and rusting at the aluminum entry doors.

2. Location:

Typical at Classroom Exterior Exit Doors

Description:

Typical vinyl siding. Support like for the roof is rusted - this is a typical condition.

3. Location:

South Elevation

Description:

Typical condition at windows - lintel are rusting

Architectural & Structural Survey Photographs

4. Location:

West Elevation - Classroom Pods

Description:

Damaged window glazing

5. Location:

West Elevation - Classroom Pods

Description:

Rusting window lintel - typical condition.

6. Location:

Classroom Pods

Description:

Blocks appear to have been replaced through out the years in various areas.

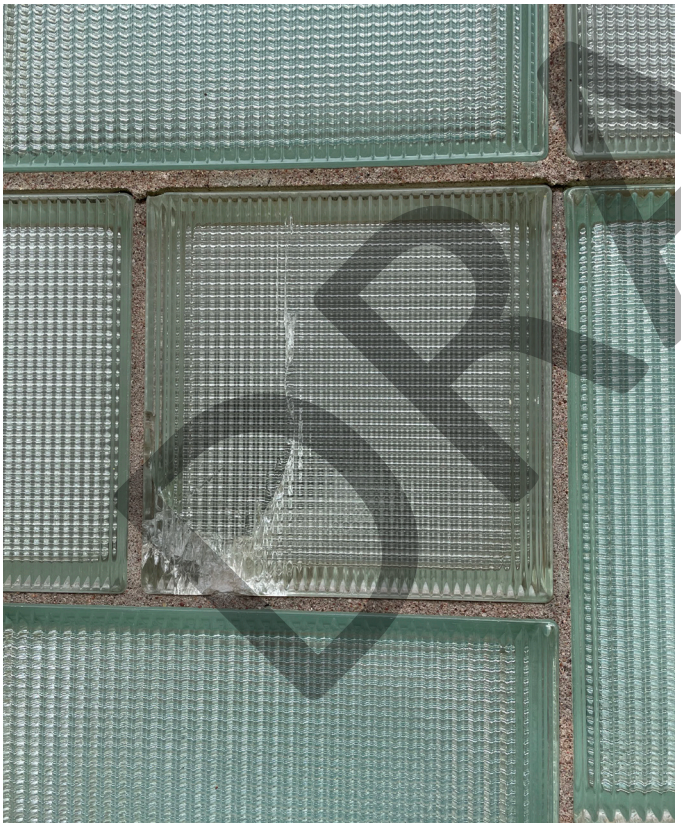
Architectural & Structural Survey Photographs

7. Location:

Classroom Pods

Description:

Typical window condition



8. Location:

Classroom Pods

Description:

Damaged glass block. Grout beginning to deteriorate.

Architectural & Structural Survey Photographs

9. Location:

Classroom Pod - West

Description:

Sealant at glass blocks in poor condition

10. Location:

Classroom Pod - West

Description:

Sealant at glass blocks in poor condition

Architectural & Structural Survey Photographs

11. Location:

Classroom Pod - West

Description:

Some glass blocks appear to have been replaced. Window Lintel are rusted

12. Location:

Classroom Pod - West

Description:

Grout at glass book deteriorating. Window lintel is rusting

13. Location:

Classroom Pod - West

Description:

Foundation has been coated with material - likely to reduce water infiltration.

Architectural & Structural Survey Photographs

14. Location:

Classroom Pod - West

Description:

Damaged window frame

15. Location:

Connector to West Classroom Pods

Description:

Water from roof drain has caused discoloration on the block wall and created deterioration of the grouting between the block. Deterioration of the foundation is also visible at this location.

Architectural & Structural Survey Photographs

16. Location:

Gymnasium

Description:

Repointing required at the CMU.

17. Location:

Gymnasium

Description:

Vinyl siding is damaged throughout this facade. Large amounts of mold and mildew build up is visible along the bottom of the siding.

18. Location:

Gymnasium

Description:

Door sidelight finish is damaged.

Architectural & Structural Survey Photographs

19. Location:

Gymnasium

Description:

CMU damage and missing sealant between storefront system and CMU

20. Location:

Cafeteria

Description:

Damaged storefront system

21. Location:

Connector to East Classroom Pod

Description:

CMU needs to be repainted. Foundation has a topical layer likely to prevent water infiltration.

Architectural & Structural Survey Photographs

22. Location:

Exterior Door

Description:

Typical condition of the concrete pad meeting the concrete sill of exterior doors - cracking and debris

23. Location:

Exit door

Description:

Many areas where birds and other animals have build nests at exposed structure

24. Location:

Classroom Pod - East

Description:

Lintel severely rusted.

Architectural & Structural Survey Photographs

25. Location:

Connector to East Classroom Pod

Description:

CMU needs repainting

26. Location:

South Elevation - Main Office

Description:

Deterioration of foundation visible

27. Location:

South Elevation - Main Office

Description:

Discoloration of siding. Trench dug at some point needs to be infilled or covered.

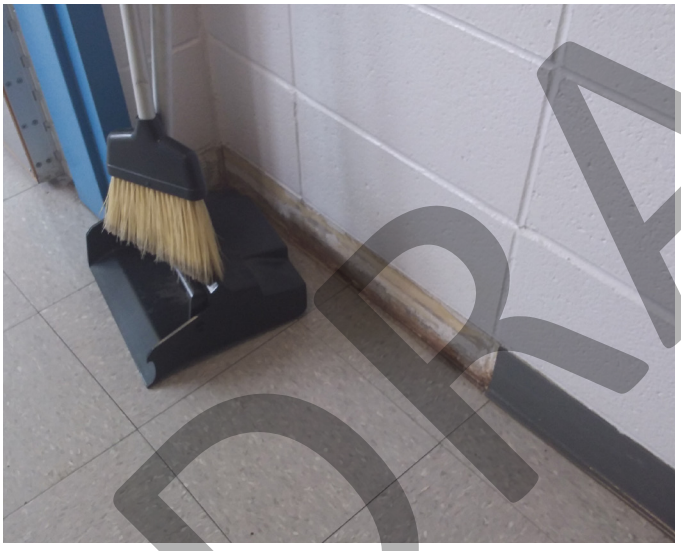
Architectural & Structural Survey Photographs

28. Location:

Classroom Pod - South

Description:

Vinyl composite tile (VCT) is stained and discolored.



29. Location:

Classroom Pod - South

Description:

Wall base missing.

30. Location:

Classroom Pod - West

Description:

Stain on ceiling tile indicating water damage.

Architectural & Structural Survey Photographs

31. Location:

Connector to Classroom Pods

Description:

VCT is cracking and damaged.

32. Location:

Connector to Classroom Pods

Description:

VCT has yellowed over time.

33. Location:

Classroom Pod - North

Description:

VCT is stained and there appears to be water damage.

Architectural & Structural Survey Photographs

34. Location:

Classroom Pod - North

Description:

VCT is stained and scratched.

35. Location:

Teacher's Lounge

Description:

VCT is cracking and peeling up leaving sub flooring exposed.

36. Location:

Main Office

Description:

Chipped gypsum corner needs to be fixed and repainted.

Architectural & Structural Survey Photographs

37. Location:

Corridor

Description:

Discoloration of gypsum soffit near entrance of Cafeteria.

38. Location:

Gymnasium

Description:

Rusted metal transition interior of gym.

39. Location:

Gymnasium

Description:

Blinds are damaged and broken in several areas.

Architectural & Structural Survey Photographs

40. Location:

Gymnasium

Description:

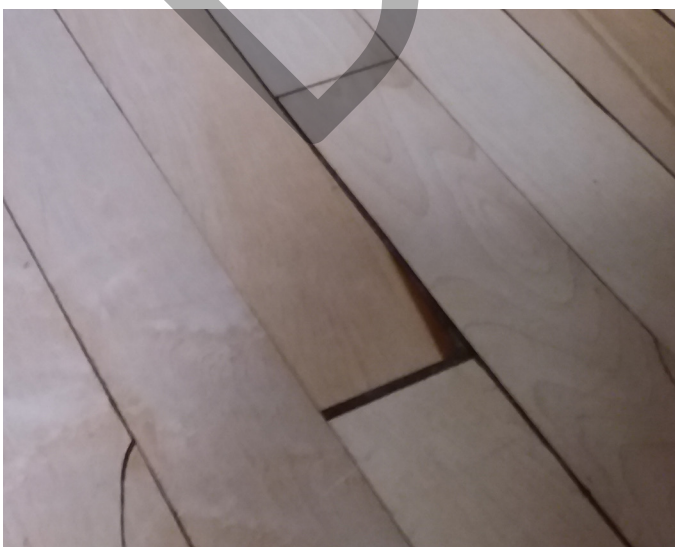
Patching and peeling of gypsum around many diffusers.

41. Location:

Gymnasium

Description:

Hole in ceiling tile that needs to be replaced.



42. Location:

Gymnasium

Description:

Wood floor is dented and cracked. Poses a tripping hazard.

Architectural & Structural Survey Photographs

43. Location:

Gymnasium

Description:

Wood floor is separating and cracking along the sides of the wood planks.

44. Location:

Stage

Description:

Edge of stage is very chipped and some wood planks are also cracking.

45. Location:

Stage

Description:

Stain on ceiling tile indicating water damage.

Architectural & Structural Survey Photographs

46. Location:

Cafeteria

Description:

Paint on wall needs to be touched up.

47. Location:

Cafeteria

Description:

VCT at the Cafe entrance is separating creating an increased risk for cracking and dirt build up.

48. Location:

Kitchen

Description:

Significant damage to VCT that surrounds floor drain.

Architectural & Structural Survey Photographs

49. Location:

Kitchen

Description:

An entire patch of VCT is missing and sub floor is exposed.

50. Location:

Kitchen

Description:

Door frame needs to be refinished

51. Location:

Corridor

Description:

Paint needs to be touched up.

Architectural & Structural Survey Photographs

52. Location:

Classroom

Description:

Casework is delaminating

53. Location:

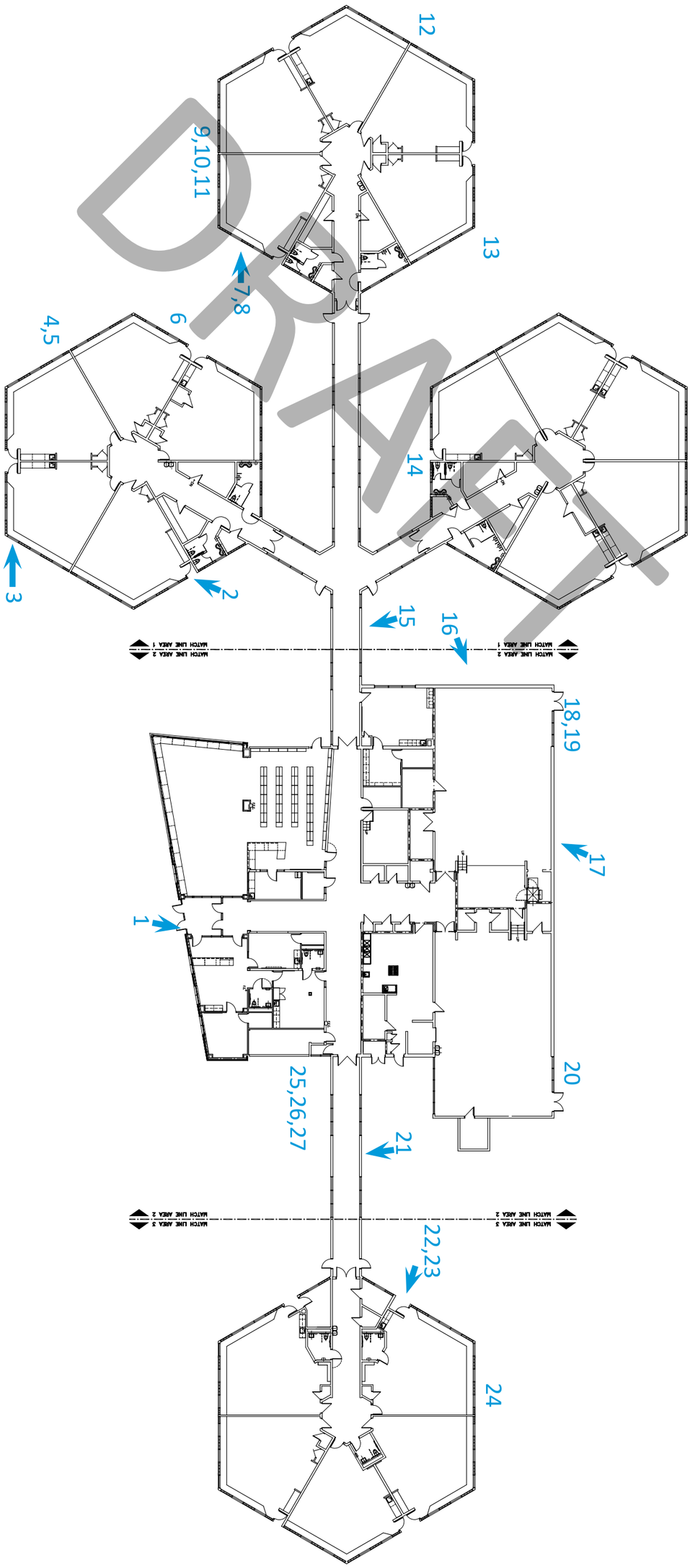
Corridor

Description:

Door is scratched and marked up.

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.



FRIAR

Lake Street School

Site Plan

Arch/Struc Survey

KEY PLAN

Arch/Struc Survey

Lake Street School

Plan Name

FRIAR

KEY PLAN

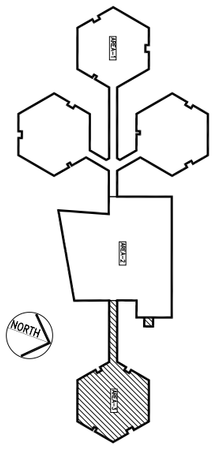
Arch/Struc Survey

Lake Street School

Plan Name

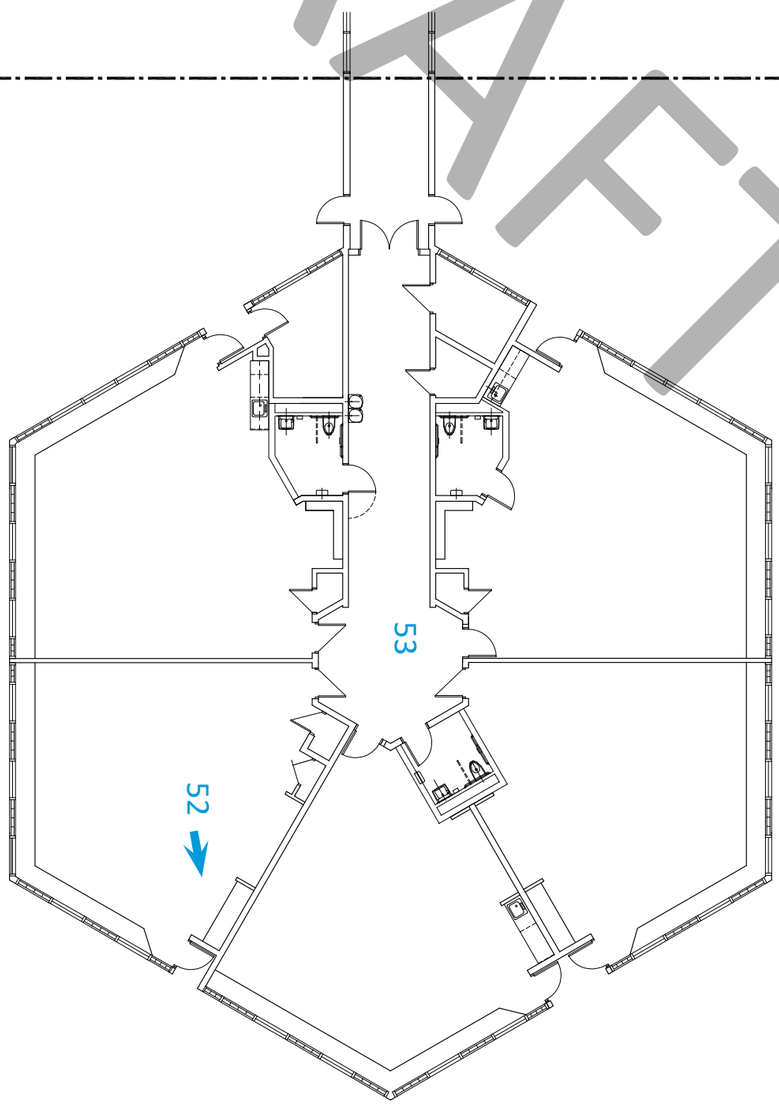
FRIAR

KEY PLAN



MATCH LINE AREA 2

MATCH LINE AREA 3



MATCH LINE AREA 2

MATCH LINE AREA 3

FRIAR

Lake Street School

Plan Name

Arch/Struc Survey

Architectural & Structural Recommendations

The architectural and structural components of Lake Street School are in fair to good condition.

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

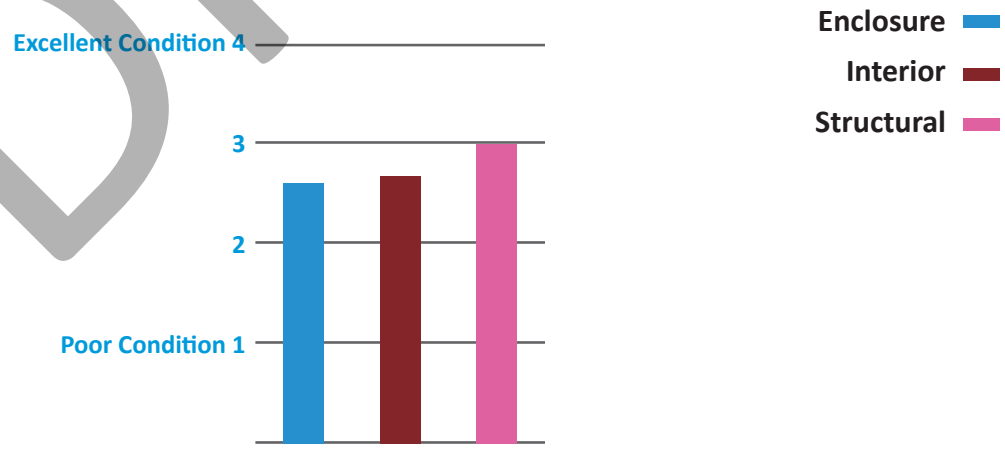
- Window lintels need to be refinished due to rusting.
- Replace any damaged or broken glazing or glass blocks
- Provide sealant at all window and glass block locations
- Review weatherproofing of existing foundation and repair where deterioration has occurred.
- Direct roof drainage away from facade of building to reduce deterioration of finishes
- Replace damaged vinyl siding at Gymnasium/Cafeteria
- Further investigation into the water content of the slab is needed - many areas of bubbling under the VCT was visible at time of the survey.
- Replace damaged and broken blinds
- Replace any damaged ceiling tiles
- Replace damaged wood floor in Gymnasium
- Repaint walls and door frames where wear and tear is seen
- Repair delaminating casework in classrooms

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

- The rusting support rods at each exterior exit door should be reviewed further.
- Repoint CMU exterior facades

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 condition, pumps and accessories need maintenance and replacement with some components showing signs of corrosion.
Heating System	Good	Heating system piping and convectors were observed to be in good condition. Piping is insulated well.
Heating System Pumps	Fair	Heating System Pumps were observed to be in fair condition. No sign of leakage but some signs of rust and corrosion.
A/C Roof-Top Units	Fair/Poor	Classroom make up air units were observed to be in fair condition. Gym, Cafeteria, Admin, Media Center and Reading room Units are in poor condition.
Air Distribution / Ductwork	Fair	Ductwork was observed to be in good condition. Diffusers were observed to be clean. Exterior ductwork needs repair / replacement.
Condensate Piping (A/C)	Good	Condensate piping was observed to be in good condition.
Exhaust Fans	Good	Exhaust fans were observed to be in good condition.
Controls	Good	Control were observed to be updated and in good condition.

Heating system is served by cast iron mid-efficiency hot water boilers and pumps. The system is in fair condition and appears to be from 2008 (15 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 ventilation is provided by (4) Make-up Air Units (MAU) on each pod located on roof above. Exhaust air is

Mechanical (continued...)

provided by (20) gravity relief ventilators, 1 per classroom, located on each roof above classrooms served. Gymnasium is served by air handling unit located on roof. Unit provides heating and ventilation air and is gas fired with mixed supply air and outside air. Unit has MERV-7 filters. Gymnasium unit is past its useful life and should be replaced.

Cafeteria is served by air handling unit located on roof. Unit provides heating and ventilation air and is gas fired with mixed supply air and outside air. Unit has MERV-7 filters. Cafeteria unit is past its useful life and should be replaced.

Administration area is served by RTU-3 located on roof. Unit provides heating, cooling and ventilation air. Unit is gas fired heating, DX cooling, with mixed supply air and outside air. Unit has MERV-7 filters. RTU-3 is nearing the end of its useful life and utilizes R-22 refrigerant which is no longer available except on secondary market. Unit should be replaced.

Media Center area is served by RTU-1 located on roof. Unit provides heating, cooling and ventilation air. Unit is gas fired heating, DX cooling, with mixed supply air and outside air. Unit has MERV-7 filters. RTU-1 is nearing the end of its useful life and utilizes R-22 refrigerant which is no longer available except on secondary market. Unit should be replaced.

Reading Room is served by RTU-1 located on roof. Unit provides heating, cooling and ventilation air. Unit is gas fired heating, DX cooling, with mixed supply air and outside air. Unit has MERV-7 filters. RTU-2 is nearing the end of its useful life and utilized R-22 refrigerant which is no longer available except on secondary market. Unit should be replaced.

Controls are primarily direct digital controls with BMS with the exception of Gym and Cafeteria air handling units which have integrated controls with remote starters.

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	Fair	Distribution Switchgear is original to the building and Past its Serviceable Lifespan.
Power Distribution	Poor	Much of This equipment is Original to the Building and Past its Serviceable Lifespan.
Life Safety Power	N/A	There is no Life Safety Power to the Building.
Emergency Power	N/A	There is No Emergency Power to the Building.
Transformers	Good	There is a Step-Down Transformer outside for the PV system. It is well Maintained and in Good Condition.
Grounding	Fair	Service Equipment Grounding, Where Observed, Appeared Undamaged and in Fair to good Condition.
Lightning Protection	N/A	There is No Lightning Protection System for the building.

Power originates at a utility pole located on the driveway at the rear of the building, near the maintenance entrance. Secondary feeders run underground from a pole mounted 208V, 3-phase utility transformer and enter a main service disconnect switch located in the main electrical room on the exterior northeast side of building Area 2.

Distribution gear that is original to the building is manufactured by Westinghouse and consists of a main switch and CT cabinet rated for 400A. The metering is arranged cold sequence with the meter mounted on a wall next to the main disconnect switch. The original main switch feeds a 400A, 208/120V, 3-phase, 4-wire disconnect switch, labeled "Main Distribution Panel Disconnect", manufactured by Square D and mounted on the exterior of the building adjacent to the main electrical room. This switch functions as the main service disconnect for the building and back feeds main distribution panel "MDP". Panel "MDP" contains branch circuit breakers that feed panels and equipment at 208/120V.

Branch circuit panelboards vary in age between those original to the building, which date from the early 1960's , to those installed as part of later renovations. Branch circuit wiring is in EMT/armored cable, where observed.

There is no Life Safety or Emergency/Optional Standby power to the building.

Electrical (continued...)

The PV system is of the grid-connected type and does not include battery back-up storage or secondary electrical generation devices. The system utilizes ground mounted solar arrays, installed north of the building maintenance parking area and produces AC power at 480V into local services via inverters. The PV system disconnect, labeled "AC-PV Disconnect #1, is rated for 200A @ 600V and is located in a courtyard at the west end exterior of building Area 2. This switch connects to a 480/277V to 120/208V step-down transformer, protected on the 208V side by a 400A, 240V disconnect switch, labeled "AC-PV Disconnect Switch #2". "AC-PV Disconnect Switch #2" functions as the rapid shutdown switch for the PV System and is fed from the new "Main Distribution Panel Disconnect" switch. All PV system equipment is well maintained and functioning properly with no reported issues.

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	Service Size 2"
Fixtures	Good	Wall and Floor Mounted Toilets, Manual Flush Valves and Faucets
Domestic Cold Water Pipe	Fair	Piping Appears to be in Good Condition
Domestic Hot Water Pipe	Fair	Gas and Electric Heat Pump Storage Tank Water Heaters Appear in Good Condition
Sanitary & Vent Piping	Fair	Piping Appears to be in Good Condition, Jacketing Starting to Come Off At Fixtures
Storm Piping	N/A	N/A
Natural Gas Piping	Fair	Service size 2", Piping Starting to Show Signs of Rust
Irrigation	N/A	N/A

The water originates and enters the building in the main janitor's closet by the administration area of the building.

The plumbing fixtures are both wall hung and floor mounted. Water Closets are vitreous china and the fixture and valves are in good condition. Urinals are wall mounted vitreous china with manual flush valves and are in good condition. Lavatories are wall hung vitreous china with both manual and sensor type faucets. Classroom and cafeteria sinks are stainless steel with manual type faucets and are in good condition.

There are both electric and gas fired water heaters within the building. The water heaters appear to be in fair condition.

The copper piping that spreads the domestic water around the building appears to be in fair condition with little corrosion seen on the piping.

The sanitary piping also appeared to be in fair condition except for in some places where the pipe jacketing can be seen starting to pop off of the piping that is coming off of the classroom and restroom fixtures.

There is a 2" natural gas service that is located by the entrance of the building that appears to be in fair condition, however some of the piping is beginning to rust.

There is no internal storm piping or roof drains in this building as well as no irrigation systems or piping.

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 Size 4"
Backflow Preventer	Fair	Service and Testing are Up to Date
Standpipe System	N/A	N/A
Sprinkler System	Fair	Wet System
Fire Department Connection	Fair	Wall-Mounted Siamese Connection, Rust Forming on Connection
Heads	Fair	Uprights, Concealed Pendants
Piping	Good	Black Steel Piping
Fire Pump	N/A	N/A
Booster Pumps	N/A	N/A

The fire service originates and enters into the building in the central janitor's closet by the main administration area in the central part of the building.

The backflow preventer appears to be in fair condition with service and inspection up to date with the latest inspection being on 6/27/2023. It was seen that there were small sports of rust that were beginning to form on the backflow preventer, which if not taken care of, it can lead to the rust spreading.

This building does not have a standpipe in the fire protection system.

There is only a wet fire protection that serves the entire building. This system includes all of the black steel piping that spreads the water to the sprinklers throughout the building. The school has concealed pendant sprinklers in the administration area of the building as well as some of the classroom spaces. Upright type sprinkler heads are used throughout the building where the concealed pendant heads are absent. There were concealed heads that did have the sprinkler covers starting to pop off as well as some corrosion beginning to be seen on some upright heads.

The piping in the building appeared to be in good condition with no signs of damage.
There is a wall mounted Siamese fire department connection that appeared to be in good condition.

This building does not have a fire pump or any booster pumps in the fire protection system.

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, Supplemented with Low Proximity Exit Signs
Exterior Lighting	Good	LED Exterior Building Mounted Fixtures and Pole Arm Mounted LED Luminaires in Parking Areas.
Lighting Control	Fair	Occupancy Sensors with Manual Override.
Theatrical Lighting	Fair	Spotlights at Ceiling in the Gymnasium/Auditorium

Interior lighting fixtures consist mostly of 2'x2' recessed lay-in troffers with prismatic lenses in corridors and public spaces and 2'x4' recessed direct/indirect fixtures in offices. Fixtures in the Gymnasium/Auditorium are 2'x4' recessed lay-in troffers with prismatic lenses. Fixtures in classrooms are 1'x4' pendant mounted with wraparound style lenses. All interior fixtures have been retrofitted with LED lamps and drivers and are in fair to good condition. Light levels throughout most of 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. Low proximity exits were observed at exits and along paths of egress. Exit signage in all areas appears in compliance with current codes. All signage appears to be in good condition and operating properly.

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.

The theatrical lighting system consists of a few ceiling mounted adjustable spotlights in the Gymnasium/ Auditorium. No controls were observed.

LED wall packs light the building exterior. Pole arm mounted LED luminaires light roadways and parking areas. All exterior and site lighting appeared in good condition.

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	Panel Appears 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	N/A	N/A
Voice Evacuation	Good	System Appears Well Maintained and in Good Working Condition.
Elevator Recall	N/A	N/A

The building is equipped with a Siemens FireFinder XLS series addressable fire alarm system control panel with voice evacuation. The control panel is located in the Building Area 2 Boiler Room with an annunciator panel in the Main Entry Vestibule. Separate Wheelock Safepath4 voice control panels allow annunciation over the building's speaker/horn-strobe devices.

Locations of manual pull stations appear compliant. Fire alarm speaker/strobe coverage throughout the building appears sufficient. All fire alarm devices appeared in good working condition and 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. All systems appear operational and in compliance.

There is no Area of Rescue call system in the building.

The building is one floor, slab on grade - there is no elevator.

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	Fair	Minimal - Observed at Telephone Equipment Backboard Only.
Telephone Service Entrance	Poor	Appears Original to Building, Poorly Maintained
Data Horizontal Cabling	Good	Well Maintained with no Visible Damage
MDFs / IDFs	Good	Well Maintained. Possible Working Clearance Issues.
Pathways	Good	Well Maintained with no Visible Damage.
Coaxial Cable	N/A	None Observed

Telecommunications services originate at a utility pole located on the driveway at the rear of the building, near the maintenance entrance. Cabling runs overhead and enters the building in the Main Electrical Room, where the telephone systems equipment backboard is located. This equipment appears original to the building and is in poor condition.

The main data systems rack is located in a storage room off the main hallway in building Area 2. Service cabling runs from this location to systems racks located in the main hallway in classroom building Area 1. 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 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	Functioning with No Apparent Issues.
Intercom System for Entrance	Good	Not Tested - Appears Operational.

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 and is located in the server room, behind the main data systems rack. 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 area. All systems appear in good condition and functioning properly.

A hand-free communications device with fixed camera, manufactured by Aiphone, allows communication between the main entry vestibule and Administration desk. The system was not tested for operation, but appears functional and in good 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)	Fair	Functioning with No Apparent Issues.
Assisted Listening	N/A	N/A

The building uses program bells for class scheduling, controlled via a Simplex digital time control center 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 stand-alone sound system exists in the Gymnasium/Auditorium, consisting of an equipment rack and PA type speakers on either side of the stage.

There was no evidence of an assisted listening system in the building.

M/E/P/FP Survey Photographs

1. Location:

Janitor's Closet

Description:

Domestic Water Service

2. Location:

Custodial Closet

Description:

Fire Service and Riser

M/E/P/FP Survey Photographs

3. Location:

Storage Room

Description:

Water Heater

4. Location:

Group Toilet Room

Description:

Toilet Room Fixtures

M/E/P/FP Survey Photographs

5. Location:

Group Toilet Room

Description:

Toilet Room Fixtures

6. Location:

Roof

Description:

Classroom Ventilation Make up Air Unit

7. Location:

Roof

Description:

Roof Top Unit 3 Serving Admin. Area

M/E/P/FP Survey Photographs

8. Location:

Classroom

Description:

Hydronic Piping in Classroom

9. Location:

Classroom

Description:

Space Thermostat

10. Location:

Classroom

Description:

Classroom Oscillating Fan

M/E/P/FP Survey Photographs

11. Location:

Teachers Lounge

Description:

System AC Units

12. Location:

Mechanical Room

Description:

Hydronic Pump System

13. Location:

Pod Mechanical Room

Description:

Smith Cast Iron Boiler

M/E/P/FP Survey Photographs

14. Location:

Main Electrical Room

Description:

Original Main Service Equipment

15. Location:

Main Electrical Room

Description:

Main Service Distribution Panel

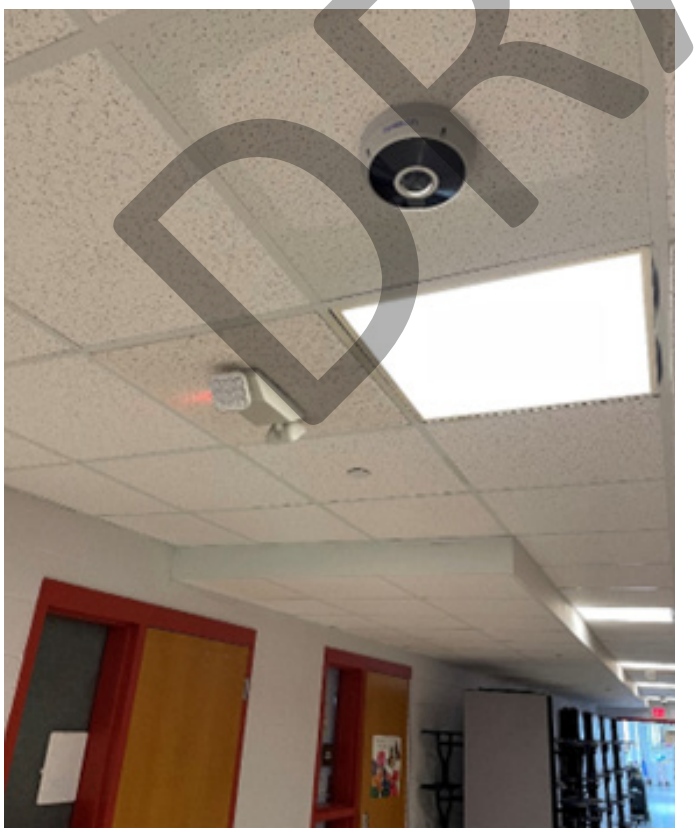
M/E/P/FP Survey Photographs

16. Location:

Building Exterior

Description:

New Main Service Disconnect and PV System Shut-Down Switch



17. Location:

Main Level

Description:

Typical Corridor Lighting with Ceiling Emergency Fixture

M/E/P/FP Survey Photographs

18. Location:

Main Level

Description:

Typical Classroom Lighting

19. Location:

Gymnasium

Description:

Exit Signage with Remote Emergency Battery

M/E/P/FP Survey Photographs

20. Location:

Boiler Room

Description:

Fire Alarm Control Panel

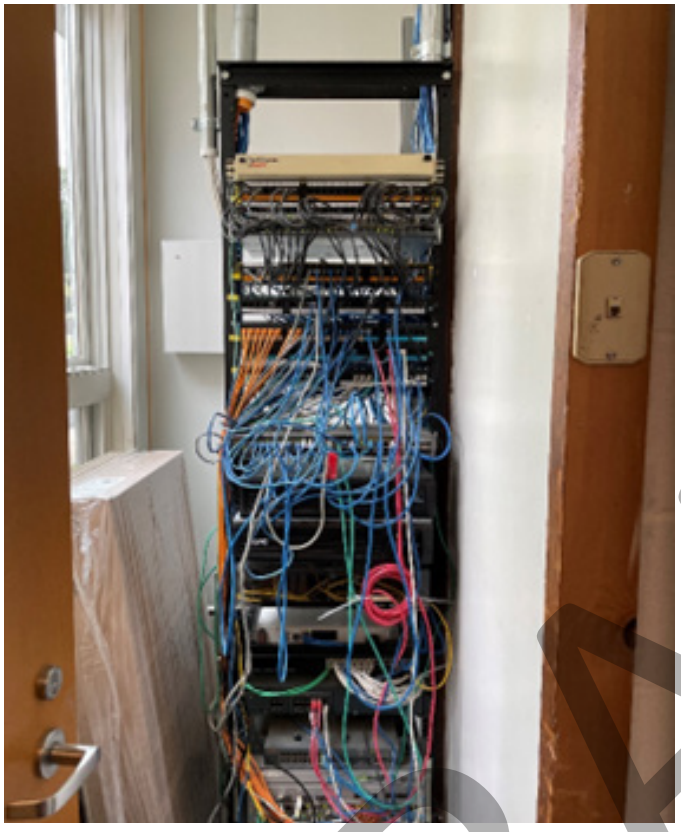
21. Location:

Main Level Exit

Description:

Remote Fire Alarm Annunciator Panel

M/E/P/FP Survey Photographs

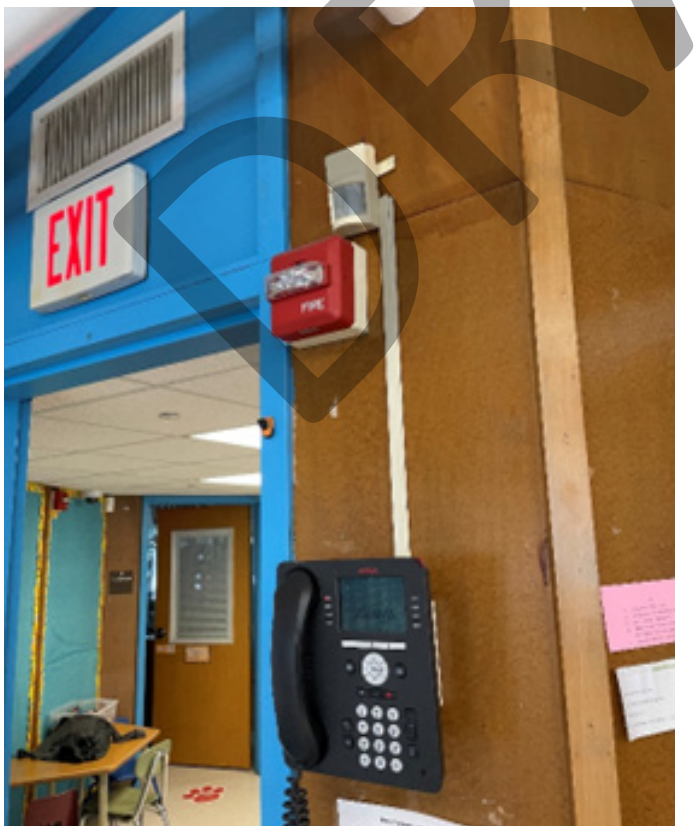


22. Location:

Main Level

Description:

Data Systems Rack



23. Location:

Classroom

Description:

Typical VoIP Wall Phone

M/E/P/FP Survey Photographs

24. Location:

Classroom

Description:

Typical Combination Clock/Speaker

25. Location:

Building Main Entry

Description:

Surveillance Camera with Intercom Mounted Below

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 hot water boilers and pumps. The boilers are nearing the end of their useful life and are recommended to be replaced with high efficiency condensing boilers for energy savings.
- Hot water pumps were observed to be corroded and at the end of their useful life we recommend units to be replaced in kind.
- Ventilation: Provide an energy efficient, code compliant ventilation system that meets current ASHRAE and building code requirements. This system would include energy recovery to maximize ventilation and energy efficiency.
- Exhaust: Recommend replacing all classroom gravity relief ventilators with down blast roof top exhaust fans.
- Controls: Recommend replacement of all controls with digital controls integrated to centralized building management system.
- Gymnasium 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.
- Cafeteria 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.

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

- Switchgear that is original to the building is past its serviceable lifespan and in need of immediate replacement. Equipment that is disconnected and out of service is recommended for immediate removal. Disconnects and equipment that were installed to backfeed the existing service and PV system are in good condition and should provide reliable service for another 10-15 years before improvements and / or repairs are required.
- Distribution equipment that is original to the building is in poor condition and in need of immediate replacement. 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.
- 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.
- 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 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 5-7 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.

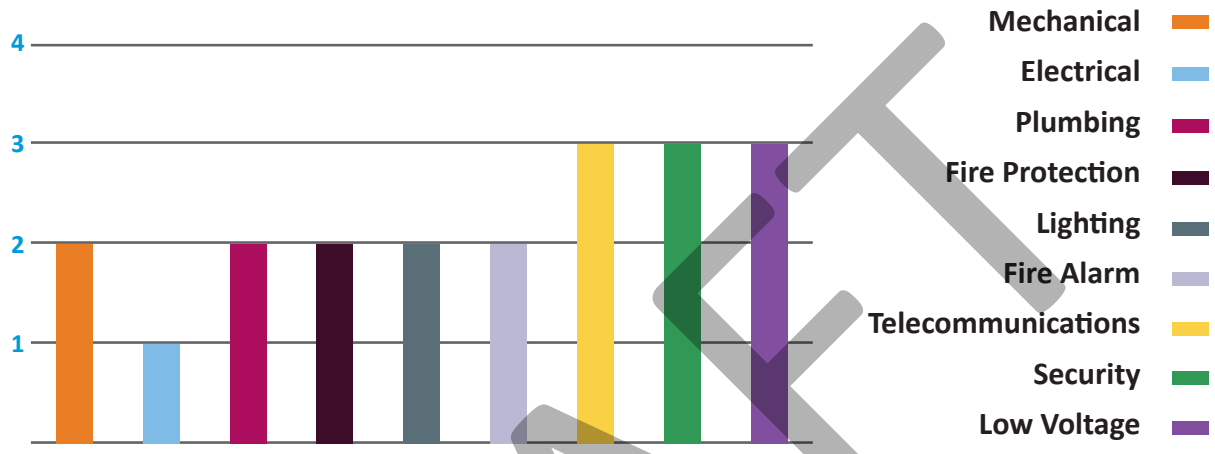
- Recommend a review of all access controlled doors and end-user operations be performed in the next 1-2 years, or as program needs dictate.
- Recommend a full system assessment be performed to verify all devices are connected and tested for proper operation in the next 1-2 years, or as program needs 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.

Lake Street 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	1959, 1988 Renovation
Type of Construction	IIB
% Open Perimeter	100%
Fire Suppression	Complete NFPA 13 System
Compartmentalization	> 30,000 sf
Fire Resistance Rating of Vertical Opening Enclosures	None
Automatic Alarms	Installed
Automatic Alarms Type	Smoke Detectors
Smoke Control	None
Smoke Control Type	N/A
Mixed Use	Separated Use (Education, Assembly)
Dead End	< 20'-0"
Maximum Exit Access Travel Distance	< 200'-0"
Number of Stories	1 story
Floor Area(s)	31,889 sf
Reduction of Area Limitations	None
Corridor Wall Rating	30 Min. Smoke Rating, all classrooms have dedicated exit
Door Closers	At Exit Doors and Along Egress Route, None at Classrooms
Adequate Exit Routes	Yes
Elevator Controls	N/A
Emergency Lights	Battery Powered Fixtures along Egress Route and in Utility Areas

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. Lake Street 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	1959
Date of Addition(s)	1988 Renovation
Primary Occupancy	Existing Education
Secondary Occupancy	N/A
Mixed Use	Existing Assembly

Fire Regulations	Description	Conforms (Y/N)
Stair Separation	N/A	N/A
Corridor Separation	30 Min Smoke Rating	Yes
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	Exits/Fire Doors, None at Classrooms	No
Stairs		
Classification	N/A	N/A
Width	N/A	N/A
Riser	N/A	N/A
Tread	N/A	N/A
Guards	None provided on one side of gym ramp	No
Handrails	Continuous at gym ramp,	Yes
Enclosure	N/A	N/A
Horizontal Exits	N/A	N/A
Ramps	Ramp at Gym Entrance is non-compliant	No
Fire Escapes	N/A	N/A

NFPA Code Survey (continued...)

Means of Egress		
Occupant Load	First Floor - 1,361	N/A
Factor	20 Classrooms, 7/15 Assembly	N/A
Area per Floor	First Floor - 39,219 sf	Yes
Occupants per Floor	First Floor - 1,361	N/A
Exit Unit Widths	> 36" Clear Space	Yes
Number of Exits	~ 12	Yes
Exit Location	-	Yes
Exits through Spaces	Classrooms have dedicated Exits in addition to standard exit routes	Yes
Dead Ends/Common Travel	Dead End < 50' Common Path of Travel < 100'	Yes
Travel Exit	< 200'	Yes
Discharge	Typical discharge from classroom does not lead directly to grade, must navigate a step first	No
Illumination of Exits	LED with battery backup	Yes
Emergency Lighting	Battery operated LED and remote emergency light	Yes
Exit Marking	LED exit signs with battery backup	Yes
Fire Protection Features	Description	Conforms (Y/N)
Construction & Compartmentalization		
Construction - Minimum	II(000)	Yes
Requirements	None	N/A
Compartmentalization	> 30,000 sf	No
Flooring Openings Enclosed	N/A	N/A
Floor Openings Unenclosed	N/A	N/A
Concealed Spaces	N/A	N/A
Smoke Protection		
Smoke Barriers	30 min separation between corridor and classrooms	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 (Gymnasium/Cafeteria)	Yes
Corridors	None, Classroom have dedicated exits and building is fully sprinklered, rated corridors not required	Yes
Sprinklers - Entire Building	Complete NFPA 13 System	Yes
Selected Hazards	N/A	N/A
Other		
Interior Finish	-	Yes
Corridors & Stairwells	-	Yes
Non-Conforming Locations	Ramp at Gymnasium	No
Sprinkler Protection	Description	Conforms (Y/N)
Sprinkler Service	Wet sprinkler system	Yes
Area Serviced	Whole Building	Yes
Pressure	95 PSI Static 65 PSI Residual	Yes
Alarm Valve Size	4”	Yes
Service Size	4” fire service	Yes
Fire Department Connection	Wall-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	N/A
Exits Discharge directly to grade or public way	No
Building Service & Fire Protection Equipment	Conforms (Y/N)
Utilities	Yes
Smoke Control	N/A
Elevators, Dumbwaiters & Vertical Conveyors	N/A
Rubbish Chutes, Incinerators & Laundry Chutes	N/A
Detection, Alarm & Communication Systems	Yes
Automatic Sprinklers	Yes

Code Survey Recommendations

The code components of Lake Street School are considered partially 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.

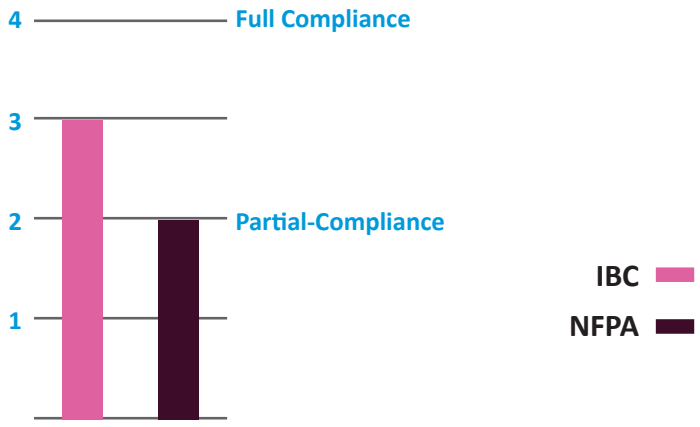
- Provide Door Closers at all Classroom Doors accessing corridor. Any door intended to remain closed regularly should be equipped with an automatic closer.
- Compartmentalization appears to be greater than 30,000 sf based on indicated fire barriers on Code Plans.
- Modify ramp leading from gymnasium, required modifications include providing landings at 30' increments and providing complying guardrails at both sides of ramp.
- Provide proper exit door operation, clear width, exterior landings, and walkway to the public way at all exits from the building.
- Exterior emergency lighting required at some exit ways for complete coverage.

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

- Provide door closers at all classroom doors.
- Address dead end corridors where travel distance exceeds 50' to the closest exit.
- Ensure compartmentalization of building is limited to <30,000 sf.
- Provide 30 min. smoke barriers at all classroom/corridor partitions.

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 Lake Street 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 Lake Street 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
6	0	403.5.1	Site Access Route	Walking Surfaces: Changes in Level: Clear Width at Turn	Where the accessible route makes a 180 degree turn around an element which is less than 48 inches wide, clear width shall be 42 inches minimum approaching the turn, 48 inches minimum at the turn and 42 inches minimum leaving the turn. EXCEPTION: Where the clear width at the turn is 60 inches minimum compliance with 403.5.2 shall not be required.	Y	F	38		Playground	
9	0	302.1	Site Access Route	Floor Surfaces	Floor surfaces shall be stable, firm, and slip resistant and shall comply with 302. Changes in level in floor surfaces shall comply with Section 303.	Y	F	37		Walkways	
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	F	F	37, 38			
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	37			
13	0	303.3	Site Access Route	Changes in Level: Beveled	Changes in level greater than ¼ inch (6.4 mm) in height and not more than ½ inch (13 mm) maximum height shall be beveled with a slope not steeper than 1:2	Y	F	37			
14		303.4	Site Access Route	Changes in Level: Ramps	Changes in level greater than ½ inch (13 mm) in height shall be ramped, and shall comply with 405 or 406	Y	F	37			
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	35			

Date Prepared: 7/21/2023

ADA Compliance Survey

Lake Street School

Entry #	Priority	Code Reference	Element	Item	Compliance Requirement	Readily Achievable	Pass/ Fail	Photo Ref #	Plan Ref #	Notes	Cost to Fix
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	28			
26		406.3	Curb Ramps	Sides of Curb Ramps	Where provided, curb ramp flares shall comply with Section 406.3. 406.3.1 Slope: Flares not be steeper than 1:10.	Y	F	35			
32		404.1	Entrances	Doors, Doorways	Doors and doorways that are part of an accessible route shall comply with Section 404.	Y	F	32			
37		304.4	Access Route Interior	Turning Space: Door Swing	Unless otherwise specified, doors shall be permitted to swing into turning spaces	Y	F	23			
38		305.3	Access Route Interior	Clear Floor Space	The clear floor space shall be 48 inches (1220 mm) minimum in length and 30 inches (760 mm) minimum in width.	N	F	11, 12, 13			
39		307.2	Access Route Interior	Protruding Objects: Protrusion Limits	Objects with leading edges more than 27 inches (685 mm) and not more than 80 inches (2030 mm) above the finish floor shall protrude 4 inches (100 mm) maximum horizontally into the circulation path. EXCEPTION: Handrails shall be permitted to protrude 4½ inches (115 mm) maximum.	Y	F	8			
40		307.4	Access Route Interior	Protruding Objects: Vertical Clearance	Vertical clearance shall be 80 inches (2030 mm) minimum. Rails or other barriers shall be provided where the vertical clearance is less than 80 inches (2030 mm). The leading edge of such rails or barrier shall be located 27 inches (685 mm) maximum above the finish floor. EXCEPTION: Door closers and door stops shall be permitted to be 78 inches (1980 mm) minimum above the finish floor.	Y	F	5			

Entry #	Priority	Code Reference	Element	Item	Compliance Requirement	Readily Achievable	Pass/ Fail	Photo Ref #	Plan Ref #	Notes	Cost to Fix
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	24			
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	16			
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	19			
45		403.5	Access Route Interior	Walking Surfaces: Clear Width	The clear width of an accessible route shall be 36 inches (915mm) minimum. EXCEPTION: The clear width shall be permitted to be reduced to 32 inches minimum for a length of 24 inches maximum provided that reduced width segments are separated by segments that are 48 inches (1220mm) minimumin length and 36 inches (915mm) minimum in width.	Y	F	16			

Entry #	Priority	Code Reference	Element	Item	Compliance Requirement	Readily Achievable	Pass/ Fail	Photo Ref #	Plan Ref #	Notes	Cost to Fix
49		402.2	Ramps	Components	Accessible routes shall consist of one or more of the following components: walking surfaces with a slope not steeper than 1:20, doors and doorways, ramps, curb ramps excluding the flared sides, elevators, and platform lifts. All components of an accessible route shall comply with the applicable portions of this standard.	Y	F	28, 38			
51		405.7	Ramps	Landings	Ramps shall have landings at the top and the bottom of each ramp run. Landings shall comply with 405.7.	Y	F	28			
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	38			
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	32			
57		405.8	Ramps	Handrails	Ramp runs with a rise greater than 6 inches (150mm) shall have handrails complying with 505.		F	28			
61		405.10	Ramps	Wet Conditions	Landings subject to wet conditions shall be designed to prevent the accumulation of water.	Y	F	37			
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	28			

Entry #	Priority	Code Reference	Element	Item	Compliance Requirement	Readily Achievable	Pass/ Fail	Photo Ref #	Plan Ref #	Notes	Cost to Fix
63		505.3	Ramps	Handrails: Continuity	Handrails shall be continuous within the full length of each stair flight or ramp run. Inside handrails on switchback or dogleg stairs or ramps shall be continuous between flights or runs. Other handrails shall comply with Section 505.10 and 307.	Y	F	28			
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	28			
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.		F	28			
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	20			
78		505.3	Handrails	Handrails: Continuity	Handrails shall be continuous within the full length of each stair flight or ramp run. Inside handrails on switchback or dogleg stairs or ramps shall be continuous between flights or runs. EXCEPTION: Handrails shall not be required to be continuous in aisles serving seating where handrails are discontinuous to provide access to seating and to permit crossovers within the aisles.	Y	F	28			

Entry #	Priority	Code Reference	Element	Item	Compliance Requirement	Readily Achievable	Pass/ Fail	Photo Ref #	Plan Ref #	Notes	Cost to Fix
88		505.10.3	Handrails	Handrails: Bottom Extension at Stairs	At the bottom of a stair flight, handrails shall extend at the slope of the stair flight for a horizontal distance equal to one tread depth beyond the bottom tread nosing. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight.	Y	F	20			
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.		F	9, 11			
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	16			

Entry #	Priority	Code Reference	Element	Item	Compliance Requirement	Readily Achievable	Pass/ Fail	Photo Ref #	Plan Ref #	Notes	Cost to Fix
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.	N	F	26, 32			
121		404.2.4	Doors	Thresholds	If provided, thresholds at doorways shall be ½ inch (13 mm) maximum in height. Raised thresholds and changes in level at doorways shall comply with 302 and 303. EXCEPTION: An existing or altered thresholds shall be permitted to be ¾ inch maximum in height provided that the threshold has a beveled edge on each side with a maximum slope of 1:2 for the height exceeding 1/4inch.		F	32			
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.		F	9, 16			
124		404.2.7.1	Doors	Closing Speed: Door Closers	Door closers shall be adjusted so that from an open position of 90 degrees, the time required to move the door to a position of 12 degrees shall be 5 seconds minimum.		F	32			

Entry #	Priority	Code Reference	Element	Item	Compliance Requirement	Readily Achievable	Pass/ Fail	Photo Ref #	Plan Ref #	Notes	Cost to Fix
135		604.6, 309	Water Closets	Flush Controls	Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with 309. Flush controls shall be located on the open side of the water closet. EXCEPTION: In ambulatory accessible compartments complying with 604.10, flush controls shall be permitted to be located on either side of the water closets.	Y	F	22			
136		604.7	Water Closets	Dispensers	Toilet paper dispensers shall comply with 309.4. Where the dispenser is located above the grab bar, the outlet of the dispenser shall be located within an area 24 inches minimum and 36 inches maximum from the rear wall. Where the dispenser is located below the grab bar, the outlet of the dispenser shall be located within an area 24 inches minimum and 42 inches maximum from the rear wall. The outlet of the dispenser shall be located 18 inches minimum and 48 inches maximum above the floor. Dispensers shall comply with Section 609.3. Dispensers shall not be of a type that control delivery, or do not allow continuous paper flow.	Y	F	22			
137		604.9.1	Toilet Compartments	General	Wheelchair accessible toilet compartments shall comply with 604.9.	Y	F	3, 6			
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	3, 6			

Entry #	Priority	Code Reference	Element	Item	Compliance Requirement	Readily Achievable	Pass/ Fail	Photo Ref #	Plan Ref #	Notes	Cost to Fix
145		605.3	Urinals	Clear Floor Space	A clear floor space complying with 305, positioned for forward approach shall be provided.		F	1, 7			
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	13			
150		603.4	Mirrors / Accessories	Coat Hooks and Shelves	Coat hooks shall be located within one of the reach ranges specified in 308. Shelves shall be 40 inches minimum and 48 inches maximum above the floor.	Y	F	16			
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	17, 23, 25			

Date Prepared: 7/21/2023

ADA Compliance Survey

Lake Street 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	2, 19			
153		606.4, 309	Lavatories / Sinks	Faucets	Faucets shall comply with Section 309. Hand operated metering faucets shall remain open for 10 seconds minimum.	Y	F	2, 19			
154		606.6	Lavatories / Sinks	Exposed Pipes and Surfaces	Water supply and drain pipes under lavatories and sinks shall be insulated or otherwise configured to protect against contact. There shall be no sharp or abrasive surfaces under lavatories and sinks	Y	F	22			
186		704.2.4	Telephones	Wheelchair Accessible Telephones: Cord Length	The telephone handset cord shall be 29 inches minimum in length.	Y	F	24			
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	10, 11, 18			
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	10, 11			

Entry #	Priority	Code Reference	Element	Item	Compliance Requirement	Readily Achievable	Pass/ Fail	Photo Ref #	Plan Ref #	Notes	Cost to Fix
193		703.3	Signage	Raised Characters	Raised characters shall comply with 703.3 and shall be duplicated in braille complying with 703.4. 703.3.2 Depth: Raised characters shall be 1/32 inch minimum above their background. 703.3.3 Case: Characters shall be uppercase. 703.3.4 Style: Characters shall be sans serif. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms. 703.3.6 Character Proportions: The uppercase letter “O” shall be used to determine the allowable width of all characters of a font. The width of the uppercase letter "O" of the font shall be 55 percent minimum and 110 percent maximum of the height of the uppercase letter “I” of the font. 703.3.5 Character Height: The uppercase letter "I" shall be used to determine the allowable height of all characters of a font. The height of the uppercase letter "I" of the font, measured vertically from the baseline of the character, shall be 5/8 inch minimum and 2 inches maximum. EXCEPTION: Where separate raised and visual characters with the same information are provided, the height of the raised uppercase letter "I" shall be permitted to be 1/2 inch minimum.	y	F	11			

Entry #	Priority	Code Reference	Element	Item	Compliance Requirement	Readily Achievable	Pass/ Fail	Photo Ref #	Plan Ref #	Notes	Cost to Fix
194		703.3	Signage	Raised Characters	703.2.6 Stroke Thickness: The stroke width shall be 15 percent maximum of the height of the uppercase letter "I" measured at the top surface of the character and 30 percent maximum of the height of the uppercase letter "I" measured at the base of the character. 703.3.8 Character Spacing: Character spacing shall be measured between the two closest points of adjacent raised characters within a message, excluding word spaces. Spacing between individual raised characters shall be 1/8 inch minimum measured at the top surface of the characters, 1/16 inch minimum measured at the base of the characters, and 4 times the raised character stroke width maximum. Characters shall be separated from raised borders and decorative elements 3/8 inch minimum. 703.3.9 Line Spacing: Spacing between the baselines of separate lines of raised characters wiyhin a message shall be 135 percent minimum and 170 percent maximum of the raised character height.	y	F	10, 11			

Entry #	Priority	Code Reference	Element	Item	Compliance Requirement	Readily Achievable	Pass/ Fail	Photo Ref #	Plan Ref #	Notes	Cost to Fix
195		703.4	Signage	Braille	703.4.3 Dimensions: Braille dots shall have a domed or rounded shape and shall comply with Table 703.4.3. 703.4.2 Uppercase Letters: The indication of an uppercase letter or letters shall only be used before the first word of sentences, proper nouns and names, individual letters of the alphabet, initials, and acronyms. 703.4.4 Position: Braille shall be below the corresponding text. If text is multi-lined, braille shall be placed below the entire text. Braille shall be separated 3/8 inch minimum from any other raised characters and 3/8 inch minimum from raised borders and decorative elements. Braille provided on elevator car controls shall be separated 3/16 inch minimum and shall be located either directly below or adjacent to the corresponding raised characters or symbols.	y	F	10, 11			
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	10, 11			
197		703.5.2	Signage	Pictograms	Pictograms shall have a field 6 inches minimum in height. Characters or braille shall not be located in the pictogram field.	y	F	10, 11			
198		703.6.2	Signage	Symbols of Accessibility: Finish and Contrast	Symbols of accessibility and their background shall have a non-glare finish. Symbols of accessibility shall contrast with their background with either a light symbol on a dark background or a dark symbol on a light background.	y	F	10, 11			
199		305.3	Storage	Clear Floor Space	The clear floor space shall be 48 inches minimum in length and 30 inches minimum in width.	y	F	16			
200		308	Storage	Reach Ranges	Reach ranges shall comply with Section 308.	y	F	16			

Date Prepared: 7/21/2023

ADA Compliance Survey

Lake Street School

Entry #	Priority	Code Reference	Element	Item	Compliance Requirement	Readily Achievable	Pass/ Fail	Photo Ref #	Plan Ref #	Notes	Cost to Fix
201		309	Storage	Operable Parts	Operable parts required to be accessible shall comply with Section 309.	y	F	16			
203		902.1	Dining Surfaces and Work Surfaces	General	Accessible dining surfaces and work surfaces shall comply with Section 902. EXCEPTIONS: Dining surfaces and work surfaces primarily for children's use shall be permitted to comply with Section 902.5.	y	F	2, 19			
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	2, 19			
205		902.4	Dining Surfaces and Work Surfaces	Height	The tops of dining surfaces and work surfaces shall be 28 inches minimum and 34 inches maximum in height above the floor.	y	F	2, 19			

Entry #	Priority	Code Reference	Element	Item	Compliance Requirement	Readily Achievable	Pass/ Fail	Photo Ref #	Plan Ref #	Notes	Cost to Fix
206		902.5	Dining Surfaces and Work Surfaces	Dining Surfaces and Work Surfaces for Children's Use	Accessible dining surfaces and work surfaces primarily for children's use shall comply with 902.5. EXCEPTION: Dining surfaces and work surfaces that are used primarily by children ages 5 and younger shall not be required to comply with Section 902.5 where a clear floor space complying with Section 305 is provided for a parallel approach.902.5.1 Clear Floor Space: A clear floor space complying with Section 305, positioned for forward approach, shall be provided. Knee and toe clearance complying with Section 306 shall be provided, EXCEPTION: A knee clearance 24 inches minimum above the floor shall be permitted. 902.4.2 Height: The tops of tables and counters shall be 26 inches minimum and 30 inches maximum above the floor.	y	F	2, 19			

ADA Survey Photographs

1. Location:

Boys Toilet Room

Description:

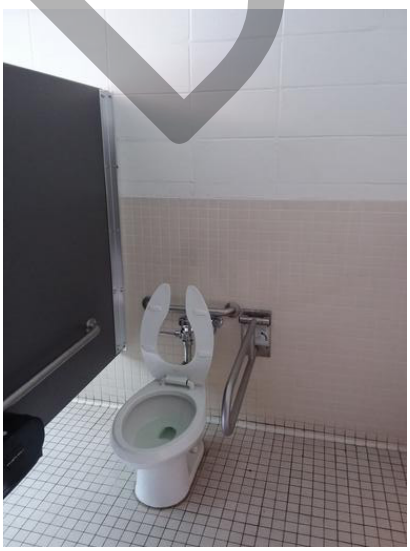
The clear width at the accessible urinal needs to be at minimum 30 inches.

2. Location:

Typical Classroom

Description:

The sink, associated controls,counter height & knee clearance are not ADA compliant.



3. Location:

Typical Bathroom Stall

Description:

There is not a vertical grab bar and the rear grab bar is under sized. The swing down grab bar is no longer required.

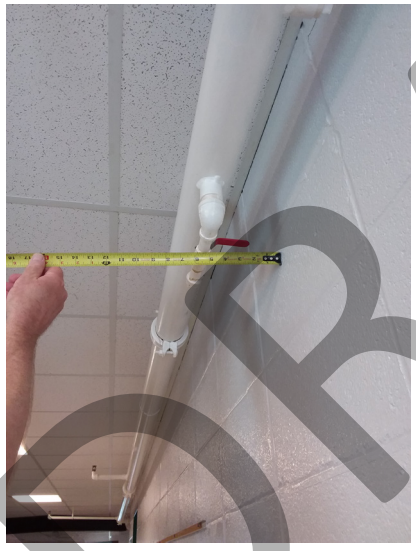
ADA Survey Photographs

4. Location:

Bathroom

Description:

The push side door clearance is not compliant.

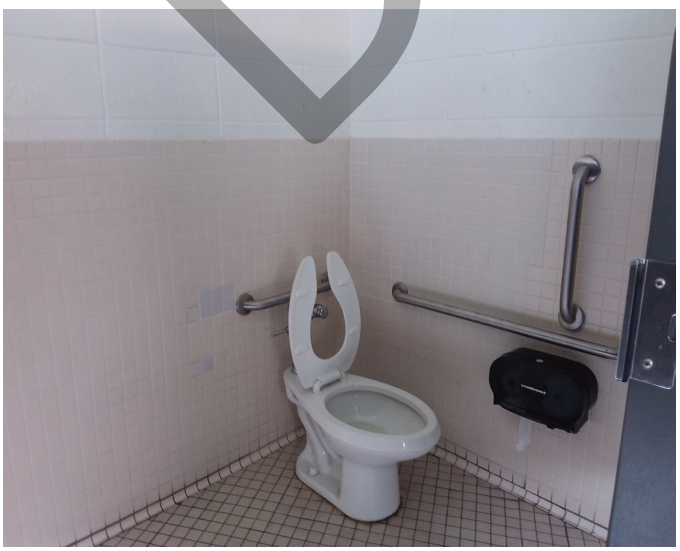


5. Location:

Corridor

Description:

The sprinkler pipe extension is considered a protruding object.



6. Location:

Boys Restroom

Description:

The grab bar at the rear of the toilet is not at the required length.

ADA Survey Photographs

7. Location:

Boys Restroom

Description:

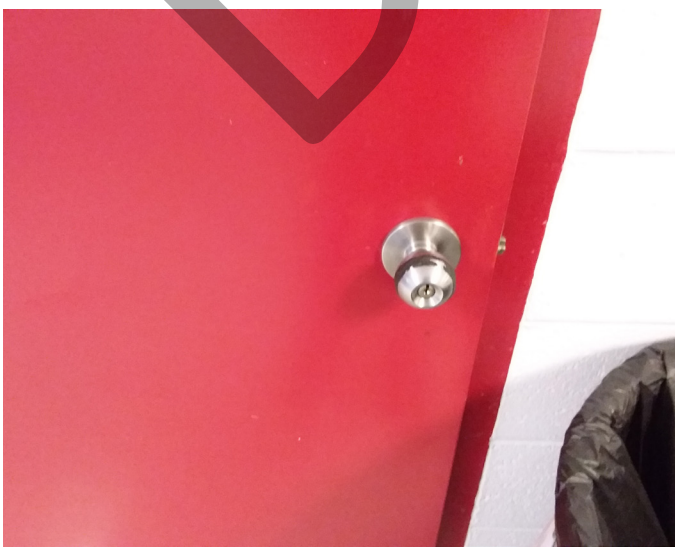
The front approach clear width is not compliant due to the location of the urinal between the screens.

8. Location:

Corridor

Description:

The wall mounted display case creates a protruding object.



9. Location:

Older Door Hardware

Description:

Typical - All knob type door hardware is non-compliant

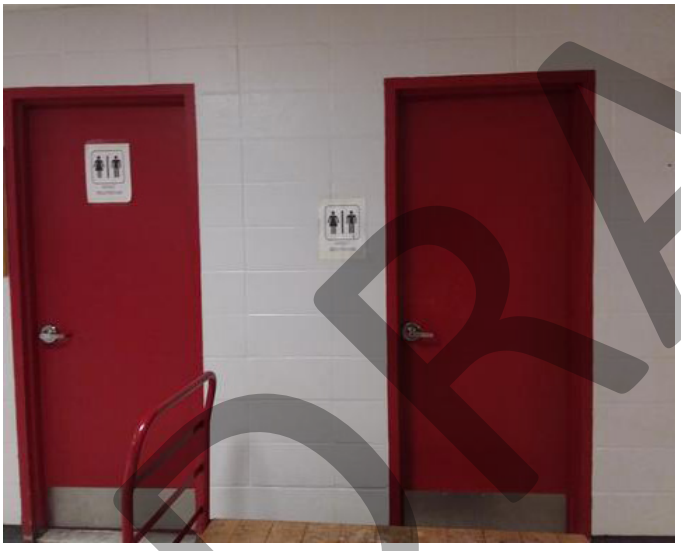
ADA Survey Photographs

10. Location:

Media Center

Description:

No signage at door to designte the purpose of the space



11. Location:

Mens / Womens Toilet Rooms

Description:

The building lacks accessible toilet rooms for Men and Women. Proper signage needs to be installed to direct occupants to the accessible toilet rooms.

12. Location:

Mens Toilet Room

Description:

Currently, the toilet room is not an accessible toilet room

ADA Survey Photographs

13. Location:

Female Toilet Room

Description:

Currently, the toilet room is not an accessible toilet room

14. Location:

Male Restroom

Description:

No vertical grab bar

15. Location:

Kiln

Description:

If this space / room is a teaching area it needs to be accessible with all the proper clearances.

ADA Survey Photographs

16. Location:

Teachers Lounge

Description:

The building's occupants are storing items within this closet, alternative accessible storage needs to be provided.

17. Location:

Teachers Lounge

Description:

Space between counter and vending machine does not allow proper clearance at the room's sink.

18. Location:

Gymnasium

Description:

The room does not have any signage so you would not know it is the Physical Education Office.

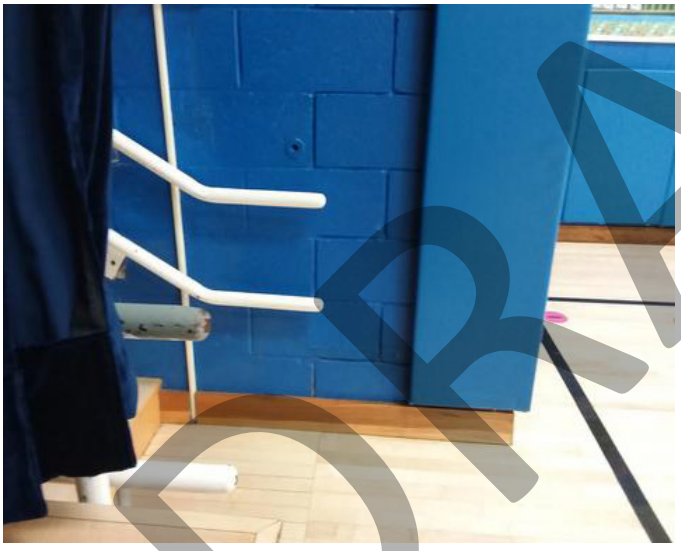
ADA Survey Photographs

19. Location:

Typical Classroom

Description:

The sink, associated controls,counter height & knee clearance are not ADA compliant.

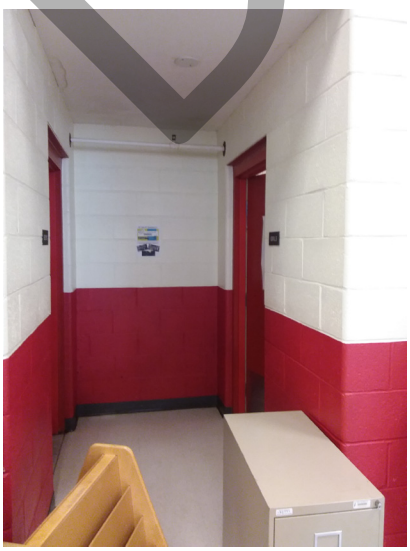


20. Location:

Gymnasium

Description:

The existing stair railing does not return to a wall or post.



21. Location:

Cafeteria

Description:

The maneuvering clearance between the two restrooms is insufficient.

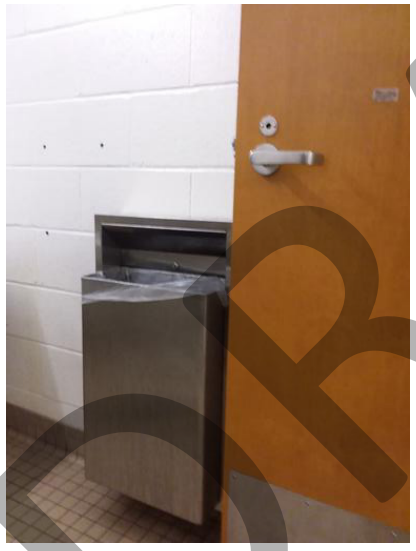
ADA Survey Photographs

22. Location:

Toilet Room

Description:

The toilet is not provided with compliant grab bars or insulated plumbing piping.



23. Location:

Restroom

Description:

The trash receptacle encroaches on the clear floor space required at the door.

24. Location:

Typical Telephone Height

Description:

Bottom of telephone 61” from floor

ADA Survey Photographs

25. Location:

Restroom

Description:

Distance between edge sink and wall is 47”

26. Location:

Classroom

Description:

Space between door to the exterior and casework does not provide sufficient maneuvering clearance.

27. Location:

South Side - Passenger Loading Zone

Description:

The ramp from the gym to the loading zone is non compliant

ADA Survey Photographs

28. Location:

Typical classroom

Description:

The ramps from either side of the gym require landing a rise of 30 inches from the passenger loading zone.

29. Location:

Curb Ramp - Accessible Route

Description:

The curb ramp does not lead to a crosswalk, accessible parking or an accessible route.

30. Location:

Main Parking Lot - North Side

Description:

A curb ramp or access to the main parking lot has not been provided.

ADA Survey Photographs

31. Location:

Baseball / Softball Field

Description:

The access to the field should be provided from a designated parking spot and from the building. A curb ramp has been provided, but the accessible route has not been provided.

32. Location:

Exterior

Description:

The landing at the door is not wide enough to provide access / exiting.

33. Location:

Exterior - North Side Parking Lot

Description:

A passenger loading zone has been provided in this area, but there is not any accessible parking spots in this lot.

ADA Survey Photographs

34. Location:

Handicap Accessible Parking

Description:

A regular and a Van Accessible Parking space have been provided with a compliant walkway to the front entrance.

35. Location:

Crosswalk at Lake Street

Description:

A compliant curb ramp and tactile warning strip need to be present at the crosswalk.

36. Location:

Front Entrance

Description:

The accessible entrance should be denoted with the proper signage. The crosswalk does not connect to the main entrance with a curb ramp.

ADA Survey Photographs

37. Location:

Typical Exterior Classroom Exits

Description:

Exits / entrances from the classrooms need to have compliant access via ramps, walkways and door ways to the site accessible route

38. Location:

Gym Exit / Playground Access

Description:

An accessible route from the gym, the passenger loading zone to the playground need to be provided. The ramps and slopes are not in compliance.

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.

ADA Survey

Lake Street School

Floor Plan

FRIAR

ADA Survey

Lake Street School

Site Plan

FRIAR

ADA Survey Recommendations

Lake Street 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. Lake Street School fails to meet some of these requirements, evident in the "ADA Compliance Survey".

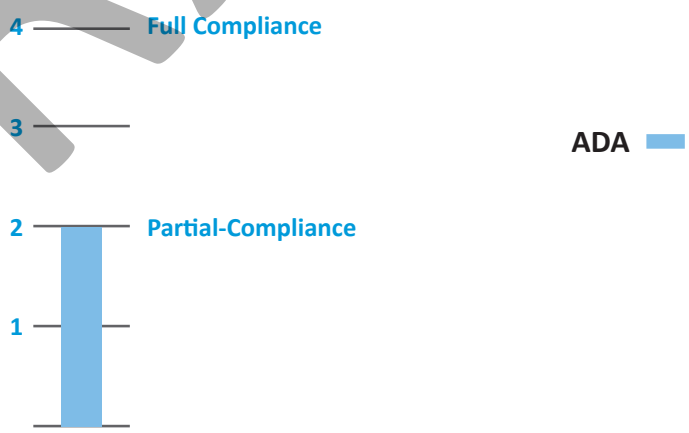
The building was evaluated based on a review of existing documentation, field verification of existing space usage and discussions with building staff to confirm existing space allocation and usage.

The work recommended to address ADA compliance issues includes providing:

- Interior - Provide accessible toilet rooms for faculty and staff, upgrade all accessible toilet rooms to full compliance w/ required accessories and clearances. Provide accessible room signage at all doors throughout the building. Upgrade classrooms with accessible sinks, workstations, exit doors, clear floor space & accessories. Upgrade all knob type door hardware to levers.
- Exterior - Provide an accessible route throughout the site. Compliant doors, landings & sloped walkways from the classrooms to the accessible route. Compliant ramp from the gym to the Passenger Loading Zone, compliant ramp and cross walk from the passenger loading zone to the new playground, signage to direct visitors to the accessible entrance, accessible curb ramps and tactile warning at the Lake Street entrance, and accessible parking at and/or access to the play field.

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

Lake Street School

Plan Drawings	1988 Renovation / 2006 Addition & Alterations
Photos	2023 Survey
Date Built	1959
Site / Civil & Landscape Architect	2006 Alterations: Ferrero, Hixon Associates / Diversified Technology Consultants
Date(s) Additions	1988 Renovation
Zone	R-27
Gross Area (site)	9.18 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	Yes	Good
Signage	Yes	Good
Walkways		
Primary Surface	Bituminous / Concrete	Poor
Curbs	Bituminous / Concrete	Fair
Signage	Yes	Fair
Parking		
Total Spaces	72 spaces	Fair to Good
Designated Handicap Spaces	2 spaces	Good
Primary Surface	Bituminous	Fair to Good
Curbs	Bituminous / Concrete	Fair to Good
Striping	Yes	Fair
Signage	Yes	Fair
Fields/Play Areas		
Field(s)	Grass	Fair
Play Area(s)	Bituminous	Fair
Play Scape(s)	Mulch / Rubber / Brick	Good
Planting/Features		
Plant Beds	Yes	Good
Trees/Shrubs	Yes	Good
Special Features	Rain Garden	Good to Excellent

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

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

Item	Summary
Site Lighting	The school has building mounted light fixtures at exit doors. The parking rear parking area has roof mounted light fixtures. The front parking area has pole mounted light fixtures. See MEP survey for additional utility information.
Driveways/ Walkways	The entry drive to the school only has striping at the firelane and stop line. No other directional markings are provided to direct traffic. Signage for bus loop and parent drop off is also lacking. The walkways throughout the site are in poor condition with the exception of the main entry concrete walkway which is good condition.
Parking	Parking is spread throughout the site. Some of the striping needs to be redone as it has faded over the years. Many of the striped walk paths do not lead to accessible walkways. See ADA report for additional information.
Topography	The building sits on a mostly flat area but begins to slope down toward Lake Street near the Cafeteria/Gymnasium portion of the building. The playscapes are set below the grade level of the building with a bituminous path and concrete steps leading down to them.
Drainage	Drainage consists of a few storm drains spread throughout the property. Roof drains fall water directly onto the ground.
Field/Play Areas	There is a designated baseball field with a metal fence that is in poor to fair condition. There are also grassy areas with soccer nets. A concrete stair leads down to the playscapes along with a bituminous ramped path (with no guardrails). The playscapes have mulch and rubberized materials. By the playscapes there is also a brick paved path leading to a metal gazebo with picnic tables underneath. Some brick pavers are missing.
Plantings	There is a plant bed at the school sign and another near one of the front connecting corridors.
Service Area	The service area is not designated by signage or markings on the pavement.
Special Features	There is a rain garden at the front of the school separating parking areas. This garden consists of medium sized stones and plantings. There are a few sheds on the property. One shed, near Lake Street is in poor to fair condition - the roof appears to be deteriorating and the CMU is damaged in several locations.

Site Survey Photographs

1. Location:

Entry Drive

Description:

Patched area of sidewalk

2. Location:

Sidewalk at Entry Drive

Description:

Cracks and erosion visible at sidewalk leading from the main entrance.

3. Location:

Front Handicap Parking

Description:

Damaged and cracking sidewalk adjacent to handicap parking see ADA report for additional information.

Site Survey Photographs

4. Location:

Classroom Connector Near Main Entrance

Description:

Typical condition of sidewalk and drainage at classroom exit doors.

5. Location:

Rain Garden

Description:

No curbing in this area likely due to drainage concerns.

6. Location:

South Classroom Entrance

Description:

View of sloped pavement - uneven connection of bituminous sloped area with concrete pad and bituminous driveway.

Site Survey Photographs

7. Location:

Shed at South Area of Site

Description:

Shed is in poor condition - damage likely due to a plow or vehicle hitting the corner.

8. Location:

Shed at South Area of Site

Description:

Cracking in CMU and deterioration of roof is visible.

9. Location:

Play Fields at West Area of Site

Description:

Metal fence post damage

Site Survey Photographs

10. Location:

North of Building

Description:

Concrete pad and warning pad does not lead to a walkway.

11. Location:

North - Area between Classroom Wings

Description:

Bituminous walkways in poor condition. Pebble/stone areas mixed in with grassy areas.

12. Location:

North - Area between Classroom Wings

Description:

Drain set above grade. Concrete door exit pad in poor condition.

Site Survey Photographs

13. Location:

North Parking

Description:

Visible pooling and run off at parking is a drainage is a concern

14. Location:

Exterior Ramp at North of Building

Description:

Damaged concrete corner. Mold and mildew growth on concrete

15. Location:

Exterior Ramp at North of Building

Description:

Mold and mildew growth on concrete. Paint on handrails is significantly degraded.

Site Survey Photographs

16. Location:

Exterior Ramp at North of Building

Description:

Damage at concrete ramp

17. Location:

North Playscape

Description:

Paint peeling away at handrail.

18. Location:

Playscape

Description:

Weeds growing between rubberized flooring and brick pathway. Mulch missing in some areas.

Site Survey Photographs

19. Location:

Playscape

Description:

Bricks missing in brick pathway.

20. Location:

North Exterior Stair

Description:

Debris build up at stairs and loose piece of concrete on landing.

21. Location:

Assumed Service Area

Description:

Drainage is lacking in this area and causing water build up near doors. No signage for deliveries / loading / unloading.

Site Survey Photographs

22. Location:

North Area of Site

Description:

Post missing signage.

23. Location:

Northeast

Description:

Bituminous paved area has been repaired in the past but cracking is visible again.

Site Survey Photographs

24. Location:

East - Near Lake Street

Description:

View of bituminous and concrete paver walkway. Debris and grass have built up all over the concrete pavers.

25. Location:

East - Near Lake Street

Description:

View of significant damaged areas of bituminous walkway and concrete pad.

26. Location:

East - Near Lake Street

Description:

Paving around bike rack is in poor condition.

Site Survey Photographs

27. Location:

Southeast Walkway

Description:

Walkway adjacent to classroom wing is cracked and has significant run off from lack of drainage.

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

Lake Street School

Site Plan

FRIAR

Site Recommendations

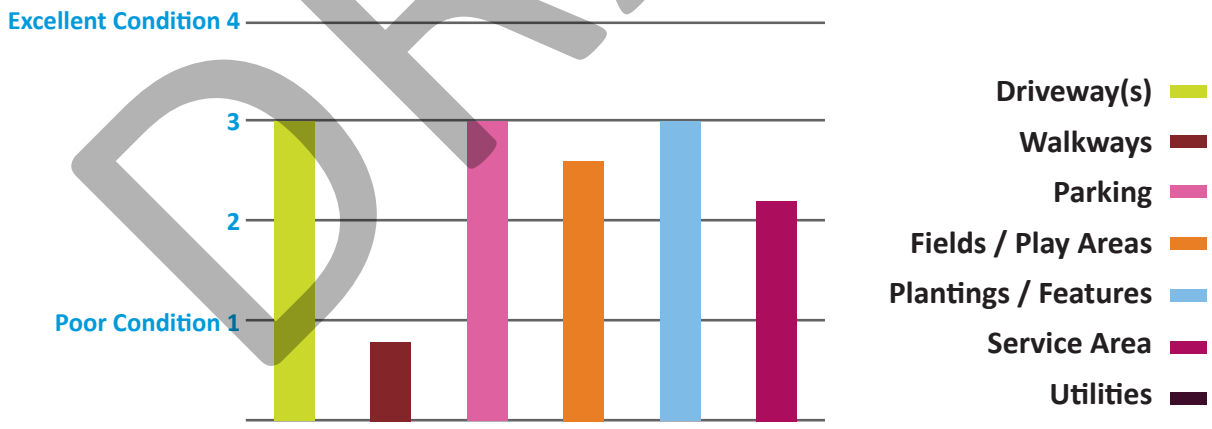
The site components of Lake Street School are in fair condition.

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

- Demolish and provide all new walkways to exterior exits of classroom wings
- Provide handrails / guardrails at any sloped walkways
- Repair damaged concrete walkways adjacent to handicap parking spaces
- Existing shed at South area of site should be removed is not needed. If still needed repair damaged CMU, replace garage door and replace roof. Provide signage to avoid cars parking and blocking off door.
- Repair areas of damaged metal fencing.
- Provide site drainage and separate rock drainage areas from grassy areas with curbing
- Exterior ramp: Repair damaged areas of concrete, refinish handrails and clean concrete of mildew.
- Playscape: Replace areas of missing bricks, fill in areas of missing mulch and refinish handrails where paint has deteriorated.
- Provide signage indicated loading area(s) as well as directional signage for clarity.
- Provide drainage at entrances to Kitchen
- Clean and repair concrete pavers at West side of building.
- Replace walkways at bike rack.

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 Lake Street School.

The estimate of work required at Lake Street 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: Lake Street School

Facility Data	
Address 1	201 Lake Street
City	Vernon
State	Connecticut
ZIP	06066
Type of Facility	School
Square Footage	43,570
Contact Person	Mr. Mark Rizzo

Asset Information

Name	Date Installed	Square Footage	Roof Access
Low Slope Section's	2008	14,000	Ladder Needed
Sloped POD Roofs	2008	28,910	Ladder Needed

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ROOF MEASUREMENT REPORT

201 Lake Street, Vernon, CT 06066

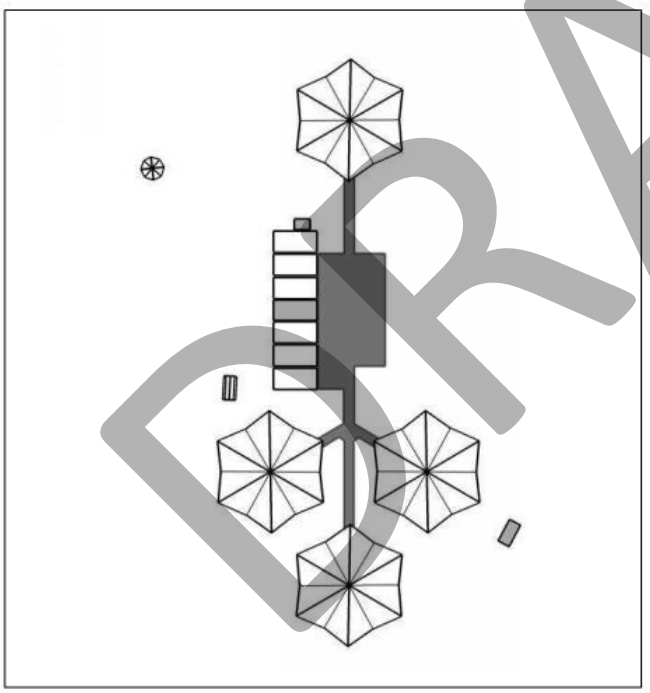
Report Contents

Report Details

Date:	02/28/2013
Report:	5464572

Roof Details

Total Area:	43,570 sq ft
Total Roof Facets:	70
Predominant Pitch:	3/12
Number of Stories:	Unknown
Total Ridges/Hips:	1,407 ft
Total Valleys:	1,057 ft
Total Rakes:	1,357 ft
Total Eaves:	137 ft
Total Penetrations:	40
Total Penetrations Perimeter:	504 ft
Total Penetrations Area:	526 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

North View

East View

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ROOF MEASUREMENT REPORT

REPORT IMAGES

South View

West View

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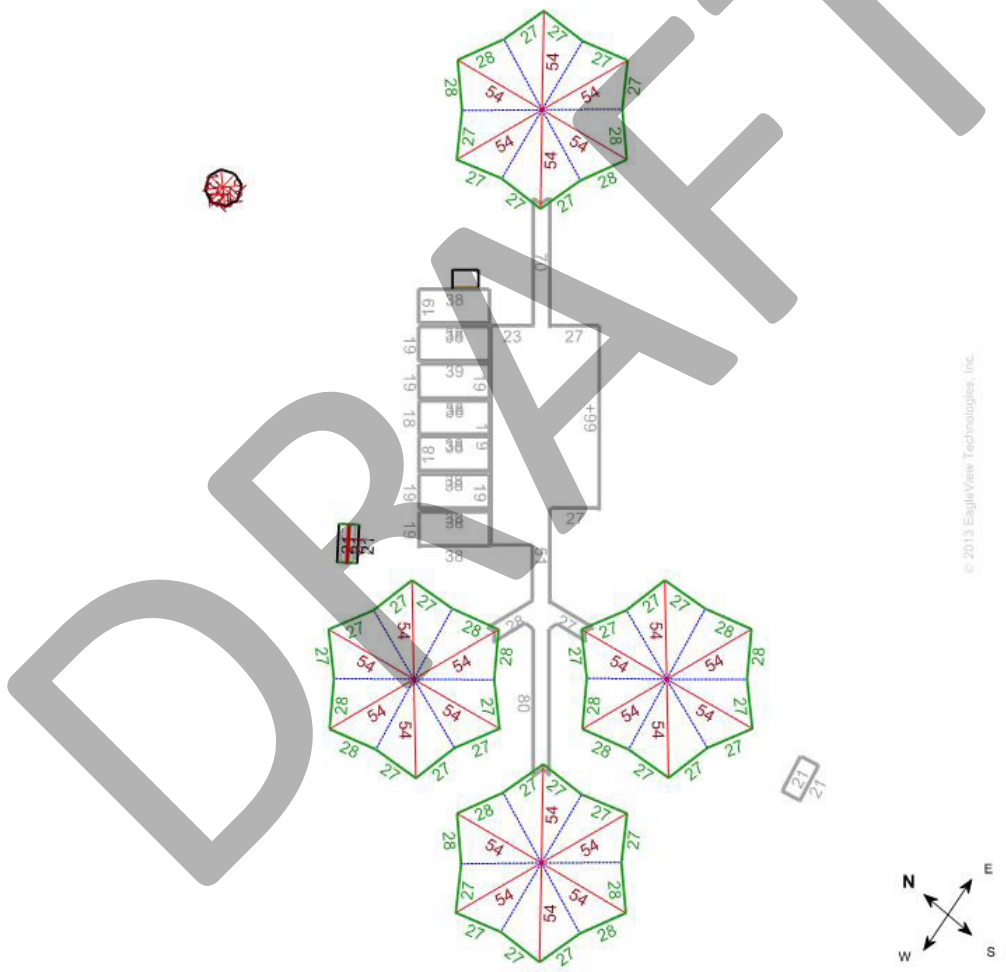
ROOF MEASUREMENT REPORT

LENGTH DIAGRAM

Total Line Lengths:				
	Ridges = 21 ft	Valleys = 1,057 ft	Flashing = 14 ft	Eaves = 137 ft
	Hips = 1,386 ft	Rakes = 1,357 ft	Step flashing = 0 ft	Parapets = 1,710 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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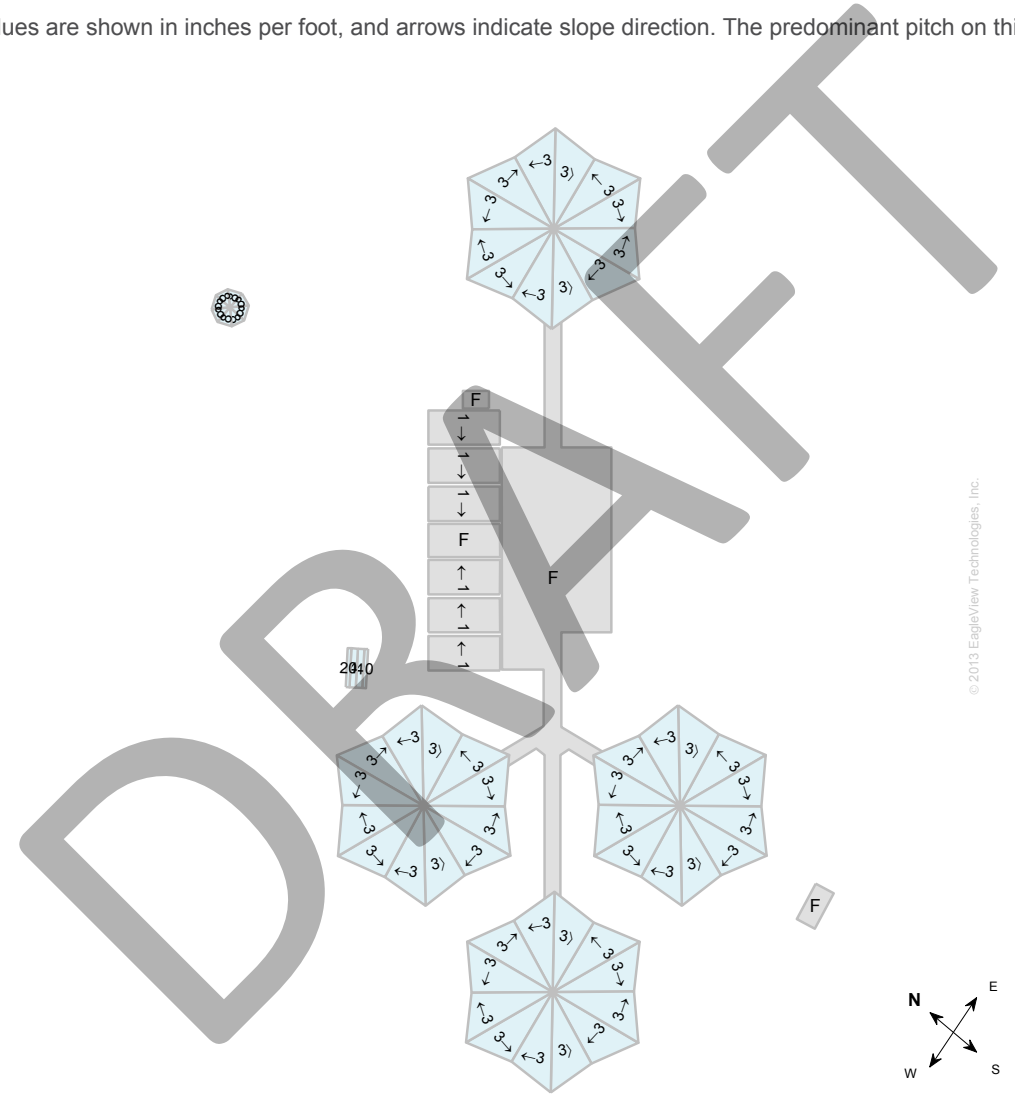
ROOF MEASUREMENT REPORT

PITCH DIAGRAM

Pitch values are shown in inches per foot, and arrows indicate slope direction. The predominant pitch on this roof is 3/12.



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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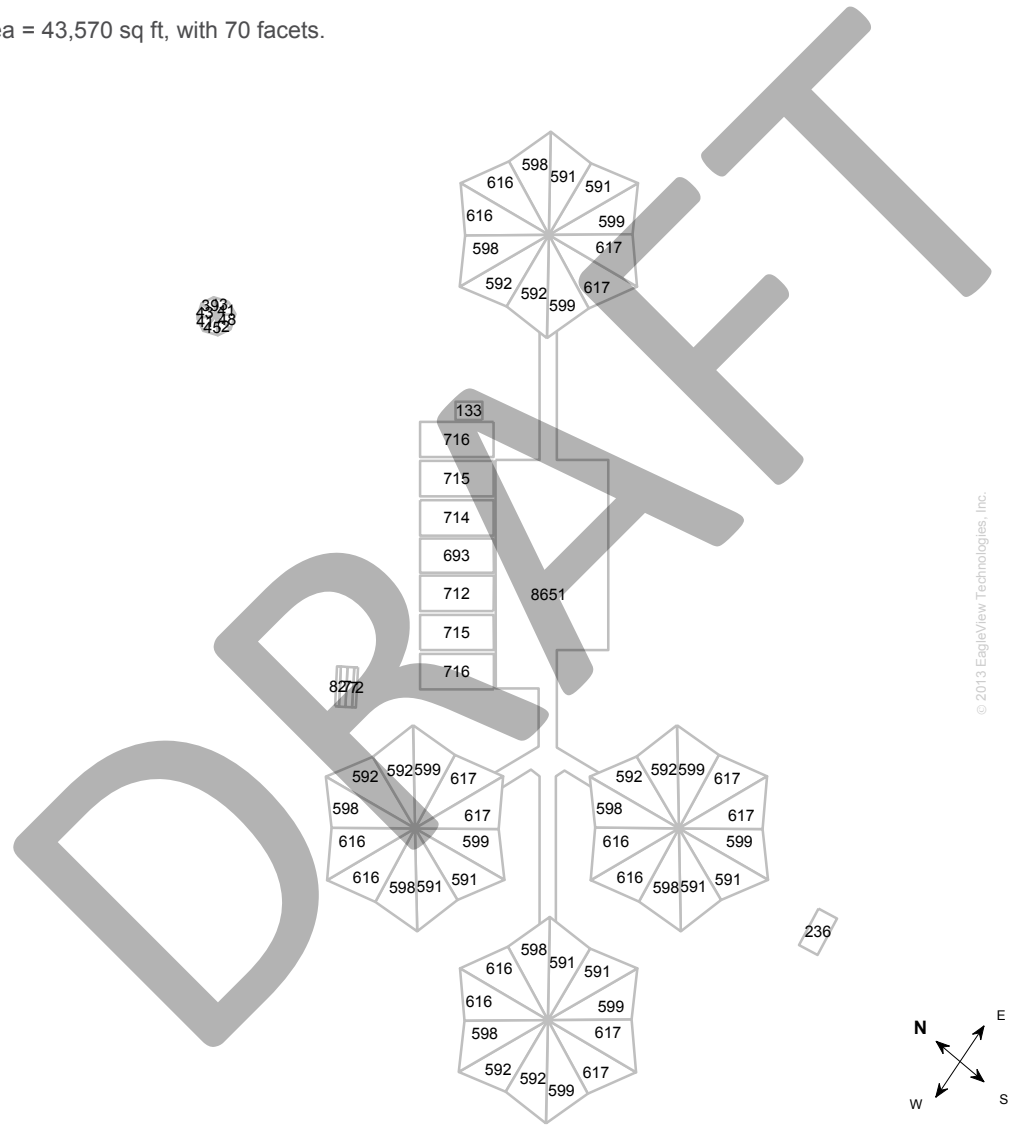
ROOF MEASUREMENT REPORT

AREA DIAGRAM

Total Area = 43,570 sq ft, with 70 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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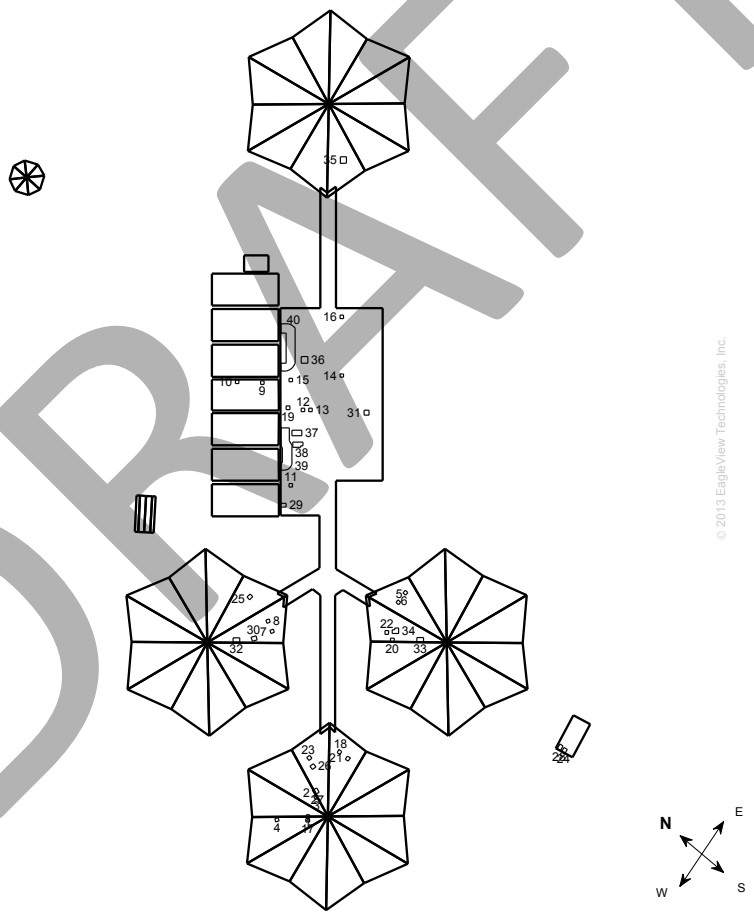
ROOF MEASUREMENT REPORT

PENETRATIONS

Penetrations Notes Diagram
Penetrations are labeled from smallest to largest for easy reference.

Total Penetrations: 40
Total Penetrations Perimeter = 504 ft

Total Penetrations Area: 526 sq ft
Total Roof Area Less Penetrations = 43,044 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.

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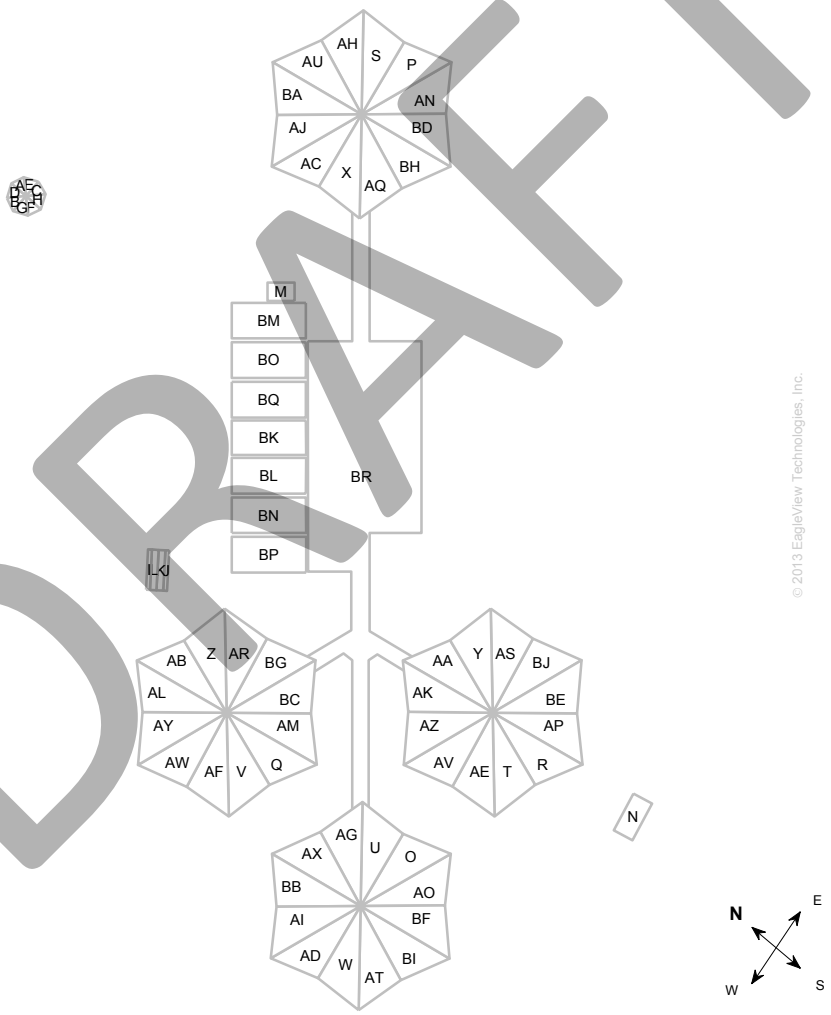
ROOF MEASUREMENT REPORT

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 = -72.4702680 Latitude = 41.8109000

Online map of property:
http://maps.google.com/maps?f=g&source=s_q&hl=en&geocode=&q=201+Lake+Street,Vernon,CT,06066

Property Info

Year Built: N/A

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: 5/24/2009 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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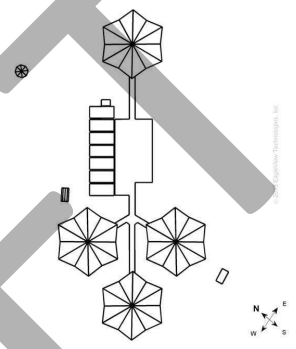
ROOF MEASUREMENT REPORT

REPORT SUMMARY

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

Lengths, Areas and Pitches

Ridge.....21 ft (1 Ridges)
Hips.....1,386 ft (32 Hips)
Valleys.....1,057 ft (24 Valleys)
Rakes*.....1,357 ft (56 Rakes)
Eaves/Starter**.....137 ft (13 Eaves)
Drip Edge (Eaves + Rakes).....1,494 ft (69 Lengths)
Parapet Walls.....1,710 ft (58 Lengths)
Flashing.....14 ft (1 Lengths)
Step Flashing.....0 ft (0 Lengths)
Total Area.....43,570 sq ft
Total Penetrations Area.....526 sq ft
Total Roof Area Less Penetrations.....43,044 sq ft
Total Penetrations Perimeter.....504 ft
Predominant Pitch.....3/12



Total Roof Facets = 70

*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	1/12	3/12	4/12	8/12	20/12
Area (sq ft)	9713.2	4286.8	28908.4	155	343.2	163.2
% of Squares	22.3%	9.8%	66.3%	0.4%	0.8%	0.4%

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)	43,570	47,927	48,798	50,106	50,977	52,284	53,155
Squares	435.7	479.3	488.0	501.1	509.8	522.8	531.6

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)	1710	3420	5130	6840	8550	10260	11970

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	4-16	17	18	19	20	21	22
Area (sq ft)	1.8	1.6	3.4	4	4.3	4.2	4.4	4.4	4.7	4.6
Perimeter (ft)	5.8	6.8	7.4	8	8.3	8.3	8.4	8.6	8.7	8.7
	23	24	25	26	27	28	29	30	31	32
Area (sq ft)	4.8	5.6	5.7	6	6.1	6.5	7	6.5	8	10.3
Perimeter (ft)	8.8	9.5	9.6	9.9	9.9	10.2	10.4	10.4	11.4	13
	33	34	35	36	37	38	39	40		
Area (sq ft)	10.3	10.6	13.3	14.2	18.1	17.4	131.1	158.2		
Perimeter (ft)	13.1	14.2	14.6	15.2	17.8	18.1	59.8	72.9		

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: Lake Street School

Roof Section: Low Slope Section's

Information			
Year Installed	2008	**Square Footage**	14,000
Slope Dimension	1/4:12"	**Eave Height**	15
Roof Access	Ladder Needed	**System Type**	Gravel Surface BUR

Photo Report

Client: Vernon Public School District
Facility: Lake Street School
Roof Section: Low Slope Section's

Report Date: 04/20/2023
Title: Visual Inspection

Photo 1

Overview of the low slope connector roof

Photo 2

Failing or failed pitch boxes- Consistent throughout inspection

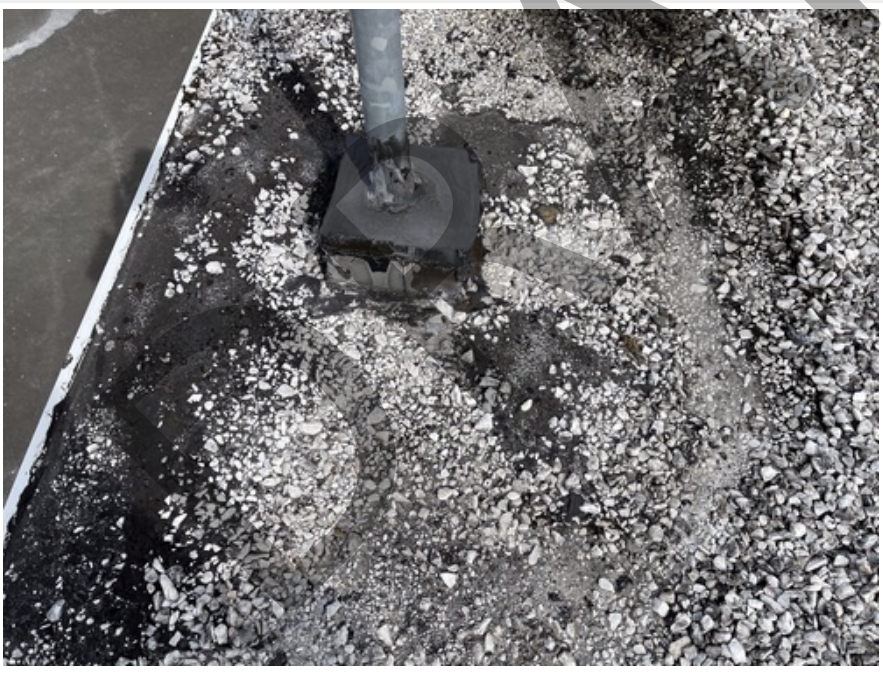

Photo 3

Improper tie-in near perimeter edge- Pitch boxes

Photo 4

Excessive organic growth- Tree removal suggested

Photo 5

Failed previous repairs- Consistent throughout

Photo 6

Low Flashing heights for perimeter and curbed units- Consistent throughout

Photo 7

Open condition- No membrane termination bar- Through fastened

Photo 8

Open condition- No reinforcement used on flashing repair- Failed previous repairs

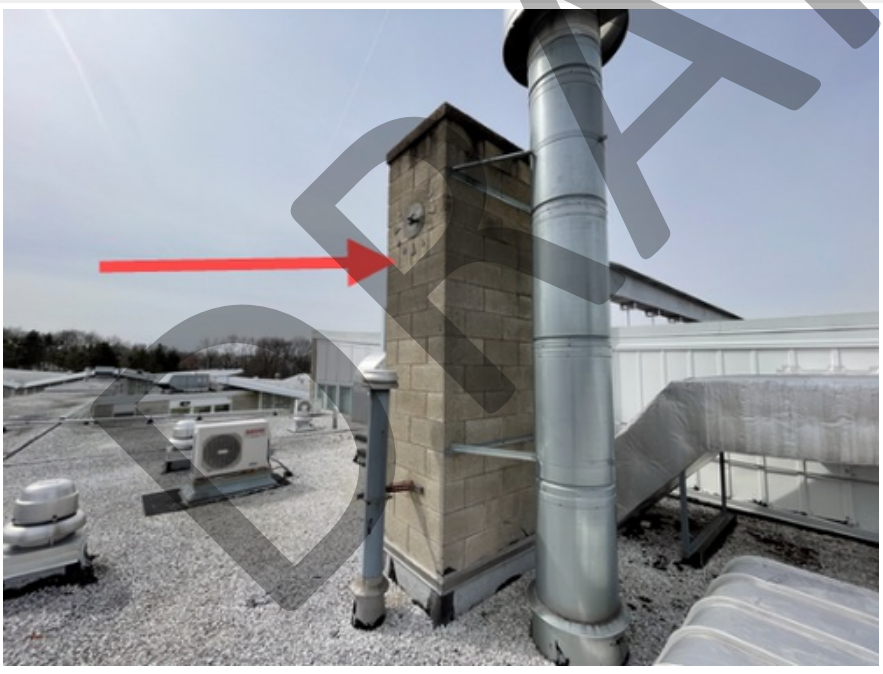

Photo 9

Exposed porous masonry block chimney

Photo 10

Improper repairs- Poor system design

Photo 11

Poor system design- Previous problems were evident through the attempt to stop leaking

Photo 12

Wall panel system is letting water in

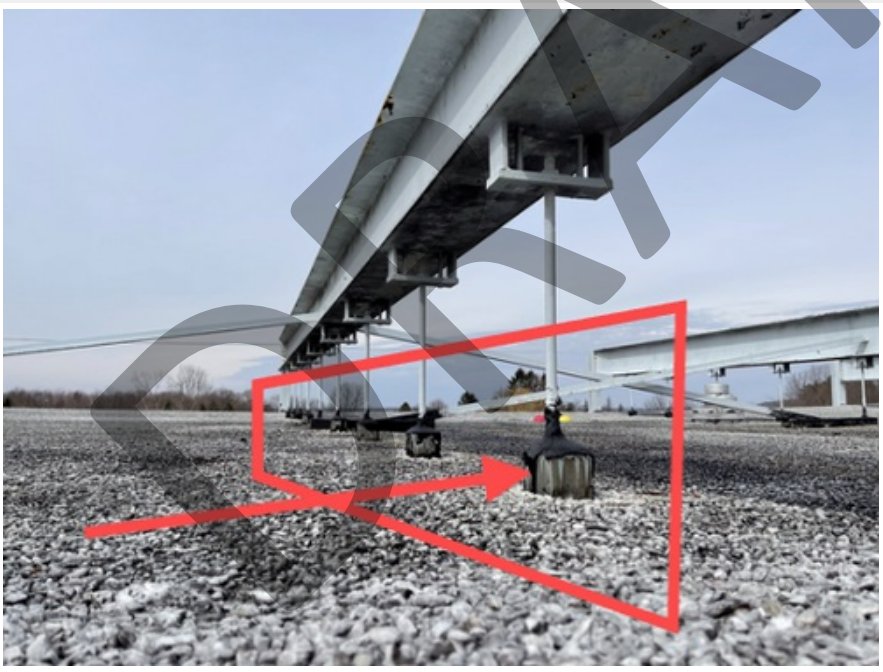

Photo 13

Suspended deck through roofing system- Absolute dizaster of a design- Large amount of unneeded penetration

Photo 14

Flashing heights- Low

Photo 15

Previous improper repairs- Window flashing failure

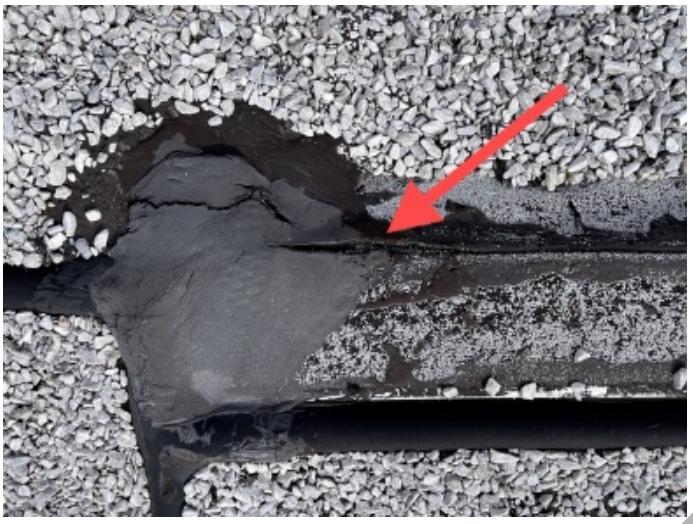

Photo 16

Failed previous repairs

Photo 17

Ponding water on failing repairs- Action recommended

Construction Details

Client: Vernon Public School District

Facility: Lake Street School

Roof Section: Sloped POD Roofs

Information

Year Installed	2008	**Square Footage**	28,910
Slope Dimension	3:12"	**Eave Height**	15
Roof Access	Ladder Needed	**System Type**	Gravel Surface BUR

Assembly

Roof #	Layer Type	Description	Attachment	R-Value	Thickness
1	Deck	Plywood	Mechanically attached	-	-
1	Protection Mat	Rosin Paper	Mechanically attached	-	-
1	Insulation	Wood Fiber	Hot Mopped	-	1-1/2"
1	Membrane	Mod Bit - 2 ply	Hot Mopped	-	-
1	Surfacing	Flood & Gravel	Hot Bitumen	-	-

Photo Report

Client: Vernon Public School District
Facility: Lake Street School
Roof Section: Sloped POD Roofs

Report Date: 04/20/2023
Title: Visual Inspection & Core

Photo 1

Overview of the POD roofs- Flood and gravel is not recommended in the northeast on any slopes greater than 2:12"

Photo 2

Penetrations near valley

Photo 3

Wind-scor was found throughout- Exposed membrane

Photo 4

Improper vent fan flashings- No height

Photo 5

Improper vent fan flashings- No height directly in the valley

Photo 6

Organic growth throughout- Evidence of improper moisture mitigation

Photo 7

Overview- All ridges were exposed- Consistent throughout

Photo 8

Trees within 25ft of roof- Removal recommended

Photo 9

Aged and Failing flood coat- Exposed to UV

Photo 10

Core Cut: Two Ply flood and gravel

Photo 11

Core Cut: Failing interply adhesion - Not restorable

Photo 12

Core Cut: 1-1/2" of wood fiber- Under deck insulation assumed

Photo 13

<u>Core Cut:</u> Overview of system over wood deck

Photo 14

Properly repaired core sample

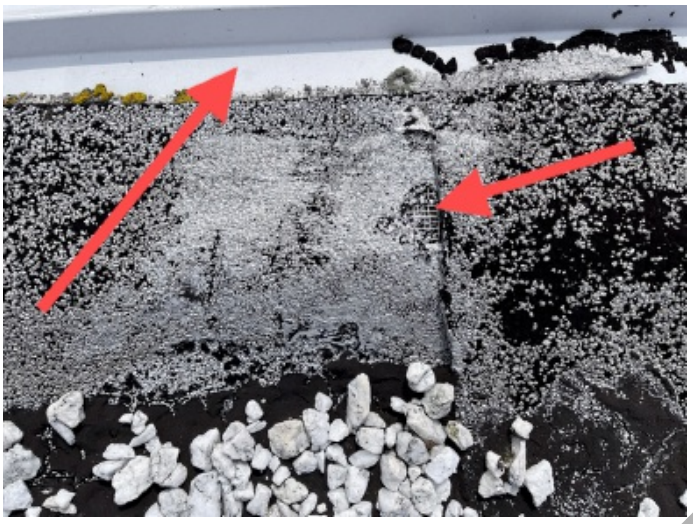

Photo 15

Perimeter edge flashing failure- Metal appears to have never been primed to receive asphalt

Photo 16

Visual overview

AHERA SIX MONTH PERIODIC SURVEILLANCE
Lake Street School
201 Lake Street
Vernon, CT 06066

MATERIAL DESCRIPTION	*LOCATION(S)*	*PREVIOUS CONDITION*	*CHANGE IN CONDITION (Y/N)*	*COMMENTS*
Transite Wall Panels	Kitchen 1203 – applied to wall behind dishwashing equipment	No damage	Y- dishwasher and panels removed	Known
Black Board w/Adhesive	Classrooms 20	No damage	N	Presumed
Transite Window Panels	Throughout Corridors/Connectors at Base of Windows	No damage	Y- windows all replaced Summer 2021	Known Some Transite windows replaced. One window was damage by plow over the winter 2016.

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