# Frisbie Elementary School

# 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.

## Frisbie Elementary School

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| **Stories** | One |
| **Area** | 63,730 |
| **Address** | 24 Todd Road, Wolcott |
| **Original Construction** | 1953 |
| **Addition(s)** | 1953 and 2000 |
| **Grades** | Kindergarten - 5th Grade |
| **Description** | School |

## Architectural Survey

The exterior skin of Frisbie Elementary School is brick, which is in good to excellent condition. The secondary exterior surface is EIFS which is in fair to good condition. The roof consists of EPDM and standing seam metal, which are in good condition.

Typical windows consist aluminum; exterior doors are aluminum and hollow metal. The windows are in good condition and the exterior doors are in fair to good condition. The exterior sealants of the 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:

- Repair and refinish all existing Exterior Insulated Finish System (EIFS) fascia & soffits and seal all associated joints. Install new control joint in EIFS as required.
- Replace and/or repair all cracked brick masonry veneer. In particular at the bus canopy brick piers and the interior masonry piers at the corridor outside the gymnasium.
- Paint all hollow metal doors and frames which have faded.
- Seal all joints which are not properly sealed.
- Clean soiled areas of the EIFS and the existing masonry veneer.
- Provide siding at the east side of the shed style roof.
- Paint all exposed unfinished wood & metal.
- Miscellaneous repairs noted in the photo sections of the report; new threshold at door to courtyard, reinstall precast masonry window sill at northeast corner of the gym and repair and refinish parging at chimney.
- Replace ceramic tile in oldest section of the building
- VCT will require replacement due to heavy traffic
- Carpeted areas will require replacement

The work recommended to address roof conditions includes:

- Complete tear off of the existing EPDM roofing system down to the structural roof decking.
- Install new tapered roof insulation and cover board.
- Install new roof drains.
- Install new metal flashings at all roof penetrations as required.
- Install new 20-year EPDM single-ply roofing system (2021 for EPDM Roof Areas).
- Install a new roof hatch.
- Install downspout system, ice melt system and snow guards for pitched metal standing seam roof at bus canopy.
- Provide roof drainage at the old portable classroom connector.

## Structural Survey

The building is typically constructed of steel frame. The roof is supported by steel joists, beams and trusses that are in good condition. The foundation's slab is concrete on grade. The interior walls are CMU and are in good condition.

The work recommended to address structural conditions includes:

- No structural deficiencies were observed during the survey

## Mechanical Survey

The mechanical system is comprised of two gas fire hot water boilers which are in fair condition.

The work recommended to address mechanical systems conditions includes:

- The boilers are 16 plus years old and nearing the end of their life and recommend replacing equipment.
- Install/Maintain exhaust for all Custodial closets as required per 2003 IMC, section 510.
- Unit heaters at end of their life and should be replaced.
- Cafeteria and Kitchen need to be rebalanced to a positive pressure.

## Electrical Survey

The electrical service is fed from a transformer vault located adjacent to the boiler room. The system is in good condition.

The work recommended to address electrical system conditions includes:

- Consider service upgrade if additional power requirements are needed.
- Receptacles are at there maximum usage, numerous power strips being utilized. Consider installation of additional receptacles.
- Replace damaged interior and exterior receptacles.
- Remediate general electrical issues (ie. open j-boxes, etc.)

## Plumbing Survey

The plumbing system's water originates from a dedicated line from a well located on the property. There are multiple sanitary lines running from the building.

The work recommended to address plumbing systems conditions includes:

- Domestic water pump showing corrosion, repair as needed.
- Replace pipe insulation as needed.
- Provide ADA compliant toilet rooms per ANSI A117.1 2009.
- Provide ADA compliant drinking fountains per ANSI 117.1 2009.
- Provide emergency eyewash station at all custodial closets with mop sinks per IPC 2012

## Fire Protection Survey

The fire protection system is comprised of a "Wet" type fire protection system. The water supply comes from a 20,000 gallon water storage tank.

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

- Sprinkler signage is missing for the following: Low point drains, Auxiliary drains.
- An Inspector’s test could not be located.
- Coverage in the Gym Storage Room needs to be reworked. Sprinkler head is located too close to wall.
- Sprinkler coverage within the IDF Room is obstructed.

## Lighting Survey

The lighting service is comprised of fluorescent and CFL light fixtures which are in good condition.

The work recommended to address lighting system conditions includes:

- Replace lighting fixtures with energy efficient LED type as necessary.
- Replace exterior lighting (site & building) with LED type fixtures.

## Fire Alarm Survey

The fire alarm service is an addressable, Simplex 4100 series panel with an audio voice generator.

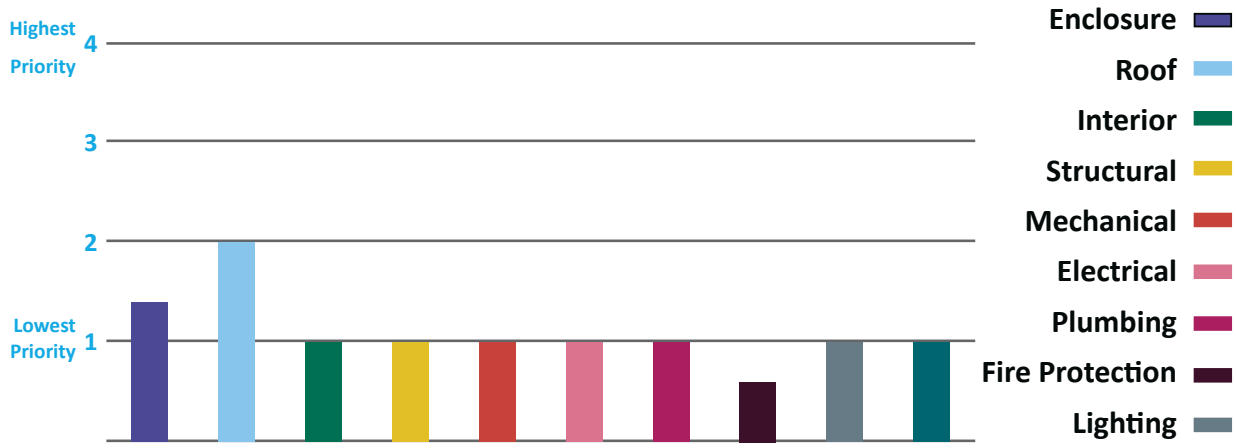
The work recommended to address fire alarm system conditions includes:

- Upgrade system to meet NFPA 101, IBC 2012, IFC 2012 & ANSI 117.1 2009.
- Install additional devices to meet NFPA 101, IBC 2012 & IFC 2012.
- Exercise voice evacuation system.

## Survey Results

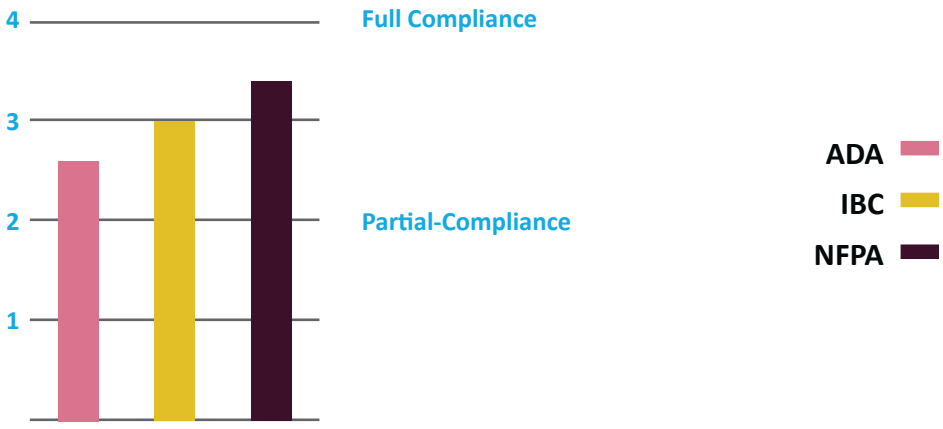
Each of the elements that were reviewed under this assessment was ranked on a scale of 1-4, with a 4 rating equating to the highest priority. Components that received a ranking of 3 should be considered to be moderate priorities, while rankings of 2 and 1 are considered to be low priorities. The following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

### Prioritization of Required Work

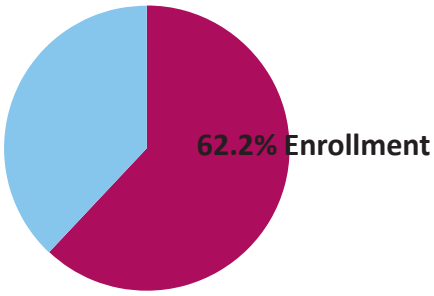



The graph below represents the building's overall conformity with IBC, NFPA and ADA requirements. Compliance was rated on a scale of 1-4, with a 4 rating equating to full compliance. A rating of 2 or under indicates that the building requires moderate to substantial code compliance updates in order to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

### Code Compliance Evaluation



## State Space Standards Capacity




## Summary of Recommendations

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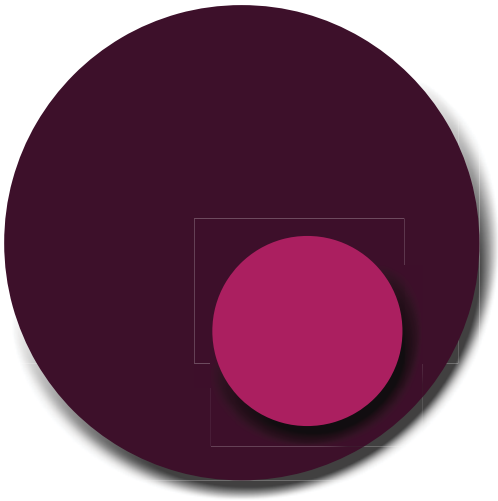
| **Program and Conceptual Plan** | Based upon the space utilization information gathered, a program accommodating the various functions of the building indicates the following minimum needs:<br>• Bringing all fire separation walls up to Code<br>• Replacement of the roof and M/E/P systems past their useful life<br>• Consideration of an electrical service upgrade<br>These program recommendations have been used to generate a conceptual plan (Section 10) which illustrates the program assessment and recommended improvements. The proposed plan is based on meeting the needs of the users and upgrades required to comply with current applicable code, while also meeting the overall goals and projected enrollment of Wolcott Board of Education. |
| **Opinion of Probable Costs** | The estimate of probable costs included in Section 8 of this report is designed as a planning tool for Wolcott Board of Education. 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 good condition.<br><br>Based on analysis, over the next 10 years, the required work at this building will cost approximately $7,739,306 At 63,730 square feet, renovations at this building equate to approximately $220 per square foot. This cost-per-square-foot figure falls within industry standards for renovations / upgrades of this nature. |
| **Replacement Cost** | A similarly constructed building would cost $400 per square foot. Using this figure, the replacement cost for this building is approximately $32,448,500, which follows state standards for structures of this type. The $400 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 current reimbursement from the State of Connecticut Department of Education for eligible items is 62.5%, and the building is at 62% capacity. These factors would effectively adjust the community’s portion of the costs from 37.5% to 61.25%. |

## Executive Summary Chart

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.



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| **Survey Estimate** | **$7,739,306** |
| **Renovate Like New Project** | **$19,367,866** |

The required Alteration work addressed in this survey equates to approximately 40% of the construction cost of a Renovate like New project.
Comparitive Replacement costs for a new building would be $32,448,500.  Site acquisition costs were not factored into this comparison.