Code Analysis

Current codes to which the existing buildings were evaluated as applicable:

2009 Connecticut Code Amendments
2005 Connecticut Supplement
2003 International Building Code (I.B.C)
2003 International Mechanical Code (I.M.C)
2003 International Plumbing Code (I.P.C)
2005 NFPA 70 National Electrical Code
2003 International Energy Conservation Code
2003 International Fire Code
2005 Connecticut State Fire Safety Code (PART I, II, III, IV and V)

Section 504, Rehabilitation Act 1973 including Uniform Federal Accessibility Standards (UFAS) and 504 Regulations

ICC/ANSI A117.1 - 2003 American National Standard, Accessible and Usable Buildings and Facilities including current Connecticut Basic Building Code

Americans with Disabilities Act, Title II, including the Americans with Disabilities Act Accessibility Guidelines (ADAAG) and ADA Regulations

Current Connecticut Public Health Code

Current OSHA – Title 29/Labor

Connecticut General Statutes

While many of the buildings exhibit varying degrees of non code compliance, the requirements to bring the buildings into conformance vary. Issues of health and safety take precedence. Other code requirements are triggered by the scope of alterations/additions, and should be evaluated when performing any renovation. Ordinary repairs are not included in determining cost. The code distinguishes between alterations and ordinary repairs as follows:

- Ordinary Repair: Any maintenance which does not affect the structure, egress, fire protection systems, fire ratings, energy conservation provisions, plumbing, sanitary, gas, electrical or other utilities.

- Alteration: A change or modification of a building or structure, or the service equipment thereof that affects safety or health and that is not classified as an ordinary repair.

- Any new systems and/or building additions that are proposed must conform to the current codes.

The two areas of greatest code concern are always handicapped accessibility and egress and exiting. All schools and Central Office exhibit varying degrees of non-conformance in these two areas and neither can be ignored. The Middle School is of newer construction and design and has the least areas of non-compliance. Handicapped accessibility is both a code and a civil rights issue and a greater level of compliance is always advisable to reduce the school districts potential liabilities. Egress and exiting is a life safety issue.
While some code violations, such as direction of door swing or types of stair rails, are relatively simple to correct, others cannot be resolved without major demolition and construction. It is noted that the codes are not retroactive and existing buildings can remain as such unless there are life and safety issues that mandate code upgrades or as required by the authority having jurisdiction.

The Central Office, Flanders Elementary School and Niantic Elementary school lack building wide sprinkler systems. The installation of a sprinkler system is required in new schools. Existing schools must be divided by fire separation walls into areas of less than 22,000 SF, and rescue windows are needed from each classroom. Installing a sprinkler system would make the buildings substantially safer and is therefore advisable whether strictly required or not. It will also reduce some code requirements for rated corridor walls and doors, but by itself would not bring the buildings into compliance.

Handicapped Accessibility

The Central Office, Flanders Elementary School and Niantic Elementary School are significantly lacking in compliance with the Americans with Disabilities Act (ADA) and the Uniform Federal Accessibility Standards (UFAS). These buildings require renovations throughout the facility to bring them into compliance. The ADA requires that all new renovations and construction after 1976 is fully compliant, and that all building built before this time make a reasonable effort to provide like access to all services to people with disabilities.
The High School has sections built at various time periods and has made an effort to provide areas of accessibility throughout the facility. However, additional renovations would be required to bring the total building in to full compliance.
The Middle School was built to modern code, ADA, and UFAS standards. No accessibility issues were identified in this building.

Life Safety

Existing Building were evaluated in compliance with the NFPA 101 2003 Life Safety Standards for Existing Buildings of the appropriate use group.

Chapter 15 Existing Educational Occupancies and referenced Chapters 1-4, and 7-10

Deficiencies:
15.1.7.3 Occupancy load limits of assembly spaces are not provided.
15.2.11.1 Windows for rescue are not provided to all teaching spaces or are blocked
Or not functioning as needed.
15.2.5.4 Existing classroom doors do not have appropriate door hardware for immediate
access to an exit corridor.
7.2.1.2 Exit door width is not compliant from some smaller spaces and bathrooms.
7.2.1.3 Floor level changes when exiting from bathrooms or locker rooms.

Health

The schools kitchens are required to be up to Public Health Code standards. Evaluation of the kitchen services is beyond the scope of this study, as they either have been recently renovated or are under current evaluation and consideration outside of this document.

Mechanical

All the buildings should be evaluated as to code compliance for percentage of outside air and meeting the requirements stated in ASHRAE 90.1, International Mechanical Code and ASHRAE 62.

See other sections of this study for corrective recommendations reflecting these conformance issues.