

Maine Codes and Preservation

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Transcript

SLIDE # 1 Maine Codes and Presentation

SLIDE # 2. (Credits)

SLIDE # 3. The intent of this presentation is to review the impacts that the adopted building and fire codes have on the preservation of historic buildings in Maine. I am Mike Pullen, an architect, and serve on the Technical Codes and Standards Board representing the interests of Historic Preservation. As stated here “rehabilitating historic buildings involves compliance with code and regulatory requirements, including accessibility, building and life safety, and seismic upgrades.”

SLIDE # 4. These topics will be reviewed and samples provided as to how these codes apply specifically to the rehabilitation of existing and historic buildings.

SLIDE #5. Prior to the 2010 adoption of the (MUBEC), Maine Unified Building and Electrical Code a “patchwork quilt” of codes existed, leading to unnecessary confusion, and extra time & costs for permitting. Existing and historic buildings required a more flexible approach to compliance, than that offered by the International Building Code (IBC). MUBEC applies to communities of 4,000 or greater in population, and others that choose to adopt either MUBEC, the Maine Uniform Building Code (MUBC), or the Maine Uniform Energy Code (MUEC). As stated in the enabling legislation for MUBEC *“There is a need to make historic preservation a policy priority by way of model codes, to facilitate adaptive reuse and alternate compliance methods for historic buildings”*.

SLIDE # 6. The MUBEC is comprised of four model codes and three standards. Codes are mandatory, standards are advisory. The model codes are part of the International Code Council family of codes and the code that applies most directly to the rehabilitation of existing and historic buildings is the 2015 International Existing Building Code.

SLIDE # 7. The MUBEC Board duties and composition include, for duties, to Adopt, amend & maintain the MUBEC to resolve conflicts between ICC & NFPA Codes. And board members represent code officials, architects, builders, energy & structural professionals; historic preservation interests are represented on the Board and the Maine Historic Preservation Commission recommends that board member.

SLIDE # 8. All of these codes listed have provisions for code applications to historic buildings, with considerations, for both providing minimum standards for life safety while protecting important historic features. The Maine Human Rights Act refers to the standards of Americans with Disabilities Act of 2010, and access and equal treatment in areas of employment, Housing and Public Accommodation are required. A construction permit and barrier-free permit issued by the State Fire Marshall is required for most public places in Maine.

SLIDE # 9. "Historic Building" definition is as follows: 1. The property listed or primarily determined to be eligible for listing in the National Register of Historic Places; 2. Be determined by the Secretary of the US Dept. of the Interior to contribute to the historical significance of a registered historic district or a district primarily determined to qualify as a historic district; 3. Designated as historic under a state or local historic preservation program that is approved by the Dept. of the Interior.

SLIDE # 10. The provisions of the *International Existing Building* code shall apply to matters governing the *repair, alteration, change of occupancy, addition to* and relocation of existing buildings, also existing structures. The legal occupancy of any structure existing on the date of adoption of this code shall be permitted to continue without change, except as otherwise specifically provided in this code.

SLIDE # 11. The International Existing Building code and the NFPA life Safety code now offer language that considers preservation of key architectural features of historic building including means of egress, stair enclosures, transoms, and equivalent ratings for construction such as lath and plaster.

SLIDE #. 12 The IEBC offers three options for achieving compliance of this code: one, the Prescriptive Method; two, the Work Area Method; and three, the Performance Method.

Prescriptive Method: prescribes minimum requirements for construction related to existing buildings.

Work Area Method: contains provisions based on a proportional approach to compliance. Upgrades are triggered by type and extent of work.

Performance method: provides for evaluating a building based on Fire Safety, Means of Egress and general safety.

Early dialogue with the code officials or authorities having jurisdiction are encouraged and are an essential part of a success permit application.

SLIDE # 13. The International Existing Building Code refers to “Levels of Alteration” which apply stricter requirements for those levels which impact the building more. Maintenance and Repairs are considered the most minor of alterations; general alterations, changes of occupancy and use, and finally, additions and new work. Additions and new work often refers directly to the International Building Code for their requirements.

SLIDE # 14. The International Existing Building Code also refers to the preparation of an evaluation or report, for historic buildings, be provided to the code official for one, defining the compliance safety features, two, defining the code deficiencies and three, providing equivalent levels of safety for the occupants of the building.

SLIDE # 15. The state adopted NFPA Life Safety Code 101 also has provisions referring to application of this code to historic buildings. Section 43.10 “Historic Buildings” one, that an evaluation of the historic building is required; the replacement of missing features is permitted; and allowances for method of egress, door swings, transoms, stairway enclosures and rated assemblies are part of the code.

SLIDE # 16. Historic Preservation commissions are tasked with identifying and protecting the historic resources of their communities. In some Maine towns or cities, they act in an advisory capacity, but typically have the authority to approve or deny applications for a Certificate of Appropriateness. They also have a duty to act as liaisons for historic preservation to their local government and the public.

SLIDE # 17. Key terms found many HP ordinances include minor revisions, maintenance and character defining features. “Minor revisions” to a previously approved application are those changes that can be reviewed and approved by local staff, typically. “Maintenance” is usually defined as in-kind repairs to historic buildings. In most ordinances maintenance is a required duty of the owner. “Character Defining Features” are those features of a building that if removed or altered will compromise the essential architectural quality of the building.

SLIDE # 18. Preservation challenges include the following, which I will cover in greater detail. (See list)

SLIDE # 19. “Change of Occupancy” is defined as a change from one occupancy classification to another. For instance; a change from a residential occupancy to business occupancy. A “change of use” might be from an assembly church occupancy to an assembly restaurant occupancy. In this example a “Change of Occupancy” from Assembly to Business and took place in this 1888 vestry building in Bangor. The challenge here was to develop a new floor level in the auditorium that did not compromise the full-light south facing windows.

SLIDE # 20. Another challenge in this project was providing handicapped access between two buildings with different floor levels. The photo on the right shows how the new-introduced floor was actually held back from the exterior window walls providing natural light to the interior of the building.

SLIDE # 21. Another preservation challenge is providing compatible occupancies and uses. As state, here “Every effort shall be made to provide a compatible use which will require minimal alteration to the structure and its environment. In this example a change of occupancy from mercantile to residential on the ground floor changed a commercial storefront to living units. This change resulted in occupants of the apartments complaining that they had no privacy from people being close to the display windows. This application was denied a certificate of appropriateness to install a continuous six-foot high fence along the entire front of the building.

SLIDE # 22. It is often a challenge to visually integrate accessible improvements, such as this wooden ramp, such that the architectural qualities of a building are not compromised.

SLIDE # 23. This example of an accessible upgrade respects the importance of the side porch of this historic building and colonnade by providing access with a lift, located at the far end of the porch.

SLIDE # 24. The example on the right shows a separate at-grade entrance to a commercial building, with the transition to store-level occurring internally within the store. The photo on the left shows a sloping walk, which if 5% or less slope is not classified as a ramp requiring handrails.

SLIDE # 25. This “after the fact” application came in for a certificate of appropriateness to change out a roof top window to a door providing a means of egress to the tenants of that dwelling. The permit was denied, due in part to the window being cited as an important character defining feature of the historic house and the visual impact as viewed from the street.

SLIDE # 26. Means of egress and accessibility upgrades to this library in Corinna, Maine meant providing a new three-stop elevator in an existing staircase, and creating a new accessible entrance lobby and stair outboard of the historic building.

SLIDE # 27. Historic preservation commissions are seeing applications seeking alterations to install heat pumps or other energy systems on exteriors of historic buildings. The commissions need to consider the visual impact of the units, and their piping runs, which can extend several stories in taller buildings.

SLIDE # 28. Downtown commercial buildings, often originally had awnings for sun control, weather protection and shop identity. When properly designed, new awnings can provide those same benefits. Historic photographs offer the commissions insights into how awnings served the buildings originally.

SLIDE # 29. Improving energy efficiencies in historic buildings was a topic covered in a recent publication available through Maine Preservation's website. I've included a link to their website at the end of the presentation.

SLIDE # 30. Rooftop structures, especially in Maine's downtowns, can have significant visual impacts that historic preservation commissions need to consider. In this example, an applicant created a rooftop deck with a 42" high guard rail perimeter as required by code. The applicant maintained that the improvements would not be visible from below, which these photos prove otherwise.

SLIDE # 31. Character defining features need to be identified by historic preservation commissions on most every application for a certificate of appropriateness. They might include: cast iron hand rails, porch rails and balusters, unique original cladding, window trim, etc. Character defining features are elements that if lost or altered would significantly impact the historic qualities of the building.

SLIDE # 32. The unique, original wood portico of this house on Broadway in Bangor is a good example of a character defining feature. In this instance the column bases were restored to precisely match original wood trim.

SLIDE # 33. Windows are often character defining features, as in this historic library building in Clinton, Maine designed by John Calvin Stevens. The unique geometric muntin patterns were preserved as a part of a window restoration program.

SLIDE # 34. Character defining features of this impressive stone library in Bucksport, Maine included the beaded mortar joints as shown on the left. This rehabilitation project involved a thorough reconstruction of the exterior granite-faced masonry walls. Individual stones were identified for resetting back in their original locations.

SLIDE # 35. Alterations to, or replacements of original windows in historic buildings are the subject of many applications to historic preservation commissions. When properly designed, and installed, new storm panels can greatly improve thermal values, reduce infiltration and help protect the original wood windows. Maintained historic windows with well-fitted storm panels rival new replacement windows in performance.

SLIDE # 36. Commercial storefronts are typically character defining features of Maine's downtown buildings. Alterations over time may have covered over key elements, such as transom windows and modified original entrances. Historic photographs were used in this restoration project to return these storefronts to original conditions. The recessed doors can be made accessible with the addition of door operators activated on approach to the landings.

SLIDE # 37. Cladding materials of historic buildings are often character defining features inherent in the architectural styles of the building. Whether its flush wood sheathing of the Second Empire house on the left, or patterned shingles on the queen Anne style house on the right, they are essential elements to retain. Also, when new siding is applied over the original there is a chance that trim casing reveals are reduced, thus changing a key character defining feature of the building.

SLIDE # 38. Provisions for required maintenance of historic buildings is typically included in the historic preservation ordinances for Maine communities. The Engineer's house at the Bangor Water Works was recently demolished because it was deemed to be unsafe and had no economic value, due to decades of deferred maintenance.

SLIDE # 39. Programs that support historic preservation in Maine, including tax credit incentives, downtown façade grants, the Maine Steeples fund, and others have been successful in providing guidance and funding for rehabilitation of historic properties. The tax credit incentives alone have resulted in 95 certified rehabilitation projects in Maine since 2008, delivering \$856 million dollars in total economic impact to the state.

SLIDE # 40. Preservation of existing and historic buildings is recognized as one of the most sustainable things that a community can do. In the words of Carl Elefante, “the greenest building is the one that is already built.” The Green Downtown Initiative was a program which helped illustrate to Maine communities how other civic improvements can contribute to and support the preservation of downtown buildings.

SLIDE # 41. In Maine’s downtowns some supporting “green” elements include proper paving materials, street lighting, improved pedestrian connections, landscape plantings, transportation links, etc., all in an effort to support Maine’s historic downtown.

SLIDE # 42. Working with the adopted building and fire codes, now enhanced to recognize the importance of reusing existing and historic buildings, we now have an improved framework for producing better outcomes preserving Maine’s buildings. I would like to thank of the incredible staff at these agencies listed, Maine’s historic preservation commissions statewide, and the dedicated municipal code officers and planners that all help preserve Maine’s heritage.