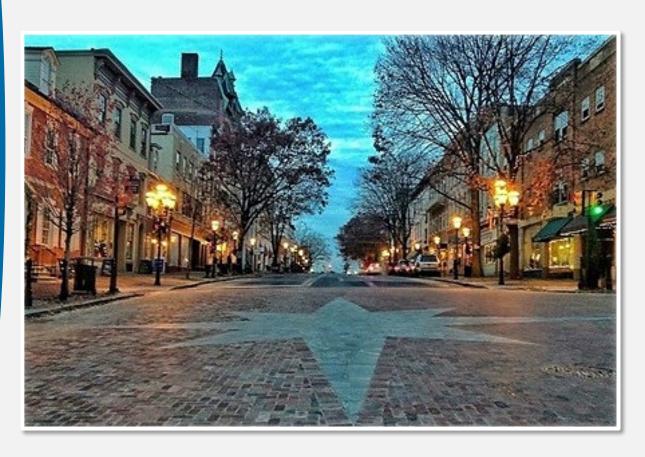
# Historic Building & Codes 101: Standards for Rehabilitation & Codes and Requirements



### Agenda

- Purpose of the Standards
- Identifying Character Defining Features
- Review of the Standards
- Examples from projects
  - Accessibility entrances and stairwells
  - Fire safety
  - Flood hazard areas
- Questions and Discussion







# Why do we use the Standards for Rehabilitation:

REHABILITATION acknowledges the need to repair, alter or add to a historic building in order to return that historic building to a state of utility for its existing use or to provide for a new contemporary use while retaining the property's historic character.

The level of repair, alteration, or change of occupancy for rehabilitation generally triggers code requirements. Chapter 12 of IEBC may provide exceptions for historic buildings in relationship to the Standards for Rehabilitation.

Rehabilitation is the most commonly applied Standard for the treatment of historic properties that is used for PA-SHPO project review.





# Purpose of the Standards for Rehabilitation

- Preserve the architectural and historic character of a building
- Apply to buildings of all types, sizes, uses, materials.
- Apply to exteriors and interiors.
- Extend to building site and environment landscape and attached, adjacent, related new construction.
- All 10 Standards must be met.





# What is the *expectation* of the Standards?

For the historic property owner, architect, contractor, HARB member, code official, or project reviewer, NPS expects the Standards to be:

- Common sense principles in non-technical language
- 2. Promote consistent preservation practices for the treatment of historic properties



Two primary goals of the Standards are the preservation of:

- 1) Historic materials and craftsmanship
- 2) A building's distinguishing character defining features

Character defining features are identified by a visual inspection of a building and include:

- Overall exterior aspects of shape and massing, materials, openings for doors and windows, decorative features of trim and projections, roof features, and site features
- Interior aspects of floorplan, corridors, vertical circulation, relationship of these spaces, decorative features, surface materials and finishes, exposed structural elements





Under IEBC, Chapter 1201.2 Report - a report prepared by a registered design professional to identify:

- 1) Each required safety feature that is in compliance
- 2) Where compliance with other changes would be damaging to the contributing historic features
- 3) If the feature is not in compliance, demonstrate how the *intent* of these provisions is complied with in *providing an equivalent level of safety*

### Role of State Historic Preservation Office

- Certify of historic status
- Verify character defining features and extent of potential damage
- Provide letters to support an exemption based on impact on contributing historic features and reasonable and measurable alternative to meet intent of code





Parapet Cornice Transom **Upper Floors** 

Pilasters (both brick

and cast iron)

Paired, central entrance doors and steps

Storefront

ADA ramp system

Window Sash

Window groupings w/ tripartite windows Spandrel

Transom w/ leaded prism glass

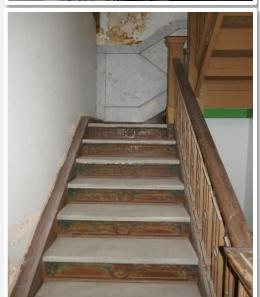
**Display Window** 

Bulkhead

























# Standards for Rehabilitation

- 1. A property will be used as it was historically or will be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.
- 2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.
- 3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties will not be undertaken.
- 4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
- 5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.



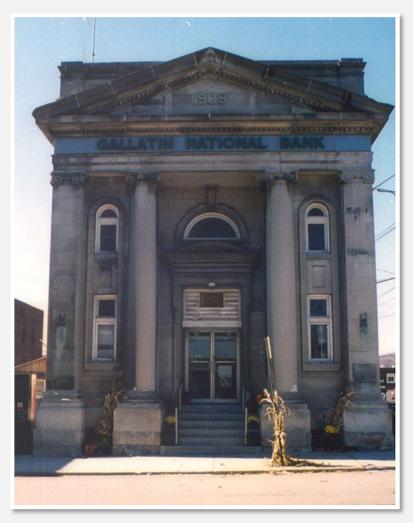


- 6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new will match the old in design color, texture and where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.
- 7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
- 8. Archaeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
- 9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize a property. The new work will be differentiated form the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
- 10. New additions and adjacent related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.





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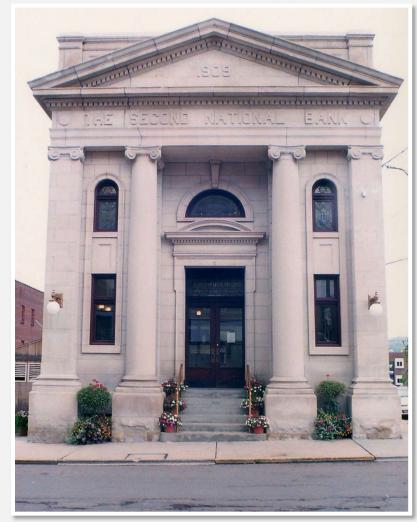








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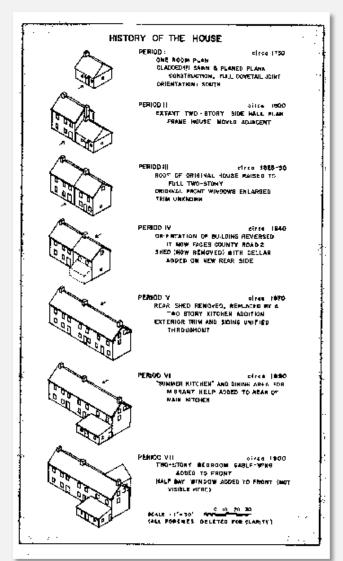


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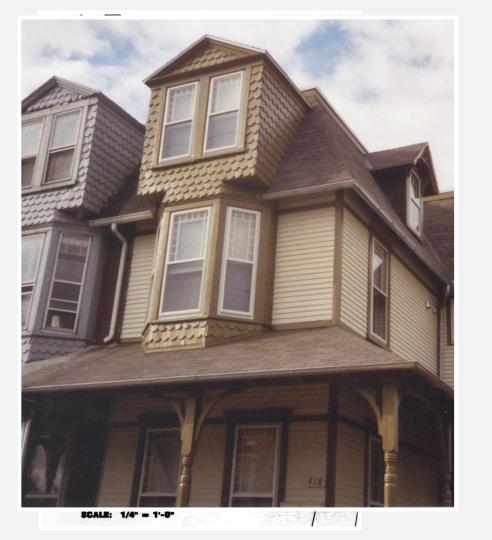
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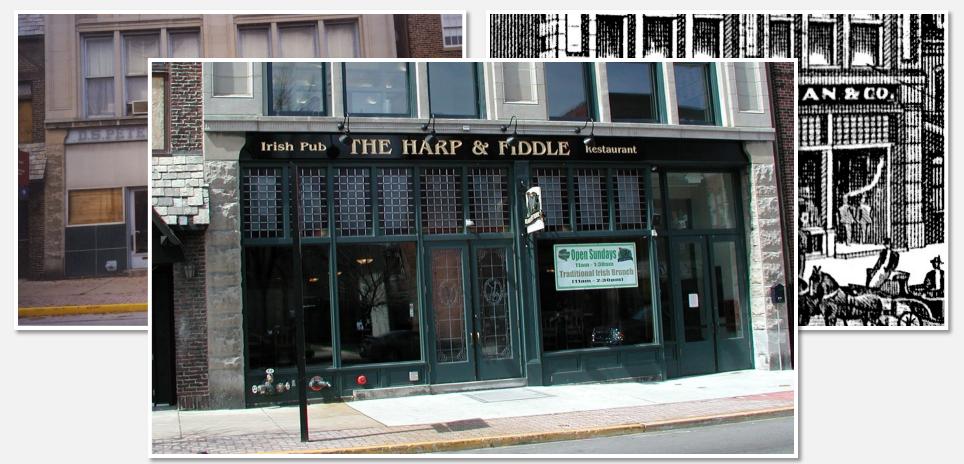


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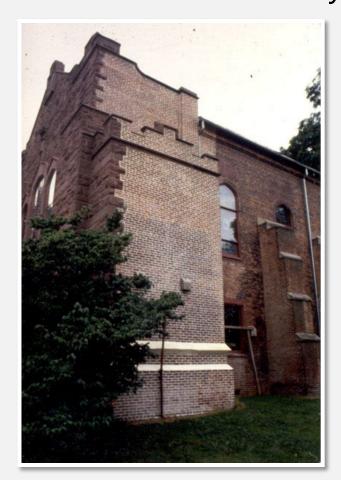




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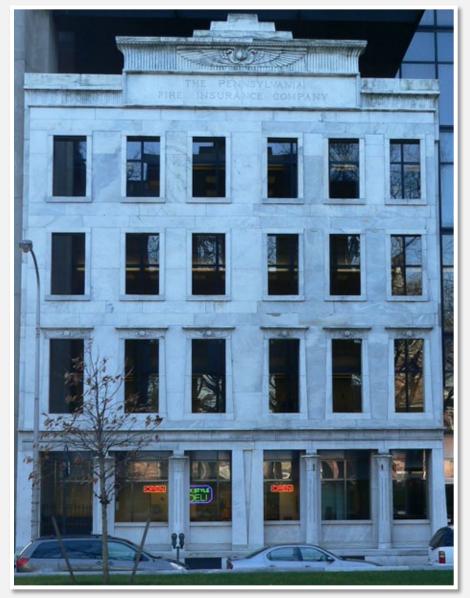
#PreservAtionHappensHere!

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# Inappropriate Addition to Historic Buildings







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# Compatible New Additions





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# Compatible New Additions?



# Role of PA SHPO with L&I Accessibility Advisory Board

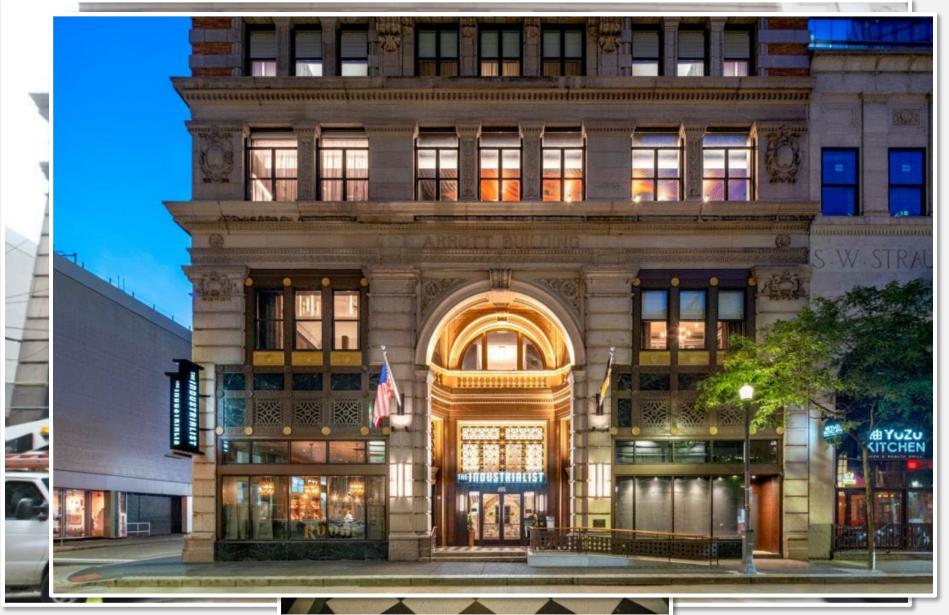
Historic buildings are not exempt from accessibility as most historic properties can be made more accessible

- Federal ADA regs include SHPO consultation process for historic buildings
- Step 1 Verify historic certify historic status
- Step 2 Plan for accessibility modifications or seek a variance
  - Assess the property's existing and required level of accessibility
  - Identify "contributing historic features"
  - Evaluate accessibility options within a preservation context
    - PA SHPO does not issue "blanket" relief for historic buildings
    - Consider options and alternatives if compliance "threatens or destroys" historic features
    - Architect must provide a report to PA SHPO to support preferred option
- Step 3 PA SHPO may submit a letter to L&I supporting a request for an alternative method of access or exemption from minimum requirements





# Accessibility – Barrier Free Entrances





# Fire Safety – transoms, corridors, stairwells





Fourth Floor, corridor, looking east.





# Fire Safety - Railings









# Flood Hazard





# NPS and other guidance in Digital Locker



www.nps.gov/tps/standards/applying-rehabilitation.htm



www.nps.gov/tps/standards.htm

3 PRESERVATION BRIEFS

### Improving Energy Efficiency in Historic Buildings

Jo Ellen Hensley and Antonio Aguilar





The concept of energy conservation in buildings is not new. Throughout history building owners have dealt with changing fuel supplies and the need for efficient use of these fuels. Gone are the days of the cheap and abundant energy of the 1950's. Today with energy resources being depleted and the concern over the effect of greenhouse gases on climate change, owners of historic buildings are seeking ways to make their buildings more energy efficient. These concerns are key components of sustainability - a term that generally refers to the ability to maintain the environmental, social, and economic needs for human existence. The topic of sustainable or "green" building practices is too broad to cover in this brief. Rather, this preservation brief is intended to help property owners, preservation professionals, and stewards of historic buildings make informed decisions when considering energy efficiency improvements to historic buildings.

Sound energy improvement measures must take into consideration not only potential energy savings, but also the protection of the historic property's materials and features. This guidance is provided in accordance with the Secretary of the Interior's Standards for Rehabilitation to ensure that the architectural integrity successful retrofit project must balance the goals of energy efficiency with the least impact to the historic building. Planning must entail a holistic approach that considers the entire building envelope, its systems and components, its site and environment, and a careful evaluation of the effects of the measures undertaken. Treatments common to new construction need to be evaluated carefully before implementing them in historic buildings in order to avoid inappropriate alteration of important architectural features and irreparable damage to historic building materials. This brief targets primarily small-to medium-size historic buildings, both residential and commercial. However, the general decision-making principles outlined here apply to buildings of any size

#### Inherent Energy Efficient Features of Historic Buildings

Before implementing any energy conservation measures the existing energy-efficient characteristics of a historic building should be assessed. Buildings are more than the sum of their individual components. The design, materials, type of construction, size, shape, site orientation, surrounding landscape, and climate all play a role in how buildings perform. Historic building construction methods and materials often maximized natural sources of heat, light and ventilation to respond to local climatic conditions. The key to a successful rehabilitation project is to understand and identify the existing energy-efficient aspects of the historic building and how they function, as well as to understand and identify its character-defining features to ensure they are preserved. Whether rehabilitated for a new or continuing use, it is important to utilize the historic building's inherent sustainable qualities as they were intended to ensure that they function effectively together with any new treatments added to further improve energy efficiency.

### Windows, courtyards, and light wells

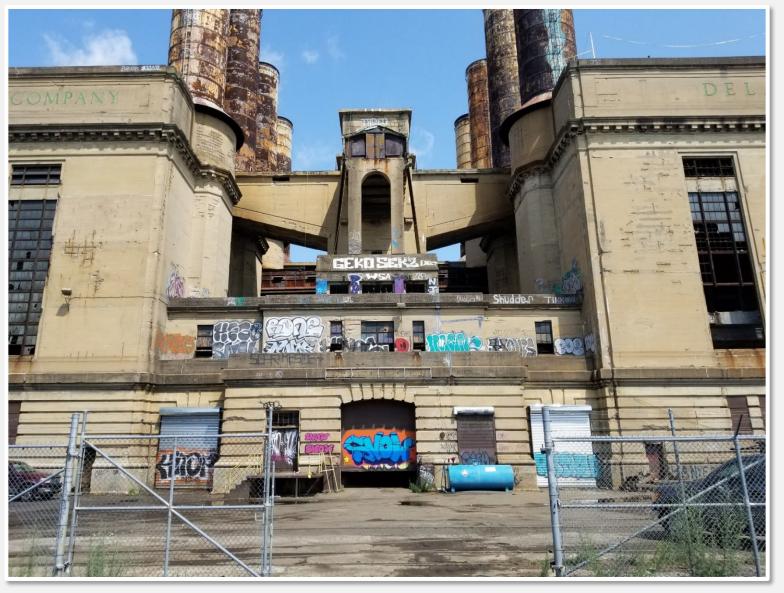
Operable windows, interior courity arch, cheratorics, skelights, rooftop ventilators, cupcias, and other features that provide natural ventilation and light can reduce energy consumption. Whenever these devices can be used to provide natural ventilation and light, they save energy by neducing the need to use mechanical systems and interior artificial lighting.

Historically, builders dealt with the potential heat loss and gain from windows in a variety of ways depending on the climate. In cold climates where winter heat loss from buildings was the primary consideration before mechanical systems were introduced, windows were limited to those necessary fee adequate light and ventilation. In historic buildings where the ratio of glass.

www.nps.gov/tps/education/online-pubs.htm



# Questions???





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