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**“Design Guidelines, Historic Districts and Codes as Downtown Development Tools”
The NC Rehab Code and Its Benefits for Older Buildings**

North Carolina Main Street Conference

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History of the Rehab Code

- Developed in New Jersey in the late 90's; in place since 2002
- Current – 2009 Rehab Code
- Hailed as a national model for urban redevelopment efforts
- 1999 National Award Winner - Innovations in American Government
- Development driven by:
 - Dissatisfaction with the model codes used on existing buildings
 - Building Codes typically oriented to new construction
 - Applying code requirements for new buildings to “old” buildings major problem for builders and developers
- Rethought 100 years of code development



What is the Rehab Code?

- Establishes code requirements, tailor-made for existing buildings
- Establishes a common sense approach to rehab problems
- Rehab Code requires new approach
 - New approach to solving local regulatory issues
 - rethought role of: height and area; construction type; arbitrary dimensions
 - Minimum life safety
 - Rehab projects must be identified as special
- Must remove local obstacles
 - Local agencies must be proactive in solving problems



Development Process

Guiding Principle #1: Predictability

- Should be able to determine scope and cost ahead of time

Guiding Principle #2 Maintain Building Safety:

- Work performed should leave the building no less safe than when work began

Guiding Principle #3: Coordination

- Coordinate Rehab Code with Fire Prevention Code; emphasizing/establishing minimum level of life safety

Guiding Principle #4: Proportionality

- Requirements are in proportion to work planned



For the Fire Marshal: About Safety

Premise: minimum level of life safety maintained by fire prevention code:

- Minimum level can't diminish
- Puts emphasis on the benefits of alarms and suppression...even if partial



Benefits of the Rehab Code

Projects benefitting from the Rehab Code:

- Historic Preservation
- Urban Redevelopment
- Mixed Use and Change of Use
- Economic Development
- Apartments, Condos, Lofts
- Residential Single-Family
- Affordable Housing



Benefits of the Rehab Code

- Ensures safe buildings
- Encourages upgrading of buildings
- Applies common sense standards to renovating buildings
- Encourages reinvestment in existing buildings and neighborhoods
- Promotes “Smart Growth” and “Green” sustainable projects
- Simplifies and speeds building code enforcement
- Encourages adaptive reuse
- Supports affordable housing
- Supports main street programs
- Encourages urban investment
- Supports transit



How the Code Works

- Cookbook Approach
 - 6 categories
 - 4 on rehab scope
 - Repair
 - Renovation
 - Alteration
 - Reconstruction
 - Other
 - Change of Use
 - Historic



REPAIR - "Repair" means the restoration to a good or sound condition of materials, systems or components that are worn, deteriorated or broken using materials or components identical to or closely similar to the existing.

RENOVATION - "Renovation" means the removal and replacement or covering of existing interior or exterior finish, trim, doors, windows, or other materials with new materials that serve the same purpose and do not change the configuration of space. Renovation shall include the replacement of equipment or fixtures.

ALTERATION - "Alteration" means the rearrangement of any space by the construction of walls or partitions or by a change in ceiling height, the addition or elimination of any door or window, the extension or rearrangement of any system, the installation of any additional equipment or fixtures and any work which reduces the load bearing capacity of or which imposes additional loads on a primary structural component.

RECONSTRUCTION - "Reconstruction" means any project where the extent and nature of the work is such that the work area cannot be occupied while the work is in progress and where a new certificate of occupancy is required before the work area can be reoccupied. Reconstruction may include repair, renovation, alteration or any combination thereof. Reconstruction shall not include projects comprised only of floor finish replacement, painting or wallpapering, or the replacement of equipment or furnishings. Asbestos hazard abatement and lead hazard abatement projects shall not be classified as reconstruction solely because occupancy of the work area is not permitted.



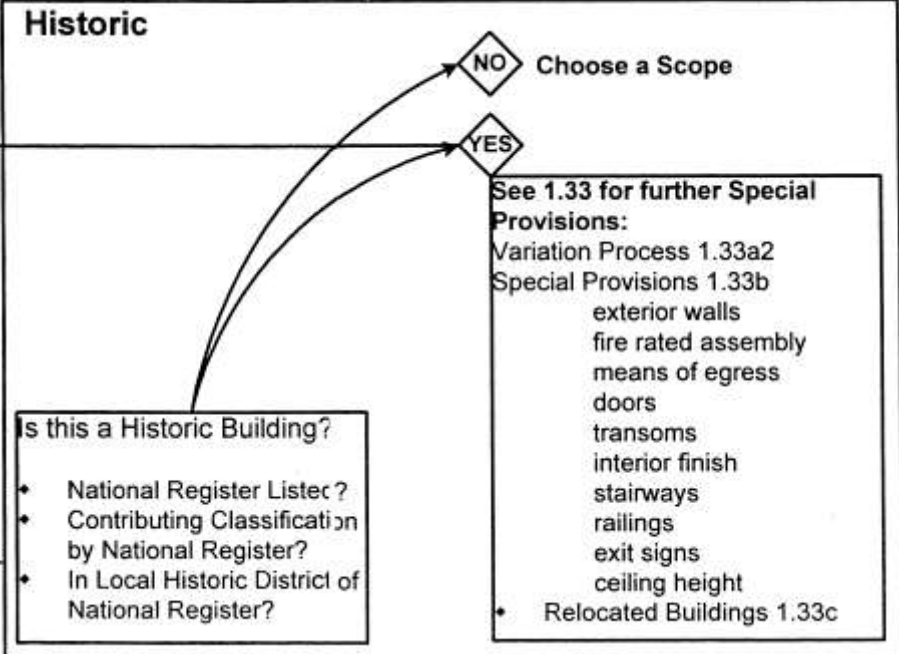
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Change of Use

- 1 If yes, is the hazard greater, equal or lesser?
 - ◆ For relative use: 1.31b
 - ◆ For means of egress: 1.31c
 - ◆ For height and area: 1.31e
 - ◆ For exterior wall exposure: 1.31f
 - ◆ For fire suppression: 1.31g
2. If the hazard greater, comply added requirements in any of sections b, c, e,f,&g
1. If hazard is equal or lesser, check for application of requirements for:
 - ◆ Vertical openings: 1.31d
 - ◆ Fire alarm systems: 1.31h
 - ◆ Smoke detection: 1.31i
 - ◆ Structural requirements: 1.31j
 - ◆ plumbing: 1.31k
 - ◆ electrical: 1.31l
 - ◆ mechanical: 1.31m
 - ◆ accessibility: 1.31n, if 10,000 sq ft or greater





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b. Special provisions - Historic buildings undergoing repair, renovation, alteration, restoration or reconstruction consistent with the U.S. Secretary of the Interior Standards for the Treatment of Historic Properties may comply with the following in lieu of compliance with the corresponding requirements of this code. (Plan review - Building, Fire. Inspection - Building)

1. **Materials and methods** - Original or replica materials and original methods of construction may be used, subject to the provisions of this section.

2. **Exterior walls** - Exterior walls shall not be required to be modified to meet the requirements for fire resistive wall construction.

3. **One-Hour Fire Resistive Assemblies** - Where one hour fire resistive construction is required by this code, it need not be provided regardless of construction or occupancy where the existing wall and ceiling finish is lath and plaster.

4. **Roof covering** - Historic buildings shall meet the intent of the performance requirements of Chapter 15 of the North Carolina Building Code, but shall not be required to meet the prescriptive requirements related to roof slope and underlayment unless required by the manufacturer's installation specifications. The existing type of roof covering may be continued or replaced with the same materials or the preexisting materials may be replaced or restored if the materials are documented to be historic. (Building)

5. **Means of Egress** - Existing door openings and corridor and stairway widths of less than that specified in Sections 1.10 through 1.30 of this code may be approved, provided that, in the opinion of the code official, there is sufficient width and height for a person to pass through the opening or traverse the exit. (Plan review - Building, Fire. Inspection - Building)

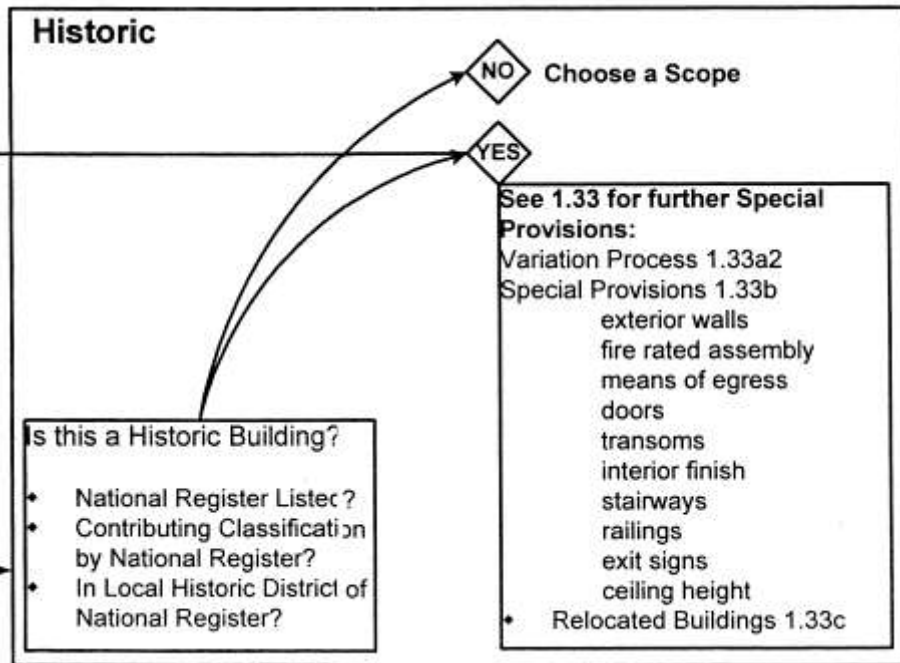
6. **Doors** - The existing front or main exit doors need not swing in the direction of exit travel when serving fewer than 50 people or when other approved exits having sufficient capacity to serve the total occupant load are provided. (Plan review - Building, Fire. Inspection - Building)

i. **Door hardware** - Existing or replica hardware shall be permitted provided that no life safety hazard is created and that the hardware meets the intent of the Barrier Free Subcode if applicable (i.e. operable without pinching, grasping or twisting.) Existing or replica hardware may be fixed in place or modified to meet the intent of the North Carolina Accessibility Code.

7. **Transoms** - Existing transoms in corridors and other fire rated walls may be retained in accordance with this code. (Plan review - Building, Fire. Inspection - Building)

Special Provisions for Historic Buildings

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8. Interior Finishes - The existing finishes or replacement finishes on corridor walls and ceilings may be accepted where it is demonstrated that it is the historic finish. (Plan review – Building, Fire. Inspection - Building)

i. In buildings other than Use Group R-3, finishes in exit ways shall have a flame-spread classification of Class III or better. Existing nonconforming materials shall be surfaced with an approved fire-retardant paint or finish unless the building is equipped throughout with an automatic fire suppression system installed in accordance with the North Carolina Building Code.

9. Stairways - Stairways shall comply with the following: (Plan review - Building, Fire. Inspection - Building)

i. Enclosure - Stairway enclosures may be omitted in a historic building for that portion of the stair serving the first and second floor. This provision shall be applied to only one stair per building.

(1) In buildings of three stories or less, exit enclosure construction shall limit the spread of smoke by the use of tight fitting doors and solid elements. Such elements shall not require a fire resistance rating.

ii. Riser height and tread width - When stairs are replaced or repaired, the existing or original riser height and tread width shall be permitted to remain.

10. Railings - Railings shall comply with the following: (Plan review - Building, Fire. Inspection - Building)

i. Handrails - Existing handrails may remain or may be replaced with handrails matching the original handrails.

ii. Guardrails - For vertical drops of between 30 inches and 48 inches, a rail height of at least 30 inches shall be accepted and the existing or original baluster spacing shall be permitted to remain.

(1) Exception: Replacement guardrails in buildings of Use Group E or R-1 shall comply with Section 1003.2.12 of the North Carolina Building Code.

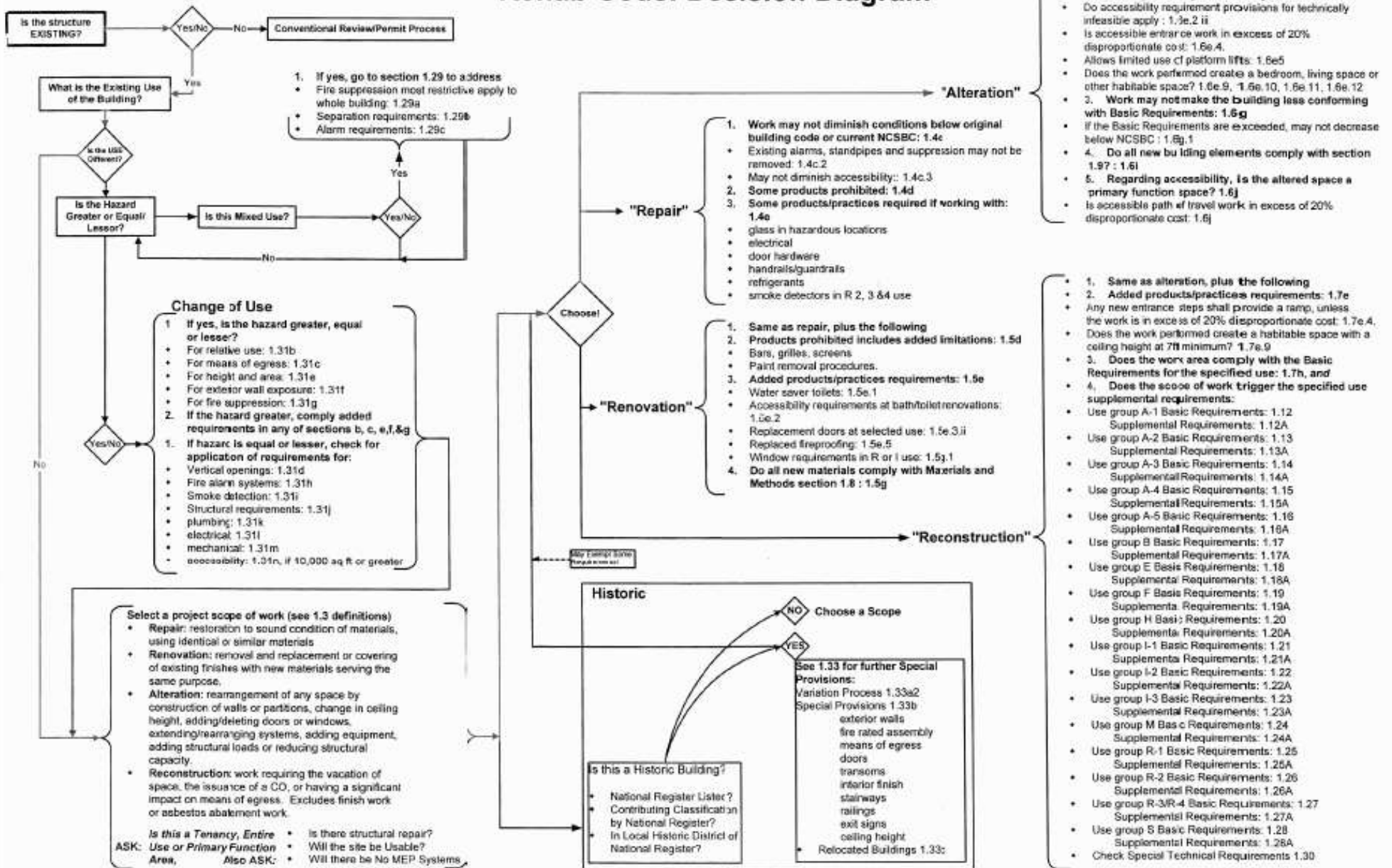
11. Exit Signs - The fire protection code official may accept alternate exit sign design or location where strict compliance would damage the historic character of the building. Alternative signs shall identify the exits and exit path. (Plan review - Building, Fire. Inspection - Building)

12. Ceiling height - Existing ceiling heights shall be permitted to remain. (Building)

Special Provisions for Historic Buildings

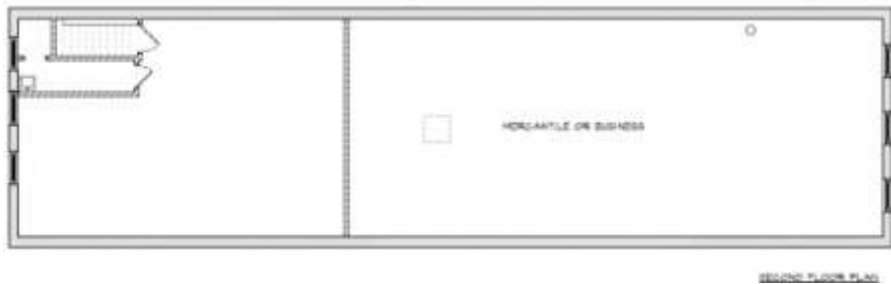
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Rehab Code: Decision Diagram



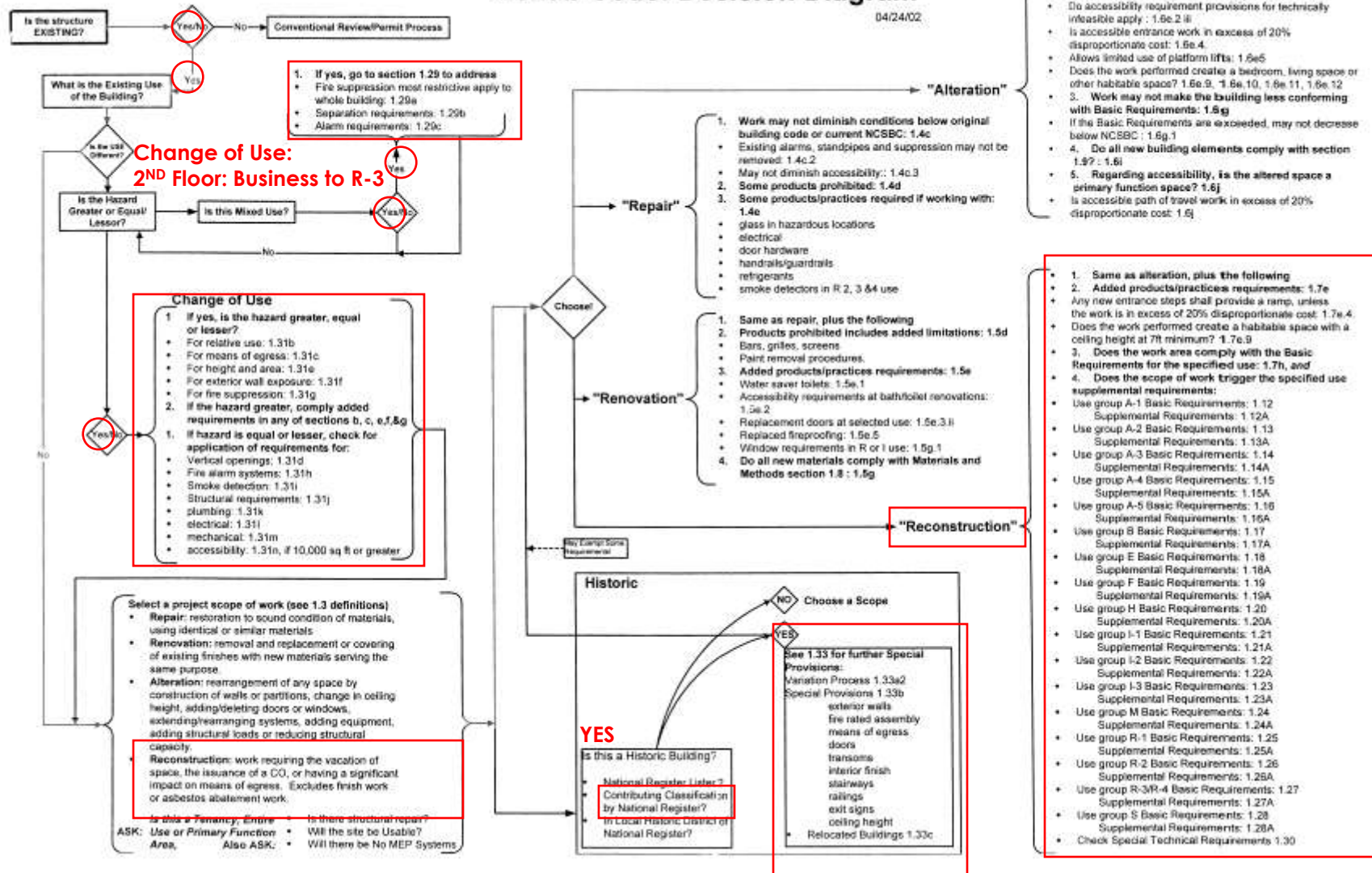
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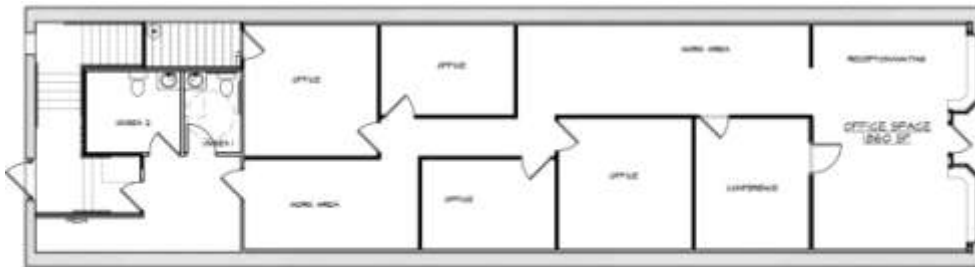
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Rehab Code: Decision Diagram

04/24/02



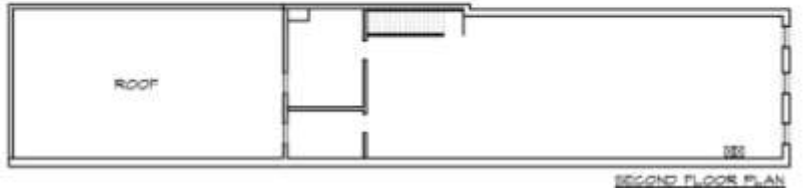
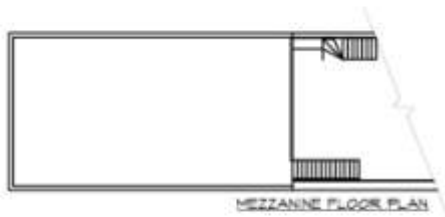
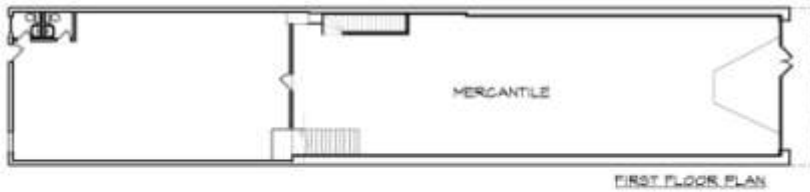


FIRST FLOOR PLAN



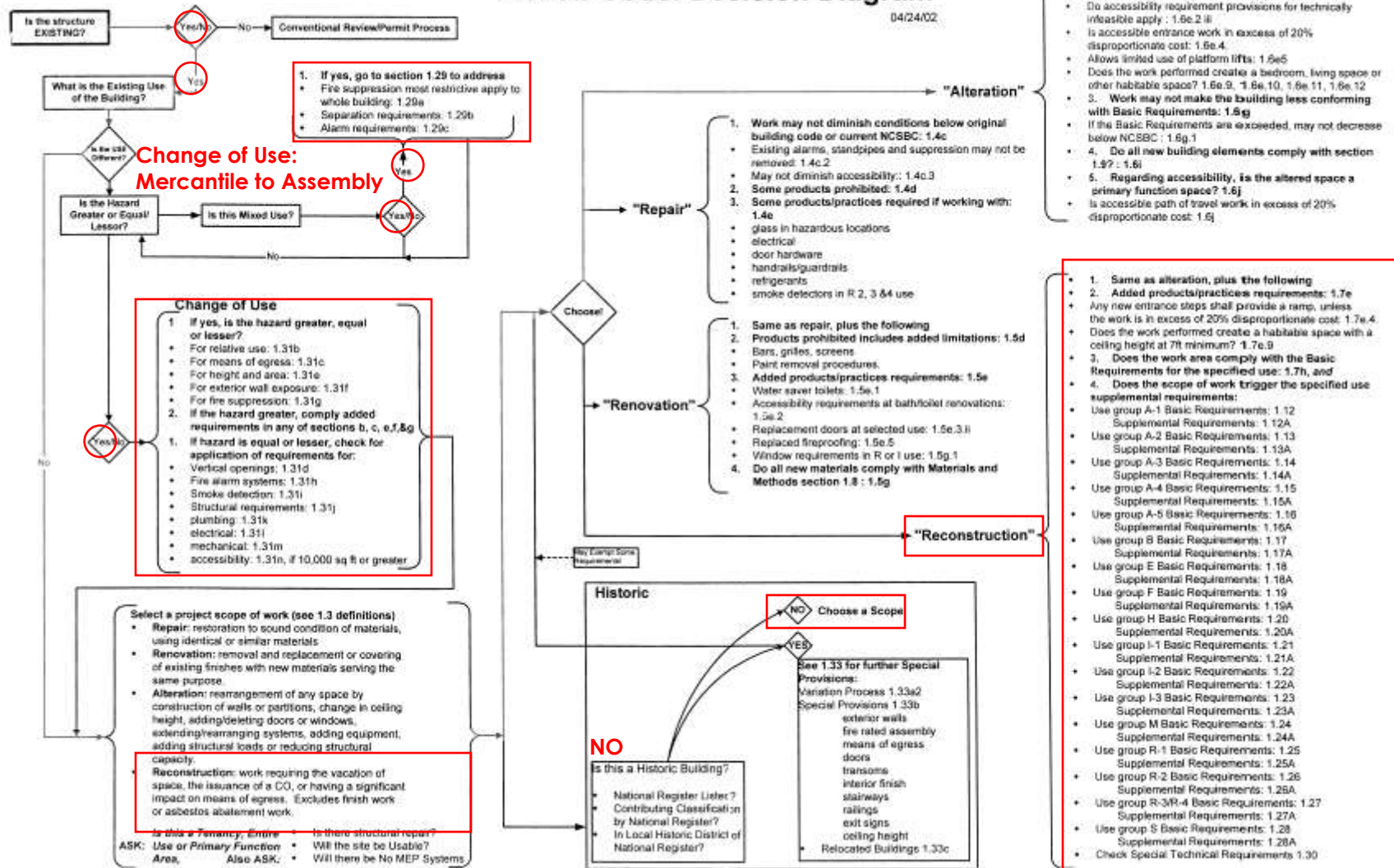
SECOND FLOOR PLAN





Rehab Code: Decision Diagram

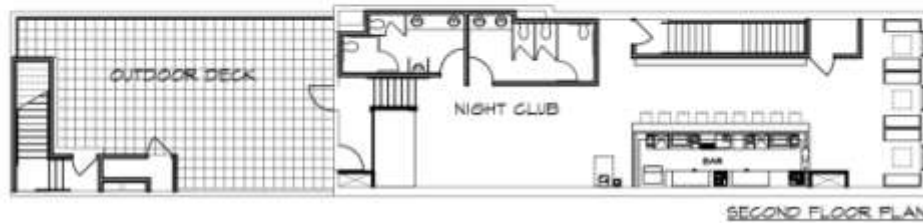
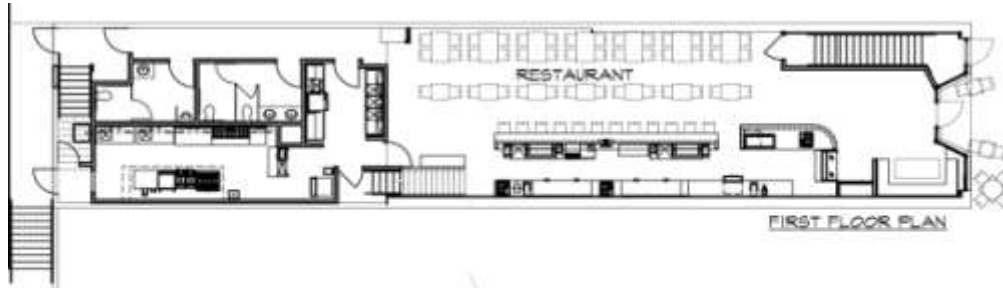
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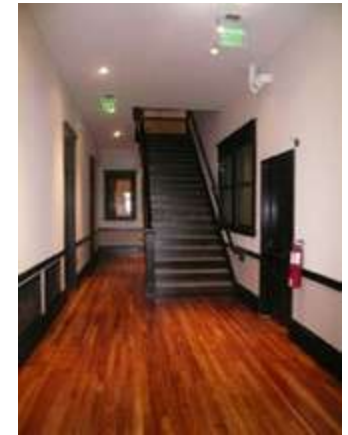
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Case Study: 225 S. Wilmington Street, Raleigh NC
Rehab Code: Decision Diagram

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North Carolina Rehab Code On-Line

Web Site: www.ncrehabcode.com

North Carolina State Historic Preservation Office

Web Site: www.hpo.ncdcr.gov

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