



**July 13, 2017**

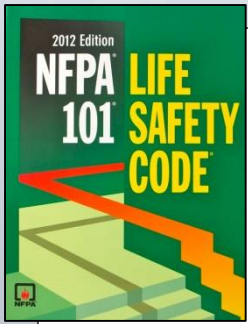
# Chapter 43 “Rehabilitation”

Welcome to the WHEA

# Lunch & Learn

Lauzon  
Life Safety  
Consulting





# L&L Agenda

1. Chapter 43 Overview
2. Rehabilitation Categories
3. Exercises – Categories
4. Comparison: LSC 43 & IEBC
5. Requirements of Categories
6. Exercises – Requirements
7. Plan Submittals

Attempt “long-distance feedback” of how well we are getting the message to you

Trying something new

**THE FIRST FIVE**



**EXPERIMENT**

## What is Kahoot ?

### Smart Device App



**A game-based blended learning platform**



**A classroom engagement tool**



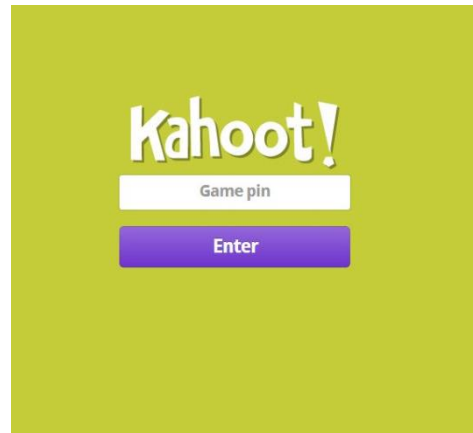
**A place to ask thought provoking questions**



**An audience response system**



Get the Kahoot app  
from the play store

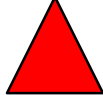
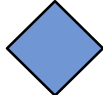
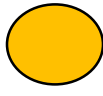



Or Go to:  
[www.kahoot.it](http://www.kahoot.it)



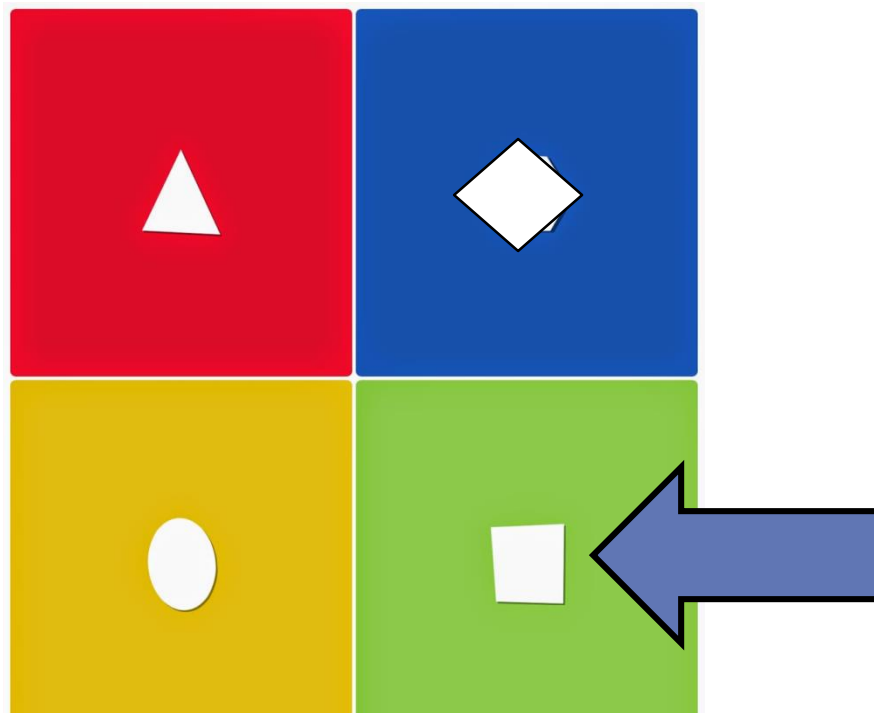
Q: What state is shown?



-  1. Wisconsin
-  2. California
-  3. Alaska
-  4. Florida

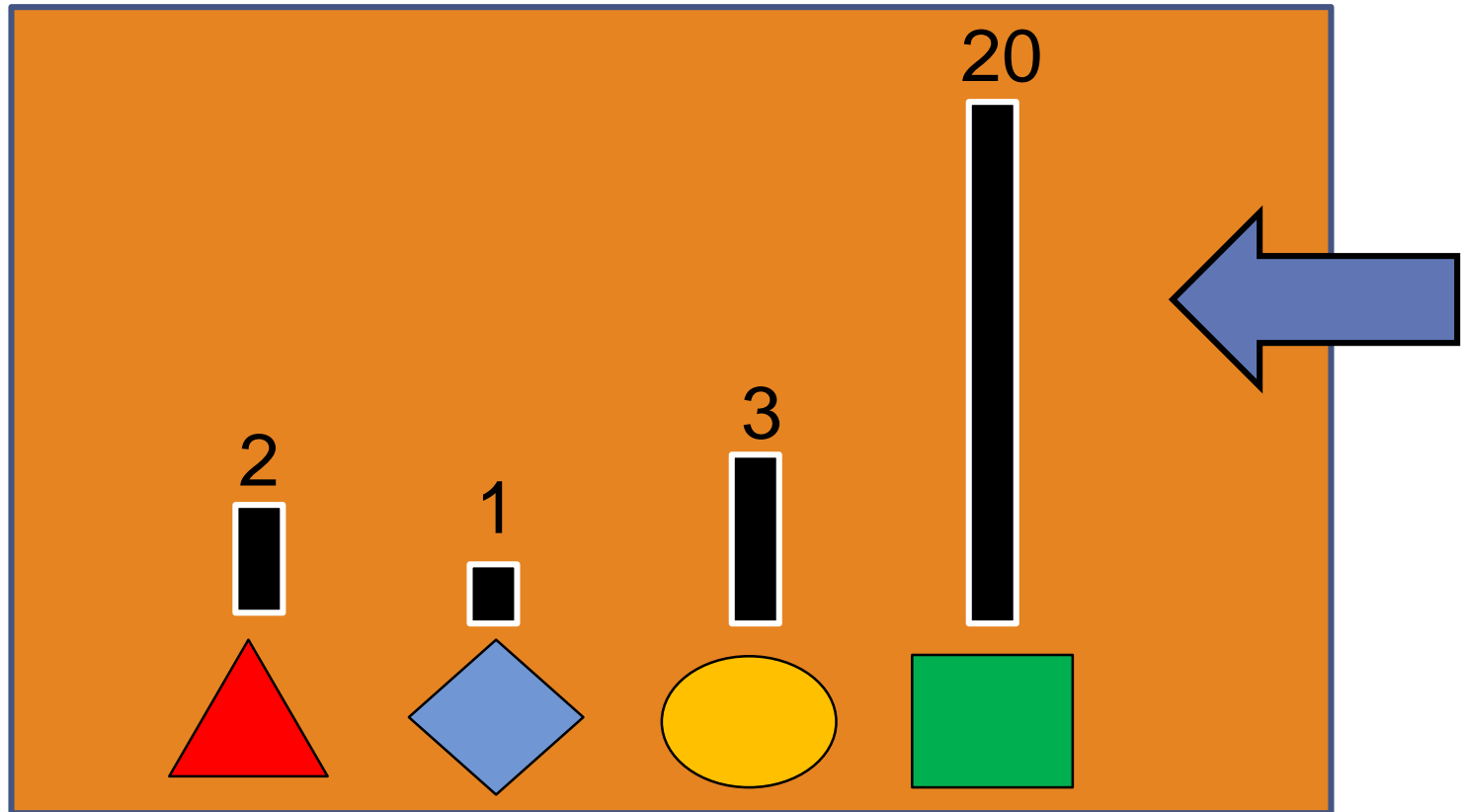
Our actual questions are going to involve slides 25 & 26. You may wish to make copies of these for everyone in your room

You choose the “best” answer from  
the multiple-choices



Tap your answer on your cell  
phone/tablet

Everyone's answers will tabulate on our PC



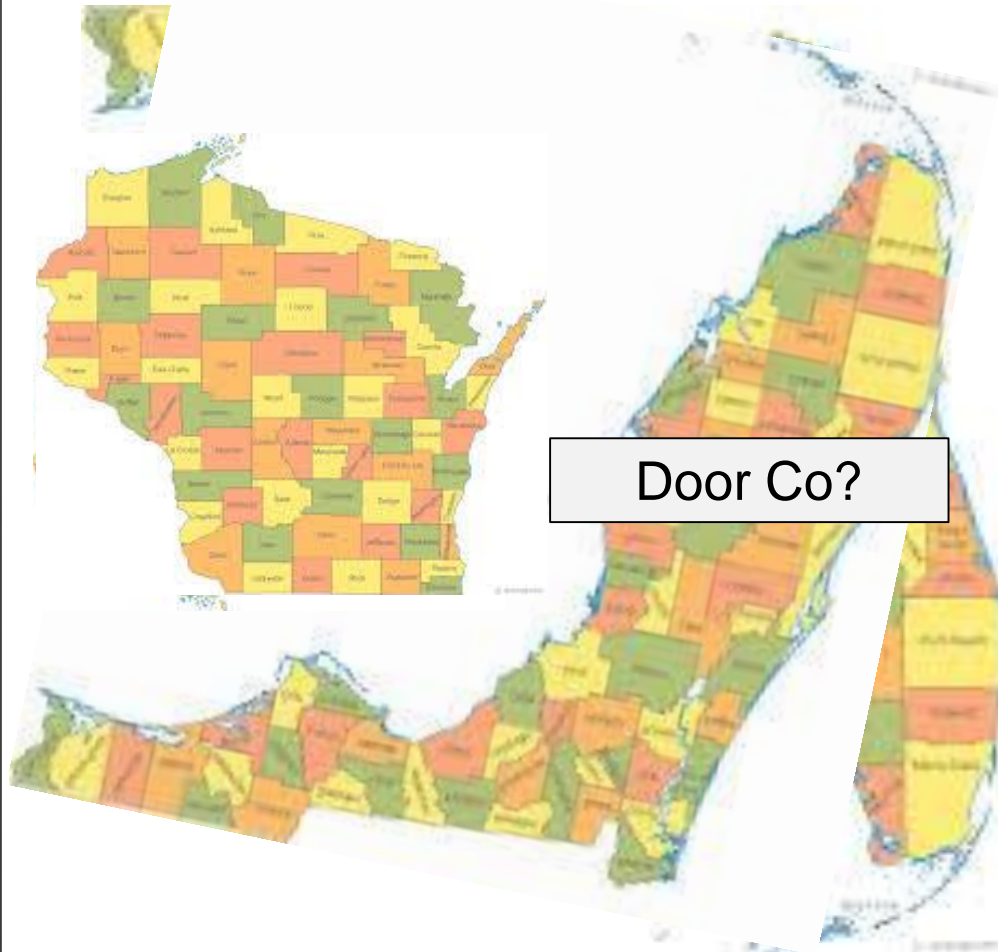
And we will pass on the results to you  
And clarify, as needed



## EXERCISE # x

## EXAMPLE

Q: What state is shown?

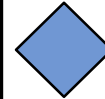


Door Co?



1. Wisconsin

2



2. California

1



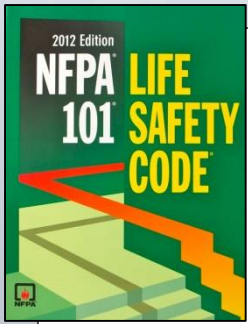
3. Alaska

3



4. Florida

20



# L&L Agenda

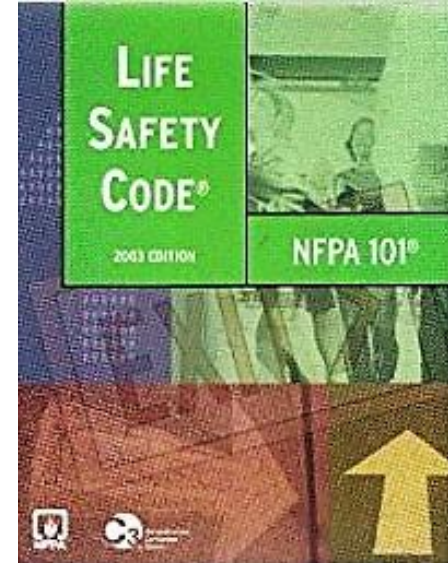


# 1. LSC Chapter 43 Overview

## Building Rehabilitation

Chapter 43, Building Rehabilitation, was added in the 2003 edition to

“promote the adaptive reuse of existing buildings without sacrificing needed life safety”



2000 LSC:  
“If You Touch it – Follow “new” codes



New  
Work

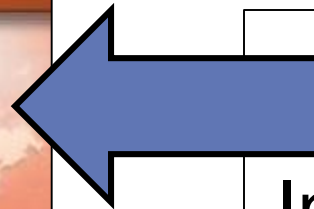
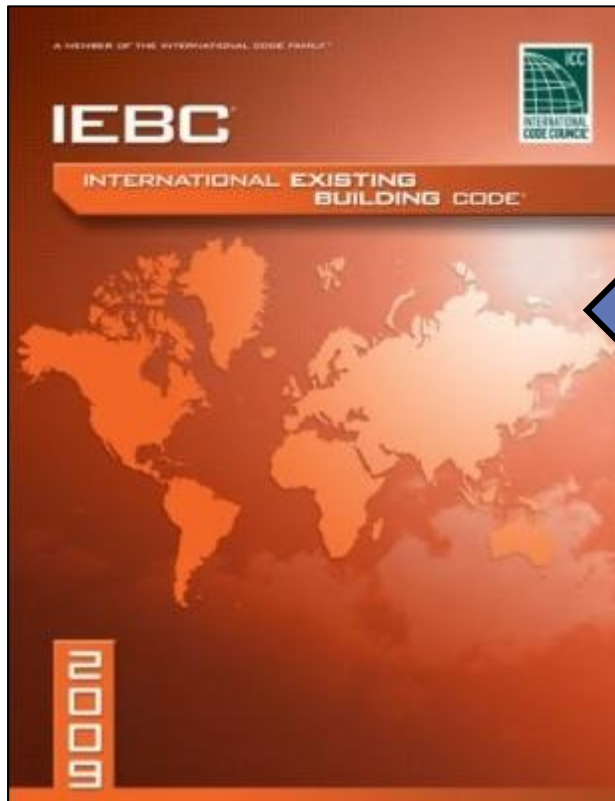
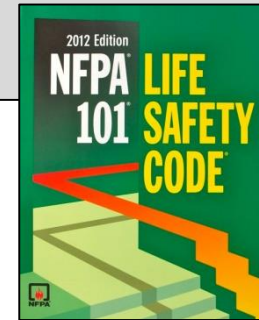


New  
Code



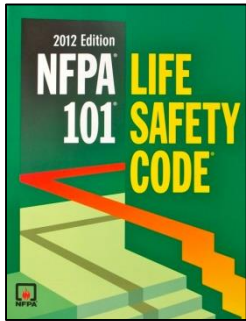
Under the 2000 LSC minor renovation projects needed to meet the same stringent requirements as those applied to completely new construction.

2012 Code: requirements VARY WITH  
amount of rehabilitation work performed  
(by category)



Similar to  
International Existing  
Building Code

Any coincidence?  
Also came around the same time



# Any Remodel Project must

Follow 2 rules:

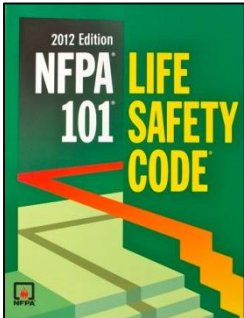
## 1. Comply w/EXISTING

43.1.2.1 Any building undergoing repair, renovation, modification, or reconstruction (*see 43.2.2.1.1 through 43.2.2.1.4*) shall comply with both of the following:

- (1) Requirements of the applicable existing occupancy chapters (*see Chapters 13, 15, 17, 19, 21, 23, 24, 26, 29, 31, 33, 37, 39, 40, and 42*)
- (2) Requirements of the applicable section of this chapter (*see Sections 43.3, 43.4, 43.5, and 43.6*)

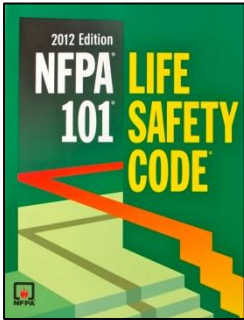
## 2. Follow CHAPTER 43





## LSC Chapter 43 Table of Contents

<b>Chapter 43</b>	<b>Building Rehabilitation</b>	<b>101-333</b>
43.1	General	101-333
43.2	Special Definitions	101-334
43.3	Repairs	101-334
43.4	Renovations	101-334
43.5	Modifications	101-335
43.6	Reconstruction	101-335
43.7	Change of Use or Occupancy Classification	101-336
43.8	Additions	101-337
43.9	Reserved	101-337
43.10	Historic Buildings	101-337



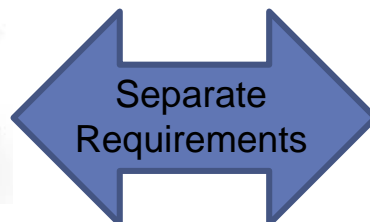
## Multiple Categories

43.1.3.1 Work of more than one rehabilitation work category shall be permitted to be part of a single work project.

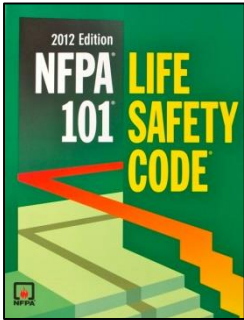
MORE TH>N<sup>®</sup>



43.1.3.2 Where a project includes one category of rehabilitation work in one building area and another category of rehabilitation work in a separate area of the building, each project area shall comply with the requirements of the respective category of rehabilitation work.



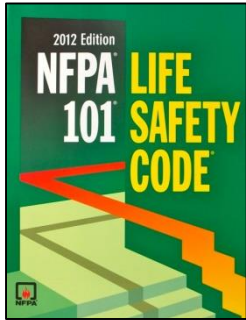




## Alternatives due to Hardships

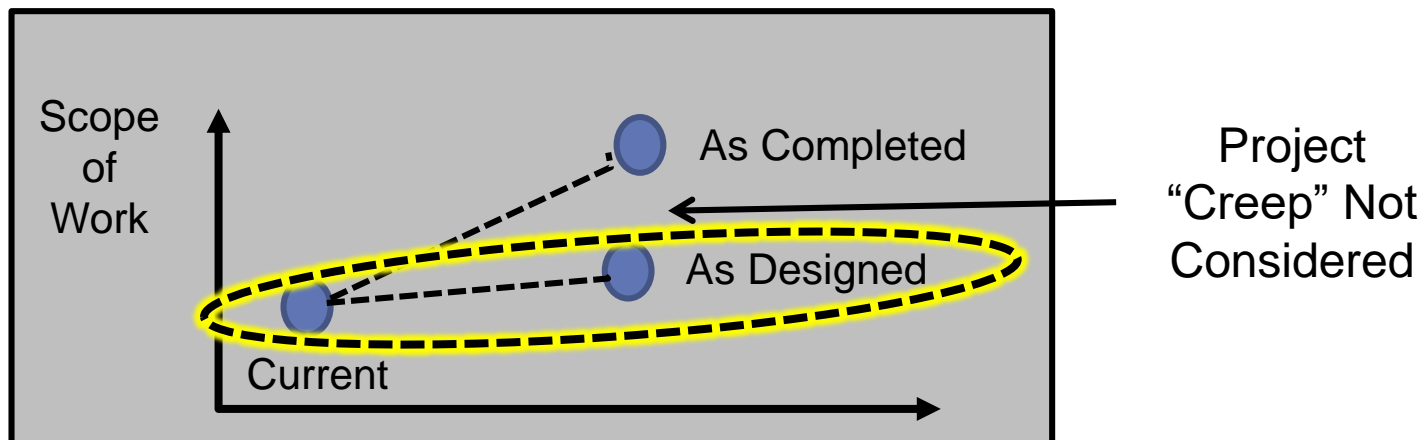
43.1.4.3 Where compliance with this chapter, or with any provision required by this chapter, is technically infeasible or would impose undue hardship because of structural, construction, or dimensional difficulties, the authority having jurisdiction shall be authorized to accept alternative materials, design features, or operational features.

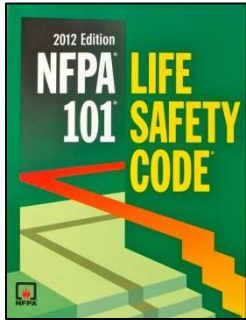




## Special Definitions

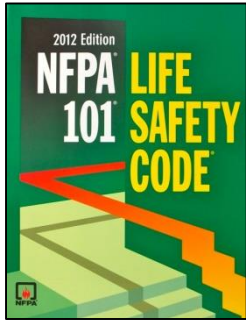
**43.2.2.4 Rehabilitation Work Area.** That portion of a building affected by any renovation, modification, or reconstruction work as initially intended by the owner, and indicated as such in the permit, but excluding other portions of the building where incidental work entailed by the intended work must be performed, and excluding portions of the building where work not initially intended by the owner is specifically required.



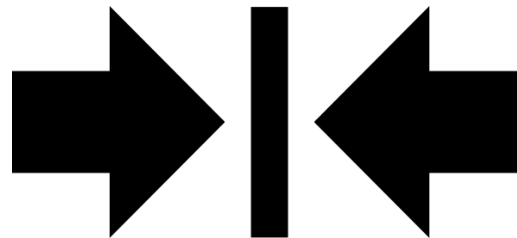


**43.2.2.2\* Equipment or Fixture.** Any plumbing, heating, electrical, ventilating, air-conditioning, refrigerating, and fire protection equipment; and elevators, dumbwaiters, escalators, boilers, pressure vessels, or other mechanical facilities or installations related to building services.

= utility  component

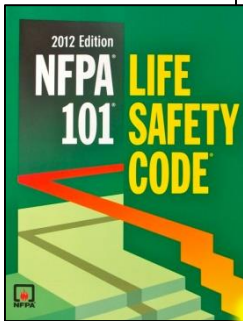


**43.2.2.5 Technically Infeasible.** A change to a building that has little likelihood of being accomplished because the existing structural conditions require the removal or alteration of a load-bearing member that is an essential part of the structural frame, or because other existing physical or site constraints prohibit modification or addition of elements, spaces, or features that are in full and strict compliance with applicable requirements.

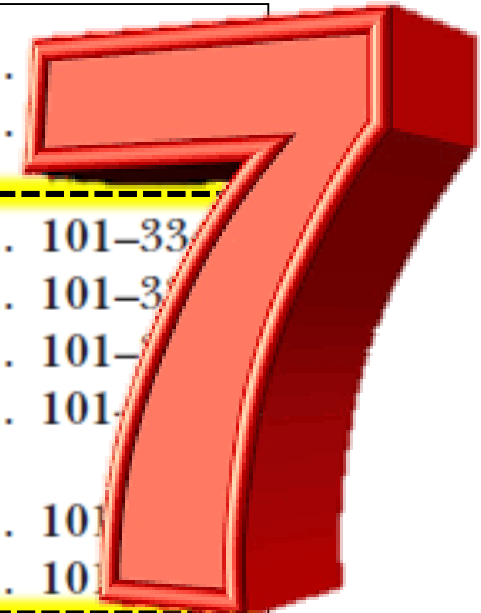


## 2. Rehabilitation Categories

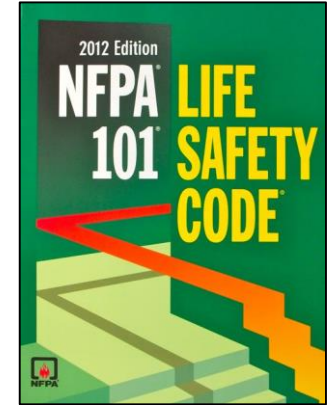
### LSC Table of Contents



Chapter 43	Building Rehabilitation .....	
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43.3	Repairs .....	101-337
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43.6	Reconstruction .....	101-337
43.7	Change of Use or Occupancy Classification .....	101-337
43.8	Additions .....	101-337
43.9	Reserved .....	101-337
43.10	Historic Buildings .....	101-337

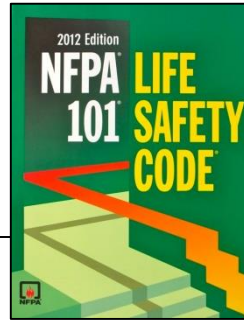


Changes made to existing buildings  
**MUST**  
Meet 2012 REHAB REQUIREMENTS



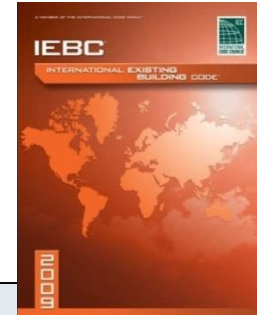
Category	Section
1.Repair	43.3
2.Renovation	43.4
3.Modification	43.5
4.Reconstruction	43.6
5.Change Of Use	43.7
6.Change Of Occupancy	43.7
7.Addition	43.8

## DIFFERENT Categories than IEBC



- 1.Repair
- 2.Renovation
- 3.Modification
- 4.Reconstruction
- 5.Change Of Use
- 6.Change Of Occupancy
- 7.Addition

We'll look at these first



- Repair
- Alteration-Level 1
- Alteration-Level 2
- Alteration-Level 3
- Change of Occupancy
- Addition

Then these

Chapter 43 CATEGORY & DEFINING FACTORS <sup>(1), (3), (5)</sup>	NFPA 101 (LSC)-2012 CODE REQUIREMENTS for REHAB WORK IN THIS CATEGORY <sup>(2)</sup> (43.1.2)	
<b>REPAIR</b> - Re-Furbish surfaces or equip to keep in good condition (43.2.2.1.1)	<b>43.3</b> A. Cannot make less code-conforming than current	B. Use like-materials
<b>RENOVATION</b> - Replace or upgrade bldg member or equip <u>without</u> a space reconfiguration (43.2.2.1.2)	<b>43.4</b> A. New work comply w/Existing (43.4.1.3) B. Not make less code-conforming (43.4.1.4) C. Minor reduction in clear width of doors permitted (43.4.1.5)	D. AHJ can reduce occup load calc of existing MoE (43.4.2) E. New finishes per New code (43.4.3) F. Added equip or extension of sys comply as a "Modification" (43.4.4)
<b>MODIFICATION</b> - 1) Space, equip or sys <u>reconfiguration</u> , or 2) Door/window changes, or 3) added equipment (43.2.2.1.3)	<b>43.5</b> A. Follow "Renovation", plus below (43.5.1.1) B. New work comply with New code (43.5.1.3) C. If "Modification" if >90% of work & "Reconstr" is <10%, apply respective requirements separately	D. If Extensive #1: If work in entire bldg/occupancy (unless only MEP/structural) follow "Reconstruction" (43.5.2.1) E. If Extensive #2: If work is >50% of bldg (unless exclusively MEP/structural) follow "Reconstruction" (43.5.2.3)
<b>RECONSTRUCTION</b> - Any space <u>reconfiguration</u> that: 1) Affects a MoE corridor or exit (excluding halls in suites) or 2) Must be <u>non-occupied</u> due to MoE or sprinkler non-operation (43.2.2.1.4)	<b>43.6</b> A. Follow 43.4, 43.5 (except stair replace), plus below: B. Applies only to "Reconstruction" portion when mixed with "Modification" work (43.6.1.3) C. Follow MoE constr of existing chap, except per below (43.6.2.1) ♦ If "Reconstr" >50% of floor, Follow MoE signs & lighting of New chapter for entire floor (43.6.2.2) ♦ If "Reconstr" >50% of bldg, Follow MoE constr, exit, exit discharge, signs & lighting of New chapter (43.6.2.3) ♦ Tenant's spaces outside "Reconstr" follow Exist chap (43.6.2.4) D. "Reconstr" in small B&C occup must have fire/smoke barriers (43.6.3)	E. Suppression: ♦ If "Reconstr" >50% of bldg, must sprinkle all highest "Reconstr" floor & all below it (43.6.4.1) ♦ If "Reconstr" >50% of floor, must sprinkle floor (43.6.4.2) ♦ If "Reconstr" includes elev shaft or equip rm must add fire fighter recall (43.6.4.3) ♦ Standpipes must be provided on highest "Reconstr" floor & all below it if required by New code (43.6.4.4) ♦ Fire pump not required if highest standpipe in full spkld bldg can accept 250 gpm@85psi or 500 gpm in non-spkld (43.6.4.6) F. Provide smoke alarms in guest rms per New code (43.6.5) G. Elevator: In a high-rise, if "Reconstr" is an entire floor or >20% of an occupied bldg, must have at least one elev (43.6.6)
<b>CHANGE OF USE</b> - Change of purpose or activity so a new code section is applied in the <u>same</u> occupancy classification (43.2.2.1.5)	<b>43.7.1</b> A. Follow 43.3, 43.4, 43.5, 43.6, as applicable (43.7.1.3) B. Follow Existing chapter of the new use, unless it creates a hazardous space (43.7.1.1)	C. If Change creates a Haz space, follow New chap of new use (43.7.1.2(1)), except below ♦ If change creates a haz space < 250 SF in an exist fully spkld Health Care, follow 19.3.2.1 (43.7.1.2(2))
<b>CHANGE OF OCCUP CLASS</b> - Change of Occupancy classification (43.2.2.1.6)	<b>43.7.2</b> (Use table below "(6)" to eval how new use changes Haz Category) <sup>(6)</sup> A. If Change creates a new & less haz space in a new Assembly occup, follow 13.3.2, and install spklr & alarms if required by 12.3.2 (43.7.2.2)	B. If Change creates a new & less Haz space in a non- Assembly occup, follow Existing chap of new use, and install spklr & alarms if required by New chap (43.7.2.1) C. If Change creates a new & more Haz space, follow New chap of new use (43.7.2.3)



Chapter 43 CATEGORY & DEFINING FACTORS <sup>(1), (3), (5)</sup>	NFPA 101 (LSC)-2012 CODE REQUIREMENTS for REHAB WORK IN THIS CATEGORY <sup>(2)</sup> (43.1.2)	
<b>ADDITION</b> - Increased area, height or stories (43.2.2.1.7)	<b>43.8</b> A. New portions shall follow New chap of applicable occup (43.8.1.1(1)) B. New portions cannot extend any non-conforming MoE element of the exist. portion (43.8.1.2) C. Exist portions shall follow Existing chap of applicable occup (43.8.1.1(2)) D. Exist portions shall follow 43.3 thru 43.6, as applicable	E. Exist portion shall be sprinkled if not appropriately separated from the addition, as required by New chap (43.8.3) F. Height cannot exceed what is permitted for constr type in New chap of applicable occup (43.8.2) G. Provide smoke alarms in guest rms per New code (43.8.4)
<b>HISTORIC BUILDING</b> - Any change to a bldg so designated by an AHJ (3.3.36.8)	<b>43.10</b> A. Work shall follow 43.3, 43.4, 43.5, 43.6; OR as shown below (43.10.1) B. Rehab work must be evaluated if the bldg will be used by the public, including (1) a written report prepared by an approved person & filed the AHJ; (2) The approved person may be a design professional or licenced contr; (3) Who is knowledgeable in historic preservation; (4) Report identifies each required safety feature that complies with Chap 43 and which would be damaging to historical features; (5) Report identifies each required safety feature that does not comply with Chap 43 and (6) what can be done to provide an equivalent level of safety;	The report is reviewed by the local preservation official; (43.10.2) C. Repairs may be made using original or similar materials & methods (43.10.3) D. Follow requirements on replaced parts, MoE, door swing, transoms (43.10.4.4 and .5) E. Follow requirements on interior refinishes (43.10.4.6) F. Follow requirements on stairwell enclosure, fire-rated assemblies, handrails & guards, and exit signs (43.10.4.7 to.10) G. Follow requirements on sprinklers (43.10.4.11) H. Follow requirements for changes of occupancy (43.10.5)

### FOOTNOTES

- (1) Separate Categories can exist in different parts of the building (43.1.3.2)  
 (2) AHJ may accept alternative methods if compliance is technically infeasible or impose undue hardship by construction (43.1.4.3)  
 (3) Equipment or fixture refers to MEP devices  
 (4) Rehab Work Area refers to the portion of the bldg affected by one of the work categories and excludes all other, even if incidental work must be performed  
 (5) Consider as separate category if in separate part of bldg (43.1.3.3)

### (6) Hazard Category Table 43.7.3:

- Highest Haz:** Indust or Storage occup with high haz contents
- Moderate Haz:** Health care, Detention, Res Board & Care
- Minimal Haz:** Assembly, Educ, Day Care, Amb Health, Ord Storage Residential, Mercantile, Business, Gen & special-purpose Industrial,
- Low Haz:** Industrial or Storage occup with low haz contents

Available for FREE Down Load from:  
**Lauzon-LSC@com** (Free Tools Page)



## CATEGORY

## KEY DEFINING FACTORS

### 1.Repair:

Defined in: 43.2.2.1.1

Re-furbish surfaces or equipment to keep them in good condition

*“Repair”, “Fix”*  
(No Plan Review)



### 2.Renovation:

Defined in: 43.2.2.1.2

Replace building member or equipment without any space reconfiguration

*“Replace”, “Change”*  
(NO wall changes)



CATEGORY

KEY DEFINING FACTORS

3.Modification:

Defined in: 43.2.2.1.3

Space reconfiguration, changes to doors or windows, or added equipment

*“Small Remodel”, “Add Equip”  
(NO Corridor work; Occupied )*



4.Reconstruction:

Defined in: 43.2.2.1.4

Space reconfiguration that affects corridor or exit; or if space must be non-occupied

*“Large Remodel”, “Add Equip”  
(Affect Corridor/Exit; Non-Occupied )*



## CATEGORY

## KEY DEFINING FACTORS

### 5.Change of Use:

Defined in: 43.2.2.15

Change of use or purpose that causes a new code section in same occupancy to be applied

*“New Layout”*

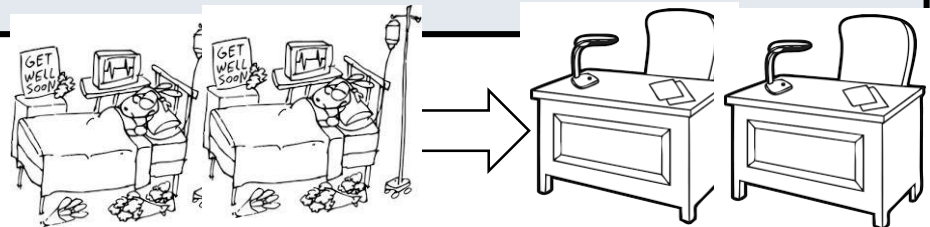


### 6.Change of Occupancy:

Defined in: 43.2.2.16

Change of occupancy classification

*“New Direction”*



CATEGORY

KEY DEFINING FACTORS

7.Addition:

Defined in: 43.2.2.17

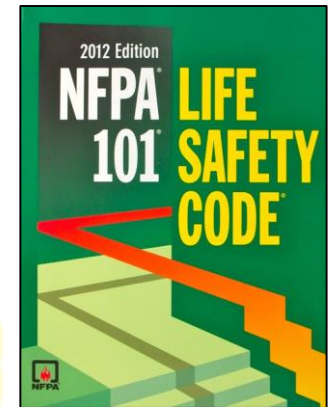
Change that increases the area, height or # stories of a building



## CATEGORY

## Most Frequent “Remodel”

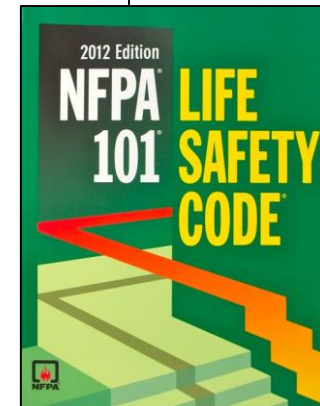
Category	Section
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## 3. Exercises-Categories

Determine the correct REHAB CATEGORY

- 1.Repair
- 2.Renovation
- 3.Modification
- 4.Reconstruction
- 5.Change Of Use
- 6.Change Of Occupancy
- 7.Addition



(Use the “Chap 43 Rehab” Slides # 25-26)



## Q1 What is Kahoot! ?



Next ▶

**0**  
Answers



**A game-based blended learning platform**



**A classroom engagement tool**



**A place to ask thought provoking questions**

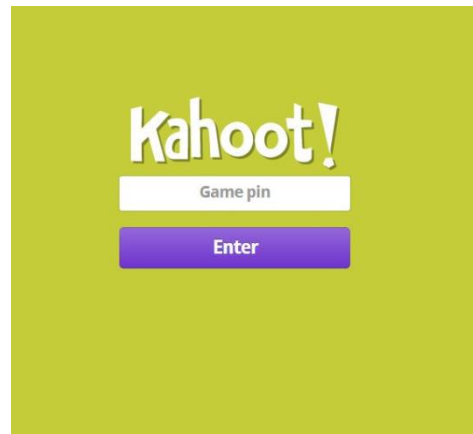


**An audience response system**





Go to: [www.kahoot.it](http://www.kahoot.it)

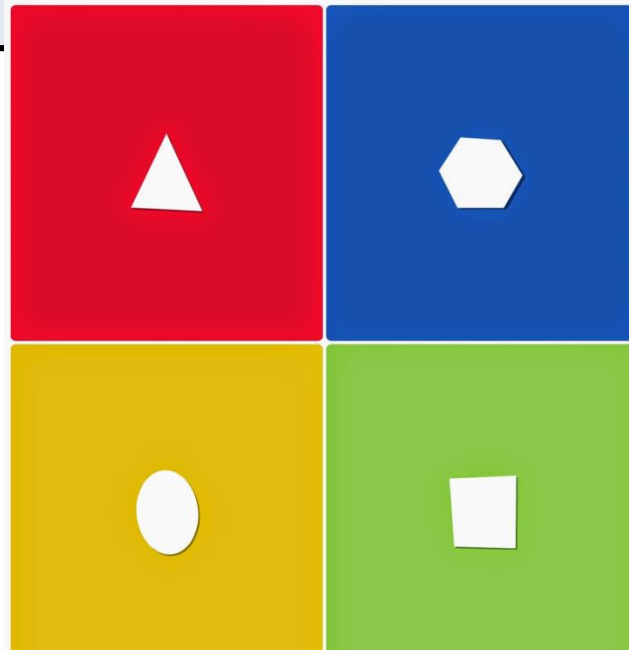


Or get the kahoot  
app from the play  
store



1. Enter this PIN #:

2. Make-Up a  
Nickname for your  
group/self



## EXERCISE #1

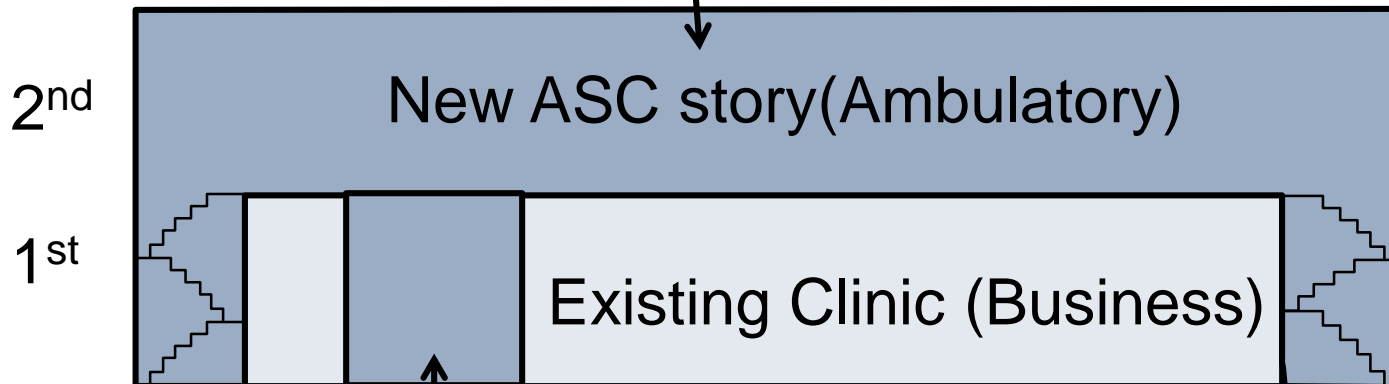
## What Category?

Q1: What is the Chap 43 Category for the 1<sup>st</sup> floor work?

**Times Up**

Added ASC Story

(Elevation view)



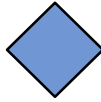
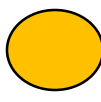
Remodel vacant offices for existing tenant

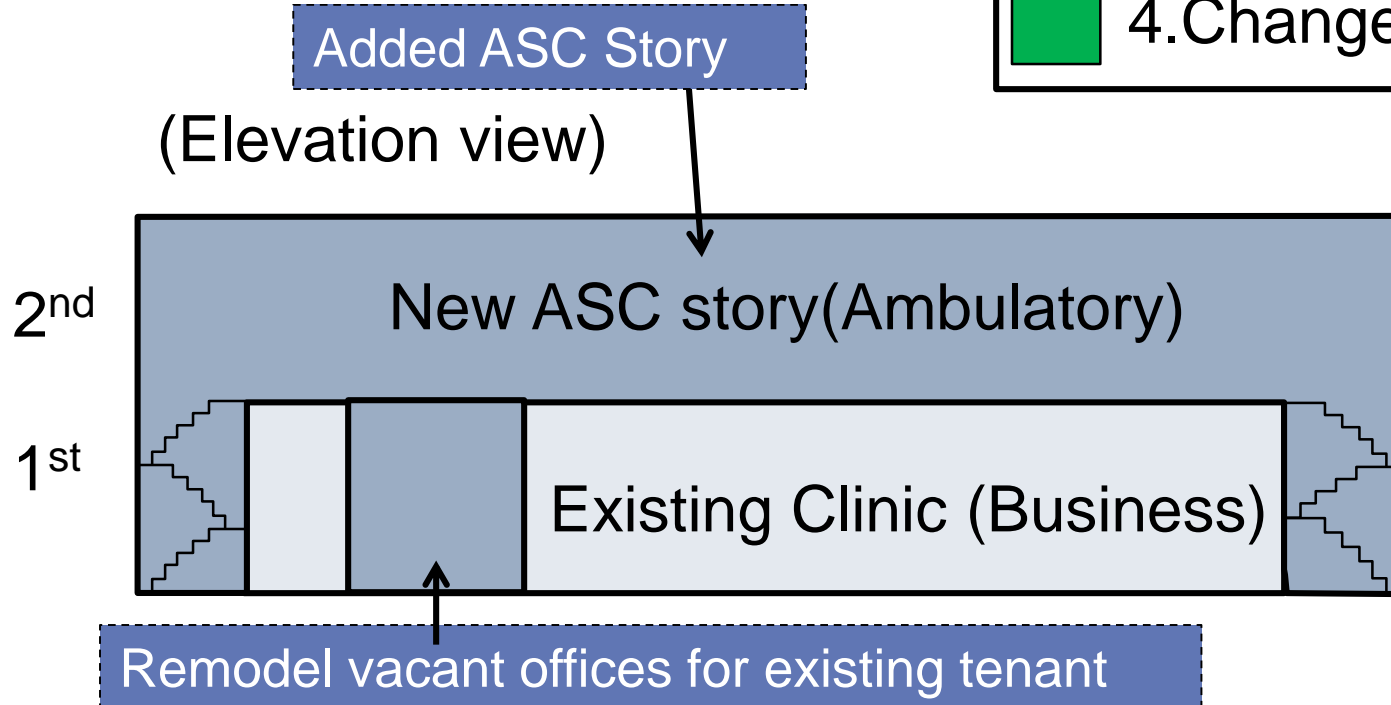
-  1. Renovation
-  2. Modification
-  3. Reconstruction
-  4. Change of Use

## EXERCISE #1

## What Category?

Q1. What is the Chap 43  
Category for the 1<sup>st</sup> floor work?

-  1. Renovation
-  2. Modification
-  3. Reconstruction
-  4. Change of Use



## EXERCISE #1

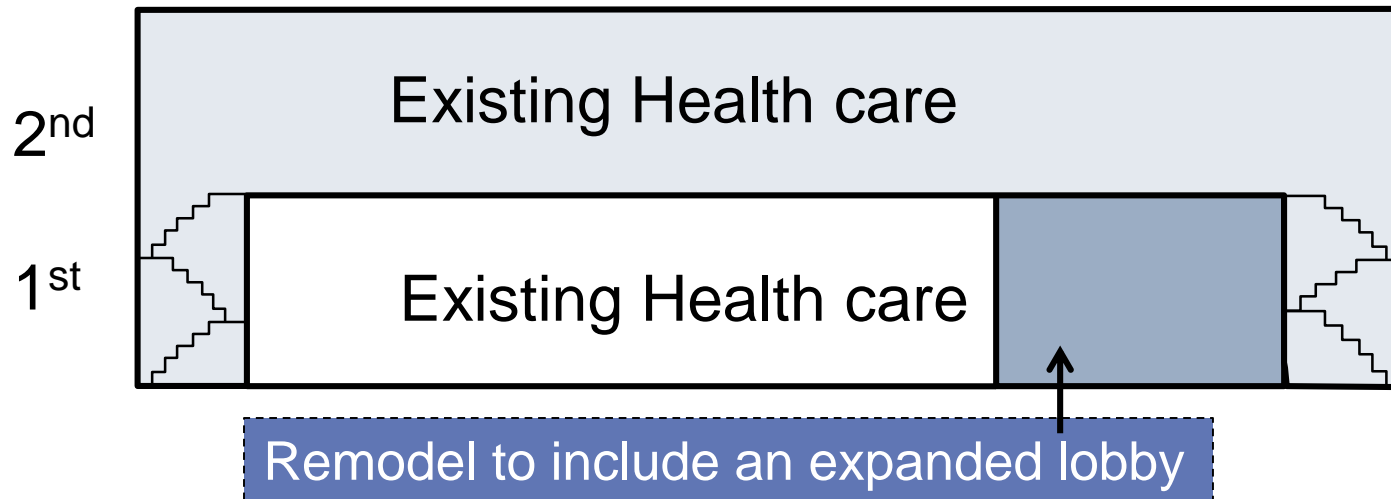
## What Category?

Q2. What is the Chap 43  
Category for the 1<sup>st</sup> floor work?

**Times Up**

-  1. Renovation
-  2. Modification
-  3. Reconstruction
-  4. Change of Use

(Elevation view)



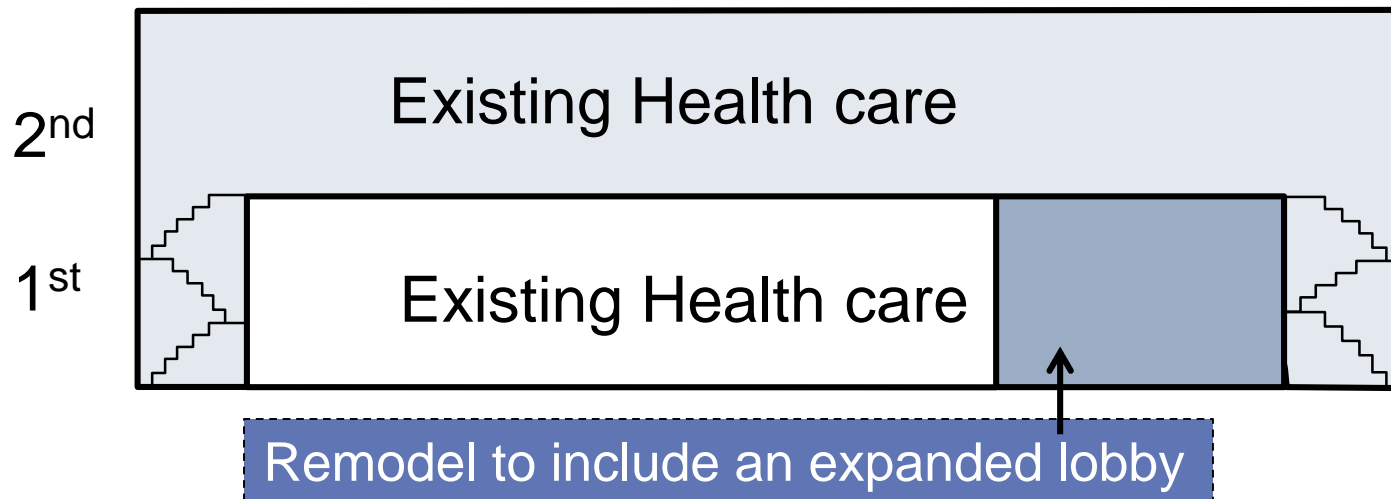
## EXERCISE #1

## What Category?

Q2. What is the Chap 43 Category for the 1<sup>st</sup> floor work?

-  1. Renovation
-  2. Modification
-  3. Reconstruction
-  4. Change of Use

(Elevation view)

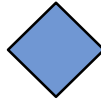
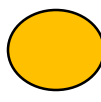



## EXERCISE #1

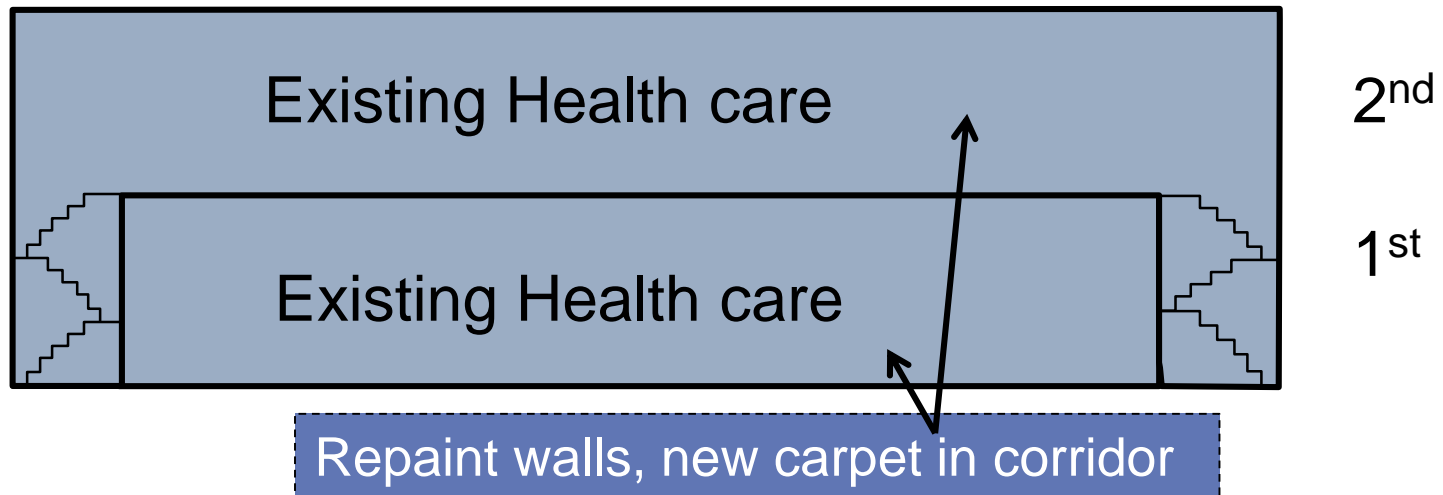
## What Category?

Q3. What is the Chap 43  
Category for the 2<sup>nd</sup> floor work?

**Times Up**

-  1.Repair
-  2.Renovation
-  3.Modification
-  4.Reconstruction

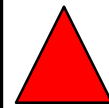
(Elevation view)



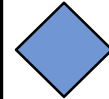
## EXERCISE #1

## What Category?

Q3. What is the Chap 43 Category for the 2<sup>nd</sup> floor work?



1.Repair



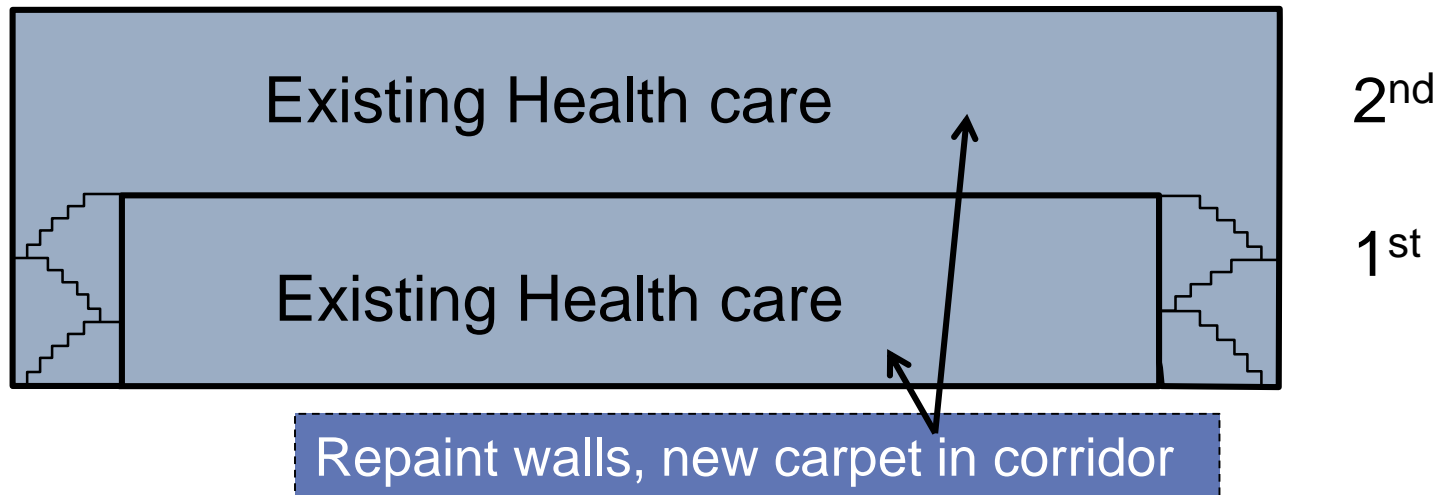
2.Renovation



3.Modification



4.Reconstruction





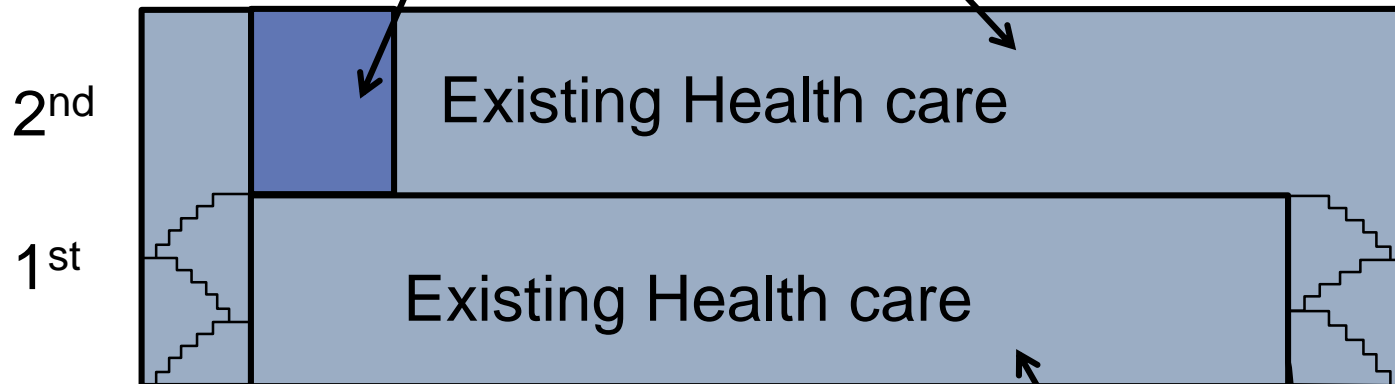
## EXERCISE #1

## What Category?

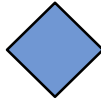
Q4. What is the Chap 43  
Categories for the 2<sup>nd</sup> floor work?

**Times Up**

a. Repaint walls, new carpet in corridor;  
b. Change Office into Storage



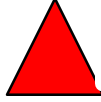

Repaint walls, new carpet in corridor

-  1. Repair
-  2. Renovation
-  3. Reconstruction
-  4. Change of Use

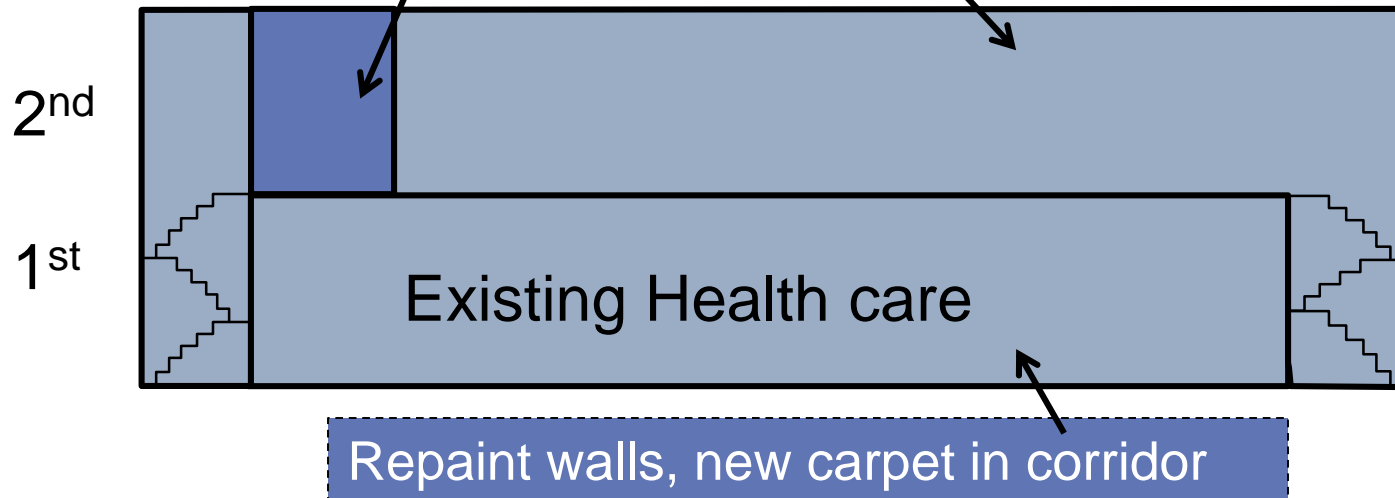
## EXERCISE #1

## What Category?

Q4. What is the Chap 43  
Categories for the 2<sup>nd</sup> floor work?

-  1.Repair
-  2.Renovation
-  3.Reconstruction
-  4.Change of Use

a.Repaint walls, new carpet in corridor;  
b.Change Office into Storage



## EXERCISE #1

## What Category?

Q5. What is the Chap 43  
Category for the 1<sup>st</sup> floor work?

**Times Up**

Convert SNF to Offices

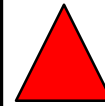
2<sup>nd</sup>

Existing Health care

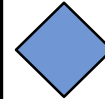
1<sup>st</sup>

Existing Health care

Replace Boiler with same size



1.Repair



2.Renovation



3.Modification

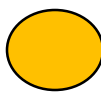


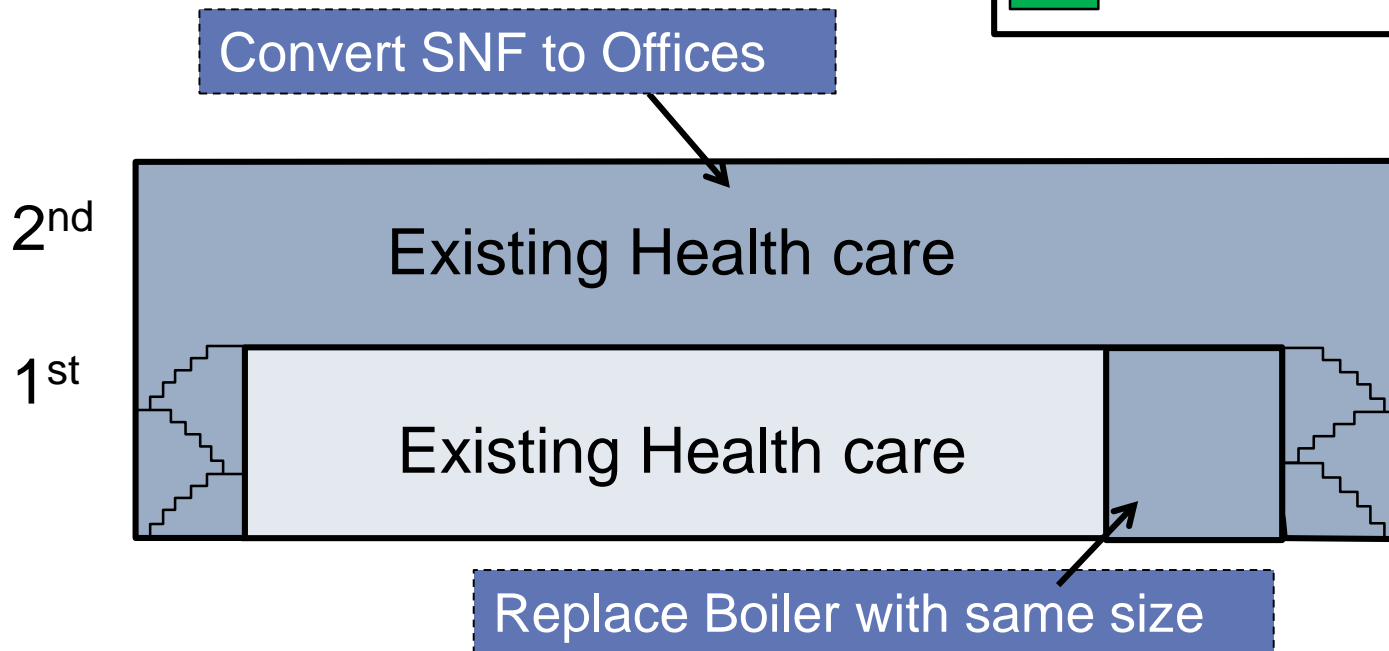
4.Reconstruction

## EXERCISE #1

## What Category?

Q5. What is the Chap 43 Category for the 1<sup>st</sup> floor work?

-  1.Repair
-  2.Renovation
-  3.Modification
-  4.Reconstruction

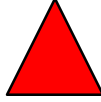
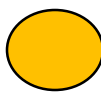


## EXERCISE #1

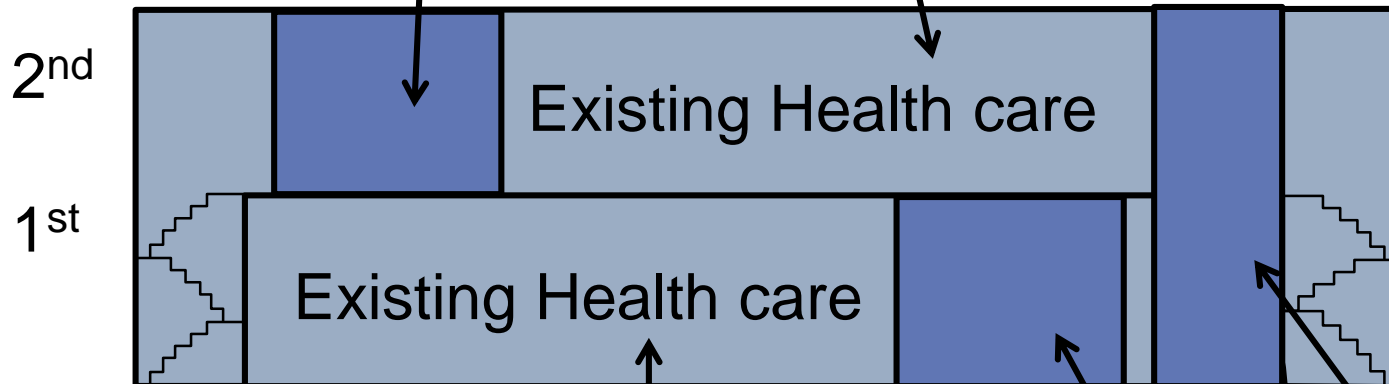
## What Category?

Q6. What is the Chap 43 Categories for the 1<sup>st</sup> floor work?

**Times Up**

-  1.Repair
-  2.Renovation
-  3.Reconstruction
-  4.Change of Use

a.Repaint walls, new carpet in corridor;  
b.Remodel 2 Exam Rooms into one

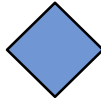


c.Repaint walls, new carpet in corridor; d.Converting an office into an open pt lounge; e.Install a new Elevator & shaft

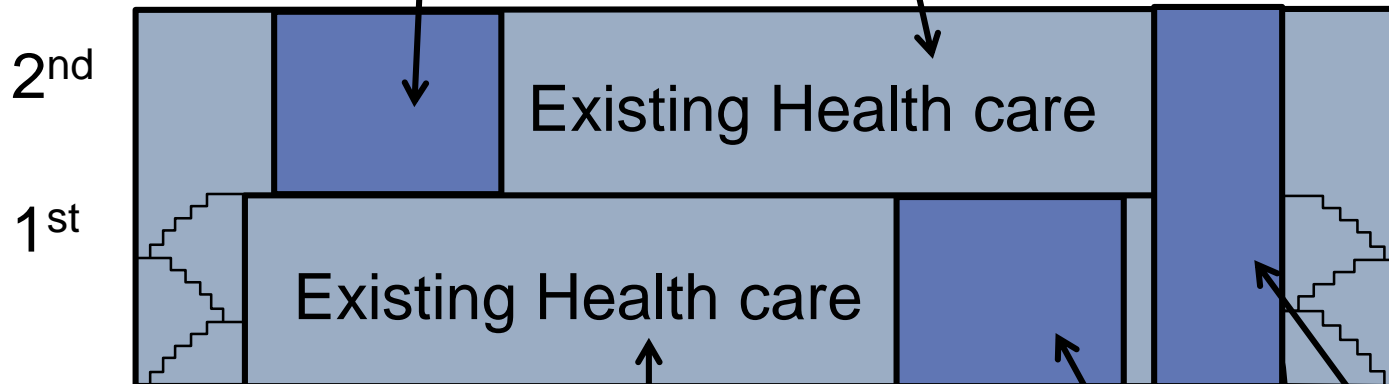
## EXERCISE #1

## What Category?

Q6. What is the Chap 43 Categories for the 1<sup>st</sup> floor work?

-  1.Repair
-  2.Renovation
-  3.Reconstruction
-  4.Change of Use

b. Remodel 2 Exam Rooms into one

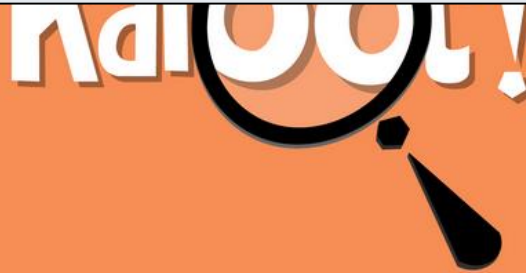


c. Repaint walls, new carpet in corridor; d. Converting an office into an open pt lounge; e. Install a new Elevator & shaft

## DON'T shut off Kahoot

There's another exercise coming up in a short while

Next ▶



**0**  
Answers



**A game-based blended learning platform**



**A classroom engagement tool**

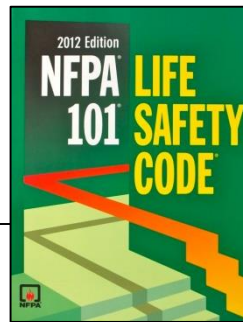


**A place to ask thought provoking questions**



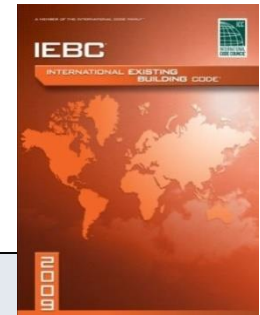
**An audience response system**

## 3. Comparison: 43 & IEBC



- 1.Repair
- 2.Renovation
- 3.Modification
- 4.Reconstruction
- 5.Change of Use
- 6.Change of Occup
- 7.Addition

DIFFERENT  
Categories than  
IEBC



- Repair
- Alteration-Level 1
- Alteration-Level 2
- Alteration-Level 3
- Change of Occup
- Addition



CATEGORYKEY DEFINING FACTORS

Repair: “The restoration to good or sound condition of any part of an existing building for the purpose of its maintenance”

*“Repair”, “Fix”  
(No Plan Review)*



CATEGORY

KEY DEFINING FACTORS

Alteration: “Any construction or renovation to an existing structure other than a repair or addition”

Alteration-Level 1: “Includes removal & replacement or covering of existing materials using new materials that serve the same purpose”

Alteration-Level 2: “Includes reconfiguration of space, addition or elimination of doors or windows, or extension of any sys or added equipment”

Alteration-Level 3: Space reconfiguration that affects > 50% of the aggregate area of the building

CATEGORY

KEY DEFINING FACTORS

Change of  
Occupancy:

“Change in the purpose or level of activity within a building that involves a change in application of the requirements of this code”

Addition:

“An extension or increase in floor area, number of stories, or height of a building or structure”

# Chap 43 vs IEBC Categories

## Chapter 43:

## IEBC:

### Repair:

Re-furbish surfaces or equipment to keep them in good condition

### Repair:

The restoration to good or sound condition of any part of an existing building

Renovation: Replace building member or equipment without any reconfiguration

Alteration-Level 1: Includes removal & replacing/covering of existing materials using new materials that serve the same purpose

### Modification:

Space reconfiguration, changes to doors or windows, or added equipment

Alteration-Level 2: Includes space reconfiguration, addition/elimination of doors or windows, extension of any sys

Reconstruction: Reconfiguration that affects corridor or exits; or if space must be non-occupied

Alteration-Level 3: Includes space reconfiguration that affects > 50% of the aggregate area of the building

### Change of Use:

Change of use that causes a new code section to be applied

### Change of Occupancy:

Change of occupancy classification

### Change of Occupancy:

Change in the purpose or level of activity within a building that involves a change in application of the requirements of this code

### Addition:

Change that increases the area, height or # stories of a building

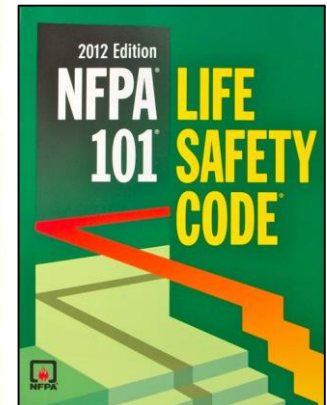
### Addition:

An extension or increase in floor area, number of stories, or height of a building

## 4. Requirements of Categories

Changes made to existing buildings **MUST**  
Meet 2012 Chapter 43 REHAB REQUIREMENTS

Category	Section
1.Repair	43.3
2.Renovation	43.4
3.Modification	43.5
4.Reconstruction	43.6
5.Change Of Use	43.7
6.Change Of Occupancy	43.7
7.Addition	43.8



## CATEGORY

## KEY DEFINING FACTORS

### 1. "Repair":

Defined in: 43.2.2.1.1

Re-furbish surfaces or equipment to keep them in good condition

## LSC, §43.3 CODE REQUIREMENTS (2)

1. Cannot make less conforming than existing
2. Use original or like-materials

## CATEGORY

## KEY DEFINING FACTORS

**2. "Renovation":** Replace building member or equipment  
Defined in: 43.2.2.1.2 without any space reconfiguration

## LSC, §43.4 CODE REQUIREMENTS (6)

1. New work must comply with Existing occupancy
2. Cannot make less conforming (43.4.1.4)
3. Minor reductions in door clear width permitted (43.4.1.5)
4. AHJ can set occupancy loads for existing MoE (43.4.2)
5. New finishes must comply with New occupancy (43.4.3)
6. New equipment must comply with 43.5 ("Modification")(43.4.4)

## CATEGORY

## KEY DEFINING FACTORS

**3.”Modification”:** Any space reconfiguration or added equipment  
Defined in: 43.2.2.1.3

## LSC, §43.5 CODE REQUIREMENTS (5)

1. Work must follow “Renovation”, plus the following (43.5.1.1)
2. New work must comply with New chap (43.5.1.3)
3. If “Modification” >90% of work & “Reconstr” is <10%, apply respective requirements separately
4. If Extensive #1: If work is in entire bldg or occupancy (unless only MEP or structural), must follow “Reconstruction” (43.5.2.1)
5. If Extensive #2: If work > 50% of bldg (unless only MEP or structural), must follow “Reconstruction” (43.5.2.3)



## CATEGORY

## KEY DEFINING FACTORS

**4.Reconstruction:** Any space reconfiguration or added equipment if space must be non-occupied  
Defined in: 43.2.2.1.4

## LSC, §43.6 CODE REQUIREMENTS (4)

1. Work must follow 43.4, 43.5 plus the following (43.6.1.1)
2. Applies only to “Reconstr” portion if mixed with “Modification” work (43.6.1.3)
3. Follow MoE constr of Existing chap, except per below (43.6.2.1)
  - If Reconstr >50% of floor: Follow MoE constr, exit, discharge, signs & lighting of New chap for entire floor (43.6.2.2.3)
  - If Reconstr >50% of bldg: Follow MoE constr, exit, discharge, signs & lighting of New chap (43.6.2.2.3)
  - Tenant spaces outside “Reconstr” follow Existing chap (43.6.2.2.4)
4. Reconstr in small B&C must have fire/smoke barriers (43.6.3)

[continued]

## CATEGORY

## KEY DEFINING FACTORS

**4.Reconstruction:** Any space reconfiguration or added equipment if space must be non-occupied  
Defined in: 43.2.2.1.4

## LSC, §43.6 CODE REQUIREMENTS (10)

5. If Reconstr >50% of bldg, must sprinkle highest “Reconstr” floor & all below (43.6.4.1)
6. If Reconstr >50% of floor, must sprinkle floor (43.6.4.1)
7. Must have standpipes on highest “Reconstr” floor& all below if required by New chap (43.6.4.4)
8. Fire pump not required if highest standpipe in fully spkled bldg can accept 250 gpm @ 65 psi or 500 gpm in non-spkled(43.6.4.6)
9. Provide smoke alarms in guest rms per New chap(43.6.5.1)
10. If a hi-rise & “Reconstr” an entire floor or >20% of bldg, must have at least one elevator

## CATEGORY

## KEY DEFINING FACTORS

**5.Change of Use:** Change of use or purpose (not occupancy) that causes a new code section to be applied  
Defined in: 43.2.2.15

## LSC, §43.7.1 CODE REQUIREMENTS (4)

1. Work must follow 43.3, 43.4, 43.5, & 43.6, as applicable (43.7.1.3)
2. Follow Existing chap of the new use, unless it creates a hazardous space (43.7.1.1)
3. If change creates a Haz space, follow New chap of new use except per below (43.7.1.2)
4. If change creates a Haz space < 250 SF in an existing fully sprinkled Health Care, follow 19.3.2.1 (43.7.1.2)

## CATEGORY

## KEY DEFINING FACTORS

### **6.Change of Occupancy:** Change of occupancy class

Defined in: 43.2.2.16

### **LSC, §43.7.2 CODE REQUIREMENTS (3)**

If change creates a new Hazardous space:

1. If less Haz (except in a new Assembly occup), follow Existing chap of new use & install MEP if required by New chap(43.7.2.1)
2. If less Haz in a new Assembly occup, follow 13.3.2 & install sprklr & alarms per 12.3.2 (43.7.2.2)
3. If more Haz, follow New chap of new use (43.7.2.3)

#### **Hazard Level Category Table (43.7.3)**

1. Highest Haz: Industrial or Storage occup with high haz contents
2. Moderate Haz: Health Care, Detention, Resid. Board & Care
3. Minimal Haz: Assembly, Educ, Day Care, Amb Health, Ordinary Storage, Residential, Mercantile, Business, Gen & Spec-Purpose Industrial
4. Low Haz: Low Haz Industrial or Storage

## CATEGORY

### **7.Addition:**

Defined in: 43.2.2.17

## KEY DEFINING FACTORS

Change that increases the area, height or # stories of a building

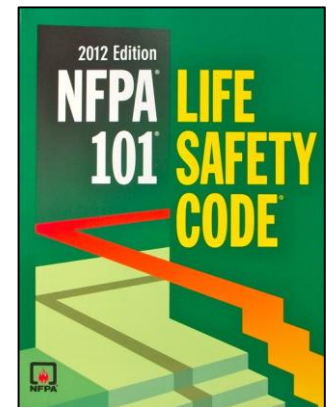
## LSC, §43.8 CODE REQUIREMENTS (7)

1. Existing portions must follow 43.3, 43.4, 43.5, & 43.6, as applicable (43.8.1.3)
2. Existing portions must follow Existing chap of occup (43.8.1.1(2))
3. Existing portions must be sprinkled if not separated from the addition as required by the New chap (48.8.3)
4. New portions must follow New chap of occup (43.8.1.1(1))
5. New portions cannot extend any non-conforming MoE element of the existing portion (43.8.1.2)
6. Height cannot exceed that permitted for constr type in New cap of occup (43.8.2)
7. Provide smoke alarms in guest rooms per New chap (43.8.4)

# 5. Exercises-Requirements

Determine the NEEDED WORK in  
a Rehab Category

Category	Section
1.Repair	43.3
2.Renovation	43.4
3.Modification	43.5
4.Reconstruction	43.6
5.Change Of Use	43.7
6.Change Of Occupancy	43.7
7.Addition	43.8



(Use the “Rehab” Slides # 25-26)

## BACK to Kahoot



Next ▶

**0**  
Answers



**A game-based blended learning platform**



**A classroom engagement tool**



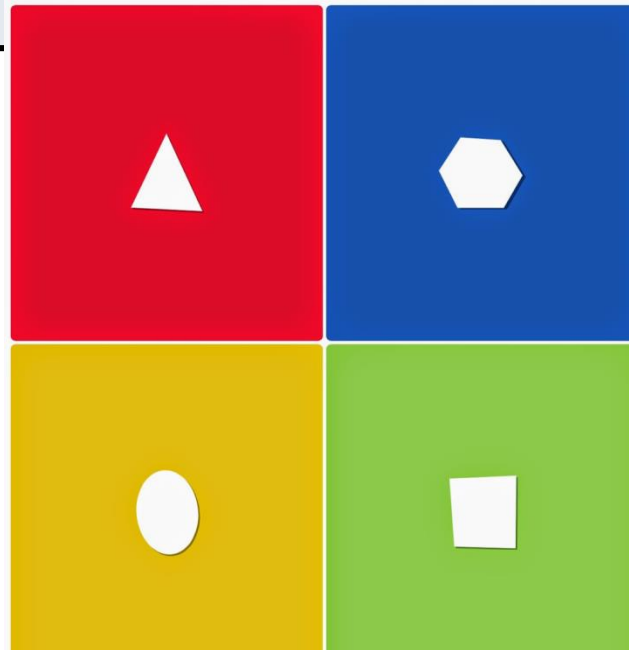
**A place to ask thought provoking questions**



**An audience response system**

1. Enter this PIN #:

2. Make-Up a  
Nickname for your  
group/self



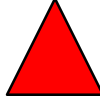
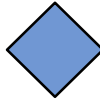
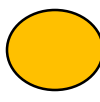



## EXERCISE #2

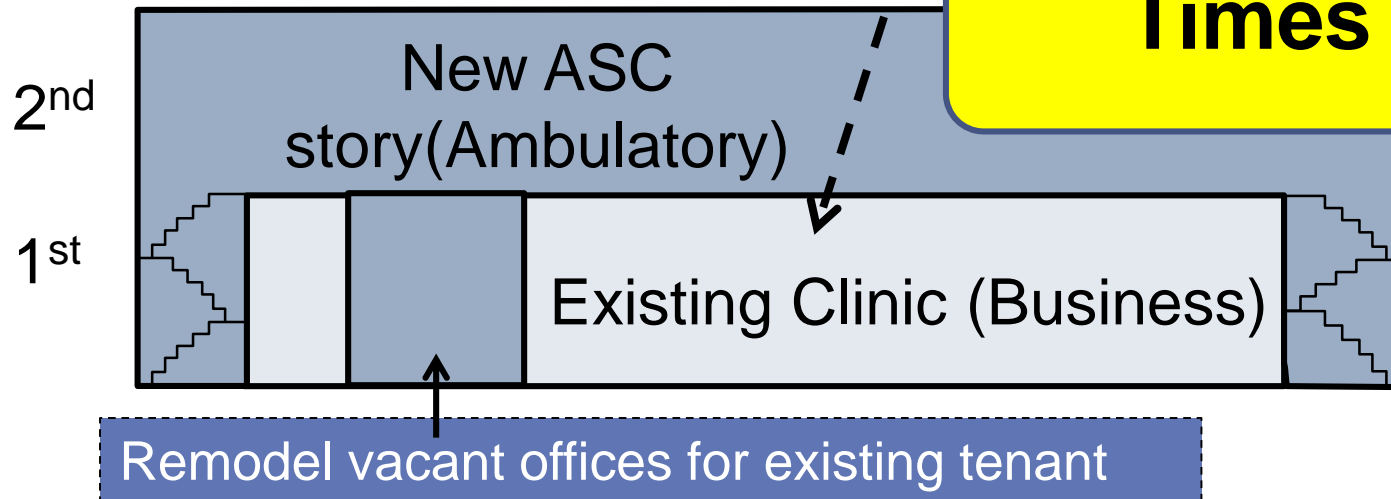
## What Work?

Q7. What LSC Chapter must be followed in the UN-Rehabed portion of the 1<sup>st</sup> floor?

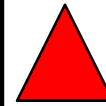
Work in 1<sup>st</sup> Floor Tenant Space: “**Reconstruction**”  
(need to vacate space)

-  1.Chapter 7
-  2.Chapter 8
-  3.Chapter 38
-  4.Chapter 39

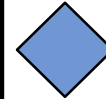
**Times Up**



Q7. What LSC Chapter must be followed in the UN-Rehabed portion of the 1<sup>st</sup> floor?



1. Chapter 7



2. Chapter 8



3. Chapter 38



4. Chapter 39

#### “RECONSTRUCTION” REQUIREMENTS

1. Work must follow 43.4, 43.5 plus the following (43.6.1.1)
2. Applies only to Reconstr portion if mixed with Modif (43.6.1.3)
3. MoE constr per Existing chap, except per below (43.6.2.1)
4. If Reconstr >50% of bldg: MoE constr, exit, discharge, signs & lighting per New chap (43.6.2.2.3)
5. Tenant spaces not in Reconstr follow Existing chap (43.6.2.2.4)
6. Reconstr in small B&C must have fire/smoke barriers (43.6.3)
7. If Reconstr >50% of bldg, must sprinkle all floors (43.6.4.1)
8. If Reconstr >50% of floor, must sprinkle floor (43.6.4.1)

[continued]

## EXERCISE #2

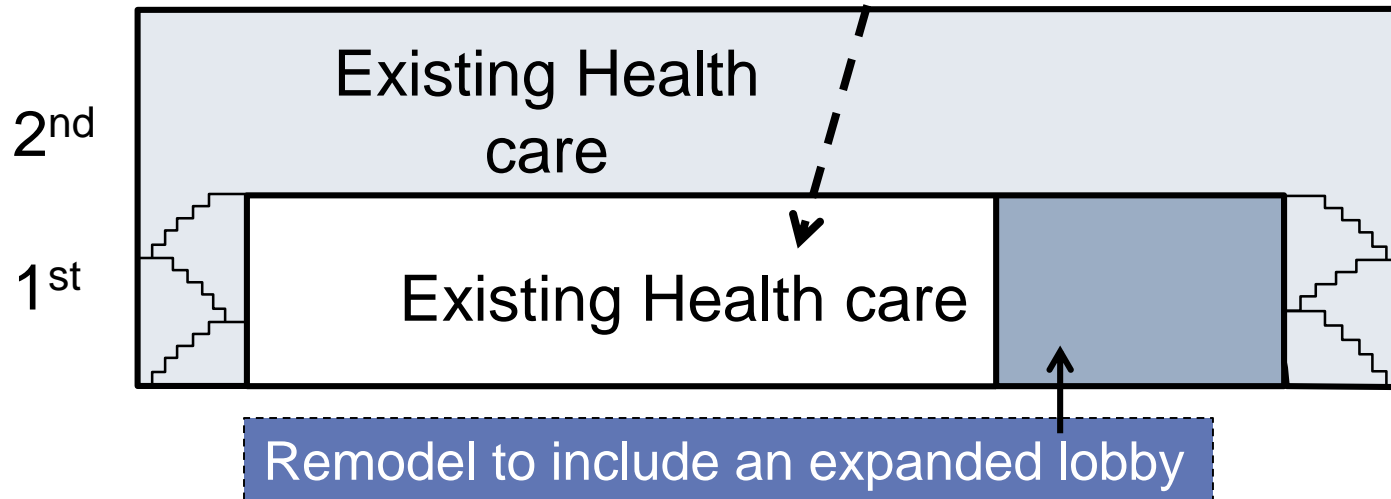
## What Work?

Q8. Does the 1<sup>st</sup> floor need to be sprinkled due to reconstruction?

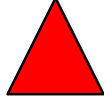

- 1. Yes
- 2. No

Work in 1<sup>st</sup> Floor Tenant Space: “**Reconstruction**”  
(effects exit corridor)

**Times Up**



Q8. Does the 1<sup>st</sup> floor need to be sprinkled due to reconstruction?

-  1. Yes
-  2. No

#### “RECONSTRUCTION” REQUIREMENTS

1. Work must follow 43.4, 43.5 plus the following (43.6.1.1)
2. Applies only to Reconstr portion if mixed with Modif (43.6.1.3)
3. MoE constr per Existing chap, except per below (43.6.2.1)
4. If Reconstr >50% of bldg: MoE constr, exit, discharge, signs & lighting per New chap (43.6.2.2.3)
5. Tenent spaces not in Reconstr per Existing chap (43.6.2.2.4)
6. Reconstr in small B&C must have fire/smoke barriers (43.6.3)
7. If Reconstr >50% of bldg. must sprinkle all floors (43.6.4.1)
8. If Reconstr >50% of floor, must sprinkle floor (43.6.4.1)

## EXERCISE #2

## What Work?

Q9. What code must be followed on the 1<sup>st</sup> floor?

Work in 1<sup>st</sup> Floor Boiler Rm: “**Renovation**”  
(Replacing-no reconfiguring)

Convert SNF to Offices

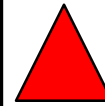
2<sup>nd</sup>

Existing Health care

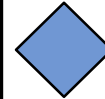
1<sup>st</sup>

Existing Health care

Replace Boiler with same size



1.Chapter 7



2.Chapter 8



3.New-Chap 18



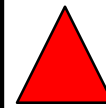
4.Exist-Chap 19

**Times Up**

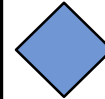
## EXERCISE #2

## What Work?

Q9. What code must be followed on the 1<sup>st</sup> floor?



1.Chapter 7



2.Chapter 8



3.New-Chap 18



4.Exist-Chap 19

### “RENOVATION “REQUIREMENTS

1. Work comply with existing chapter of code
2. Cannot make environment less conforming
3. Minor reductions in clear width of doors are permitted
4. AHJ can reduce occupancy load calc of existing MoE
5. New finishes must comply with new chapter of code
6. Added equipment or extensions of sys must comply as a modification

## EXERCISE #2

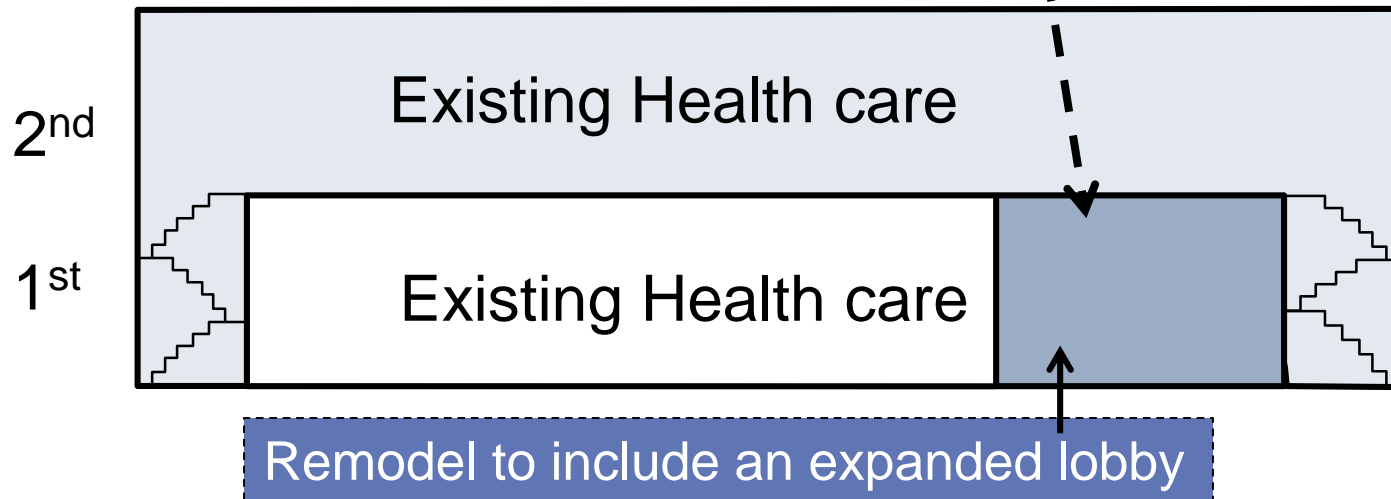
## What Work?

Q10. Do “reconstruction” requirements (43.6) apply on the 1<sup>st</sup> floor?

- ▲ 1. Yes  
● 2. No

Work in 1<sup>st</sup> Floor Lobby:  
**“Change of Use”**  
(some room converted to corridor)

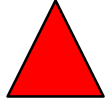

**Times Up**



## EXERCISE #2

## What Work?

Q10. Do “reconstruction” requirements (43.6) apply on the 1<sup>st</sup> floor?

-  1. Yes
-  2. No

### “CHANGE OF USE” REQUIREMENTS

1. Work must comply with 43.3, 43.4, 43.5, 43.6, as applicable
2. Follow the existing chapter of the new use, unless it creates a hazardous space
3. If the change creates a hazardous space, follow the new chapter requirements of the new use, except below:
4. If changes creates a hazardous space <250 SF in an existing fully sprinkled health care, follow 19.3.2.1

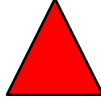
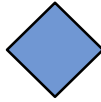
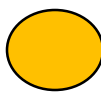



## EXERCISE #2

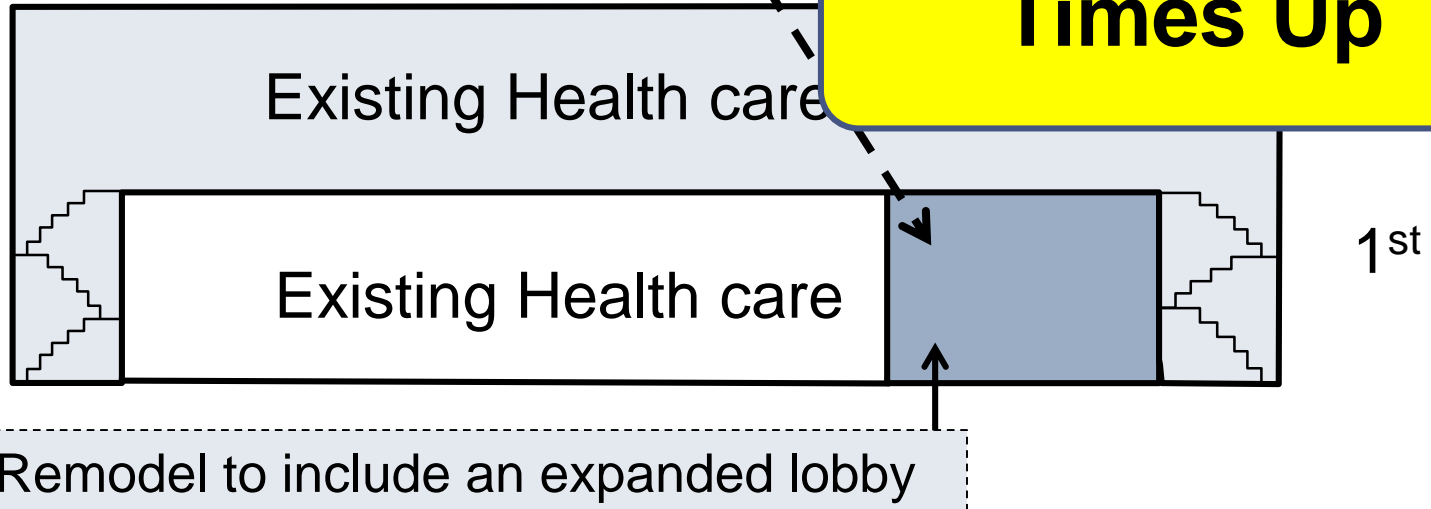
## What Work?

Q11. What code does the new expanded lobby need to follow?

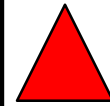
Work in 1<sup>st</sup> Floor Lobby:  
**“Change of Use”**  
(some room converted to corridor)

-  1.New-Chap 12
-  2.Exist-Chap 13
-  3.New-Chap 18
-  4.Exist-Chap 19

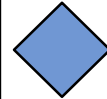
**Times Up**



Q11. What code does the new expanded lobby need to follow?



1.New-Chap 12



2.Exist-Chap 13



3.New-Chap 18

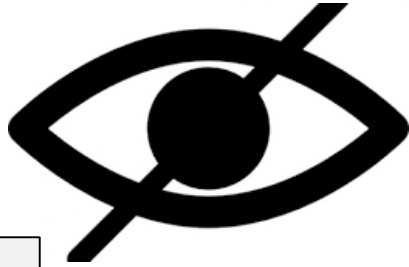


4.Exist-Chap 19

#### “CHANGE OF USE” REQUIREMENTS

1. Work must comply with 43.3, 43.4, 43.5, 43.6, as applicable
2. Follow the existing chapter of the new use, unless it creates a hazardous space
3. If the change creates a hazardous space, follow the new chapter requirements of the new use, except below:
4. If changes creates a hazardous space <250 SF in an existing fully sprinkled health care, follow 19.3.2.1

We'd like YOUR opinion on using Kahoot  
(since we can't hear or see you)

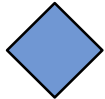


Results:

**Times Up**



Don't use at all



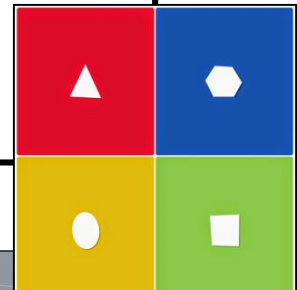
Use only a little; Too much was used



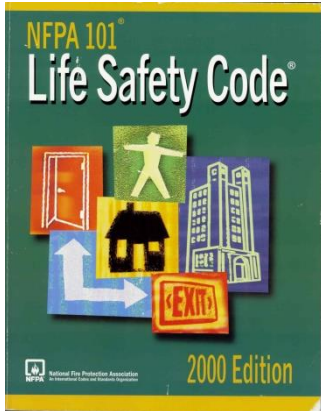
Used just the right amount



Can use more; Stimulates discussion  
& understanding; like feedback on  
"wrong" answers



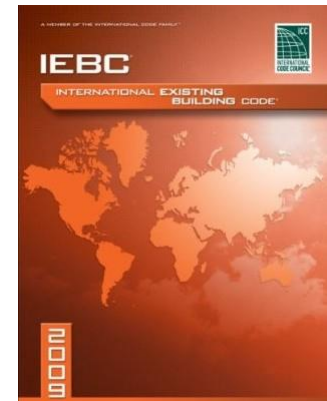
## 7. Plan Submittals



### Hick-Up:

Wisconsin still has NOT adopted the 2012 LSC for plan review purposes & the 2000 LSC doesn't contain Chapter 43

Therefore, Chapter 43 has no current authority in Wis and **ONLY** the IEBC rules apply



## WAIVER TO REVIEW PLANS UNDER 2012 LSC

Until Wis adopts the 2012 LSC a waiver may be granted to have contract documents reviewed under the 2012 LSC.

Facility may submit the request for a waiver to [DHSWebmailDQA@dhs.wisconsin.gov](mailto:DHSWebmailDQA@dhs.wisconsin.gov)(link sends e-mail)

### Include the following:

- The rule from which the waiver is requested  
(DHS 124.28; DHS 132.82)
- The reason for the request
- Justification that the waiver will not adversely affect the health, safety or welfare of any patient or resident

DEPARTMENT OF HEALTH SERVICES  
Division of Quality Assurance  
F-62333 (10/2015)

STATE OF WISCONSIN  
Wis. Stat. §§ 50.02(2)(b)1 and 50.36(2)(a)  
Page 1 of 6

## PLAN APPROVAL APPLICATION

### INSTRUCTIONS

#### GENERAL

- Hospitals and nursing homes use this form. Attached structures also use this form.
- Free-standing CBRFs must use DQA form F-62496, *Free-standing CBRF Plan Approval Application*.
- DQA Contact Information  
Telephone: 608-264-7748  
Email: [dhsdqaplanreview@dhs.wisconsin.gov](mailto:dhsdqaplanreview@dhs.wisconsin.gov)  
Website: [http://dhs.wisconsin.gov/ir\\_dsl/planreview/index.htm](http://dhs.wisconsin.gov/ir_dsl/planreview/index.htm)

#### SUBMISSION OF MATERIALS AND FEES

##### Materials to be Submitted

- ☐ ORIGINAL, completed DQA form F-62333, *Plan Approval Application*
- ☐ Fee that reflects the current scope of work
- ☐ ONE (1) bound set of plans with the drawing index sheet bearing the required signature and seals
- ☐ Three (3) additional copies of the index sheet bearing the required signature and seals
- ☐ ONE (1) bound set of specifications and calculations bearing the required signature and seals
- ☐ ONE Interim Life Safety Plan

##### Permission to Start

- ☐ Include DQA form, F-62457, *Request for Permission to Start Construction for Footings and Foundation*, and additional fee (\$80).

##### Fees

- ☐ Make check payable to: Division of Quality Assurance or DQA
- ☐ A separate fee and application must be submitted for each building/project. See fee tables on page 4.

##### Signatures

- ☐ All signatures must be ORIGINAL. Stamped or electronic signatures are not acceptable.
- ☐ Section 8 must contain the signature of the owner.

##### Submission Locations

- ☐ ALL MATERIALS MUST BE SUBMITTED TO ONE OF THE ADDRESSES LISTED BELOW. Sending materials to other DQA regional offices will delay the plan review process.

Although project plans may be submitted to either address listed below, it is more expedient for projects in the southeastern part of the state (Kenosha, Milwaukee, Ozaukee, Racine, Washington, Waukesha counties) to be submitted to the Milwaukee Office.

MADISON Mailing Address	MILWAUKEE Mailing Address
Division of Quality Assurance Plan Review Intake PO Box 2969 / 1 West Wilson Street Madison, WI 53701-2969	Division of Quality Assurance / SERO Plan Review Intake 819 North 6 <sup>th</sup> Street / Room 609B Milwaukee, WI 53203-1606

Use the most  
current edition of  
the form  
(10/2015)

Available on-line  
Just Google:  
“DQA Construction”

**Repair – NO Submittal**

**Project Description**

(Describe Rehabilitation in terms of Chap 43 & IEBC)

Project Description

Design Firm Project No.

## 2. SUBMITTAL REQUEST

A. TYPE OF PROJECT (Check all that apply)

- ☐ New Building   
 ☐ Alteration - Level: ☐ 1 ☐ 2 ☐ 3   
 ☐ New Addition   
 ☐ Use Change  
☐ Other (Specify)

B. TYPE OF REVIEW(S) REQUESTED (Check all work that is included in this application.)

1. ☐ Building   
 4. ☐ Fire Alarm System   
 7. ☐ Nurse Call System  
 8. ☐ Structural Elements

Renovation

Modification

Reconstruction

Addition

Change of Use

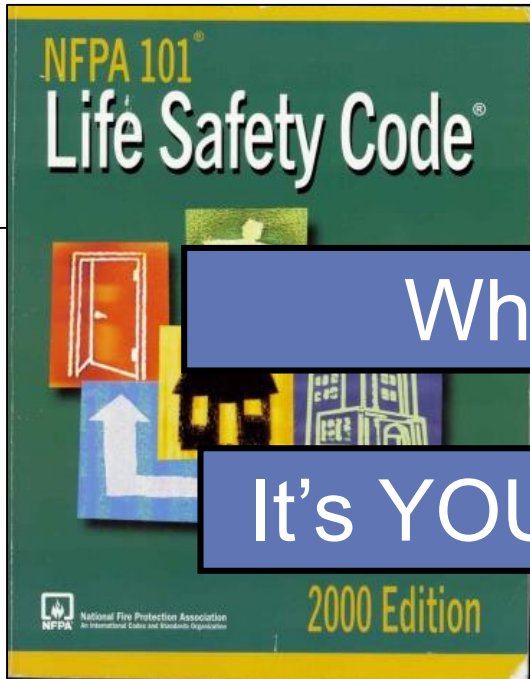
Change of Occupancy

### DESIGNERS:

Describe on plan submittal the title of BOTH the IEBC CATEGORIES & LSC CATEGORIES

DON'T make the reviewer guess

- Check IEBC Category
- Write-in NFPA Category



When “Rehabilitating”

It’s YOUR Choice which to use

A. TYPE OF PROJECT (Check all that apply.)

- ☐ New Building   
 ☐ Alteration - Level: ☐ 1 ☐ 2 ☐ 3   
 ☐ New Addition   
 ☐ Use Change  
☐ Other

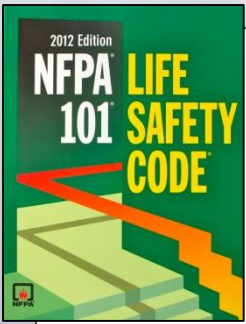
(Specify)

B. TYPE OF REVIEW(S) REQUESTED (Check all work that is included in this application.)

- |  |   |  |
|--|---|--|
| 1. <input type="checkbox"/> Building         | 4. <input type="checkbox"/> Fire Alarm System           | 7. <input type="checkbox"/> Nurse Call System      |
| 2. <input type="checkbox"/> HVAC             | 5. <input type="checkbox"/> Fire Sprinkler System       | 8. <input type="checkbox"/> Structural Elements    |
| 3. <input type="checkbox"/> Lighting         | 6. <input type="checkbox"/> Essential Electrical System | 9. <input type="checkbox"/> Footing and Foundation |
| 10. <input type="checkbox"/> Other (Specify) |   |  |

But FOLLOW one of them !





## Building Rehabilitation

1. Chapter 43 Overview
2. Rehabilitation Categories
3. Exercises – Categories
4. Comparison: LSC 43 & IEBC
5. Requirements of Categories
6. Exercises – Requirements
7. Plan Submittals

