Building Consistency Meeting Minutes – 1.3.17 COMMERCIAL

Public Attendance (Contractors, Architects, Engineers): 10
MCCE Staff Attendance: 37

Overview of Today's Agenda

- Today's agenda items: 7 recap, 4 new.
- Today's training topic – ESR's & Significant Changes to the 2015 IBC.

Welcome, Housekeeping, & Customer Service

- Mecklenburg County Code Enforcement is abbreviated as MCCE throughout the minutes.
- Consistency meetings in all trades have adopted a 4-hour format with 2-hours for consistency items and 2-hours allotted for ISO & CE. With regard to staff ISO hours, these meetings & trainings are able to be counted as Technical or Mentoring ISO time if one chooses, but any portion of time counted as one ISO category could not also be counted as any other category. Trade consistency meetings are scheduled as follows:
    - Building Consistency (Comm) – 1st Tuesday of every month @ 8am.
    - Building Consistency (Res) – 1st Wednesday of every month @ 8am.
    - Electrical Consistency – 2nd Wednesday of every month @ 8am.
    - Mechanical Consistency – last Tuesday of every month @ 8am.
    - Plumbing Consistency – last Wednesday of every month @ 8am.
- Reminder of deadline established for topic/question submissions to building consistency team:
    - Third Wednesday of every month.
    - Deadline set to allow team time to research/explain code logic behind decisions.
    - Submit by email to Jeff Vernon, Bldg Code Administrator jeff.vernon@mecklenburgcountync.gov
    - Submit online: http://charmeck.org/mecklenburg/county/LUESA/CodeEnforcement/Tools/Forms/Pages/ConsisTopicSubmit.aspx
- 2017 Calendar of Building Consistency Meetings:

Commercial	Residential
Jan 3	Jan 4
Feb 7	Feb 1
Mar 7 - cancelled (LUESA Day)	Mar 1
Apr 4	Apr 5
May 2	May 3
June 6	June 7
July 4 – cancelled (Holiday)	July 5
Aug 1	Aug 2
Sep 5	Sep 6
Oct 3	Oct 4
Nov 7	Nov 1
Dec 5 – Product Fair	Dec 6 – Product Fair

- Training topics for future building consistency meetings, Comm (C) & Res (R). Topics in **bold** are approved to count toward CE credit hours; all topics count toward ISO hours.
    - Feb 1 - (R) – No training due to Inspector work loads
    - **Feb 7 - (C) – Accessibility Q & A (Laurel Wright, NC DOI)**
    - **Mar 1 - (R) – Deck Construction (Jeff Griffin, Code Enforcement Mgr.)**

- Mar 7 - (C) – Meeting cancelled due to conflict w/ LUESA University for staff
- **Apr 4 - (C) – Magtech (David Markle, Product Rep for Magtech & Thermocrete)**
- Apr 5 - (R) – Wall Bracing (Patrick Biddy, Plans Examiner)

- NCBIA Winter Code Seminars:
  - Building
    - 1.23.2017 – Greenville
    - 2.20.2017 – Aberdeen
    - 3.13.2017 – Wake County (Bldg Only)
    - 3.27.2017 – Hickory
  - Mechanical
    - 1.24.2017 – Greenville
    - 2.21.2017 – Aberdeen
    - 3.28.2017 – Hickory
  - Plumbing
    - 1.25.2017 – Greenville
    - 2.22.2017 – Aberdeen
    - 3.29.2017 – Hickory
  - Electrical
    - 1.26.2017 – Greenville
    - 2.23.2017 – Aberdeen
    - 3.30.2017 – Hickory
- Building code qualification classes at CPCC
  - 2017 Jan 27-29; Feb 18 & 19 – Level III
  - 2017 Mar 24-26; Apr 8 & 9 – Level II
  - 2017 April 28-30; May 12-14 – Level I
  - 2017 July 21-23; Aug 5 & 6 – Level III
  - 2017 Sep 22-24; Oct 7 & 8 – Level II
  - 2017 Nov 17-19; Dec 1-3 – Level I
- Joelle Jeffcoat, Architect & Attorney, will be returning for four sessions of Legal training in Jan. The training will be in two 6-hr blocks that all count toward the Legal category of ISO time for staff. Each block can also be used as 6-hrs of CE credit for any of the five trades.

Commercial Consistency (7 review items, 4 new items) – 2hrs of Tech ISO

1. **Items skipped due to time limits, open items, or unresolved questions from last meeting:**
   a. **Will a ½" curb be an allowable method of compliance with 3008.10 for the prevention of water intrusion into the hoistway of an Occupancy Self-Evacuation Elevator?**
   - Each situation must be taken on a case-by-case basis, and calculations must be submitted to show the floor will hold the accumulation of water (ponding) produced by sprinkler heads in the vicinity of the elevator. This would be similar to a ponding calculation for a low-slope roof and would need to take into consideration the number of sprinkler heads in the vicinity of this elevator, the flow rate on the heads and the amount of time they would be expected to discharge. The resultant weight of the water on the floor must be accounted for in the structural calculations for the floor.

   b. **When do we issue NOV's on existing buildings?**
   - Whenever the structure does not meet either:
     - The Code under which it was constructed/renovated OR
     - The current Bldg Code
   - Whenever dealing with pre-1978 high rise buildings that were never brought up to GS 143-138 section (i) per 101.10 in the 2015 NC Existing Bldg Code.
   - **Note**: the following interpretations from the 2006 & 2009 NC Rehab Code were also referenced, after vetting with Melanie Butler of NCDOI, that they are still applicable (see attached):
     - 2006 – NC Rehab Code *1.2 Applicability – Existing Buildings and the Code*

- 2009 – NC Rehab Code 1.2(f) *Applicability of NC Rehab Code to Existing Structures Not Code Compliant*

c. **What type of signage is required to be tactile (directional vs. other)?**

- This item is deferred to February and Laurel Wright's presentation on Accessibility.

d. **When do we use the Energy Code in an existing building?**

- This item will be included in a future consistency mtg after staff receives NC Exist Bldg Code training from John Gibson with ICC, which is scheduled in February.

e. **Who is the contact for asbestos and / or lead abatement?**

- Asbestos & lead abatement are governed by the Division of Public Health under the NC Dept of Health & Human Services (NC DHHS). Use the following links:
  - Asbestos - http://epi.publichealth.nc.gov/asbestos/demolition.html
  - Asbestos brochure - http://epi.publichealth.nc.gov/asbestos/pdf/demolition_renovation_requirements.pdf
  - Lead - http://epi.publichealth.nc.gov/lead/abatement.html

f. **What constitutes a private toilet room? (1109.2, exception #1)**

- This was discussed in the Nov mtg, and the answer was: A toilet room that can **only be accessed directly** from a private office and not through a common corridor or common room is considered a private toilet room.
- This issue came up again to provide further background into what inspired the question. The project was the renovation of a Judge's suite of offices, which included a toilet room that could be accessed from an adjoining room as well as from a corridor that was within the suite of offices. Based on this, the toilet room did not meet the wording of the exception and so it was required to be made accessible.

g. **What are approved configurations of intersecting walls?**

- This issue was revisited, and had been covered in the Oct 2014 Building Consistency Meeting Minutes w/ example details.
- The membrane of the higher rated wall must be continued behind the intersecting wall OR the intersection of the two walls must be fully blocked with a stud pack.
- This issue will be addressed again in an upcoming training on Type III construction.

2. Are rated tenant demising walls required when using footnote f. to Table 1018.1 in a sprinklered building?

   No. The intent of the footnote is to allow non-rated corridors in non-sprinklered buildings when the conditions of the footnote are met. If the building has sprinklers, the table allows for a 0 rating in a B occupancy.

TABLE 1018.1
CORRIDOR FIRE-RESISTANCE RATING[e]

OCCUPANCY	OCCUPANT LOAD SERVED BY CORRIDOR	REQUIRED FIRE-RESISTANCE RATING (hours)	
		Without sprinkler system	With sprinkler system[c]
H-1, H-2, H-3	All	Not Permitted	1
H-4, H-5	Greater than 30	Not Permitted	1
A, B[f], E[d], F, M, S, U	Greater than 30	1	0
R	Greater than 10	Not Permitted	0.5
I-2[a], I-4	All	Not Permitted	0
I-1, I-3	All	Not Permitted	1[b]

a. For requirements for occupancies in Group I-2, see Sections 407.2 and 407.3.
b. For a reduction in the fire-resistance rating for occupancies in Group I-3, see Section 408.8.
c. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 where allowed.
d. Adult and child day care facilities without *automatic sprinkler systems* shall have 1-hour fire-resistance-rated corridors regardless of occupant load.
e. For requirements for residential care facilities, see Section 425.
f. Exit access corridors are not required to be rated on any single tenant floor or in any single tenant space, when 1-hour fire-resistance-rated tenant demising walls are provided between all tenant spaces and 1-hour fire-resistance-rated floor/ceiling assemblies are provided in multistory buildings.

2012 NORTH CAROLINA BUILDING CODE **239**

3. What types and configurations of walls are required for the following separations?
   a. At Exterior fire walls: Reviewing the requirements from Table 601 and their application to the primary structural frame and / or load-bearing walls of a structure helps to clarify the functionality of exterior walls and the continuity required based on their function
      - Primary Structural Frame (see definition in Chp 2 of the 2012 NCBC)
        - Consists of the columns and any structural members (floors, roof, bracing) connected to them.
        - Can be viewed as a type of Post & Beam system with everything else being infill.
        - Because of this, only the columns and elements connected to them need to be rated unless there is a fire separation distance issue.
      - Load-bearing Wall
        - Will have top plates to distribute the load along the wall.
        - If exposed to the weather, it is an exterior wall & will need to be rated accordingly.
        - If there is a fire separation distance issue (e.g. at a framed wall that extends higher than an adjoining Fire Wall formed by shaft liners) it will need to be rated for fire exposure from both sides.
   b. Fire Area in general
      - Fire areas are defined by exterior walls, Fire Walls, and/or Fire Barriers.
      - Fire Walls (section 706 of 2012 NCBC)
        - Separate a bldg into "separate bldgs" with respect to code req'mts.
        - Are structurally independent. (706.2)
        - Rated from 2-4 hours. (706.4)
        - Built continuous from foundation to roof, exterior wall to exterior wall, and typically required to extend a set distance beyond the exterior surface of the bldg. (706.5 & 706.6)

- Fire Barriers (section 707 of 2012 NCBC)
  - Separate Fire Areas & Occupancies within a bldg.
  - Used to form various egress components. (707.3)
  - Rated from 1-4 hours. (707.3)
  - Built continuous from top of foundation or floor assembly to underside of roof or floor sheathing above; all supporting construction shall be constructed with the same rating as the fire barrier it supports. (707.5)
- Discussion followed as to whether fire barriers would be sufficient to separate non-sprinklered occupancies from a Residential occupancy. According to Code and the Commentary for 903.2.8, buildings housing Residential occupancies must be sprinklered throughout, including in any non-Residential occupancies within the same building. Therefore, if a non-sprinklered occupancy is to be included in a building with a Residential occupancy, it must be separated out with fire walls, not fire barriers OR the other occupancy must be sprinklered.

c. Churches (for sprinkler exception)
- It was stated that the exceptions in section 903.2.1.3 of 2012 NCBC are based on the lack of water supply and/or water pressure to rural churches. This has been applied fairly liberally in the past since there is no specific code language to indicate where the separation has to be. However, the location of the fire separation must make sense and serve some purpose.

4. **Where is the Horizontal Exit required to be situated to use the exemption for the elevator to be on standby power? (1007.2.1, exception #1)**
   a. The Horizontal Exit is there to serve as a pathway to another area of the building in order to provide an additional level of protection from the hazard event if the elevator is not accessible. Therefore, the HE must be situated in proximity to the elevator so that once someone has determined the elevator is not a viable egress choice, they can go through the HE to get to safety.
   b. If the HE is designed to protect someone at the elevator who is using the two-way communication device to call for help, then it shall be located where it will provide that protection.

5. **Is a crematory the same as an incinerator?**
   Yes and no. They are the same in principle, but not in typical operation, therefore it does not need to be separated out exactly like an incinerator does. Crematories shall have sprinkler protection OR be separated from adjacent construction with a 2-hr fire barrier, but they will not require both, as is the req'mt for incinerator rooms per Table 508.2.5 of the 2012 NC Bldg Code.

6. **Questions / clarifications / comments from the floor:** None.

Training Topic – Evaluation Service Reports (ESR's) & Significant Changes to the 2015 IBC – 2hrs of Technical ISO

- Presenter: Michael Gardner & Vaughn Wicker, ICC
- Total in attendance:
  - 34 – MCCE staff
  - 5 – from outside MCCE

NC Department of Insurance
Office of the State Fire Marshal - Engineering Division
1202 Mail Service Center, Raleigh, NC 27699-1202
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Existing Buildings and the Code

Code: 2006 NC Rehabilitation Code **Date:** July 1, 2009
Section: 1.2 Applicability

Note: These questions and proposed interpretations are intended to apply to existing buildings which have previously been legally occupied or portions thereof. Nothing in these interpretations should be construed to prevent the local Authority Having Jurisdiction (AHJ) from requiring mitigation of conditions posing an imminent life safety hazard. See the concluding definition.

Question 1:
For building constructed before 1936, if no work is proposed, may the code official require compliance with the current building code?

Answer 1:
Buildings constructed prior to 1936 may have no continuing conditions such that the local AHJ considers these conditions to be an imminent life safety hazard.
To be determined by inspection for compliance with Chapter 1 of the NC Fire Prevention Code.

Question 2:
For buildings constructed during or after 1936, if no work is proposed, may the code official apply requirements of the current code to the building (require compliance with a new code, even though there is no work)?

Answer 2:
Structures must comply with the code under which they were constructed. An owner's team must be prepared to verify compliance, especially regarding deficiencies with respect to the original code, posing an imminent life safety hazard, which must be mitigated. The local AHJ may not apply later code requirements to the building if there is no new scope of work proposed.
To be determined by inspection for compliance with Chapter 1 of the NC Fire Prevention Code.

Question 3:
For all existing buildings, if a project is proposed with a defined work area, may the code official apply requirements of the current code to the building outside the defined work area (require compliance with a new code in parts of the building where there is no work)?

Answer 3:
Structures must comply with the code under which they were constructed. An owner's team must be prepared to verify compliance. Deficiencies with respect to the original code, posing an imminent life safety hazard must be mitigated. Existing structures undergoing renovation work will clearly identify the work area, and apply any of the following codes to that part of the structure, only:

- The current building code (2009 NC Building Code family for example)
- Chapter 34 and applicable portions of the current NC Building Code
- NC Existing Building Code, Volume IX and Chapter 34 of the current NC Building Code
- The NC Rehabilitation Code and applicable portions of the current NC Building Code

On any of above, portions of the building beyond the intended scope of work in the defined work area may be affected also (means of egress continuity, structural load due to new use, etc.). Further, projects in existing buildings will adhere to the disproportionality requirements/limits of the current version of the NC Accessibility Code.

Imminent life safety hazard definition: with regard to this interpretation, the definition of "imminent life safety hazard" will be as follows. Any built condition (including MEP systems) which will expose occupants to a danger, harm or delay in means of egress, such that it is likely their lives will be at risk at any moment.

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Applicability of the Rehab Code to Existing Structures Not Code Compliant

Code: 2009 NC Rehabilitation Code **Date:** October 10, 2011
Section: 1.2(f)

Question:
Can the NC Rehabilitation Code (NCRC) be used for projects in existing buildings where the existing building is not compliant with the codes under which it was originally constructed and renovated?

Answer:
Yes, under the following conditions:

1. Per Section 101.3.6 of the 2009 NC Administrative Code and Policies existing hazards or unsafe condition can be corrected using the NCRC, and it is at the code official's discretion as to the extent of upgrade required to abate the hazard or unsafe condition. An existing code violation shall be considered a "hazard or unsafe condition" as it relates to Section 101.3.6 if it is an imminent safety to life hazard or causes a delay in means of egress.
2. Other repairs, renovations, alterations, reconstruction, or additions can be performed using the NCRC whether the existing code violations are corrected using the NCRC, the Existing Buildings Code, or the technical codes.

Notes:

1. This interpretation does not include buildings that are exempted from code compliance by either the codes themselves or by General Statutes.
2. Also see General Statute 143-138(i) concerning special safety to life requirements applicable to existing high-rise buildings.
3. This interpretation is not intended to require the local inspection department to assess the structure involved for full compliance with the code under which it was constructed and renovated. It is the responsibility of the permit holder to provide evidence with the application for permit confirming that the building meets this requirement. Evidence of conformation is at the discretion of the inspection department.

Code Reference:

2009 NC Administrative Code and Policies

> ***101.3.6 Existing Buildings.*** *Additions, alterations, repairs, replacement, rehabilitations or changes of occupancy shall be permitted to any existing structure or service system without requiring the existing systems to comply with all the requirements of the current Building Codes. All new work shall conform to the requirements of the technical codes for new construction except as modified by either the Existing Buildings Code or the Rehabilitation Code. For any portion of an existing building or service system which creates a hazard or unsafe condition, the code enforcement official shall determine the extent to which that portion of the existing building or service system is to be upgraded to conform to the requirements of either the Existing Buildings Code, the Rehabilitation Code, or the technical codes.*