2017 Update on Construction Codes and Regulations

Mark Krueger and Brian Tognetti
Wiss, Janney, Elstner Associates, Inc.
Here are the questions we plan to answer

- Who are we?
- Why should you care about building codes?
- Where are we currently at in the code cycle?
- How do construction codes affect my day-to-day property management?
- How can you become involved in building code and regulatory changes?
Who are we?

Mark Krueger  
Principal

Brian Tognetti  
Associate Principal

Wiss, Janney, Elstner Associates, Inc.  
30700 Telegraph Road, Suite 3580  
Bingham Farms, MI 48025  
(248) 593-0900 | www.wje.com
Why should I care about building codes?

- $70,000 per building in annual construction costs avoided through BOMA’s successful introduction of cost effective design options for existing buildings
- Avoid costly surprises and over-reaching building departments
- Be aware of your options for code compliance
- Your continued support will help to duplicate BOMA’s recent success in defeating code changes that would have caused more than $3.50 per square foot of additional retrofit costs
Where are we currently at in the code cycle?
Codes 101

- Model building codes **developed** through consensus by the International Codes Council
  - 3 year development cycle for ICC model codes
  - BOMA International influences this process

- State of Michigan **adopts** model codes
  - One set of construction codes (building, plumbing, mechanical, electrical, energy) apply **throughout the state**
  - BOMA of Metro Detroit can influence this process!
Code Development

- ICC Code Changes in Committee & Hearing
- Online Voting of Floor Motions
- Public Comment & Hearing
- Online Final Ballot
- New ICC Edition Published

Code Adoption

- New Michigan Code (Rules) Becomes Effective
- Public Comment on proposed Rules
- LARA Director assembles and publishes rules
- Committee reviews ICC Code changes and public code change proposals
- State BCC appoints ad-hoc Code Review Committee
<table>
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<tr>
<th>Code</th>
<th>Effective Date</th>
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<td>2014 Electrical Code</td>
<td>June 18, 2015</td>
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<tr>
<td>2015 Residential Code</td>
<td>February 8, 2016</td>
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<td>2015 Existing Building Code</td>
<td>December 13, 2016</td>
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<td>2015 Mechanical Code</td>
<td>April 12, 2017</td>
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<td>2018 construction codes</td>
<td>??? (2020?)</td>
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<tr>
<td>2021 Residential Code</td>
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How do construction codes affect my day-to-day property management?

(maintenance/repairs, tenant buildouts, other)
Options for Code Compliance?

- Think differently...
- The requirements for existing structures (formerly Chapter 34) have been removed from the 2015 Michigan Building Code.
- All existing construction requirements are now in the 2015 Michigan Rehabilitation Code for Existing Buildings.
Options for Code Compliance?

New Building “Code World” MBC

Existing Building “Code World” MRCEB
Options for Code Compliance?

- **New Commercial Buildings:** No options
  - MBC

- **Existing Commercial Buildings:** Four options
  - MBC
  - MRCEB (prescriptive method)
  - **MRCEB (work area method)**
  - MRCEB (performance method)
MRCEB - General Info

- **Cascading Philosophy**
  - The more you ‘change’ the existing conditions, the more upgrades required...

  - **Repairs**: Typically are performed to maintain the integrity of something, therefore, no substantial risk is created since the previously accepted condition is simply being restored or otherwise ‘maintained’

  - **Alterations**: Depending on the amount of ‘change’, little to substantial risk can be created by the ‘change’ due to the new conditions that did not previously exist.

  - **Change of Occupancy**: Substantial risk can be created by changing the level of activity or use of a space since what may have been safe previously, may not be true anymore
Section 101.3 Intent

The intent of the MRCEB is “...to provide flexibility to permit the use of alternative approaches to achieve compliance with minimum requirements to safeguard the public health, safety and welfare insofar as they are affected by the repair, alteration, change of occupancy, addition and relocation of existing buildings.”
MRCEB - In Action...

- Example projects:
  - Maintenance & repairs
  - Tenant build-outs *(alterations – minor v major)*
  - Tenant build-outs (change of occupancy)
  - Additions
**Main Philosophy:**

- Recreate conditions that existed prior to damage to maintain same use, purpose, function and configuration
- Don’t make the building less conforming than it was prior to the work (i.e., at a minimum, maintain the level of protections provided)
- Can use like materials or new materials per MBC

**Summary:**

- **No** ‘changes’ required for 1) fire protection, 2) means of egress, 3) accessibility and 4) energy
- **Very little** ‘change’ required for MEP
- **Could have significant** ‘change’ required to structure (SSD)
Auto-dealership built in 1976
Two-stories, 20,000+/- sqft footprint
Fire on 2nd floor in July 2014
**Fire damage:** 2nd flr, limited 1st flr, roof’g
**Soot/smoke damage:** 1st floor areas
Developed ‘repair’ drawings
based, in part, on Ch. 6 “Repairs”
MRCEB – Maintenance & Repairs
4. FIRE PROTECTION FEATURES AND FIRE-RATED CONSTRUCTION:

A. "NON-SPRINKLERED BUILDING" (REF: 2012 IEBC SECTION 603 AND 703 REGARDING "MAINTAINING LEVEL OF FIRE PROTECTION PROVIDED," THEREFORE, NO "NEW" SPRINKLER SYSTEM IS REQUIRED TO BE ADDED IF NONE EXISTED PRIOR). ALSO, SINCE THE EXTENT OF THE LEVEL 2 ALTERATIONS (I.E., WORK AREA) DOES NOT EXCEED 50% OF THE FLOOR AREA, NO "NEW" SPRINKLER SYSTEM IS REQUIRED TO BE ADDED (REF: 2012 IEBC SECTION 804.2.2).

6. ACCESSIBILITY:

A. PER 2012 IEBC SECTION 605, THE REPAIR WORK SHALL BE DONE TO "MAINTAIN THE LEVEL OF ACCESSIBILITY PROVIDED" AND THE LEVEL OF ACCESSIBILITY SHALL NOT BE REDUCED.
MRCEB – Alterations

- **Main Philosophy:**
  - Builds upon requirements for ‘repairs’, with a **targeted approach focused** on the project’s ‘**work areas**’ (reconfigured spaces).
  - All new construction elements, components, systems and spaces to comply with MBC
  - Cascading requirements for ‘minor’ (Level 1) v ‘major’ (Levels 2 or 3) alterations

- **Summary for ‘Minor’ (Level 1) Alterations:**
  - **Some changes** for Energy and Accessibility (**update only what you touch**); all else same as ‘repairs’.
MRCEB – Alterations

**Summary for ‘Major’ Alterations (Levels 2 or 3):**

- **Some** ‘change’ may be required to improve vertical openings and passive fire control systems (add fire-rated enclosures, add guards, improve finish ratings)
- **Some** ‘change’ may be required to add fire protection (sprinkler and/or and fire alarm systems)
- **Some** ‘change’ may be required to improve means of egress systems (add exits, add or manipulate doors, modify corridor openings and dead-ends, improve egress lighting/signage, improve handrail/guard conditions in stairways)
- **Some more extensive** ‘change’ for accessibility beyond ‘work area’ (improve entrance, improve or add toilet room, potentially add accessible route – primary function trigger)
Summary for ‘Major’ Alterations (Levels 2 or 3):

- **Some** ‘change’ may be required to the structural systems (gravity and lateral) and design generally needs to comply with MBC req’s
- **Some more extensive** ‘change’ for MEP (changing existing wiring for ‘A’, ‘H’ and ‘I’ uses, OCPDs and additional outlets for most ‘R’ uses, CFM and exhaust req’s for mechanicals, add plumbing fixtures if occupant load increased by 20 percent)
- **Required** ‘change’ for energy req’s (what touched)
MRCEB – Alterations

- Church built in late 1950s
- Two-stories, 14,500+/- sq ft footprint
- Fire during mechanical upgrade in Oct 2013
- **Fire damage:** roof/attic, 2\textsuperscript{nd}/1\textsuperscript{st} floor portions
- **Soot/smoke/water damage:** remaining areas
- Congregation wanted to ‘change’ things (i.e., increase kitchen size, increase gymnasium, add/relocate office space)
- **Ch. 8 “Alteration Level 2”** was appropriate and worked with Pastor to ‘limit’ extent of changes

*to avoid Alteration Level 3* reqs
MRCEB – Alterations
MRCEB – Alterations

FIRST BAPTIST CHURCH
PHASE 2 - REPAIRS TO SOUTHERN PORTION
2400 COOLLIDGE HWY
Oak Park, MI 48237

EXIT CAPACITY
55 IN = 0.2 IN/OCC = 275 OCCUPANTS

FIRE EXTINGUISHER
(WALL MOUNTED - TYPE)

EXTENT OF DESIGNATED "WORK AREA"
TO WHICH 2009 MRCEB CHAPTER 7
REQUIREMENTS APPLY

FOYER

NET 7 SF (NET/OCC) = 14 OCCUPANTS

OFFICE

229 SF = 100 SF/OCC = 3 OCCUPANTS
How does Energy, Fire, and ADA fit into this?
What about Energy?

- In a **repair** project per MRCEB, no requirements, but...
  - If work involves **roofing replacement**, the MRCEB considers this work task an Alteration Level 1, as such, the energy code will require higher R-values **[more insulation]**.
  - If **replacing windows**, plan to upgrade U-Factor & SHGC.

- For **alteration** projects per MRCEB:
  - The IECC & ASHRAE 90.1 have similar ‘relief’ provisions exempting ceilings, walls and floors from new R-values provided **exposed cavities are “filled with insulation”**.
  - If building has conventional attic, recommend you **plan to meet the higher R-values for attic floors**.
What about Fire Code?

- The Fire Code is not universal throughout the state like the construction codes, it is mostly IFC in Michigan, but may be NFPA.
- Relative to design and construction subordinate to the MBC and MRCEB, with rare exceptions.
- Fire Code requirements (i.e., NFPA 25) apply primarily to maintenance and occupancy.
  - Typically require one to ‘maintain’ the integrity and continuity of the existing, constructed conditions
  - Should not require one to ‘change’ what is constructed…
What about Fire Code?

- **If all ICC** (i.e., IBC, IEBC and IFC), pretty well coordinated, nothing too significant not already covered by MRCEB provisions, **except**:
  - Fire alarm system ‘replacement’ **may** be required **if main control unit panel replaced**.
  - **If replacing**, plan for **full system upgraded** to new requirements (i.e., audible notification, visible notification, etc.).
  - May have **smoke alarm upgrades**; note there are exceptions for interconnection and hard wiring, depending on conditions.
What about ADA?

- The MBC and MRCEB have accessibility requirements and when performing construction to existing buildings, you must comply with the MBC or MRCEB.

- The DOJ’s **2010 ADA Standards are not part of the Code**, it is enacted separately by Federal Law, regardless if construction occurring or not. Per ADA:
  
  - If the building is considered a “public accommodation” (Title III), the **owner’s obligation to comply** with ADA was **just as applicable before the current construction** due to Title III’s “barrier removal” provisions.
  
  - Similar provisions for Title II buildings (i.e., government)
What about ADA?

- For **Repair** projects, the MRCEB does not require any further work relative to handicap accessibility (however ‘alterations’ do...)

- **Caution:** ADA has its own definitions...

- Alteration as defined by ADA [emphasis added]:
  
  - “…a change...that affects or could affect the usability of the building or facility or portion thereof.”

  - “Alterations include, but are not limited to, remodeling, renovation, rehabilitation, reconstruction, historic restoration, changes or rearrangement in structural parts or elements, and changes or rearrangement in the plan configuration of walls and full-height partitions.”
What about ADA?

- If our MRCEB repair or alteration project involves a ‘primary function area’, ADA will require additional modifications [upgrades] to improve the path of travel to the space even when the MRCEB doesn’t.

- The extent of the ADA upgrade is cost-based; up to 20% of the cost of the ‘alteration’ work within the space. To apply this:
  - Identify what activities, if any, within the primary function space would be considered ‘alterations’ per ADA.
  - Tally up the cost of those activities, and 20% of that total must be allocated to upgrade the path of travel to the space.

- **Caution:** Michigan does not have the 20% cap for primary function alterations!
How do codes affect my day-to-day property management?

*It’s time for your questions, concerns, or issues.*
Other construction regulations?
OSHA General Industry Walking-Working Surfaces standards effective January 17, 2017

- Governs slip, trip, and fall hazards, including fixed ladders, low-slope roofs, and rope descent systems
- Establishes employer requirements for using personal fall protection systems
- Significant ramifications for window washing via rope descent systems (boatswain's or bosun's chairs)

- See BOMA Detroit Resources/Toolbox page for links to additional information
Any state legislation proposed in 2017 involving building construction regulations?

- None – thankfully!
Any federal legislation proposed in 2017 involving building construction regulations?

- HR 620 The ADA Education and Reform Act
  - Provides for “notice and cure”
  - Allows building owner 120 days to remove “an architectural barrier to access” from an existing public accommodation before a lawsuit
  - Let your congressional representative know you support this. See www.BOMA.org for more details
BOMA Impact on Upcoming 2018 ICC Construction Codes

- BOMA represented the interests of BOMA members during the recently completed code cycle
  - Thousands of proposed code changes
  - Thousands of public comments
  - Days and days of code hearings
BOMA Impact on 2018 ICC Codes

A couple of the successes . . .

- Proposed rewrite of requirements to maintain fire resistive walls, fire doors, fire dampers, etc.
  - BOMA comments were approved to remove language requiring retroactive upgrade to fire resistive construction.
- Stand-by power serving the emergency responders communication enhancement systems has been reduced from a 24-hour supply to 12-hour supply.
BOMA Impact on 2018 ICC Codes

A couple of the successes . . .

- Proposed change to dead end corridor requirements
  - BOMA successfully proposed changes to clarify and coordinate Building, Existing Building and Fire Codes, allowing existing corridors to remain under Existing Building Code provisions.

- BOMA supported a clarification that firewalls creating separate fire areas within buildings does not create separate buildings requiring separate utility services, metering, addresses, etc.
BOMA Impact on 2018 ICC Codes

A couple of the losses . . .

- Requirements for occupancy sensors, with daylight responsive sensors, to control lighting in open office areas greater than 600 square feet.

- Requirements for exterior lighting to be controlled by programmable time switches with multiple settings and back-up features. Does not apply to lighting for security, safety, or emergency purposes.
BOMA Impact on 2018 ICC Codes

A couple of the losses . . .

- Requirement for text and video based interactive emergency elevator communication (but no product or performance standards for guidance).
  - BOMA unsuccessfully requested disapproval until standards are established.
BOMA Impact on 2018 ICC Codes

A couple of the losses . . .

- The local fire service is given authority to order modification or removal of any communication systems (i.e. cellular amplification) that “reduce performance or cause interference with the emergency responder communications.”
  - BOMA unsuccessfully requested disapproval until further details of performance degradation are specified.
How can you become involved in building code and regulatory changes?
Two Shots at Affecting Change

Codes Advocacy

During ICC Development
- Assist BOMA International

During Adoption
- State Ad-Hoc Code Review Committee
- Public Comments
Interested in a BOMA Detroit Code Committee?

• Create and maintain active participation in codes advocacy from BOMA membership
• Increase the name recognition of BOMA with the codes development bodies and local code officials
• Influence development of construction codes at the national level, and implementation of construction codes at the state level
• Assist members with code official over-reach issues

Let Janet know if you are interested!
Questions?

Mark Krueger
(248) 594-0144, mkrueger@wje.com

Brian Tognetti
(248) 594-0143, btognetti@wje.com

Wiss, Janney, Elstner Associates, Inc.
30700 Telegraph Road, Suite 3580
Bingham Farms, MI 48025
(248) 593-0900 | www.wje.com