

Modernizing Chicago's Construction Codes
Phase 2



Final Stakeholder Meeting



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Overview

- Commissioner remarks
- Code Modernization goal
- Phase 2 technical recommendations
- Phase 2 stakeholder input
- Phase 2 legislative process
- Phase 2 implementation plan
- Final thoughts


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Goal

To better align the City of Chicago's construction requirements with up-to-date model codes and standards used in other major US jurisdictions while maintaining longstanding local requirements that are adapted to unique conditions in Chicago.

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Phase 2 (2017-2020)




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Technical Working Groups

Building Planning
Fire & Life Safety
Enclosure & Materials
Structural
Small Residential
Existing Building Rehabilitation

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**Building
Planning**



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Building Planning

- Adopt IBC's widely-used, intuitive classification system for occupancies. ("A" will be "assembly" not "residential")
- Adopt IBC's widely-used classification system for construction types
- Align terminology by using many IBC definitions
- Provide clearer rules on how to measure building height and building area

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Building Planning (cont'd)

- Much closer alignment with IBC's exiting provisions ("means of egress"), with some Chicago-specific exceptions retained
- Much closer alignment with IBC's requirements for specialized features such as theaters, underground buildings, solar energy systems
- Does not adopt some IBC provisions related to smoke control in atriums, stairs and elevators

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Building Planning (cont'd)

- Buildings with sprinkler systems will be allowed greater height, number of stories, and floor area per construction type.
- Some additional requirements for high-rise buildings (80') and over 400', but less than full IBC

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**Fire and
Life Safety**



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Fire and Life Safety

- Align requirements for sprinkler systems in new construction with national standards (and Illinois law)
 - All new hotels will require sprinklers
 - Most new apartment buildings with 4+ units require sprinklers
 - Sprinklers required for 300+ assembly occupancies
 - Sprinklers required for new office buildings > 70 feet
- In existing buildings, smoke detection and fire alarm system may be substituted for sprinkler system

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Fire and Life Safety (cont'd)

- Sprinkler and fire alarm system requirement more closely aligned with widely-used NFPA standards
- Eliminates requirement for CO detection in assembly occupancies
- Clearer requirements for fire-resistance of interior materials and finishes
- Aligns with standard terminology and requirements for fire-resistant construction

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Enclosure and Materials

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Enclosure and Materials

- Adopts specific, up-to-date requirements for a wide range of building materials for walls, roofs and other construction
- Adopts gradated requirements for fire-resistance of exterior walls and protection of openings in exterior walls
- Codifies 2018 memo on use of limited-combustible exterior cladding in large buildings

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Structural

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Structural

- Adopts risk-based structural design requirements so that a 2-story single-family home will not need to meet the same structural requirements as a 15-story hospital
- Reduces design wind loads on small residential and commercial buildings by 20% (reducing size of structural members)

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Structural (cont'd)

- Adopts seismic design requirements for critical facilities (hospitals, fire stations) and some taller buildings (over 60-130 feet, depending on structural system)
- Adopts up-to-date standards for a wide range of structural systems and special features, such as cell towers and solar panels

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Small Residential

- Alignment with dimensional standards for small residential buildings and features within dwelling units:
 - Reduces minimum ceiling height from 7'-6" to 7'-0" (allowing use of basements and attics as livable space without costly structural alterations)
 - Reduces minimum railing height from 42" to 36" for small residential buildings (up to 3 stories)
 - Reduces live load requirements for private decks/balconies from 100psf to 60psf. (Retains 100 psf for shared decks/balconies)

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Small Residential

- Provides increased design flexibility for small residential buildings that voluntarily install residential sprinkler systems.
- Provide additional options for providing light and ventilation in residential basements
- Retains Chicago's exit requirements for small residential buildings, which are well adapted to buildings on tight urban lots (no egress windows)

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Rehabilitation of Existing Buildings

- Aligns with *International Existing Building Code*, as recommended by Urban Land Institute in 2017 to encourage reuse of older, smaller buildings in neighborhoods struggling to attract investment
- Replaces one-size-fits-all rehab provisions with tailored requirements for projects ranging from small repairs to complex adaptive reuse projects.

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Rehabilitation of Existing Buildings (cont'd)

- For larger and more complex rehab projects, provides a point-based scoring system to allow owner and design team to select safety features that are most feasible and cost effective for the specific project.
- Provides additional flexibility for rehab work in buildings recognized as historic.

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Departmental Efforts

- Administrative Provisions
- Energy Conservation
- Accessibility
- Minimum Standards for Existing Buildings
- Placeholders for Future Phases

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Placeholders for Future Phases

F
Fire Prevention Code

G
Fuel Gas Code

M
Mechanical Code

P
Plumbing Code



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Legislative Process

- Mayor introduces ordinance to city council on March 13
- Proposed ordinance is on city clerk's public website
- Department may make minor modifications based on input or to correct typos (substitute ordinance)
- Committee hearing TBD in April



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Internal Preparation

- Updating forms and systems (April – November)
- Staff training (September 2019 – July 2020)
- Publication (in partnership with ICC) (Oct. 2019)
- Self-Cert. update (begins December 2019)
- New IT system for permitting (mid- to late 2020)

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Gradual Implementation

- Energy Code – June 2019
- Administrative Provisions – July 2019
- Publications available – October 2019
- New Code is **optional** – December 1, 2019
- Transition for enforcement – Spring 2020
- New Code is **mandatory** – August 1, 2020

