

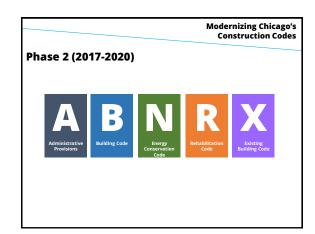
# **Overview**

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

# Modernizing Chicago's Construction Codes

# 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.







# **Technical Working Groups**

**Building Planning** 

Fire & Life Safety

**Enclosure & Materials** 

Structural

Small Residential

**Existing Building Rehabilitation** 



#### Modernizing Chicago's Construction Codes

# **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

#### Modernizing Chicago's Construction Codes

# **Building Planning (cont'd)**

- Much closer alignment with IBC's exiting provisions ("means of egress"), with some Chicagospecific 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



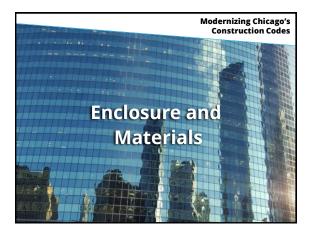
# **Fire and Life Safety**

- 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**

- 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 limitedcombustible exterior cladding in large buildings



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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)

# 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



### Modernizing Chicago's Construction Codes

# 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)



### Modernizing Chicago's Construction Codes

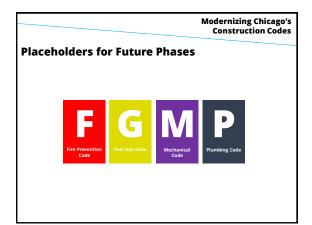
# **Rehabilitation of Existing Buildings**

- 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.

# **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.









#### Modernizing Chicago's Construction Codes

# **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



# **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)

### Modernizing Chicago's Construction Codes

# **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

