Modernizing Chicago’s Construction Codes

What We’ve Done and What’s Ahead

ASHRAE Illinois
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Deputy Commissioner
Today’s Presentation

1. Department of Buildings overview
2. Chicago construction code modernization process
3. Key changes and benefits of the Phase 2 ordinance
4. Plans for Phase 3
Mission

The Department of Buildings enhances safety and quality of life for residents and visitors of the City of Chicago through permitting, inspections, trade licensing, and enforcement of the Chicago Construction Codes.
Permitting

• Review applications and issue permits for all construction, demolition and repair work in Chicago

• Record-breaking 48,846 permits issued in 2019

• Permit types:
  • Developer Services
  • Standard Plan Review
  • Easy Permit Process
Inspections

• Perform nearly 300,000 inspections each year
  • Permit inspections
  • Restaurant and business license inspections
  • Periodic technical inspections for signs, elevators, vent systems, etc.
• 311 complaint investigations
Trade Licensing

• Administer licenses for 12 different trades
• More than 29,000 active licensees
• Since 2017, disciplined more than 150 contractors and more than a dozen design professionals
Establishes minimum standards for the construction, alteration, repair, maintenance, and demolition of buildings and other structures in order to protect public health, safety and welfare.
Chicago begins updating its building code

Building Department also acting to speed permit approval process
The Evolution of a Single Model Building Code for the United States

The AIA Center for Building Performance and Regulations

Prepared by the Issues Task Group on the Common Code Format

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AIA/BOMA Chicago Symposium – November 2015
Early Efforts

Conveyance Device Code

Electrical Code
Early Efforts Phase 1: 2015-2018

Conveyance Device Code

Electrical Code
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.
Phase 2: 2017-2020

- Administrative Provisions
- Building Code
- Conveyance Device Code
- Electrical Code
- Energy Conservation Code
- Rehabilitation Code
- Existing Building Requirements
Phase 3: 2019-2021

- Administrative Provisions
- Building Code
- Conveyance Device Code
- Electrical Code
- Fire Prevention Code
- Fuel Gas Code
- Mechanical Code
- Energy Conservation Code
- Plumbing Code
- Rehabilitation Code
- Sign Code
- Trade Licensing Code
- Existing Building Requirements
Chicago Construction Codes

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- Building Code
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- Existing Building Requirements
Continuous Process

- Regulatory foundation that will make it easier for Chicago to remain current with the latest building technologies and benefit from national code development efforts.
- Likely will adopt every-other cycle.
Code Development Process

• Meetings and discussions with external stakeholder groups, gathering input
• Internal deliberations and drafting process
• Code development outline (Handbook)
• Stakeholder oversight group
• Technical working groups
• Final ordinance drafting and legal review
Handbook

• Established shared expectations
• Created framework for discussion and review
• Set timeline for input process
Implementation Timeline—2019 Chicago Construction Codes

- 4/10/19: Ordinance
- 6/1*: 2019 Energy Code
- 11/1: Code Publication
- 12/1*: 2019 Accessibility
- 12/1/19*: New Codes Optional
- 1/1*: Residential Sprinklers
- TBD: Special Inspections
- 8/1/20*: New Codes Mandatory

* Based on permit fee deposit payment date
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http://www.chicago.gov/buildings
Finding the 2019 Codes


• Scroll to bottom of any page on the Department of Buildings’ website and click “Chicago Construction Codes” in Quick Links:
Key Changes in Phase 2 Codes
Small Residential

- Increased design flexibility for small residential buildings that voluntarily install residential sprinkler systems.
- 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.
- Additional options for light and ventilation in residential basements.
- Reduces minimum ceiling height from 7'-6" to 7'-0"
Commercial Bldgs.

- Adopt IBC's widely-used classification system for construction types
- Align terminology by using many IBC definitions
- Adopts specific, up-to-date requirements for a wide range of building materials for walls, roofs and other construction
- Some additional requirements for high-rise buildings (80’) and over 400’, but less than full IBC
Building Rehabilitation

• 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.
Building Rehabilitation

- 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.
• Reduces design wind loads on small residential and commercial buildings by 20% (reducing size of structural members)

• 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: cell towers and solar panels
Fire and Life Safety

• Align requirements for sprinkler systems in **new construction** with national standards
• 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 ft
• In **existing buildings**, smoke detection and fire alarm system may be substituted for sprinklers
Energy Efficiency


• Applies for new commercial and residential construction, and also for major changes in existing buildings - renovations, alterations, additions and repairs.

• Effective June 1, 2019
Mostly in Phases 1 and 3, but . . .

- 2018 Energy Conservation Code
- Fire protection systems (sprinklers, standpipes, alarms)
- Smoke control (*very different from model code*) and smoke removal
- Natural light and ventilation for schools and residential occupancies
- Mechanical ventilation for residential bathrooms
Phase 3: 2019-2021

- Internal/external discussions ongoing
- Drafting begun
- Technical committee(s) Summer 2020

- External discussions ongoing
- Plumbing Materials Pilot Program
- Technical committee(s) 2021
Phase 3: Input Needed

• Selection of baseline model codes
• “Top 10” lists
  • What to keep from current reqs.
  • What to adopt from model codes
• Volunteer for technical committees or pre-development discussions

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Questions?
http://www.chicago.gov/buildings

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