2014 NYC Construction Codes Overview

The overview was presented at these locations:

April 09, 2014 @ AIA Queens Chapter, NYSSPE, Queens Chapter

April 21, 2014 @ AIA Brooklyn Chapter

April 30, 2014 @ NYSA

May 08, 2014 @ Staten Island Chapter, BIANY, NYSSPE, Queens Chapter

May 21, 2014 @ New York Chapter
2014 NYC Construction Codes
Overview

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Technical Advisor
New York City Department of Buildings
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Learning Objectives

• Participants will examine local law amendments to chapter one of Title 28 the New York City Construction Codes and understand how they regulate the design of new buildings and alterations to existing buildings thereby ensuring safe construction.

• Participants will review recent local law amendments to the New York City Building Code as they pertain to new safety enhancements in the use, occupancy, egress and accessibility design requirements.

• Participants will analyze recent local law amendments to the New York City Building Code as it pertains to enhanced fire-safety design requirements for high-rise buildings, and updated structural design requirements for wind and seismic design of buildings.

• Participants will analyze recent local law amendments to the New York City Building Code Appendix G as it pertains to the most recent flood-resistant design requirements for safe construction in flood zones, including newly-designated flood hazard areas.
2014 Codes Training Events

New Effective Date for the 2014 NYC Construction Codes: December 31, 2014
Construction Codes Revision

Benefits:
• Updates Codes to national standards
• Incorporates latest technologies
• Allows new materials and methods of construction
• Maintains consistency with other jurisdictions
Construction Codes Revision

New Effective Date for the 2014 NYC Construction Codes: December 31, 2014
2014 Codes Implementation

December 2013
Council approval & Mayoral signing LL 141 of 2013

Implementation & Training

October 1, 2014
Effective date

New Effective Date for the 2014 NYC Construction Codes: December 31, 2014
2014 Codes Implementation

• Operational changes
• Forms, service notices, bulletins
• Rules
• Staff training
• Industry outreach
• Internet/Intranet/Publication

New Effective Date for the 2014 NYC Construction Codes: December 31, 2014
Accessing the 2014 Codes

www.nyc.gov/buildings

- Codes & References
  - Selected Local Laws
    - LL 141/13 & LL 41/12 (PC)
[706.3.6] 707.3.8 [Separation of mixed]
Separated occupancies. Where the provisions of Section [508.3.3] 508.4 are applicable, the fire barrier separating mixed occupancies shall have a fire-resistance rating of not less than that indicated in Section [508.3.3] 508.4 based on the occupancies being separated.
Accessing the 2014 Codes

[903.2.10.4 Steel-plated and vault-like occupancies. An automatic sprinkler system shall be installed throughout all steel-plated or similarly reinforced or secured vault-like occupancies regardless of area.]

... 903.2.12 Other hazards. Automatic sprinkler protection shall be provided for the hazards indicated in Sections 903.2.12.1 and 903.2.12.2.]
Accessing the 2014 Codes

903.2.11.11 Steel-plated and vault-like occupancies. An automatic sprinkler system shall be installed throughout all steel-plated or similarly reinforced or secured vault-like occupancies regardless of area.
Accessing the 2014 Codes

Other Local Laws becoming effective 10/1/2014:

• LL 79/13: Toilets/faucets to function without electricity
• LL 100/13: Increase flood resiliency
• LL 101/13: Increased wind standards
• LL 108/13: External hookups for I and R occupancies
• LL 110/13: Common area drinking water
• LL 130/13: Parking lots and garages/vehicle charging
# 2014 Codes Effective Dates

<table>
<thead>
<tr>
<th>Type of Work</th>
<th>Trigger</th>
<th>2008 Code</th>
<th>2014 Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEW BUILDINGS</td>
<td>Construction Documents submitted before October 1, 2014</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>• Architectural, Structural, &amp; Foundation Drawings Required</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>• Subsequent filings may be filed on or after October 1, 2014</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Construction Documents submitted on or after October 1, 2014</td>
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</tr>
</tbody>
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**New Effective Date for the 2014 NYC Construction Codes: December 31, 2014**
# 2014 Codes Effective Dates

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<th>Type of Work</th>
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<th>2014 Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALTERATIONS TO EXISTING BUILDINGS</td>
<td>Construction Documents submitted before October 1, 2014</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Construction Documents submitted on or after October 1, 2014</td>
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</table>

New Effective Date for the 2014 NYC Construction Codes: December 31, 2014
## 2014 Codes Effective Dates

<table>
<thead>
<tr>
<th>Type of Chapter 33 Work</th>
<th>Trigger</th>
<th>2008 Code (BC 33)</th>
<th>2014 Code (BC 33)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Non-Site Safety Jobs: New Buildings, Alterations, and Partial Demolitions</strong></td>
<td><strong>Construction documents submitted before October 1, 2014</strong></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td><strong>Construction documents submitted on or after October 1, 2014</strong></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td><strong>Site Safety Jobs: New Buildings, Alterations, and Partial Demolitions</strong></td>
<td><strong>Site safety plan approved before October 1, 2014</strong></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td><strong>Site safety plan approved on or after October 1, 2014</strong></td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>

**New Effective Date for the 2014 NYC Construction Codes: December 31, 2014**
# 2014 Codes Effective Dates

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<tr>
<th>Type of Chapter 33 Work</th>
<th>Trigger</th>
<th>2008 Code (BC 33)</th>
<th>2014 Code (BC 33)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Full Demolitions:</strong> (Non-Site Safety and Site Safety Jobs)</td>
<td>Demolition permit issued before October 1, 2014</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Demolition permit issued on or after <strong>October 1, 2014</strong></td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>
Exceptions:

**28-304.6.4 to 28-304.6.6 Elevator Inspections**
- Effective Immediately

**BC 403.5.2 Additional Stair/Occupant Evacuation Elevators for nonresidential > 420 feet**
- Effective June 30, 2015, or upon zoning text change, whichever is later
Alterations to Existing Buildings

Next project:

NYC Existing Building Code

But until then . . . .
Alterations to Existing Buildings

“Existing” Building”

“Prior Code” Building

“This Code”

New Effective Date for the 2014 NYC Construction Codes: December 31, 2014
Alterations to Existing Buildings

“BIG” Alterations (28-101.4.5)
• Must follow 2014 Code
Alterations to Existing Buildings

Issuance #618

TECHNICAL POLICY & PROCEDURE NOTICE #1/02

TO: Distribution
FROM: Ronny A. Livian, Deputy Commissioner
DATE: July 24, 2002
SUBJECT: Application Type Required for Work Involving Alterations and Demolition in a Building
Alterations to Existing Buildings

DEPARTMENT OF BUILDINGS
EXECUTIVE OFFICES
280 BROADWAY, NEW YORK, NY 10007
Patricia J. Lancaster, AIA, Commissioner
(212) 566-5000, TTY: (212) 566-4769
Website: NYC.gov/buildings

Issuance #618

TO: Distribution

FROM: Romy A. Kitten, Deputy Commissioner

DATE: July 24, 2002

SUBJECT: Application Type Required for Work Involving Alterations and Demolition in a Building

New Effective Date for the 2014 NYC Construction Codes: December 31, 2014
Alterations to Existing Buildings

§ 28-101.4.5 Work that increases existing floor surface area of a prior code building by more than 110 percent.

• Entire building to comply with 2014 Construction Codes.
• Must be filed as NB
• Fees calculated as alteration
Alterations to Existing Buildings

§ 28-101.4.5 Work that increases existing floor surface area of a prior code building by more than 110 percent.

• FLOOR SURFACE AREA. Floor surface area is the gross square foot area of all horizontal floor and roof surfaces, including roofs of bulkheads and superstructures, of a building or structure at any level, including cellar, attic and roof. (28-101.4.5.2)
§ 28-101.4.5 Work that increases existing floor surface area of a prior code building by more than 110 percent.

Exceptions: This is not “existing floor surface area”:  
1) Square footage removed during course of work  
2) Square footage previously installed, but signed off less than 12 months before submission of current application
Alterations to Existing Buildings
(§ 28-101.4.5)

28-101.4.5

4 Existing

4 Added
< 110%
Prior Code Option

5 Added
> 110%
2014 Code Only

New Effective Date for the 2014 NYC Construction Codes: December 31, 2014
Alterations to Existing Buildings

( § 28-101.4.5)

28-101.4.5

3 Existing
(1 Removed)

3 Added
< 110%
Prior Code Option

or

4 Added
> 110%
2014 Code Only
Alterations to Existing Buildings

(§ 28-101.4.5)

28-101.4.5

2 Existing (2 Removed) → 2 Added < 110%
Prior Code Option

or

3 Added > 110%
2014 Code Only
Alterations to Existing Buildings

(§ 28-101.4.5)
Alterations to Existing Buildings

§ 28-101.4.5 Work that increases existing floor surface area of a prior code building by more than 110 percent.

• Change of scope of work from under to over 110% must be re-filed as NB before continuing removals (28-101.4.5.1)
• Continuation provisions of Zoning Resolution for noncomplying bulk or nonconforming use (28-101.4.5.3)
Alterations to Existing Buildings

28-101.4.3 - Optional use of Prior Codes:
• 1968 Building Code
• 1938 Building Code

Subject to 18 exceptions
Alterations to Existing Buildings

28-101.4.3 - Optional use of 1968 (1938) Codes:
18 exceptions

1. Fuel gas, plumbing and mechanical work.
2. Fire protection systems.
3. Elevators, conveyors and amusement rides.
4. Safety during construction operations.
Alterations to Existing Buildings

28-101.4.3 - Optional use of 1968 (1938) Codes:
   18 exceptions

5. Accessibility.
6. Encroachments into the public right of way.
7. Administration and enforcement.
8. Special Inspections.
Alterations to Existing Buildings

28-101.4.3 - Optional use of 1968 (1938) Codes:

18 exceptions

10. Security grilles.
12. Roof coverings and replacements:
   – Re-roofing
   – Cool roofs
   – Green roofs
Alterations to Existing Buildings

28-101.4.3 - Optional use of 1968 (1938) Codes:

18 exceptions

13. Handrails.
15. Areas of special flood hazard.
Alterations to Existing Buildings

28-101.4.3 - Optional use of 1968 (1938) Codes:
   18 exceptions

17. Emergency and standby power.
18. Parking garages and open parking lots. (LL 130/2013)
Alterations to Existing Buildings

28-101.4.3 - Optional use of 1968 (1938) Codes:

18 exceptions

Most exceptions require 2014 code for certain work, e.g.:

4. Safety during construction operations. Safety of public and property during construction operations including demolition shall be governed by chapter 33 of the New York city building code.
Alterations to Existing Buildings

28-101.4.3 - Optional use of 1968 (1938) Codes:

18 exceptions

Most exceptions require 2014 code for certain work, e.g.:

14. Guards. Where the alteration or repair of a building involves the addition or replacement of guards, such guards shall comply with sections 1013 and 1607.7 of the New York city building code.
### Alterations to Existing Buildings

28-101.4.3 - Optional use of 1968 (1938) Codes:

**18 exceptions**

These refer to “Special Provisions for Prior Code Buildings”:

<table>
<thead>
<tr>
<th>Exception</th>
<th>Category</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exception 1:</td>
<td>Plumbing</td>
<td>PC 102.4</td>
</tr>
<tr>
<td></td>
<td>Fuel Gas</td>
<td>FGC 102.4</td>
</tr>
<tr>
<td></td>
<td>Mechanical</td>
<td>MC 102.4</td>
</tr>
<tr>
<td>Exception 2:</td>
<td>Fire Protection</td>
<td>BC 901</td>
</tr>
<tr>
<td>Exception 3:</td>
<td>Elevators</td>
<td>BC 3001</td>
</tr>
<tr>
<td>Exception 5:</td>
<td>Accessibility</td>
<td>BC 1101</td>
</tr>
<tr>
<td>Exception 16:</td>
<td>Structural</td>
<td>BC 1601</td>
</tr>
</tbody>
</table>

New Effective Date for the 2014 NYC Construction Codes: December 31, 2014
Alterations to Existing Buildings

28-101.4.3 - Optional use of 1968 (1938) Codes:

Exception 1: Mechanical, Fuel Gas, Plumbing

1. Fuel gas, plumbing and mechanical work. The installation of and work on all appliances, equipment and systems regulated by the New York city fuel gas code, the New York city plumbing code and the New York city mechanical code shall be governed by applicable provisions of those codes relating to new and existing installations.
# Alterations to Existing Buildings

28-101.4.3 - Optional use of 1968 (1938) Codes:

Exception 1: Mechanical, Fuel Gas, Plumbing

“applicable provisions” of those codes:

<table>
<thead>
<tr>
<th>Category</th>
<th>Code</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanical</td>
<td>MC</td>
<td>102.4</td>
</tr>
<tr>
<td>Fuel Gas</td>
<td>FGC</td>
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<td>PC</td>
<td>102.4</td>
</tr>
</tbody>
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Alterations to Existing Buildings

28-101.4.3 - Optional use of 1968 (1938) Codes:

Exception 1: Mechanical, Fuel Gas, Plumbing

> Example MC 102.4

**MC 102.4 Additions, alterations or repairs.** Additions, alterations, renovations or repairs to a mechanical system shall conform to requirements for a new mechanical system without requiring the existing mechanical system to comply with all of the requirements of this code. Additions, alterations or repairs shall not cause an existing mechanical system to become unsafe, hazardous or overloaded.
Alterations to Existing Buildings

28-101.4.3 - Optional use of 1968 (1938) Codes:

Exception 1: Mechanical, Fuel Gas, Plumbing

> Example MC 102.4

MC 102.4.1 Minor additions, alterations, renovations and repairs. Minor additions, alterations, renovations and repairs to existing mechanical systems shall meet the provisions for new construction, unless such work is done in the same manner and arrangement as was in the existing system, is not hazardous and is approved.

New Effective Date for the 2014 NYC Construction Codes: December 31, 2014
Alterations to Existing Buildings

28-101.4.3 - Optional use of 1968 (1938) Codes:

Exception 1: Mechanical, Fuel Gas, Plumbing

> Example MC 102.4

MC 102.4.2 Special provisions for prior code buildings. In addition to the requirements of Sections 102.4 and 102.4.1, the provisions of Sections 102.4.2.1 through 102.4.2.6 shall apply to prior code buildings.
Alterations to Existing Buildings

28-101.4.3 - Optional use of 1968 (1938) Codes:

Exception 1: Mechanical, Fuel Gas, Plumbing

> Example MC 102.4

For prior code buildings:

• MC 102.4.2.1 Fire and smoke dampers
• MC 102.4.2.2 Guards and access to roofs and elevated structures
• MC 102.4.2.3 Vibration isolation for cooling towers
• MC 102.4.2.4 Noncombustible fill for cooling towers
Alterations to Existing Buildings

28-101.4.3 - Optional use of 1968 (1938) Codes:

18 exceptions

These refer to “Special Provisions for Prior Code Buildings”:

Exception 1: Plumbing  PC  102.4
Fuel Gas        FGC  102.4
Mechanical      MC   102.4

Exception 2: Fire Protection  BC  901
Exception 3: Elevators        BC  3001
Exception 5: Accessibility    BC  1101
Exception 16: Structural      BC  1601
Alterations to Existing Buildings

28-101.4.3 - Optional use of 1968 (1938) Codes:
Exception 2: Fire Protection Systems

2. Fire protection systems. Alterations of buildings and changes of use or occupancy shall be governed by chapter 9 of the New York city building code, subject to special provisions for prior code buildings as set forth therein.
Alterations to Existing Buildings

28-101.4.3 - Optional use of 1968 (1938) Codes:
Exception 2: Fire Protection Systems

BC 901.9 Special Provisions for Prior Code Buildings

Example:

901.9.3 Sprinkler and fire alarm requirements for enlargements.
Alterations to Existing Buildings

28-101.4.3 - Optional use of 1968 (1938) Codes:

Exception 3: Elevators, conveyors and amusement rides

3. Elevators, conveyors and amusement rides. The installation of and work on elevators, conveyors, and amusement rides shall be governed by chapter 30 and appendix K of the New York city building code and the rules of the department, subject to special provisions for prior code buildings as set forth therein.
Alterations to Existing Buildings

28-101.4.3 - Optional use of 1968 (1938) Codes:

Exception 3: Elevators

BC 3001.11 Special Provisions for Prior Code Buildings

Example:

3001.11.1 New elevators in existing shafts.
Alterations to Existing Buildings

28-101.4.3 - Optional use of 1968 (1938) Codes:

Exception 5: Accessibility

5. Accessibility. Alterations, including minor alterations, of buildings and changes of use or occupancy, shall be governed by chapter 11 of the New York city building code, subject to special provisions for prior code buildings as set forth therein.
Alterations to Existing Buildings

28-101.4.3 - Optional use of 1968 (1938) Codes:

Exception 5: Accessibility

BC 1101.3 Special Provisions for Prior Code Buildings

Example:

1101.3.1 Accessibility requirements for changes of occupancy.
Alterations to Existing Buildings

28-101.4.3 - Optional use of 1968 (1938) Codes:

Exception 16: Structural

16. Structural. The use of load resistance factor design (LRFD), calculation of live loads, and applicability of seismic and wind loads shall be governed by special provisions for prior code buildings as set forth in section 1601.2 of the New York city building code.
Alterations to Existing Buildings

28-101.4.3 - Optional use of 1968 (1938) Codes:

Exception 16: Structural

BC 1601.2 Special Provisions for Prior Code Buildings

Example:

1601.2 Seismic requirements for alterations.
2014 Construction Codes Highlights

National Institute of Standards and Technology (NIST)
WTC Report Recommendations

• Exit stairs further apart in buildings > 75 feet
• Protected fire service access elevators (FSAE) for buildings > 120 feet
• Redundant sprinkler risers > 300 feet
• Additional stair or occupant evacuation elevator for nonresidential buildings > 420 feet
2014 Construction Codes Highlights

Wind and snow load requirements for temporary structures (tents, scaffolds, cranes, etc.)

Prohibition on ballasted roofs

Update seismic requirements to ASCE 7-2010
2014 Construction Codes Highlights

Micropiles, Helical Piles

Updated flood zone requirements for coastal A-zones

Certain mechanical equipment cannot be dry-floodproofed
2014 Construction Codes Highlights

Require concrete formwork observations

Establish safety requirements for ambulatory surgery facilities
2014 Construction Codes Highlights

Allows reinstallation of cornices in landmark districts without DOT approval

Balcony projections over sidewalk clarified with respect to railings

Marquees explicitly allowed for schools, office buildings
2014 Construction Codes Highlights

Increases safety for high-pressure gas piping installations

Eliminates redundant smoke detector installations in ductwork

Harmonizes Building Code with DEP requirements for external mechanical equipment

Legally Required Standby Power (natural gas) (LL 111/13)

New Effective Date for the 2014 NYC Construction Codes: December 31, 2014
2014 Construction Codes Highlights

Cantilevered buildings must have fire analysis

Tweaks to fire ratings of structural members:
• “Primary Structural Frame”
• “Secondary Members”
2014 Construction Codes Highlights

Recategorize Limited Alteration Applications (28-101.5)

- Category 1 – limited to $35,000/year
- Category 2 – no limit

Unused curb cuts must be removed
2014 Construction Codes Highlights

THANK YOU

Questions?

www.nyc.gov/buildings

ConstructionCodes@buildings.nyc.gov