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Everything you always wanted to know about third floors



quiz to follow

What are we gonna do today?

Learning Objectives

- History lesson
 - 1951, 1973, 1995, 1999, 2002, 2007
- 2010
- Legalizations
- The Future
- Questions

1951



Table A 402-2.1.—Maximum Floor Area Per Story¹
 In square feet

Construction classification	Fire-resistance of structural elements	One-story buildings	Two-story buildings	Three-story buildings
Type 1 ¹	1½ hr or more	14,000	12,000	10,000
Type 2	¾ hr or more	12,000	10,000	8,000
	Less than ¾ hr	9,000	7,000	5,000
Type 3	¾ hr or more	10,000	8,500	7,500
Type 4	¾ hr or more	10,000	8,500	7,500
	Less than ¾ hr	7,500	6,500	5,500
Type 5	¾ hr or more	6,000	5,000	4,500
	Less than ¾ hr	4,000	3,500	3,000

¹The area of any one story may be increased to that permitted for a one-story building provided the total area of the building does not exceed the total area permitted.
²Areas of type 1 fire-resistive construction may be unlimited when structural elements have a

January 1, 1973

4 HEIGHT, FIRE AREA AND TYPE OF CONSTRUCTION

- a—Buildings of type 5 construction shall not exceed a height of two stories above a basement or cellar, or above finished grade where there is no basement or cellar.
- b—The maximum fire area in a dwelling, within exterior walls, party walls, fire walls, or any other combination thereof, shall be

*TABLE A 204. (I-613)—MAXIMUM PERMITTED FIRE AREAS

Construction classification ¹	Floor	Other structural elements except exterior and fire walls ¹	Maximum area in square feet
Type 1	2 hr	¼ hr or more	Unlimited
Type 2a	¼ hr	¼ hr	8000
Type 2b	nc	nc	5000
Type 3	¼ hr	¼ hr ²	5000
Type 4a	¼ hr	¼ hr ²	5000
Type 4b	c	c	3000
Type 5a	¼ hr	¼ hr ²	3000
Type 5b	c	c	2500

¹ For fire-resistance rating of exterior walls, see definition of construction classification, section A 108.3, and of fire walls, see section A 402.2.2.
² No fire-resistance rating is required for roof construction.

story. Portion of a building which is between one floor and the next higher floor level or the roof. If a mezzanine area exceeds one third of the area of the floor immediately below, it shall be deemed to be a story. A basement shall be deemed to be a story when the finished floor immediately above is 7 feet or more above the average elevation of the finished grade. A cellar shall not be deemed to be a story. An attic shall be deemed to be a story where it meets the requirements for habitable space.

July 7, 1995

- 705.1(g) The following locations shall not be deemed to be a story:
 - 705.1(g)(3) an ATTIC not containing habitable space, **a recreation room, toilet room or similar nonhabitable space intended for human occupancy**

05.2 Height and fire areas— one- and two-family dwellings.

- a) The height, number of stories, and fire areas between exterior walls or between exterior walls and fire walls, indicated for each type or subtype of construction, shall not exceed those set forth in table I-705 of this Part.
- b) Buildings of type 5 construction are permitted to have a maximum height of two stories above finished grade where there is no basement or cellar, or above a basement or cellar provided the exterior walls of such basement or cellar are of masonry construction extending the full height of the basement or cellar. A combustible facing is permitted on the masonry. Wood facing shall have a minimum clearance to grade of eight inches. For exception see Part 807 of this code.

Historical Note

Sec. filed Dec. 13, 1983; amd. filed July 7, 1995 eff. July 26, 1995. Amended (b).

9NYCRR 705
1999

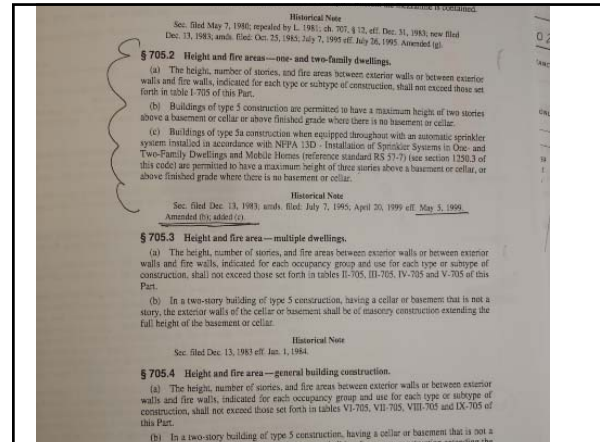
2 more important changes

- 705.2(b) Buildings of type 5 construction are permitted to have a maximum height of two stories above a basement or a cellar, or above finished grade where there is no basement or cellar.

9NYCRR 705 1999

2 more important changes

- 705.2(c) Buildings of type 5A construction when equipped throughout with an automatic sprinkler system are permitted to have a max height of three stories above a basement or cellar, or above finished grade where there is no basement or cellar.



2002



The Residential Code of New York State

- §RR317.3 Automatic sprinkler systems. Buildings having a height of three stories shall be equipped throughout with an automatic sprinkler system installed in accordance with NFPA 13D.

– EXCEPTION: A sprinkler system is not required when the first story of a 3-story dwelling is a basement where the finished surface of the floor above the basement is:

- 1. More than 6 feet above the grade plane, or
- 2. More than 6 feet above the finished ground level for more than 50 percent of the total building perimeter, or
- 3. More than 12 feet above the finished ground level at any point.

Informational Bulletin

NEW YORK STATE DEPARTMENT OF STATE
Division of
Uniform Fire
Code Enforcement

When is a three story residential occupancy NOT required to be equipped with an NFPA 13D sprinkler system, in accordance with RCNYS section R317.3?

INFO

Effective Date: January 1, 2002
Source Document: RCNYS 2001
Code Section: RCNYS 2001
Topic: Sprinklering
Version: RCNYS 2001
FUD-02-001

When the first of the three stories is a basement. RCNYS section R202.1 defines the term "basement" as that portion of a building that is partly or completely below grade. Sprinklers are not required in any building having two stories above a basement, whether the basement is below grade or considered a story above grade.

The phrase "partially below grade" is not defined. Minimal grading above the basement floor level, even at only one location, would qualify the basement to be considered partially below grade.

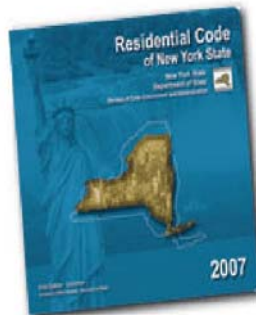
Additionally, a basement does not have to be entirely of masonry construction. It does however, have to meet the requirements of RCNYS section R404.1.6, foundation height above finished grade, which requires concrete and masonry foundation walls shall extend above the finished grade adjacent to the foundation at all points ... a minimum of 6 inches (152 mm) ...

Definitions

ATTIC. The unfinished space between the ceiling joists of the top story and the roof rafters.

BASEMENT. That portion of a building that is partly or completely below grade

2007



- §RR313.3 Automatic sprinkler systems. Buildings having a height of three stories above a basement shall be equipped throughout with an automatic sprinkler system installed in accordance with NFPA 13D.

Appendix J Alteration Level 2

- AJ604.3 Automatic sprinkler systems. A third story may be created in an existing attic without requiring the installation of a sprinkler system throughout the entire dwelling provided all of the following conditions are met:

Appendix J

- 1. The building was legally occupied before January 1, 1984.
- 2. The finished space and its means of egress to the exterior are equipped with a limited area sprinkler system installed in accordance with NFPA 13D.
- 3. The finished space is provided with:
 - 3.1 A second exit stair meeting the requirements of Section R311.5, or
 - 3.2 An emergency escape and rescue opening, meeting the requirements of Section R310, located directly above a roof or other structural appurtenance from which access to grade does not exceed a vertical distance of 14 feet.
- 4. The entire dwelling is equipped with smoke alarms in compliance with Section R313 and monitored by an approved supervising station in accordance with NFPA 72.

Additions

- **AJ802.4 Automatic sprinkler systems.** Whenever a vertical addition is made to a building to create a third story above grade, or when the floor area of a legally existing third story is increased more than 10 percent, the building shall be equipped throughout with an automatic sprinkler system installed in accordance with NFPA 13D.



2010

- R313.5 Automatic sprinkler systems. Buildings having a height of three stories above grade shall be equipped throughout with an automatic sprinkler system installed in accordance with NFPA 13D.

Recap

- **Prior to Jan 1, 1973**, 3 story wood frame dwellings permitted
- **Jan 1, 1973**: Height limited to 2 story for wood frame 1- and 2- family dwellings
 - BUT attic without habitable space is not a “story” and a rec room is not habitable space
- **July 26, 1995**: 705.1(g)(3) language is changed “an attic without habitable space, a recreation room, toilet room, or similar nonhabitable space intended for human occupancy.” Ends the rec room/attic loophole
- **May 9, 1999**: 3rd floors permitted in wood frame w/ type 5A construction and full sprinkler system

Recap

- **Jan 1, 2003**: 3rd floor sprinklering not tied construction type, since the IRC doesn’t specify. Basements don’t count
- Attics are defined specifically as “unfinished space...” and rec rooms are no longer considered non-habitable
- **Jan 1, 2008** Appendix J relaxes the sprinkler requirement in certain existing buildings. Basements don’t count.
- **Jan 1, 2011** Basements might count

Legalizations

- **Construction without a building permit:**
- It is the responsibility of the code enforcement official to pursue the process of determining the compliance of the structure in accordance with the code in effect at the time of the construction
- There should be a reasonable effort to determine the time of construction & the compliance of the building to the code in effect at that time
- The **owner should provide** construction drawings, dated contracts, receipts & similar documents, or other records indicating when the construction took place to establish the time of construction and the level of compliance
- If time of construction cannot be determined **to the satisfaction of the code enforcement official, it is reasonable to require compliance with the code in effect at the time of the “legalization” of the building construction**
- The owner has the right to request a variance.

• TECHNICAL BULLETIN

- **Effective Date:** January 1, 2003
- **Source Document:** 19 NYCRR Parts 1220 through 1226 and 1240
- **Topic:** Construction Without a Building Permit
- This document is provided as general information for code enforcement officials, regarding construction work performed on buildings without the benefit of a building permit. The responsibility for compliance with applicable codes is that of the building owner. Universally, regardless of the local regulations for administration and enforcement, it is the owners responsibility to ensure the construction is in compliance with the applicable codes in effect at the time of construction. The following are questions and answers to illustrate the requirements and methods to “legalize” such construction.
- When building construction without a building permit, is discovered, it is the responsibility of the code enforcement official to pursue the process of determining the compliance of the structure in accordance with the code in effect at the time of the construction. There should be a reasonable effort to determine the time of construction and the compliance of the building to the code in effect at that time. The owner should be able to provide construction drawings, dated contracts, receipts and similar documents, or other records indicating when the construction took place to establish the time of construction and the level of compliance. If the time of construction cannot be demonstrated to the satisfaction of the code enforcement official, it is reasonable to require compliance with the code in effect at the time of the “legalization” of the building construction, as it is presumed that a building permit will be required. Again, the owner has the right to request a variance.

Determine when the 3rd floor was built

- Check original building plans
- Check for open permits
- Historic records
- Assessor’s records
- Google

Physical Clues

Stairs
Wall finishes and trim
Exterior
Plumbing fixtures

Recap

- Legalizations - in accordance with the code in effect at the time of the construction
- The owner provides evidence to establish that date to the satisfaction of the code enforcement official
- Otherwise require compliance with the code in effect at the time of the "legalization"

The Future

- 2014 codes and sprinklers

Questions...