

Questions and Answers About the 2019 Chicago Construction Codes

This document contains answers to questions about the 2019 Chicago Construction Codes asked during a training program conducted in July 2020. The questions and answers are arranged as follows:

- Questions About the Chicago Construction Codes Administrative Provisions (Title 14A)
- Questions About the Chicago Building Code (Title 14B)
- Questions About the Chicago Electrical Code (Title 14E)
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- Questions About the Chicago Plumbing Code (Title 14P)
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Questions About the Chicago Construction Codes Administrative Provisions (Title 14A)

1. **If I started a permit application in the online permit portal on July 31, 2020 and do not upload drawings until after August 1, 2020, will the application be reviewed under the pre-2019 Building Code or the 2019 Construction Codes?**

The 2019 Chicago Building Code and 2019 Chicago Building Rehabilitation Code are mandatory for permit applications started on or after August 1, 2020 with limited exceptions for revision permits and phased permitting. (14A-1-105.2, 14A-1-105.11) A permit application is “started” when the permit fee deposit is paid. (Code Memo 2020-02)

2. **Are tenant buildouts considered alterations or new construction?**

The initial buildout of a space which has never been legally occupied (which usually requires issuance of a certificate of occupancy) must be permitted as new construction. (14R-1-101.4.1.1)

The alteration of a space which has previously been legally occupied (usually, based on a certificate of occupancy) should be permitted as building rehabilitation. (14R-1-101.4.2)

3. **When is “furniture” required to meet building code requirements?**

A building permit is not required for “nonfixed and movable fixtures, cases, racks, counters, and partitions not over 7 feet in height.” (14A-4-402.1) Even furniture installed without a permit must comply with applicable code requirements. (14A-4-402.3)

Some code requirements which apply to furniture and furnishings include accessibility requirements (Chapter 14B-11 and Appendix E), electrical requirements for furnishings (14E-6-605), and prohibitions on blocking means of egress (14X-5-505.1.2).

4. Are all Level 1 Alterations eligible to use the easy permit process?

Many types of work which are classified as Level 1 Alterations for purposes of the work area method in the Chicago Building Rehabilitation Code are eligible to use the Easy Permit Process (stand alone permit), consistent with the types of work listed in Table 14A-12-1204.2.

Some types of work that are classified as Level 1 Alterations, however, such as window replacement in a high-rise office building, are not eligible to be permitted without architectural plans.

5. Is a separate permit required for delayed egress locks and access control hardware?

Delayed egress locks and access control hardware usually must be integrated with a fire protection system. (14B-10-1010.1.9.3) Any system which is integrated with a fire protection system must be reviewed as part of the separate fire protection system permit, which is based on a review of shop drawings. (14A-4-404.9)

6. What is the expectation for representing occupant load on permit plans? Do we need to show the breakdown of occupancy load per room/space?

“Construction documents must show in sufficient detail the location, construction, size and character of all portions of the means of egress, including the path of exit discharge to the public way. [A plan reviewer] may require that construction documents designate the number of occupants to be accommodated on every floor and in all rooms and spaces.” (14A-4-411.3.10) Designating the occupancy for each room or space may not be required for smaller projects with straightforward means of egress but is helpful for plan review and inspection of larger spaces with more complex egress requirements.

Egress diagrams should always be provided for Group A, E, I and H occupancies and for spaces on upper floors in buildings with more than four stories above grade plane or more than one basement.

7. Have requirements for maximum capacity signs (occupancy placards) changed?

Requirements for maximum capacity signs (sometimes called “occupancy placards”) have been streamlined and clarified. All theaters, regardless of size, require a maximum capacity sign. (14A-8-802.1) Other spaces used for assembly-type occupancies with an occupant load greater than 100 require a maximum capacity sign. (14A-8-802.1) Smaller facilities may be required to obtain a maximum capacity sign as a condition of obtaining a liquor license, business license, or zoning special use. (14A-8-802.1.1)

8. Is a floor load placard required for a telecommunications equipment area?

Yes, if the space is a “mercantile, industrial or storage use” and required to be designed for a live load exceeding 100 psf per Table 1607.1. (14A-8-803.1)

No, if the space is an accessory occupancy to a business use.

9. For building rehabilitation work, is there a permit cost difference between Level 1, 2 and 3 Alterations that we should review or consider?

Yes, there is a permit fee difference between work classified as Level 1 Alterations and work classified as Level 2 or Level 3 Alterations or a change of occupancy. As noted above, many types of work classified as Level 1 Alterations are eligible to use the Easy Permit Program, which has a different permit fee structure. (Table 14A-12-1204.2) For work that is permitted using the area-based fee structure applicable to most permits based on architectural plans, a lower scope of review factor applies to Level 1 Alteration work compared to Level 2 or 3 Alteration work. (Table 14A-12-1204.3(4))

Questions About the Chicago Building Code (Title 14B)

Chapter 2: Definitions and Measurements

10. Does "telecommunications equipment area" refer to MDF and IDF closets in addition to server rooms?

A telecommunication equipment area is defined as: “An area or enclosed room within a *building* where electronic equipment used for the transmission of audio, video and data, power equipment (e.g., dc converters, inverters and batteries), technical support equipment (e.g., computers) and conductors dedicated solely to the operation of the equipment are located, including support rooms served by the same *ventilation* system.” (14B-2-202) Most main distribution frame (MDF) closets and intermediate distribution frame (IDF) closets fall within this definition, as would server rooms and very large data farms.

Requirements for telecommunication equipment areas vary based on floor area; no special requirements apply to telecommunication equipment areas up to 50 square feet. (14B-5-509, 14B-9-903.2.11.7)

11. Is “fire separation distance” measured from adjacent buildings or from property lines?

Fire separation distance is measured from: “the building face or element to one of the following: 1. The closest *abutting property line*. 2. The far boundary of a *public way* adjoining the *lot*. [or] 3. An imaginary line between two *buildings* on the same *lot*.” (14B-2-202). When using an imaginary line between two buildings on the same lot, the line can be placed at any point between the buildings that will result in both buildings meeting applicable requirements. (14B-7-705.3)

Accordingly, fire separation distance will never be measured from adjacent buildings on other lots, but could be measured from the wall of an adjacent building on the same lot if the imaginary line is placed at the face of the wall of the adjacent building.

12. Can you clarify when an “attic” is considered a “story”?

An “attic” is defined as: “The unfinished space between the ceiling framing of the highest *story* that contains *occupiable space* and the underside of the *roof structure*. An *attic* with a clear height of 81 inches or more between the top of the ceiling framing and underside of the *roof structure* shall be considered an additional *story*.” (14B-2-202)

If a level is “finished” it cannot be classified as an “attic,” regardless of clear ceiling height. Indications that a level is “finished” include whether wall surfaces have been painted and taped/mudded, whether the space is heated/cooled, and whether receptacle outlets have been provided. A space is not “finished” merely because it has drywall (which may be required for fire-resistance or energy performance) or has a lighting outlet (as required for unfinished attics per 14E-2-210.70(A)(3)).

An unfinished “attic” is classified as a story if any portion has a clear height of 81 inches (6 feet 9 inches) or more, measured between the top of the ceiling framing (or floor) and underside of the roof structure (such as rafters, collar ties, trusses, etc.) In a conventionally framed attic under a gable roof, the clear height would be measured to the underside of collar ties and not to the underside of the ridge board.

13. Has the definition of “basement” changed?

Yes. For purposes of the Chicago Construction Codes, a “basement” is any story that is not a “story above grade plane.” (14B-2-202) A “story above grade plane” is:

Any *story* having its finished floor surface entirely above *grade plane*, or in which the finished surface of the floor next above is:

1. More than 6 feet (1829 mm) above grade plane; or
2. More than 12 feet (3658 mm) above the adjacent finished ground level at any point.

This definition applies to new construction and existing buildings. A different definition of basement applies to requirements of the Chicago Zoning Ordinance.

14. What is the difference between an “inner court” and “outer court”?

A court that meets either of the following criteria is an “outer court”:

1. A *court* with at least 12% of its perimeter opening upon a *public way* or *yard* that is at least 15 feet wide.
2. A *court* bounded by building walls no greater than 55 feet in height opening upon a *yard* that is at least 3 feet wide. The length of an outer *court* meeting this criterion shall be not less than 150% of the horizontal dimension of required window openings that open upon the *court*.

Any other court is an “inner court.” (14B-12-1205.3.1)

15. What does it mean for a court to open upon 3-foot-wide yard? Does the 3-foot-wide yard have to be continuous from front to rear?

A “court” is “an open, uncovered space, unobstructed to the sky, bounded on more than two sides by *abutting property lines*, exterior *building walls* or other enclosing devices.” (14B-2-202)

A “yard” is “an open space, other than a *court*, unobstructed from the ground to the sky and, except as specifically allowed by this code, on the same *lot* on which the *building* is situated.” (14B-2-202)

A rectangular open space that is bounded on one side by an abutting property line and the opposite side by the exterior wall of a building must be open to public ways on the other two sides in order to meet the definition of a "yard."

16. What is the difference between an "exit stairway" and an "exit access stairway"?

An "exit stairway" is separated from other areas of the building in accordance with Section 1023 for interior exit stairways or Section 1027 for exterior exit stairways.

An "exit access stairway" is any stairway that does not meet these requirements. An exit access stairway may be open or enclosed. An exit access stairway must meet the requirements of Section 1019.

17. The definition of "net floor area" allows aisles to be excluded. What is considered to be an aisle? Is this for an assembly use only or could this be in a business use between furniture?

An aisle is defined as "an unenclosed exit access component that defines and provides a path of egress travel." (14B-2-202) Areas where the path of travel is clearly defined by permanently installed built features, shown on the plans, such as a change in flooring or partial-height walls, may be excluded when determining net floor area. Paths between movable furniture are not "aisles" that can be deducted from net floor area.

18. In a mercantile occupancy, can you deduct gondolas, racks, etc. when determining "net floor area"?

When calculating net floor area, you may deduct "permanently attached equipment and furnishings which are 28 inches or greater above the floor." (14B-2-203.5.2) You may not deduct furniture that is not permanently attached to the building.

19. Is "building height" measured to peak or to mean roof elevation? Does this correspond to zoning?

For purposes of the building code, building height is measured to the mean elevation of the highest roof plane, subject to 7 exceptions. (14B-2-203.3)

The Chicago Zoning Ordinance provides a different method for measuring building height. (17-17-0311) In most cases, the value will not be the same. The building code measurement must be used when applying requirements in the Chicago Construction Codes and the zoning ordinance measurement must be used when applying zoning requirements.

20. How is "grade plane" determined for a building facing a street that has two levels, such as Wacker Drive?

Grade plane is determined in relation to the averaged finished ground level adjoining the perimeter of the building. (14B-2-203.2) For the purpose of applying exception 1, use the lower level of a multi-level street, such as Wacker Drive.

21. Does the provision regarding raised streets apply only to existing buildings or also to newly built buildings?

The allowance for buildings on lots adjoining raised streets, such as in parts of Pilsen and Ukrainian Village, may be used for both new and existing buildings. (14B-2-203.2, exception 1)

22. On a house with a dormer, is "building height" measured to the midpoint of the dormer roof?

For large dormers, yes. (14B-2-203.3) Small dormers may be excludable when determining building height under exception 5.

23. Does a "basement" count as a "story"?

A basement is a "story," but it is not a "story above grade plane." (14B-2-202) Many requirements impose limits on the number of stories above grade plane, but some requirements apply to the number of stories, such as the requirements for fire-resistance rating of a vertical shaft. (14B-7-713.4)

24. How is "building area" determined in rooms with sloping ceilings, such as a finished attic?

For building code purposes, areas with a ceiling height of 5 feet or more are included in determining building area. (14B-2-203.4) Under the zoning ordinance, only areas with headroom of 6'-9" or more count toward floor area when determining FAR. (17-17-0305-A)

Chapter 3: Occupancy Classification and Use

25. What occupancy classification applies to a gymnasium (basketball court) or swimming pool attached to a community center?

“Gymnasiums (without spectator seating)” and “indoor swimming pools (without spectator seating)” are Group A-3 occupancies. (14B-3-303.4) If there is spectator seating, they are Group A-4 occupancies. (14B-3-303.5)

26. What occupancy classification do laundromats fall into?

“Dry cleaning and laundries: pick-up and delivery stations and self-service” is classified as a Group B occupancy. (14B-3-304.1)

27. How should the occupancy of animal hospitals and doggie daycares be classified?

“Animal hospitals, kennels and pounds” are classified as Group B occupancies. (14B-3-304.1)

28. How should the occupancy of a large art studio where fabrication of materials is happening - glass making, ceramics, metal work, etc. – be classified?

As long as there is not a quantity of hazardous materials or processes requiring classification as a hazardous (Group H) occupancy, this is a Group F-1 (moderate hazard industrial) occupancy. (14B-3-306.2) If the use only involves noncombustible materials, with the written approval of the fire department it may be classified as a Group F-2 (low hazard industrial) occupancy. (14B-3-306.3)

29. Is a distillery classified as a Group F-2 occupancy?

The first step in classifying a distillery is determining that the quantity of hazardous materials is below the threshold for classification as a Group H occupancy. (14B-3-307) If all products have an alcohol content of 16 percent (32 proof) and the finishing and packing operations do not involve a substantial quantity of combustible material may seek the approval of the fire commissioner to be classified as a Group F-2 occupancy. (14B-3-306.3) Otherwise, it must be classified as a Group F-1 occupancy. (14B-3-306.2)

30. Are mom and pop bakeries included in Group F?

“Food processing establishments and commercial kitchens not associated with restaurants, cafeterias and similar dining facilities not more than 2,500 square feet in area” are Group B occupancies. (14B-3-304.1) Larger establishments are Group F-1 occupancies. (14B-3-306.2)

31. Which occupancy classification applies to temporary tents and/or stages?

In most cases, it is not necessary to determine an occupancy classification for temporary structures. (14B-31-3103) When it is, the general provisions of Chapter 3 apply, so a tent used for assembly purposes with food and drink would be a Group A-2 occupancy.

32. Which occupancy classification would a fire station be designated as in the new code?

A typical fire station, with garage space, offices, and sleeping quarters would be a mixed-occupancy building. Any of the mixed-occupancy approaches in Chapter 14B-5 can be used for fire station design.

33. For an office buildout on a single tenant floor of 4,000 square feet, is the office pantry limited in size to five percent of the floor area per accessory use provisions?

No. “A room or space used for assembly purposes that is less than 750 square feet in area and accessory to another occupancy shall be classified . . . as part of that occupancy.” (14B-3-303.1.2)

Chapter 4: Special Detailed Requirements Based on use and Occupancy

34. Are there still floor rating reductions for high-rise buildings?

Yes. (14B-4-403.2.1)

35. If you have a parking garage underneath a second floor do need to provide a 4-hour rating even though it is fully sprinklered?

Where the building (including the parking garage) is provided with a NFPA 13 sprinkler system, the minimum fire-resistance rating for the separation is 3 hours. (14B-4-406.2.8.2)

36. If I have a four-car attached garage what is the fire separation requirement?

A four-car garage is a "private garage." (14B-2-202) Attached private garages must be separated from other areas of the building by construction with a fire-resistance rating of at least 1 hour. (14B-4-406.3.2)

37. When is a 1-hour fire-resistance rating required between sleeping units within a dwelling unit (suite) in a congregate living facility?

If the dwelling unit (suite) in a congregate living (co-living) facility contains five or fewer sleeping units (sleeping rooms), fire-resistance-rated construction is not required between the sleeping units and shared living spaces. If the dwelling unit contains six or more sleeping units, fire-resistance-rated separations are required. (14B-4-420.2)

38. Has the 5,000 square foot area separation for residential construction gone away?

Yes. There is no equivalent of Section 13-64-020(c) in the new building code.

Chapter 6: Types of Construction

39. For a single-family home on a 25-foot lot, where one side is 2'-6" and the other is 3'-0" from the side property lines, do all exterior walls need to follow the rating for a fire separation distance of less than three feet?

No. Fire separation distance (and the required fire-resistance rating) is determined for each segment of the exterior walls separately. (14B-6-602.1.1, 14B-7-705.5)

40. In Type III construction are metal structural members allowed in the exterior walls?

Yes, if the metal structural members are protected to provide the minimum required fire-resistance rating for the exterior walls. (14B-6-602.3)

41. A building can only have one construction type: what if there is an existing heavy timber building, and we add a concrete and steel addition?

The combined building would be required to meet all requirements for Type IV (heavy timber) construction. (14B-6-602.4)

42. What is the construction type of an existing building which primarily has load bearing brick exterior walls, but also a wood frame addition, such as a porch that has been enclosed and made habitable space?

A building which has any combustible exterior walls must be classified as Type V construction. (14B-6-602) Note: an unheated enclosed porch is treated as an exterior wall projection and not a portion of the building. (14B-2-202, 14B-7-705.2)

43. For Type III or IV construction can fire-retardant treated wood be used for non-structural applications like window blocking?

Yes, either untreated wood or fire-retardant treated wood (FRTW) can be used for window blocking in exterior walls in any type of construction. (14B-6-603.1(14), 14B-6-604.1)

44. In Type III construction does the non-combustible requirement for exterior walls prohibit the use of non-bearing wood furring on the interior side of the exterior wall?

Where the exterior wall is required to be noncombustible, furring on the interior side must comply with Section 14B-8-803.15.1 or 14B-8-803.15.2, which allow limited uses of combustible furring.

45. Is the floor-ceiling assembly over a basement required to have a fire-resistance rating in a two-flat?

If the basement is unfinished, storage, or part of the first floor dwelling unit, no. (14B-6-605.4) If the basement is a separate dwelling unit or a laundry room over 100 square feet, yes. (14B-4-420.2, 14B-5-509)

46. Are all basements required to have a drywall ceiling to protect wood floor joists?

No. In buildings of Group R-5 occupancy, where the building construction type does not require all floors to have a fire-resistance rating, the floor above the basement is not required to have a fire-resistance rating. (14B-6-605.4) A fire-resistance rating is required if the floor-ceiling assembly is required to have a fire-resistance rating based on the building's construction type (Table 14B-6-602) or separates dwelling units (14B-4-420.3). A fire-resistance rating is required for the floor construction over a basement in any occupancy other than Group R-5. (14B-6-605.4)

Chapter 7: Fire and Smoke Protection Features

47. Are fire-resistance-rated assemblies required to be designed based on fire exposure to one or both sides?

Interior walls and partitions must be designed to provide the minimum required fire-resistance rating when exposed to fire on either side. (14B-7-703.2.1) The testing standards require that reports on asymmetrical wall assemblies indicates the fire endurance classification applicable to each side. (ASTM E119 § 8.5)

Exterior walls for Group H occupancies must always be designed for fire exposure from either side. For all other occupancies, exterior walls with a fire separation distance of 10 feet or greater are only required to be designed for exposure to fire from the inside. (14B-7-705.5)

Per the terms of the ASTM E119 and UL 263, floor-ceiling and roof-ceiling assemblies are tested for exposure to fire from below. (ASTM E119 § 27)

48. What are “opening protectives”? Do they need to meet the rating of the wall they are in?

Opening protectives are fire door assemblies, fire shutter assemblies, fire window assemblies, or glass-block assemblies in a fire-resistance-rated wall or partition. (14B-2-202) Opening protectives have “fire protection ratings” instead of fire-resistance ratings. The minimum required ratings are specified in Table 14B-7-716.1(2) based on the type of wall/partition and the required fire-resistance rating of that wall/partition.

49. Do HVAC penetrations of fire rated exterior walls need to be protected?

Sometimes. Ducts and air transfer openings in fire-resistance-rated exterior walls required to have protected openings in accordance with Section 14B-7-705.10 must be protected with fire dampers. (14B-7-717.5.6) There is an exception for residential kitchen and clothes dryer exhaust.

50. Where are unenclosed interior stairs allowed?

Exit access stairways (which may either be open or enclosed with construction that does not meet the fire-resistance requirements for exit stairways) are allowed at locations specified in Section 14B-10-1019. Openings between stories for exit access stairways are allowed by Section 14B-7-712.1.12. Other openings between stories (including an opening adjacent to, but larger than necessary for an exit access stairway) must meet the requirements in Section 14B-7-712.1.9, meet the requirements for atriums (14B-4-404, 14B-7-712.1.7), or fit one of the other allowances in Section 14B-7-712.

51. Is the top of a mechanical shaft that penetrates the roof plane required to have a fire-resistance rating?

If the shaft penetrates the roof plane of the uppermost story of the building, the top of the shaft must have the fire-resistance rating required for roof construction based on construction type. (Table 14B-6-601) If the shaft terminates below the roof the top of the shaft must comply with Section 14B-7-713.12.

52. Does the new code contain prescriptive requirements for the gauge of hollow metal door frames?

No. Consistent with the IBC, fire door assemblies, including frames, may “be constructed of any material or assembly of component materials that conform to the test requirements” listed in the code. (14B-7-716.2.1) Fire door frames must be labeled to show that they meet an applicable test standard. (14B-7-716.2.9.4)

53. When are fire dampers required in penetrations of interior walls with a 1-hour fire resistance rating?

Fire dampers are not required in ducts which penetrate fire barriers required to have a 1-hour fire-resistance rating if the building is sprinklered, the area is not a Group H occupancy, and the ductwork is constructed of sheet steel not less than 26 gauge thickness. (14B-7-717.5.2, exception 3)

Fire dampers are not required in a duct which penetrates a fire partition. (14B-7-717.5.4)

54. In a high-rise office building, what are the requirements for tenant demising walls and common corridor walls?

There is no requirement that demising walls between tenants of the same occupancy classification have a fire-resistance rating. (Chapter 14B-5) There is no requirement that corridor walls have a fire-resistance rating in fully sprinklered Group B occupancy (14B-10-1020.1) however there may be advantages to having a fire-resistance rated corridor. (For example, 14B-10-1007.1.1, exception 1)

Chapter 9: Fire Protection and Life Safety Systems

55. Automatic sprinkler systems: Is there anything new with deluge / window sprinklers?

Consistent with the IBC, use of sprinklers to provide a fire-resistance or fire-protection rating is not recognized by the code, except for atrium separation. (14B-7-703.4, 14B-4-406.6, exception 1)

Permission to use window sprinklers in lieu of fire-resistance rated construction should be sought through the alternative code approval request (ACAR) process.

56. Automatic sprinkler systems: Are extended-coverage sprinklers permissible in Chicago?

Yes. Extended coverage sprinkler systems are recognized by the standards referenced in the 2019 Chicago Building Code. (NFPA 13-2016 § 8.4.3) For technical details, consult the Chicago Fire Department, Fire Prevention Bureau, which is responsible for permitting and inspecting automatic sprinkler systems.

57. Automatic sprinkler systems: Are CPVC pipes allowed to be used for residential sprinkler systems?

Yes. CPVC is recognized as a piping material in all referenced NFPA sprinkler system standards. For technical details, consult the Chicago Fire Department, Fire Prevention Bureau, which is responsible for permitting and inspecting automatic sprinkler systems.

58. Automatic sprinkler systems: In a fully sprinkled building where a portion is a dry pipe system, is that considered an alternative system and therefore not fully sprinkled by code?

Possibly. Consult the Chicago Fire Department, Fire Prevention Bureau, which is responsible for permitting and inspecting automatic sprinkler systems to determine how a partial dry pipe system will be characterized for code compliance purposes.

59. Standpipe systems: In a four-story building of R-2 occupancy with an occupiable rooftop is a standpipe system required?

No. Standpipe systems are never required in a Group R-2, R-3, R-4, or R-5 occupancy not more than four stories above grade plane. (14B-9-905.3, exception.)

If, however, the building is voluntarily provided with a standpipe system, the system must extend to the level of the occupiable rooftop. (14B-9-905.3.8)

60. Standpipe systems: Are hose connections required at each side of 2-hour horizontal exits?

Not always, however, "where the most remote portion of a nonsprinklered floor or story is more than 150 feet from a hose connection or the most remote portion of a sprinklered floor or story is more than 200 feet from a hose connection, the fire code official is authorized to require that additional hose connections be provided in approved locations." (14B-9-905.4, item 6) Consult the Chicago Fire Department, Fire Prevention Bureau for specifics.

61. Portable fire extinguishers: What information about portable fire extinguishers needs to be shown on plans for review?

Where providing portable fire extinguishers is required based on the intended use or occupancy, the general type and locations of portable fire extinguishers / cabinets must be indicated on the construction documents submitted for plan review. (14A-4-411.3.9)

62. Fire alarm systems: are pull stations (manual fire alarm boxes) required at each side of horizontal exits?

In buildings where a manual fire alarm system is required, manual fire alarm boxes must be provided within 5 feet of the entrance to each exit. (14B-9-907.4.2.1) A horizontal exit is a type of exit, so for a two-directional horizontal exit, a manual fire alarm box is required on each side.

In buildings where the manual fire alarm system can be omitted due to an automatic sprinkler system, manual fire alarm boxes are still required at each exit (including horizontal exits) on the level of exit discharge. (14B-9-907.2)

63. Fire alarm systems: Are there low frequency signaling requirements for sleeping rooms?

Yes, the referenced fire alarm standard includes a requirement for low frequency alarm signals for sleeping areas. (NFPA 72-2016 § 18.4.5.3)

Chapter 10: Means of Egress

64. Is “non-simultaneous use” on a business use floor allowed to reduce occupant load?

Generally, no. The new code provides three options to modify the occupant load under conditions which may have been addressed through “non-simultaneous use” under the old code:

First, Section 14B-10-1004.10 (*added October 2020*) provides modified occupant load provisions for where a Group B, F or M occupancy contained limited areas used for assembly-type functions, such as conference rooms, break rooms, collaboration areas, or lounges.

Second, Section 14B-10-1006.2.1, exception 1, allows the number of exits from a lobby or foyer (or story containing an assembly space and a lobby or foyer) to ignore cumulative occupant load. (The capacity (width) of the exits must still be based on the cumulative occupant load.)

Finally, Section 14B-10-1004.5 allows for the building official to approve an actual occupant load below that determined by calculation. This would require documentation through a process such as Alternative Code Approval or the Committee on Standards and Tests.

65. If a restaurant has three small (100 square foot) storage rooms off the kitchen, is it required to determine the occupant load for each storage room separately (total OL = 3), or is it OK to apply the occupant load factor to the gross area for all storage rooms (total OL = 1)?

A whole-number occupant load must be calculated for each enclosed area. (14B-10-1004.5) When these spaces egress through an adjoining space the whole-number values must be added together to determine the cumulative occupant load. (14B-10-1004.2) If multiple functions having different occupant load factors are contained in the same area, a whole-number occupant load must be calculated for each function. (14B-10-1004.3)

66. For a break room/pantry in a Group B office suite, how is occupant load calculated?

For determining the required number and capacity of exit access doorways from the break room, use the net floor area of the break room divided by the appropriate assembly factor (for example, 15 net for tables and chairs). (14B-10-1004.10.1 *added October 2020*).

If the gross floor area of the break room is 750 square feet or less, for determining the contribution of the break room to the cumulative occupant load of the suite and story, a reduced factor may be used. (14B-10-1004.2.2 *added October 2020*)

67. Does an occupiable rooftop on a two-story single-family residence need two exits?

No. Outdoor areas (yards, balconies, occupiable rooftops, etc.) that are only accessed from an individual dwelling unit are only required to have one means of egress. (14B-10-1004.7, exception 3; 14B-10-1006.3.3, item 13)

68. Can the 44-inch clear egress width of a corridor be reduced at one location to 36 inches by a single element such as a column, or does this only apply to doorways?

In a corridor or exit access passageway which is otherwise required to have a minimum clear width of 44 inches, at a location where a door or doorway would be allowed, an element, such as a column, may reduce the clear width of the corridor to that required for a doorway. (14B-10-1005.7.1)

69. How does the 4½-inch handrail protrusion in corridors meet the ADA 4-inch maximum for protruding objects in the path of travel?

Both the Chicago Building Code and ADA Standards allow handrails to protrude 4½ inches. (14B-10-1003.3.3, ADA Standards § 307.2)

70. Scissor stairs are defined as interlocking separate paths of egress located within one exit enclosure. Can interlocking stairs, if separated by construction having the fire-resistance rating required for shafts (separate exit enclosures) be counted as two exits?

No. Both “interlocking” stairways and “scissor stairways” are counted as only one exit stairway. (14B-10-1007.1)

71. For stairs, is there a required ratio between rise and run or only minimum dimensions?

There is no longer a ratio requirement for most types of stairs. (14B-10-1011) Many guides recommend that the ratio of rise (r) to run (R) meet the following formulas for user comfort:

$$r + R = 18$$
$$2r + R = 25$$

A ratio requirement does apply to the steeper-than-usual stairs allowed for a residential sleeping loft. (14B-12-1207.5, item 4.2)

72. What are the requirements for spiral stairs and where are they allowed?

Spiral stairs are allowed under four conditions:

- within *dwelling units*
- serving a single *dwelling unit*
- from a space not more than 250 square feet in area and serving not more than 5 occupants
- from *technical production areas* in accordance with Section 14B-4-410.5

Required dimensions are specified in Section 14B-10-1011.10.

73. In a building with four stories above grade plane plus a basement (five stories), can a stairway that only connects three of those stories be built of combustible materials?

Yes. Stairways connecting five or more stories must be built of noncombustible materials and have a noncombustible shaft enclosure. (14B-10-1011.7, exception 1)

74. Can egress pass through a storage room if a demarcated path is defined?

Yes, in Group M occupancies where the requirements of Section 14B-10-1016.2, item 5, exception 2 are met.

75. Can egress pass through an employee break room with no kitchen in it?

Probably. Egress from a room or space may pass through adjoining or intervening rooms or areas where such adjoining rooms or areas and the area served are accessory to one or the other, are not a Group H occupancy, and provide a discernible path of egress travel to an exit. (14B-10-1016.2, item 2) Egress shall not pass through kitchens, storage rooms, closets or spaces used for similar purposes. (14B-10-1016.2, item 5)

76. Can you exit through a bedroom if there is not a lock on the bedroom door?

Only in a studio or one-bedroom apartment or on a story with only one bedroom. Means of egress from a sleeping area cannot require travel through other sleeping areas. (14B-10-1016.2, items 3 & 4)

77. A furniture layout is typically unknown at the time of permitting. A diagonal measurement within a room or space has been a typical way to measure unless the space has fixed seating. Is this now a mandated way of reviewing travel distance?

Yes. The exit access travel distance must be measured "along the natural and unobstructed path" of egress travel. (14B-10-1017.3). Unless it can be shown that a room or space will never contain furniture or obstructions (such as a lobby), the natural and unobstructed path is not a diagonal but should be measured parallel to walls. The common path of egress travel is a portion of the exit access travel distance and must be measured in the same way. (14B-2-202)

78. In an open plan office, is the corridor (aisle) width measured with file cabinet drawers open or closed?

The minimum clear width must comply with Section 14B-10-1018.3. The aisle width may be measured with the cabinet drawers closed.

79. Is a lobby required to have a 2-hour fire-resistance-rated separation from stories below if one of the two exit stairways discharge into the lobby?

Yes, if the exit stairway connects four or more stories, because when the exit discharge passes through the level of exit discharge the separation between the level of exit discharge and levels below must have the same minimum fire-resistance rating as the exit enclosure. (14B-10-1028.1, exceptions 1.2, 2.3 & 4.2)

80. Does a private occupiable rooftop require a second exit in a R-2 or R-5 three-story building?

Yes, unless it meets one of the following exceptions:

An outdoor area only accessed from an individual *dwelling unit* (14B-10-1004.7, exception 3)

An occupiable rooftop that is no more than 40 feet above grade, with a net floor area not exceeding 300 square feet. (14B-10-1006.3.3, item 11)

81. On a stairway, if the trim/stringer exceeds 1½ inches, do you measure clear width between stringers?

Yes. "The width of means of egress components shall be measured in the clear at the narrowest point of the means of egress component under consideration, excepting projections permitted by this chapter." (14B-10-1005.2) "Other nonstructural projections such as trim and similar decorative features shall be permitted to project into the required width not more than 1½ inches on each side." (14B-10-1005.7.2) The Department has determined that it will treat stringers as nonstructural for the purpose of this requirement.

82. For Group R-2 (multi-family residential), if the exit access travel distance within a dwelling unit with a single door to the corridor is 60 feet, and the unit is at the end of a dead-end corridor, is the maximum travel distance in the corridor 15 feet (to the exit stairway) because the common path of egress travel is limited to 75 feet?

Yes, if the building has a NFPA 13R sprinkler system. (Table 14B-10-1006.2.1)

If the building has a NFPA 13 sprinkler system, the common path of egress travel is 115 feet. (Table 14B-10-1006.2.1, *amended October 2020*) Because the maximum length of dead-end corridors in buildings with NFPA 13 sprinkler systems is 50 feet, the maximum travel distance between the door to the dwelling unit and the door to the exit stairway is 50 feet.

83. What is the maximum exit capacity per compartment (or from the story) in a typical sprinklered office building with a vertical exit provided on either side of a horizontal exit?

Generally, a story with two vertical exits can have a maximum occupant load of 500. (14B-10-1006.3.2)

Where the story is separated into two areas of roughly equal size, connected by a horizontal exit, each area may have an occupant load up to 300 (14B-10-1006.3.2, exception) so the maximum occupant load of the story is 600. If the story has three vertical exits (exit stairways), the maximum occupant load is 1,000. (14B-10-1006.3.2)

84. Are single family homes with more than 1,500 square feet on the second floor still required to have a second stair or sprinkler system?

A single-family home or townhouse with up to 1,600 square feet on the second floor is permitted to have one exit or access to one exit. (14B-10-1006.3.3, item 6) This area is increased to 2,000 square feet if the building has a sprinkler system (NFPA 13D, NFPA 13R or NFPA 13).

85. How do you measure the diagonal in a non-rectangular room?

For any room or space the "maximum overall diagonal" is the longest distance between any two points on the perimeter of the room or space. (*Merriam-Webster.com*)

86. Can a 2'-10" door be used in a commercial occupancy?

Yes, depending on the door hardware. When the door is open 90 degrees, the distance between the face of the door leaf and the stop must meet the required clear opening width, usually 32 inches. (14B-10-1010.1.1)

87. If we have a suite (Group B occupancy) in a multi-tenant floor which is smaller than 4,000 square feet, can the single exit door swing into the space?

If the door serves an occupant load of 50 or more, it must swing in the direction of egress travel. (14B-10-1010.1.2.1)

If an existing door swings opposite the direction of egress travel and serves an occupant load of 100 or less (as allowed by the pre-2019 code) it may remain or be replaced at the same location with a door of the same size and configuration. (14R-8-805.4.2, exception *amended October 2020*)

88. Will perforated risers still be considered acceptable for monumental stairs?

Most risers are required to be solid. (14B-10-1011.5.5.3) This is consistent with the ADA Standards. (ADA Standards § 504.3) Solid risers are not required on stairs which are not part of an accessible means of egress. (14B-10-1011.5.5.3, exceptions 1 & 4) Perforations in risers that meet the limitations for openings in stairway walking surfaces (14B-10-1011.7.1) are also acceptable in any stairway.

89. Are interior wood stairs still allowed in buildings three stories or less?

Yes. A stairway is required to be built of noncombustible materials if it connects five or more stories; the shaft is also required to be built of noncombustible materials. (14B-10-1011.7, exception 1)

90. Is a planter adjacent to the parapet on an occupiable rooftop or balcony considered a "walking surface" which requires a guard?

Possibly. Horizontal surfaces 12 inches or less in depth measured perpendicular to the guard are always excluded. If the planter creates a condition that might be used as bench-like seating or a step for children, an inspector might determine that it creates a walking surface which requires a guard.

91. How is exit access travel distance measured along an exit access stairway?

"The measurement along [exit access] stairways shall be made on a plane parallel and tangent to the stair tread nosings in the center of the stair and landings." (14B-10-1017.3.1)

92. In a three-story single-family residence, can you still have an open stair?

Yes. Open exit access stairways are permitted to connect up to four stories within a dwelling unit in a Group R-1, R-2, R-3 or R-5 occupancy. Open exit access stairways are permitted to connect up to three stories within a Group R-3 congregate living facility or Group R-4 occupancy. (14B-7-712.1.2, 14B-10-1019.3)

93. Do penetration limitations apply to exit passageways?

Yes. Penetrations into or through an exit passageway are prohibited except for the six conditions listed in Section 14B-10-1024.6.

Chapter 12: Interior Environment

94. For a basement renovation creating a new bedroom, what are the minimum requirements for natural light and ventilation in the bedroom?

If the basement is part of a dwelling unit that has more than 40 percent of its net floor area on a story above grade, the net glazed area of openings must be at least 6 percent of the floor area of the room (14B-12-1204.2.4, item 1) and mechanical ventilation providing at least 0.35 air changes per hour may be provided in lieu of operable windows.

95. What is the minimum side yard for natural light and ventilation?

For most conditions, 3 feet. (14B-12-1205.1) This distance is increased if the exterior wall is more than 40 feet high. For residential occupancies built before 1958, the minimum dimension is reduced by 6 inches. (14R-3-309.3)

Chapter 15: Roof Assemblies and Rooftop Structures

96. Can a mechanical penthouse be accessed by an interior stairway and still be excluded from measurement of building height?

Yes. Both mechanical penthouses and rooftop access penthouses that meet applicable requirements can be excluded from building height. (14B-15-1510.1.1) Requirements for mechanical penthouses are in Section 14B-15-1510.2. Requirements for rooftop access penthouses are in Section 14B-15-1513.2. In some buildings, it is required that the stairway extend to the roof level. (14B-10-1011.12)

97. Is area of an occupiable rooftop on a two-story detached single-family residence limited to one-third of the roof area?

No, as long as certain limitations on materials are met. (14B-15-1513.3.1)

98. Are stair enclosures providing access to an occupiable rooftop considered a story?

A rooftop access penthouse meeting the requirements of Section 14B-15-1513.2 is not considered an additional story. (14B-15-1513.2). The rooftop access penthouse may be excluded from calculating building height if it meets the general limitations on rooftop features. (14B-15-1513.1.1)

99. If a toilet room is provided on the same level as an occupiable rooftop, does that level count as a story?

Yes. Any fully enclosed occupiable space at the roof level is considered as an additional story of the building. (14B-15-1513.2). A toilet room has code requirements for providing light and ventilation facilities and is therefore an occupiable space. (14B-2-202).

100. How do you calculate building height when the penthouse exceeds one-third of roof area?

Where the combined area of parapet walls, unoccupied rooftop structures (including mechanical penthouses), rooftop access penthouses, and structures accessory to an occupiable rooftop exceed one-third of the area of the supporting roof deck, the rooftop structures must be considered in determining building height, number of stories above grade plane, building area, and fire area. (14B-15-1510.1.1)

101. Where can untreated wood be used as the walking surface of an occupiable rooftop on a residential building?

Untreated wood can be used as the walking surface, regardless of area, where the fire separation distance on all sides is at least 5 feet. (14B-15-1513.3.1)

Untreated wood can be used as the walking surface with a fire separation distance of less than 5 feet where: (a) the area of the walking surface is no more than one-third of the roof area or 500 square feet, whichever is greater, and (b) all sides with a fire separation distance of less than 5 feet have a parapet wall that is (1) noncombustible, (2) at least 36 inches above the walking surface, and (3) has a fire-resistance rating of at least 2 hours. (14B-15-1513.3.1)

Untreated wood cannot be used as a walking surface (or for most other purposes) on an occupiable rooftop where the overall building height (not the height of the walking surface) is greater than 55 feet. (14B-15-1513.3.2)

102. Does an occupiable rooftop over a private garage require a noncombustible walking surface?

Not usually. If the walking surface is no more than 500 square feet and, on sides with a fire separation distance of less than 5 feet, a 36-inch high parapet wall with a 2-hour fire-resistance rating is provided, it may be any material not less fire resistive than untreated wood. (Table 14B-15-1513.3.1) If the private garage is accessory to a 1-3 unit building (Group R-5 occupancy), the walking surface may be an unlimited area of fire-retardant treated wood as long as the fire separation distance is at least 3 feet. (Table 14B-15-1513.3.1)

Chapter 16: Structural Design

103. Must an occupiable rooftop accessible to everyone in a multi-family building be designed for 100 psf live load?

Yes. Only an occupiable rooftop which is "accessible from a single dwelling unit" may be designed for 60 psf live load. (Table 14B-16-1607.1(26), note I)

104. Must an occupiable rooftop above a private garage for a single-family home be designed for 100 psf live load?

Yes, if it can be accessed without going through the indoor living space. Only an occupiable rooftop which is "accessible from a single dwelling unit" may be designed for 60 psf live load. (Table 14B-16-1607.1(26), note I)

105. Are stairs required to be designed for a 100 psf live load?

In most cases, yes. Interior stairs in Group R-5 occupancies (1-3 unit buildings) may be designed for 40 psf live load. (Table 14B-16-1607.1(30))

106. Can a traditional Chicago porch on a two-flat or three-flat be designed for 60 psf live load?

No. Any porch or stair system which serves more than one dwelling unit must be designed for a live load of 100 psf. (Table 14B-16-1607.1(5))

Chapter 17: Special Inspections and Tests

107. When are special inspections required?

Special inspections are required for certain types of work in accordance with Chapter 17. (14B-17-1704, -1705) These requirements will not be mandatory until January 2021. (Code Memo 2020-02)

Chapter 23: Wood

108. Are one- and two-unit buildings required to comply with structural requirements of the IBC intended for commercial buildings instead of “cookbook” requirements like in the IRC?

No. The structural chapters of the IBC recognize both prescriptive (cookbook) and performance-based compliance methods. Detailed prescriptive requirements for wood frame construction are found in Section 14B-23-2308. Like the previous code, this code also recognizes the American Wood Council’s prescriptive *Wood Frame Construction Manual*. (14B-23-2309.1)

The new code also has prescriptive requirements for foundation design. (14B-18-1807.1.6)

Chapter 24: Glass and Glazing

109. Is there a code requirement that tempered glass needs to be labelled?

Yes. This requirement is in Section 14B-24-2403.1.

110. Is a structural finite element analysis still required for glass guardrails?

No. Structural glass guardrails must be designed to withstand the live loads specified in Section 14B-16-1607.8 and comply with the material requirements in Sections 14B-24-2406.4.4 and 14B-24-2407. Many glass guardrail products will already be tested to meet these IBC-based standards. In this case, the glass guardrail must be designed and installed in accordance with the manufacturer’s requirements and test report conditions. Structural finite element analysis may be appropriate or required for a unique or customized design.

Chapter 30: Elevators and Conveying Systems

111. Can an elevator open directly into a dwelling unit?

Yes. Chicago does not require elevator lobbies. The elevator shaft requires a fire-resistance rating of at least 1-hour, or at least 2-hours if connecting four or more stories. (14B-7-713.4) The elevator doors must have a fire protection rating consistent with the fire-resistance rating required for the elevator shaft. (14B-30-3002.1.1)

Questions About the Chicago Electrical Code (Title 14E)

112. Can you verify that meeting rooms with 215 square feet of floor area require floor outlets?

A meeting room that is at least 12 feet wide and has a floor area of at least 215 square feet is required to have at least one receptacle outlet located in the floor or in fixed furniture at a location at least 6 feet away from any fixed wall. (14E-2-210.71(B)(2))

Questions About the Chicago Energy Conservation Code (Title 14N)

113. When replacing a flat roof on a residential building (two- or three-flat) are we allowed to put the insulation in the attic area?

Where adding an additional layer of roofing over an existing roof (roof recover), addressing energy efficiency is encouraged but not required. (14N-R5-R503.1.1, exception 4)

Where the roof is being torn off and replaced (roof replacement), the general expectation is that insulation be provided to meet one of the options required for new construction:

R-49 roof assembly (14N-R4-Table R402.1.2)

R-38 insulation over 100 percent of the ceiling area requiring insulation (14N-R4-R402.2.2)

R-30 continuous insulation installed above the roof deck (14N-R4-R402.2.2)

Where the required R-value cannot be provided due to flashing height limitations presented by existing rooftop features that are not being altered, such as HVAC equipment, door or window sill height, parapet height, weep holes, and roof flashing height not meeting the manufacturer's specifications if reduced, the maximum thickness of insulation compatible with the existing space and existing conditions shall be installed. New insulation must have an R-value of R-5 per inch.

(14N-R5-R503.1.1, exception 7)

114. Is there any alternative to passing a blower test and duct leakage testing for alterations and additions?

Yes. For additions and alterations to an existing building, a blower door test is not required if all items listed in Table 14N-R4-R402.4.1.1 applicable to the project are field verified. (14N-R4-R402.4.1.2, exception 1) Duct leakage testing is not required for additions or alterations unless there is more than 40 linear feet of ductwork installed in unconditioned space. (14N-R5-R502.1.1.2, exception; 14N-R5-R503.1.2, exception)

Questions About the Chicago Plumbing Code (Title 14P / Ch. 18-29)

115. For plumbing fixture calculations, how is the occupant load to be determined?

For plumbing fixture calculations under the Chicago Plumbing Code, the occupant load is determined in accordance with Chapter 10 of the Chicago Building Code. (18-29-403.1)

The Illinois Plumbing Code method of calculating occupant load and minimum plumbing fixture requirements does not apply within the City of Chicago.

116. Are we required to put in a new water service if we add another plumbing fixture?

The size of the existing water service must be evaluated when a project calls for increasing the total water demand of a building.

Questions About the Chicago Building Rehabilitation Code (Title 14R)

Accessibility

117. Is there a definition provided for "primary function area"?

Yes:

PRIMARY FUNCTION AREA (for Section 305). An area of a *building* or *facility* containing a major activity for which the *building* or *facility* is intended. There can be multiple areas containing a primary function in a single *building*. Primary function areas are not limited to public use areas. Mixed-use *facilities* may include numerous primary function areas for each use. Primary function areas include, but are not limited to, the customer services lobby of a bank, the dining area of a cafeteria, the meeting rooms in a conference center, as well as offices and other work areas in which the activities of the public accommodation or other private entity using the facility are carried out. Primary function areas do not include: mechanical rooms, boiler rooms, storage supply rooms, employee lounges or locker rooms, janitorial closets, entrances or corridors. Restrooms are not primary function areas unless the provision of restrooms is a primary purpose of the *facility*, such as in highway rest stops.

This definition is consistent with the 2018 Illinois Accessibility Code and 2010 ADA Standards.

118. Are entry and public spaces in a multi-unit residential building considered "primary function areas"?

"Entrances" and "corridors" are, by definition, not "primary function areas." Whether other public areas or common areas in a multi-unit residential building are primary function areas will depend on the intended use of the space.

119. How does this compare to Illinois Accessibility Code (IAC) triggers for accessibility?

The accessibility provisions of the Chicago Construction Codes have been drafted to be at least as stringent as the requirements of the 2018 Illinois Accessibility Code for privately owned and privately funded projects. (14B-11-1101.3) More stringent requirements may apply to projects owned by a governmental entity or receiving government funding or other government incentives.

120. Does a change of occupancy trigger accessibility requirements?

In most cases, yes. (14R-3-305.4)

121. Does rehabilitation work need to provide an accessible means of egress?

Usually not. (14R-3-305.6, exception 2) An addition is required to comply with new construction requirements (14R-3-305.5), including requirements for providing an accessible means of egress (14B-10-1009), but this requirement does not require altering portions of the existing building.

Repair / In-Kind Replacement

122. Should 60 psf or 100 psf be used as the live load for designing the replacement of a shared occupiable rooftop on an existing high-rise residential tower?

Until 1990, the Chicago Building Code provided for a design live load of 60 psf for “special purpose roofs” used for “promenades or terraces.” Where records show that an existing occupiable rooftop (or other building element) was designed and permitted using a design live load less than is required in Table 14B-16-1604.3 for new construction, the occupiable rooftop (or other building element) may be repaired or rebuilt in the same location and without an increase in dead load using the same design live load. Records establishing the reduced design live load used for the earlier permit must be submitted as part of the new permit application.

123. When is addressing the *Chicago Minimum Requirements for Existing Buildings* (Title 14X) required? Does remodeling a kitchen trigger complying with the minimum requirements in a bathroom, even if no work is planned in the bathroom?

As the title suggests, all buildings are required to comply with the *Chicago Minimum Requirements for Existing Buildings*. (14X-1-101.2) These requirements apply whether or not work is being done.

If a building inspector is conducting a rough or final inspection of permitted work and observes a condition which does not meet the *Minimum Requirements* the inspector can cite the violation. If the permitted work requires a certificate of occupancy, the inspector may require correction of the violation before issuance of the certificate of occupancy.

124. What are the thermal insulation requirements with roof replacement?

Roof replacement is “the process of removing the existing roof covering, repairing any damaged substrate and installing a new roof covering.” (14R-2-202) “For *low-sloped roofs*, where the required R-value cannot be provided due to flashing height limitations presented by existing rooftop conditions that are not being altered, such as HVAC equipment, door or window sill height, parapet height, weep holes, and roof flashing heights not meeting the manufacturer’s specifications if reduced, the maximum thickness of insulation compatible with the available space and existing conditions shall be installed. New insulation shall have a minimum R-value of R-5 per inch. In no case shall a *roof replacement* reduce the R-value of the *roof assembly*.” (14N-C5-C503.3.1; 14N-R5-R503.1.1, exception 7)

125. Is window replacement a Level 1 alteration?

Window replacement for purposes of maintenance or to correct damage is classified as a repair. (14R-2-202) Replacement of functioning, non-damaged windows is a Level 1 alteration.

Small Residential

126. Is finishing an attic or basement and not changing the building volume considered an addition or an alteration?

For purposes of the Building Rehabilitation Code, an addition is an “extension or increase in floor area, number of stories, or building height of an existing building.” (14R-2-202) If the work does not increase the floor area, number of stories, or building height, it is an alteration and not an addition.

Even with no change in building volume, if the work involves reconfiguring the internal roof structure (such as collar ties) and increasing ceiling height in a way that creates new floor area or an attic that now counts as a story, the work is classified as an addition.

If the work is classified as an alteration and involves reconfiguring more than 50 percent of the floor area of the story, it must comply with the additional requirements applicable to this scope in the applicable alteration chapters.

Note: for purposes of the Energy Conservation Code (Title 14N), increasing the “conditioned floor area” is considered an addition (14N-R2-R202) and additional requirements apply.

127. What type of structural evaluation is required when adding a full second story addition to a typical Chicago bungalow?

For existing gravity load carrying elements, where the addition will cause an increase of more than 5 percent in design loads (dead load, live load, snow load) those elements must be evaluated under the new construction structural provisions (Ch. 14B-16) and upgraded if deficient. (14R-11-1103.1)

For existing lateral load carrying elements, where the addition is not structurally independent of the existing building and the demand-capacity ratio of the element is increased by more than 10 percent, the existing element must be evaluated under the new construction structural provisions and upgraded if deficient. (14R-11-1103.2)

128. What fire-resistance rating is required the wall of an addition which is 2 feet from the side property line? What if this new wall is aligned with an existing wall below?

Newly built portions of additions must meet new construction requirements. (14R-11-1101.1) A new exterior wall which is 2 feet away from a side property line must have a fire-resistance rating of at least 2 hours. (Table 14B-6-602) In a building of Type V construction, the new wall must be built of noncombustible materials or fire-retardant treated wood and have a noncombustible exterior wall covering. (Table 14B-6-602, note j) If the new wall is supported by the existing exterior wall below, the fire-resistance rating of the existing exterior wall must match that required for the new wall (14B-7-705.6), which may require upgrading that wall (for example, by adding layers of gypsum board), but the existing wall is not required to use noncombustible or fire-retardant-treated wood members. (14R-11-1101.1) If the existing exterior wall covering is remaining, upgrading it is not required; any new exterior wall covering must be noncombustible.

Alteration

129. When determining whether the number of plumbing fixtures must be evaluated due to an increase in occupant load of 20 percent or more (14R-8-809.1), can you make assumptions about the previous occupant load?

Yes, if records of the previously permitted condition or previously approved occupant load are not available, making a reasonable assumption about the previous value is acceptable. Any assumptions should be explained on the construction documents.

For example, if it is known that the previous use of a story in a high-rise building was for office use, applying the current occupant load factor for business areas (100 net) to the gross floor area of the story to determine the approximate occupant load is reasonable. If the proposed use includes significant assembly/meeting areas, it is likely that the plumbing fixture count must be evaluated and may require additional fixtures.

130. If you cannot reduce active fire protection systems, does this mean that the standpipe and sprinkler system requirements of the new code which are less stringent/more permissive than the prior code cannot be used?

In general, new code requirements which are less stringent/more permissive cannot be used in a mix-and-match fashion to modify a system or feature that was installed under a previous code, unless an analysis is completed to show that the existing building complies with all new construction requirements for both active and passive fire separation features in the current code.

For specific questions about sprinkler and standpipe systems, consult the Chicago Fire Department, Fire Prevention Bureau, which is responsible for permitting and inspecting these systems.

131. Does the high-rise building sprinkler trigger for Level 3 Alterations apply to a residential and/or historic high-rise building with a compliant Life Safety Evaluation Report (LSE)?

Yes, if more than half of the building area of high-rise building is being reconfigured during a 3-year period, it is reasonable to require high-rise buildings that were exempted from the mandatory sprinkler retrofit requirements adopted in 2003 to install a sprinkler system as part of major rehabilitation work. (14R-9-904.1.1)

132. How are existing dead-end corridors which exceed 50 feet to be handled?

Because the pre-2019 code was significantly more permissive of dead-end corridors, allowances have been made for existing conditions, both in sprinklered and non-sprinklered buildings. (14R-8-805.6 *amended October 2020*) Newly-created or extended dead-end corridors cannot exceed the 50-foot limit allowed in new construction.

Change of Occupancy

133. Is changing the use of a facility from an auto repair garage to a furniture storage warehouse a change of occupancy?

No. Because both uses are classified as Group S-1 occupancies (14B-3-311.2), this is not a change of occupancy (14R-2-202).

134. For classification of a Level 3 alteration, how is the "consecutive 36-month period" determined?

Work is classified as a Level 3 alteration "where the *work area* [reconfigured area] exceeds 50 percent of the *building area* during any consecutive 36-month period." (14R-6-604.1) For the purpose of this requirement, the Department will look back at all permitted work for which the final inspection occurred less than 36 months before the permit application date, and permitted work for which a final inspection has not yet occurred.

135. Is there still a code provision for change of occupancy with a higher, equivalent, or lower "hazard index"?

Yes, there are now three separate hazard indexes. (14R-10-1011) This recognizes that there are distinct risks associated with different elements of various occupancy classifications, such as means of egress, height and area, and exterior wall exposure. (Tables 14R-10-1011.4, -1011.5, -1011.6)

Questions About Permit Applications

136. Is the Hansen permitting system being eliminated?

The City of Chicago is currently working to replace the Hansen 7 system with a new product from the same software company called IPS 11. Other city departments, including the Department of Public Health and Department of Transportation, are already using the new system.

Currently, the Department of Buildings is scheduled to migrate out of the Hansen 7 system for permitting, inspections and trade licensing in 2021.

137. Are we supposed to use Hansen or not?

For now, you should continue to use the Hansen Dynamic Portal to begin permit applications.

Instructions for using the Hansen Dynamic Portal to start applications using the 2019 Chicago Construction Codes are available here:

https://www.chicago.gov/city/en/depts/bldgs/provdrs/bldg_code/alerts/2020/july/NewCodeProcedures.html

138. Will Hansen automatically print the new application?

No. Please follow the instructions available here to start a permit application in the Hansen Dynamic Portal: https://www.chicago.gov/city/en/depts/bldgs/provdrs/bldg_code/alerts/2020/july/NewCodeProcedures.html

You will also need to download the new Building Permit Application (Form 400) from the Department of Buildings website (https://www.chicago.gov/city/en/depts/bldgs/supp_info/permitforms.html) and upload a completed version to ProjectDox.

139. Is a code matrix still required to be provided on the drawings?

A matrix is required to be included on the drawings to demonstrate zoning compliance. A matrix or similar summary is required on the drawings to convey building code compliance, but no specific format is required.

A sample matrix for use with the Chicago Zoning Ordinance and 2019 Chicago Construction Codes is available at: https://www.chicago.gov/city/en/depts/bldgs/supp_info/permitforms.html

140. Should we list the specific alteration level on the new building application form 400?

No. Alteration level is not required on Form 400, however you should specify it on your drawings if you are using the “work area method” of compliance under the Chicago Building Rehabilitation Code (Title 14R).

141. Will the easy permit program (EPP) application be updated?

Yes. The Department is in the process of updating all permit application forms. New forms for the Easy Permit Program will be released later this year. Please visit:

https://www.chicago.gov/city/en/depts/bldgs/supp_info/permitforms.html for the latest forms.

142. Will there be an updated MOPD form for submittals going forward?

The Mayor’s Office for People with Disabilities (MOPD) released updated forms in January 2019. A link to MOPD’s forms is available on the Department of Buildings site under “Related Forms”:

https://www.chicago.gov/city/en/depts/bldgs/supp_info/permitforms.html

Questions About Inspections

143. What if I want to delay a permitted construction project? How long is a permit valid?

A permit must be paid for within 120 days of the notification that it is ready for payment, and the permit becomes active once payment is received. (14A-4-410.4; 14A-4-412.2.2)

You then have six months from the date of payment to “begin” work and request the first inspection. (14A-4-413.9 *amended October 2020*) (Beginning work is making any alteration to a wall, floor, ceiling, or structural element of the building.) If you need to extend this start date by six months, you can pay a fee equal to 25% of the original permit fee. (14A-4-413.9.1 *amended October 2020*)

If work has already begun and is put on hold for more than 365 days, or has not been inspected for more than 365 days, the permit must be reinstated (for a fee equal to 25% of the original permit fee) before work can resume.

Note: different deadlines may apply to projects with special zoning approvals, such as planned developments (PDs), administrative adjustments, or decisions from the Zoning Board of Appeals (ZBA).

144. Haven’t most existing high-rise buildings been upgraded with a sprinkler system?

In 2003, the City Council adopted an ordinance requiring many existing high-rise buildings to install a full sprinkler system if one was not already installed. Since then, hundreds of buildings completed retrofit work. Certain apartment buildings and historically significant commercial buildings were able to choose between installing a sprinkler system and making other life safety upgrades.

A list of those buildings is available here:

<https://www.chicago.gov/content/dam/city/depts/bldgs/general/LSE/20200731LSEMatrixWEB.pdf>

Questions About Code Publications

145. In addition to the Chicago code books should we purchase the IBC and the IRC to fully understand the new code?

The City of Chicago has worked with the International Code Council (ICC) to prepare and publish consolidated codes for Chicago. ICC offers these codes in several formats, including print, PDF, and electronic text. Free, read-only versions of the PDF and electronic text versions are hosted by ICC and links are provided on the City of Chicago web site.

You do not need to purchase or have access to any of the I-Codes to use the Chicago Construction Codes. If you would like to better understand Chicago's amendments to the I-Codes, you can compare the Chicago Construction Codes to the 2018 I-Codes.

146. When will the supplements be integrated into the main code books?

In June 2020, ICC released the "May 2020 supplements" to the first printing of the Chicago Construction Codes. The City anticipates that ICC will prepare a new print and PDF edition of the Chicago Construction Codes in 2021, which will supersede the first printing and May 2020 supplements.

147. Will the index in the code be updated in the future?

A new index will be prepared by ICC with each future edition of the Chicago Construction Codes.

148. Where can I find the May 2020 supplements?

New print and electronic orders of the Chicago Construction Codes include the May 2020 supplements.

If you purchased a PDF copy of the first printing of the 2019 Chicago Construction Codes, a supplemented PDF can be downloaded from your ICC account.

If you purchased a print copy of the first printing of the 2019 Chicago Construction Codes, you may order the supplements here: <https://shop.iccsafe.org/catalogsearch/result/?cat=&q=chicago>

Questions About Code Development

149. Are zoning requirements going to change to align with the new Construction Codes, for example, for measurement of building height?

The Department of Buildings continues to work closely with the Department of Planning and Development to identify ways to bring zoning and building requirements into closer alignment to streamline the permitting process in Chicago.

Because zoning codes and building codes are intended to address different regulatory concerns, key measurement standards and definitions vary in most major U.S. cities. It may not always be possible to use the same standard in the Zoning Ordinance and the Building Code.

For now, the building permit application (Form 400) has been revised to differentiate requests more clearly between building and zoning-related information.

150. Is there something that shows what is now being recognized in the new code vs. what previously required approval from the Committee on Standards and Tests?

No. As part of the transition to a code which is aligned with the most recent edition of the *International Building Code*, many materials and construction methods are now recognized without additional approvals. You will need to review the new code for specific requirements.

Questions About Training

151. Where do we subscribe to receive alerts from the Department of Buildings?

Visit <http://www.chicago.gov/buildings> and click "Sign Up for Email Alerts" at the top of any page.

152. Will there be future seminars or training like these?

Yes, the Department is planning a similar session in mid-October.

Materials from previous training programs are available here:

https://www.chicago.gov/city/en/depts/bldgs/supp_info/CodeModernization.html#Phase2

153. Will you be sharing the recording of the presentation?

No, we will not be sharing a recording of the presentation, but the slides are available here:

https://www.chicago.gov/city/en/depts/bldgs/supp_info/2019codesbasics.html

154. Will we be getting copies of the slides?

Yes. A copy of the slides is available here:

https://www.chicago.gov/city/en/depts/bldgs/supp_info/2019codesbasics.html

155. If we are not self-certified but are considering it in the future, can we still get credit for this when applying for self-cert?

No. The next training program to become a registered self-certification professional will be offered in late 2021. In the past, it has been a 3-day program.

Questions About the Self-Certification Permit Program

156. Is there a sample code matrix for use with the new code?

Yes, it is available at: https://www.chicago.gov/city/en/depts/bldgs/supp_info/permitforms.html

157. To whom should [self-certification] Hold Harmless and Ownership letters be addressed?

A letter is no longer required. Please have your client complete Form 411 to meet this requirement.

158. Are we still required to get an aldermanic acknowledgement letter prior to submitting a self-certified permit application?

No, this procedure was eliminated July 1, 2019, although it is still referred to in the Hansen Dynamic Portal. For interim instructions on navigating the Dynamic Portal portion of the application process, please visit:

https://www.chicago.gov/city/en/depts/bldgs/provdrs/bldg_code/alerts/2020/july/NewCodeProcedures.html

159. Do we still need to ask permission to self-certify unit remodels in high-rise buildings?

Yes. All self-certified work in high-rise buildings requires written preapproval from the department.

To request preapproval, email a brief description of the project to selfcert@cityofchicago.org.

This requirement is in place so that the Department can monitor work in high-rise buildings that completed upgrades pursuant to an engineered life safety evaluation (LSE) as an alternative to installing a sprinkler system. If you are doing work in a high-rise building that is fully sprinklered, please note that in your email.

160. Can work to correct damage, deterioration, or other violations of the Minimum Requirements for Existing Buildings (Title 14X) be self-certified?

The Self-Certification Permit Program can be used with project types listed in the program's rules. In many cases, this will allow self-certification of repair work or alterations to address an existing deficiency.

161. Is work in a Group E-1 (school) occupancy allowed to use the Self-Certification Permit Program?

Yes, but only for alterations or repairs. Self-certification cannot be used for new construction or an addition, nor could it be used for a change of occupancy to Group E-1.

162. Is work in a Group I-2 (hospital) occupancy allowed to use the Self-Certification Permit Program?

Yes, but only for alterations or repairs. Self-certification cannot be used for new construction or an addition, nor could it be used for a change of occupancy to Group I-2.