

2018 Commercial Building Code

Wisconsin Amendments

Department of Safety and Professional Services

Draft Code Package

- This presentation reflects the most recent code language and is not based on an adopted code package. Watch the Department of Safety and Professional Services Website for updated information regarding the code package.

Petition For Variance

- SPS 303.03(2) Petition for Variance forms **no longer** requires the form to be notarized.
- All other requirements remain the same.



Reference to Code

- Code has been defined by chs. SPS 361 to 366.
- Formerly “this code”.

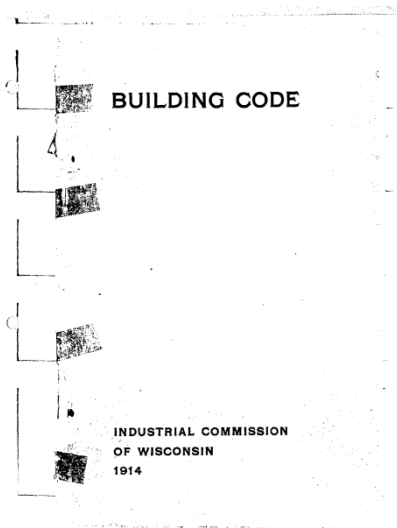
SPS 361

- Administrative

New Language on Ordinances

- SPS 361.03(5)

Uniform Commercial Code



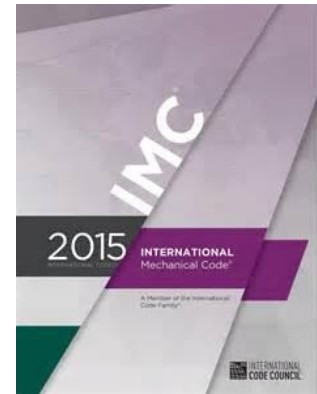
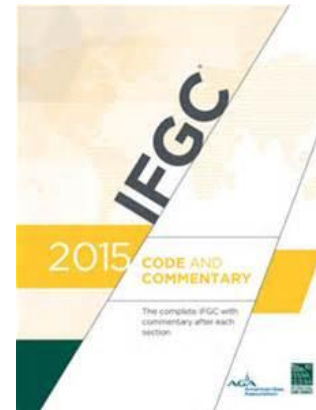
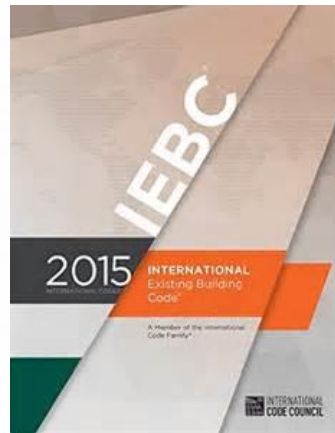
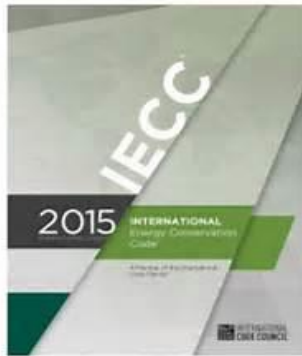
- Local Ordinance
 - No more restrictive
 - No less restrictive
 - Applies to technical standards
- Local pre-existing ordinances approved by the Department are valid

Manufactured Housing

- SPS 361.04 has definition for Compliance Assurance program.

International Code Adoptions

- SPS 361.04(5) to (11)
- Adopts 2015 IBC, IEBC, IECC, IFGC and IMC



2015 International Fire Code

- SPS 361.03(14) adopts only portions for some design and construction criteria, construction related and use and operation provisions.
- Sections are specifically listed in this section.



Christmas Trees

- SPS 361.03(5)
- No ordinance related to fire safety prohibiting the placement of a Christmas Tree in a church allowed



SPS 361 Exempt Buildings from Plan Review

SPS 361.30(1)(b)

1. Single story buildings & structures less than 1,000 SF located on individual parcels or lease sites at state fair park.
2. Fire service drill towers used for hands on training reflecting emergency conditions.

Total Building Volume Definition

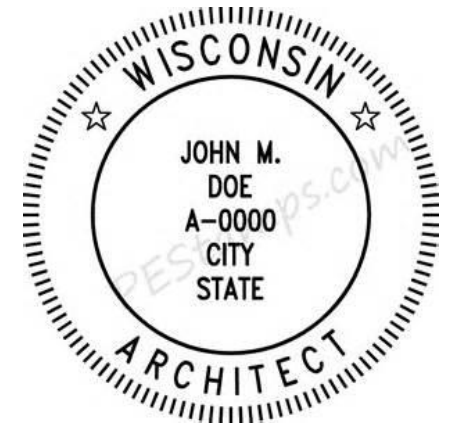
- SPS 361.30 (5) Calculating Total Building Volume



Total Building Volume

CALCULATING TOTAL BUILDING VOLUME. Total building volume shall be determined by calculating the cubic footage of space enclosed **within the outer surfaces of the building's outside or enclosing walls and the space between the upper most surface of the roof and the underside of the lowest floor of a building.** The outer surface of structures or portions of structures without enclosed walls shall be established by projecting vertical planes from the outer surface of exterior supports or columns. The total building volume shall be calculated on structures with interior supports by establishing a vertical plane projected from the farthest roof projection. Roof overhangs less than 24" from a vertical wall shall not be included in the calculation. Total building volume shall include the cubic footage of space in dormers, penthouses, vaults, pits, enclosed porches, and other enclosed appendages to the building.

Supervising Professional



New Language

SPS 361.40(3)(b) If Supervising Professional withdraws from a construction project, **the owner of the building or structure shall retain a new supervising professional within 30 days** and provide the authority that issued plan approval the name and Wisconsin registration number...

Commercial Inspection Requirement

- **SPS 361.41 (1)** (a) When required, on-site inspections shall be conducted within **5 business days** following a request by the applicant or an authorized representative.
- (b) Construction may proceed if the inspection has not been completed by the end of the fifth business day following the day of notification or as otherwise agreed between the applicant and the municipality or authorized inspection agency.

Modular Manufacturing Dwellings

- Subchapter V, SPS 361.45
- New code subchapter applying to factory building residential structures.
- Require Wisconsin Insignia
- Requires plans and specifications.

Alternate Standards and Model Codes

- SPS 361.51(8) An owner or a supervising professional may use a more recent edition of a referenced model building code if:
 - Identified in plan documents
 - Used in its entirety (no WI amendments are applicable)
 - (c) Does not permit municipality to use a different standard.

Agents

- SPS 361.60(2)(c) Report requirement changed from monthly *to quarterly* for agents.

SPS 361

Alterations

SPS 361.60(5)

Clarification consistent with State Statutes made
for delegated municipalities

(c)3. An alteration of a space in a building
containing less than 100,000 cubic feet of total
volume.

SPS 362

- Buildings and Structures

New Definition for Commercial Vehicle

- Old SPS Language
- No SPS Language
- 2009 IBC Language
- Not Defined



New Definition for Commercial Vehicle

- New SPS Language SPS 362.0202
- Semitrailer Tractors
- Trucks having a gross vehicle weight over **26,000** pounds
- Passenger vans or buses with a seating capacity of 16 or more.
- New IBC Language 202
- Vehicles with a gross vehicle weight of ~~10,000~~ pounds or more.
- Vehicle is designated to transport 16 or more people.

IBC 306.3

- SPS 362.0306
 - Cheese Factory classified as **low hazard** F-2 occupancies.



Storm Shelters

- Old SPS Language
- No SPS Language
- 2009 IBC Language
- IBC section 423 requires that if a storm shelter is built it must comply with ICC 500. But does not require a storm shelter to be installed in any occupancy.



Storm Shelters

- SPS 362.0423 New construction requirements for Storm Shelters are not included.



*Not required for new
“E”
Occupancies in
Wisconsin*

Air-Craft Related Occupancies

- SPS 362.0412 Language change for heating equipment does not need fire rated enclosure if 10 ft above the wings or 8 ft above the floor in other areas.



Aircraft Hanger Floor Drain

- Old SPS Language
- No SPS Language
- 2009 IBC Language
- 412.4.3 Floor drains shall discharge through a oil separator or an outside vented sump.



Note: An oil separator requires a plumbing plan review per SPS Table 382.20-2 #3

Aircraft Hanger Floor Drain

- New SPS Language
- 362.412(2) Substitute the following wording for the requirements, but not the exception in IBC section 412.4.3. Floor surface. **Floors shall be graded and drained to meet the requirements of SPS 382.**
- 2015 IBC
- 412.4.3 Floor drains shall discharge through a oil separator or an outside vented sump.

Changes to IBC Chapter 7

Chute Discharge Rooms

- 2009 IBC Language

- Term used: Termination Room
- IBC 708.13.4 – Requires room enclosure fire rating \geq 1 hour
- IBC 708.13.4 – Requires opening protective fire protection rating \geq $\frac{3}{4}$ hour
- IBC 708.13.4 – Applicable to termination rooms serving refuse or laundry chutes

- 2015 IBC Language

- Term used: Discharge Room
- IBC 713.13.4 – Requires room enclosure fire rating \geq required rating of shaft enclosure
- IBC 713.13.4 – Requires opening protective fire protection rating \geq required rating of shaft enclosure

New SPS Language

- SPS 362.0713 – this rule applies the requirements for discharge rooms of IBC 713.13.4 to recycling chutes in addition to waste and linen chutes

SPS 362.0903(18)

- Buildings without access to municipal water
- Exempt from automatic fire sprinkler requirements.
 - A2 Occupancies where:
 - Fire area does not exceed 12,000 SF
 - Occupant load does not exceed 300
 - Fire area is located on a floor with exit discharge serving the occupancy.
 - A2 repurposed farm occupancies
 - A3 religious worship occupancies
 - R or A cabin or camp lodge buildings

2015 IBC Chapter 9

Fire Protection Systems



- **SPS 262.0903 (16) Not included in this code.**
- **903.2.1.6 Assembly Occupancies on Roofs**
 - Where an occupied roof has an assembly occupancy *with an occupant load exceeding 100* for Group A-2 and 300 for other Group A occupancies, all floors between the occupied roof and the *level of exit discharge* shall be equipped with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2.
 - Exception: Open parking garages of Type I or Type II construction.

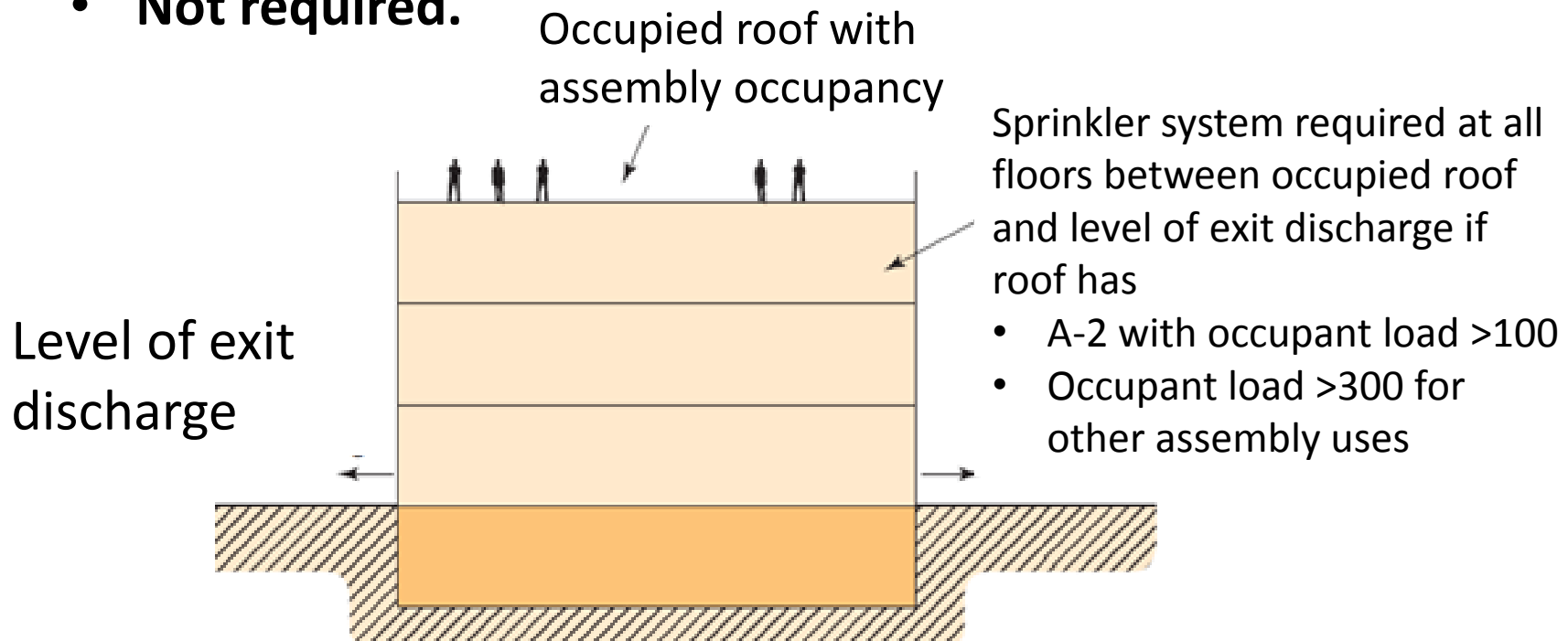


2015 IBC Chapter 9

Fire Protection Systems



- **903.2.1.6 Assembly Occupancies on Roofs (SPS Exempted)**
- **Not required.**



2015 IBC Chapter 9

Fire Protection Systems



- SPS 362.0903(5)(b)1.
- In accordance with State Statute 101.14
 - Sprinklering is not required until 20 multi-family units.
 - Multi-family is defined as having 3 more dwelling units.

Residential Sprinkler



Between 3 & 20 dwelling units and < 16,000 SF – Sprinklering not required



More than 20 units or 16,000 SF - Sprinklers required

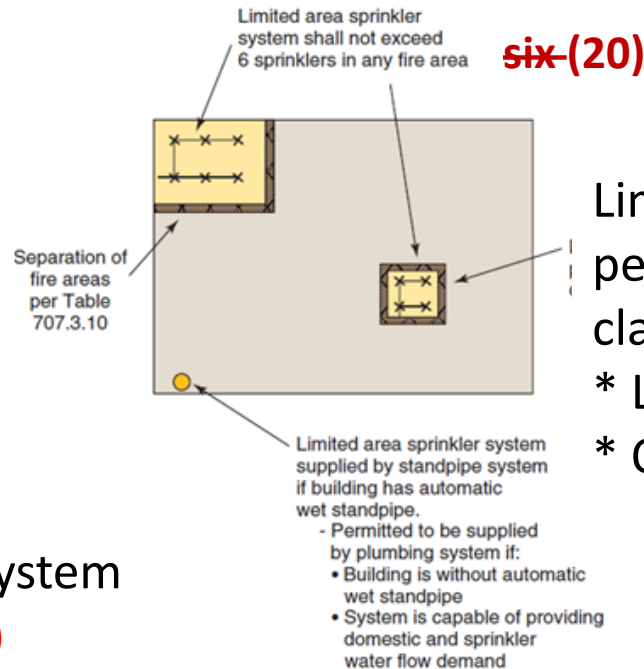
2015 IBC Chapter 9

Fire Protection Systems



- **SPS 362.0903(17) Substitute 20 for Six.**
- **903.3.8 Limited Area Sprinkler Systems**

Separation
of fire areas
per Table
707.3.10



Limited area sprinkler system shall not exceed ~~six~~ (20) sprinkler in any fire area

Limited area sprinkler system permitted only in areas classified by NFPA 13 as:

- * Light hazard
- * Ordinary hazard (Group 1)

2015 IBC Chapter 9

Fire Protection Systems



Commentary:

SPS language retains the 20 number for the limited area sprinklers.

The limited area system can be supplied by a standpipe system if the building has an automatic wet standpipe.

It can be supplied by the plumbing system if:

- There is no automatic wet standpipe*
- The plumbing system is capable of providing domestic and sprinkler demands.*


2015 IBC Chapter 9

Fire Protection Systems



- **SPS 362.0904(3) 904.13, 904.13.1 and 904.13.2 are not included in this code.**
- **904.13 Domestic cooking systems in Group I-2 Condition 1.**

In Group I-2 Condition 1, occupancies where cooking facilities are installed in accordance with Section 407.2.6 of this code, the domestic cooking hood provided over the cooktop or range shall be equipped with an automatic fire-extinguishing system of a type recognized for protection of domestic cooking equipment.



Preengineered automatic extinguishing systems shall be tested in accordance with UL 300A and listed and labeled for the intended application. The system shall be installed in accordance with this code, its listing and the manufacturer's instructions.



2015 IBC Chapter 9 Fire Protection Systems

Commentary:

SPS 362.0910 is repealed.

- *SPS 362.0910 Smoke and heat vents.*

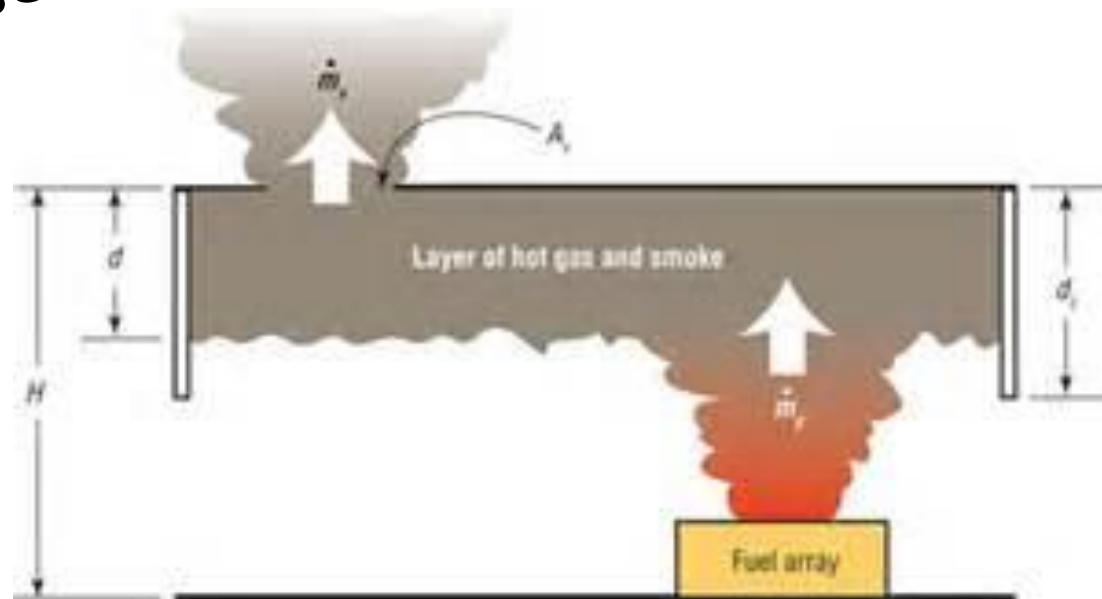
(1) Exception. Substitute the following wording for exception 1. in IBC section 910.1: Buildings protected by an approved automatic sprinkler system.

Smoke and heat vents now required.

***2009 IBC 910.3.5 Draft Curtains not required in
2015 IBC***

IBC 910 Smoke and Heat Removal

- IBC 910 Smoke and Heat Removal Required
 - F1 or S1 @ 50,000 SF
 - Per the IFC 2306.2 for High Piled combustible storage



2015 IBC Chapter 9 Fire Protection Systems



***Reminder: SPS
362.0910 has been
repealed, smoke
control now required.***

Draft Curtain not req'd.

Smoke control required



2015 IBC Chapter 9

Fire Protection Systems



- **SPS 362.0915 Carbon monoxide detection.**

*This is a **EXISTING** code section.*

- *IBC 915 regarding carbon monoxide detection was added to the 2012 edition of the International Building Code and relocated to this section in the 2015 IBC.*
- *Former SPS 362.1200 was relocated to SPS 362.0915 to exempt the IBC code language with the language already adopted by Wisconsin Statute Section 101.149.*
- *No changes to the language occurred. It was only renumbered.*

BEEP!



BEEP!

IBC Chapter 10 Means of Egress

- SPS 362.1006(4) Salt and Sand Storage. Single exit with 250' max exit distance is permitted.



Changes to IBC Chapter 10

Means of Egress Section 1006

- *SPS 362.1006(1) ~~Exit access.~~ EXIT ACCESS. This is a department exception to the requirements in IBC section 1006.3: The length of a common path of egress travel requirements **shall not be limited more than 200 feet within townhouse dwelling units** provided the townhouse complies with all of the following:*

Stair Construction

- SPS 362.1011 Stair construction within a building with two different classes of construction can be constructed of combustible materials.



Changes to IBC Chapter 10

Means of Egress Section 1011 Stairways cont'd

- 2009 IBC
- (IBC 1011 Stairways)
- 2015 IBC Language
- ***IBC 1011 Stairways.***
- ***SPS 362.1011(2) This is a department rule in addition to the requirements in IBC section 1011.7: For platform buildings designed per IBC section 510.2 where a stair shaft serves 2 or more classes of construction and one of those classes of construction allows combustible materials, the entire stair construction within the enclosure may be of combustible materials.***

IBC Chapter 10 Means of Egress

- SPS 362.1015 Guards required along open sides of walking surfaces.



IBC Chapter 10 Means of Egress

SPS 362.1013 Floor-level exit signs. The requirements in IBC section 1013.2 are not included as part of chs. SPS 361 to 366.



- 1809.5 frost protection exception: Area of 600 SF or less for light-frame construction or 400 SF for others in Risk Category I under 10' eave
- Added exception in SPS 362.1809(2) Floating slabs used with non-masonry, unheated, single-story buildings in Risk Category I that are less than 12,000 SF are exempt from the requirements for frost protection.

Vapor Retarder

- Old SPS Language
- No SPS Language
- 2009 IBC Language
- IBC section 1405.3 requires vapor barriers to be installed on the interior side of framed wall assemblies.

Vapor Retarder

- New SPS Language
- SPS 362.1405 (1)
Substitute the following wording for the requirements, but not the exceptions, in IBC section 1405.3.1: Class I and II vapor retarders. Class I or II vapor retarders shall be provided on the interior side of frame walls and ceiling assemblies.
- 2015 IBC Language
- Same as 2009 Language

IBC 2902 Toilet Rooms

- SPS 362.2902
- (1) Urinals may be substituted for up to **67%** of the required number of water closets in Group A and E occupancies.
- (1)2. **Other** reasonable alternatives for providing drinking water are acceptable as approved by the Department.
- (1)(e) Alternative to table 2902.1 **Actual** occupancy based on justification found reasonable to the Department.

Sex designated Toilet Rooms

- New SPS Language



- 2015 IBC
- 2902.2.1 Allows two family (unisex) toilet facilities to be installed in an occupancy that requires only one fixture for men and one for women instead of two sex designated rooms.

Hoistway Venting

- Old SPS Language
- SPS 362.3004 This is a department rule in addition to the requirements in the exception under IBC 3004.3: The manual override control shall comply with all of the following.
- 2009 IBC Language
- 3004: Hoistways of elevators and dumbwaiters penetrating more than three stories shall be provided with a means for venting smoke and hot gases to the outer air in case of a fire.

Hoistway Venting

- New SPS Language
- 362.3002 (3) This is a department rule in addition to the requirements in section 3002: Where vent openings automatically open upon detection of smoke in the elevator lobbies or hoistway, upon power failure and upon activation of a manual override control, the manual override control shall comply with all of the following:
- **Does not require Hoistway Venting**
- 2015 IBC Language
- Hoistway venting is no longer required.

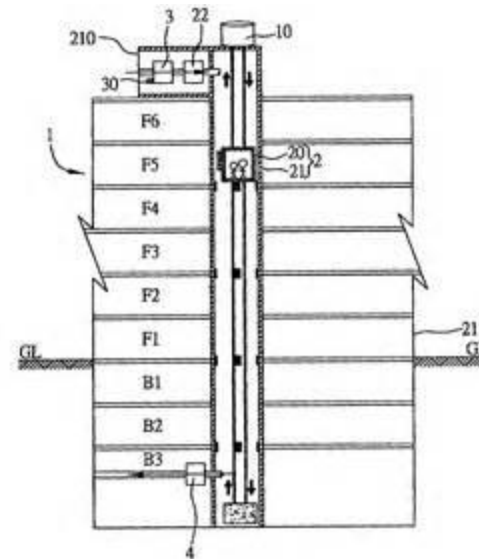


FIG. 1

International Existing Building Code

- 2015 IEBC



2015 IEBC

- The 2015 IEBC added a new chapter titled **Classification of Work. This chapter is now the new chapter 5.** Previous chapter 5-14 are now renumbered 6-15.

IEBC Numbering

- 2009
 - Ch. 1-2 Administrative
 - Ch. 3 Prescriptive Compliance Method
 - Ch. 4 -12 Work Area Compliance Method
 - Ch. 13 Performance Compliance Method
 - Ch. 14 Construction Safeguards
 - Ch. 15 Reference Standards
- 2015
 - Ch. 1-2 Administrative
 - Ch. 3 Compliance Methods
 - Ch. 4 Prescriptive Compliance Method
 - Ch. 5 -13 Work Area Compliance Method
 - Ch. 14 Performance Compliance Method
 - Ch. 15 Construction Safeguards
 - Ch. 16 Reference Standards

2015 IEBC

- SPS 366.0202
- Work area defined as area reconfigured with full height walls or area that has egress reconfigured, excludes incidental work.

2015 IEBC

SPS 366.1102 Existing Buildings meeting legacy unlimited area provisions are allowed to have additions constructed without a separating fire wall.

SPS 366.1204 Historic buildings are not required to comply with building envelope requirements unless ceiling, wall or floor cavities are opened up.

Thank you

Any Questions?