Original

Ordinance No. 233

Building Code

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B U I L D I N G C O D E

CITY OF

MIAMI BEACH, FLORIDA

1926

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B U I L D I N G C O D E

CITY OF

MIAMI BEACH, FLORIDA

Building Committeeman:
C. B. Floyd

1926

A. C. Rhoads,	Building Inspector
J. J. Farrey,	Plumbing Inspector
L. W. Plagman,	Electrical Inspector
J. S. Stephenson.	Fire Chief

ORDINANCE NO. 233

AN ORDINANCE OF THE CITY OF MIAMI BEACH, FLORIDA, PRESCRIBING RULES AND REGULATIONS FOR THE ERECTION, REPAIR, REMOVAL AND DEMOLITION OF BUILDINGS IN SAID CITY; PROVIDING FOR THE SUBMISSION OF PLANS AND THE MAKING OF APPLICATION FOR PERMITS FOR THE ERECTION, REPAIR, REMOVAL OR DEMOLITION OF BUILDINGS; PROVIDING FOR A BOND INSURING CLEAN-UP AFTER CONSTRUCTION OR REPAIR; PRESCRIBING RULES AND REGULATIONS AS TO PLUMBING DONE WITHIN SAID CITY, THE EXAMINATION AND QUALIFICATION OF PLUMBERS; PRESCRIBING RULES AND REGULATIONS WITH REFERENCE TO THE INSTALLATION OF ELECTRICAL WIRING AND OTHER ELECTRICAL APPLIANCES FOR HEATING AND LIGHTING BUILDINGS; FIXING AND DEFINING THE FIRE ZONE AND PRESCRIBING THE CHARACTER OF BUILDINGS TO BE CONSTRUCTED THEREIN; PRESCRIBING PENALTIES FOR FAILURE TO COMPLY WITH THE PROVISIONS OF THIS ORDINANCE AND REPEALING ORDINANCES NUMBERED 143, 150, 153, 158, 163, 169, 176, 185, 189, 209, 210, 212, 221 and 222 OF SAID CITY, AND OTHER ORDINANCES OF SAID CITY IN CONFLICT WITH THIS ORDINANCE.

BUILDING CODE

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ARTICLE 1.

GENERAL REQUIREMENTS

Sec. 1. No wall, structure, building or part thereof, shall hereafter be built or constructed nor shall the plumbing or wiring of any building, structure or premises be installed or altered, except in conformity with the provisions of this ordinance.

Sec. 2. No building already erected, or hereafter to be erected, shall be razed, altered, moved or built upon, in any manner that would be in violation of any of the privisions of this ordinance, or the approval issued thereunder.

Sec. 3. Before the demolition or removal of any building or structure is begun, a verified application shall be prepared by the owner, architect, builder or contractor, on appropriate blanks furnished by the Building Inspector, containing a statement of the facts in relation thereto, as to the ownership and location thereof. The application shall be filed with the Building Inspector and a written permit obtained from him, as hereinbefore provided.

Sec. 4. When any building or structure, over 25 feet in height, is being erected, repaired or demolished, upon or along any sidewalk, the person erecting, altering or demolishing such building shall erect and maintain an approved and substantial shed from the property line to the curb for the full frontage of the building. No shed shall be required when a building is erected 8 feet or more back of sidewalk line. The street side shall be kept open for a height of not less than 7 feet above curb and shed shall be kept properly lighted at night.

Sec. 5. Ordinary repairs on buildings or structures, the cost of which shall not exceed $100.00, may be made without notice to the Building Inspector.

ARTICLE 2.

EXISTING BUILDINGS, RAZED, ALTERED, REPAIRED OR MOVED.

Sec. 1. No building or structure shall be moved until a permit has been obtained from the Building Inspector. Detail plans of the new location and the streets to be used for moving of the building shall be filed with the Building Inspector. Sufficient bond shall be given to insure the City against any damages to streets, or other City property, that might be brought about by the removal of the building or structure, before permission is given to remove any building.

Sec. 2. Temporary one story frame buildings, for use of builders, mixer-stands, platforms and builders' apparatus may be erected without a permit, but shall immediately be razed upon completion of the new building, or the expiration of the permit.

Sec. 3. Any repairs or renewals to an existing building, or additions thereto, whether such repairs are made necessary by fire or otherwise, shall be made in conformity with the provisions of this ordinance.

Sec. 4. Within 15 days after the completion of a new building, structure, addition or repairs, all debris shall be removed from the lot or adjoining lots, alleys or streets, by the contractor or owner of same. If the person or persons whose duty it shall be shall neglect or fail so to do within 48 hours after the receipt of notice from the Building Inspector, then the Building Inspector may enter upon the premises and employ such labor and take such steps as, in his judgment, may be necessary to remove such debris, at the cost and expense of the party whose duty it was to remove same. This cost and expense immediately becomes a lien upon the said property.

ARTICLE 3.

PENALTY.

Sec. 1. No person shall construct any part of any building or alter in any respect any building or remove or maintain a building or structure or any of its appurtenances in violation of any of the provisions of this ordinance, notwithstanding a permit may have been issued for the construction of a building pursuant to the provisions of this ordinance, and each day that any person does any work with reference to a building, whether it be construction, alteration, removal or maintenance, contrary to any of the provisions of this ordinance shall be deemed a separate and distinct offense against the provisions hereof.

Sec. 2. Any person who shall construct, alter or remove a building or structure, shall keep the numbered Building Permit Card displayed in plain view from the street, until completion of the building or structure.

ARTICLE 4.

APPLICATIONS FOR PERMITS.

Sec. 1. Before the erection, construction or alteration of any building or structure or part of same is begun, there shall be submitted to the Building Inspector an application on appropriate blanks to be furnished by the Building Inspector, containing a detailed statement of the specifications, including maximum live loads for which each floor is designed when floor construction is involved in the proposed work, and accompanied by full and complete plans and specifications,

in duplicate, for such proposed work and such detail structural drawings thereof as the Building Inspector may require.

Sec. 2. The application shall contain a sworn statement, giving full name, residence and business address of the owner of the building and of the premises upon which building or structure is to be erected, altered or removed. The application shall describe and give the location of the building, structure or premises, and the address of the architect or other representative duly authorized to perform or to have performed said work.

Sec. 3. The said attested statement and detailed application, with a copy of plans and specifications, shall be kept on file in the office of the Building Inspector.

Sec. 4. Any false swearing in a material point in any statement submitted in pursuance of the provisions of this article shall be deemed perjury and shall be punishable as such.

Sec. 5. All approvals of applications, plans, specifications, ~~and~~ detail drawings and amendments thereto, shall expire by limitation 6 months from the date of the original approval; but shall not apply when work thereunder has been begun and carried on with reasonable continuity within 6 months from the original application. It shall be the duty of the Building Inspector to approve or reject any plan filed with him pursuant to the provisions of this article within a reasonable time.

Sec. 6. The invalidity of any section or provision of this ordinance shall not invalidate any other section or provision thereof.

Sec. 7. When the Building Inspector shall have stamped the plans and specifications as approved, the applicant for permit shall pay to the City Clerk, before issuance of final permit, inspection fees as follows, based on the cost of the work to be performed:

More than $100.00 and less than $1,000.00	$ 2.00
More than $1,000.00 and less than $3,000.00 ..	4.00
More than $3,000.00 and less than $5,000.00 ..	6.00
More than $5,000.00 and less than $10,000.00 .	7.50
More than $10,000.00 and less than $15,000.00	12.50
More than $15,000.00 and less than $25,000.00	20.00
More than $25,000.00 and less than $50,000.00	37.50

$50,000.00 or over the fee shall be $1.00 per $1,000.00 or fraction thereof.

ARTICLE 5. ← Double Space
DEFINITIONS.

The following terms when used in this ordinance shall be construed to have the meaning here given them:

Sec. 1. APARTMENT HOUSES. Apartment House is any house or building, or portion thereof, which, either rented or leased, is to be occupied in whole or in part as the home or residence of three or more families living independently of each other, and doing their cooking upon the premises and having a common right in **yards**, hallways, stairways, etc.

Sec. 2. AREAWAYS. An Areaway is an open, sub-surface space, adjacent to a building, for lighting or ventilating cellars or basements.

Sec. 3. BASEMENT. A basement is a story partly, but not more than one-half (½) below the level of the curb but not more than five (5) feet above the level of the curb.

Sec. 4. CELLAR. A story that is entirely below the curb line. It shall not be counted as a story in determining the height of a building.

Sec. 5. CEMENT MORTAR. Cement Mortar shall be made of cement and sand in the proportions of one part of cement and not to exceed three parts sand by volume. Cement Lime Mortar shall be made of one part of cement, one part of slaked lime and not more than three parts of sand to each.

Sec. 6. COURT. An open, unobstructed, unoccupied space, other than a yard, on the same lot on which the building is located. A court entirely surrounded by the building is an "Inner Court". A court bounded on three sides by the building and on the fourth side by the lot line is a "Lot-line Court"; a court, at least one side of which is open to a yard, alley or street is an "Outer Court".

Ext Space →

A court shall not be covered by a roof or skylight, but shall be at every point open from the ground to the sky, unobstructed.

Sec. 7. LOT GRADE. An established grade at the center of the principal front of the building fronting on one street only. In case of a building fronting on two streets, the established grade on the highest street shall be taken.

Sec. 8. DOWNSPOUTS. A pipe of metal or other material to conduct rain water from roofs to ground, tanks or storm sewers.

Sec. 9. DWELLING. A residence building designed for, or used as, the home or residence of not more than one separate and distinct family.

Sec. 10. DUPLEX DWELLING. A residence building designed for, or used as, the home or residence of not more than two (2) separate and distinct families.

Sec. 11. LOADS. Dead load: The weight of walls, framing, floors, roofs, tanks with their contents, and all permanent construction.

Live Load: All loads other than dead loads. All portions which are subject to removal or re-arrangement shall be considered as live load.

Sec. 12. FACTORY. A building, or portion thereof, designed or used to manufacture or assemble goods, wares, or merchandise, the work being performed partly or wholly by machinery.

Sec. 13. FIBRE PLASTER BOARD. A board consisting of any intimate mixture of gypsum plaster composition and a fibrous binding material.

Sec. 14. FIRE DOOR. A door, frame and sill, which will successfully resist a fire for one hour in accordance with test specifications of National Board of Underwriters as given.

Sec. 15. FIRE EXIT PARTITION. A subdividing partition, with exits thereto, built for the purpose of protecting life by providing an ~~area~~ of refuge.

Sec. 16. FIRE SHUTTER. A metal shutter which will successfully resist a fire for one hour as in accordance with test specifications of National Board of Underwriters.

Sec. 17. FOUNDATION WALL. Any wall or pier built below the curb level or nearest tier of beams to that level.

Sec. 18. GARAGE. A garage is (a) that portion of a structure in which a motor vehicle containing volatile inflammable liquid in its fuel storage tank is stored, housed or kept. (b) all that portion of such structure that is on, above or below the space mentioned in (a) which is not separated therefrom by tight, unpierced firewalls and fireproof floors.

Sec. 19. HOTEL. Any building or portion thereof, designed or used for supplying food or shelter to residents or guests, and containing more than 5 sleeping rooms on or above the first story.

Sec. 20. INCOMBUSTIBLE. Material or construction which will not ignite or burn when subjected to fire.

Sec. 21. OFFICE BUILDING. One used for professional or clerical purposes, no part of which shall be used for living purposes, except by the janitor's family.

Sec. 22. OUT-HOUSE. All structures not exceeding ten (10) feet in height nor more than 150 square feet in area.

Sec. 23. WALLS. Panel Wall: An exterior non-bearing wall in a skeleton structure built between columns or piers and supported at each story.

Parapet Wall: That portion of any wall which extends above the roof line and bears no load except as it may serve to support a tank.

Party Wall: A wall used or adapted for joint service between two buildings.

Retaining Wall: One constructed to support a body of earth, or to resist lateral thrust.

~~Sec. 24~~. Bearing Wall: A wall which supports any load other than its own weight.

~~Sec. 25~~. FIRE WALL. A wall built for the purpose of restricting the area subject to the spread of fire.

Sec. ~~26~~ 24. SHAFT. Any vertical enclosed space within a building, which extends from its lowest level through the entire height of building and is open to the sky, used for air, light, elevator, dumb-waiter, or any other purpose not otherwise hereinafter prohibited.

Sec. ~~27~~ 25. SHED. A roofed structure open on one or more sides, which does not exceed 16 feet in height, or more than 500 square feet in area.

Sec. ~~28~~ 26. SKYLIGHT. Any cover or enclosure placed above roof openings for the admission of light.

Sec. ~~29~~ 27. STRUCTURE. Includes the terms building, appurtenance, wall platform, staging or flooring used for standing or seating purposes; a shed, sign or billboard, fence on public or private property, or on, above or below a public highway.

Sec. ~~30~~ 28. THEATRE OR MUSIC HALL. Any building or part of a building designed or used for theatrical or operatic purposes with accommodation for an audience of more than 300 persons and

having a permanent stage upon which movable scenery and theatrical appliances are employed; including also moving picture theatres, either with or without a stage.

Sec. ~~31~~ 29. WAREHOUSE. A building, or portion thereof, designed or used for the storage of goods, wares and merchandise.

Sec. ~~32~~ 30. WORK-SHOP. A building or portion thereof, in which articles of merchandise are manufactured or repaired, wholly or principally by hand.

Sec. ~~33~~ 31. VOLATILE INFLAMMABLE LIQUID. This shall mean any liquid that will emit inflammable vapor.

ARTICLE 6.

CLASSIFICATION OF CONSTRUCTION.

Sec. 1. FRAME CONSTRUCTION. A building having the exterior walls or portions thereof of wood, also a building with wooden framework veneered with brick, stone, terra cotta or concrete, or covered with plaster, stucco, or sheet metal, shall be classes as a frame building.

Sec. 2. ORDINARY CONSTRUCTION. A building having masonry walls, with floors and partitions of wood, joist and stud construction. The supporting posts and girders may be of wood, metal or concrete.

Sec. 3. MILL CONSTRUCTION. A building having masonry or reinforced concrete walls and heavy timber interior construction.

Sec. 4. FIRE PROOF CONSTRUCTION. Buildings of masonry, cement, or reinforced concrete, constructed in accordance with Articles 15 to 19 incl. shall be considered fireproof.

Sec. 5. All buildings or structures hereafter to be built in the City of Miami Beach of four or more stories in height, shall be constructed of fire-proof construction, as defined and specified in this Ordinance.

ARTICLE 7.

WEIGHT OF MATERIALS.

The weight of various materials shall be assumed to be as follows:

	Pounds per Cubic Foot
Brickwork--Ordinary	120
Brickwork--Pressed brick	130
Concrete--Local stone	125
Granite, Bluestone and Marble	170
Limestone	145
Sandstone	145
Oak	50
Spruce and Hemlock	30
White Pine	27
Yellow Pine, Grade 1	42
Yellow Pine, Grade 11	35
Maple	43
Birch	45
Douglas Fire and Cypress	35

ARTICLE 8.

~~PERMISSIBLE~~ WORKING STRESSES.

Sec. 1. The safe carrying capacity of the various materials of construction, when not otherwise specified, shall be determined

by the following working stresses in pounds per square inch of sectional area:

COMPRESSION IN SHORT BLOCKS

Sec. 2. STEEL AND IRON.

	Pounds per Square inch
Rolled steel	16,000
Cast steel	16,000
Cast iron	16,000
Steel pins, shop & power driven field rivets (bearing)	20,000
Steel field rivets, driven by hand, (bearing)	16,000
Steel field bolts (bearing)	12,000

TENSION.

Rolled steel	16,000
Cast steel	16,000

SHEAR.

Steel web plates	10,000
Steel shop & power driven field rivets & pins	10,000
Steel field rivets, driven by hand,	8,000
Steel field bolts	7,000
Cast steel	9,000
Cast iron	1,500

EXTREME FIBRE STRESS.

Rolled steel beams & riveted steel beams	16,000
Rolled steel pins & rivets & bolts	20,000
Cast iron compression side	16,000
Cast iron tension side	2,500

CONCRETE AND MASONRY COMPRESSION.

Sec. 3.

Grout, Portland cement, neat	800
Grout, Portland cement, neat between steel in foundation not over $\frac{1}{2}$ inch	1,000
Concrete, Portland cement 1; sand 2; stone 4	500
Concrete, Portland cement 1; sand 2$\frac{1}{2}$; stone 5	400
Concrete, Natural cement 1; sand 2; stone 4	125
Concrete, Natural cement 1; sand 2$\frac{1}{2}$; stone 5	80
Brickwork in Portland cement mortar	250
Brickwork in Natural cement mortar	208
Brickwork in Lime and Portland cement mortar	208
Brickwork in Lime Mortar	111
Rubble stonework in Portland cement mortar	140
Rubble stonework in line and cement mortar	100
Rubble stonework in lime mortar	70
Cut stone masonry, other than sandstone	600
Sandstone Masonry	300
Granites, according to test	1,000 to 2,400
Gneiss	1,000
Limestones, according to test	700 to 2,300
Marbles, according to test	600 to 1,200
Sandstones, according to test	400 to 1,600
Slate	1,000

SHEAR.

	Pounds per Square inch.
Shearing stress involving diagonal tension in Portland cement concrete, in the proportions of 1-2-4	40
Direct shear (punching shear), in Portland cement concrete, in the proportions of 1-2-4	120

STRUCTURAL TIMBER.

Sec. 4. The following stresses apply to seasoned timber to be kept under shelter in a dry loaction, and deflection not to increase with time. If the timber is to be used under other conditions, these stresses should be modified.

	BENDING		COMPRESSION	
	Extreme Fibre Stress	Maximum Longitudinal Shear	Perpendicular to the Grain	Parallel to the Grain, Columns with L/d less than 10
Oak	1,400.	120.	400.	1,000.
Yellow Pine, Grade 1	1,600.	120.	350.	1,200.
Yellow Pine, Grade 11	1,200.	85.	325.	900.
Douglas Fir	1,500.	100.	300.	1,100.
Eastern Spruce	1,000.	75.	200.	900.
Western Hemlock	1,300.	75.	250.	1,000.
Norway Pine	1,000.	75.	250.	800.

L-unsupported length in inches.
d-diameter or least side in inches.

Where a moderate increase in deflection after first placement of the load is not objectionable, the compression and extreme fibre stresses here given may be increased ten per cent (10%). Stresses for timbers, subject to vibration and impact, should not be thus increased.

All materials used in building construction and referred to in this Ordinance, shall be qualified to meet the standard and latest specifications of the American Society of Testing Materials.

ARTICLE 9.

EXCAVATIONS.

Sec. 1. The person or persons causing any excavation to be made for a building shall have the same properly guarded and protected. Wherever necessary, he shall, at this own expense, properly sheath pile and erect masonry or steel construction or a sufficient retaining wall to permanently support the adjoining earth. Such retaining wall shall extend full depth of excavation to the level of the adjoining earth and shall be properly coped. Whenever any excavation is to be made, the person causing same shall report the fact in writing to any adjoining property owners and to the Building Inspector.

Sec. 2. Over all excavations, between the building line and curb, there shall be constructed a substantial foot bridge, with proper guard-rail on each side, for the protection of the public.

Sec. 3. If the person whose duty it shall be to preserve or protect from injury any wall or structure shall neglect or fail so to do within 24 hours after receipt of a notice from the Building Inspector, then the Building Inspector may enter upon the premises and employ such labor and furnish such materials and take such steps as, in his judgment, may be necessary to make the premises safe and secure, or to prevent the same from becoming unsafe or dangerous, at the cost and expense of the person whose duty it is to keep the same safe and secure.

ARTICLE 10.

WOODEN PILES.

Sec. 1. Wooden piles shall be of approved timber. They shall be sound and straight. The diameter at the butt shall be not less than 10 inches and the diameter at the point shall be not less than 6 inches. Any pile over 20 feet in length shall be not less than 12 inches at the butt. The minimum distance between piles shall be 2 feet. Piles shall be driven to refusal and the method of driving shall be such as not to impair their strength. The maximum load carried by a pile driven through firm soil to rock shall not exceed 500 pounds per square inch, to be computed by multiplying the average area of cross section in inches by 500 pounds, but in no case shall such load exceed 15 tons. The safe sustaining power of a pile not driven to refusal, shall in no case exceed 8 tons in natural sand formation or 5 tons in all filled lands.

Sec. 2. Piles shall be cut off so that the tops are always below the level of mean low water. Portland cement concrete shall be rammed down in the interspaces between the heads of the piles to a depth not less than 10 inches and laterally, for a distance of not less than 12 inches on each side of the rows of piles.

ARTICLE 11.

CONCRETE PILES.

Sec. 1. Concrete piles, consisting of steel tubes filled with concrete, shall have a minimum inside diameter of 10 inches and the thickness of the metal tube not less than 3/8 inch. The length shall not exceed 40 times the inside diameter. The ends of the tubes shall be faced perpendicular to its axis. When driven to rock, the load on such piles shall not exceed 500 pounds per square inch on the concrete and 7500 pounds per square inch on the steel. In computing the effective area of the concrete pile the steel tube shall not be taken into consideration. Concrete mixture for concrete piles to be not less than one part of cement to 2½ parts of sand and 3½ parts of rock. Rock to be equal to hardest Ojus or canal bank, washed and screened rock.

Sec. 2. Concrete piles moulded and cured before driving shall be provided with not less than 2½%, nor more than 4½% longitudinal reinforcement, with bands or hoops not less than 3/8 inch in diameter, and spaced not farther apart than 6 inches. The top of the piles shall be protected with a cushion cap of approved design and, when driven to rock, the foot shall be provided with a metal shoe having square bearing and shall be at least 14 days old before driving.

Sec. 3. Concrete piles for loose wet soil, or filled ground, shall not exceed twenty (20) times the inside diameter in length. Piles driven out of plumb shall be condemned. The clear space between the heads of concrete piles shall be not less than 18 inches.

Sec. 4. Concrete piles cast in place shall be not less than 14 inches in diameter. The length shall not exceed 22 times the average diameter. The carrying capacity of such piles shall be determined by means of one or more test piles, and the allowable working load shall be no greater than one-half (½) the test load under which the test pile begins to settle, nor greater than 350 lbs. per square inch. No pile or group of piles shall be loaded eccentrically.

ARTICLE 12.

FOUNDATIONS.

Sec. 1. The footings for foundation walls, piers and columns shall be constructed of plain concrete, reinforced concrete or of steel grillage beams resting on a bed of concrete.

Sec. 2. Footings shall be so designed that the loads they sustain per unit of area shall be as nearly uniform as possible and the stresses shall conform to the requirement of this Ordinance. The dead loads carried by the footings shall include the actual weight of the superstructure and foundations down to the bottom of the footing. All tanks or other receptacles for liquids shall be figured as being full. All vaults or similar built-in structures shall be considered parts of the building.

The live load on column or wall footings shall be assumed to be the same as the live load in the lowest tier of columns.

Sec. 3. In no case shall the load per square foot, under any portion of any footing due to the combined dead, live and wind loads, exceed the safe sustaining power of the soil upon which the footing rests.

Sec. 4. Concrete footings shall be not less than ten (10") inches thick, except as provided in Article 25.

Sec. 5. If the nature of the ground and the character of the building are such as to make it necessary or advisable, isolated piers may be used instead of a continuous wall to support the building.

Sec. 6. Grillage beams shall be united by bolts and separators and the grillage filled solid with concrete. All metal which forms parts of any footing or foundation shall be protected from rust by a wash of rich Portland cement grout, or by the use of other approved coating, and shall be entirely encased with at least 4 inches of concrete.

Sec. 7. The safe bearing capacity of different soils shall be determined by borings and, in the absence of tests, shall not exceed the values given with the following tables:

Filled land, per square foot ..... ½ ton.
Natural sand formation, per square foot 2½ tons.
Rock, yellow porous, per square foot .. 10 tons.

ARTICLE 13.
WALLS.

Sec. 1. Schedule for reinforced concrete walls of residences, apartments and hotels.

Number Stories.	1st.	2nd.	3rd.	4th.	5th.	6th.	7th.	8th.	9th.	10th.
1	8"									
2	8"	8"								
3	10"	8"	8"							
4	12"	10"	8"	8"						
5	12"	10"	10"	8"	8"					
6	12"	12"	10"	10"	8"	8"				
7	14"	12"	12"	10"	10"	8"	8"			
8	14"	14"	12"	12"	10"	10"	8"	8"		
9	16"	14"	14"	12"	12"	10"	10"	8"	8"	
10	16"	16"	14"	14"	12"	12"	10"	10"	8"	8"

This schedule applies to Bachelor apartments, Clubhouses, Studios, Dormitories, Hotels, Lodging-Houses and Residence Buildings.

Sec. 2. Schedule for brick and cement block walls as per classification in Article 13, Paragraph 1:

Number Stories.	1st	2nd	3rd
1	8"		
2	8"	8"	
3	12"	8"	8"

Sec. 3. Provided, however, that no part of an eight inch wall shall be of greater height than fourteen feet between horizontal supports and that the entire height of any eight inch wall shall not exceed twenty-four feet and further provided, that no part of a twelve inch wall shall be of greater height than twenty-two feet between horizontal supports, and that the entire height of any twelve inch wall shall not exceed thirty-four feet. Whenever the limits above stated are exceeded, said wall or wall portion shall be increased in thickness by not less than four inches, or it shall be reinforced by wall piers, not over sixteen feet between centers, the least sectional dimension of which shall not be less than four inches greater than the thickness of the wall and the other section of dimension shall not be less than twenty-two inches. Suitable steel reinforced columns may be used in place of the piers, subject to the approval of the Building Inspector.

Sec. 4. Parapet walls shall be full thickness of the top story walls, and shall project not less than 24 inches above the roof at all points. Where such parapet walls project to a greater height than 24 inches above the roof, they shall be suitable braced, in a manner to be approved by the Building Inspector, and all such walls shall be properly coped.

Sec. 5. Fire walls shall be built of fire resisting material, with the exception of concrete block. Fire walls shall not be less than 12 inches thick and increasing 4 inches in thickness for each two stories or fraction thereof below.

Sec. 6. In brick walls every sixth course shall be a heading course, except where walls are faced with brick in Flemish bond, in which case the headers of every third course shall be full brick and bonded into the backing. Where running bond is used, it shall be bonded into the backing by cutting the corners of every brick of every sixth course of face brick and putting a row of diagonal headers behind the same, and suitable metal anchors shall also be used in the bonding at intervals not exceeding 3 feet. Where face brick is used of a different thickness from the brick used for backing, the course of the exterior brickwork shall be brought to a level bed at intervals of not more than 8 courses in height of the face brick, and the face brick shall be properly tied to the backing by a full heading course of the face brick or other approved method. Face brick shall be laid at the same time as the backing and shall in no case be laid after the backing is in place.

Sec. 7. When walls of hollow blocks are veneered, the facing shall either be bonded to the backing with a row of headers every 16 inches or be attached to backing with approved galvanized metal wall ties, bedded with mortar joints. Such ties shall not be spaced farther apart on centers than 16 inches vertically and 2 ft. horizontally. Such veneering shall not be considered as part of the required thickness of the wall. Brick facing or veneering may, however, be considered as part of a hollow terra cotta or concrete

wall (or vice versa), provided the veneering is bonded at lease 4 inches into the wall at intervals not exceeding six courses of brick. When veneering is used, special care shall be taken to fill all joints flush with mortar around wall openings. The walls of each story shall be built up the full thickness of the top of the beams above.

Sec. 8. No pipe chases shall extend into any wall more than one-third (1/3) of its required thickness. No horizontal chase shall exceed 4 feet in length in any wall. No chase shall be wider than 12 inches in any bearing wall.

Sec. 9. No recess in any wall shall be made within a distance of six feet from any other recess in the same wall. Chases shall not be permitted within the required area of any pier. Chases or recesses in walls built of hollow cement blocks or hollow tile, shall not be formed by cutting of blocks or tile or by any other method which would impair the strength of the wall.

Sec. 10. All chases or recesses shall be formed in all cement blocks or hollow tile walls by using hard burned brick and carrying the regular bond to top of all chases or recesses.

Sec. 11. Openings for all doors, windows or vents shall have arches of masonry or lintels of reinforced concrete or metal, which shall have a bearing at end of not less than eight inches on the wall. Tie-rods shall be used in all arches where necessary to resist the thrust.

Sec. 12. Stone or architectural terra cotta ashlar, or other approved material used for the facing of any building or structure, shall be not less than 4 inches thick. In stone ashlar, each stone shall have a reasonable uniform, thickness but all stones need not necessarily be the same thickness. Each block of ashlar, or other approved facing, shall either be bonded into the backing or securely anchored to the backing with galvanized metallic anchors, at least one for each twenty-four (24") inches lineal length of course, and the backing, independent of facing, shall conform to the wall thickness required by this ordinance. Where every alternate course of facing is at least eight inches thick and bonded into the backing, at least 4 inches, the ashlar may be counted as part of the thickness of the wall. No wall faced with ashlar shall be less than 12 inches thick. ~~Ashlar backing shall be as mentioned in Section ____~~.

ARTICLE 14.

BUILDING BLOCKS.

Sec. 1. Portland cement only shall be used in the manufacture of concrete blocks and the course aggregate shall be of suitable material. In no case shall the cellular space exceed 50% of the cubical content of the block figured to its outside dimensions.

Sec. 2. All building blocks used for bearing walls shall be marked or branded for identification and such marks or brands shall be registered with the Building Inspector. Concrete Blocks shall be manufactured of concrete, the proportions of sand and cement to be used in the concrete block shall not be less than one part of cement and not more than 6 parts sand. Concrete blocks shall not be used until they have attained an age of 28 days. The average compressive strength for concrete blocks, ~~when tested~~ with the cells vertical, shall be not less than 800 lbs. per square inch. The allowable working loads on all concrete blocks shall not exceed

one-eight (1/8) of the average crushing strength of the block when laid in lime-cement mortar. The average amount of water absorbed in 48 hours by 3 units 28 days old shall not exceed 10% of the weight of the dry units. Where concrete blocks are used in the construction of framing, timbers shall bear on one course of header brick. In lieu of the foregoing, the concrete block may be filled solidly with concrete or a continuous reinforcement made, constructed on all bearing walls.

ARTICLE 15.

GENERAL REQUIREMENT FOR FIREPROOF BUILDINGS.

Sec. 1. The space between the floor arches or slabs and the floor finish shall be solidly filled with concrete as specified in Article 16. The filling beneath wooden flooring shall be made flush with the under side of the floor boards.

Sec. 2. All shafts and public hallways shall be enclosed and separated from the rest of the floor space by fire-resistive enclosures and shall have floor surfaces and rim of approved incombustible material. The stairs and stairway landings shall be of approved incombustible material.

Sec. 3. No woodwork or other combustible material shall be used in the construction of any fireproof building, except wooden floor sleepers, grounds, bucks and nailing blocks when entirely embedded in incombustible material also the finish flooring and interior doors and windows, when not otherwise specified, with their frames, trim and casings; also interior doors and windows when not otherwise specified, with their frames, trim and casings; also interior finish when backed solidly with fireproof material, may be of wood. Wooden wainscoting more than 3 ft. high, or wooden ceilings, shall not be permitted.

Sec. 4. Wood exterior doors and windows may be used in fireproof construction except in cases of unusual fire risk to adjoining property in which case metal or fireproof doors and windows may be required by the Chief of the Fire Department.

ARTICLE 16.

FIREPROOF FLOOR AND ROOF CONSTRUCTION.

Sec. 1. Fireproof construction between steel floor or roof beams, shall consist of segmental arches of brick or concrete, or of segmental or flat arches of hollow terra cotta, or reinforced stone, or gravel concrete; or of such other equally fire-resisting material or construction as may be approved by the Building Inspector.

Sec. 2. All segmental arches shall have a rise of 1¼ inches to the foot of span. Steel tie-rods of proper size, spacing and location shall be used in all arches to properly resist the thrust. Such tie-rods shall be completely encased to a depth of at least 2 inches in fireproofing material which shall extend into and be anchored to the arch.

Sec. 3. The spacing of floor or roof beams in fireproof construction shall not exceed 8 feet on centers except when the slabs between them are composed of reinforced stone or gravel concrete, in which case they shall be limited by the design according to Article 8.

Sec. 4. Segmental arches of brick shall have a thickness of not less than 4 inches for spans of 5 feet or less, and 8 inches for spans exceeding 5 feet and not exceeding 8 feet. Brick arches shall be composed of good, hard-burned common or hollow brick. The brick shall be laid to a line on the centers and properly and solidly bonded; each longitudinal line of brick shall break joints with the adjoining lines. The arches shall spring from suitably designed solid skewbacks made of the same material as the arches, and be properly keyed. The brick shall be well wet before laying, and the joints solidly filled with mortar.

Sec. 5. Hollow terra cotta tile used for floor or roof arches shall be hard burned or semi-porous and of uniform density and hardness. All terra cotta arches shall be properly keyed. The key blocks shall always be placed within the middle third of the span.

Sgl Space

Segmental arches shall have sufficient depth between the top and bottom faces to carry the load to be imposed, but not less than 6 inches. The tile shall have at least two cellular spaces in the depth.

Sgl Space

Flat arches shall have a depth of not less than $1\frac{3}{4}$ inches for each foot of span between the beams, this not to include any portion of the depth of tile that projects below the under side of the beams. The total depth shall in no case be less than 9 inches, and the tile shall have not less than three cellular spaces in the depth.

Sgl Space

The shells of arch blocks shall be not less than $\frac{3}{4}$ inch in thickness, and the webs shall be not less than 5/8 inch in thickness. Every arch block shall have at least one continuous vertical internal web for each 4 inches in width. There shall be rounded fillets at all internal intersections. The skewbacks of all hollow tile arches shall be of such form and section as to accrately fit the beams and properly receive the thrust of the arches, and shall have shells at least 1 inch thick, and webs not less than $\frac{3}{4}$ inch thick.

Sgl Space

The safe working load on terra cotta arches shall be determined by design. The allowable extreme fibre stress in compression in terra cotta floor tile shall be taken as 500 pounds per square inch on net section.

Sec. 6. All segmental arches or flat slabs of reinforced concrete shall be designed and constructed in accordance with the requirements of this section and part of Article 8.

Sec. 7. Hollow terra cotta or concrete tile, or solid gypsum blocks may be used for fireproofing between the steel framework of roof construction; but such tile or blocks shall not be less than 3 inches thick, and the supporting steel members shall be spaced not more than 25 inches on centers. When solid blocks or tile are properly reinforced to resist the bending stresses, the steel supporting members may be spaced not to exceed 30 inches apart. The bottom flanges of steel members shall be protected as elsewhere provided.

ARTICLE 17.

FIREPROOFING STRUCTURAL MEMBERS.

Sec. 1. All columns which support steel girders carrying exterior walls and all columns which are built into walls and support floors only, shall be protected against corrosion by a coating of Portland cement mortar at least $\frac{1}{4}$ inch thick

and against moisture and fire by a casing of masonry, which shall be not less than 4 inches of brick or 3 inches of concrete on all surfaces; all to be well bonded into the masonry of the enclosing walls.

Sec. 2. The wall girders shall have a casing of Portland cement mortar and the same masonry protection as required for wall columns, all to be securely tied and bonded; but the extreme outer edge of the flanges of beams, or plates or angles connected to the beams may project within 2 inches of the outside surface of such casing. The inside surfaces of the girders shall be similarly protected by masonry, or if projecting inside the walls, they shall be protected by concrete, terra cotta or other approved fireproof material not less than 2 inches thick.

Sec. 3. All metal structural members which support loads or resist stresses, other than those provided for by the two preceding paragraphs, shall have a protection of fireproofing as herein specified. The protection material shall be brick, concrete, terra cotta or gypsum block. Terra cotta may be solid or hollow and shall be porous or semi-porous, neither shells nor webs shall be less than 5/8 inch thick; gypsum blocks shall be solid and of quality approved by the Building Inspector. Plaster shall not be considered a part of any required fireproofing for metal structural members except where specifically mentioned as such.

Sec. 4. All bricks or blocks used for fireproofing shall be set in Portland cement mortar, except that gypsum blocks may be set in gypsum mortar.

Sec. 5. (a) The protection shall cover the columns at all points to a thickness of not less than 3 inches and be continuous from the base to the top of the column. The extreme outer edges of lugs, brackets and similar supporting metal may project to within 1 inch of the outer surface of the protection.

(b) If brick or blocks are used for fireproofing columns, they shall be accurately fitted, laid with broken joints and all spaces between the outside layer and the metal solidly filled with masonry; or concrete filling may be used. No voids between the metal and the protecting cases shall be permitted.

(c) Galvanized steel wire not smaller than No. 12 gauge, shall be securely wrapped around block column coverings so that every block is crossed at least once by a wire. The wire shall not be wound spirally around the column but each turn or band shall be a separate unit and shall be twisted tightly or otherwise securely bound. Other equivalent anchorage may be employed if approved by the Building Inspector. No block used for this purpose shall exceed 12 inches in vertical dimension.

(d) Columns located in damp places shall receive a coat of at least 1 inch of Portland cement mortar before application of the fireproofing.

(e) Columns made of steel or wrought iron pipe filled with concrete, shall be protected by at least 1½ inches of fireproofing.

(f) Where the fireproofing of columns is exposed to damage from trucking or handling of merchandise, the fireproofing shall be jacketed on the outside for a height of not less than 3 feet from the floor with metal or other approved covering.

Sec. 6. (a) The protection of the webs and bottom flanges of girders, and all members of trusses shall have a thickness of not less than 2 inches at all points. The protection of the webs and bottom flanges of beams, lintels, and all other

structural members shall not be less than 1½ inches at any point.

(b) If hollow terra cotta tile be used for protection, the lower flanges of beams and similar members shall be encased either by lugs which form part of the skewbacks and extend around the flanges meeting at the middle, or by tile slabs held in position by dove-tailed lugs projecting from the skewbacks. In either case, care shall be taken to insure that all joints be solidly filled with mortar.

Sec. 7. Concrete protection for all structural members shall be held in position by suitably designed interior steel anchors hooked securely aroung the flanges or angles of the members, at intervals not exceeding 8 inches [redacted]; these anchors shall be not less than 1/8 inch in thickness if flat or 1/10 inch in diameter if of wire, and shall be located at a distance not less than ¾ inch, nor more than 1 inch from the outside surface. Provision shall be made to prevent displacement of anchors while concrete is being deposited. When the flange width of steel members exceeds 6 inches, the wire used for anchoring the concrete protection shall be not less than 1/8 inch diameter.

Sec. 8. Steel angle or channel struts, or other structural framing not elsewhere provided for, which are used for support in any wall, partition, or other construction, shall be fireproofed as required in this section.

Sec. 9. Metal fronts on the exterior of buildings over one story high shall be backed up or filled with masonry not less than 8 inches thick.

Del. Pace

ARTICLE 18.
MISCELLANEOUS FIREPROOFING PROVISIONS.

Sec. 1. Defective or damaged fireproofing materials shall not be used. All fireproof construction injured or damaged after being erected shall be repaired to the satisfaction of the Building Inspector before any filling or finish is placed over same.

Sec. 2. No pipes, wires, cables or other material shall be incased within or embedded in the required fireproof protection of columns or other structural members.

Sec. 3. All metal lath and plaster ceilings shall be supported by hangers or clamps attached to the floor or roof construction in an approved manner. Such supports shall be of such section and weight as will support the wet plaster without deflecting more than 1-30 inch per foot of span.

Sec. 4. All studding for metal lath partitions or wall furring shall be made from steel stock weighing not less than 0.5 of a pound per lineal foot, shall be spaced not over 16 inches center to center and shall be securely fastened to the floor and ceiling construction.

Sec. 5. Metal lath shall be of galvanized steel weighing not less than 54 oz. per square yard. Wire lath shall not be less than No. 20 gauge, and sheet metal lath not less than No. 24 gauge. Metal lath shall be laced to the supporting furring or studs at intervals not exceeding 6 inches.

Sec. 6. After floors are constructed, no opening greater than 2 square feet shall be cut through them unless suitable metal framing or reinforcing is provided around the opening. After pipes or conduits are in place, all openings around them shall be filled in solidly with fireproofing material unless approved close fitting individual sleeves are provided.

ARTICLE 19.

PARTITIONS IN FIREPROOF BUILDINGS.

Sec. 1. In fireproof buildings, all partitions enclosing public halls or separating the spaces occupied by different tenants, and all other permanent partitions, shall be built not less than 4 inches thick, of solid or hollow brick, terra cotta, concrete, or gypsum blocks or tile; or not less than 3 inches thick of reinforced concrete or solid metal lath and cement plaster; or of such other incombustible materials and thickness as shall meet the approval of the Building Inspector. The required thickness for block or tile partitions shall be exclusive of plaster. All such partitions shall be securely fastened to the fireproof construction of the floor and ceiling. All bricks, blocks or tile shall be laid with broken joints.

Sec. 2. All partitions not enumerated above shall be of incombustible materials, except for woodwork permitted in this ordinance.

Sec. 3. All partitions in fireproof buildings shall be independently supported at each floor level, and where lateral support is not sufficient they shall be stiffened by such steel reinforcement encased in the construction as the Building Inspector may require and approve.

Sec. 4. Structural steel members necessary for supporting a partition, or for framing doorways or other openings through it, shall be protected by at least 1 inch of fireproofing. Cement plaster, or cement-tempered plaster, may be accepted for this purpose if properly keyed.

Sec. 5. Reinforced concrete for partitions shall be as required in this article. Terra cotta tile shall be porous or semi-porous in quality and if hollow, shall have two cells in the thickness, with the thickness of shells inclusive of plaster key, not less than $\frac{3}{4}$ inch and thickness of web not less than 5/8 inches. Gypsum shall be used only in dry locations. Metal lath and studding shall conform to the requirements of Article 18.

ARTICLE 20.

REINFORCED CONCRETE CONSTRUCTION.

Sec. 1. The term "reinforced concrete" in this Ordinance shall mean an approved concrete mixture in which steel is embedded in such a manner as to resist the tensile stresses and to add rigidity and strength to concrete in compression.

Sec. 2. Reinforced concrete will be approved for all types of building construction, provided the design conforms with good engineering practice, and the working stresses do not exceed those herein specified. The construction shall meet the requirements of the Ordinance in all respects and in addition shall conform to such other rules as may be issued by the Building Inspector or State authorities having jurisdiction.

Sec. 3. The plans and specifications required to be filed with the Building Inspector shall be accompanied by stress computation and descriptions, if required, showing the general arrangement of the entire construction in all important details including the size, length and points of bending of all reinforcement, the qualities, proportions and methods of mixing the materials used in the concrete and the dead and live loads each floor is designed to carry.

Sec. 4. All such plans and specifications shall be signed by the architect, engineer, contractor or person applying for the permit. In no case shall the construction deviate from the approved plans and specifications except by written consent of the Building Inspector.

Sec. 5. The concrete shall consist of a mixture of a plastic or viscuous consistency of one part of cement to not more than six parts of aggregate fine and coarse, either in the proportion of one part of cement, two parts of sand and four parts of stone or gravel, or in such proportion as to produce a maximum density. Such concrete shall develope a crushing strength of at least 2000 pounds per square inch at 28 days when made under laboratory conditions of manufacture; the materials and consistency being practically the same as that used in the field.

Sec. 6. Concrete in the proportion of one part of cement to four and one-half parts of aggregate, which may be desirable for special work, such as columns, shall develop a crushing strength of not less than 2,400 pounds per square inch at 28 days and the working stress of such concrete may be increased 20 per cent over that permitted elsewhere in this Paragraph.

Sec. 7. The Building Inspector may require additional tests to be made upon specimens cast during construction of the building. The test specimens shall be secured at such times and in such portions of the structure as the Building Inspector may direct. This test concrete may be taken from the barrows as the concrete is being wheeled to place or from the forms after it is deposited.

Sec. 8. Each test shall consist of a set of at least three duplicate specimens in the shape of cylinders with a height of double the diameter; or cubes having a least dimension of 6 inches. Cubes shall be tested standing on bed and 75 per cent of the resulting test strength shall be assumed as the strength of the standard cylinder specimen 8 inches in diameter and 16 inches high. The average of the three tests shall be taken as the result for record. The smallest dimension of the test piece should be at least four times the size of the coarsest particle of stone. Test specimens shall be removed from mould as soon as set and stored in damp sand until tested.

Sec. 9. All cement used in reinforced concrete shall be Portland cement meeting the requirements of American Society for Testing Materials.

Sec. 10. Fine aggregate shall consist of sand or crushed stone screenings, passing, when dry, a screen having $\frac{1}{4}$ inch diameter holes and not more than 6 per cent passing a sieve having 100 meshes per lineal foot. It shall be clean and free from quicksand, vegetable loam, perishable organic matter or other deleterious materials.

Sec. 11. Fine aggregate shall always be tested. It shall be of such quality that mortar composed of one part Portland cement and three parts fine aggregate by weight, when made into briquettes, shall show a tensile strength at least equal to the strength of 1 to 3 mortar of the same consistency made with the same cement and standard Ottawa sand and shall show a tensile strength of at least 180 lbs. per square inch at the age of 7 days. If the aggregate be of poorer quality, the proportion of cement should be increased to secure the desired strength.

Sec. 12. Coarse aggregate shall consist of crushed stone which is retained on a screen having $\frac{1}{4}$ inch diameter holes, and shall be graded in size from small to large particles. The maximum size shall be such that all the aggregate will pass through a $1\frac{1}{4}$ inch diameter ring. The particles shall be clean, hard, durable and free from all deleterious material.

Sec. 13. Stone shall be equal in strength to the hardest Ojus or canal bank stone.

Sec. 14. All steel used in reinforced concrete shall meet the requirements of the current Standard Specifications for Billet-Steel Concrete Reinforcement Bars of the American Society for Testing Materials. No reinforcement produced from re-rolled rails or second-hand materials shall be used in any structure without the written permission of the Building Inspector. If such reinforcement be permitted, it shall meet the requirements of the current Standard Specifications for Rail-Steel Concrete Reinforcement Bars of the Americian Society for Testing Materials. Cold drawn steel wire made from open hearth billets of the grade of rivet steel, or from Bessemer billets, may be used in floor and roof slabs, column hooping, and reinforcement for temperature and shrinkage stresses. It shall have an ultimate strength of not less than 85,000 lbs. per square inch and test specimens shall bend 180 degrees around their own diameter without fracture.

ARTICLE 21.

ALLOWABLE UNIT WORKING STRESSES.

Sec. 1. In the design of reinforced concrete structures when the concrete is mixed in the proportions of 1:2:4, and satisfied the strength requirements of Article 20, the following working stresses for concrete and steel shall be used:

	lbs. per Sq. inch.
Extreme fibre stress on concrete in compression	600
Concrete in direct compression	500
Shearing stress in concrete when diagonal tension is not resisted by steel	40
Shearing stress in concrete when web reinforcement is proportioned to resist two-thirds of the external vertical shear ..	120
Bond stress between concrete and deformed bars	80
Bond stress between concrete and plain reinforcing bars ..	100
Tensile stress in steel reinforcement	16,000 to 18,000

Bearing on a concrete surface having a total area at least three times the area of the loaded portion, may be taken at 37½ per cent of the ultimate strength of the concrete, when all other stresses are properly provided for.

Compressive stress in steel shall be as specified in Article 8, or in the ratio of the moduli of elasticity of steel to concrete.

In continuous beams the extreme fibre stress in concrete in compression may be increased 15 per cent adjacent to the supports. In proportioning the section of concrete for shearing stresses, the effective depth from center of compression area to center of steel shall be used.

Stresses in concrete mixed in the proportions of 1:1½:3, in accordance with this section, may be increased 20 per cent in excess of the above stresses.

GENERAL ASSUMPTIONS.

Sec. 2. As a basis for calculating the strength of beams and slabs, the following assumptions shall be made:

(a). A plane section before bending remains plane after bending.

(b). The modulus of elasticity of concrete in compression remains constant within limits of working stresses fixed in this Ordinance.

(c). The adhesion between concrete and reinforcement is perfect.

(d). Concrete has no value in resistance to tension.

(e). Initial stress in the reinforcement due to contraction or expansion in the concrete is negligible.

(f). The ratio of the moduli of elasticity of 1:2:4 stone or gravel concrete and steel inflexure shall be taken as 1:5.

(g). The ratio of the moduli of elasticity of 1:½:3 stone or gravel concrete and steel inflexure shall be taken as 1:12.

The span length for beams and slabs shall be taken as the distance from center to center of supports but need not be taken to exceed the clear span plus the over-all depth of beam of slab. Brackets shall not be considered as reducing the clear span in the sense here intended.

double space

BENDING MOMENTS OF UNIFORMLY LOADES FLOOR AND ROOF SLABS.

--BENDING MOMENTS OF SLABS SUPPORTED ON TWO SIDES--

Sec. 3. The bending moments of slabs, due to uniformly distributed loads, shall be taken as not less than:
1/8 WL, at center when simply supported.
1/10 WL, at center and continuous support when supported at one end and continuous at the other.
1/12 WL, at center and intermediate supports when continuous over more than two supports.
W=Total distributed dead and live loads.
L=Length of span.

BENDING MOMENTS OF SLABS SUPPORTED ON FOUR SIDES.

Sec. 4. The bending moments of uniformly loaded slabs supported on four sides and reinforced in both directions shall be taken as:
1/8 WL, at center in each direction when simply supported.
1/10 WL, at center and continuous support when continuous over one support.
1/12 WL, at both center and supports when continuous over two or more supports.

DISTRIBUTION OF LOADS.

Sec. 5. The distribution of loads on square and rectangular slabs supported on four sides, shall be determined by the following formula:

$$r = \frac{14}{14-b4}$$

in which "r" equals the proportion of the load supported by the transverse reinforcement.

l=Length of slab.
b=Breadth of slab.

If the length of the slab exceeds 1½ times its width, the transverse reinforcement shall be designed to carry the entire load.

BENDING MOMENTS OF UNIFORMLY LOADED BEAMS AND GIRDERS--~~TERM "BEAM" DEFINED.~~

Sec. 6. The term "beam" as used in this section shall be understood to include the term girder, unless specific distinction be made.

BEAMS WITH SIMPLE OR CONTINUOUS SUPPORTS.

Sec. 7. The bending moments of uniformly loaded beams shall be taken as:
1/8 WL, at center when simply supported.
1/10 WL, at center and over continuous support when supported at one end and continuous at the other.
1/12 WL, at both center and supports when continuous over more than two supports.

BEAMS SUPPORTING RECTANGULAR SLABS.

Sec. 8. Beams supporting rectangular slabs reinforced in both directions, shall be assumed to take the proportions of load as determined by the formula in this Section.

Sec. 9. The bending moments of slabs, beams or girders which are continuous for two spans only, shall be taken as 1/8 WL over the central support and 1/10 WL near the middle of the span.

GENERAL DESIGN REQUIREMENTS FOR BEAM AND SLAB CONSTRUCTION--SPECIAL MEMBERS.

Sec. 10. The bending moments for slabs or beams with spans of unusual length, or due to other than uniformly distributed loads, shall be more exactly computed according to accepted theory.

CONTINUOUS FLOOR CONSTRUCTION.

Sec. 11. In continuous slabs, beams or girders, full provision shall be made for the negative bending moments over the supports by placing sufficient negative reinforcement near the top of the members to resist the stress. This reinforcement shall pass beyond the point of inflection in beams or girders and be anchored in the compression concrete of the member a sufficient distance to develop the full strength of the steel through bond stress. The critical section of continuous construction is over the support.

WEB REINFORCEMENT IN BEAMS.

Sec. 12. Members of web reinforcement in beams shall be designed for diagonal tensile stresses, using the calculated vertical shearing stress as a measure of these tensile stresses. They shall not be spaced to exceed three-fourths of the depth of the beam in that portion where the web stresses exceed the allowable value of the concrete in shear. It shall be assumed that two-thirds of the external vertical shear is provided for by the steel in calculating the stresses in stirrups, diagonal web members and bent up bars; and the remaining one-third of the shear shall be assumed as taken by the concrete, in accordance with this section.

Sec. 13. Web members such as stirrups, when not rigidly attached to the longitudinal steel at both top and bottom, shall be carried around and bent over the longitudinal members or otherwise sufficiently anchored in the compression concrete to develop the tensile stresses existing in them. Diagonal members shall be rigidly attached to the longitudinal steel on the tension side. Stirrups at the ends of continuous girders shall be inverted, with the free ends anchored in the compression concrete at the bottom of the beam. The length of stirrups or diagonals embedded in compression concrete shall be sufficient to develope their entire tensile stresses by adhesion.

T BEAMS.

Sec. 14. Where adequate bond is provided at junction between slab and beam and the two are cast at the same time as a unit,

the slab may be considered as an integral part of the beam, provided its effective width shall not exceed, on either side of the beam, one-sixth of the span length of the beam nor be greater than four times the thickness of the slab on either side of the beam; the measurements being taken from line of intersection between slab and beam.

Sec. 15. In beams with T-sections the width of the stem only shall be used in caluclating longitudinal shear and diagonal tension. An effective bond shall be provided at the junction of the beam and slab when the principal slab reinforcement is parallel to the beam, by the use of transverse reinforcement extending over the beam and well into the slab.

Sec. 16. In the design of T-beams acting as continuous beams, sufficient compression area shall be provided on the under side at the support, either by the use of properly designed brackets or by embedding additional compression steel in the concrete extending to the point of inflection.

MINIMUM THICKNESS OF SLABS.

Sec. 17. The minimum thickness of concrete floor slabs shall be 4 inches and for roof slabs 3½ inches.

FLOOR FINISH.

Sec. 18. Cement or concrete floor finish shall not be considered in calculating the strength of floor members.

COMPOSITE FLOORS.

Sec. 19. The design of composite floors, consisting of rows of hard-burned terra cotta tile, concrete blocks, sheet steel or other approved fire resistive material, separate by ribs or beams of reinforced stone concrete, shall conform to all the provisions of this Part so far as they are applicable. The ribs shall be at least 4 inches wide. The tile or blocks shall be regarded only as fillers and shall not be considered in the design except as dead load. If designed as a T-beam, the slab portion above the fillers shall be at least 2½ inches thick, and shall consist of the same mixture used for the ribs, and shall be cast at the same time; under these conditions it may be considered in the design of the ribs. Tile or concrete block fillers shall be laid with Portland cement mortar joints, and shall be thoroughly wet before the concrete is poured. The protection for steel bars in bottom of ribs shall be the same as for other beams.

To resist expansion stresses, reinforcement bars not less than ½ inch diameter, shall be placed in the concrete at right angles to the ribs and above the fillers, at intervals not exceeding 30 inches.

DESIGN OF COLUMNS AND WALLS
LENGTH OF COLUMNS.

Sec. 20. The length of columns shall be taken as the maximum unsupported length.

Add Space → The unsupported length of columns shall not exceed fifteen times the least side or diameter and in no case shall the least side or diameter be less than 12 inches. The length shall include any corbel or knee brace attached to the column.

COLUMNS WITHOUT HOOPS.

Sec. 21. Axial compression in reinforced concrete columns without hoops, bands, or spirals containing not less than ½ per cent, nor more than 3 per cent of vertical reinforcement, secured against lateral displacement by steel ties placed not farther apart than fifteen diameters of the vertical rods, nor more than 12 inches, shall not exceed 500 pounds per square inch on the effective area of the concrete, plus 6000 pounds per square inch on the vertical reinforcement. The percentage of reinforcement shall be calculated upon the effective area of the column, which is the area within the reinforcement. Steel ties shall be not less than ¼ inch in diameter or least dimension. At least four vertical bars shall be used in every reinforced column and no bar shall have an area of less than ¼ square inch.

COLUMNS WITH HOOPS.

Sec. 22. Axial compression in reinforced concrete columns with not less than 1 per cent of hoops or spirals (that is, a volume of steel equal to 1 per cent of the volume of concrete within the hoops or spirals for a unit length of column) spaced not farther apart than one-sixth of the diameter of enclosed column, but in no case more than 3 inches, with not less than one nor more than 4 per cent of vertical reinforcement, shall not exceed 750 pounds per square inch on the effective area of the concrete, plus 9000 pounds per square inch on the vertical reinforcement. The hoops or spirals shall be uniformly spaced and shall be rigidly attached to at least four vertical bars in each convolution.

Columns required to be settled before being built upon, [redacted].

STRUCTURAL STEEL AND CONCRETE COLUMNS.

Sec. 23. Axial compression in structural steel columns thoroughly encased in concrete having a minimum thickness of 4 inches and reinforced with not less than 1 per cent of steel (that is, a volume of steel equal to 1 per cent of the volume of concrete within the hoops) equally divided between vertical reinforcement and hoops or spirals spaced not more than 12 inches apart, may be taken at 16,000 pounds per square inch on the net section of the structural steel, no allowance being made for the concrete casing. The hoops or spirals shall be placed not nearer than 1 inch from the structural steel or nearer than 1½ inches from the outer surface of the concrete. The ratio of length to least radius of gyration of the structural steel section shall not exceed 120.

COLUMNS CONSTRUCTED WITH SPECIAL CONCRETE

Sec. 24. In reinforced concrete columns the compression on the concrete may be increased 20 per cent when the fine and coarse aggregates are carefully selected and the proportion of cement to total aggregates increased to one part of cement to not more than four and one-half parts of aggregate, fine and coarse, either in proportion of one part of cement, one and one-half parts of sand and three parts of stone or gravel or in such proportions as will secure the maximum density. The unit stress on the vertical reinforcement in such columns shall not exceed twelve times the unit stress on the concrete.

COLUMNS ECCENTRICALLY LOADED.

Sec. 25. Bending stresses in columns due to eccentric loads, shall be provided for by increasing the section of concrete or steel so that the total unit stress shall not exceed the allowable working stress in flexure.

STEEL BASE PLATES.

Sec. 26. Suitable steel base plates or castings shall be provided at the bottom of columns to distribute the loads over the footings and the vertical reinforcement bars shall bear squarely on these plates or the reinforcing bars shall be carried down into an enlarged footing to distribute the load through bond stress.

WALLS.

Sec. 27. Exterior and interior bearing walls of reinforced concrete shall be securely anchored to all intersecting walls, columns and floors and the allowable compressive stress shall not exceed 250 pounds per square inch. The thickness shall be not less than two-thirds that specified for brick walls and in no case less than 8 inches. All such walls shall be reinforced with steel running both horizontally and vertically. The amount of reinforcement shall be not less than 1/5 of 1 per cent of the cross-section of the wall and shall be equally disposed near each face of the wall; except that in walls or partitions 8 inches or less in thickness, the reinforcement may be placed as a single layer in the middle. Reinforcement shall not be spaced more than 18 inches apart. Additional reinforcement shall be placed around wall openings and all vertical and horizontal reinforcement shall be wired or have other mechanical bond at intervals not exceeding 18 inches in either direction.

ARTICLE 22.

Double Space → REQUIREMENTS FOR REINFORCEMENT.

EXTERNAL AND INTERNAL DEFECTS.

Sec. 1. All reinforcement shall be free from excessive rust, scale, grease, paint or any coating which would tend to reduce or destroy the bond between the steel and the concrete. Bars shall also be free from injurious seams, slivers, flaws and other mill defects. The weight of any lot of bars shall not vary more than 5 per cent from the standard weight of the lot as given by manufacturers' handbooks.

PLACING AND SPACING OF REINFORCEMENT.

Sec. 2. All reinforcement shall be accurately located and mechanically secured against displacement during the placing of the concrete. Reinforcement bars for slabs shall not be spaced farther apart than two and one-half times the thickness of the slab. The spacing of parallel bars in beams shall be not less than three diameters from center to center, nor less than one inch. The clear spacing between two layers of bars shall be not less than one inch. In restrained or cantilever construction reinforcement shall extend beyond the supports into adjacent construction for full and effective anchorage, except that when this is not practicable, anchorage shall be obtained by other means acceptable to the Building Inspector. Special reinforcement shall be provided to resist concentrated loads. Slabs reinforced in one direction only, shall have shrinkage rods not less than $\frac{1}{4}$ inch in diameter placed above the reinforcement and spaced not over 2 feet apart. All reinforcement shall be assembled well in advance of the placing of

the concrete and shall be inspected and approved by the Building Inspector before concrete is deposited.

PROTECTION FOR REINFORCEMENT.

Sec. 3. Steel reinforcement shall have a minimum protection of concrete on all sides as follows:

In columns and girders, 2 inches; in beams and walls, 1½ inches; and in floor slabs, 1 inch.

The steel in footings for walls and columns shall have a minimum protection of 4 inches of concrete.

SPLICES IN REINFORCEMENT.

Sec. 4. Splices in reinforcing bars shall be designed to transfer the calculated stress at the joint either by bond and shear through the concrete or by bearing between the steel. Splices at points of maximum stress shall be avoided where possible. Lap splices of bars shall be of sufficient length to develop the required stress in the joint without exceeding the bond stress permitted. In columns where necessary to splice vertical bars having areas in excess of 1¼ square inches, it shall be done by cutting the bars squarely at the ends and enclosing them in a closefitting pipe sleeve or uniting them by a threaded splice or other mechanical connection that will transfer the load from one to the other without stressing the adjoining concrete excessively. The middle point of such splices shall be within one foot above the floor level. Splices in column hooping where necessary, shall be sufficient to develop the full strength of the hooping.

WORKMANSHIP FOR CONCRETE MIXING.

Sec. 5. The separate ingredients of concrete shall be accurately measured and thoroughly mixed in a manner to produce a homogeneous mass of uniform color and of such a viscous consistency that it will flow to all parts of the forms without separation of the coarse aggregate from the mortar.

Sec. 6. Except when limited quantities are required or when the conditions of the work make hand mixing preferable, mixing shall be done in a mechanical batch mixer from which a complete batch shall be discharged before another is received. All ingredients shall be mixed together for at least one minute, the mixer making at least 20 revolutions.

DEPOSITING.

Sec. 7. Concrete shall be deposited, thoroughly tamped and worked to place, before initial set begins, and shall then be kept free from shocks and disturbances of every kind until it has fully hardened. Retempering of concrete after its initial set shall be prohibited.

Sec. 8. When the work of placing concrete is suspended, all necessary grooves for joining future work shall be made before the concrete sets.

Sec. 9. Before depositing new concrete upon concrete already set, the contact surfaces shall be roughened cleaned of all laitance and loose material and then drenched with water and slushed with a grout consisting of one part Portland cement and not more than two parts fine aggregate

immediately before placing the fresh concrete. If a water-tight joint is desired or if granolithic is to be deposited on old concrete, it is necessary that a neat cement grout be used.

DRYING.

Sec. 10. When fresh concrete is exposed to rapid drying condition, precautions shall be taken to keep it moist for a period of at least seven days after being deposited. Where practical this shall be done by a covering of wet sand, burlap or some other equally effective method. Thorough wetting twice a day is recommended.

JOINTS.

Sec. 11. Construction joints shall be avoided wherever practicable but when they are necessary they shall be located at such sections as will least affect the structural strength and shall be made at right angles to the direction of principal compressive stress. In members of floor systems, joints shall be made within the middle third of the span where practicable. In columns, joints shall only be permitted at the bottom face of the lowest connecting floor members. Temperature changes and shrinkages during setting necessitate joints in independent walls at intervals of 50 to 80 feet when not otherwise provided for by effective reinforcement.

Sec. 12. Girders, beams and slabs shall not be cast upon freshly formed columns until a period of 4 to 6 hours have elapsed to permit settlement.

CONSTRUCTION OF FORMS.

Sec. 13. Forms shall be substantial and unyielding and care shall be exercised to make them as nearly water-tight as practicable.

Sec. 14. Care shall be taken to insure that all debris is removed from forms and that they are thoroughly greased or wetted before concrete is deposited in them. Beam forms shall be so designed that at least one side may be removed without disturbing the bottom portion of the forms and its supports; and column forms, so that they may be removed without disturbing beam and slab forms. Cleanout holes shall be provided in the bottom of column forms where necessary to insure the removal of wood chips or other debris.

REMOVAL OF FORMS.

Sec. 15. The time for the removal of forms shall always be subject to approval by the Building Inspector.

SCHEDULE.

Bottom of slabs, spans of 6 feet ..... plus 1 day extra for each additional foot of span.	4 days
Bottom of beams and girders of ordinary length	14 days
Beams of span of 20 feet	21 days
Sides of lintels, girders and beams	3 days
Thin Walls	3 days
Columns	2 days

Sec. 16. Girders of 25-foot span or over shall be considered as special cases and shall be subject to the inspection of the Building Inspector before removal of the supports.

Sec. 17. Composite floors, same as for ordinary beams.

Sec. 18. All reinforced concrete shall be carefully inspected to insure its soundness and reliability before main supports are removed.

Sec. 19. No loads shall be placed upon a reinforced concrete floor before the removal of the form supports which would in any way tend to over-stress such supports or those below.

ARTICLE 23.

CAST IRON AND STEEL CONSTRUCTION.

Sec. 1. The outside diameter or least side of cast iron columns shall be not less than five inches (5"), nor shall their unsupported length exceed sixty (60) times their least radius of gyration. The finished thickness of metal in the shaft shall be not less than one-half ($\frac{1}{2}$) the outside diameter of the greatest lateral dimension of cross section, nor less than three-fourths ($\frac{3}{4}$") inch. The thickness of metal flanges, lugs, seats and brackets shall be not less than one inch (1").

In all cast iron columns not cast with open side, at least 3 holes 3/8" in diameter, shall be drilled 90 degrees (90°) apart, near the middle of shaft for the purpose of measuring the thickness of metal.

Sec. 2. Whenever the core of a cast iron column has shifted more than one-fourth ($\frac{1}{4}$) the thickness of the shell, the strength shall be computed assuming the thickness of metal all around equal to the thinnest part and the column shall be rejected if this computation shows the strength to be less than required. A cast iron column shall be rejected whenever blow holes or other imperfections reduce the effective area of the cross section more than ten per cent (10%).

Sec. 3. The ends of all cast iron columns shall be planed to a true surface perpendicular to the axis of the column. Successive column lengths shall be bolted together through end flanges with at least 4 bolts not less then $\frac{3}{4}$" in diameter. No shims shall be used between flanges. If the core of a cast iron column below a joint is larger than the core of the column above, the core of the lower column shall be tapered up for a distance of not less than 6", to the size of the core of the column above. In lieu of a tapering core, a steel or cast iron plate of sufficient thickness may be used between the flanges. The difference between the diameters or side of any two successive column lengths shall not be greater than 2".

Sec. 4. The connection of beams and girders to cast iron columns shall be effected by means of seats reinforced by brackets of sufficient depth and thickness to support the entire load and by lugs to which the webs of the beams and girders shall be bolted. The projection of the seat beyond the face of the column shall in general be not greater than 4". All holes in cast iron columns shall be drilled. Cored, or cored and reamed holes shall not be permitted. The diameter of holes shall not be more than 1/16" greater than diameter of bolt or rivet. The distance from the center of a hole to the edge of a flange or lug shall be not less than $1\frac{1}{2}$". Cast iron columns shall not be used in any case where the load is sufficiently eccentric to reduce the unit of compression to zero in the extreme fibre on one side of the axis of the column.

Sec. 5. Cast iron columns shall not be used in the structural frame of buildings, the height of which is greater than 3 times their width. Cast iron columns shall not be painted or covered until after the inspection by the Building Inspector. All wrought and cast structural steel and iron shall conform to the test requirements of the current Standard Specifications of the American Society for Testing Materials.

Sec. 6. Cast iron bases or shoes shall be planed on top. Bases which rest on steel girders shall be planed on top and bottom. The thickness of metal shall be not less than one inch (1") The inclination of the outer edge of the ribs with the horizontal shall be not less than 45 degrees(45°). Whenever one side of the bed plate exceeds 3 ft. in length, a reinforcing flange, at least 3" high, shall be provided. Cast iron lintels shall be not less than ¾" in thickness and shall not be used for spans exceeding six feet (6').

STEEL CONSTRUCTION.

Sec. 7. No rolled steel column shall contain material, whether in body of column or used at lattice bar or stay-plate, of less thickness than ¼". In steel columns built up of a web plate and angles and having an unsupported length greater than 60 times at the least radius gyration, the thickness of metal in the angles shall be not less than 1/12 the width of the outstanding legs of the angles.

Sec. 8. The unsupported length of a rolled steel column shall not exceed 120 times its least radius of gyration, nor 40 times its least lateral dimension or diameter. The ends of all columns shall be faced to a plane surface at right angles to the axis of the columns. Wherever practicable, the connections between them shall be made with splice plates. When the sections of the columns to be spliced are such that splice plates cannot be used, a connection formed of plates and angles designed to properly distribute the stress may be used. Where any part of the section of a column projects beyond that of the column above, the difference shall be made up by filling plates secured to the column by the proper number of rivest. The pitch of rivets at ends of built up columns shall not exceed 4 diameters of the rivets for a length equal to twice the greatest lateral dimension of the column.

STEEL GIRDERS AND BEAMS.

Sec. 9. The thickness of the web in built up girders shall be not less than 1/120 of the distance between the flange angles or stiffeners, nor less than ¼ inch. When the unsupported length (L) of the compression flange of a girder exceeds 10 times its width (B), the unit stress in such flange shall not exceed 19,000-300 L/B; but in no case shall the unsupported length of the compression flange exceed 40 times its width. Stiffeners shall be provided over the supports and under concentrated loads. They shall be of sufficient strength as a column to carry the loads and shall be connected with a sufficient number of rivets to transmit the stress to the web plate. If the unsupported depth of the web plate exceeds 60 times its thickness, intermediate stiffeners shall be provided. All stiffeners shall be in pairs, with close bearing against the flange angle. When rolled steel beams are used in pairs to form girders, they shall be connected together by bolts and iron or steel separators at intervals of not more than 5 ft. All beams 12" or over in depth shall have at least 2 bolts to each separator. Beams supported by girders shall be riveted or securely bolted to the same. Every beam, lintel or girder supported by a wall, shall be

properly anchored thereto and shall rest upon a steel or iron plate so designed as to properly distribute the load over the masonry.

FRAMING AND CONNECTING STRUCTURAL STEEL WORK.

Sec. 10. Steel girders, columns, beams, trussed and other steel work of floors and roofs shall be well and firmly connected together and to the walls. All beams framed into other beams, girders or columns shall be connected thereto either by angles or knees with sufficient rivets or bolts in both legs of each connection angle to transmit the entire load coming on the connection to the supporting beam, girder or column; or a seat sufficiently strong to carry the full load with a single angle to hold the beam in place may be used.

STEEL TRUSSES.

Sec. 11. Trusses shall be so designed that the stresses in each member can be calculated. All trusses shall be held rigidly in position by efficient systems of lateral and sway bracing, struts being spaced so that the maximum limit of length to least radius of gyration, established in this Ordinance, is not exceeded. For tension members, the actual net area only, after deducting rivet holes 1/8" larger than the rivets, shall be considered as resisting the stress. Compression members in pin-connected trusses shall be so designed that the stresses shall not exceed 75% of the permissible working stress for columns. The heads of all eyebars shall be made by upsetting or forging. No weld shall be allowed in the body of the bar. Steel eyebars shall be annealed. Bars shall be straight before boring. All pin holes shall be true and at right angles to the axis of the members and must fit the pin within 1/16". Eye and screw ends shall be so proportioned that, upon test to destruction, fracture will take place in body of the member. All pins shall be accurately turned.

RIVETING AND BOLTING.

Sec. 12. All component parts of built up columns, girders and trusses shall be riveted. All column connections in buildings over 3 stories in height shall be riveted. Riveting shall also be used in column splices, in web and flange splices of girders and trusses, and in all connections of beams and girders to columns. Where riveting is impracticable, turned bolts may be used, provided the holes for the same are punched and reamed to a template and the bolts are accurately fitted. All shop rivets, wherever practicable, shall be machine driven. The pitch of rivets shall never be less than 3 diameters of the rivet nor more than 6". In the direction of the stress, it shall not exceed 16 times the least thickness of the outside member. At right angles to the stress, it shall not exceed 32 times the least thickness of the outside member. Rivets shall fillethe holes completely; the heads shall be spherical and concentric with the axis of the rivet; the length between heads shall not exceed 5 times the diameter. Where riveting is not required, connections may be made by bolts, which shall be wrought iron or mild steel with the United States Standard threads. The threads shall be full and clean; the nut shall be truly concentric with the bolt and the thread shall be of sufficient length to allow the nut to be screwed up tightly. When bolts are used in tension, the working stress shall be reduced to 7000 lbs. per square inch of net area for steel, and to 5000 lbs. per square inch for wrought iron, and the load shall be transmitted into the head of nut by washers, distributing the pressure evenly over the entire surface of same. In the construction of exterior stairs, landings, platforms and balconies, no rivet shall be less than 3/8" diameter and no bolt less than one-half ($\frac{1}{2}$") inch diameter.

Sec. 13. All metal structural work shall be cleaned of all scale, dirt and rust and be given one coat of paint at the shop, completely covering all exposed surfaces. After erection, all such work shall be painted at least one additional coat of a shade different from the first. The first coat of paint shall be made of pigments, which shall be chemically inert after application and shall be mixed with linseed or other drying oil. The amount of volatile matter shall be sufficient for easy spreading and shall not injure the film of the paint. The paint must dry sufficiently hard within 24 hours so it will not rub off or abrade easily. When the steel reaches the job, all abraded or injured portions must be thoroughly recoated with the same material as the shop coat, before the second coat is applied. The second coat of paint shall be such as will not act as a solvent of the first coat and shall be mixed with a pigment which shall be inert after application, and the vehicle shall be one that will not saponify under the action of cement mortar. Surfaces of riveted work which come in contact with each other, shall be painted with 2 coats of paint before assembling. All iron or steel used in damp locations, or under water, shall be embedded in Portland cement concrete. No paint shall be applied to the steel surfaces which are to be encased in concrete. Any structural steel work which may be so placed as to be inaccessible for inspection after erection, shall be thoroughly cleaned of all rust and encased in Portland cement concrete before it is rendered inaccessible.

ARTICLE 24.

TRANSFORMER ROOMS.

Sec. 1. All transformer rooms shall be of absolute fire-proof construction and shall be located as near as possible to the point at which the service wires enter the building and must be placed in an enclosure of fire resisting material, with an air space of at least 6" on every side. The enclosure must be securely locked, and access allowed only to authorized persons. It must be thoroughly ventilated, preferably through a chimney or flue to the outside air. The enclosure must consist of concrete not less than 6" in thickness, or of brick, not less than 8" in thickness, except that when the total transformer capacity so enclosed is not over 100 kilo-volt amperes the above thickness may be reduced to 4", provided approved fire-proof material is employed and the construction of the vault is specifically approved by the inspection department having jurisdiction. All ventilating openings not connected to chimneys or flues shall be provided with automatic or manually controlled dampers, to prevent the emission of smoke or fire. Damper controls shall be arranged to be operated from a point outside of vault.

Sec. 2. The doorway to the vault, or transformer room, must be thoroughly closed by means of an approved tight fitting fire door. A door sill not less than 4" in height must be provided. In all cases, the sill must be of sufficient height to confine within the vault the oil from the largest transformer installed.

ARTICLE 25.

FRAME & ORDINARY CONSTRUCTION.

Sec. 1. The footings of all frame buildings shall be of concrete or stone and shall be not less than 8 inches vertically and not less than 18 inches in width and not less than 2 complete lines of one-half ($\frac{1}{2}$") inch steel reinforcement rods in same.

Sec. 2. All walls shall have a footing not less than 8 inches vertically and not less than 18 inches in width and not less than 2 complete lines of one-half ($\frac{1}{2}$") inch steel reinforcement rods in same.

Sec. 3. All columns, posts or piers shall have a footing not less than 8 inches wider on all sides and not less than 12 inches thick, reinforced with not less than four (4) half-inch (½") rods at right angles.

Sec. 4. No frame building shall exceed 2 stories or 30 feet in height, or 2500 square feet floor area, per floor. Towers, turrets, minarets on such building may exceed the foregoing limit ten feet (10').

Sec. 5. The combined area of frame buildings, sheds and outhouses, located on any lot, shall not exceed 80% of the lot area.

Sec. 6. In no case shall a frame building be erected or altered to extend within 5 feet of side lot lines or 3 feet of rear lot lines.

Sec. 7. The ends of all wooden floor, ceiling or roof beams, which rest on masonry or concrete walls, shall be cut to a bevel of 3 inches in their depth. No wood beams or joists shall be placed within 2 inches of the outside face of a chimney or flue. No wooden furring or studding shall be placed against any chimney.

Sec. 8. No wooden floor beams used in any building shall be less than 2"x 8", nor spaced more than 16 inches on centers. Beams 2"x 8" shall not exceed 14 feet span; 2" x 10" not to exceed 18 foot span; 2"x 12" not to exceed 24 foot span.

Sec. 9. All frame buildings and partitions shall be rat-proofed by placing 4 inches of brick or three inches of concrete between joists of the ground flooring.

ARTICLE 26.

WIND PRESSURE.

Sec. 1. Every building shall be designed and built to resist a horizontal wind pressure of 30 lbs. for every square foot of exposed surface, in addition to dead loads and live loads as specified above.

ARTICLE 27.

TENTS.

Sec. 1. No tent or screened structure of any kind shall be erected or maintained within the city limits of Miami Beach, without the approval of the City Council.

PROJECTIONS.

Sec. 2. No bay, oriel, show-window, coping, window sills, capitols, water tables or cornices, shall project over the sidewalk of the ground floor, or more than four feet on the second floor or floors above and in no case shall be less than ten (10) feet above the sidewalk or the curb.

Sec. 3. All awnings or marquis over sidewalks must have at least 10 ft. clearance above the sidewalk and shall have no support in the sidewalk nor shall in any wise interfere with the free passage of pedestrians.

The front of all such awnings, marquis or other like structures shall not be placed nearer than eighteen (18") inches from the curb line. The distance between supports

for awnings, marquise or other like structures shall not exceed twelve feet (12') and be of not less than one-half inch (½") steel rods with a turn-buckle for adjustment. Not less than one and one-half inch (1½") cast iron washer shall be used on the cornice end of all iron rod or eyebolt supports.

FENCES.

Sec. 4. Private or party fences over seven feet (7') in height are prohibited.

ARTICLE 28.

MEANS OF EGRESS.
(Except Dwellings)

Sec. 1. Every building, except dwellings, and every story in each building, above the first, shall have at least two means of exit, remote from each other. One of these shall open to a street, and one may open to a yard or other space deemed safe by the Building Inspector and Fire Chief, and of sufficient area to accommodate all persons in the building. Two means of exit, remote from each other, shall be provided from each story when two or more stories in height.

Sec. 2. All exit doors leading from rooms having an occupancy of eight or over shall open in the direction of exit travel.

Sec. 3. Every room having an occupancy of 50 or more persons shall have at least two (2) doorways remote from each other, leading to exits. The opening of one door shall not be permitted to obstruct another, and the arc of openings of doors which open upon stairway landings or platforms shall not reduce the width of passage way to less than the required width of stairs.

Sec. 4. Hallways or corridors at the street or court level, furnishing exit from stairways, shall be not less in width than the aggregate width of the required stairways which they serve. Every hallway or corridor which may serve as an exit for 50 or more persons shall have at least 44 inches of width for the first 50 persons, and 6 inches additional for each additional 50 persons to be accomodated thereby. This computation shall be based on the number of persons in the story having the largest occupancy served by said corridor.

LOCKS.

Sec. 5. At all times the fastenings or locks on exit doors shall be such as may be easily opened from the inside without the use of keys.

SIGNS.

Sec. 6. A clearly painted sign, marked "EXIT" in red letters, not less than 6 inches in height, shall be placed over all exits in the above specified buildings.

The elevators shall be provided with similar signs, marked "ELEVATOR". Such signs shall be illuminated, when necessary, by means of artificial lighting. The color of such light shall be green.

ELEVATORS, ETC.

Sec. 7. Elevators, escalators and revolving doors shall not be considered in calculating exit requirements.

ARTICLE 29.

STAIRS AND STAIRWAYS.
(Except Dwellings)

Sec. 1. All stairways and steps used by the public for more than ten (10) persons shall have a uniform rise of not more than 7¾ inches and a uniform tread of not less than 9½ inches, measuring from tread to tread, and riser to riser. No winders shall be used. There shall not be more than 16 risers between platforms. Every platform shall be at least as wide as the stairway, measuring at right angles to the direction of travel.

Sec. 2. All stairways and steps of more than 4 risers shall have at least one handrail. Stairways and steps 5 feet or more in width, or open on both sides, shall have a handrail on each side. Stairways which are required to be more than 8 feet wide shall be divided by center rails into widths not more than 8 feet nor less than 3 ft. 8 inches (3' 8"). Center rails shall have upper newel posts at least 5 feet in height, or rail may be turned down to floor in a manner to prevent hindrance. Rails shall be not less than 2 ft. 6 in. vertically above nose of tread, or 3 feet above platform.

Sec. 3. Stairways used as required means of exit shall be at least 44 inches between faces of walls or between face of wall and open balustrade, or between two open balustrades. All such stairways shall be clear of all obstructions. All stair wells shall have walls or well secured balustrades or guards on both sides.

ARTICLE 30.

CHIMNEYS, FLUES AND HEATING APPARATUS.

Sec. 1. All chimneys hereafter erected shall be of brick, reinforced concrete or other approved incombustible material with walls not less than 8 inches thick, laid in cement mortar, without addition of lime, extending at least 3 feet above point of contact with a flat roof or 2 feet above the ridge of a pitch roof, and shall be properly capped with terra cotta, stone, cast iron or other approved incombustible weatherproof material.

Sec. 2. The brickwork, or reinforced concrete, of the smoke flues of all boilers, furnaces, bakers ovens, large cooking ranges, laundry stoves, and all flues used for similar purpose, shall be at least 8 inches in thickness. Brick set on edge shall not be permitted in fireplace or chimney construction.

Sec. 3. Where two or more smoke flues are contained in the same chimney, the walls between the several flues shall be of brick and not less than 4 inches thick. Chimneys hereafter erected of stone, or cement block, shall be 4 inches thicker than required for brick or reinforced concrete.

Sec. 4. Every smoke flue contained in a chimney hereafter erected shall have a net area of at least 62 square inches and shall be lined with firebrick or hard burned terra cotta flue lining, made smooth on the inside. The flue lining shall start from the bottom of the flue, or from the throat of the fireplace, and shall be carried up continuously the entire height of the flue.

Sec. 5. In no case shall a chimney be corbled more than 8 inches from the wall, and such corbling shall consist of at least 5 courses of brick. Piers which support chimneys shall start from the foundation on the same line with the chimney breast. No chimney shall rest upon nor be carried by woodwork. No combustible furring or sheathing shall be placed against any smoke flue or chimney breast.

Sec. 6. The smoke flue of every high pressure steam boiler and every appliance producing a corresponding temperature in the smoke flue shall, if built of brick, stone, reinforced concrete or any other approved masonry, be lined on all sides with not less than 4 inches of fire brick, laid in fire clay mortar for a distance of at least 25 feet from the point where the smoke connection of the boiler enters the flue.

Sec. 7. Exterior metal smoke flues for boilers, cooking ranges, and similar heating devices, shall be approved construction and supported on approved masonry foundations and shall have a clearance of at least 4 inches from the outside wall. Such flues, having an area not exceeding 255 square inches shall be constructed of not less than No. 16 U.S. gauge metal. If the area exceeds 255 square inches, the thickness of the metal shall be not less than No. 10 U. S.

Sec. 8. No smoke pipe shall pass through any floor, outside window or door, nor through any combustible roof or combustible outside wall, nor through any closet, attic or similarly concealed space. No smoke flues shall have a connection in more than one story of a building.

Sec. 9. All flue-holes, when not in use, shall be closed with tight fitting metal covers.

Sec. 10. No wooden beams or joists shall be placed within 2 inches of outside face of chimney or flue. The header beam, carrying the tail beams of a floor and supporting the trimmer arch in front of fireplace, shall be not less than 20 inches from the chimney breast. No wooden furring or studding shall be placed against any chimney. The plastering shall be directly on the masonry or on metal lathing and metal studding.

ARTICLE 31.

SIGNS.

Sec. 1. All signs attached to a building shall be fastened directly to the walls by well secured metal anchors, nor shall such wooden signs have electric lights or fixtures attached to them in any manner. Wooden supports or braces shall not be permitted.

Sec. 2. No sky sign shall be supported, anchored, or braced to a wooden building or structure. Sky signs shall be set back at least 8 feet from the cornice or wall on a street front; shall not project more than 15 feet above the roof of a building, and shall have a space at least 6 feet in height between the bottom of sign and the roof.

Sec. 3. No sign shall be so constructed as to obstruct any door, window, or ~~fire-escape on any building~~.

Sec. 4. Any letter, word, model, sign, device, or any representation in the nature of an advertisement, announcement, or direction, supported or attached wholly, or in part, over or above any wall, building or structure shall be deemed to be sky-sign. As herein specified, sky-signs shall be constructed entirely of metal, including the supports and braces for same.

Sec. 5. Before the erection of any sign shall have been commenced, a permit for the erection shall be obtained from the Building Inspector. Each application for the erection of any sign shall be accompanied by a written consent of the owner or owners or the lessee or lessees of the property on which it is to be erected. This section shall apply to all signs hereafter erected, whether placed upon new or existing buildings.

ARTICLE 32.

THEATRES ACCOMMODATING 300 OR MORE PERSONS.

(1) Application of Article
(2) Plans
(3) Buildings Must Be Approved
(4) Location, Floor Levels, etc.
    (a) Must have one or more fronts on Street
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    (d) Variation in Floor Levels
(5) Means of Egress
    (a) Exits
    (b) Exits Into Courts.
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    (d) Foyers, Lobbies and Corridors
    (e) Aisles
    (f) Cross Aisles
    (g) Aisles to be kept clear
    (h) Gradients
    (i) Gallery Exits
    (j) Staircases to Galleries
    (k) Stage Staircases
    (l) Staircases-General
    (m) Stairway Handrails
    (n) Fire Escapes
(6) Fire Protection
    (a) Standpipes
    (b) Fire Alarm System
    (c) Sprinkler System
    (d) Hose
    (e) Miscellaneous
(7) Auditorium Walls and Partitions
(8) Ceilings
    (a) Ceiling Covering
    (b) Ceilings
    (c) Front of Galleries
    (d) Lathing
    (e) Shelving and Cupboards
(9) Floors
(10) Proscenium Construction
(11) Protective Curtain
(12) Stage
    (a) Construction
    (b) Skylights
    (c) Stage Scenery
(13) Lighting System
(14) Seats in Auditorium and Galleries.
(15) Dressing Rooms
(16) Workshops, Property and Storage Rooms
(17) Stores, etc., in Theatres
(18) Motion Picture Booths
(19) Signs etc., on Buildings
(20) Inspection of Fire Apparatus.

Sec. 1. APPLICATION OF ARTICLE.--Every theatre, opera house, motion picture theatre or other building or parts of building, intended to be used for theatre, opera house or motion picture purposes, hereafter erected, for the accommodation of 300 or more persons, shall be built in compliance with the requirements of this Article and of Articles 15 to 19, inclusive. No building, which at the time of the passage of this Ordinance is not in actual use for the purpose above mentioned, and no building or parts of building hereafter erected or altered not in conformity with the requirements of this Article, shall be used for theatrical, operatic or motion picture purposes until the same has been made to conform to the requirements of this Article.

Sec. 2. PLANS.--Before the erection, construction or alteration of any building or part thereof, to be used as defined in this Article, there must be filed with the Building Inspector complete plans and detailed specifications therefor. The plans must show clearly and fully the location and width of all aisles, passageways, exits, stairways and fire escapes; the arrangement of seats; the size of floor beams, walls and supports; the location and construction of the enclosure for motion picture machinery and other apparatus; a diagram of the lot or plot on which the theatre is to be erected or constructed, showing the location of the building on said lot or plot, the outlets from all exits, and all such other statements, plans and details as may be required by the Building Inspector.

Sec. 3. BUILDING MUST BE APPROVED.--No building or part of building, subject to the provisions of this Article, shall be opened to the public for theatrical, operatic or motion picture purposes, until the Building Inspector shall have approved the same in writing, as conforming to all of the provisions of this Article; nor until the Chief of the Fire Department shall have certified in writing that all of the appliances for extinguishing fire, and for guarding against the same, have been installed as required by this Ordinance and are in satisfactory working condition; nor until the Electrical Inspector shall have certified in writing that the electrical work, and the electric lights, and all other electrical equipment has been installed as required by the Electrical Code; nor until the Plumbing Inspector shall have certified in writing that all plumbing has been installed as required by the Plumbing Ordinance. All such certificates shall be filed with the Building Inspector.

Sec. 4. LOCATION, FLOOR LEVELS, ETC.--(a) Must Have One Or More Fronts On Street.--Every theatre accommodating 300 or more persons shall have one or more fronts on the street, and in such front or fronts there shall be provided suitable means of entrance and exit for the audience.

(b) Main Entrance.--The Main Entrance or entrances shall not be at a higher level above the sidewalk at that point than 4 steps of 6½ inches each, and shall have a width equal to the aggregate width of the passageways leading thereto.

(c) Floor Level in Auditorium.--The floor level at the highest row of seats in the Auditorium shall be not more than 7 feet above the sidewalk level at the Main Entrance, and the floor level at the lowest row of seats on the said floor shall be not more than 4 feet below the level of the sidewalk at the Main Entrance.

(d) Variation in Floor Levels.--All changes in the levels of floors in such buildings, except the stairways from story to story, and except the necessary steps in galleries and balconies, rising towards the exits, shall be made by inclines and of no steeper gradient than two (2) in ten (10) within the Auditorium, and rising towards the exits, and one (1) in ten (10) for all other parts of the building.

Sec. 5. MEANS OF EGRESS.-- (a) Exits.--Every theatre coming within the provisions of this Ordinance shall have not less than two exits, one at the front of the building, at the end farthest from the stage, and one at the rear of the building, with a clear passage to the street, and when accommodating 500 or more persons at least three such exits shall be provided.

Sal Space → In addition to aforesaid entrances and exits to the street, there shall be reserved for service in cases of emergency, an open court or space on the side not bordering on the street, where the said building is loacted on a corner lot, and on both sides of said building where there is but one frontage on the street. No street, alley or court in the rear of any stage shall be considered as an emergency court, as herein called for.

Sal Space → These courts or passageways shall extend from the proscenium wall line to the rear of the Auditorium. Such courts or passageways shall be open to the sky at least fifty per cent. (50%) of their length and shall be continued out to the street fronts through passageways enclosed by incombustible masonry construction, and shall not be obstructed by locks, gates or doors of any kind. Such courts or passageways shall be not less than 7 feet in width where the seating capacity is less than 1,000 persons. If more than 1,000 and not more than 1,800, then the width shall be not less than 8 feet, and if more than 1,800 then the width shall be not less than 10 feet.

Sal Space → Such open courts, corridors and passageways shall not be used for storage purposes, or for any purpose whatsoever except for entrance and exit to and from the Auditorium and stage, and must be kept clear and free during all performances.

(b) Exits Into Courts.--From the Auditorium opening into the said courts or spaces or on a street, there shall be not less than two exits on each side in each tier and from and including the parquet and each gallery. Exits from galleries and balconies into such courts, spaces or passageways shall be provided with a platform or platforms connecting with the stairways. Such balconies and stairs shall be constructed of incombustible materials.

Sal Space → Such exits and stairways may be constructed inside the building, provided such stairways are surrounded by incombustible masonry partitions not less than 8 inches thick, separating the same from the Auditorium. Such partitions shall be carried, at each floor construction, on supporting frames of fireproof construction.

(c) Doorways Of Exits.--Doorways of entrance or exit, for the use of the public, shall be not less than 5 feet in width; and for every additional 100 persons thereof to be accommodated in excess of 500, an aggregate of 20 inches additional exit width must be allowed. All doors of exit or entrance must be fireproof, made to open outwardly, hung to swing in such a manner as not to become an obstruction in any passageway or corridor and equipped with such hardware as will release and allow the door to open instantly when pushed against; and no such door shall be locked during any representation or when the building is open to the public.

(d) Foyers, Lobbies and Corridors.--The aggregate capacity of the foyers, lobbies, corridors, passageways and rooms for the use of the public, not including the toilets or aisles between the seats shall, on each floor or gallery,

be sufficient to contain the entire number to be accommodated on said floor or gallery in the ratio of 150 square feet of clear floor space for every 100 persons. The level of said corridors at the front entrance to the building shall be not greater than 4 steps of 6½ inches each, above the level of the sidewalk, where they begin at the street entrance.

Pal space → In the Auditorium, there shall be no step within 4 feet of the front of any exit or entrance doorway, nor within 1 foot of the sides thereof. No mirror shall be so placed as to give the appearance of a doorway or exit, and there shall be no false doorways or windows. No entrance stairway to any tier in the Auditorium shall be less than 5 feet in width.

Pal space → During the performance, the doors or gates in the corridors shall be kept open by proper fastenings; at other times, they may be closed and fastened with panic bolts.

(e) Aisles.--All aisles on the respective floors of the Auditorium shall be not less than 3 feet in width where they begin, and shall be increased in width towards the exit in a ratio of 2 inches in 5 funning feet. Where exits, corridors, passages or cross-over aisles are provided at both ends of any aisle, the said aisles shall be uniform in width and shall be not less than the average width obtained by increasing the width of the aisle from the starting point to the end, as hereinbefore prescribed.

(f) Cross Aisles.--There shall be provided a cross aisle, not less than 32 inches in width, in each balcony or gallery, leading directly to an emergency exit and extending across the full width of such balcony or gallery; and should a cross aisle contain a row of seats, then such aisle shall be not less than 4 feet wide.

Pal Space → If any balcony or gallery contains a seating capacity exceeding 800 persons, then there shall be provided additional cross aisles, exits and stairways.

(g) Aisles to be Kept Clear.--The aisles, passageways and stairways of all buildings affected by the provisions of this Ordinance, now or hereafter to be erected, shall be kept clear of camp stools, chairs or other seating accommodations, and shall not be obstructed in any manner whatsoever. No person or persons shall be allowed to stand in or occupy any of the aisles or passageways of such buildings during any entertainment, service, exhibition, lecture, concert or public entertainment of any kind.

(h) Gradients.--Gradients or inclined planes shall be employed instead of steps where possible to overcome slight differences in levels, in or between aisles, corridors, lobbies and passageways. To overcome any difference in or between the levels of the courts, corridors, passageways and aisles gradients shall be employed of not over 1 foot in 12 feet, with no perpendicular risers except that in aisle runs, of not more than 10 feet in length they may be 1 in 8.

(i) Gallery Exits.--Separate and distinct places of exit and entrance shall be provided for each gallery above the first. A common place of exit or entrance may serve for the main floor of the Auditorium and the first gallery, provided its capacity is equal to the aggregate capacity of the outlets from the main floor and the said gallery. No passage leading to any stairway communicating with any entrance or exit shall be less than 4 feet in width in any part thereof. From the Auditorium, opening into the said courts or on the side street, there shall be not less than two exits on each side in each tier from and including the parquet and ~~each and every~~ gallery.

(j) Staircases to Galleries.--Where the seating capacity is more than 1,000 persons, there shall be at least two independent staircases, with direct exterior outlets provided for each gallery in the Auditorium, where there are not more than two galleries, and the same shall be located on opposite sides of the said galleries. Where there are more than two galleries, one or more staircases shall be provided in addition, the outlets from which shall communicate directly with the principal exit or other exterior outlets. All such staircases shall be of a width proportionate to the seating capacity as elsewhere herein prescribed. Where the seating capacity is for 1,000 persons or less, two direct lines of staircases only shall be required, located on opposite sides of the galleries and in both cases shall extend from the sidewalk level to the upper gallery, with outlets from each gallery to each of said staircases. All inside stairways leading to the upper galleries of the Auditorium shall be enclosed on both sides with walls of fireproof material. Stairs leading to the first or lower gallery may be left open on one side, in which case they shall be constructed as here provided for similar stairs leading from the entrance hall to the main floor of the Auditorium. But in no case shall stairs leading to any gallery be left open on both sides. No doors shall be open immediately upon a flight of stairs, but a landing at least the width of the door shall be provided between such stairs and such floor.

(k) Stage Staircases.--There shall be at least one independent staircase on each side of the stage, not less than 4 feet in width, opening directly on a street or alley or to the open spaces hereinbefore provided for.

Del Space → There shall be an iron stairway from the gridiron and from the fly gallery above the stage to a scuttle hole in the roof of the building, leading to a fire escape or to some fireproof passageway or exit.

Del Space → All rooms in theatres, for the use of persons employed therein, shall have passageways leading to at least two independent means of exit.

(l) Staircases For Use of Audience.--All staircases for the use of the audience shall be enclosed with walls of fireproof materials, in the stories through which they pass, approved by the Building Inspector, and the openings to said staircases from each tier shall be of the full width of said staircase. All the staircases within the building shall be constructed of fireproof materials throughout. Stairs from balconies and galleries shall not communicate with basements or cellars. All stairs shall have treads of uniform width and risers of uniform height throughout, in each flight. Stairways serving for the exit of 50 persons shall be at least 4 feet in width between the railings or between walls, and for every additional 50 persons to be accommodated 6 inches must be added to their width. The width of all stairs shall be measured in the clear, between the hand-rails. In no case shall the risers of any stairs exceed $7\frac{1}{2}$ inches in height, nor shall the treads, exclusive of the nosings, be less than $10\frac{1}{2}$ inches wide on straight stairs. No circular or winding stairs, for the use of the public, shall be permitted. When straight stairs return directly upon themselves, a landing of the full width of both flights, without any steps, shall be provided.

Del Space → The outer line of landing shall be curved to a radius of not less than 2 feet, to avoid square angles. Stairs turning at an angle shall have a proper landing, without winders introduced at said turn. In stairs, when two flights connect with one main flight, no winders shall be

introduced, and the width of the main flight shall be at least equal to the aggregate width of the side flights. All stairs shall have proper landings, introduced at proper distances.

(m) Stairway Handrails.--All enclosed stairways shall have on both sides, strong handrails, firmly secured to the wall and about 3 inches distant therefrom, and about 3 feet above the stairs, but said hand-rails shall not run on level platforms or landings where the same is greater in length than the width of the stairs. All staircases 8 feet or over in width shall be provided with a center handrail, not less than 2 inches in diameter, placed at a height of about 3 feet above the center of the treads, and supported on wrought metal or brass standards of sufficient strength, placed not nearer than 4 feet nor more than 6 feet apart, and securely bolted to the treads or risers of the stairs, or both, and at the head of each flight of stairs, on each landing, the post shall be at least 6 feet in height, to which the rail shall be secured.

(n) Fire Excapes.--There shall be balconies not less than 6 feet in width in the said open court or courts at each level or tier above the parquet, on each side of the Auditorium, and of sufficient length to embrace the two exits, and from said staircases extending to the ground level, with a rise of not more than 8½ inches to a step and not less than a 9 inch tread, exclusive of the nosing. The staircase from the upper balcony to the next below, shall be not less than 48 inches in width in the clear, where the seating capacity is for 1,000 persons or less; 54 inches in width in the clear where the capacity is above 1,000 persons and not more than 1,800 persons; 60 inches in width in the clear where the capacity is above 1,800 and not more than 2,500, and 66 inches in width in the clear where above 2,500 persons. All of the hereinbefore mentioned balconies and staircases shall be constructed of iron throughout, including the floor, and shall be of ample strength to sustain the load to be carried by them, and they shall be covered with a metal hood or awning, to be constructed in such a manner as shall be approved by the Building Inspector. Where one side of the building borders on the street, there shall be balconies and staircases of like capacity and kind, as before mentioned, carried to the ground.

Left Space → All fire escapes and passageways leading to the street or courts shall be kept well lighted during all performances.

Sec. 6. FIRE PROTECTION.--In every theatre building, coming within the provisions of this Article, there shall be provided, as follows:

Left Space → (a) Standpipes.--Standpipes, not less than 4 inches in diameter, shall be provided, with hose connections on every floor and gallery, as follows, viz: One on each side of the Auditorium, in each tier; also, on each side of the stage in each tier, and at least one in the property room and one in the carpenter shop, if the same be contiguous to the building.

All standpipes shall be constructed as prescribed by the Building Inspector, and shall be provided with such outlets and equipped with such appliances as may be required by him; shall extend to the sidewalk and be provided, at or near the sidewalk, with approved Siamese connections, with butterfly valves. When there is more than one standpipe in any building, all shall be cross-connected in an approved manner, below the sidewalk level.

Left Space → (b) Fire Alarm System.--In all buildings, now or hereafter erected, and used for theatrical or operatic purposes, or for public entertainment of any kind, where stage scenery

or apparatus is employed, there shall be installed one Fire Alarm Box, on the stage or platform thereof, connected directly to the City Fire Alarm Telegraph, and the number and locations of the sub-boxes in such buildings, and the manner of their installation, shall be determined and approved by the Chief of the Fire Department.

Dgl Space → (c) Sprinkler System.--A separate and distinct system of automatic sprinklers with fusible plugs, approved by the Building Inspector, supplied with water from a tank of not less than 5,000 gallons capacity, located on the roof over the stage, and not connected in any manner with the standpipes, shall be placed at each side of the proscenium opening and on the ceiling or roof over the stage, at such intervals as shall protect every square foot of stage surface when the sprinklers are in operation. Automatic sprinklers shall also be placed, wherever practical, in the dressing rooms and in the carpenter shop, paint rooms, store rooms and property rooms.

Dgl Space → (d) Hose.--A proper and sufficient quantity of 2½ inch hose, not less than 100 feet in length, fitted with regulation couplings of the Fire Department, with nozzles attached thereto, and with hose spanners at each outlet, shall always be kept attached to each hose attachment, as the Chief of the Fire Department may direct.

Dgl Space → (e) Miscellaneous.--There shall be kept in readiness for immediate use, on the stage, at least four casks full of water, and two buckets for each cask. Siad casks and buckets shall be painted red.

There shall also be provided 6 three-gallon, approved, chemical fire extinguishers, and at least 4 axes, two 25-foot hooks, two 15-foot hooks and two 10-foot hooks, on each floor or tier of the stage.

Sec. 7. AUDITORIUM WALLS AND PARTITIONS.--Interior walls, built of fireproofing materials, shall separate the Auditorium from the entrance vestibule and from any room or rooms over the same; also from lobbies, corridors, refreshment or other rooms.

The partitions in that portion of the building which contains the Auditorium, the entrance and vestibule and every other room or passage devoted to the use of the audience, shall be constructed of fireproof materials, including the furring of the outside or other walls. The walls separating the actors' dressing rooms from the stage, and the partitions dividing the dressing rooms, together with the partitions of every passage-way from the dressing rooms to the stage, and all other partitions on or about the stage, shall be constructed of fireproof materials, approved by the Building Inspector. All doors in any of the said partitions shall be fireproof.

Sec. 8. CEILINGS AND INTERIOR WALL COVERINGS.--(a) Ceiling Coverings.--No walls or ceilings shall be covered with wood sheathing, canvas or other combustible material, whatsoever, but this shall not exclude the use of wood wainscoting to a height not exceeding 3 feet, provided, the wall shall be filled in solid, between the wainscoting and the wall with fireproof materials.

(b) Ceilings.--The ceilings in the Auditorium, as well as the ceilings under each gallery, shall be entirely formed of fireproof materials.

(c) Front of Galleries.--The fronts of each gallery shall be formed entirely of fireproof materials, except the capping, which may be of wood.

(d) Lathing.--All lathing, whenever used, shall be of wire or other metal, and shall be approved by the Building Inspector.

(e) Shelving and Cupboards.--All shelving and cupboards in each and every dressing room, property room or other storage rooms shall be constructed of metal, slate or some fire proof material.

Sec. 9. FLOORS.--All floor surfaces shall be of concrete of

other incombustible material, and no wooden boards or sleepers shall be used as a floor covering, for seat platforms, aisles, steps, landings, passageways or stairs.

Sec. 10. PROSCENIUM CONSTRUCTION.--A fire wall, built of brick, concrete or other fireproof material, not less than 12 inches thick in any portion, shall separate the Auditorium from the stage and shall extend at least 4 feet above the stage roof, or the Auditorium roof if the latter be higher, and shall be coped. Any windows in the structure above the Auditorium, which face over over the roof of the stage section, when within 100 feet of the stage roof, must be protected with fire wondows or fire shutter.

Above the proscenium opening there shall be a steel or concrete girder of sufficient strength to support the load above, and where steel is used the same shall be covered with fireproof material, to protect it from the heat.

Should an orchestra be constructed over the stage, above the proscenium opening, the said orchestra shall be placed on the Auditorium side of the proscenium fire wall, and the same shall be entered only from the Auditorium side of said wall.

The moulded frame around the proscenium opening shall be formed entirely of fireproof materials; if metal be used, the metal form shall be filled in solid with incombustible materials and securely anchored to the wall with iron.

No doorway or opening through the proscenium wall shall be allowed above the level of the first floor, and such first floor openings shall have fireproof doors on each side or face of the wall, and the doors shall be hung to open from either side at all times.

Sec. 11. PROTECTIVE CURTAIN.--The proscenium opening shall be provided with a protective curtain of asbestos or steel, protected with and fireproofed by asbestos on the stage side. Such curtain shall be at least 24 inches wider than the proscenium opening, overlapping such opening at least 12 inches on each side of the same; not less than 24 inches at the top, and shall be placed at least 3 feet distant from the foot lights at the nearest point. The guide members at the side shall be of rolled steel, not less than 3/8 of an inch thick, nor less than 6 inches deep, and shall form a continuous smoke seal from the top to the bottom, and attached to the proscenium wall by fireproof material, and in a manner to be approved by the Building Inspector. This curtain shall be designed to resist a wind pressure of not less than 10 pounds per square foot of surface, without flexure sufficient to interfere with its closing; so arranged that it can be controlled and operated from the fly galleries or from either side of the stage, and the controlling mechanism shall be so designed that it shall have a factor of safety of 8. The installation of such curtain, and all matters in connection therewith, shall be subject to the approval of the Building Inspector. The fireproof curtain shall be raised at the commencement of each performance, rehersal or entertainment and lowered at the close of the same.

Sec. 12. STAGE.--(a) Construction.--All that portion of the stage in theatres, not comprised in the working of scenery, traps or other mechanical apparatus for the presentation of a scene, usually equal to the width of the proscenium opening, shall be built of re-inforced concrete or steel beams, filled in between with fireproof material, and all girders for the support of such beams shall be of re-inforced concrete or structural steel. The fly and tie galleries, including pin rails, shall be constructed of re-inforced concrete or steel beams, filled in between with fireproof

material, designed to sustain a live load of 90 pounds per square foot of surface, and no wood boards or sleepers shall be used as a covering over beams, but the said floors shall be entirely fireproof.

The gridiron or rigging loft shall have a lattice metal floor, capable of sustaining a live load of 75 pounds per square foot of surface, and readily accessable by metal stairs or ladders.

Agl Space →

(b) Skylights.--There shall be provided over the stage, metal skylights of an area or combined area of at least one-eight the area of the said stage, fitted up with sliding sash and glazed with double-strength sheet glass not exceeding 1-12 of an inch in thickness, and each with pane thereof measuring not less than 300 square inches; and the whole of the said skylight shall be so constructed as to open instantly on the cutting or burning of a hempen cord or fusible link, which shall be arranged to hold the skylight closed, or some other equally simple, approved device for opening the same may be provided.

Immediately underneath the glass of said skylight there shall be a wire netting, but wire glass shall not be used in lieu of this requirement.

Agl Space →

(c) Stage Scenery.--All stage scenery, curtains and decorations made of combustible material, and all woodwork on or about the stage, shall be painted or saturated with some non-combustible material, or otherwise rendered safe against fire, and the finishing coats of paint applied to all woodwork throughout the entire building shall be of such kind as will resist fire, to the satisfaction of the Building Inspector.

Sec. 13. LIGHTING SYSTEM.--Every portion of the building devoted to the use and accommodation of the public, and all courts and passageways leading to the highway or street, shall be well and properly lighted during all performances, and until the entire audience shall have left the premises.

Nothing in the preceeding paragraph is intended to prohibit the temporary shutting off of the lights in the Auditorium during the production of any act or scene.

Gas mains may be installed for use on the stage, but not for lighting purposes. No gas lighting shall be permitted throughout the building. Provision, however, must be made for shutting off the gas outside of the building.

There shall be a system of lighting for the auditorium, stairs, halls, corridors, passageways, lobbies and vestibules, separate and independent from the general lighting system for the Auditorium, and such system shall be controlled only from the foyer or box office, or both.

All electric mains, wiring, etc., shall be installed under the rules of and subject to the inspection of the Electrical Inspector.

Every exit shall have, over or at one side of the same, on the inside of the building, the word "EXIT", in conspicuous letters, not less than 6 inches high, and with a distinguishing numeral such as "1", "2", etc., and over each such exit sign there shall be placed a 16-candle power, red light, which shall remain lighted until the audience shall have left the premises, and no other red light shall be allowed in the Auditorium, except the stage lights.

Sec. 14. SEATS IN AUDITORIUM AND GALLERIES.--All seats in the Auditorium, except those contained in boxes accommodating 12 or more persons, shall be spaced not less than 32 inches, back to back, measured horizontally, for seats with cushion backs, and not less than 30 inches from back to back for seats with solid wooden backs, and shall be securely fastened to the floor. No seat in the Auditorium shall have more than 5 seats

interventing between such seat and an aisle on either side.

No seat in the gallery shall have more than 5 seats interventing between it and the aisle on either side, and the rows of seats shall be spaced as provided for in the Auditorium.

No platforms in the Auditorium or galleries, formed to receive seats, or for aisles or passageways, shall have a greater rise than 21 inches, and when used for a platform to receive seats shall not be less than 32 inches from riser to riser.

When cushions are used on any seats in the Auditorium, galleries or other parts of the building, such cushions shall be of some fireproof material or saturated with some preparation which will render them safe against fire.

When rugs, runners, carpets or draperies are used in any of the aisles, corridors, passageways or other parts of the building, they shall be made of some fireproof material or treated with some fireproofing material or preparation which will render them fireproof.

Sec. 15. DRESSING ROOMS.--Dressing rooms may be placed in the fly galleries, provided proper exits are secured therefrom to the fire escapes in the open courts and the partitions and other matters pertaining to the dressing rooms shall conform to the requirements contained herein, and the stairs leading to the same shall be fireproof. All dressing rooms shall have an independent exit, leading directly to a court or street, and shall be ventilated by windows in the external wall or walls, and no dressing room shall be below the street level. All of the windows shall be arranged to open, and none of the windows shall have fixed sashes, iron grills or bars, but all windows in external walls shall be provided with fireproof shutters, arranged to open from the inside of the building.

Sec. 16. WORKSHOPS, PROPERTY AND STORAGE ROOMS.--No workshops, general property or storage rooms shall be allowed in or under the Auditorium, over or under the stage, nor in any of the fly galleries; but such rooms or shops may be located in the rear or at the side of the stage, and in such cases they shall be separated from the stage, vertically and horizontally, by a wall composed of fireproof materials, not less than 12 inches thick, or other equally efficient cut-off, and the openings leading to said portions shall have self-closing, Underwriters' Labeled fire doors on one side of the wall and automatic fire doors on the other side.

No sleeping accommodations shall be permitted in any part of the building communicating with the Auditorium or stage.

Sec. 17. STORES, ETC., IN THEATRE BUILDINGS.--Nothing in this Ordinance shall be construed to prohibit the use of any part of the building for stores, offices or for hotel purposes, provided that the parts so used shall be built with the exits to the streets entirely separate and distinct from the theatre part of the building, and shall be separated from the auditorium, foyer, stage and all other parts of the theatre by fireproof walls, without any openings whatsoever in them.

Nothing herein shall prevent a roof garden, art gallery or rooms for similar purposes being placed above a theatre, provided the floors of the same, forming a roof over the said theatre shall be constructed of re-inforced concrete, structural steel or other fireproof material, and the said floors shall have no sleepers or coverings of wood, but shall be of tile or concrete. Every roof over such garden or rooms shall have all supports and rafters of structural

steel, and shall be covered with glass or other fireproof materials, or both, but no such roof garden, art gallery or rooms for any public purposes shall be placed over or above that portion of any theatre which is used as a stage.

Sec. (18) MOTION PICUTRE MACHINE BOOTH.--All theatres exhibiting motion pictures, shall operate all such motion picture machines or apparatus in a booth, located above the entrance to such theatre, or in such a manner that the public will not have to pass it, and the said booth shall be composed entirely of fireproof construction.

The booth shall be not less than 6 by 8 feet in size, nor less than 7 feet in height, and shall be thoroughly ventilated by a vent pipe not less than 12 inches in diameter, or its equivalent, which must be flanged to carry a standard conductor pipe, for exhausting the hot air generated by the operation of the motion picture machine and run to a vent or chimney leading outside the building.

All openings into the booth, except the entrance door, shall be arranged to be entirely closed by silding shutters, controlled by gravity, and arranged to be held open by a hempen cord or fusible link, suspended direcely over the motion picture machine, by the weight of the operator when standing in position, or by some equally simple device. The entrance door shall be of fireproof construction, shall be so hung as to open outwardly and shall be arranged to be held closed by strong springs.

An electric bell or buzzer shall be placed in some conspicuous place, outside the booth, and a push button or switch located within the booth and readily accessable to the operator, shall be used as a signal to open the Double Pole Switch, placed in a readily accessable place outside the booth to control the entire current of the machine and stereoptican.

All shelves and other furnishings of said booth shall be constructed of fireproof material.

A metal box shall be provided within the booth, for the safe keeping of all films. Said box shall have a separate compartment for each film, shall be constructed without solder and equipped with a tight-fitting cover.

All electric wiring within the booth shall be in approved conduit, with approved fittings.

Sec. 19. SIGNS ETC., ON BUILDINGS.--No movable iron or wood frames for the purpose of advertising shall be permitted in front of or on the inside of such building, except such frames as shall be fastened flat against the outside face of walls. No such frames shall extend across or cover any opening of egress to fire escapes.

Sec. 20. INSPECTION OF FIRE APPARATUS.--The Building Inspector shall cause all fire apparatus to be inspected once each week, by the Chief of the Fire Department.

Any hose, fire apparatus or appliance which may be found defective shall be condemned by the Chief of the Fire Department and ordered removed. Such condemned apparatus shall be immediately removed and replaced with new and approved apparatus.

A report of each and every inspection shall be made by said Fire Chief or his assistant, and filed in the main office of the Fire Department.

ARTICLE 33.

MOTION PICTURE THEATRES, ACCOMMODATING LESS THAN 300 PERSONS

(1) Application of Article
(2) Plans
(3) Building Must Be Approved

(4) Restrictions
(5) Means of Egress
(6) Construction
(7) Booth For Motion Picture Machine
(8) Lights
(9) Fire Extinguishing Appliances
(10) Open Air Motion Picture Theatres

Sec. 1. APPLIATION OF ARTICLE.--Every Motion Picture Theatre or other building or part of building, accommodating less than 300 persons, intended to be used for motion picture purposes, hereafter erected, shall be built to comply with this Article. No building, which at the time of the passage of this Ordinance, is not in actual use for the purpose above described, and no building or parts of building hereafter erected or altered, not in conformity with the requirements of this Article, shall be used for motion picture purposes until the same shall have been made to conform to the requirements of this Article.

Sec. 2. PLANS.--The provisions of (2), Article 32, shall apply.

Sec. 3. BUILDING MUST BE APPROVED.--The provisions of (3), Article 32, shall apply.

Sec. 4. RESTRICTIONS.--No motion picture theatre, as above described, shall be constructed in a frame building; nor in a hotel, tenement or apartment house, lodging house, factory or workshop, except where the theatre is separated from the rest of the building by unpierced fireproof walls and floors, and in no case shall such a theatre be constructed or operated above or below the ground floor of any building.

Sec. 5. MEANS OF EGRESS.--(a) Exits.--Every motion picture theatre covered by this article shall have at least two separate exits, both leading to unobstructed outlets to the street. The aggregate width in feet of such exits shall be not less than one-twentieth (1-20) of the number of persons to be accommodated. No exit shall be less than 5 feet in width, and there shall be a main exit not less than 10 feet in total width.

Add Space → (b) Court.--If an unobstructed exit to a street cannot be provided at the rear of such building, as herein specified, either an open court or fireproof passageway or corridor shall be provided from the rear exit to the street front, of at least 4 feet in width, for exhibition rooms accommodating 50 persons or less, and 6 inches additional width for each additional 50 persons to be accommodated by such rooms. Such passage shall be constructed of fire-proof materials, and shall be at least 10 feet high, in the clear. The walls forming such passage shall be not less than 8 inches in thickness, of brick or other approved fireproof material. The ceiling and floor of such passage shall, also, be fireproof.

Add Space → (c) Rear Exits.--If unobstructed rear exits to the street are provided, they shall be of the same total width required for courts or passages, above mentioned. Said exits and passages to the street shall be used for no other purpose than for exit and entrance and shall be kept free and clear at all times.

Add Space → (d) Level or Courts or Passages.--The level of the open court or passage, where it intersects the street, shall be not greater than one step above the level of the same, and the grade shall be not more than 1 foot in 10, with no

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perpendicular risers.

Dbl Space → (e) Doorways of Exits.--All exit doors must be fireproof and made to open outwardly, and so arranged as not to obstruct the required width of exit or court, when opened. All doors leading to fire escapes must be at least 40 inches wide in the clear, and shall be located on opposite sides or ends of the gallery from other exit doors.

Dbl Space → (f) Fire Escapes.--Galleries must be provided with at least one line or fire escape, leading to an open court, fireproof passage or street without re-entering the same or any other building. If the fire escape leads to a point in the court nearer the street than any exit, there must be a width of not less than 4 feet in the clear between the outer edge of the fire escape and the outer wall of the court. All fire escapes must have balconies not less than 40 inches in width in the clear and not less than 54 inches long, and from said balconies there shall be staircases extending to the ground level, with a rise of not more than 7 inches and a tread of not less than 10 inches, and the width of the stairs shall be not less than 40 inches in the clear.

Dbl Space → (g) Exit Signs:--Every exit doorway leading from the exhibition room shall have over the same, on the auditorium side, the word "EXIT", in legible letters on glass, not less than 8 inches high, and illuminated from the rear.

Dbl Space → (h) Aisles.--The provisions of paragraphs e, f, g, and h, (4), Article 32 shall apply.

Dbl Space → (i) Gradients.--The provisions of paragraph i, (4), Article 32, shall apply.

Sec. 6. CONSTRUCTION.--(a) Ceilings.--The ceiling of all such theatres, having wooden construction, shall be protected with metal lath and not less than $\frac{3}{4}$ of an inch of cement or cement-tempered plaster; or be covered with $\frac{1}{2}$ inch plaster boards and plastered with $\frac{1}{4}$ inch of plaster; or covered with metal; and the ceiling of any basement or cellar thereunder shall be protected by approved fire doors.

Dbl Space → (b) Partitions.--Any partition containing wooden studs shall be protected in the same manner.

Dbl Space → (c) Galleries and Stairways.--A gallery may be permitted, but shall not include more than 25 per cent. of the total seating capacity of the theatre. Entrance to and exit from the gallery shall in no case lead to the main floor of the theatre, and the gallery shall be provided with a stairway or stairways equipped with handrails on both sides. Stairways over 7 feet wide shall be provided with center handrails. The risers of the stairways shall not exceed 7 inches, and the treads, including nosings, shall be not less than 10 inches. There shall be no circular or winding stairways. The total width of the stairways shall be not less than 8 feet in the clear, where the gallery accommodates 150 persons; for every 50 persons or less than 150, accommodated by the gallery, said width shall be reduced 1 foot. Stairways shall be constructed of fireproof materials and the bearing capacity of such stairway shall be approved by the Building Inspector.

Dbl Space → (d) Seats.--The provisions of (14), Article 32, shall apply.

Sec. 7. BOOTH FOR MOTION PICTURE MACHINES.--The provisions of (18), Article 32, shall apply.

Sec. 8. LIGHTS.--The provisions of (13), Article 32, shall apply.

Sec. 9. FIRE EXTINGUISHING APPLIANCES.--The provisions of (6), Article 32, shall apply.

Sec. 10. OPEN AIR MOTION PICUTRE THEATRES.--The provisions of Article 34 shall apply.

ARTICLE 34.

OPEN AIR MOTION PICTURE THEATRES.

Sec. 1. SEATING CAPACITY.--The seating capacity of each open air motion picture theatre, as defined herein, shall be such as shall be prescribed by the Building Inspector. All such theatres shall conform to the following requirements:

(a) The number and width of all aisles shall be prescribed by the Building Inspector, but no aisles shall be less than 4 feet in width.

(b) At least two separate exits, remote from each other, shall be provided, and no exit shall be less than 5 feet in width; for every 25 persons to be accommodated in excess of 300, the total width shall be increased 1 foot. All doors shall open outwardly, and shall be indicated by signs.

Sec. 2. SEATS.--The provisions of (14), Article 32, shall apply.

Sec. 3. BOOTH FOR MOTION PICTURE MACHINE.--The provisions of (18) Article 32, shall apply.

Sec. 4. LIGHTS.--The provisions of (13), Article 32, shall apply.

Sec. 5. FIRE EXTINGUISHING APPLIANCES.--The provisions of (6), Article 32, shall apply.

ARTICLE 35.

ASSEMBLY HALLS.

Sec. 1. EXIT FACILITIES.--In all buildings or parts of buildings, to be used for the purpose of assembly, other than theatres, opera houses or motion picutre theatres, which are covered by Articles 32, 33 and 34, the halls, doors, stairways, passageways and all other exit facilities shall conform to the provisions of (5), Article 32 of this Ordinance.

Sec. 2. SEATS.--All seats shall be spaced as required for theatres. In computing the seating capacity of any room or building, used for the purpose of assembly, in which the seats are not fixed, an allowance of six square feet of floor area shall be made for each person, and all space between the walls or partitions of such room or building shall be measured in this computation. Movable seats shall not be permitted in any gallery.

Sec. 3. STAGE.--Any assembly hall, containing a stage, shall comply with all of the requirements for stages in theatres except that stages, the area of which does not exceed

one-fifth of the area of the auditorium may have the proscenium wall built as required for fireproof partitions, and all openings therein shall be, with the exception of the curtain opening, protected in the same manner as for stages in theatres. The protection of the proscenium opening shall be approved by the Building Inspector.

Sec. 4. LIGHTS.--The provisions of (13), Article 32, shall apply.

Sec. 5. FIRE EXTINGUISHING APPLIANCES.--The provisions of (6), Article 32, shall apply.

ARTICLE 36.

ELEVATORS.

Sec. 1. The term elevator, as used in this Ordinance, shall include all elevators, escalators or lifts used for carrying freight or passengers. Any handpower elevator having a rise of more than 32 feet shall comply with the requirements of this Article. No belt elevators, driven from a counter-shaft, shall be installed for passenger service.

Sec. 2. Before any elevator shall hereafter be installed or altered in any building, the owner shall submit to the Building Inspector an application in duplicate, stating the construction and mode of operation of such elevator to be installed or altered, accompanied by such plans and drawings as may be necessary and shall obtain his approval thereof. Before any such elevator shall be put into service the same shall have been duly tested and inspected by the Building Inspector and a certificate of inspection and approval obtained.

Sec. 3. No passenger elevator shall be permitted to have a freight compartment attached to it in any manner.

Sec. 4. All counterweights shall have their sections strongly bolted together. There shall be not less than 3 feet of clearance between the top of the counterweights and underside of overhead beams when the car is resting on the bumpers. No continuous forged straps shall be permitted on counterweights. Elevator cars shall be constructed of incombustible materials.

Sec. 5. All guiderails for both car and counterweights shall be of steel and shall be bolted to the sides of the shaft with steel or cast iron brackets, so spaced that the guiderails will be rigid. The splices in the rails shall be located as near such rigid supports as possible.

Sec. 6. A clear space of not less than 3 feet shall be provided between the bottom of the shaft and the lowest point of the underside of the car floor when the car is at its lowest landing; and between the top of the cross-head of the car and the underside of the overhead grating when the car is at its top landing--except that this latter space shall be not less than 5 feet for elevators having a speed in excess of 350 feet per minute, and may be reduced to 3 feet for elevators having a total rise not exceeding 30 feet and a speed not exceeding 100 feet per minute. Free and safe access shall be provided to all parts of elevator machinery. The carrying beams and other supports for all machinery shall be of steel designed for double the live loads to be supported.

There shall be around all elevator machinery sufficient space to permit mechanics to work.

ARTICLE 37.

DUMBWAITERS.
(except in dwellings)

Sec. 1. All dumbwaiters and other shafts or chutes, not exceeding 6 square feet in area, shall be continuously enclosed by partition of brick, terra cotta, concrete, metal lath and cement plaster, gypsum blocks or other approved fireproof material not less than 4 inches thick. Such walls or partitions shall rest upon incombustible foundations. Gypsum blocks may be set in gypsum mortar; all other blocks shall be set in Portland cement mortar.

Sec. 2. All openings in dumbwaiter shafts shall be provided with approved self-closing fire doors.

Sec. 3. No woodwork, other than guides and car, shall be permitted in the construction of any such shaft.

ARTICLE 38.

SCUTTLES AND ATTICS.
(except in dwellings)

Sec. 1. Upon the roof of every building more than one story high, there shall be a scuttle with a substantial stationary ladder leading to same, which shall be easily accessible at all times to all occupants without the use of keys. The roof opening shall be at least 2 ft.x 3 ft. in size.

Sec. 2. All buildings or structures hereafter erected, with roof not exceeding 3" to the foot rise, shall have an attic space of not less than 18" measured vertically between the bottom of rafters and top of ceiling joist at lowest point of roof, properly ventilated.

ARTICLE 39.

DRY CLEANING ESTABLISHMENTS.

Sec. 1. Any building to be used as a dry cleaning establishment must conform in construction and operation to Section 20 of Ordinance No. 145 passed January 26th, 1921 and plans for such building must be approved by the Chief of the Fire Dpearmtns, before a building permit is issued.

ARTICLE 40.

GARAGES.

Sec. 1. Public or commercial garage is a building or that portion of a building wherein are kept more than 4 automobiles or motor cars charged with or containing a volatile inflammable liquid for fuel or power, and where any portion of a building is used for a garage the aforesaid term shall apply to and embrace all of the building not separated from said garage by proper standard fire walls. All openings in the fire walls of such garages shall be protected on both sides by standard, self-closing fire doors, which shall be kept constantly closed, except when necessarily temporarily opened for passage.

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Sec. 2. Private garages housing not more than four automobiles, if not within 15 feet of any other building, may be built of ordinary construction.

Sec. 3. No frame building shall be used as a public or commercial garage, and no building exceeding one story in height shall be used as a garage unless it be of fireproof construction. No basement or cellar shall be allowed under such garage, nor shall any building be used as such garage unless the floor on which automobiles containing volatile inflammable liquid are stored shall be of concrete, or other suitable non-combustible material.

ARTICLE 41.

FIRE ESCAPES AND STANDPIPES.

Sec. 1. Every hotel, rooming house or restaurant, and all public buildings in Miami Beach, occupied by one or more families or tenants, aggregating 10 persons or more, which is more than 2 stories high, having accommodations for 10 or more persons on the third floor, shall be equipped with a complete iron stairway fire escape or fire escapes, or fire tower, reaching to the ground on the outside of the building, and, if three stories or more high and having accommodations for 15 or more persons, there shall be one such additional fire escape for each 20 or less persons on each additional floor, connecting each floor above the ground floor and to the cornice of the building, with openings from each floor which shall be well fastened and secured with landings not less than 6 feet in length and 4 feet in width, guarded by an iron railing, not less than 30 inches in height. Such landing shall be connected by iron stairs not less than 2 feet wide, with steps not less than 6 inch tread, and placed at an angle not more than 45 degrees (45^{0}).

Sec. 1-a. Fireproof Stair Towers Preferred. Fireproof stair towers having landings, stairs, enclosing walls and partitions constructed of brick, stone reinforced concrete, protected steel or other incombustible material, and with all openings to the building protected with fireproof doors or windows at all floors, and with an exit at the first floor to the street, alley or court, are preferred to outside fire escapes, because of their greater resistance to fire, greater safety in use and less deterioration.

Sec. 2. All the outer doors of any public school building shall be so hung that when they are opened they will swing to the outside.

Sec. 3. All doors leading to any fire escape landing shall be so hung that when they are opened they will swing to the outside, leaving the line of travel free and clear.

~~STANDPIPES.~~

Sec. 4. One standpipe shall be provided for each separate fire area of 2500 square feet or fraction thereof, with at least one (1) standpipe within 75 feet of every exterior wall in the building.

Sec. 5. Where more than one standpipe is required in a building they shall be connected at their bases by pipes of size equal to that of the largest standpipe, so that the water from any source will supply all the standpipes.

Sec. 6. Standpipes shall extend from the cellar to and through the roof with a $2\frac{1}{2}$ inch hose connection and provided with standard couplings ~~used by the City~~ Fire Department, and a gate valve not over five (5) feet above the floor level in each story, including cellar. Where standpipes are

located inside of building, hose sufficient to reach to all parts of the fire section, but not in excess of 50 feet, shall be attached to each outlet. Hose shall not be less than 1½ inches in diameter. Standpipes shall be wrought iron or steel, galvanized, and, together with fittings and connections, shall be of such strength as to safely withstand at least 300 lbs. water pressure to the square inch, when ready for service, without leaking at joints, valves, or fittings; such test to be made by Fire Chief. No standpipe shall be less than 4" in diameter.

Sec. 7. Standpipes shall be connected to a Siamese 2½ inch connection outside of the building, by a pipe of diameter equal to that of the largest standpipe supplied. Such connections shall be made on street front. Siamese shall be about 2 feet above the curb level and shall be provided with check valves, and substantial caps to protect thread on connection. The thread shall be uniform with that used by the city Fire Department. A suitable iron plate with raised letters shall be provided, reading: "To Standpipe". Just inside the building, in a horizontal section, shall be placed a straightway check valve.

Sec. 8. All buildings three or more stories in height shall be equipped with a standpipe system.

ARTICLE 42.

VENTILATION.

Sec. 1. In all buildings, every sleeping room shall be provided with a window or windows, opening directly upon a street, yard or court. The windows of every sleeping room shall have an area of not less than 12 square feet between the stop beads, and the sash shall be arranged to open to the extent of one-half (½) their area.

Sec. 2. In every building, every sleeping room shall be not less than 8 ft. 0 inches (8'0") high, from finished floor to finished ceiling and the floor area shall not be less than 70 square feet.

Sec. 3. Every bathroom and toilet room shall be provided with a window of not less than 4 square feet opening directly to the open air or a ventilating shaft, of not less than four square feet area, open to the sky.

Sec. 4. For ventilation of attics See Article 38 par. 1 and 2.

ARTICLE 43.

ROOF COVERINGS.

Sec. 1. All buildings shall have roof coverings of approved standard quality, such as brick, concrete, tile, slate, highest grade of tin roofing, asbestos shingles, or built up roofing, felt with gravel or slag surface, or built up asbestos roofing, or of like grade, which would rank as Class A or B under test specifications of the National Board of Fire Underwriters.

Sec. 2. All flashings shall be of metal properly incorporated with the roofing material, or of same material as construction of roof, properly flashed into outer roofing and into walls.

Sec. 3. No existing wooden shingle roof, if damaged more than 20%, shall be repaired with other than approved roofing.

Sec. 4. Scuttles: See Article 38, Par. 1, and Par. 2.

DOWNSPOUTS.

Sec. 5. Downspouts emptying on the top of the sidewalks are prohibited. All downspouts ~~emptying upon the sidewalks~~ shall have a conductor underneath the sidewalk leading to the curb.

ARTICLE 44.

SKY-LIGHTS.

Sec. 1. All sky-lights shall have metal frames and sash, and the frames and parts thereof, shall be riveted or otherwise securely fastened in addition to soldering.

Sec. 2. All sky-lights shall be glazed with wired glass, or heavy plain glass may be used, if protected below by galvanized wire screens. The mesh of such screens shall not exceed one inch (1") and the wire shall be of a size not less than 12 Gauge U. S. Metal.

ARTICLE 45.

GENERAL POWERS AND DUTIES OF THE BUILDING INSPECTOR.

Sec. 1. The Building Inspector shall be appointed by the Mayor and approved by the City Council. He shall have the power, and it shall be his duty, to enforce the provisions of this Ordinance; to approve or disapprove within a reasonable time, applications, plans, detail drawings and amendments thereto; to issue permits, notices and certificates; to make rules and specifications to assist in the proper application of this Ordinance, or providing for necessary additional regulations covering details of special construction; to pass upon questions relative to the mode, manner of construction or materials to be used in the erection or alteration of a building; to require that such mode, manner of construction, or materials shall conform to the true intent and meaning of the several provisions of this Ordinance; to authorize the City Attorney, subject to approval of the mayor, to institute any and all actions that may seem proper or necessary for the enforcement of its provisions.

Sec. 2. The Building Inspector shall not have power to vary or modify any provisions of this Ordinance, or of any existing law or ordinance relating to the construction, alteration or removal of any buildings or structures erected or to be erected within his jurisdiction.

Sec. 3. Where there are practical difficulties in the way of executing the strict letter of the law, so that the spirit of the law shall be observed and public safety secured and substantial justice done, a written application shall be filed by the owner of such building or structure or by his duly authorized agent, addressed to the City Council, setting forth the grounds for the desired variation or modification, and requesting permission that he or his representatives may appear before the City Council, or a committee appointed by the President of the Council, and be heard. The City Council shall fix a date within a reasonable time for a hearing upon such application, and shall, as soon as practicable, render a decision thereon, which decision shall be final.

Sec. 4. Whenever the Building Inspector shall reject or refuse to approve the mode or manner of construction proposed to be followed, or ~~materials to be used~~ in the erection or alteration of any building or structure or when it is

claimed that the rules and specifications of the Building Inspector or the provisions of this Ordinance do not apply, or that an equally good or more desirable form of construction can be employed in any specific case, the owner of such building or structure, or his duly authorized agent, may appeal to the City Council from the decision of the Building Inspector where the amount involved by such decision shall exceed the sum of one hundred dollars ($100.00).

Sec. 5. Whenever the Building Inspector has evidence that there exists in any building or structure erected or in course of erection or alteration, a violation of any provision of this Ordinance, he may, in his discretion, authorize the City Attorney, subject to approval of the Building Committeeman, to institute any appropriate action or proceeding at law or in equity, to restrain, correct, or remove such violation; prevent further work upon the building or structure; require its removal; or prevent the occupation or use of the building or structure.

ARTICLE 46.

PROCEEDINGS IN CONNECTION WITH UNSAFE OR COLLAPSED BUILDINGS.
UNSAFE BUILDINGS.

Sec. 1. Notice to Make Safe. When it is reported to the Building Inspector that any building or structure or part thereof is unsafe or dangerous, he shall immediately cause an examination of the property to be made. If this examination shows the building or structure or any portion thereof to be unsafe or dangerous, as to the construction, the occupancy or exits, the Building Inspector shall at once serve notice upon the owner, or, if absent from Dade County, Florida, then upon the agent or occupant. Such notice shall contain a description of the building or structure considered unsafe or dangerous, and shall require the same to be made safe and secure, or removed, as may be considered necessary by the Building Inspector; and it shall require the person served therewith to immediately certify in writing to the Building Inspector his consent or refusal to secure, make safe, or remove the building or structure or part thereof. If he immediately certifies in writing his consent to comply therewith, he shall be allowed 24 hours following the service of such notice in which to begin to secure, make safe or remove the building or structure. He shall employ sufficient labor and materials, and immediately begin to secure, make safe or remove the same. The work shall be done as speedily as possible and shall be continuously prosecuted to the satisfaction of the Building Inspector.

Sec. 2. Notice of Survey. Should the person so served with notice neglect or refuse to comply with any of the requirements of said notice to the satisfaction of the Building Inspector, a further notice shall thereupon be served upon him in the manner heretobefore prescribed. Said notice shall state that a survey of the premises specified therein will be made by a Committee of Surveyors, to be appointed as prescribed in Paragraph 7, at a stated time and place. If the owner proceeds to secure, make safe or remove the unsafe or dangerous building or structure, or part thereof, and prosecutes the work in a manner satisfactory to the Building Inspector, the survey may be adjourned or cancelled at his discretion.

Sec. 3. Survey. Should the Building Inspector consider it necessary, a survey shall be held. The Committee of Surveyors shall attend at the time and place specified, or

as soon thereafter as practicable, examine the building or structure and report in writing its opinion thereof to the Building Inspector. Should two members of the committee report the building or structure unsafe or dangerous, a copy of their report, with a copy of the notice of survey, shall forthwith be posted in a conspicuous place upon the building or structure. A copy of their report shall also be presented by the Building Inspector to the City Attorney, who shall forthwith apply to the Court for an order, if he deems it legal, directed to the Building Inspector, commanding him to remove the building or structure or part thereof, or make the same safe and secure.

LEGAL PROCEEDINGS, ~~REPRESENTATIVE OF OWNER, COMMITTEE OF SURVEYORS LEGAL PROCEEDINGS.~~

Sec. 4. Duty of City Attorney to Preceed. Upon written request by the Building Inspector, subject to approval of the Mayor, the City Attorney shall sue for and collect all penalties and take charge of and conduct all legal proceedings imposed or provided for by this Ordinance; and all suits or proceedings instituted for the enforcement of any of the several provisions of this Ordinance or for the recovery of any penalty thereunder shall be brought in the name of the City of Miami Beach by the City Attorney, to whom all notices of violation shall be returned for prosecution, and it shall be his duty to take charge of the prosecution of all such suits or proceedings, collect and receive all moneys that may be collected upon judgments, suits or proceedings so institued, or which may be paid by any parties who have violated any of the provisions of this Ordinance and upon settlement of judgment and removal of violations thereunder, execute satisfaction therefor.

Sec. 5. Temporary Injunctions. In any action or proceeding for the enforcement of the provisions of this Ordinance, the City of Miami Beach may apply to the Court for an order enjoining and restraining any violation, ordering the property vacated or prohibiting its use for any purpose whatsoever, until the hearing and determination of such action and the entry of final judgment therein.

Sec. 6. If an owner be absent as hereinbefore mentioned, and a notice of violation hereof, notice to make safe or of survey should be served, service thereof upon the agent of the owner collecting rents or having the management of the premises, or in the absence of such, upon the occupant shall be as effectual as if served upon the owner.

COMMITTEE OF SURVEYORS.

Sec. 7. Said committee of surveyors shall consist of three persons, one of whom shall be the Building Inspector, an Engineer, or Building Committeeman; another of whom shall be an architect civil engineer or builder of at least three years' practice in the City of Miami Beach, appointed by the Mayor of said City; another of whom shall be a practicing architect, engineer or builder, of at least ten years' practice, appointed by the owner of said building or structure. In case the owner fails to appoint, or, having appointed, the said representative fails to attend according to notice, the two surveyors first named shall make the survey, and if they do not agree, they shall appoint another member, who shall be a practicing architect, engineer or builder of at least ten years' practice.

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ARTICLE 47.

BOND FOR CLEANING.

Sec. 1. That no building permit shall be issued to any person, firm or corporation unless the applicant therefore shall at the time of issuance of such permit make a deposit with the proper official of said city authorized to issue such permit, of the sum of Fifty Dollars, provided, however, that the aggregate of such deposits, made by one contractor shall not at any one time exceed $150.00 for all permits obtained by him, and at the same time entering into an agreement with said City that he will immediately upon completion of the construction or repair, for which such permit is to be issued, clear the street and all property used by such applicant in such construction or repair, of all building material, equipment, rubbish and other things placed or used by himmin such construction or repair, and agreeing that, if he does not so clear such premises, the said City may appropriate such part or all of said Fifty Dollars as may be necessary in the clearing of such premises as aforesaid and that, after such premises are so cleared, if done by said City, then that part of it not used in paying the expense of such clearance shall be returned to such applicant.

Sec. 2. For the purposes of this ordinance such construction or repair shall be deemed to have been completed when such building shall be occupied in part or in whole, after such construction or repair, or when such completion shall have been accomplished, or have been accomplished except for the doing of some minor thing which may necessitate a delay.

Sec. 3. Said agreement shall be in substantially the following form:- "KNOW ALL MEN BY THESE PRESENT that I,_____, in consideration of the issuance to me by the City of Miami Beach, Florida, of a permit to construct or repair a building at or upon the following described property in said City:- _____, do hereby deposit with the City of Miami Beach, Florida, the sum of Fifty Dollars, and I agree with said City that, when such construction shall have been completed by me within the meaning of the Ordinances of said City, I will clear all premises used by me for the deposit of material or equipment in the construction or repair and that, if I do not so clear such premises immediately upon the completion of such construction within the meaning of such Ordinances, the said City may clear the same and pay the cost of such clearance out of the aforesaid Fifty Dollars, and return the remainder to me; and that, if I shall clear said property immediately as aforesaid, then said Fifty Dollars shall be returned to me.

WITNESS MY HAND and seal at Miami Beach, Florida, this ____ day of _____, 192__.

_____(SEAL)"

Sec. 4. The City Clerk receiving any funds pursuant to the terms of this Ordinance, shall deposit the same in the City Treasury and disburse the same upon the authority of the City Building Inspector and Sanitary Committeeman.

ARTICLE 48.

PLUMBING PERMITS.

No person, as principal, agent, manager, or employee, shall place or install or cause or permit to be placed or installed, any plumbing including pipes, connections, fixtures, apparatus and all other plumbing work of any kind whatsoever; or make, or cause or permit to be made, any alterations, change in, addition to or repair of any such plumbing in the City of Miami Beach, without first obtaining a written permit for such plumbing work from the Plumbing Inspector of the City of Miami Beach. Such permit shall be denominated a "Plumbing Permit" and shall contain a description of the work to be done thereunder and a statement of the place, by street and number or by description sufficient to locate the same, where such work is to be done. Plumbing permits shall be granted upon written application therefor to the Plumbing Inspector. The Plumbing Inspector shall investigate such application, and applicants for plumbing permits shall furnish proof that applications for the introduction of a supply of water into any premises or for the extension of pipe for the conveyance of such water, has been made in writing on the contract form furnished by the Water Department of the City of Miami Beach; and shall furnish drawings, specifications, plans and details of such contemplated work, when required by the Plumbing Inspector. If the Plumbing Inspector, after investigation, is satisfied that the work desired can be done without violating any of the provisions of this ordinance or of any other ordinance or law governing such work in the City of Miami Beach, and that the applicant therefor is duly licensed to do plumbing in the City of Miami Beach, he shall issue a plumbing permit to such applicant, upon payment of the fees therefor. The issuance of a plumbing permit shall not be construed as an approval by the Plumbing Inspector of the drawings, specifications, plans or details or such contemplated work insofar as the same, or any portion thereof, may be in conflict with the provisions of this ordinance or any other ordinance or law governing such work in the City of Miami Beach.

Dgl Space → The holder of a plumbing permit shall not do or perform, or cause or permit to be done or performed, any work other than that designated in such plumbing permit, at the place mentioned therein; and shall not do or perform, or cause or permit to be done or performed any work designated in such plumbing permit at any place other than that designated therein.

Dgl Space → In case any plumbing is desired in the construction, alteration, or repair of any building or structure requiring building permit, no plumbing permit shall be issued until after a building permit for such building or structure shall have been previously issued. No plumbing permit shall be issued for repairing leaks in drain, soil, waste or vent pipe but should any trap, drain, soil pipe, waste or vent pipe become so defective as to require removal or replacement with new material, in whole or in part, or should any toilet, wash basin, laundry tray, sink, slop sink, slop hopper or any other fixture be taken up or reset, or be replaced with a new fixture, a plumbing permit must first be procured therefor. No person, as principal, agent, manager or employee, shall put in or cause or permit to be put in, any septic tank in the City of Miami Beach without having first obtained from the Plumbing Inspector a plumbing permit therefor.

Dgl Space → Such plumbing permit for a septic tank shall be issued as hereinbefore provided, except that the applicant therefor will not be required to have a license as required for other plumbing permits.

ARTICLE 49.

FEES FOR PLUMBING PERMITS.

There shall be charged and collected by the City Clerk, on certification by the Plumbing Inspector, an inspection free of fifty (50) cents for each fixture in new and reconstructed plumbing work, before the issuance of a permit, which said fee shall be placed to the credit of the General Fund of the City of Miami Beach.

ARTICLE 50.

PENAL COSTS.

Any person, as principal, agent, manager, or employees, commencing or doing any plumbing work, for which plumbing permit is required, without first obtaining a plumbing permit therefor, shall pay double the fee therein provided for a plumbing permit authorizing such work; provided that a double shall not be charged in cases of emergency work necessary to be done in order to prevent material injury or damage to property and provided that the issuance of a permit upon payment of such double fee shall not be a defense to a prosecution for a violation of any of the provisions of this ordinance.

ARTICLE 51.

PERMIT RECORDS.

The Plumbing Inspector shall keep, in proper books for that purpose, a true and correct account of all plumbing fees received, the name of person paying the same, the date and amount of each payments; which said book shall be kept open for public inspection during office hours; and the Plumbing Inspector shall check over with the City Clerk, at the end of each calendar week, the plumbing fees record of such week.

ARTICLE 52.

NOTICE TO PLUMBING INSPECTOR.

All plumbing work done shall be subject to inspection and notice shall be given to the plumbing inspector by the person, firm or corporation doing such plumbing work or having same done, as soon as the work is ready for inspection. Such notices shall be given for inspection of both the rough and finished work. The person, firm, or corporation doing such plumbing work shall secure a certificate from the Plumbing Inspector, showing the result of such inspection and shall deliver the said certificate to the owner of the premises, on which the same is done, or to the authorized representative of such owner.

ARTICLE 53.

WORK UNCOVERED.

All plumbing work shall be left uncovered and convenient for examination until inspected and approved by the Plumbing Inspector. Floors shall be left up in bath-rooms and elsewhere above the plumbing, where there is less than twenty inches of space between the floor and joist and the ground, until the plumbing pipes and other plumbing work shall have been examined, tested and approved by the Plumbing Inspector.

ARTICLE 54.

TIME FOR INSPECTION.

Inspection of plumbing shall be made within forty-eight (48) hours after notice that the same is ready for inspection shall have been received by the Plumbing Inspector.

ARTICLE 55.

TESTS.

The Plumbing Inspector may apply the water test on all new plumbing work.

ARTICLE 56.

OCCUPANCY.

Where water is introduced into any building a stop-cock must be placed so that water may be shut off from the whole building and yard hydrants, without closing the curb-cock.

No person shall occupy or make use of any house, building or other structure in which plumbing has been installed or constructed, until after the Plumbing Inspector shall have issued a final certificate and approval of the plumbing work therein, or in connection therewith.

ARTICLE 57.

EXAMINATION.

No person, as principal, agent, manager or employee, shall conduct, manage or carry on the trade, business or calling of a master plumber, or work as a journeyman plumber, or do any plumbing work of any kind or description in the City of Miami Beach, for which a plumbing permit is required, without first having submitted to a practical examination before and obtaining from the examinating board of plumbers of the City of Miami Beach a certificate of competency, showing such person to have sufficient practical experience and sufficient knowledge to do plumbing work. Any master plumber or journeyman plumber, who fails to pass examination, will not be allowed to appear before the board for further examination until the expiration of a period of thirty days from the date of such examination.

ARTICLE 58.

EXAMINING BOARD.

The Examining Board of Plumbers of the City of Miami Beach shall consist of the Sanitary Committeeman, two master plumbers and two journeyman plumbers. The personnel of the Examining Board of Plumbers of the City of Miami Beach shall be appointed by the Mayor, which appointments shall be approved by the City Council and shall serve during the pleasure of the Legislative Body of the City of Miami Beach, and shall qualify by subscribing to the oath of office required by the Charter of the City of Miami Beach.

Each member of the Examining Board, attending, shall receive a fee of fifty cents for each applicant examined.

Such fee to be paid out of the funds of the City of Miami Beach. The City of Miami Beach shall provide the Examining Board with the necessary forms, books, blanks, tools and materials to properly conduct the examinations.

ARTICLES 59.

EXAMINATION FEES.

The fee for examination by said Examining Board of Plumbers shall be Ten (10) Dollars for each master plumber and Five (5) Dollars for each journeyman plumber, for the first examination, payable in advance to the secretary of the said board, and no fee shall be charged for renewal of certificates and said fees collected by the Examining Board shall be paid to the City Clerk on the first day of each calendar month.

ARTICLE 60.

MASTER PLUMBER.

For the purpose of this ordinance, a master plumber shall be deemed to be the person engaged in or carrying on the business of plumbing or doing the plumbing work.

ARTICLE 61.

JOURNEYMAN PLUMBER.

For the purpose of this ordinance, a journeyman plumber shall be deemed to be any person who is employed to do plumbing work for wages or salary, but who does not furnish any materials or supplies in the execution or performance of the plumbing work.

ARTICLE 62.

APPRENTICE.

For the purpose of this ordinance, an apprentice shall be deemed to be any person doing plumbing work under the direct supervision and in the presence of a certified master plumber or a certified journeyman plumber, and such apprentice is required to have a permit from the said Examining Board of Plumbers to do such plumbing work.

ARTICLE 63.

CERTIFICATES.

The Examining Board of Plumbers shall give an examination to every applicant for a certificate to do plumbing work in the City of Miami Beach within two weeks after the filing of the application therefor and the payment of the fee incident thereto; and every applicant passing such examination to the satisfaction of the Examining Board shall receive from said board a certificate of competency as a master plumber or a journeyman plumber, in accordance with his application; and such certificate of competency shall authorize the holder thereof to do plumbing work in the City of Miami Beach until the Thirty-first day of October next succeeding the date thereof.

ARTICLE 64.

CERTIFICATE OF RENEWALS.

All certificates issued by the Examining Board of Plumbers shall expire on the last day of October of each year,

unless sooner revoked. Every master or journeyman plumber, holding a certificate of competency issued by said Examining Board of Plumbers, may, during the month of October of each year, make application for extension of such certificate of competency for an additional year and said Examining Board of Plumbers, if satisfied that the holder of such certificate of competency is competent to do plumbing work, shall grant an extension of such certificate of competency for an additional year without examination. No plumber failing to make such application and to obtain such extended certificates of competency, during said time, shall do any plumbing work in the City of Miami Beach, after the expiration of the certificate of competency then held, without taking the examination and paying the full fee herein provided for persons originally desiring to do plumbing work in the City of Miami Beach.

ARTICLE 65.

AGE LIMIT.

No person shall receive a certificate of competency as a master plumber who has not attained the age of twenty-one (21) and who has not taken out the required occupational license in the City of Miami Beach, Florida.

ARTICLE 66.

REGISTRATION.

The Plumbing Inspector shall prepare and keep a register, showing the name and address of every person, firm or corporation, together with the names of the members of such firm and the officers of such corporation and their addresses, carrying on the business of a merchant plumber or a plumbing business in the City of Miami Beach, showing the name and address of every master plumber, every journeyman plumber, and every plumber's apprentice licensed or permitted to do plumbing in the City of Miami Beach; and shall keep said Register up to date by the endorsement of all changes therein and additions thereto.

ARTICLE 67.

SEWER CONNECTIONS.

Every building or other structure, in or for which any drainage or plumbing arrangements are constructed, shall first be inspected and approved by the Plumbing Inspector before any such building or structure shall be connected with an accepted city sewer or septic tank; when said sewer is constructed along the street, avenue or alley adjacent to the property upon which such building or structure is situated or in close proximity thereto, then such building or structure shall have at least one four inch vent as provided for in this ordinance and all other fixtures in such building or structure shall be vented.

ARTICLE 68.

SEPTIC TANKS.

When any building or other structure, in or for which any drainage or plumbing arrangements are constructed, is not situated so as to require connection to a city sewer, then such drainage or plumbing arrangements shall be connected with a septic tank. Such septic tank shall not be located less than five feet from any property line or less than ten feet from any dwelling, except when it is impossible to maintain these distances, then the Plumbing Inspector may issue a permit

for a septic tank at a less distance from property lines and dwellings, provided the same shall not be detrimental to health or unsanitary.

ARTICLE 69.

SOIL AND WASTE PIPES.

All soil, waste and vent to a point (2) two feet outside of the foundation line shall be of tar coated cast iron, lead or brass, provided that galvanized iron pipe and recessed drainage fittings may be used with the consent and permission of the Plumbing Inspector.

Dbl Space → Waste pipes from Refrigerators may be of galvanized iron pipe.

Dbl Space → No soil, drain, waste or vent pipe shall be built into masonry or concrete walls; suitable chases shall be provided for them.

ARTICLE 70.

VENTS.

All vent pipes shall be extended up to and through roof and shall terminate at a point not less than (1) one foot above the highest opening on the roof when located not less than (10) ten feet from such vent terminal.

Dbl Space → Vent pipes which terminate on roof used for other purposes than as a covering for a building shall be extended at least (7) seven feet above the finished roof or walk.

Dbl Space → No vent shall terminate less than (12) twelve feet from the ground nor less than (10) ten feet from any opening of a building.

ARTICLE 71.

CAST IRON PIPE.

All materials used in any part of a plumbing system shall be free from defects of any kind and shall be of the following quality and weight.

Dbl Space → Waste and soil pipe and fittings in any building not exceeding (50) fifty feet in height above the curb shall be of "Standard" weight and quality. In buildings in excess of (50) fifty feet in height, all waste and soil pipe and fittings up to apoint (50) fifty feet from roof shall be of Extra Heavy quality and weight.

Dbl Space → In case of a building or other structure being built or moved over an old sewer, such sewer shall be relaid with cast iron pipe of the same size as the old sewer. All terra cotta sewer in any building or other structure shall be replaced or repaired with cast iron pipe.

ARTICLE 72.

TRAPS.

All traps shall be effectively vented with an air pipe of a diameter not less than that of such trap, except in case of a trap larger than two inches in diameter, in which case the air pipe shall not be less than two inches in diameter,

provided that a single pipe may be used to vent two traps. through the same fitting when such fitting has effective means to prevent the drainage from one trap entering the other trap and is made of one piece of metal without loose or attached parts.

ARTICLE 73.

PROHIBITED VENTS.

No brick, sheet metal, earthenware or chimney flue shall be used as a sewer ventilator to ventilate any trap, drain, soil or waste pipe.

ARTICLE 74.

CELLAR DRAINS AND SHOWERS.

Cellar drains and showers in basements and in yards, directly connected with the soil or waste pipe, shall be trapped by a sand trap of not less than 12" x 12"x12" and constructed of concrete. The walls and floor of every such trap shall be not less than three inches thick and each trap shall have a cast iron frame and grate cover. The water seal of such trap shall be constructed by inverting its waste pipe. A water seal of less than four inches is prohibited and the minimum size of the waste pipe shall be four inches where trap is not vented.

ARTICLE 75.

CLOSETS, SINKS, ETC.

Each fixture shall be separately trapped, and ventilated as follows:

Minor fixtures shall be separately ventilated not more than five (5) feet from crown of trap.

Dgl Space →

Major fixtures shall be separately ventilated not more than three (3) feet in a horizontal and two (2) feet in a vertical direction from the outlet of a fixture.

Dgl Space →

An Extension of six (6) feet shall be permitted from the fixture side of laundry tray trap; all other traps shall be placed as closed as possible to the fixture.

Dgl Space →

The minimum size trap for each fixture shall be as follows:

	Trap	Branch	Vent
Water Closet	4 "	4 "	2 "
Slop sink integral trap	3 "	3 "	2 "
Soda fountain catch basin	2 "	2 "	2 "
Urinal trough and stall	2 "	2 "	2 "
Laundry tray	1½"	1½"	1½"
Kitchen sink	1½"	1½"	1½"
Bath tub	1½"	1½"	1½"
Lavatory	1¼"	1¼"	1¼"

Maximum number of traps allowed to be served by any main vent pipe. The number of traps permitted under the following table shall be traps not less than two inches in diameter, and all larger traps shall be figured as multiple traps in the following equivalents:

Dgl Space →

One trap 4" diameter or over equal to five (5) traps.
One trap 3" diameter equal to four (4) traps.
One trap 2½" diameter equal to three (3) traps.
One trap 2" diameter equal to two (2) traps.
Each water closet trap equal to four (4) traps.
Each urinal trap equal to four (4) traps.

Each trap less than two (2") inches diameter equal to one (1) trap.

Maximum number of traps (as foregoing equation) permitted on:

1¼ inch main vent one (1) trap.
1½ inch main vent three (3) traps.
2 inch main vent twenty-four (24) traps.
2½ inch main vent thirty (30) traps.
3 inch main vent sixty (60) traps.
3½ inch main vent one hundred fifty (150) traps.
4 inch main vent two hundred (200) traps.
5 inch main vent three hundred fifty (350) traps.
6 inch main vent five hundred fifty (550) traps.

Where necessary to increase the size of a soil or vent stack, the largest size shall be extended throughout, and if a main-vent stack it shall be taken off the foot of the soil or waste stack and if over forty (40) feet in length carried through the roof independent of the main soil or waste stack, provided that waste vent stack need not be increased throughout.

Maximum number of fixtures or their equivalent traps allowed to discharge into a waste or soil pipe of specified size.

1¼ inch pipe--1¼ inch trap.
1½ inch pipe--1½ inch sink trap or three other minor fixture traps not over 1½ inches.
2 inch pipe--twelve traps 1½ inch or less or six 2 inch traps, provided that only one urinal trap shall be permitted.
3 inch pipe--sixty minor fixture traps. Soil pipes or soil and waste combined.
3 inch pipe--eight minor and two major fixture traps.

In the following table the maximum number of minor fixture traps are to be figured at the ratio of four minor to one major fixture trap.

4 inch pipe--eighty (80) traps.
5 inch pipe--one hundred eighty (180) traps.
6 inch pipe--three hundred sixty (360) traps.
7 inch pipe--six hundred thirty (630) traps.
8 inch pipe--one thousand fifty (1050) traps.

Continuous or wet vent system. Wherever practicable, plumbing shall be put in on the continuous or wet vent system as follows:

The revent shall be taken out of the waste pipe between the stack and the fixture, and as many waste branches, the combined area of which does not exceed the area of said revent, may be connected under the same conditions governing the combined wastes and vents, provided that in a sink or urinal waste the revent shall be not less than three inches, but may be reduced to two inches after rising above the sink or urinal; said revent shall then be connected with stack above all fixtures, or into a separate vent stack, or be carried through the roof separately.

Each vent pipe shall be connected above the highest fixture into the adjacent soil pipe if distant therefrom not more than five feet.

No vent shall be extended through the roof smaller than two inches.

ARTICLE 76.

PLUMBING DETAILS.

The Plumbing Inspector, in approving plans or

in accepting work of any and all persons carrying on, conducting, assuming control of, constructing or causing to be constructed any plumbing or building or other structure drainage affecting the sanitary condition of any building or other structure in the City of Miami Beach, shall be governed by the following regulations, and it shall be unlawful for any person to fail, neglect or refuse to comply with the same or any part thereof, upon reasonable notice, in writing, from the Plumbing Inspector so to do.

(A). TOILETS. No water closet shall be put into or upon any property, building or other structure unless the same be so constructed as to be flushed by a tank containing not less than four gallons of water, on some approved flushing valve. Plunger closets, Philadelphia Hoppers, pen closets, front washout closets and other unsanitary closets shall not be installed in the City of Miami Beach. Cell bowls shall be made to syphon.

(B). TOP FIXTURES. A fixture that is a top fixture on a vertical stack and not more than three feet from the inlet to the stack, need not have its traps revented; provided it does not discharge into the stack below the level of its seal, except water-closets whose trap is in the bowl. All other traps shall be set true to their water seals.

(C). WASTE PIPES. Every soil or waste pipe under or inside of any building or other structure shall be of cast iron, lead or brass. All joints in cast iron waste pipes, whether inside or outside of the building line of such buildings or structures, shall be made of pig lead and oakum and shall be thoroughly caulked. No cement of any description shall be used in connection with any cast iron, lead, brass or galvanized iron pipe. Galvanized wrought iron pipes and fittings, known as the Durham System, shall not be used below the first floor of any building or structure, or in the ground except in perpendicular waste lines. All cast iron soil pipes inside of property lines must be laid by a liaensed plumber.

(D). ROUGH TEST. Before fixtures are placed in connection with the plumbing of any building or structure, and before any portion of the drainage system of any building or structure is covered or concealed from view, the outlet from the soil pipe and all openings therein below the top shall be hermetically sealed and the pipe shall then be filled with water to the highest point in the system. Cell pipes and fittings show to be defective shall be removed and peplaced with sound pipes and fittings. Every part of the work shall successfully stand such test and shall in all respects conform to the requirements of this ordinance.

(E). CLEAN OUTS. All vertical stacks, soil and waste pipes shall be provided with a trap screw ferrule at the foot and all other places where necessary. The diameter of trap screw ferrules shall be not less than one inch of the diameter of the waste. All changes of direction of soil or waste pipes shall be made with full "Y" branches and one-eight bends, except when the waste is vertical. All cleanouts shall be extended to outer walls or some point convenient of access, not closer than one foot to the wall. When soil and waste pipes are below cement or wood floors, or in places where the cleanouts are not accessible, the said cleanouts shall be brought up to and above the floor or ground. An arm of two feet in any change of direction where one-eight bend can be used will be allowed.

(F) WIPED JOINTS. All connections in lead piping shall be joined by wiped joints. Connections between soil pipes and lead pipes shall be made with brass ferrules or brass solder nipples, and such joints shall be wiped.

(G) WASTE PIPE SIZES. All waste pipes shall be of lead, cast iron or galvanized wrought iron of the following sizes, to-wit: for bath tubs, wash basins, and laundry trays not less than 1½ inches; for sinks, slop hoppers and urinals, not less than two (2) inches.

(H) TRAPS AND VENTS. All traps and vents shall be the same in size as the wastes, except in sinks, urinals and wash basins. Sinks and urinals shall have 1½ inch traps and vents, and wash basins shall have one and one-quarter inch (1¼) traps and vents, if not more than one fixture is vented. The sizes of the pipes for wastes and vents shall be as follows, to-wit: for two fixtures, 1½ inches, except as hereinbefore provided for sinks and urinals; for more than two and not exceeding eight fixtures, 2"; for more than eight and not exceeding sixteen fixtures, 2½; for more than sixteen and not more than twenty-eight fixtures, 3"; and for every additional sixteen fixtures an additional ½".

(I) CROWN VENTS. Crown vent pipes from water closets and slop hoppers shall be not less than two inches in internal diameter. Where more than one water closet and slop hopper is vented through the same pipe the size of the pipe shall be as follows, to-wit: for more than one and not exceeding four, 2 inches; for more than four and not exceeding eight, 2½ inches; for more than eight and not exceeding fourteen, 3 inches; for more than fourteen and not exceeding twenty-four, 4 inches; and for every additional ten closets or slop hoppers an additional inch. Every vent pipe run at a horizontal turn shall grade toward the fixture.

(J). VENT HEIGHTS. All vents shall rise perpendicularly or at an angle of forty-five or sixty degrees in the nearest partition or wall to four inches above the floor. Fittings known as "Y" branches shall be used where the vent is taken off the waste line below the fixture.

(K). PROHIBITED CONNECTIONS. No privy vault, cesspool, exhaust from engine or blow-off from boiler shall be connected with the drain of any building or other structure.

(L). SODA FOUNTAIN CONNECTIONS. When waste pipe connections are to be made to fixtures classified as follows: soda fountains, bars, dentists fountains, cuspidors, lavatories in barber shops, which in the opinion of the Plumbing Inspector cannot be practically constructed in conformity with the provisions of this ordinance, a special permit may be issued by the Plumbing Inspector or recommendation of the Health Officer that said work will not be unsanitary, but the said waste pipe connection shall be not less than 4 inches in diameter.

(M). ALTERATIONS. Upon the removal or alteration of any building or structure, or the making of any addition thereto, if new plumbing fixtures are placed therein, either in the original or altered or added portion thereof, such new fixtures shall be properly connected with the plumbing in the original parts of the building or structure; and if the fixtures are to be reset, either in the old or any new part of such building or structure, then both the original

and additional fixtures, and all altered plumbing shall be made to comply in all respects with the provisions of this ordinance.

(N). REFRIGERATOR CONNECTIONS. The waste pipe from any refrigerator or other receptacle in which provisions are stored shall not be connected with a drain, soil pipe or other waste pipe, but shall be arranged to waste into an open sink or tray in open sight. This sink or tray may be connected with the drainage system, which shall have a water connection so that the trap may be supplied with water. Said sink or tray shall be properly trapped and vented. The waste pipe for such refrigerator or other receptacle shall not be less than 1¼" pipe, which shall run from an open sink or tray to the refrigerator and extend through the roof. Refrigerator traps shall be used.

(O). SAFE WASTES. No safe waste pipe from any fixture shall connect with any waste pipe or sewer, but such safe waste pipe shall discharge into a water supplied sink or discharge outside of a building.

(P). LATRINES AND RANGE CLOSETS. Latrines and range closets shall not be installed ~~in any school, factory, apartment house or public building~~ within the City of Miami Beach.

(Q). INDIRECT CONNECTIONS. No plumbing fixture, unless otherwise expressly provided and except a sink in a soda fountain, shall be set up with an indirect connection to the drain or sewer of any building or structure. The waste from every such sink shall be so constructed as to be easily removed and cleaned, if not directly connected, may or may not be vented but shall be trapped and shall be so constructed as to discharge over a properly trapped fixture located as near as practicable to the fixture drained. Such trapped fixture shall not be located in an inaccessible or unventilated cellar.

(R). CLOSET BENDS. Cast iron closet bends shall have cast iron or brass floor flange.

ARTICLE 77.

SEPTIC TANK OR SEWER VENT.

Every building or other structure connected to a sewer or septic tank shall have at least one 4 inch vent pipe carried above the roof. Every building or structure used for human habitation shall have installed therein at least one toilet and one sink properly trapped and connected with sewer or septic tank.

ARTICLE 78.

PRIVY VAULTS PROHIBITED.

No privy vault shall be dug or constructed in the City of Miami Beach, except that the Plumbing Inspector may permit such vaults to be dug or constructed for temporary use, and shall specify in the permit therefor the length of time during which the same may be used, and it shall be unlawful for any person to maintain such vault a longer time than specified in such permit. No such permit shall be issued until a permit has first been obtained from the Division of Public Health.

ARTICLE 79.

WATER SUPPLY TO FLOOR DRAIN.

Every floor drain and sand trap connected directly to any building or other structure drain shall haye a water connection so that the trap may be supplied with water.

ARTICLE 80.

SUPERVISION OF PLUMBING INSPECTOR.

The Plumbing Inspector of the City of Miami Beach shall have supervision over the installation, alteration and use of waste pipes and water fixtures, in all buildings and other structures in the City of Miami Beach.

ARTICLE 81.

SERVICE PIPES.

Every service pipe from a city main tap to any building or other structure shall be not less than three-fourths of an inch in internal diameter. The City Water Department in every instance reserves the right to, at its own option, designate the prescribe the size of a service connection, either upon original installation of a new connection or upon any renewal or replacement of any old connection and in any case where a size of service other than that applied for by the tenant, or previously existing, is designated and prescribed by the City, the tenant shall be bound thereby. No one but an authorized employee of the Water Department is allowed to touch any water main, service pipe, meter, stop-cock, curb-cock, or other fixture belonging to or under the control of the city. Any plumber finding repairs or changes necessary will shut off the water at the stop-cock at the building. In case it is necessary to shut off the water at the curb he will notify the Water Department.

sgl space →

In all premises where steam boilers or hot water tanks are supplied with water from the water works, the owner must see that a suitable safety valve, vacuum, air or other valve or device, is placed, to prevent damage from collapse under heavy pressure or from explosion if water is shut off. In all cases where pipes are connected direct with boilers, feed water heaters, or other fixtures where pressure is or can be generated, there must be a check-valve placed in the pipe between such fixture and the meter. Where this is not done, the consumer will be held responsible for any damage to meter or other fixture on the service pipe and for cost of labor in repair of same.

ARTICLE 82.

GALVANIZED IRON.

All water pipes and all water fittings inside of buildings and other structures shall be of galvanized iron, and all other water pipes and all other water fittings shall be of galvanized iron.

ARTICLE 83.

SIZE OF WATER PIPES.

The size of water pipe shall refer to the nominal internal diameter and shall vary with the number of fixtures supplied thereby, as follows: for nipples and tubing only, not less

than three-eights of an inch (3/8"); toilet and lavatory supplies for not more than three fixtures, not less than one-half inch (½"); for not more than twenty-four fixtures, not less than three-quarter inch (¾"); for not more than forty fixtures, not less than one inch; for not more than eighty fixtures not less than one and one-quarter inches (1¼"); for not more than one hundred and fifty fixtures, not less than one and one-half inches; for not more than three hundred fixtures, two inches and for every additional one hundred and fifty fixtures add one-half an inch additional.

ARTICLE 84.

DENTIST'S CUSPIDORS.

Every dentist's cuspidor shall be constructed so as to waste through a drum trap and the trap shall have one and one-half inch vent pipe and shall be placed within two feet of the vent pipe. On the inlet side of the trap an extension of one inch waste pipe shall be run to a length not exceeding ten feet, reckoning from the trap seal to the end of the one inch extension.

ARTICLE 85.

GARAGE SAND TRAP.

Every sand trap in a garage shall be of concrete. The walls of such trap shall be not less than three inches thick, and each said trap shall contain a partition not less than two inches thick, which shall be as high as the outlet thereof. The outlet shall be constructed with one 4 inch quarter bend, turned down and terminating within 4 inches of the bottom of said trap. If the outlet is of four inch pipe it need not be vented. The size of the sand trap shall be not less than eighteen inches by thirty-six inches and shall be not less than eighteen inches indepth. The sand trap shall be provided with a cover which shall rest on an iron angle frame. Such frame shall extend at least one inch on the floor beyond the said trap wall. No boiler blow-off shall connect with any sand trap but shall have a separate water tight pump, which shall connect with the sand trap on the building or structure side of the partition of such sand trap.

ARTICLE 86.

PROHIBITED FITTINGS.

Double hubs, straight crosses, straight "T's" or short turn "L's" shall not be used on soil or waste pipe. Bands, saddles and sleeves shall not be used in any case. Double sanitary "T" branches and single "T's" are prohibited, except in perpendicular stacks. No fittings shall be used between the bath trap and perpendicular waste lines. "L's" or quarter bends will not be allowed on bottom of waste stacks. Two one-eight bends shall be used.

ARTICLE 87.

TRAP SEAL.

Every trap shall have a water seal with an internal diameter of not less than that of the trap.

ARTICLE 88.

PIPE ARRANGEMENT.

All pipes shall be as straight and direct as possible, and shall be so arranged as to be readily inspected. Hangers

shall be placed every seven feet apart on cast iron pipe and every ten feet apart on galvanized iron pipe.

ARTICLE 89.

DRAINAGE EXCAVATIONS.

All excavations required for the installation of a building or other structure drainage system, or any part thereof, within the walls of such building or structure, shall be open trench work; and all such trenches shall be kept open until the pipes therein shall have been inspected.

ARTICLE 90.

DEFECTIVE WORK.

Every person, firm or corporation doing any plumbing work shall immediately remove and replace any and all defective material and any and all defective work, when required so to do by the Plumbing Inspector. Every soil pipe, drain pipe vent, trap, water closet, urinal, sink or other fixture set up or any fittings laid, used or constructed otherwise than in accordance with this ordinance, or any other ordinance or law regulating such work in the City of Miami Beach, or which may become bad, defective, dangerous or in any way unfit for service, shall, upon notice either verbal or in writing from the Plumbing Inspector, be removed or repaired in accordance with such notice or other instructions from the Plumbing Inspector and shall be made to comply with the provisions of this ordinance and of every other ordinance and law regulating such work in the City of Miami Beach, within the time fixed in such notice or within any extension thereof granted by the Plumbing Inspector.

ARTICLE 91.

CONDEMNATION.

Where a building or structure has been inspected and the plumbing work condemned by the Plumbing Inspector as being in an unsanitary condition, notice to that effect shall be given in writing by the Plumbing Inspector to the owner, agent or occupant of such building or structure, and in such notice shall designate the repairs or improvements required to be made. If the owner, agent or occupant objects to such condemnation or to the making of such repairs or improvements, he may, within three days after such notice, appeal to the City Council from the decision of the Plumbing Inspector. Such appeal shall be taken by filing with the City Clerk, and a copy with the Plumbing Inspector, a notice, in writing, stating the objections to such condemnations or to such repairs or improvements and a statemant that he appeals to the City Council.

DM Space →

If an appeal is so taken by such owner, agent, or occupant, the same shall come on for hearing at the next regular meeting of the City Council, but may be continued to other meetings of the said City Council, provided notice of the time to which such hearing is continued shall be given to such owner, agent or occupant; and the City Council may hear evidence and argument touching the issue and may affirm, reverse or modify the order of the Plumbing Inspector and the decision of the City Council on such an

appeal shall be final and conclusive.

DBL Space > When plumbing,--in any building--has been condemned as unsanitary and no appeal taken as herein provided, or, if taken, and the order of the Plumbing Inspector is affirmed or modified, the owner, agent or occupant shall immediately make such repairs and improvements as may be required by the City Council and, unless the same shall be commenced within three days after notice of the decision of said City Council, it shall be the duty of the Plumbing Inspector to post at some conspicuous place on such building or structure one or more notices, which shall be substantially in the following form:

"WARNING":

This building (or structure) has been condemned as unsanitary and unfit for human habitation or occupancy and it is unlawful for any person to live in or use the same. By order of the City Council."

_____
"Plumbing Inspector"

Such notice may be in typewriting and shall remain on such building or structure until the repairs or improvements shall have been made and the same shall then be removed by the Plumbing Inspector, or by such person as may be authorized by such official so to do; and it shall be unlawful for any person to remove or deface same. After building or structure has been placarded on account of unfit plumbing and until the repairs or improvements required shall have been made, it shall be unlawful for any person to live in or occupy such building or structure, whether for business or residence purposes, or to rent, let or hire the same or any part thereof, or to collect, receive or pay any rent therefor, whether as agent, owner, tenant, or otherwise.

ARTICLE 92.

DISPLAY SIGN.

Every person, firm or corporation doing business as a merchant plumber in the City of Miami Beach shall, at the place of such business, display a business sign showing the full registered name of such person, firm or corporation; and it shall be unlawful for any person, firm or corporation not so registered to do business in the City of Miami Beach, or to advertise to do any plumbing work therein.

ARTICLE 93.

PENALTIES.

Every person, as principal, agent, manager or employee, violating, failing, neglecting or refusing to comply with any of the provisions of this ordinance shall be deemed guilty of a misdemeanor and, upon conviction thereof, shall be punished by a fine not exceeding Two Hundred ($200.00) Dollars or by imprisonment in the City Jail for not more than ninety days, or by both fine and imprisonment; and every day during any portion of which any of the provisions of this ordinance shall be violated shall constitute a misdemeanor and shall be punished as herein provided.

ARTICLE 94.

ELECTION OF PLUMBING INSPECTOR.

The Plumbing Inspector is to be appointed by the Mayor and approved by the City Council; he must be a resident of Miami Beach and also furnish a one thousand dollar ($1,000.00) bond.

ARTICLE 95.

WAIVER OF EXAMINATION OF PLUMBERS.

Articles 59 to 68 inclusive, relative examination and registration of Plumbers may be waived or remain in full force by resolution of the City Council of the City of Miami Beach.

ARTICLE 96.

ELECTRICAL PERMITS.

No person, as principal, agent, manager or employee, shall place or install, or cause or permit to be placed or installed, any wires, connections, fixtures, apparatus or other electrical work of any kind whatsoever; or make, or cause or permit to be made, any alterations, change in, addition to or repair of any such electrical work in the City of Miami Beach, without first obtaining a written permit for such electrical work from the Electrical Inspector of the City of Miami Beach. Such permit shall be denominated "An Electrical Permit" and shall contain a description of the work to be done thereunder and a statement of the place by street and number or by description sufficient to locate the same, where such work is to be done. Electrical permits shall be granted upon written applications therefor to the Electrical Inspector. If the Electrical Inspector, after investigation, is satisfied that the work desired can be done without violating any of the provisions of this ordinance, or of any other ordinance or law governing such work in the City of Miami Beach, and that the applicant therefor is duly licensed to do electrical work in the City of Miami Beach, he shall issue an Electrical permit to such applicant, upon payment of the fees therefor. The issuance of an electrical permit shall not be construed as an approval by the Electrical Inspector of the drawings, specifications, plans or details or such contemplated work insofar as the same, or any portion thereof, may be in conflict with the provisions of this ordinance or any other ordinance or law governing such work in the City of Miami Beach. The holder of an electrical permit shall not do or perform, or cause or permit to be done or performed, any work other than that designated in such electrical permit at the place mentioned therein; and shall not do or perform or cause or permit to be done or performed any work designated in such electrical permit at any place other than that designated therein. In case any electrical work is desired in the construction, alteration or repair of any building or structure requiring building permit, no electrical permit shall be issued until after a building permit for such building or structure shall have been previously issued.

ARTICLE 97.

PERMIT FEES FOR ELECTRICAL INSTALLATIONS, CONSTRUCTIONS AND INSPECTIONS.

Permits provided for in this ordinance shall not be issued by the Electrical Inspector until the following inspection fees shall have been paid to the City Clerk.

From 1 to 10 outlets inclusive	$1.00
" 11 to 20 " "	1.50
" 21 to 30 " "	2.00
" 31 to 50 " "	2.50
" 51 to 100 " "	3.00
For each additional 100 outlets or fraction thereof.	1.00
For each ceiling fan installed on either concealed or open wiring	.20
Small fan or desk motor same for incandescent lights.	

MOTORS AND GENERATORS

Small motors per aggregate	1.00
1½ to 10 H.P. or K.W.	1.50
11 to 20 H.P. or K.W.	2.00
21 to 40 H.P. or K.W.	2.50
41 H.P. or K.W. Or Over.....	3.00
Each additional motor not over 10 H.P.	.75
Each additional motor not over 20 H.P.	1.00
Each additional motor not over 40 H.P.	1.50
Each additional motor ~~not~~ over 40 H. P. or K.W.	2.00

FIXTURE WORK

From 1 to 10 fixtures inclusive	1.00
" 11 to 20 " "	1.50
" 21 to 30 " "	2.00
" 31 to 50 " "	2.50
" 51 to 100 " "	3.00
For each additional 100 fixtures or fraction thereof	1.00

ISOLATED PLANTS

From 1 to 27½ K.W. Generator or 500 light dynamo including wiring for motors incandescent lamps to the capacity of the generator 5.00

STOVES AND HEATERS

For stove or Heater	0.75
For each additional	0.25

SIGNS AND BILLBOARDS

For each sign or billboard, for each 100 lights or fraction thereof	1.00
For each flasher used in connection with illuminated signs	.50
For each set of storage batteries for light, heat or power installed in connection with generator	1.00
For each mercury arc rectifier including all equipment and accessories	2.00
For each transformer where the primary potential exceeds 550 volts	1.00

~~For each transformer where the primary potential does not exceed 550 volts (not including transformers on switchboards for measuring instruments, etc.)~~

CHANGES OR ALTERATIONS.

For changes or alterations such as installing new service wires, changing center of distribution or installing new meter connection ..... .50

MISCELLANEOUS

For miscellaneous permits, such as general repair to defective wiring system or installing temporary work ..... .50
No permit shall be issued for a fee less than Fifty Cents.

ARTICLE 98.

INSTALLATIONS.

All electrical construction, all material and all appliances used in connection with electrical work and the operation of electrical apparatus shall be in conformity to the rules and regulations set down in what is known as the "National Electric Code" of rules and regulations of the National Board of Fire Underwriters for the installation of electric wiring and apparatus as the same are now established or as the same may hereafter be established from time to time except as otherwise provided in Article 99, and the said rules and regulations are hereby adopted and approved and made a part of this Ordinance.

ARTICLE 99.

LIGHTING & HEATING

(1) Switch provided for on Page 107, Article 16, Section 1602D, 1923 Edition of National Electrical Code may be omitted.

(2) All circuits supplying power or heating loads of over 660 Watts capacity must be installed in rigid conduit with approved fittings.

(3) All conduit placed underground, whether on a service coming to the entrance switch or on feeds from a meter loop to a center of distribution, must be approved galvanized conduit and the wires contained therein must be approved lead-covered conductor.

(4) In residences, the minimum service on stoves shall be 1" conduit and 3 No. 8 wires.

(5) All service supplying both heating and lighting device shall be not smaller than 1¼" conduit with 3 No. 6 wires.

ARTICLE 100.

INSPECTION.

The City Electrical Inspector shall have the right in the discharge of his duties to enter any building for the purpose of examining and testing the electrical appliances therein or contained. And for that purpose he shall be given prompt access to all buildings, public and private, on application to the individual or company owning or in charge of same.

ARTICLE 101.

CERTIFICATE OF INSPECTION.

Upon the completion of the wiring of any building for light, heat or power, it shall be the duty of the company, firm or individual doing the same to notify the Electrical Inspector, who shall, within twenty-four hours of time of such notice, inspect such wiring and appliances

and, if approved by him, he shall issue a certificate of satisfactory inspection, but no such certificate shall be issued unless such electric wiring and appliances be in strict conformity to the rules and regulations prescribed or required by this ordinance, nor shall current be turned on such installation until said certificate be issued.

ARTICLE 102.

PENALTY.

Any person, firm or corporation who shall fail to correct any defect or defects in his work, after having been duly notified for ten days by the City Electrical Inspector, shall not receive any further permit until such defect or defects have been corrected and any case in which any person, firm or corporation shall continue to or persistently violate the ordinance of the City in regard to Electrical affairs or the orders of the Electrical Inspector touching the same, the license of such person, firm or corporation shall be forfeited.

ARTICLE 103.

INSPECTOR MAY DISCONNECT.

In any case of failure to comply with this ordinance, the Electrical Inspector shall have authority after due notice, to cut out lights or current in any building concerned and to enforce discontinuance of the same until said requirements are complied with.

ARTICLE 104.

FIRE DISTRICT.

Sec. 1. That there be and is hereby established a district in the City of Miami Beach, Florida, to be known as the fire district. The limits or boundaries thereof shall be as follows: Begin at the northeast corner of Block 19 of Ocean Beach Addition No. 2, according to a plat recorded in Plat Book 2 at Page 56, of the Public Records of Dade County, Florida, and then run west along the north line of said Ocean Beach Addition No. 2, to the southeast corner of Block 3-B, according to a plat recorded in Plat Book 9 at page 147 of said Public Records; thence run west along the south line of said Block 3-B to Drexel Avenue; thence run south along the east line of Drexel Avenue to the south line of Eleventh Street, projected east; thence west along Eleventh Street to the alley through Block 36, according to a plat recorded in Plat Book 2 at Page 81 of said Public Records; thence along said alley to Tenth Street; thence west along Tenth Street to Pennsylvania Avenue; thence south along Pennsylvania Avenue to the south line of Seventh Street, projected east; thence west along Seventh Street to the alley through Block 47, according to said plat recorded in Plat Book 2 at Page 81; thence south along said alley to the north line of Sixth Street; thence west along the north line of Sixth and Sixth Street produced to Biscayne Bay; thence in a southeasterly direction along the shore of Biscayne Bay to the Government Cut, a waterway between the Atlantic Ocean and Biscayne Bay; thence following the north line of said Government Cut to the low water mark of the Atlantic Ocean; thence in a northerly or northeasterly direction, meandering the low water mark of the Atlantic Ocean to the intersection of the North line of Lot one of Block One of Friedman & Cope Subdivision, according to a plat recorded in Plat Book 4 at Page 83, of the Public Records of Dade County, Florida, projected East to the Atlantic Ocean ; thence west to the west line of said Ocean Drive; thence northeasterly along the west line of said

Ocean Drive to the place of beginning, all of said streets and avenues being designated as such in Ordinance No. 170, adopted by the City Council of said City on January 18, 1922.

Sec. 2. That no building having the exterior walls or portions thereof of wood, or a building with wooden framework veneered with brick, stone, terra cotta or concrete, or covered with plaster, stucco or sheet metal, shall be constructed within the fire district herein created.

Sec. 3. That it shall be unlawful for any person, firm or corporation to repair or have repaired any building within said fire district which is constructed of material other than that required for such buildings by Section 2 of this article when such repairs exceed 20 per cent. of the whole value of such building or buildings, and repairs shall not be construed to permit the building or making of an addition to or any building or structure in the nature of an addition to such building, provided, however, that if any building is constructed of the material required in Section 2 of this article , repairs or additions thereto may be made, provided such repairs or additions are made of material such as is herein required for the erection of such building.

Sec. 4. It shall be unlawful for any person, firm or corporation to remove from one lot to another or from one part of a lot to another part of the same lot within said Fire District or from a point without to a point within said district, any building constructed of the materialprohibited by Section 2 of this article , after February 1st, 1925.

Sec. 5. It shall be unlawful for any person, firm or corporation to rebuild or re-construct any building which may require such rebuilding or re-construction for any reason if such building shall not be constructed in accord with the provisions of Section 2 of this article, provided, however, that repairs not exceeding 20 per cent. of the actual value of such building not heretofore constructed in accord with the provisions of Section 2 may be made in accord herewith.

Sec. 6. Each day that any person firm or corporation shall in part violate the provisions of this ordinance shall be construed to be a separate and distinct offense against this ordinance.

Sec. 7. Any person, firm or corporation found guilty of the violation of this ordinance shall be fined not exceeding Two Hundred Dollars or shall be imprisoned in the City Jail not exceeding ninety days for each offense against this ordinance.

ARTICLE 105

REPEAL

That Ordinances Numbered 143, 150, 153, 158, 163, 169, 176, 185, 189, 209, 210, 212, 221 and 222, and all other Ordinances and parts of Ordinances of the said City, in conflict herewith, are hereby repealed as far as said confliction appears.

ARTICLE 106

EFFECTIVE.

This Ordinance shall become and be effective immediately upon its passage and approval.

PASSED AND ADOPTED this 20th day of January, A. D., 1926.

ATTEST:

C. W. Tomlinson
City Clerk

H. H. Hannum
President of City Council(Pro-tem)

APPROVED this 20th day of January, A. D., 1926.

Louis F. Sedgwick
Mayor

1st Reading, January 6th, 1926.
2nd Reading, January 6th, 1926.
3rd Reading, January 20th, 1926.
Posted, February 5th, 1926.

STATE OF FLORIDA)

COUNTY OF DADE)

I, C. W. TOMLINSON, City Clerk in and for the City of Miami Beach, Florida, do hereby certify that Ordinance No. 233 entitled, "AN ORDINANCE OF THE CITY OF MIAMI BEACH, FLORIDA, PRESCRIBING RULES AND REGULATIONS FOR THE ERECTIONS REPAIR, REMOVAL AND DEMOLITION OF BUILDINGS IN SAID CITY; PROVIDING FOR THE SUBMISSION OF PLANS AND THE MAKING OF APPLICATION FOR PERMITS FOR THE ERECTION, REPAIR, REMOVAL OR DEMOLITION OF BUILDINGS; PROVIDING FOR A BOND INSURING CLEAN-UP AFTER CONSTRUCTION OR REPAIR; PRESCRIBING RULES AND REGULATIONS AS TO PLUMBING DONE WITHIN SAID CITY, THE EXAMINATION AND QUALIFICATION OF PLUMBERS; PRESCRIBING RULES AND REGULATIONS WITH REFERENCE TO THE INSTALLATION OF ELECTRICAL WIRING AND OTHER ELECTRICAL APPLIANCES FOR HEATING AND LIGHTING BUILDINGS; FIXING AND DEFINING THE FIRE ZONE AND PRESCRIBING THE CHARACTER OF BUILDINGS TO BE CONSTRUCTED THEREIN; PRESCRIBING PENALTIES FOR FAILURE TO COMPLY WITH THE PROVISIONS OF THIS ORDINANCE AND REPEALING ORDINANCES NUMBERED 143, 150, 153, 158, 163, 169, 176, 185, 189, 209, 210, 212, 221 and 222 OF SAID CITY AND OTHER ORDINANCES OF SAID CITY IN CONFLICT WITH THIS ORDINANCE", having been duly passed and adopted, same has been posted by me in three conspicuous places in the City of Miami Beach, one of which was at the door of the City Hall in said City on the 5th day of February, A. D., 1926, and that said Ordinance remained posted for a period of at least thirty days in accordance with the requirements of the City Charter of the said City of Miami Beach.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of the city of Miami Beach on this the 17th day of March, A.D., 1926.

C. W. Tomlinson
City Clerk

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