

BUILDING CODE
of
CITY *of* CORAL GABLES
FLORIDA



ADOPTED BY ORDINANCE
AUGUST 3rd, 1925

Coral Gables Building Code

BUILDING ORDINANCE.

AN ORDINANCE OF THE CITY OF CORAL GABLES, FLORIDA, PRESCRIBING RULES AND REGULATIONS FOR THE ERECTION, REPAIRS, REMOVAL AND DEMOLITION OF BUILDING IN SAID CITY; PROVIDING FOR THE SUBMISSION OF PLANS AND MAKING APPLICATION FOR PERMIT FOR ERECTING, REPAIRING OR REMOVING BUILDINGS; PROVIDING A PENALTY FOR THE VIOLATION OF THIS ORDINANCE.

Be It Ordained By The City Commission of the City of Coral Gables, Florida:

SECTION 1.

GENERAL REQUIREMENTS.

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

(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 provisions of this ordinance; or the approval issued thereunder.

DEMOLITION AND REMOVAL OF BUILDINGS.

(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.

(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.

PERMITS NOT NECESSARY.

Ordinary repairs or buildings or structures, the cost of which shall not exceed \$50.00, may be made without notice to the Building Inspector.

SECTION 2.

EXISTING BUILDINGS, RAZED, ALTERED, REPAIRED, OR MOVED.

(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.

(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.

(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.

(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.

SECTION 3.

PENALTY.

(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.

(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.

SECTION 4.

APPLICATIONS FOR PERMITS.

(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. All such plans and specifications to be made and signed by a certified architect. The plans of all buildings to be erected in Coral Gables, that are governed by State Laws, must have the standard approval of the State representative before application is made for permit.

(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.

(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.

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

(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 section within a reasonable time.

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

(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, an inspection fee of \$3.00.

SECTION 5.

DEFINITIONS.

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

(1). 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.

AREAWAYS.

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

BASEMENT.

(3). A basement is a story partly, but not more than one-half ($\frac{1}{2}$) below the level of the curb, but not more than five (5) feet above the level of the curb.

CELLAR.

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

CEMENT MORTAR.

(5). 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.

COURT.

(6). 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."

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.

LOT GRADE.

(7). 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.

DOWNSPOUTS.

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

DWELLING.

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

DUPLEX DWELLING.

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

LOADS.

(11) 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 rearrangement shall be considered as live load.

FACTORY.

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

FIBRE PLASTER BOARD.

(13). A board consisting of any intimate mixture of gypsum plaster composition and a fibrous binding material.

FIRE DOOR.

(14). 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.

FIRE EXIT PARTITION.

(15). A subdividing partition, with exits thereto, built for the purpose of protecting life by providing an area of refuge.

FIRE SHUTTER.

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

FOUNDATION WALL.

(17). Any wall or pier built below the curb level or nearest tier of beams to that level.

GARAGE.

(18). 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.

HOTEL.

(19). 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.

INCOMBUSTIBLE.

(20). Material or construction which will not ignite or burn when subjected to fire.

OFFICE BUILDING.

(21). One used for professional or clerical purposes. No part of which shall be used for living purposes, except by the janitor's family.

OUT-HOUSES.

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

WALLS.

(23). 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.

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

FIRE WALL.

(25). A wall built for the purpose of restricting the area subject to the spread of fire.

SHAFT.

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

SHED.

(27). 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.

SKYLIGHT.

(28). Any cover or enclosure placed above roof openings for the admission of light.

STRUCTURE.

(29). 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.

THEATRE OR MUSIC HALL.

(30). Any building or part of a building designed or used for theatrical or operatic purposes with accommodation for an audience of more than 250 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.

WAREHOUSE.

(31). A building, or portion thereof, designed or used for the storage of goods, wares and merchandise.

WORK-SHOP.

(32). A building or portion thereof, in which articles of merchandise are manufactured or repaired, wholly or principally by hand.

VOLATILE UNFLAMMABLE LIQUID.

(33). This shall mean any liquid that will emit inflammable vapor.

SECTION 6.**CLASSIFICATION OF CONSTRUCTION.****FRAME CONSTRUCTION.**

(No building of the following construction will be permitted in Coral Gables.)

(1). 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 classed as a frame building and is not permissible.

ORDINARY CONSTRUCTION.

(2). 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.

MILL CONSTRUCTION.

(3). A building having masonry or reinforced concrete walls and heavy timber interior construction.

FIRE PROOF CONSTRUCTION.

(4). Buildings of masonry, cement, or reinforced concrete, constructed in accordance with sections 15 to 19 inclusive shall be considered fireproof.

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

SECTION 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 II	35
Maple	43
Birch	45
Douglas Fir and Cypress	35

SECTION 8.

PERMISSIBLE WORKING STRESSES.

(1). All floors shall be constructed to bear a safe weight, per square foot, exclusive of the weight of the materials of which they are composed, as follows: Dwellings, tenement houses, apartment houses, hotels, hospitals or asylums, seventy (70) pounds; office buildings, one hundred (100) pounds; places of public assembly, light manufacturing and retail stores, one hundred and twenty (120) pounds; storehouses, warehouses and manufactories, one hundred and fifty (150) pounds; and upwards in proportion to the loads they have to carry. All roofs shall be constructed to bear a safe weight of thirty (30) pounds per square foot.

(2). 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:

(3). Steel and Iron.	Compression in short blocks	Pounds per square inch.
Rolled Steel		16,000
Cast Steel		16,000
Cast Iron		16,000
Steel pins, shop and 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 and power driven field rivets and 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 and riveted steel beams	16,000
Rolled steel pins and rivets and bolts	20,000
Cast iron compression side	16,000
Cast iron tension side	2,500

CONCRETE AND MASONRY

(4). COMPRESSION.

Grout, Portland cement, neat	800
Grout, Portland cement, neat between steel in foundation not over ½ inch	1,000
Concrete, Portland cement, 1; sand 2; stone, 4.....	500
Concrete, Portland cement, 1; sand 2½; stone 5.....	400
Concrete, Natural cement 1; sand 2; stone 4	125
Concrete, Natural cement 1; sand 2½; 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 lime 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

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

	Safe Fibre Stress	Maximum Longitud- inal Shear	COMPRESSION	
			Perpendic- ular to the Grain	Parallel to the Grain, Columns L with — less d than 10
Oak	1,400	120	400	1,000
Yellow Pine, Grade I	1,600	120	350	1,200
Yellow Pine, Grade II	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.

SECTION 9.

EXCAVATIONS.

(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 his 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.

(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.

(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.

SECTION 10.

WOODEN PILES.

(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.

(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.

SECTION 11.

CONCRETE PILES.

(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 $\frac{3}{8}$ inch. The length shall not exceed 40 times the inside diameter. The ends of the tubes shall be faced perpendicular to its axis. No more than one splice of an approved design shall be used in the total length of the pile. 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 $2\frac{1}{2}$ parts of sand and $3\frac{1}{2}$ parts of rock. Rock to be equal to hardest Ojus or canal bank, washed and screened rock.

(2). Concrete piles moulded and cured before driving shall be provided with not less than $2\frac{1}{2}\%$, nor more than $4\frac{1}{2}\%$ longitudinal reinforcement, with bands or hoops not less than $\frac{3}{8}$ inch in diameter, and spaced not further 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.

(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.

(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 ($\frac{1}{2}$) 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.

SECTION 12.

FOUNDATIONS.

(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.

(2). Footings shall be so designated that the loads they sustain per unit of area shall be as nearly uniform as possible, and the stresses shall conform to the requirements 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.

(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.

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

(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.

(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.

(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	$\frac{1}{2}$ ton.
Natural sand formation	per square foot	2 $\frac{1}{2}$ tons.
Rock, yellow porous	per square foot	10 tons.

SECTION 13.

WALLS.

(1). Schedule for reinforced concrete walls of residences, apartments, 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.

(2). Schedule for brick and cement block walls as per classification in Section 13, Paragraph 2:

Number Stories	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
1	8"									
2	8"	8"								
3	12"	8"	8"							
4	12"	12"	8"	8"						
5	12"	12"	12"	8"	8"					
6	12"	12"	12"	12"	8"	8"				
7	16"	16"	12"	12"	12"	8"	8"			
8	16"	16"	16"	12"	12"	12"	8"	8"		
9	16"	16"	16"	16"	12"	12"	12"	8"	8"	
10	20"	20"	20"	16"	16"	12"	12"	12"	8"	8"

HEIGHT OF LOAD BEARING WALLS

(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 sectional 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.

(5). Parapet walls shall be full thickness of the top story walls and shall project not less than 30 inches above the roof at all points. All parapet walls shall be coped with approved material. Where parapet walls are not more than 24 inches above the roof at all points, they shall be increased in thickness, upon approval of same by the Building Inspector.

(6). 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.

(7). 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.

(8). 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 further 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 least 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 with the full thickness to the top of the beams above.

(9). 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.

(10). 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 forced by cutting of blocks or tile, or by any other method which would impair the strength of the wall.

(11). All chases or recesses shall be formed in all cement block or hollow tile walls, by using hard burned brick and carrying the regular bond to top of all chases or recesses.

ARCHES.

(12). Opening 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.

FACING.

(13). 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 13, Paragraphs 2, 3, 7, and 8.

SECTION 14.

BUILDING BLOCKS.

(1). Portland cement only shall be used in the manufacture of concrete blocks, and the coarse 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.

(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-eighth ($1/8$) 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.

SECTION 15.

FIREPROOF CONSTRUCTION AND FIREPROOFING

GENERAL REQUIREMENTS FOR FIREPROOF BUILDINGS

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

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

(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 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.

(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.

SECTION 16.

FIREPROOFING, FLOOR AND ROOF CONSTRUCTION.

(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 of construction as may be approved by the Building Inspector.

(2). All segmental arches shall have a rise of $1\frac{1}{4}$ 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.

(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 Section 8.

(4). BRICK ARCHES. 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, hardburned 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.

TERRA COTTA ARCHES.

(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.

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.

Flat arches shall have a depth of not less than $1\frac{1}{4}$ 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.

The shells of arch blocks shall be not less than $\frac{3}{4}$ inch in thickness, and the webs shall be not less than $\frac{5}{8}$ 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 accurately 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.

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.

CONCRETE ARCHES AND SLABS.

(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 Section 8.

ROOFS.

(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.

SECTION 17.

FIREPROOFING, PROTECTION OF STRUCTURAL MEMBERS.

PROTECTION OF WALL COLUMNS.

(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.

PROTECTION OF WALL GIRDERS.

(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.

(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 $\frac{5}{8}$ 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.

(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.

INTERIOR COLUMNS.

(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.

PROTECTION OF STEEL GIRDERS AND BEAMS.

(6). (a) The protection of the webs and bottom flanges of girders, and all members if 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 filed with mortar.

(7). Concrete protection for all structural members shall be held in position by suitably designed interior steel anchors hooked securely around the flanges or angles of the members, at intervals not exceeding 8 inches apart; 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 ¼ 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.

(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.

(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.

SECTION 18.

MISCELLANEOUS FIREPROOFING PROVISIONS.

(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.

(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.

(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.

(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.

(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.

(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.

SECTION 19.

PARTITIONS IN FIREPROOF BUILDINGS.

(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.

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

(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.

(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.

(5). Reinforced concrete for partitions shall be as required in this section. 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 $\frac{5}{8}$ inches. Gypsum shall be used only in dry locations. Metal lath and studding shall conform to the requirements of Section 18.

SECTION 20.

REINFORCED CONCRETE CONSTRUCTION

GENERAL REQUIREMENTS

DEFINITION

(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.

APPROVED FOR ALL TYPES OF BUILDINGS

(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 this 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.

CONSTRUCTION PLANS AND SPECIFICATIONS

(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.

(4). All such plans and specifications shall be made and signed by a certified architect. In no case shall the construction deviate from the approved plans and specifications except by written consent of the Building Inspector.

SPECIFICATIONS FOR MATERIALS

(5). The concrete shall consist of a mixture of a pastic or viscous 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 develop 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.

(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.

(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.

(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 particule of stone. Test specimens shall be removed from mould as soon as set and stored in damp sand until tested.

QUALITY OF CEMENT

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

QUALITY OF FINE AGGREGATE

(10). Fine aggregate shall consist of sand or crushed stone, screening, 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.

(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.

QUALITY OF COARSE AGGREGATE

(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.

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

QUALITY OF REINFORCEMENT

(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 American 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.

SECTION 21.

FACTORS CONTROLLING DESIGN

ALLOWABLE UNIT WORKING STRESSES

(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 Section 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 as specified in Section 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.

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

- (a) A plane section before bedding 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 1:1½:3 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 slab. Brackets shall not be considered as reducing the clear span in the sense here intended.

BENDING MOMENTS OF UNIFORMLY LOADED FLOOR AND ROOF SLABS

—Bending Moments of Slabs Supported on Two Sides—

(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—

(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—

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

$$r = \frac{14}{14 - b^4}$$

in which r = 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 $1\frac{1}{2}$ 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—

(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—

(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—

(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.

(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—

(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—

(11). In continuous slabs, beams or girders, full provision shall be made for the negative bending movements 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—

(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.

(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 end 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 develop their entire tensile stresses by adhesion.

—T BEAMS—

(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.

(15). In beams with T-sections the width of the stem only shall be used in calculating 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.

(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—

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

—FLOOR FINISH—

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

—COMPOSITE FLOORS—

(19). The design of composite floors consisting of rows of hardburned terra cotta tile, concrete blocks, sheet steel, or other approved fire resistive material, separated 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 mixtures 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—

- (20). The length of columns shall be taken as the maximum unsupported length. 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—

- (21). Axial compression in reinforced concrete columns without hoops, bands, or spirals, containing not less than $\frac{1}{2}$ 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 $\frac{1}{4}$ 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 $\frac{1}{4}$ square inch.

—COLUMNS WITH HOOPS—

- (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 of 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, Section 22.

—STRUCTURAL STEEL AND CONCRETE COLUMNS—

- (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 $1\frac{1}{2}$ 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—

- (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—

- (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—

- (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—

(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 partition 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.

SECTION 22.

REQUIREMENTS FOR REINFORCEMENT

—EXTERNAL AND INTERNAL DEFECTS—

(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—

(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—

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

In columns and girders, 2½ inches; in beams and walls, and slabs 2" inches; and in floor slabs, 1½ inches.

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

—SPLICES IN REINFORCEMENT—

(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 close-fitting 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

(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.

(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

(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. Retamping of concrete after its initial set shall be prohibited.

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

(9). Before depositing new concrete upon concrete already set, the contact surfaces shall be roughened, cleaned or 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

(10). When fresh concrete is exposed to rapid drying conditions, 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

(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 shrinkage during setting necessitate joints in independent walls at intervals of 50 to 80 feet when not otherwise provided for by effective reinforcement.

(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

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

(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

(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	4 days
plus 1 day extra for each additional foot of span.	
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

(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.

- (17). Composite floors, same as for ordinary beams.
- (18). All reinforced concrete shall be carefully inspected to insure its soundness and reliability before main supports are removed.
- (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 overstress such supports or those below.

SECTION 23.

CAST IRON AND STEEL CONSTRUCTION

(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 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 $\frac{3}{8}$ " in diameter, shall be drilled 90 degrees (90°) apart, near the middle of shaft for the purpose of measuring the thickness of metal.

(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%).

(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 than $\frac{3}{4}$ " 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".

(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 $\frac{1}{16}$ " 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.

(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.

(6). Cast iron bases or shoes shall be planned 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 $\frac{3}{4}$ " in thickness, and shall not be used for spans exceeding six feet (6").

STEEL CONSTRUCTION

(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 $\frac{1}{4}$ ". 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 $\frac{1}{12}$ the width of the outstanding legs of the angles.

(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 rivets. 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

(9). The thickness of the web in built up girders shall be not less than $1/120$ of the distance between the flanges angles or stiffeners, nor less than $3/4$ 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

(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

(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

(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 fill the holes

ORDINANCE NO. 54

AN ORDINANCE TO AMEND ORDINANCE NO. 1 KNOWN AS "BUILDING CODE" OF THE CITY OF CORAL GABLES.

Be it ordained by the Commission of the City of Coral Gables, Florida:

SECTION 1.

That Ordinance No. 1, known as "Building Code" of the City of Coral Gables, Florida, insofar as, when and wherever the same is in conflict herewith, be and the same is hereby amended to read as follows:

Small House Plans: All plans submitted to Planning Board for construction in Coral Gables shall be in full detail and accompanied by complete specifications. They shall consist of the following:

¼ " Scale Floor Plans

¼ " Scale Sections, showing all wall, floor and roof construction

¼ " Scale Elevations of all facades of building

¾ " Scale details of all ornamental work and full size sections of all mouldings.

Specifications shall be full and complete as to character of the work, strength of material and workmanship.

Plans for Work Costing over \$10,000: Plans for work costing over \$10,000 should be prepared by a Registered Architect, and shall be complete with details and specifications as noted above.

Architects should supervise the construction of work designed by them.

Residences: All residences shall have continuous concrete wall tie beam placed at 2nd floor and roof line with a depth of at least 12 " reinforced with four (4) ½ " rods, two placed at top and two at bottom of beam, and well hooked at corners of building.

Apartments and Office Buildings: All apartment houses and office buildings shall have reinforced concrete frame for exterior walls and floor joists shall be carried on concrete beams. These beams shall be figured from bottom of joists to bottom of beam less 2 ". Maximum column spacing shall be 20'-0 ". All exterior columns shall be carried to top of parapet wall and tied into continuous concrete parapet beam. Steel splices in concrete columns shall be not less than 18 ".

All footings shall be of concrete at least 12 " thick and shall be carried up to support first floor joists.

For factors controlling design of columns, beams and slabs—see Section 21, pages 19 and 20, of existing Code.

Apartment or offices built over stores shall have concrete slab floor construction at second floor.

Corridor Bearing Partitions: Corridor bearing partitions of wood shall be of 2" x 6" studding spaced not more than 16" apart. Cross partitions shall have diagonal stud bracing as shown on detail sheet.

Wood Floor Joists: Ends of all floor joists shall be treated with a wood preservative material, and shall have iron wall ties at every fourth joist. Joists shall be thoroughly spiked to form continuous tie from wall to wall.

Warehouses, Public Garages, Etc.: All exterior door and window openings in these types of construction shall be designed to readily close and to withstand a wind pressure of 30 pounds per square foot.

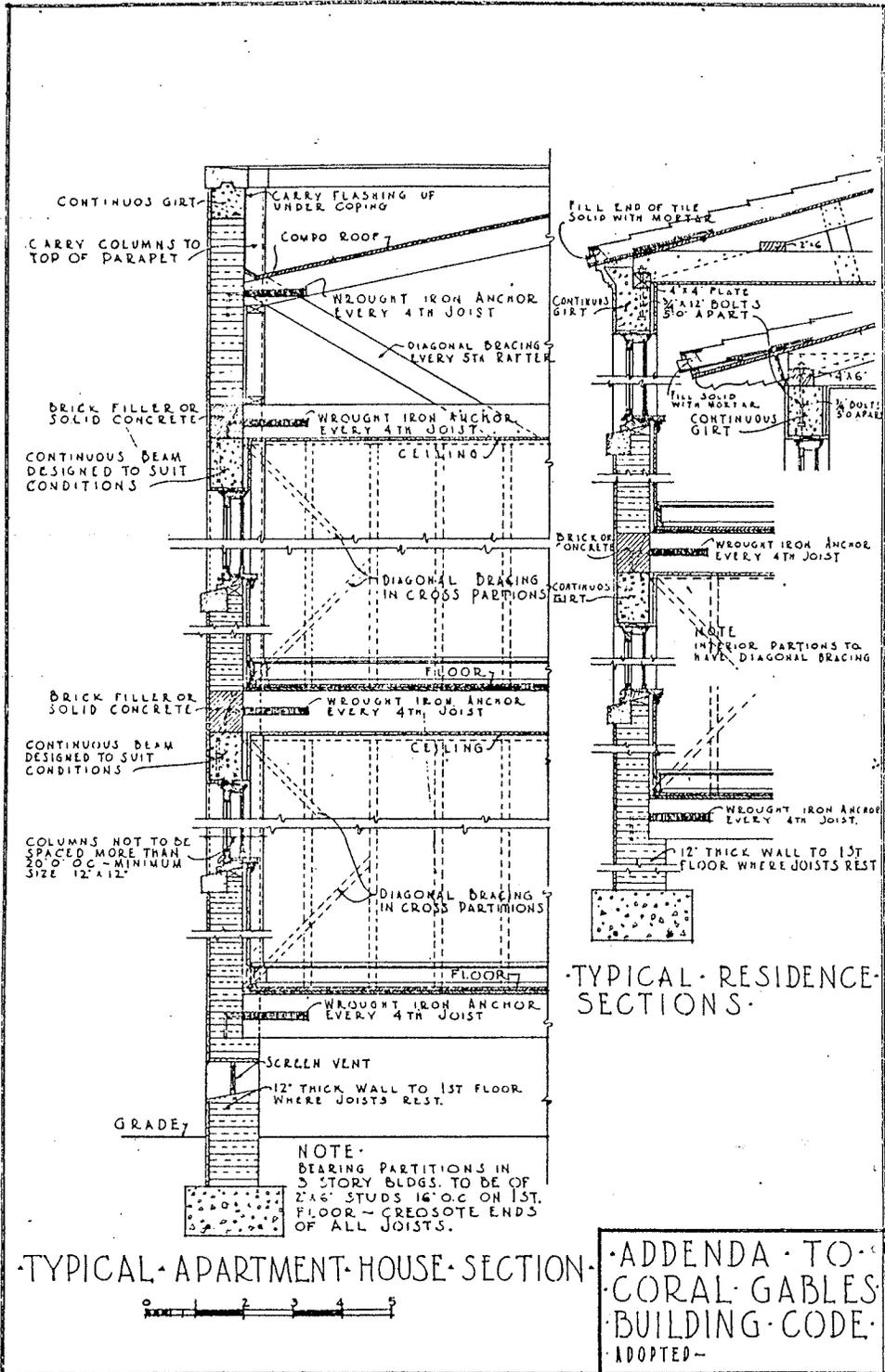
The roofs of such buildings shall be properly equipped with skylights and ventilators in order to relieve the wind pressure.

Exterior Window and Door Openings—Generally: All Exterior window and door openings shall have frames thoroughly anchored to walls by metal or other approved anchors.

All exterior wood sash and doors shall in no case be less than 1 ¾ " thick, and shall be so designed and equipped with proper hardware to withstand a wind pressure of 30 pounds per square foot. Hardware shall be equal to samples on file in the Building Inspector's office and approved by the Building Inspector.

Screens shall be made readily removable in order to give free access to sash.

Skylights: All skylights shall be fitted with wire glass and shall be so designed as to withstand a wind pressure of 30 pounds per square foot, and shall be properly ventilated at sides.



TYPICAL APARTMENT HOUSE SECTION

TYPICAL RESIDENCE SECTIONS

ADDENDA TO
CORAL GABLES
BUILDING CODE
ADOPTED

Private Garages: Walls of all private garages shall be of masonry construction.

Tile Roofs: All tile roofs shall have the first three rows of pan tiles at eaves nailed with heavy copper nails. All tiles shall be thoroughly wet before laying, and ends of cover tile filled with cement at eaves. Nail holes shall be provided in this cement fill for drainage.

Solar Water Heating Systems: All such systems shall be incorporated in the design of the building where possible. All tanks which are exposed above parapet walls shall be set horizontally and covered with stucco finish. Details for all installations shall be submitted to the Buildnig Inspector for approval.

Concrete Blocks: On all construction work in which concrete building blocks are to be used, tests of same must be furnished the Building Bureau, showing that said blocks meet the requirements of the City Building Code, before any blocks are used therein.

All blocks shall be thoroughly wet before setting.

Awnings: No firm or person shall be permitted to erect any awning, canopy or canvas shade without first securing permit therefor from the City of Coral Gables, and no person or firm shall engage in such awning business without paying to the City of Coral Gables an occupational tax of \$5.00 and furnishing a bond to the City of Coral Gables in the penal sum of \$5,000, indemnifying said City against damages for injury to persons or property by reason of such awnings.

All colors and styles and designs of awnings shall be approved by the Planning Board. All metal pipes and fixtures shall be either galvanized iron or brass.

All awnings fastening to masonry shall be secured as follows:

The head of awning shall have head rod of galvanized iron not less than $\frac{1}{2}$ " in diameter, and all head rods shall be secured to building with galvanized or brass head rod clamps and expansion or toggle bolts. These expansion fittings may be lag screws not less than $\frac{3}{8}$ " in diameter inserted in either fibre plugs or metal expansion shields, but in no case shall wooden plugs be used. Toggle bolts of not less than $\frac{1}{4}$ " diameter may be used. The arms of all awnings shall be fastened to masonry with lag screw hinges with fibre plugs or metal expansion shields or with regular hinges and toggle bolts, all of sizes as noted above. All awnings shall be equipped with pulleys or glass rings and ropes in order that they may be pulled up when desired, and such pulleys and ropes shall be so arranged that they may be operated from inside the building.

All awnings fastened to masonry shall be at least 16" wider than the frame of the window or door over which they are erected.

Ratproofing: All openings in walls under first floor joists shall be screened in such a manner as to prevent rats from entering the building.

Where plumbing or other pipes extend through exterior walls, such pipes shall be fitted with sleeves and flanges to prevent rats from entering the building.

Around floor joists at walls and where any holes occur around studding shall be filled in solidly with masonry.

Glass: No glass windows, doors or other glass coverings filling or covering any opening or openings in any building of a dimension in excess of five feet in width shall be erected, constructed or installed, except and until the plans, specifications and methods of installation thereof shall have first been approved by the Building Inspector and the Planning Commission.

Building Permit Fees: From and after the passage of this Ordinance, the fees for the issuance of building permits shall be in accordance with the following schedule:

(a) For the construction of garages or other outbuildings consisting of not more than one room, a fee of One Dollar (\$1.00).

(b) For the erection of signs and bill boards, One Dollar (\$1.00) each.

(c) For the construction of all new buildings or other structures and additions to existing buildings or other structures, a fee of One Dollar (\$1.00) per square foot or fraction thereof with a minimum fee of Five Dollars (\$5.00).

(d) Repairs, remodeling, alteration, and moving, a fee of One Dollar (\$1.00) per building.

(e) For the erection of awnings, a fee of One Dollar (\$1.00) per building.

Signs: No firm or person shall erect, attach to or paint upon any surface in the City of Coral Gables any sign, sign board or other character of advertisement without first securing permit therefor from the City of Coral Gables, and no person or firm shall engage in such sign business without paying to the City of Coral Gables an occupational tax of Five Dollars (\$5.00) and furnishing a bond to the City of Coral Gables

CORAL GABLES BUILDING CODE

in the penal sum of Five Thousand Dollars (\$5,000) indemnifying said City against damages for injury to persons or property by reason of such signs.

Building Code Requirements for Live Loads:

Apartments	50 lbs. per sq. ft.
Public Rooms	100 lbs. per sq. ft.
Halls	100 lbs. per sq. ft.
Assembly Halls	100 lbs. per sq. ft.
Fixed Seat Auditorium	50 lbs. per sq. ft.
Movable Seats	
Auditorium	100 lbs. per sq. ft.
Churches	100 lbs. per sq. ft.
Dance Halls	150 lbs. per sq. ft.
Drill Rooms	150 lbs. per sq. ft.
Theatres	100 lbs. per sq. ft.
Dwellings	50 lbs. per sq. ft.
Hospitals	50 lbs. per sq. ft.
Hotels	50 lbs. per sq. ft.
First Floors	100 lbs. per sq. ft.
Corridors	80 lbs. per sq. ft.
Office Rooms	50 lbs. per sq. ft.
Manufacturing	150 lbs. per sq. ft.
Light Manufacturing	100 lbs. per sq. ft.
Mercantile	100 lbs. per sq. ft.
Retail Stores	100 lbs. per sq. ft.
Heavy Storehouses	250 lbs. per sq. ft.
Warehouses	250 lbs. per sq. ft.
Offices	60 lbs. per sq. ft.
First Floors	100 lbs. per sq. ft.
Corridors	80 lbs. per sq. ft.
Schools	
Class Rooms	75 lbs. per sq. ft.
Assembly Rooms	75 lbs. per sq. ft.
Sidewalks	300 lbs. per sq. ft.
Stables, Carriage	
Houses,	
Garages	100 lbs. per sq. ft.
Stairways—	
General	75 lbs. per sq. ft.
Roofs	30 lbs. per sq. ft.
Wind Pressures	30 lbs. per sq. ft.

SECTION 2.

This Ordinance is supplemental to and not in repeal of Ordinance No. 1, except insofar as this Ordinance provides for and calls for greater strength in construction and /or better and improved safety conditions than is now provided and called for in said Ordinance No. 1, and when and wherever this Ordinance shall provide and call for such greater strength in construction and /or better and improved safety conditions than is provided and called for in said Ordinance No. 1, the provisions of this Ordinance shall prevail and be enforced in the place and stead of the provisions of said Ordinance No. 1.

SECTION 3.

For the better explanation and understanding of certain details of construction as in the foregoing sections provided and called for, the attached drawing of 1" scale details, marked "Exhibit A", is included in and made a part of this Ordinance.

SECTION 4.

This Ordinance shall take effect from and after its passing.

Passed and adopted this first day of October, A. D. 1926.

Approved:
EDWARD E. DAMMERS
Mayor.

Attest:
EDWIN G. BISHOP
City Clerk.

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 ($1/2$) inch diameter.

(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.

SECTION 24.

TRANSFORMER ROOMS

(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.

(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.

SECTION 25.

FOUNDATIONS.

(1). Area covered by footings shall be thoroughly cleared. All vegetation, trash or foreign matter shall be removed, until suitable foundation is obtained.

(2). The footings of all 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 ($1/2$ ") inch steel reinforcement rods in same.

(3). 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 ($1/2$ ") inch steel reinforcement rods in same.

(4). 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 ($1/2$ ") rods at right angles.

ORDINARY CONSTRUCTION.

(5). The ends of all wooden floor, ceiling or roof beams, which rest on masonry or concrete walls, shall be cut to a level 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. All joists shall have at least 3" bearing on partitions or walls. Each tier of joists shall be anchored to the masonry bearing walls, at intervals of not more than ten (10) feet with good, strong, wrought iron anchors.

Where joists are blocked up, it shall be done with masonry materials or if wood is used, it shall be a solid block, the full width and length of the joist bearing.

(6). No wooden floor beams used in any building shall be less than 2" x 8", nor spaced more than 16 inches over centers, and must be properly bridged. Beams 2" x 8" shall not exceed 14 foot span; 2" x 10" not to exceed 18 foot span; 2" x 12" not to exceed 24 foot span. No wooden ceiling joist or rafter shall be less than 2" x 6".

SECTION 26.

WIND PRESSURE

(1). Every building shall be so 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.

SECTION 27.

TENTS

(1). No tent or screened structure of any kind shall be erected or maintained within the city limits of Coral Gables, without the approval of the City Commission.

PROJECTIONS.

(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.

(3). All awnings or marquis shall be approved as to design and color by City of Coral Gables and those 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 ($\frac{1}{2}$ ") steel rods with a turn-buckle for adjustment. Not less than one and one-half inch ($1\frac{1}{2}$ ") cast iron washer shall be used on the cornice and of all iron rod or eyebolt supports.

FENCES

(4). No fences of any kind or character shall be erected or maintained on the front two-thirds of any lot in Coral Gables excepting only hedges, and Coral rock or concrete walls of Spanish type and no fence of any kind or any part of lot shall exceed an average height of five feet.

SECTION 28.

MEANS OF EGRESS

(Except Dwellings)

(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.

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

(3). Every room having an occupancy of 50 or more persons shall have at least two 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.

(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 accommodated thereby. This computation shall be based on the number of persons in the story having the largest occupancy served by said corridor.

LOCKS.

(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.

(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.

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

SECTION 29.

STAIRS AND STAIRWAYS.

(Except Dwellings).

(1). All stairways and steps used by the public for more than ten (10) persons shall have a uniform rise of not more than $7\frac{3}{4}$ inches and a uniform tread of not less than $9\frac{1}{2}$ 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.

(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 way 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.

(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 assured balustrades or guards on both sides.

SECTION 30.

CHIMNEYS, FLUES AND HEATING APPARATUS.

(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 weather-proof material.

(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 purposes, shall be at least 8 inches in thickness. Brick set on edge shall not be permitted in fireplace or chimney construction.

(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.

(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.

(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.

(6). The smoke flue of every high pressure steam boiler and every appliance producing a corresponding temperature in the smoke flue shell, if built of brick, stone, reinforced concrete or 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.

(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.

(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.

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

(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.

SECTION 31.

SIGNS

(1). No signs of any kind or character shall be exhibited or displayed in said Coral Gables without the consent and approval of the City Commission.

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.

(2). 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.

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

(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.

(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.

SECTION 32.

THEATRES.

(1). The main entrance or entrances shall not be at a higher level than 4 steps of 6½ inches each above the sidewalk at that point. The floor level at the highest row of seats, on the main floor, shall not be more than 7 feet above the sidewalk level at the main entrance; and the floor level at the lowest row of seats, on said floor, shall not be more than 4 feet below the level of the adjoining sidewalk.

- (2). No workshops, storage or general property room shall be allowed in or under the auditorium, above the stage, or under same, or in any of the fly galleries; but such rooms or shops may be located in the rear of, or at the side of the stage, and in such cases, they shall be separated from the stage vertically and horizontally by a brick or concrete wall, not less than 12 inches in thickness, or other equally efficient cut-off, and the openings leading into said portion shall have self-closing, underwriters' labeled firedoors on one side of the wall and automatic firedoors on the other side of the wall.
- (3). No sleeping accommodations shall be allowed in any part of the building communicating with the auditorium or stage.
- (4). Interior fireproof walls or partitions shall separate the auditorium from the entrance vestibule, and from any communicating room or rooms over or under the same, also from any lobbies, corridors, refreshment, or other rooms forming part of the theatre. The openings in all such walls shall be protected by approved firedoors or fire-windows. The doors shall be self-closing and the windows shall be stationary.
- (5). All floor surfaces shall be of concrete or other incombustible material, and no wooden boards or sleepers shall be used as a covering for floors, seat platforms, aisles, steps, landings, passages or stairs.
- (6). All seats in the auditorium, except those contained in boxes accommodating not more than 12 persons, shall be firmly secured to the floor, and shall be placed not less than 32 inches from back to back, measured horizontally.
- (7). No seat in any gallery shall have more than 5 seats intervening between it and the aisle, or more than 12 seats in a row between any two aisles. No platforms in galleries, formed to receive the seats, shall be more than 21 inches in height of riser nor less than 32 inches in width of platform. No such platform shall be nearer than 8 feet from the ceiling.
- (8). There shall be no more than 10 feet rise, measured vertically, in any aisle in any gallery without direct exit by tunnel, or otherwise, to a corridor or passage with a free opening to the gallery stairs, or other direct discharge to the street. At such elevation of 10 feet or less, an intervening or cross aisle leading to an exit may be substituted for the tunnel. No such tunnel or cross aisle shall be less than 4 feet wide in the clear.
- (9). Aisles shall not be less than 3 feet wide at the beginning, and all aisles shall be increased in widths towards the exits, 4 inches for every 10 feet of length. Steps in aisles shall be full width of the aisles. No riser shall be more than 8 inches in height, and no tread shall be less than 10 inches in width, and whenever the rise of seat platforms is 4 inches or less, the floor of the aisles shall be made as a gradient. Where steps are placed in passages, they shall be grouped together and shall be clearly lighted.
- (10). In the auditorium there shall be no step within 4 feet of the front of any exit or entrance doorway, nor within one foot (1') of the side thereof. No mirrors shall be placed as to give the appearance of a doorway, exit or passage. There shall be no false doors or windows. No entrance stairway to any tier in the auditorium shall be less than 5 feet wide. Entrance stairways and passages for the dressing rooms shall be at least 3 feet wide and extend independently to the street or court. No stairs in the stage section shall be less than 32 inches wide.
- (11). In buildings used for motion picture shows and having no stage, the exits and courts required above may be replaced by equivalent exits and courts at the rear, if consistent with the adequate distribution of the entire entrance and exit facilities.
- (12). The minimum width of open courts shall be 8 feet, when the total capacity is 750, or less; 10 feet when the capacity is between 750 and 1000, and, when the capacity exceeds the width of the courts, shall be increased one foot (1') for each additional 500 people, or fraction thereof in excess of 1000.

PROSCENIUM WALL.

- (13). Proscenium Wall is a fire wall built of brick or concrete, not less than 12 inches thick in any portion, and 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. Any windows in the structure above the auditorium which faces over the roof of stage section, when within 100 feet of stage roof, must be protected with fire-shutters or fire-sufficient strength to safely carry the load. If a girder be used, it shall be protected against fire by at least 4 inches of fire proof material, with special provision to reinforce or support it.

PROSCENIUM CURTAIN.

(14). The Proscenium opening shall be provided with a rigid fireproof curtain, built in conformity with the following specifications, or their equivalent in efficiency:

The curtain shall have a rigid, rivet jointed, steel framework. The front, or audience side of the frame, shall be covered with sheet steel of a thickness not less than No. 20 U. S. gauge. The back shall be covered with a vitrified cellular asbestos board at least one inch (1") thick, or other material equally fire resisting. Both coverings shall be securely attached to the frame work and joints properly sealed. The curtain shall be designed to resist a wind pressure of ten pounds (10 lbs.) per square foot of surface without flexure sufficient to interfere with its closing.

(15). The thickness of the curtain shall be not less than 3 inches where the width of the proscenium wall opening is 30 feet or less. Curtains for larger openings shall increase in thickness in proportion to the increase in width of opening they cover. An asbestos roll of a diameter not less than one-half ($\frac{1}{2}$) the thickness of the curtain, shall be securely attached to the bottom of the curtain, to form a smoke seal between the curtain and the stage floor. The curtain shall overlap the proscenium wall opening at least 12 inches at each side of the opening and not less than 2 feet at the top. The guide members at the sides shall be rolled steel shapes, none of which shall be less than $\frac{3}{8}$ of an inch ($\frac{3}{8}$ ") thick, and shall form a continuous smoke seal from top to bottom. No part of the curtain guides shall be supported by or fastened to any combustible material. The hoisting apparatus for the curtain shall be designed with a factor of safety of 8. The points of suspension shall always be an even number, but never less than 4. In no case shall the distance between any two points of supports exceed 10 ft.

(16). The device for controlling the curtain shall be simple in design and capable of convenient operation from both sides of the stage and from the tie-galleries. The curtain may be operated by hydraulic or other mechanism approved by the Building Inspector. The drop speed of the curtain shall be uniform, and not less than one foot (1') per second. The audience side of the curtain may be decorated with a paint in which no oil is used. No combustible material shall be applied or attached to the curtain. Counter-weights shall be enclosed by guards. A wood finish floor without air space may be used on the stage in front of the curtain.

(17). The gridiron or rigging left shall have a lattice metal floor, capable of sustaining a live load of 75 lbs. per square foot, and be readily accessible by metal stairs or ladders.

(18). The fly and tie galleries shall be of fireproof construction, designed to safely sustain a live load of 90 lbs. per square foot.

(19). Only electric lights shall be used in the auditorium and stage section. Two separate and distinct services must be installed; one service to be of sufficient capacity to supply current for the entire equipment of the theatre, while the other service must be at least sufficient to supply all lights in the outside courts, lobbies, stairways, corridors, and other portions of the theatre which are normally kept lighted during a performance. All emergency lights shall be controlled by a special switch located in the lobby and accessible only to authorized persons. The stage switchboard shall have a metal hood over the top, and fully protecting same from anything falling above.

(20). At the stage end of the theatre there shall be a $2\frac{1}{2}$ " hose connection thread same as City Fire Department, with gate valve, connected with the city water main by a four inch pipe.

(21). No motion picture machine shall be installed, maintained, or operated in any frame building or structure.

(22). Every picture machine installed or operated shall be enclosed with a booth, to be not less than 6 ft. x 8 ft. in size, and 7 ft. high, the frame of which shall be composed of angle iron not less than $1\frac{1}{2}$ inches by $1\frac{1}{2}$ inch by $\frac{1}{4}$ inch ($1\frac{1}{2}$ "x $1\frac{1}{2}$ "x $\frac{1}{4}$ ""), properly braced to secure rigidity, and securely riveted or bolted at the joints. Every such booth shall be sheathed and roofed with sheet iron of not less than No. 20 U. S. metal gauge, or with $\frac{1}{4}$ inch hard asbestos board, securely riveted or bolted to the angle iron frame, or 2 inches of solid metal lath and Portland cement plaster may be used, or any other materials that are approved by the National Board of Underwriters and the Chief of the Fire Department.

(23). The booth shall be floored with the same material as the sides and roof, riveted to the iron frame and covered with some non-conducting material.

(24). The entrance doors into the booth shall be no larger than two feet six inches by six feet six inches (2'6" x 6'6"), of the same construction as the booth and so arranged as to close automatically by metal rope and weight attachment, or by a spring of sufficient strength and tension to keep the door securely closed and to meet the National Underwriters Standard for fire doors. The orifice or opening for the operator's view, or through which the picture is thrown, shall not be larger than six inches by twelve inches (6" x 12"), and shall be provided with a gravity door of the same construction as the booth, which door shall be held open by fusible links placed in series with fine cords, so arranged that one of the links is suspended directly over the film when in the slide of the apparatus, or the door shall be so arranged as to be normally closed and held open by pressure of the operator's feet.

(25). All shelves within the booth shall be constructed of non-combustible material. Each booth must have an opening not less than twelve (12") inches in diameter, for ventilation, which must be flanged to carry standard conductor pipe for exhausting the hot air generated in operating the machine. Connection for ventilation should vent to a chimney or outside of building, in order to carry off the hot air or explosive gases.

(26). In all respects the electrical wiring shall conform to the requirements embodied in the National Electrical Code. Each lamp connected with a picture machine must be provided with a separate switch, located within the booth.

SECTION 33.

ELEVATORS.

(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 section. No belt elevators, driven from a countershaft, shall be installed for passenger service.

(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.

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

(4). All counterweights shall have their sections strongly bolted together. There shall be not less than 3 feet 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.

(5). All guide rails 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 guide rails will be rigid. The splices in the rails shall be located as near such rigid supports as possible.

(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.

SECTION 34.

DUMBWAITERS.

(Except in Dwellings)

(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.

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

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

SECTION 35.

SCUTTLES AND ATTICS.

(Except in Dwellings)

(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.

(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.

SECTION 36.

DRY CLEANING ESTABLISHMENTS.

(1). Any building to be used as a dry cleaning establishment or dry dyeing business is defined to be the business of cleaning or dyeing cloth, clothing, feathers, or any sort of fabrics by the use of carbon bisulphide, gasoline, naphtha, benzine, or other light petroleum or coal tar products, or cleaning or dyeing by process known as dry cleaning or dry dyeing, where inflammable volatile substances are used.

(2). No building to be used for the business of dry cleaning or dry dyeing as above defined, or for the storage of volatile substances for use in such business, shall be located, constructed or maintained until an application for permission to do so, accompanied by full plans and specifications of the structure and its location, shall have been filed with and approved by the Chief of the Fire Department. All buildings used for the purpose of the business of dry cleaning or dry dyeing, as above defined, must be of fire resisting design and construction, not in excess of 2500 square feet, ground area, and without basement, cellar or open space below the grade floor.

(3). All walls of such structure shall be of brick, laid in cement mortar, or of reinforced concrete, not less than 12 inches in thickness, or of skeleton steel frame and terra cotta construction, or of stone laid in cement mortar. The roof or ceiling of such structure or room shall also be of fire resisting construction. There shall be no sewer connection from such structure and the floor of same shall be of concrete construction laid on a level with the surface of the earth surrounding the walls.

(4). Ventilating apertures, of a size not less than 10" x 6", shall be placed in the walls of such structure at or near the level of its floor, and be properly screened by wire mesh. Additional means of ventilating shall be provided by location of an exhaust fan, operated by other means than motor with commutator, at a point in one of the walls, close to floor of the structure, of such capacity as to insure a complete change of air within the building enclosed each 5 minutes; the said fan to discharge into a metal pipe of sufficient area to carry off vapors delivered by said fan, and said metal discharge pipe to be erected against the outside wall of the cleaning or dyeing structure and to be carried 2 feet above its roof, the top of said discharge pipe to be a covered "U" cap or goose-neck; such exhaust fan shall be in continuous service and operated during the handling or use of volatile substance within the structure.

(5). For the purpose of extinguishing fires, there shall be located at convenient points in the room, where they will be readily accessible, metal pails filled with dry sand—5 pails for each 1000 square foot of floor area or fraction thereof; but no such building to have less than 5 pails of sand. A fire extinguisher of 3 gallons capacity must be provided for such 1000 square feet of floor area or fraction thereof. No heat generating devise, nor any electric dynamo or generator shall be located, maintained or used inside of, or within a distance of 10 feet of any opening of such structure used for the business of dry cleaning or dry dyeing as above defined.

(6). The lighting of such structures shall be secured only by keyless socket incandescent electric lights, with globes or bulbs enclosed in a vapor proof receptacle, and all

switches, cut-outs or fuses used in the installation or operation of such lights shall be located and operated from the outside of such structure. The entire electric equipment must conform to the most advanced stage of the art at the time of installation.

(7). The heating of such structure shall be secured only by the use of steam or hot water circulation systems.

(8). All volatile substance received for use in the business of dry cleaning or dry dyeing, as above defined, shall be stored in steel tanks, which shall not be less than 12 U. S. gauge; the interior of such tanks to be coated with approved rust preventative, and all joints in same shall be caulked in an approved manner. No such tanks shall exceed a capacity of 280 gallons, and each shall be buried under-ground to such a depth as to secure a covering of at least 2 feet of earth above the top of the tank at the surface level of the ground, or such tank may be enclosed in a cement lined underground pit, having an arched cement roof at the level of the surrounding ground level.

(9). All tanks shall be provided with a vent pipe, not less than one (1) inch in diameter, extending from top of tank to outer air, and discharging at a point not less than 2 feet above the roof of the highest building within a radius of 30 feet of such pipe. Said vent pipe must be provided with brass wire screen of 30 mesh at a point near the junction of the pipe of the tank, and also be provided at its discharge and with an inverted "U" cap or goose neck.

(10). All such tanks shall be provided with a filling pipe of not less than 2 inches in diameter, extending from top of tank to within 1 inch of the bottom of the tank. Each such feed pipe shall be provided with two brass screens of not larger than 30 mesh, one of such screens to be placed in the pipe at or near its junction with said tank, and the other immediately above the controlling cock or valve at its intake end. Said filling pipe must be laid with inclination towards the tank to secure proper drainage. The intake end of said feed pipe shall be fitted with a controlling feed-cock or valve, which shall be kept closed except when in use, and the intake end of pipe above such cock or valve shall be provided with a screw cap secured in place by an iron or other metal chain, such screw cap to be securely screwed on the feed pipe inlet when not in use. Both the controlling cock or valve and the feed pipe inlet must be inclosed in an iron box or hood, set level with the surface of the ground, and be kept securely locked when not in use. Such feed pipe inlet and controlling cock or valve shall in no case be located inside of any building.

(11). All pipes connected with such storage tanks must enter or be attached to same at the top. Service pipes, carrying the volatile substance from the storage tank to the cleaning or dyeing process, shall extend from the top of tank shell to within 2 inches of its bottom and be provided with brass wire screen of not larger than 30 mesh at or near its junction with the shell of the tank and also below the controlling cock or valve at its delivery and inside of the cleaning or dyeing structure. Such controlling cock or valve shall be kept closed when not in use.

SERVICE PUMP

(12). No volatile substance shall be carried or be conveyed into the cleaning or dyeing structure or any of its apparatus or machines, or be returned to the storage tank from such devices, except through service pipe as above described. The movement or transmission of such volatiles through said service pipe shall be secured by pump or syphon only, such devices to be so located as to insure the return of all volatile substances remaining in service pipe, when delivery is shut off from the storage tank, by gravity. All volatile substances to be used for cleaning or dyeing purposes shall be kept in tightly closed machines or apparatus during the process incident to said operations of cleaning or dyeing. The use, storage or handling of any such volatile substance in vessels, vats, pans or devices of any kind which are open to the air is absolutely prohibited.

SECTION 37.

GARAGES

(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.

- (2). Private garages housing not more than four automobiles, if not within 15 feet of any other building, may be built of ordinary construction.
- (3). 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.

SECTION 38.

FIRE ESCAPES AND STANDPIPES.

- (1). Every hotel, rooming house or restaurant, and all public buildings in Coral Gables, 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°).
- (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.
- (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.

- (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.
- (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.
- (6). Standpipes shall extend from the cellar to and through the roof with a 2½-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 the Fire Chief. No standpipe shall be less than 4" in diameter.
- (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.
- (8). All buildings three or more stories in height shall be equipped with a standpipe system.

SECTION 39.

VENTILATION.

- (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.

(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.

(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.

(4). For ventilation of attics see section 35 paragraphs 1 and 2.

SECTION 40.

ROOFS.

(1). All pitched roofs shall be of tile, all buildings with other type of roof shall have 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.

(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.

(3). Scuttles: See Section 35, Paragraph 1 and paragraph 2.

DOWNSPOUTS.

(4). Downspouts emptying on the top of the sidewalks is prohibited. All downspouts emptying upon the sidewalks shall have a conductor underneath the sidewalk leading to the curb.

SECTION 41.

SKYLIGHT.

(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.

(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.

SECTION 42.

GENERAL POWERS AND DUTIES OF THE BUILDING INSPECTOR.

(1). The Building Inspector shall be appointed by the Mayor and approved by the City Commission. 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.

(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.

(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 Commission, setting forth the grounds for the desired variation or modification, and requesting permission that he or his representatives may appear before the City Commission, or a committee appointed by the President of the Commission, and be heard. The City Commission 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.

(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 his 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 Commission from the decision of the Building Inspector where the amount involved by such decision shall exceed the sum of one hundred dollars (\$100.00).

(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 City Manager, 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.

SECTION 43.

PROCEEDINGS IN CONNECTION WITH UNSAFE OR COLLAPSED BLDGS.

UNSAFE BUILDINGS.

(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 services 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.

(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 heretofore 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.

(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.

(4). Duty of City Attorney to Proceed. 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 Coral Gables 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 instituted, 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.

(5). Temporary Injunctions. In any action or proceeding for the enforcement of the provisions of this Ordinance, the City of Coral Gables 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.

(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.

(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 Coral Gables, 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.

SECTION 44.

Ordinance No. 158 adopted July 20, 1921, is hereby repealed.

SECTION 45.

Any person, firm, or corporation found guilty of a violation of any of the provisions of this Ordinance shall be punished for each offense by a fine of not exceeding Two Hundred Dollars (\$200.00) or by imprisonment in the City Jail not exceeding Ninety Days (90), or by both such fine and imprisonment.

Passed and adopted this 3rd day of Aug. A. D., 1925.

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