

(O-88-53)

ORDINANCE NUMBER O- 16970 (NEW SERIES)

ADOPTED ON NOV 2 1987

AN ORDINANCE AMENDING CHAPTER IX, ARTICLE 1, OF THE SAN DIEGO MUNICIPAL CODE BY INCORPORATING BY REFERENCE THE UNIFORM BUILDING CODE, 1985 EDITION, TO REPLACE THE 1982 EDITION OF THE UNIFORM BUILDING CODE AND MAKING CERTAIN AMENDMENTS, ADDITIONS AND DELETIONS TO SAID 1985 EDITION OF THE UNIFORM BUILDING CODE.

WHEREAS, the Uniform Building Code, 1985 Edition, has been published by the International Conference of Building Officials; and

WHEREAS, Sections 17922 and 17958 of the California Health and Safety Code provide that the governing body of every city or county shall adopt ordinances or regulations imposing the same requirements as those contained in said Uniform Building Code; and

WHEREAS, Sections 17958.5 and 17958.7 of the California Health and Safety Code provide that a city or county may make such changes or modifications in the requirements contained in the Uniform Building Code as it determines are reasonably necessary because of local conditions; and

WHEREAS, certain amendments, additions and deletions to the Uniform Building Code, 1985 Edition, have been recommended by the City of San Diego Board of Appeals and Advisors as changes or modifications in the requirements of the Uniform Building Code which are reasonably necessary to provide for uniformity in San Diego County and to provide for local conditions and needs; and

WHEREAS, the Council of The City of San Diego finds and declares in accordance with Section 17958.5 of the California Health and Safety Code that the recommended amendments, additions and deletions incorporate changes and modifications of the Uniform Building Code, 1985 Edition, which are reasonably necessary because of local conditions; and

WHEREAS, the Council of The City of San Diego expressly finds and declares that each amendment, addition and deletion to the Uniform Building Code, 1985 Edition, contained in this ordinance is needed to provide for local conditions; NOW, THEREFORE,

BE IT ORDAINED, by the Council of The City of San Diego, as follows:

Section 1. That Chapter IX, Article 1, of the San Diego Municipal Code be and the same is hereby amended by repealing Sections 91.02.0404, 91.02.0417, 91.02.0420, 91.02.1204, 91.02.3318, 91.02.3401, 91.02.5103, 91.0407, 91.0706 and 91.0707, as follows:

SEC. 91.02.0404 DEFINITIONS
SEC. 91.02.0417 DEFINITIONS
SEC. 91.02.0420 DEFINITIONS
SEC. 91.02.1204 EXIT FACILITIES
SEC. 91.02.3318 GROUP A, DIVISION 2, 2.1, 3 AND 4
 OCCUPANCIES
SEC. 91.02.3401 SKYLIGHTS
SEC. 91.02.5103 EMERGENCY OPERATION AND SPECIAL
 PROVISIONS
SEC. 91.0407 SWIMMING POOL OR THERAPEUTIC POOL -
 EXEMPTIONS
SEC. 91.0706 STATE HISTORICAL BUILDING CODE ADOPTED

SEC. 91.0707 APPEAL PROCEDURE:

Section 2. That Chapter IX, Article 1, of the San Diego Municipal Code be and the same is hereby amended by amending Sections 91.01, 91.02, 91.02.0103, 91.02.0104, 91.02.0202, 91.02.0204, 91.02.0303, 91.02.0304, 91.02.0710, 91.02.0901, 91.02.1807, 91.02.2301, 91.02.2312, 91.02.2903, 91.02.3202, 91.02.3800 TABLE 38-A, 91.0801, 91.0802, 91.0803, 91.0805, 91.0806 and 91.0807, to read as follows:

SEC. 91.01 UNIFORM BUILDING CODE ADOPTED

A document, one (1) copy of which is on file in the Office of the City Clerk of The City of San Diego, California, marked and designated as the "Uniform Building Code, 1985 Edition, including only Chapters 7, 11, 38, 49, 55, and 57 of the Appendix thereof, but excluding other portions of the Appendix and those portions of the Code set forth in SEC. 91.02 of this Code, and the Uniform Building Code Standards, 1985 Edition, insofar as applicable to the Uniform Building Code, 1985 Edition, both published by the International Conference of Building Officials," are adopted as the Building Code of The City of San Diego, California, for regulating the erection, construction, enlargement, alteration, repair, moving, removal, demolition, conversion, occupancy, equipment, use, height, area and maintenance of all privately owned buildings and/or structures in the City of San Diego, California; providing for the issuance of permits and collection of

fees therefor; providing penalties for violations of the Code. Each of the regulations, provisions, penalties, conditions and terms of the "Uniform Building Code, 1985 Edition, and the Uniform Building Code Standards, 1985 Edition, insofar as applicable to the Uniform Building Code, 1985 Edition, published by the International Conference of Building Officials," on file in the Office of the City Clerk, is referred to, adopted and made a part of this Article as if fully set forth in this Article; provided, however, that any of the provisions of the Uniform Building Code or the Uniform Building Code Standards, 1985 Edition, as adopted which are in conflict with any of the provisions of this Article, shall be superseded by the provisions of this Article.

The adoption of the Uniform Building Code shall in no way limit, prohibit, impede or prevent the City Council from adopting an ordinance limiting or preventing the issuance of any type, number, or geographical distribution of permits for construction or demolition of any facility for which a permit is required. If a determination is made at a public hearing that such issuance would detrimentally affect the public health, safety or the general welfare of the citizens of the City of San Diego, an ordinance establishing a limitation may be imposed. The ordinance imposing a limitation shall specify: (1) the type of construction, (2) the geographic area, (3) the period of

time for which the limitation shall be imposed, and (4) the facts which require the adoption of such an ordinance.

Notice of the time, date and place of the public hearing and a general description of the area affected shall be given by publication thereof for a period not less than five (5) days in a newspaper of general circulation that is published on five (5) or more days in a calendar week in the City of San Diego. Such publication shall be completed at least five (5) days prior to the hearing and shall include a copy of the proposed ordinance.

SEC. 91.02 SECTIONS OF THE UNIFORM BUILDING CODE NOT ADOPTED

The following sections of the Uniform Building Code, 1985 Edition, are not adopted by The City of San Diego as part of the Municipal Code:

SECTION 103	SCOPE
SECTION 104	APPLICATION TO EXISTING BUILDINGS AND STRUCTURES
	(b) Additions, Alterations or Repairs
	(c) Existing Installations
	(e) Moved Buildings and Temporary Buildings
	(f) Historic Buildings
SECTION 106	MODIFICATIONS
SECTION 202	POWERS AND DUTIES OF BUILDING OFFICIAL
	(c) Right of Entry
SECTION 203	UNSAFE BUILDINGS OR STRUCTURES
SECTION 204	BOARD OF APPEALS
SECTION 205	VIOLATIONS
SECTION 301	PERMITS
	(b) Exempted Work
SECTION 302	APPLICATION FOR PERMIT
	(b) Plans and Specifications
SECTION 303	PERMITS ISSUANCE
SECTION 304	FEEES
SECTION 306	SPECIAL INSPECTIONS
	(b) Special Inspector
TABLE 3A	BUILDING PERMIT FEES

SECTION 509	PEDESTRIAN WALKWAYS (g) Required Exits
SECTION 709	OPEN PARKING GARAGES (f) Location on Property
SECTION 710	HELISTOPS
TABLE 7B	OPEN PARKING GARAGES-EXTERIOR WALLS
SECTION 901	GROUP H OCCUPANCIES DEFINED (a) General
SECTION 1213	ACCESS TO BUILDINGS AND FACILITIES
SECTION 1709	PARAPETS (a) General
SECTION 1807	SPECIAL PROVISIONS FOR GROUP B, DIVISION 2, OFFICE BUILDINGS AND GROUP R, DIVISION 1, OCCUPANCIES
SECTION 2301	SCOPE
SECTION 2312	EARTHQUAKE REGULATIONS (d) Minimum Earthquake Forces For Structures (j)2.A. Minor Alterations (l) Earthquake Recording Instrumentations
SECTION 2505	IDENTIFICATION
SECTION 2622	PLAIN CONCRETE (a) General
SECTION 2623	MINIMUM SLAB THICKNESS
SECTION 2903	EXCAVATION AND FILLS (a) General (b) Protection of Adjoining Property
SECTION 3202	ROOF CONSTRUCTION AND MATERIALS
SECTION 3203	ROOF COVERINGS (f) Ordinary Roof Covering
SECTION 3301	GENERAL (b) Definitions
SECTION 3305	CORRIDORS AND EXTERIOR EXIT BALCONIES (h) Openings
SECTION 3800	TABLE 38-A STANDPIPE REQUIREMENTS
SECTION 5401	SCOPE

SEC. 91.02.0103 SCOPE

Section 103. The provisions of this Code shall apply to the construction, alteration, moving, demolition, repair and use of any privately owned building or structure within this jurisdiction, except work located primarily in a public way, public utility towers and poles, mechanical equipment not specifically regulated in this Code, and hydraulic flood control structures. The standards of this Code shall also apply to City-owned buildings.

Where, in any specific case, different sections of this Code specify different materials, methods of construction or other requirements, the most restrictive shall govern. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable.

Wherever in this Code reference is made to the Appendix, the provisions in the Appendix shall not apply unless specifically adopted.

SEC. 91.02.0104 APPLICATION TO EXISTING BUILDINGS AND STRUCTURES

Section 104(b). Additions, alterations, or repairs may be made to any building or structure without requiring the existing building or structure to comply with all the requirements of this Code, provided the addition, alteration, or repair conforms to that required for a new building or structure. Additions or alterations shall not be made to an existing building or structure which will cause the existing building or structure to be in violation of any of the provisions of this Code nor shall such additions or alterations cause the existing building or structure to become unsafe. An unsafe condition shall be deemed to have been created if an addition or alteration will cause the existing building or structure to become structurally unsafe or overloaded; will not provide adequate egress in compliance with the provisions of this Code or will

obstruct existing exits; will create a fire hazard; will reduce required fire resistance or will otherwise create conditions dangerous to human life. Any building so altered, which involves a change in use or occupancy, shall not exceed the height, number of stories and area permitted for new buildings. Any building plus new additions shall not exceed the height, number of stories and area specified for new buildings. Additions or alterations shall not be made to an existing building or structure when such existing building or structure is not in full compliance with the provisions of this Code except when such addition or alteration will result in the existing building or structure being no more hazardous based on life safety, fire safety and sanitation, than before such additions or alterations are undertaken. [See also Section 911(c) for Group H, Division 6, Occupancies.]

EXCEPTION: For alterations and repairs of existing buildings, the replacement, retention, and extension of original materials, and the continued use of original methods of construction, shall be allowed, so long as the building does not become or continue to be a substandard building as defined in Section 17920.3 of the California Health and Safety Code and the alterations or repairs do not adversely affect any structural member or any part of the building or structure having required fire resistance.

The materials and their application for replacement of roof coverings shall be as required for new installation. The installation or replacement of glass shall be as required for new installations.

Section 104(c). Existing Installations. Buildings in existence at the time of the adoption of this Code may have their existing use or occupancy continued, if such use or occupancy was legal at the time of the adoption of this Code, provided such continued use is not dangerous to life.

Any change in the use or occupancy of any existing building or structure shall comply with the provisions of Sections 307 and 502 of this Code.

Section 104(e). Moved Buildings and Temporary Buildings. Buildings or structures moved into or within the jurisdiction shall comply with the provisions of this Code for new buildings or structures.

EXCEPTION: In moving dwelling, apartment, and hotel buildings, and buildings or structures accessory thereto, the replacements, retention, and extension of original materials and the continued use of original methods of construction shall be allowed, provided the building does not become or continue to be a substandard building as defined in Section 17920.3 of the California Health and Safety Code. However, such on-site construction necessary for the foundation and utility connections shall comply with applicable requirements for new construction.

Temporary structures such as reviewing stands and other miscellaneous structures, sheds, canopies or fences used for the protection of the public around and in conjunction with construction work may be erected by special permit from the Building Official for a limited period of time. Such buildings or structures need not comply with the type of construction or fire-resistive time periods required by this Code. Temporary buildings or structures shall be completely removed upon the expiration of the time limit stated in the permit.

SEC. 91.02.0202 POWERS AND DUTIES OF BUILDING OFFICIAL

Section 202(c). Right of Entry. Whenever necessary to make an inspection to enforce any of the provisions of this Code, or whenever the Building Official, or his authorized representative, has reasonable cause to believe that there exists in any building or upon any premises any condition or Code violation which makes such building or premises unsafe, dangerous or hazardous, or for the purpose of determining if a building is of unreinforced masonry bearing wall construction, the Building Official, or his authorized representative, may enter such building or premises at all reasonable times to inspect the same or to perform any duty imposed upon the Building Official by this Code, provided that if such building or premises be occupied, he shall first present proper credentials and request entry; and if such building or premises be

unoccupied, he shall first make a reasonable effort to locate the owner or other persons having charge or control of the building or premises and request entry. If such entry is refused, the Building Official, or his authorized representative, shall have recourse to every remedy provided by law to secure entry.

SEC. 91.02.0204 BOARD OF APPEALS

Section 204(a). General Provisions. There shall be a Board of Appeals and Advisors consisting of ten (10) members who are qualified by experience and training to pass upon matters pertaining to design and construction of buildings, fire prevention, and fire protection. At least two (2) members shall be licensed by the State of California as Civil Engineers duly authorized to use the title Structural Engineer and one (1) member each shall be from the electrical and mechanical industries or professions. The members of the Board shall be appointed in accordance with Section 43 of the Charter of The City of San Diego for two (2) year terms and until their successors have been appointed and qualified. However, appointments shall be scheduled so as to provide that no more than five (5) terms shall expire in any year. The Building Official, the Chief of the Fire Department and the City Attorney shall be ex officio members of the Board. The Planning Director shall be an ex officio member of the Board in matters pertaining to historic buildings. The Building

Official, or his appointed representative, shall act as Secretary to the Board. The Board shall select a chairman from its membership annually, unless a chairman is appointed by the Mayor. Five (5) members shall constitute a quorum for the transaction of business and a majority vote, but not less than four (4) affirmative votes shall be necessary to pass any recommendations.

The Board shall adopt rules to govern its meetings and shall render its findings and recommendations in writing to the City Manager and to applicants for Board action. All officers and department heads of the City shall cooperate with the Board and render all reasonable assistance to it.

Section 204(b). Duties of Board. On its own motion, or at the request of an applicant for Board action, or when requested by the Building Official, the Fire Chief, the Planning Director, or the Historical Site Board, the Board shall investigate and advise as to the suitability of alternate materials and types of construction and shall recommend reasonable interpretations of the provisions of Parts 2, 3, 4, 5, and 8, of Title 24, California Administrative Code, this chapter, or when otherwise authorized to do so in this Code. The Board may also conduct public hearings upon, and recommend to the City Council, the passage of new legislation pertaining to the design and construction of buildings.

The Board may recommend approval of minor deviations from the provisions of this chapter upon demonstration:

(1) That strict application, operation or enforcement thereof would result in practical difficulty or unnecessary hardship; and

(2) The alternate materials or type of construction proposed is, for the purpose intended, at least equivalent to the requirements of this chapter in quality, strength, effectiveness, fire resistance and durability, and also in providing for the public health and safety.

The Board may also conduct public hearings and make findings regarding unsafe structures.

Findings by the Board regarding hardship in connection with application of requirements for accessibility to the physically handicapped in Part 2, of Title 24, California Administrative Code, may be appealed to the Public Services and Safety Committee of the City Council. Appeals must be submitted in writing to the Consultant of the Public Services and Safety Committee of the City Council within ten (10) days after the date of the Board's action.

Under circumstances specified therein, Section 18960 of the California Health and Safety Code provides for appeals to the State Historical Building Code Board for matters related to Part 8, of Title 24, California

Administrative Code. The Building Official is hereby authorized to recover from the appellant all costs, fees and expenditures incurred by the City, or which may be incurred, for any matter appealed to the State Historical Building Code Board.

SEC. 91.02.0303 PERMITS ISSUANCE

Section 303(a). Issuance. The application, plans and specifications and other data filed by an applicant for permit shall be reviewed by the Building Official. Such plans may be reviewed by other departments of this jurisdiction to verify compliance with any applicable laws under their jurisdiction. If the Building Official finds that the work described in an application for a permit and the plans, specifications and other data filed therewith conform to the requirements of this Code and other pertinent laws and ordinances, and that the fees specified in Section 304 have been paid, he shall issue a permit therefor to the applicant.

When the Building Official issues the permit where plans are required, he shall endorse in writing or stamp the plans and specifications "APPROVED." Such approved plans and specifications shall not be changed, modified or altered without authorization from the Building Official, and all work shall be done in accordance with the approved plans.

The Building Official may issue a permit for the construction of part of a building or structure before

the entire plans and specifications for the whole building or structure have been submitted or approved, provided adequate information and detailed statements have been filed complying with all pertinent requirements of this Code. The holder of such permit shall proceed at his own risk without assurance that the permit for the entire building or structure will be granted.

Permits in the California Coastal Commission "Coastal Zone." No building permit will be issued by The City of San Diego for a project or development located within the "Coastal Zone" of the California Coastal Commission as established by the California Coastal Act of 1976 until such time as a development permit or exemption certificate has been obtained from the Coastal Commission, or any court of competent jurisdiction which has authorized said constructions, except that building permits for repairs or improvements to single-family dwellings which are not located between the mean high tide line and the first continuous public roadway paralleling the shoreline or three hundred (300) feet from the shoreline, whichever distance is furthest, as mapped by the Coastal Commission, will not be subject to this provision. Repairs or improvements will include, but not be limited to, additions of rooms, carports, garages, swimming pools, fences, interior remodeling or rewiring. Procedures to be followed when

an application is submitted for a building permit in the "Coastal Zone" are: The application, plans and specifications filed by an applicant for a permit shall be reviewed by the Building Official. Such plans shall be reviewed by other City departments to ensure compliance with the laws and ordinances under their jurisdiction. If the Building Official is satisfied that the work described in an application for a permit, and the plans and specifications filed therewith conform to the requirements of this Code, and other pertinent laws and ordinances, he shall issue to the applicant a letter stating that he is prepared to issue a permit therefor to the applicant when the appropriate fees have been paid and the applicant presents an approved permit or certificate of exemption granted by the California Coastal Commission, or a court of competent jurisdiction authorizing construction for which the application was filed; provided, however, that the application, plans and specifications comply with all laws and ordinances in effect at the time of the presentation of such permit, waiver or certificate and payment of such fee. Upon presentation of such permit or exemption certificate and payment of the fee as specified by SEC. 91.02.0303 of this Code, the Building Official shall issue a permit to the applicant provided that the application, plans and specifications comply with all laws and ordinances in effect at the time of

presentation of such permit or certificate and payment of fee.

Section 303(b). Retention of Plans. One set of approved plans, specifications and computations shall be retained by the Building Official for a period of not less than ninety (90) days from date of completion of the work covered therein; and one (1) set of approved plans and specifications shall be returned to the applicant, and said set shall be kept on the site of the building or work at all times during which the work authorized thereby is in progress.

Section 303(c). Validity of Permit. The issuance or granting of a permit or approval of plans and specifications shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of this Code or of any other ordinance of the jurisdiction. No permit presuming to give authority to violate or cancel the provisions of this Code shall be valid.

The issuance of a permit based upon plans, specifications and other data shall not prevent the Building Official from thereafter requiring the correction of errors in said plans, specifications and other data, or from preventing building operations being carried on thereunder when in violation of this Code or of any other ordinances of this jurisdiction.

Section 303(d). Expiration. Every permit issued by the Building Official under the provisions of this Code shall expire by limitation and become null and void if the building or work authorized by such permit is not commenced within one hundred eighty (180) days from the date of permit issuance, or if the building or work authorized by such permit is suspended or abandoned for a period of one hundred eighty (180) days at any time after the work is commenced.

Any permittee holding an unexpired permit may apply for an extension of the permit provided the requirements of Subsections (d)1. or (d)2. below are satisfied.

1. Where work has not commenced, the permit has not expired and the permittee requests a permit extension, the following provisions shall apply.

A. The Building Official may grant an extension of the permit upon written request by the permittee showing that circumstances beyond the control of the permittee have prevented the permitted work from commencing.

B. The permit extension shall provide an additional time period of one hundred eighty (180) days starting from the permit expiration date.

C. The permittee must request the extension prior to the permit expiration date.

D. The permittee shall revise the plans, specifications, and other data which define the work permitted, as necessary to show compliance with this Code and all applicable ordinances, statutes, or regulations in effect at the time the extension is granted.

E. No additional permit fees are required for either extension. Supplemental plan check fees shall be paid when required pursuant to Section 304(b).

F. No more than two (2) such extensions may be granted for any permit. The requirements listed in A. through E. above also apply to the second extension.

2. Where work has commenced, the permit has not expired and the permittee requests a permit extension, the following provisions shall apply.

A. The Building Official may grant an extension of the permit upon written request by the permittee showing that circumstances beyond the control of the permittee have prevented the permitted work from continuing.

B. The permit extension shall provide an additional time period of one hundred eighty (180) days starting from the permit expiration date.

C. The permittee must request the extension prior to the permit expiration date.

D. Only one (1) such extension may be granted.

E. The extension shall not be granted if two (2) extensions were granted pursuant to Subsection (d)1. above.

F. The permittee need not revise the plans, specifications, or other data which define the work permitted to show compliance with any revisions to this Code or any other ordinance, statute, or regulation which became effective subsequent to the date of permit issuance.

G. No additional permit fees are required for an extension. Any permittee holding an expired permit may apply for a new permit provided the requirements of Subsections (d)3. or (d)4. are satisfied.

3. Where work has not commenced and the permit has expired, no extension shall be granted. If the permittee desires to proceed with the project, the following provisions shall apply.

A. The permittee shall obtain a new permit.

B. The permittee shall pay a full permit fee for the new permit and all other applicable fees.

C. The permittee must revise the plans, specifications, and other data which define the work permitted, as necessary to show compliance with all applicable codes, ordinances, statutes, or regulations.

4. Where work has commenced and the permit has expired, no extension shall be granted. If the permittee desires to continue with the project, the following provisions shall apply.

A. The permittee shall obtain a new permit.

B. The permittee must pay a permit fee for the new permit based upon a valuation of the work remaining to complete the project.

C. The permittee must obtain the new permit within five hundred forty (540) days from the date of issuance of the original permit for the project.

D. The permittee need not revise the plans, specifications, or other data which define the work permitted to show compliance with any revisions to this Code or any other ordinance, statute, or regulation which became

effective subsequent to the date of original permit issuance.

Section 303(e). Suspension or Revocation. The Building Official may, in writing, suspend or revoke a permit issued under the provisions of this Code whenever the permit is issued in error or on the basis of incorrect information supplied, or in violation of any ordinance or regulation or any of the provisions of this Code.

SEC. 91.02.0304 FEES

Section 304(b). PERMIT FEES. A fee for each building permit shall be paid in accordance with the fee schedule established by resolution of the City Council and filed in the office of the City Clerk.

The determination of value of valuation under any of the provisions of this Code shall be made by the Building Official. The value to be used in computing the building permit and building plan review fees shall be the total value of all construction work for which the permit is issued, as well as all finish work, painting, roofing, electrical, plumbing, heating, air conditioning, elevators, fire-extinguishing systems and any other permanent work or permanent equipment.

Where work for which a permit is required by this Code is started or proceeded with prior to obtaining said permit, a penalty fee as established by the City Council and filed in the office of the City Clerk shall

be paid, but the payment of such penalty fee shall not relieve any person from fully complying with the requirement of this Code in the execution of the work or any other penalties prescribed herein.

Where work for which a permit has been issued is not commenced and no required inspections have been made, a portion of the fee paid as determined by the City Council may be refunded. Such refund may be authorized by the Building Official upon application for such refund by the permittee within one (1) year from the date of permit issuance. Permits for which refunds have been made are not subject to the new permit issuance provision set forth in Section 303(d).

Section 304(c). PLAN-CHECKING FEES. When a plan or other data is required to be submitted by Subsection (b) of Section 302, a plan review fee shall be paid at the time of submitting plans and specifications for review. Said plan review fee shall be determined in accordance with the fee schedule established by resolution of the City Council and filed in the office of the City Clerk.

Where plans are incomplete, or changed so as to require additional plan review, an additional plan review fee shall be charged in accordance with the fee schedule established by the City Council and filed in the office of the City Clerk.

Section 304(d). Expiration of Plan Review.

Applications for which no permit is issued within three hundred sixty (360) days following the date of application shall expire by limitation, and plans and other data submitted for review may thereafter be returned to the applicant or destroyed by the Building Official. In order to renew action on an application after expiration, the applicant shall resubmit plans and pay a new plan review fee.

Section 304(e). REINSPECTION FEE. The fee for each reinspection shall be determined in accordance with the fee schedule established by resolution of the City Council and filed in the office of the City Clerk.

Section 304(f). OTHER INSPECTIONS. In addition to the called inspections specified above, the Building Official may make or require any other inspections of any construction work to ascertain compliance with this Code and other laws which are enforced by the Building Inspection Department.

For purpose of determining compliance with Sections 104(d), 104(e), and 502 the Building Official may inspect any structure.

Section 304(g). FACTORY-BUILT HOUSING.

1. Building Permit Fees. A fee for each building shall be paid to The City of San Diego. The fee shall be determined in accordance with the fee schedule established by resolution of the City Council and filed in the office of the City Clerk.

2. Plan Checking Fees. A plan checking fee shall be paid at the time of submitting plans and specifications for the proposed work. The plan checking fee shall be determined in accordance with the fee schedule established by the City Council and filed in the office of the City Clerk.

3. Plans and Specifications. With each application three (3) sets of plans and specifications for the work to be performed at the job site shall be submitted with such other information as may be necessary to determine compliance with local and State laws and regulations.

4. Definitions. For the purpose of this section, certain terms are defined as follows: "Factory-Built-Housing" shall mean structures which meet all of the following criteria: Fabricated on an off-site location under the inspection of the State; for which the State inspection issuance of an insignia; bearing the State insignia and which have not been modified since fabrication in a manner that would void the State approval, and for which The City of San Diego has been relieved by statute of the responsibility for the enforcement of laws and regulations of the State of California or The City of San Diego.

"Unit" shall mean a single, factory-assembled component of the factory-built housing brought to the job site for connection to the foundation and/or connection to other units of the structures.

Section 304(h). ENERGY CONSERVATION FEE. In addition to any other applicable fees, an energy conservation fee shall be paid for a building permit which authorizes the construction of a new building or the addition to or alteration of an existing building, if such building or addition or alteration is legally subject to the provisions of Chapter 2-53, Part 2, Title 24, of the California Administrative Code. The amount of the energy conservation fee shall be ten percent (10%) of the building permit fee as provided for in Subsection (a) of this section. The energy conservation fee shall be paid at the time the building permit is issued.

SEC. 91.02.0710 HELISTOPS

Section 710(a). General. Helistops may be erected on buildings or other locations if they are constructed in accordance with this section.

Section 710(b). Size. The touchdown or landing area for helicopters of less than three thousand five hundred (3,500) pounds shall be a minimum of twenty (20) feet by twenty (20) feet in size. The touchdown area shall be surrounded on all sides by a clear area having a minimum average width at roof level of fifteen (15) feet but with no width less than five (5) feet.

Section 710(c). Design. Helicopter landing areas and the supports therefor on the roof of a building shall be of noncombustible construction. Landing areas shall be designed to confine any Class I, II or III-A liquid spillage to the landing area itself and provision shall be made to drain such spillage away from any exit or stairway serving the helicopter landing area or from a structure housing such exit or stairway.

Section 710(d). Exits and Stairways. Exits and stairways from helistops shall comply with the provisions of Chapter 33 of this Code, except that all landing areas located on buildings or structures shall have two (2) or more exits. For landing platforms or roof areas less than sixty (60) feet in length, or less than two thousand (2,000) square feet in area, the second exit may be a fire escape or ladder leading to the floor below.

Section 710(e). Federal Aviation Approval. Before operating helicopters from helistops, approval must be obtained from the Federal Aviation Agency.

Section 710(f). Emergency Helicopter Landing Facilities.

1. General. Emergency helicopter landing facilities may be erected on buildings or other locations if they are constructed in accordance with this section and with Section 2308(c).

2. Design.

a. Helicopter landing area and the supports therefor on the roof of a building shall be of noncombustible construction. If the landing area is not designed for, and is not used for other building purposes it may be of a nonfire protected construction and shall not be considered a floor for floor area ratio purposes. Landing areas shall be designed to confine any flammable liquid spillage to the landing area itself and provision shall be made to drain such spillage away from any exit or stairway serving the helicopter landing area or from a structure housing such exit or stairway.

b. A landing and takeoff pad area shall be at least twenty (20) feet by twenty (20) feet in size. The slope of the touchdown surface shall be no more than three (3) degrees. The landing pad area shall be designed for the loads imposed by a five thousand (5,000) pound helicopter equipped with skid type landing gear in accordance with Section 2308(c).

c. An area surrounding the landing pad clear of vertical obstructions above the horizontal plane thirty-one and one-half (31.5) feet in radius from the center of the

landing area shall be provided. Vertical projections for federally required clearance lights and for an access ladder, provided that the ladder does not protrude over ten (10) inches, are permitted.

d. Provisions shall be made for minimum approach and departure slope angles of 7.125 degrees. The approach paths shall continue in a straight direction for a minimum of three hundred (300) feet, measured from the edge of the landing pad, and shall provide for a total approach/departure path length sufficient to reach three hundred (300) feet of altitude above the ground level. The approach/departure paths shall be a minimum of sixty-three (63) feet in width over the building and seventy (70) feet thereafter. The preferable approach/departure paths should be oriented ninety degrees (90°) and two hundred seventy degrees (270°) magnetic. If either direction is obstructed or likely to not remain clear of obstructions, then the approach/departure paths should be oriented so as to provide at least ninety degrees (90°) of separation.

Should these approach and departure routes not be possible because of existing

buildings on adjacent properties, owners of the building shall file a proposed approach plan for review by the Chief of the San Diego Fire Department. An approach plan, when approved, will be kept by the Fire Department. Nothing herein shall be interpreted to establish air rights on the property of another. It shall be the responsibility of the owner to maintain the approach plan in an up-to-date status. Should new construction on or adjacent to the building site affect the approach plan, owner shall file a new plan for review by the Fire Department.

The Fire Department shall review all approach plans and shall be empowered to require the plans to be modified to the best path available in the Department's option. All appeals from the requirements of this ordinance shall be in accordance with process contained in Section 204 of the Uniform Building Code.

e. If the landing pad is at the same elevation as the main building roof and the building has no parapet wall a substantial fence or safety net shall be provided around the perimeter of the roof in such a manner that it will not restrict or reduce the

required landing and takeoff area. Parapet wall for purposes of this section must be at least three feet, six inches (3'6") high.

f. A wet standpipe and outlet shall be provided having one and one-half inch (1 1/2") national standard thread and located in such a manner that it will not restrict or reduce the required landing and takeoff area. Sufficient pressure shall be available to afford a good fog pattern.

g. The landing pad shall be marked with a standard helicopter landing area designator and the words "Emergency Only." The initial direction of the departure routes shall be indicated on the landing pad.

3. Exits and Stairways. Exits and stairways from helistops and emergency helicopter landing facilities shall comply with Uniform Building Code Section 710(d), except that secondary exits may be by means of a fire escape or ladder leading to the floor below, notwithstanding roof size or dimensions.

SEC. 91.02.0901 GROUP H OCCUPANCIES DEFINED

Section 901(a). General. Group H Occupancies shall be:

Division 1. Storage, handling, use or sale of hazardous and highly flammable or explosive materials other than Class I, II or III-A liquids.

EXCEPTION: The storage, handling, use, or sale of hazardous materials or chemicals that do not exceed the quantities listed in Table No. 9-A are permitted in other occupancies, provided the storage, handling, use or sale of such hazardous materials or chemicals is in compliance with the Fire Code. This exception does not apply to the use and dispensing of such materials when in the opinion of the enforcing authority the use constitutes a hazardous occupancy.

Division 2. Storage, handling, use or sale of Classes I, II or III-A liquids; dry cleaning plants using Classes I, II or III-A; paint stores with bulk handling; paint shops and spray-painting rooms and shops.

EXCEPTIONS:

1. The storage, handling, use or sale of liquids in quantities that do not exceed those set forth in Table No. 9-A are permitted in other occupancies, provided the storage, handling, use or sale is in compliance with the provisions of the Fire Code.

2. The use and dispensing of such liquids shall be as prescribed by the Fire Code. The use of quantities in excess of ten (10) gallons of Class I or Class II or sixty (60) gallons of Class III liquids shall be in an H-2 occupancy designed for such use.

Division 3. Woodworking establishments, planing mills, box factories, buffing rooms for tire-rebuilding plants and picking rooms; shops, factories or warehouses where loose combustible fibers or dust are manufactured, processed, generated or stored; and pin-refinishing rooms.

Division 4. Repair garages not classified as a Group B, Division 1.

Division 5. Aircraft repair hangers.

Division 6. Semiconductor fabrication facilities and comparable research and development areas when the facilities in which hazardous production materials are used, are designed and constructed in accordance with Section 911 and when storage, handling and use of hazardous materials is in accordance with the Fire Code.

EXCEPTION: The specified uses need not be classified as a Group H, Division 6, Occupancy, when the quantities of hazardous materials do not exceed those listed in Table No. 9-A, provided the storage, handling and use are in compliance with the Fire Code.

SEC. 91.02.1807 SPECIAL PROVISIONS FOR GROUP B,
DIVISION 2, OFFICE BUILDINGS AND GROUP
R, DIVISION 1, OCCUPANCIES

Section 1807(a). Scope. This section shall apply to all Group B, Division 2, office buildings and Group R, Division 1, Occupancies, each having floors used for

human occupancy located more than seventy-five (75) feet above the lowest level of Fire Department vehicle access. Such buildings shall be provided with either an approved automatic sprinkler system in accordance with Section 1807(c), or safe areas of refuge (compartmentation) in accordance with Section 1807(1).

Section 1807(b). Certificate of Occupancy. All mechanical and electrical equipment and other required life safety systems shall be approved and installed in accordance with approved plans and specifications pursuant to this section and shall be tested and proved to be in proper working condition to the satisfaction of the Building Official before issuance of the Certificate of Occupancy. Such system shall be maintained in accordance with the Fire Code.

Section 1807(c). Automatic Sprinkler System. When provided as required in Section 1807(a), the automatic sprinkler system shall be provided throughout the building. The sprinkler system shall be designed using the parameters set forth in Uniform Building Code Standard No. 38-1 and the following:

1. Shutoff valves and a water flow device shall be provided for each floor. The sprinkler riser may be combined with the standpipe riser.

2. In Seismic Zones No. 2, No. 3 and No. 4, in addition to the main water supply, a secondary on-site supply of water equal to the hydraulically

calculated sprinkler design demand plus one hundred (100) gallons per minute additional for the total standpipe system shall be provided. This supply shall be automatically available if the principal supply fails and shall have a duration of thirty (30) minutes.

Section 1807(d). Smoke Detection Systems. At least one (1) approved smoke detector suitable for the intended use shall be installed:

1. In every mechanical equipment, electrical, transformer, telephone equipment, elevator machine or similar room.

2. In the main return and exhaust air plenum of each air-conditioning system and located in a serviceable area and downstream of the last duct inlet.

3. At each connection to a vertical duct or riser serving two (2) or more stories from a return-air duct or plenum of an air-conditioning system. In Group R, Division 1, Occupancies, an approved smoke detector may be used in each return-air riser carrying not more than five thousand (5,000) cfm and serving not more than ten (10) air inlet openings.

The actuation of any detector required by this section shall operate the voice alarm system and shall place into operation all equipment necessary to prevent the recirculation of smoke.

Section 1807(e). Alarm and Communications Systems.

The alarm and communication systems shall be designed and installed so that damage to any terminal unit or speaker will not render more than one (1) zone of the system inoperative.

The voice alarm and public address system may be a combined system. When approved, the Fire Department communications system may be combined with the voice alarm system and the public address system.

Three (3) communication systems which may be combined as set forth above shall be provided as follows:

1. Voice Alarm System. The operation of any smoke detector, sprinkler, water flow device or manual fire alarm station shall automatically sound an alert signal to the desired areas followed by voice instructions giving appropriate information and direction to the occupants.

The central control station shall contain controls for the voice alarm system so that a selective or general voice alarm may be manually initiated.

The system shall be supervised to cause the activation of an audible trouble signal in the central control station upon interruption or failure of the audiopath including amplifiers, speaker wiring, switches and electrical contacts

and shall detect opens, shorts and grounds which might impair the function of the system.

The alarm shall be designed to be heard clearly by all occupants within the building or designated portions thereof as is required for the public address system.

2. Public Address System. A public address communication system designed to be clearly heard by all occupants of the building shall operate from the central control station. It shall be established on a selective or general basis to the following terminal areas:

- A. Elevators.
- B. Elevator lobbies.
- C. Corridors.
- D. Exit stairways.
- E. Rooms and tenant spaces exceeding one thousand (1,000) square feet in area.
- F. Dwelling units in apartment houses.
- G. Hotel guest rooms or suites.

3. Fire Department Communications System. A two-way Fire Department communication system shall be provided for Fire Department use. It shall operate between the central control station and every elevator, elevator lobby and entry to every enclosed exit stairway.

Section 1807(f). Central Control Station. A central control station for Fire Department operations shall be provided in a location approved by the Fire Department. It shall contain:

1. The voice alarm and public address system panels.

2. The Fire Department communications panel.

3. Fire detection and alarm system annunciator panels.

4. Annunciator visually indicating the location of the elevators and whether they are operational.

5. Status indicators and controls for air-handling systems.

6. Controls for unlocking all stairway doors simultaneously.

7. Sprinkler valve and water-flow detector display panels.

8. Standby power controls and status indicators.

9. A telephone for Fire Department use with controlled access to the public telephone system.

Section 1807(g). Smoke Control. Natural or mechanical ventilation for the removal of products of combustion shall be provided in every story and shall consist of one (1) of the following:

1. Panels or windows in the exterior walls which can be opened remotely from an approved location other than the fire floor. Such venting facilities shall be provided at the rate of twenty (20) square feet per fifty (50) lineal feet of exterior wall in each story and shall be distributed around the perimeter at not more than fifty (50) foot intervals. Such windows or panels and their controls shall be clearly identified.

EXCEPTION: When a complete automatic sprinkler system is installed, windows or panels manually openable from within the fire floor or approved fixed tempered glass may be used in lieu of the remotely operated openable panels and windows. Such windows shall be clearly identified and shall be of the size and spacing called for in Section 1807(g)1.

2. When a complete and approved automatic sprinkler system is installed, the mechanical air-handling equipment may be designed to accomplish smoke removal. Under the fire conditions, the return and exhaust air shall be moved directly to the outside without recirculation to other sections of the building. The air-handling system shall provide a minimum of one (1) exhaust air change each ten (10) minutes for the area involved.

3. Any other approved design which will produce equivalent results.

Section 1807(h). Elevators. Elevators and elevator lobbies shall comply with the provisions of Chapter 51 and the following:

NOTE: A bank of elevators is a group of elevators or a single elevator controlled by a common operating system; that is, all those elevators which respond to a single call button constitute a bank of elevators. There is no limit on the number of cars which may be in a bank or group but there may be not more than four (4) cars within a common hoistway.

1. Elevators on all floors shall open into elevator lobbies which are separated from the remainder of the building, including corridors and other exits, by walls extending from the floor to the underside of the fire-resistive floor or roof above. Such walls shall be of not less than one (1) hour fire-resistive construction. Openings through such walls shall conform to Section 3305(n).

EXCEPTIONS:

1. The main entrance level elevator lobby in office buildings.

2. Elevator lobbies located within an atrium complying with the provisions of Section 1715.

3. In fully sprinklered office buildings corridors may lead through enclosed elevator lobbies if all areas of the building have access to at least one (1) required exit without passing through the elevator lobby.

2. Each elevator lobby except that for the main floor, shall be provided with an approved smoke detector located on the lobby ceiling. When the detector is activated, elevator doors shall not open and all cars serving that lobby are to return to the main floor and be under manual control only. The smoke detector is to operate before the optical density reaches 0.03 per foot. The detector may serve to close the lobby doors.

3. Elevator hoistways shall not be vented through an elevator machine room. Cable slots entering the machine room shall be sleeved beneath the machine room floor and extend to not less than twelve (12) inches below the shaft vent to inhibit the passage of smoke into the machine room.

Section 1807(i). Standby Power, Light and Emergency Systems.

1. Standby Power. Standby power generating system conforming to Uniform Building Code Standard No. 18-1

shall be provided. The system shall be equipped with suitable means for automatically starting the generator set upon failure of the normal electrical supply systems and for automatic transfer of all functions required by this section at full power within sixty (60) seconds of such normal service failure. System supervisions with manual start and transfer features shall be provided at the central control station.

An on-premise fuel supply sufficient for not less than two (2) hours full demand operation of the system shall be provided.

The standby system shall have a capacity and rating that would supply all equipment required to be operational at the same time. The generating capacity need not be sized to operate all the connected electrical equipment simultaneously.

All power, lighting, signal and communication facilities specified in (d), (e), (f), (g), (h), (i) and (j) as applicable; fire pumps required to maintain pressure, standby lighting and normal circuits supplying exit signs and exit illumination shall be transferable to the standby source.

2. Standby Lighting. Standby lighting shall be provided as follows:

A. Separate lighting circuits and fixtures sufficient to provide light with an intensity of not less than one (1) footcandle

measured at floor level in all exit corridors, stairways, smokeproof enclosures, elevator cars and lobbies and other areas which are clearly a part of the escape route.

B. All circuits supplying lighting for the central control station and mechanical equipment rooms.

3. Emergency Systems. The following are classified as emergency systems and shall operate within ten (10) seconds of failure of the normal power supply:

A. Exit sign and exit illumination as required by Sections 3313 and 3314.

B. Elevator car lighting.

Section 1807(j). Exits. Exits shall comply with other requirements of this Code and the following:

1. All stairway doors which are to be locked from the stairway side shall have the capability of being unlocked simultaneously without unlatching upon a signal from the central control station.

2. A telephone or other two-way communications system connected to an approved emergency service which operates continuously shall be provided at not less than every fifth floor in each required stairway where other provisions of this Code permit the doors to be locked.

Section 1807(k). Seismic Considerations. In Seismic Zones No. 2, No. 3 and No. 4, the anchorage of mechanical and electrical equipment required for life safety systems, including fire pumps and elevator drive and suspension systems, shall be designed in accordance with the requirements of Section 2312.

Section 1807(l). Areas of Refuge (Compartmentation) Alternate. Areas of refuge conforming to the following may be provided as an alternate of the automatic sprinkler system:

1. Every story shall be divided into two (2) or more areas of approximately the same size with no single area exceeding fifteen thousand (15,000) square feet. The wall and door shall be constructed as required for a horizontal exit in Section 3308.
2. Each area of refuge (compartment) shall contain one (1) elevator to the main floor and a minimum of one (1) enclosed exit stairway.
3. Openings in exterior walls, where such openings are within five (5) feet of each other horizontally or vertically adjacent floors shall be protected by approved flame barriers either extending thirty (30) inches beyond the exterior wall in the plane of the floor or by approved vertical panels not less than three (3) feet in height above the floor.

4. Horizontal exit walls used for compartmenting a building shall have a fire-resistance rating of not less than two (2) hours. Duct penetrations of this wall shall not be permitted. Ferrous or copper piping and conduit may penetrate or pass through the wall only if the openings are caulked with impervious noncombustible materials sufficiently tight to prevent the transfer of smoke or combustion gases from one side of the wall to the other and are so maintained. The fire door serving as the horizontal exit between compartments shall be so installed, fitted and gasketed that it will provide a substantial barrier to the passage of smoke.

5. The fire-resistive floor or the floor-ceiling construction shall extend to and be tight against the exterior wall so that the fire-resistive integrity between stories is maintained. No penetrations or other installations which will impair the fire-resistive integrity of the floor or floor-ceiling assembly shall be permitted.

6. A manual fire alarm system (pull boxes) shall be installed in accordance with Uniform Building Code Standard No. 18-1.

Section 1807(m). Automatic Sprinkler System Alternatives. When a complete approved automatic

sprinkler system complying with this section is installed in a building, the following modifications of code requirements are permitted:

1. The fire-resistive time periods set forth in Table No. 17-A may be reduced by one (1) hour for interior bearing walls, exterior bearing and nonbearing walls, roofs, and the beams supporting roofs, provided they do not frame into columns. Vertical shafts other than stairway enclosures and elevator shafts may be reduced to one (1) hour when sprinklers are installed within the shafts at alternate floors. The fire-resistive time period reduction as specified herein shall not apply to exterior bearing and nonbearing walls whose fire-resistive rating has already been reduced under the exceptions contained within Sections 1803(a) or 1903(a).

2. Except for corridors in Group B, Division 2 and Group R, Division 1, Occupancies, and partitions separating dwelling units or guest rooms, all interior nonbearing partitions required to be one (1) hour fire-resistive construction by Table No. 17-A may be of noncombustible construction without a fire-resistive time period.

3. Fixed tempered glass may be used in lieu of openable panels for smoke control purposes.

4. Travel distance from the most remote point in the floor area to a horizontal exit or to an enclosed stairway may be three hundred (300) feet.

5. The manually operated fire alarm system required in the compartmented building is not required.

6. Spandrel walls, eyebrows and compartmentation are not required; however, the fire resistance of the floors and juncture of exterior walls with each floor must be maintained.

7. Fire dampers, other than those needed to protect floor-ceiling assemblies to maintain the fire resistance of the assembly, are not required except for those which may be necessary to bypass smoke to the outside, those provided to convert from recirculated air to one hundred percent (100%) outside air, and those which may be required to protect the fresh air supply intake against smoke which may be outside the building.

8. Emergency windows required by Section 1204 are not required.

Section 1807(n). Emergency Access by Helicopters.

1. All buildings constructed in accordance with this section or Articles 2-1807(a) and 2-1733 of California Administrative Code, Title 24, Part 2, entitled State Building Code shall provide areas for the emergency access of helicopters pursuant to

the provisions of SEC. 91.02.0710 of the San Diego Municipal Code.

EXCEPTION: Emergency helicopter access areas need not be provided if all required exit stairways are smokeproof enclosures constructed in accordance with Section 3310. Each smokeproof enclosure and stairway must extend to the roof surface. The exception noted in Section 3310(b) shall not apply when smokeproof enclosures are provided in lieu of emergency helicopter access areas.

Section 3. The requirements of this ordinance shall apply only to buildings which are constructed after the effective date of this ordinance.

SEC. 91.02.2301 SCOPE

Section 2301. This chapter prescribes general design requirements applicable to all structures regulated by this Code.

EXCEPTION: The repair, alteration or rehabilitation or unreinforced masonry bearing wall buildings, constructed prior to March 24, 1939, may be accomplished in accordance with the provisions set forth in Chapter IX, Article 1, Division 8, of the Municipal Code.

SEC. 91.02.2312 EARTHQUAKE REGULATIONS

Section 2312 (d). Minimum Earthquake Forces for Structures. Except as provided in Section 2312 (g) and (i), every structure shall be designed and constructed to resist minimum total lateral seismic forces assumed to act nonconcurrently in the direction of each of the main axes of the structure in accordance with the following formula:

$$V = ZIKCSW \dots\dots\dots (12-1)$$

The value of *K* shall be not less than that set forth in Table No. 23-I. The value of *C* and *S* are as indicated hereafter except that the product of *CS* need not exceed 0.14.

The value of *C* shall be determined in accordance with the following formula:

$$C = \frac{1}{15\sqrt{T}} \dots\dots\dots (12-2)$$

The value of *C* need not exceed 0.12.

The value of *T* for buildings shall be determined by the following formula:

$$T = \frac{0.05h_n}{\sqrt{D}} \dots\dots\dots (12-3)$$

In buildings in which the lateral force-resisting system consists of ductile moment-resisting space frames capable of resisting 100 percent of the required lateral forces and such system is not enclosed by or adjoined by more rigid elements tending to prevent the frame from resisting lateral forces, the value of *T* may be determined by the following formula:

$$T = 0.10N \dots\dots\dots (12-3A)$$

Alternatively, the period T may be established using the structural properties and deformational characteristics of the resisting elements in a properly substantiated analysis such as the following formula:

$$T = 2\pi \sqrt{\frac{\sum_{i=1}^n W_i \delta_i^2}{g \sum_{i=1}^n f_i \delta_i}} \dots\dots\dots (12-3B)$$

where the values of f_i represent any lateral force distributed approximately in accordance with the principles of Formulas (12-5), (12-6) and (12-7) or any other rational distribution. The elastic deflections, δ_i , shall be calculated using the applied lateral forces, f_i .

If the period T is determined using formula 12-3B, it shall not exceed the following limits:

<u>Lateral Load Resisting System</u>	<u>T max</u>
Moment Frames	.04 h_n ^{3/4}
Braced Frames	.07 h_n / \sqrt{D}
Shear Walls	.06 h_n / \sqrt{D}

The value of S shall be determined by one of the following methods, but shall be not less than 1.0.

Method A:

for $T/T_s + 1.0$ or less $S = 1.0 + \frac{T}{T_s} - 0.5 \left[\frac{T}{T_s} \right]^2 \dots\dots\dots (12-4)$

for T/T_s greater than 1.0 $S = 1.2 + 0.6 \frac{T}{T_s} - 0.3 \left[\frac{T}{T_s} \right]^2 \dots\dots\dots (12-4A)$

WHERE:

T in Formulas (12-4) and (12-4A) shall be established by a properly substantiated analysis but T shall be not less than 0.3 second.

The range of values of T_s may be established from properly substantiated geotechnical data, in accordance with U.B.C. Standard No. 23-1, except that T_s shall not be taken as less than 0.5 second nor more than 2.5 seconds. T_s shall be that value within the range of site periods, as determined above, that is nearest to T .

When T_s is not properly established, the value of S shall be 1.5.

EXCEPTION: Where T has been established by a properly substantiated analysis and exceeds 2.5 seconds, the value of S may be determined by assuming a value of 2.5 seconds for T_s .

Method B:

The value of S may be determined in accordance with the following:

SOIL PROFILE COEFFICIENT

	Soil Profile Type		
	S_1	S_2	S_3
Factor S	1.0	1.2	1.5

Soil Profile Type S_1 : Rock of any characteristic, either shale-like or crystalline in nature (such material may be characterized by a shear wave velocity greater than 2500 feet per second); or stiff soil conditions where the soil depth is less than 200 feet and the soil types overlying rock are stable deposits of sands, gravels or stiff clays.

Soil Profile Type S_2 : Deep cohesionless or stiff clay soil conditions, including sites where the soil depth exceeds 200 feet and the soil types overlying rock are stable deposits of sands, gravels or stiff clays.

Soil Profile Type S₃: Soft to medium-stiff clays and sands, characterized by 30 feet or more of soft to medium-stiff clay with or without intervening layers of sand or other cohesionless soils.

In locations where the soil properties are not known in sufficient detail to determine the soil profile type or where the profile does not fit any of the three types, Soil Profile Type S₃ shall be used.

Section 2312(j)2.A. Minor Alterations. Minor structural alterations may be made in existing buildings and other structures, but the resistance to lateral forces shall be not less than before such alterations were made, unless the building as altered meets the requirements of this section.

For the purpose of this section, the addition of floors in existing buildings shall be considered as a minor structural alteration if all of the following conditions are met to the satisfaction of the Building Official.

i. The building must be used for live/work quarters as defined in Section 17958.11 of the California Health and Safety Code, and the specific area of the floor addition shall be used only for live areas for live/work quarters.

ii. The floor area addition shall not exceed ten percent (10%) of the existing building's floor area and shall be located entirely within the existing building.

iii. A report of structural survey shall be submitted to the Building Official establishing that the building, with the floor additions, is not any more subject to earthquake damage than it would have been under a previously permitted use, without the floor additions.

iv. The owner of the building or its successors in interest shall agree in writing, on a form provided by the Building Official, that he or she will not hold the City liable for the expense of any alterations completed pursuant to this section, if at some later time the City determines that a general structural reinforcement of the building is required. Such agreement shall be recorded with the County Recorder.

v. The owner of the building or its successors in interest shall agree in writing, on a form provided by the Building Official, that he or she will remove all floors that have been added pursuant to this section if the building ceases to be used for live/work purposes. Such agreement shall be recorded with the County Recorder.

Section 2312(m). Soil Liquefaction. These requirements are applicable to "potential liquefaction" areas as identified in the Seismic Safety Element of the General Plan for The City of San Diego.

EXCEPTION: An evaluation of the liquefaction potential and mitigation measures if necessary are required for any site, regardless of location, if an essential facility as defined in Section 2312(k) is to be located at that site.

1. Investigations: An investigation conforming to Section 2905 shall be made of

subsurface soils to evaluate their susceptibility to liquefaction from earthquake induced ground shaking for the following structure or occupancy categories.

A. Essential facilities as defined in Section 2312(k).

B. Buildings with an importance factor greater than 1.0 as specified in Table 23-K.

C. All buildings over two (2) stories in height.

D. All buildings containing the following occupancies:

(i) Group A, Divisions 1, 2 and 2.1

(ii) Group E, Division 1.

(iii) Group H, Divisions 1 and 2.

(iiii) Group I, Divisions 1 and 3.

E. All buildings with an occupant load of more than three hundred (300) as determined by Table 33-A.

F. Tanks of more than twenty thousand (20,000) gallons capacity intended to store toxic, hazardous, or flammable contents.

G. Tanks over thirty-five (35) feet high.

H. Towers over thirty-five (35) feet high.

I. Other structures not included in Categories A. through H., except construction of a minor nature as determined by the Building Official, must either have an investigation made to evaluate if hazards are posed by the effects of liquefactions, and if so, to incorporate appropriate measures to mitigate the hazards or obtain a waiver from the Building Official. The waiver, which shall be executed by the legal owner, approved by the Building Official, and recorded by the County Recorder, shall state the applicable facts relative to potential liquefaction and shall attest to the legal owner's knowledge thereof. Waivers are not permissible for Categories A. through H.

2. Mitigation: Where the evaluation indicates that liquefaction is likely, the hazards that reasonably might be caused by liquefaction shall be mitigated. Mitigation measures shall be suitable for the particular circumstances and hazards of the site and the proposed construction. Possible mitigation measures may include, but not be limited to, one (1) or more of the following:

A. Treatment of Liquefaction-Susceptible Materials.

(i) Removal of susceptible materials and replacement, as appropriate, with materials of low susceptibility.

(ii) In place densification of susceptible materials by means of vibroflotation, compaction piles, dynamic consolidation, surcharging or other suitable methods.

(iii) Controlling pore water pressures in susceptible materials by means of subsurface drains or water table level control.

B. Provision of retention structures to contain liquefied soils subject to mass lateral displacement.

C. Structural considerations for the proposed construction.

(i) Piles and batter piles.

(ii) Other deep foundations.

(iii) A structural frame or system that can accommodate the anticipated differential ground displacements.

SEC. 91.02.2903 EXCAVATIONS AND FILLS

Section 2903(a). General. Excavation or fills for buildings or structures shall be so constructed or protected that they do not endanger life or property.

No fill or other surcharge loads shall be placed adjacent to any building or structure unless such building or structure is capable of withstanding the additional loads caused by the fill or surcharge.

Existing footings or foundations which may be affected by any excavation shall be underpinned adequately or otherwise protected against settlement and shall be protected against lateral movement.

Fills to be used to support the foundations of any building or structure shall be placed in accordance with accepted engineering practice. A soil investigation report and a report of satisfactory placement of fill, both acceptable to the Building Official, shall be submitted.

Section 2903(b). Protection of Adjoining Property. Any person making or causing an excavation to be made to a depth of nine (9) feet or less, below the grade, shall protect the excavation so that the soil of adjoining property will not cave in or settle, but shall not be liable for the expense of underpinning or extending the foundation of building on adjoining properties where his excavation is not in excess of nine (9) feet in depth. Before commencing the excavation the person making or causing the excavation to be made shall notify in writing the owners of adjoining buildings not less than ten (10) days before such excavation is to be made that the excavation is to be made and that the adjoining

buildings should be protected. The owners of the adjoining properties shall be given access to the excavation for the purpose of protecting such adjoining buildings.

Any person making or causing an excavation to be made exceeding nine (9) feet in depth below the grade, shall protect the excavation so that the adjoining soil will not cave in or settle, and shall extend the foundation of any adjoining building below the depth of nine (9) feet below grade at his own expense. The owner of the adjoining buildings shall extend the foundations of his buildings to a depth of nine (9) feet below grade at his own expense as provided in the preceding paragraph.

SEC. 91.02.3202 ROOF CONSTRUCTION AND MATERIALS

Section 3202(a). Roof Construction and Materials. Roof coverings shall be securely fastened or anchored to the supporting roof construction and shall provide weather protection for the building at the roof.

Spaced sheathing for wood roofs shall be spaced not to exceed six (6) inches clear nor more than the nominal width of the sheathing board. Sheathing boards shall be not less than one (1) inch by four (4) inches nominal dimensions.

Diagonal and sway bracing shall be used to brace all roof trusses.

Section 3202(b). Fire Retardancy, When Required. Roof coverings shall be fire retardant except in Types III, IV and V buildings, where it may be as follows:

1. Ordinary roof coverings may be used on buildings of Group R, Division 3 or Group M, Occupancies.

2. Ordinary roof coverings may be used on buildings of Group R, Division 1, Occupancies, which are not more than two (2) stories in height and have not more than three thousand (3,000) square feet of projected roof area and there is a minimum of ten (10) feet from the extremity of the roof to the property line on all sides except for street fronts.

3. Group A, Division 3, Group B, Divisions 1 and 2, and Group R, Division 1, Occupancies, which are not more than two (2) stories in height and have not more than six thousand (6,000) square feet of projected roof area and there is a minimum of ten (10) feet from the extremity of the roof to the property line or assumed property line on all sides except for street fronts may have Class C roof coverings which comply with Uniform Building Code Standard No. 32.7.

Skylights shall be constructed as required in Chapter 34.

Penthouses shall be constructed as required in Chapter 36.

For use of plastics in roofs, see Chapter 52.

For attics, access and area, see Section 3205. For roof drainage, see Section 3207.

For solar energy collectors located above or upon a roof, see Section 1714.

Section 3202(c). Quality of Materials. The quality and design of roofing materials and their fastenings shall conform to the applicable standards listed in Chapter 60.

SEC. 91.02.3800 TABLE 38-A STANDPIPE REQUIREMENTS

TABLE NO. 38-A-STANDPIPE REQUIREMENTS

OCCUPANCY ¹	NONSPRINKLERED BUILDING ²		SPRINKLERED BUILDING ^{3 4}	
	Standpipe Class	Hose Requirement	Standpipe Class	Hose Requirement
1. Occupancies exceeding 75 ft. in height and more than one story	Not Applicable	Not Applicable	Combined System	No
2. Occupancies 4 stories or more but less than 75 ft. in height, except Group R, Div. 3	[I and II ⁵] (or III)	6 Yes	Combined System	No
3. Group A, Occupancies, with occupant load exceeding 1000	II	Yes	No Requirement	No
4. Group A, Div. 2.1, Occupancies, over 5000 square feet in area used for exhibition	II	Yes	II	Yes
5. Groups I, H, B, Div. 1.2 or 3, Occupancies, less than 4 stories in height but greater than 20,000 square feet per floor	II ⁵	Yes	No Requirement	No

¹Class II standpipes need to be provided in assembly areas used solely for worship.

²Except as otherwise specified in Item No. 4 of this table, Class II standpipes need not be provided in basements having an automatic fire-extinguishing system throughout.

³Combined systems with their related water supplies may be used in sprinklered buildings.

⁴Portions of otherwise sprinklered buildings which are not protected by automatic sprinklers shall have Class II standpipes installed as required for the unsprinklered portions.

⁵In open structures where Class II standpipes may be damaged by freezing, the Building Official may authorize the use of Class I standpipes which are located as required for Class II standpipes.

⁶Hose is required for Class II standpipes only.

SEC. 91.0801 INTENT

It is the intent of this division to provide allowable stresses, methods and materials of construction for the repair, alteration or rehabilitation of unreinforced masonry bearing wall buildings constructed prior to March 24, 1939. The provisions of this section are minimum standards for structural seismic resistance established primarily to reduce the risk of life loss or injury and will not necessarily prevent loss of life or injury or prevent earthquake damage to an existing building which complies with these standards.

SEC. 91.0802 SCOPE

The provisions of this division may be applied to all buildings constructed or under construction prior to March 24, 1939, or for which a building permit was issued prior to March 24, 1939, which on the effective date of this ordinance have unreinforced masonry bearing walls as defined herein.

SEC. 91.0803 DEFINITIONS

For purposes of this division the following definitions shall apply to existing buildings.

ESSENTIAL BUILDINGS: Those structures or buildings which are used for emergency purposes after an earthquake in order to preserve the peace, health and safety of the general public. Such facilities shall include the following: hospitals and other medical facilities having surgery or emergency treatment areas; fire and police stations; municipal government disaster operation and communication centers.

HIGH RISK BUILDING: Any building, other than an essential building, having an occupant load of one hundred (100) occupants or more as determined pursuant to Chapter 33 of the Uniform Building Code and which said building is occupied for its intended use for more than twenty (20) hours per week. (Exception): High risk buildings shall not include buildings having exterior walls braced with masonry cross walls or wood frame cross walls spaced less than forty (40) feet apart in each story. Cross walls shall be full story height with a minimum length of one and one half (1 1/2) times the story height.

LOW RISK BUILDING: Any building, other than an essential building, having a capacity of less than twenty (20) occupants determined pursuant to Chapter 33 of the Uniform Building Code.

MEDIUM RISK BUILDING: Any building having an occupant load of twenty (20) occupants or more as determined pursuant to Chapter 33 of the Uniform Building Code that is not classified as a high risk building or an essential building.

UNIFORM BUILDING CODE: The edition of the Uniform Building Code adopted by The City of San Diego.

UNREINFORCED MASONRY BEARING WALL: A masonry wall having all of the following characteristics:

1. Provides the vertical support for a floor or roof.
2. The total superimposed load is over one hundred (100) pounds per linear foot.
3. The area of reinforcing steel is less than fifty percent (50%) of that required by Section 2407(h) of the Uniform Building Code.

SEC. 91.0805 ANALYSIS AND DESIGN

Section 805(a). GENERAL: Every structure within the scope of this section shall be analyzed and constructed to resist minimum total lateral seismic forces assumed to act nonconcurrently in the direction of each of the main axis of the structure in accordance with the following equation:

$$(V = IKCSW)$$

The value of "IKCS" need not exceed the values set forth in Table B based on the appropriate rating classification of the building.

TABLE B

HORIZONTAL FORCE FACTORS BASED ON RATING CLASSIFICATION

RATING CLASSIFICATION	VALUES FOR IKCS	
	SEISMIC ZONE 3	SEISMIC ZONE 4
I	0.140	0.186
II	0.100	0.133
III & IV	0.075	0.100

Section 805(b). LATERAL FORCES ON ELEMENTS OF STRUCTURES: Parts or portions of structures shall be analyzed and designed for lateral loads in accordance with Chapter 23 of the Uniform Building Code but no less than the value from the following equation:

$$F_p = C_p I S W_p$$

For the provision of this subsection, the product of "IS" need not exceed the values as set forth in Table C.

EXCEPTION: Unreinforced masonry walls in buildings not having a rating classification of I may be analyzed in accordance with SEC. 91.0806.

Section 805(c). ANCHORAGE AND INTERCONNECTION:

Anchorage and interconnection of all parts, portions and elements of the structure shall be analyzed and designed for lateral forces in accordance with the equation: ($F_p = C_p I S W_p$) as modified by Table C. Minimum anchorage of masonry walls to each floor or roof shall resist a minimum force of two hundred (200) pounds per lineal foot acting normal to the wall at the level of the floor or roof.

TABLE C

HORIZONTAL FORCE FACTORS "IS" FOR PARTS OR PORTIONS OF STRUCTURES

RATING CLASSIFICATION	VALUES FOR "IS"	
	SEISMIC ZONE 3	SEISMIC ZONE 4
I	1.13	1.50
II	0.75	1.00
III & IV	0.56	0.75

Section 805(d). LEVEL OF REQUIRED REPAIR: Alterations and repairs required to meet the provisions of this section

shall comply with all other applicable requirements of this Code unless specifically excluded elsewhere in this division.

Section 805(e). REQUIRED ANALYSIS:

1. Continuous Stress Path. A complete, continuous stress path from every part or portion of the structure to the ground shall be provided for the required horizontal forces.

2. Positive Connections. All parts, portions or elements of the structure shall be interconnected by positive means.

Section 805(f). ANALYSIS PROCEDURE:

1. General. Stresses in materials and existing construction utilized to transfer seismic forces from the ground to parts or portions of the structure, shall conform to those permitted by the Uniform Building Code and/or those permitted for the materials and types of construction specified in SEC. 91.0806.

2. Connections. Materials and connectors used for interconnection of parts and portions of the structure shall conform to the Uniform Building Code. Nails may be used as part of an approved connector.

3. Unreinforced Masonry Walls. Except as modified herein, unreinforced masonry walls shall be analyzed as specified in Sections 2406 through 2408 to withstand all vertical loads as specified in Chapter 23 of the Uniform Building Code in addition to the seismic forces required by this division. Such walls shall meet the minimum

requirements set forth in Sections 2406 through 2408 of the Uniform Building Code. The fifty percent (50%) increase in the seismic force factor for shear walls as specified in Section 2407(h)4.F(i) of the Uniform Building Code may be omitted in the computation of seismic loads to existing shear walls.

No allowable tension stress will be permitted in unreinforced masonry walls. Walls not capable of resisting the required design forces specified in this division shall be strengthened or shall be removed and replaced.

EXCEPTIONS:

1. Unreinforced masonry walls in buildings not classified as a Rating Classification I pursuant to Table A may be analyzed in accordance with SEC. 91.0806. Buildings with a Rating Classification of I may be analyzed in accordance with SEC. 91.0806 except for Table D (See Table D, footnote 2).

2. Unreinforced masonry walls which carry no design loads other than its own weight may be considered as veneer if they are adequately anchored to new supporting elements.

Section 805(g). COMBINATION OF LOAD EFFECTS:

1. New Materials. Combination of load effects shall conform to the Uniform Building Code for all new materials introduced into the building structure to meet the requirements of this section.

2. Existing Materials. When stress in existing lateral force resisting elements is due to a combination of dead loads plus live loads plus seismic loads, the allowable working stress specified in the Code may be increased one hundred percent (100%). However, no increase shall be permitted in the stresses allowed in SEC. 91.0806 of this division and the stresses in members due only to seismic and dead loads shall not exceed the values permitted by Chapter 23 of the Uniform Building Code.

3. Allowable Reduction of Bending Stress by Vertical Load. In calculating tensile fiber stress due to seismic forces required by this division, the maximum tensile fiber stress may be reduced by the full direct stress due to vertical dead loads.

SEC. 91.0806 MATERIALS OF CONSTRUCTION

Section 806(a). GENERAL: All materials permitted by this Code including their appropriate allowable stresses and those existing configurations of materials specified herein may be utilized to meet the requirements of this division.

Section 806(b). EXISTING MATERIALS:

1. Unreinforced Masonry Walls. Unreinforced masonry walls analyzed in accordance with this division may provide vertical support for roof and floor construction and resistance to lateral loads. The facing and backing of such walls shall be bonded so that not less than four percent (4%) of the exposed face area

is composed of solid headers extending not less than four (4) inches into the backing. The distance between adjacent full-length headers shall not exceed twenty-four (24) inches vertically or horizontally. Where the backing consists of two (2) or more wythes, the header shall extend not less than four (4) inches into the most distant wythe or the backing wythes shall be bonded together with separate headers whose area and spacing conform to the foregoing.

Tension stresses due to seismic forces normal to the wall may be neglected if the wall does not exceed the height or length to thickness ratio and the in-plane shear stresses due to seismic loads as set forth in Table D.

If the wall height-thickness ratio exceeds the specified limits, the wall may be supported by vertical bracing members designed by the requirements of Chapter 23 of the Uniform Building Code. The deflection of such bracing member at design loads shall not exceed one-tenth (1/10) of the wall thickness.

EXCEPTION: The wall may be supported by flexible vertical bracing members designed in accordance with SEC. 91.0805(b) if the deflection at design loads is not less than one-fourth (1/4) nor more than one-third (1/3) of the wall thickness.

All vertical bracing members shall be attached to floor and roof construction for their design loads

independently of required wall anchors. Horizontal spacing of vertical bracing members shall not exceed one-half (1/2) the unsupported height of the wall nor ten (10) feet.

TABLE D

ALLOWABLE VALUE OF HEIGHT-THICKNESS RATIO OF UNREINFORCED MASONRY WALLS WITH MINIMUM QUALITY MORTAR. (1). (2).

	SEISMIC ZONE 3		SEISMIC ZONE 4	
	Buildings With Crosswalls As Defined By SEC. 91.0803	All Other Buildings	Buildings With Crosswalls As Defined By SEC. 91.0803	All Other Buildings
Walls of One Story Buildings	20	18	16	13
First Story Wall of Multi-Story Buildings	20	18	16	15
Walls in Top Story of Multi-Story Buildings	16	11	14	9
All Other Walls	20	18	16	13

NOTES:

(1) Minimum quality mortar shall be determined by laboratory testing in accordance with SEC. 91.0806(e).

(2) Table D is not applicable to buildings of Rating Classification I. Walls of buildings within Rating Classification I shall be analyzed in accordance with SEC. 91.0805(f).

The wall height may be measured vertically to bracing elements other than a floor or roof. Spacing of the bracing elements and wall anchors shall not exceed six (6) feet. Bracing elements shall be detailed to

minimize the horizontal displacement of the wall by components of vertical displacements of the floor or roof.

2. Existing Roof, Floors, Walls, Footings, and Wood Framing. Existing materials utilized in the described configuration may be used as part of the lateral load resisting system, provided that the stresses in these materials do not exceed the values shown in Table E.

TABLE E

VALUES FOR EXISTING MATERIALS

NEW MATERIALS OR CONFIGURATION OF MATERIALS (1)	ALLOWABLE VALUES
1. HORIZONTAL DIAPHRAGMS:	
a. Roofs with straight sheathing and roofing applied directly to the sheathing.	100 lbs. per foot for seismic shear.
b. Roofs with diagonal sheathing and roofing applied directly to the sheathing.	400 lbs. per foot for seismic shear.
c. Floors with straight tongue and groove sheathing	150 lbs. per foot for seismic shear.
d. Floors with straight sheathing and finished wood flooring.	300 lbs. per foot for seismic shear.
e. Floors with diagonal for sheathing and finished wood flooring.	450 lbs. per foot for seismic shear.
f. Floors or roofs with straight sheathing and plaster applied to the joists or rafters. (2)	Add 50 lbs. per foot to materials 1.a. and 1.c.
2. SHEAR WALLS:	
a. Wood stud walls with lath and plaster.	100 lbs. per foot each side for seismic shear.
3. PLAIN CONCRETE FOOTINGS	f'c = 1500 psi unless otherwise shown by tests.
4. DOUGLAS FIR WOOD	Allowable stress same as No. 1 D.F. (3)
5. REINFORCING STEEL	ft = 18,000 lbs. per square inch maximum. (3)
6. STRUCTURAL STEEL	ft = 20,000 lbs. per square inch maximum. (3)

NOTES:

(1) Material must be sound and in good condition.

(2) The wood lath and plaster must be reattached to existing joists or rafters in a manner approved by the department.

(3) Stresses given may be increased for combinations of loads as specified in SEC. 91.0805(g)2.

Section 806(c). STRENGTHENING OF EXISTING MATERIALS:

New materials may be utilized to strengthen portions of the existing seismic resisting system in the described configurations provided that the stresses do not exceed the values shown in Table F.

TABLE F

ALLOWABLE VALUES OF NEW MATERIALS USED
IN CONJUNCTION WITH EXISTING CONSTRUCTION

NEW MATERIALS OR CONFIGURATION OF MATERIALS	ALLOWABLE VALUES:
1. Plywood sheathing applied directly over existing straight sheathing with ends of plywood sheets bearing on joists or rafters and edges of plywood located on center of individual sheathing boards.	Same as specified in U.B.C., Table 25-J for blocked diaphragms.
2. SHEAR WALLS	
a. Plywood sheathing applied directly over existing wood studs. No value shall be given to plywood applied over existing plaster or wood sheathing.	Same as specified in U.B.C., Table 25-K for shear walls.
b. Dry wall or plaster applied directly over existing wood studs.	75 percent of the values specified in Table 47-I, U.B.C.
c. Dry wall or plaster applied to plywood sheathing over existing wood studs.	33 1/3 percent of the values specified in U.B.C., Table 47-I.
3. Shear bolts and shear dowels embedded a minimum of 8 inches into unreinforced masonry walls. Bolt centered in 2 1/2 inch diameter hole with dry-pack or non shrink grout around circumference of bolt or dowel. (1)	100 percent of the values for plain masonry specified in Table No. 24-E, U.B.C. No values larger than those given for 3/4 inch bolts shall be used.
4. Tension bolts and tension dowels extending entirely through unreinforced masonry walls secured with bearing plates on far side of wall with at least 30 sq. inches of area. (2)	1200 lbs. per bolt.
5. Wall Anchors (SEC. 91.0807(b)1.)	
a. Bolts extending to the exterior face of the wall with a 2 1/2 inch round plate under the head. Install as specified for shear bolts. Spaced not closer than 12 inches on centers. (1) (2)	600 lbs. per bolt.
b. Bolts or dowels extending to the exterior face of the wall with a 2 1/2 inch round	1200 lbs. per bolt or dowel.

plate under the head and drill at an angle of 22 1/2 degrees to the horizontal. Installed as specified for shear bolts. (1) (2)

- | | |
|--|--|
| 6. Reinforced masonry infilled openings in existing unreinforced masonry walls with keys or dowels to match reinforcing. | Same value as for unreinforced masonry walls. |
| 7. Masonry piers and walls reinforced per Section 2407 U.B.C. | Same values as specified in U.B.C. Section 2406. |
| 8. Concrete footings, walls and piers reinforced as specified in Chapter 26 U.B.C. and designed for tributary loads. | Same values as specified in U.B.C. Chapter 26. |
| 9. Foundation loads for structures exhibiting no evidence of settlement. | Calculated existing foundation loads due to maximum dead load plus live load may be increased 25% for deadload, and may be increased 50% for deadload plus seismic load required by this division. |

NOTES:

(1) Bolts and dowels to be tested as specified in SEC. 91.0806 (f).

(2) Bolts and dowels to be 1/2 inch minimum in diameter.

Section 806 (d). ALTERNATE MATERIALS: Alternate materials and methods of construction may be approved by the Building Official in accordance with the provisions of SEC. 91.02.0105 of this Code.

Section 806 (e). MINIMUM ACCEPTABLE QUALITY OF EXISTING UNREINFORCED MASONRY WALLS:

1. General Provisions. All unreinforced masonry walls utilized to carry vertical loads and seismic

forces parallel and perpendicular to the wall plane shall be tested as specified in this section. All masonry quality shall equal or exceed the minimum standards established herein or shall be removed and replaced by new materials. Alternate methods of testing approved by the enforcing agency may be used. Nothing shall prevent the pointing with mortar of all the masonry wall joints before the tests are first made. Prior to any pointing the mortar joints must be raked and cleaned to remove loose and deteriorating mortar. Mortar for pointing shall be Type S or N except masonry cements shall not be used. All testing shall be performed in accordance with the requirements specified in this subsection by a testing agency approved by the department. An accurate record of all such tests and their location in the building shall be recorded and these results shall be submitted to the department for approval as part of the structural analysis.

2. Number and Location of Tests. The quality of mortar in all masonry walls shall be determined by performing in place shear tests or by testing eight (8) inch diameter cores. The minimum number of tests shall be two (2) per wall or line of wall elements resisting a common seismic force, one (1) per one thousand five hundred (1,500) square foot of wall surface, or eight (8) minimum, whichever requires the largest number of tests or cores. The exact test or core location shall

be determined at the building site by a licensed engineer or architect responsible for the seismic analysis of the subject building, subject to the approval of the Building Official. The results of all tests or coring shall be recorded and reported.

3. In Place Shear Tests. The bed joints of the outer wythe of the masonry shall be tested in shear by laterally displacing a single brick relative to the adjacent bricks in that wythe. The opposite head joint of the brick to be tested shall be removed and cleaned prior to testing. The minimum quality mortar in eighty percent (80%) of the shear tests shall not be less than the total of thirty (30) psi plus the axial stress in the wall at the point of the test. The shear stress shall be based on the gross area of both bed joints and shall be that at which movement of the brick is first observed.

4. Core Tests. A minimum number of mortar test specimens equal to the number of required cores shall be prepared from the cores and tested as specified herein. The mortar joint of the outer wythe of the masonry core shall be tested in shear by placing the circular core section in a compression testing machine with the mortar bed joint rotated fifteen degrees (15°) from the axis of the applied load. The mortar joint tested in shear shall have an average ultimate stress based on the gross area of twenty (20) psi. The average shall be obtained

from total number of cores made. If test specimens cannot be made from the total taken the shear value shall be reported as zero. The results of all coring and shear testing shall be reported.

Section 806(f). TESTING OF SHEAR BOLTS: One-fourth (1/4) of all new shear bolts and dowels embedded in unreinforced masonry walls shall be tested by a special inspector using a torque calibrated wrench to the following minimum torques:

1/2" diameter bolts or dowels = 40 foot-lbs.

5/8" diameter bolts or dowels = 50 foot-lbs.

3/4" diameter bolts or dowels = 60 foot-lbs.

No bolts exceeding three-fourths inch (3/4") inches shall be used. All nuts shall be installed over malleable iron or plate washers when bearing on wood and heavy cut washers when bearing on steel.

Section 806(g). Determination of Allowable Stresses for Design Methods Based on Test Results.

1. Design Shear Values. Design seismic in-plane shear stresses greater than permitted in Table G shall be substantiated by tests performed as specified in SEC. 91.0806(e) 3. and 4. Design stresses shall be related to test results obtained in accordance with Table G. Intermediate values between three (3) and ten (10) psi may be interpolated.

TABLE G

ALLOWABLE SHEAR STRESS FOR TESTED UNREINFORCED MASONRY WALLS

Eighty percent of test results in psi not less than	Average test results of cores in psi	Seismic in-plane shear based on gross area
30 plus axial stress	20	3 psi*
40 plus axial stress	27	4 psi*
50 plus axial stress	33	5 psi*
100 plus axial stress	67 or more	10 psi max*

*Allowable shear stress may be increased by addition of ten percent (10%) of the axial stress due to the weight of the wall directly above.

2. Design Compression and Tension Values. Compression stresses for unreinforced masonry having a minimum design shear value of three (3) psi shall not exceed one hundred (100) psi. Design tension values for unreinforced masonry shall not be permitted.

Section 806(h). Five percent (5%) of the existing rod anchors utilized as all or part of the required wall anchors shall be tested in pullout by an approved testing laboratory. The minimum number tested shall be four (4) per floor, with two (2) tests at walls with joists framing into the wall and two (2) tests at walls with joists parallel to the wall. The test apparatus shall be supported on the masonry wall at a minimum distance of the wall thickness from the anchor tested. The rod anchor shall be given a preload of three hundred (300) lbs. prior to establishing a datum for recording elongation. The tension test load reported shall be recorded at one-eighth (1/8) inch relative movement of the

anchor and the adjacent masonry surface. Results of all tests shall be reported. The report shall include the test results as related to the wall thickness and joist orientation. The allowable resistance value of the existing anchors shall be forty percent (40%) of the average of those tested anchors having the same wall thickness and joist orientation.

Section 806(i). Qualification tests for devices used for wall anchorage shall be tested with the entire tension load carried on the enlarged head at the exterior face of the wall. Bond on the part of the device between the enlarged head and the interior wall face shall be eliminated for the qualification tests. The resistance value assigned the device shall be twenty percent (20%) of the average of the ultimate loads.

SEC. 91.0807 ADDITIONAL REQUIREMENTS

Section 807(a). General. In addition to the seismic analysis required elsewhere in this section, the licensed engineer or architect responsible for the seismic analysis of the subject building shall determine and record the information required by this section on the approved plans.

Section 807(b). Construction Details. The following requirements with appropriate construction details shall be made part of the approved plans:

1. All unreinforced masonry walls shall be anchored at the roof level by tension bolts through the wall as specified in Table F, or by approved equivalent at a maximum anchor spacing of six (6) feet.

All unreinforced masonry walls shall be anchored at all floors with tension bolts through the wall or by existing rod anchors at a maximum anchor spacing of six (6) feet. All existing rod anchors shall be secured to the joists to develop the required forces. The department may require testing to verify the adequacy of the embedded ends of existing rod anchors. Tests when required shall conform to SEC. 91.0806(h).

When access to the exterior face of the masonry wall is prevented by proximity of an existing building, wall anchors conforming to Items 5.(a) and 5.(b) in Table F may be used.

Alternative devices to be used in lieu of tension bolts for masonry wall anchorage shall be tested as specified in SEC. 91.0806(i).

2. Diaphragm chord stresses of horizontal diaphragms shall be developed in existing materials or by addition of new materials.

3. Where trusses and beams other than rafters or joists are supported on masonry, columns shall be installed to support vertical loads of the roof or floor members.

4. Parapets and exterior wall appendages not capable of resisting the forces specified in this division shall be removed, stabilized or braced to insure that the parapets and appendages remain in their original position.

5. All deteriorated mortar joints in unreinforced masonry walls shall be pointed with Type S or N mortar (masonry cements shall not be used). Prior to any pointing, the wall surface must be raked and cleaned to remove loose and deteriorated mortar. All preparation and pointing shall be done under the continuous inspection of a special inspector certified to inspect masonry or concrete. At the conclusion of the project, the inspector shall submit a written report to the Building Official setting forth the portion of work inspected.

6. Repair details of any cracked or damaged unreinforced masonry wall required to resist forces specified in this division.

Section 0807(c). Existing Construction. The following existing construction information shall be made part of the approved plans:

1. The type and dimensions of existing walls and the size and spacing of floor and roof members.

2. The extent and type of existing wall anchorage to floors and roof.

3. Accurately dimensioned floor plans and masonry wall elevations showing dimensioned openings, piers, wall thickness and heights.

4. The location of cracks or damaged portions of unreinforced masonry walls requiring repairs.

5. The type of interior wall surfaces and if reinstalling or anchoring of ceiling plaster is necessary.

6. The general conditions of the mortar joints and if the joints need pointing.

7. The extent and type of parapet corrections, if any, which were performed in accordance with the Uniform Building Code.

Section 3. That Chapter IX, Article 1, of the San Diego Municipal Code be and the same is hereby amended by adding Sections 91.02.0106, 91.02.0509, 91.02.0709, 91.02.2622, 91.02.2623, 91.02.3305 and 91.02.TABLE 7-B, to read as follows:

SEC. 91.02.0106 MODIFICATIONS

Section 106. Whenever there are practical difficulties involved in carrying out the provision of this Code, the Building Official may grant modifications for individual cases, provided he shall first find that a special individual reason makes the strict letter of this Code impractical and that the modification is in conformity with the intent and purpose of this Code and that such modification does not lessen any fire protection requirements or any degree of structural integrity. The details of any action granting modifications shall be recorded and entered in the files of the Code Enforcement Agency.

The Building Official may require the recordation of documents with the County Recorder as necessary to effectively enforce the requirements of this Code.

SEC. 91.02.0509 PEDESTRIAN WALKWAYS

Section 509(g). Required Exits. Pedestrian walkways at other than grade shall not be used as required exits. Pedestrian walkways at grade level used as required exits shall provide an unobstructed means of egress to a public way and shall have a minimum width in accordance with Section 3303(b).

EXCEPTION: Pedestrian walkways conforming to the requirements of a horizontal exit may be used as a required exit.

SEC. 91.02.0709 OPEN PARKING GARAGES

Section 709(f). Location on Property. Exterior walls and openings in exterior walls shall comply with Table No. 7-B. The distance to adjacent property line shall be determined in accordance with Section 504.

SEC. 91.02.TABLE 7-B Open Parking Garages - Exterior Walls

TABLE NO. 7-B - OPEN PARKING GARAGES - EXTERIOR WALLS¹

FIRE RESISTANCE OF EXTERIOR WALLS	OPENINGS IN EXTERIOR WALLS
One hour less than 10 feet	Not permitted less than 5 feet, protected less than 10 feet

¹See Section 709(f).

SEC. 91.02.2622 PLAIN CONCRETE

Section 2622(a). General. Plain concrete is concrete that is either unreinforced or contains less reinforcement than the minimum amount specified in this chapter.

Plain concrete, other than fill, shall have a minimum ultimate compressive strength at twenty-eight (28) days of two thousand (2,000) pounds per square inch, and its materials, proportioning, construction and placing shall conform to the requirements of Sections 2601 to 2606. Concrete fill made with strengths less than two thousand (2,000) pounds per square inch may be used if it has been shown by tests or experience satisfactory to the Building Official to have sufficient strength and durability for the use intended.

Joints or reinforcement shall be provided when needed to minimize the adverse effects of temperature variations, shrinkage and expansion.

SEC. 91.02.2623 MINIMUM SLAB THICKNESS

Section 2623. The minimum thickness of concrete floor slabs supported directly on the ground shall be three and one-half (3 1/2) inches.

SEC. 91.02.3305 CORRIDORS AND EXTERIOR EXIT BALCONIES

Section 3305(h). Openings.

1. Doors. When corridor walls are required to be of one (1) hour fire-resistive construction by Section 3305(g), every door opening shall be protected by a

tightfitting smoke and draft control assembly having a fire-protection rating of not less than twenty (20) minutes when tested in accordance with Uniform Building Code Standard No. 43-2. The door and frame shall bear an approved label or other identification showing the rating thereof, the name of the manufacturer and the identification of the service conducting the inspection of materials and workmanship at the factory during fabrication and assembly. Doors shall be maintained self-closing or shall be automatic closing by actuation of a smoke detector in accordance with Section 4306(b). Smoke and draft control door assemblies shall be provided with a gasket so installed as to provide a seal where the door meets the stop on both sides and across the top.

EXCEPTIONS:

1. Viewports may be installed if they require a hole not larger than one (1) inch in diameter through the door, have at least a one quarter inch (1/4") thick glass disc and the holder, if of metal, which will not melt out when subject to temperatures of 1700°F.

2. Protection of openings in the interior walls of exterior exit balconies is not required.

In fully sprinklered office buildings, corridors may lead through enclosed elevator lobbies if all areas of the building have access to

at least one (1) required exit without passing through the elevator lobby.

2. Openings Other Than Doors. Where corridor walls are required to be of one (1) hour fire-resistive construction by Section 3305(g), interior openings for other than doors or ducts shall be protected by fixed, approved one quarter inch (1/4") thick wired glass installed in steel frames. The total area of all openings, other than doors, in any portion of an interior corridor shall not exceed twenty-five percent (25%) of the area of the corridor wall of the room which it is separating from the corridor. For duct openings, see Section 4306.

EXCEPTION: Protection of openings in the interior walls of exterior exit balconies is not required.

Section 4. That Chapter IX, Article 1, of the San Diego Municipal Code, be and the same is hereby amended by adding Division Titles 1 through 6, to read as follows:

DIVISION 1
BUILDING CODE ADOPTION

DIVISION 2
BUILDING CODE AMENDMENTS

DIVISION 3
FIRE ZONES

DIVISION 4
SWIMMING POOLS OR THERAPEUTIC POOLS

DIVISION 5
MOVING OF STRUCTURES

DIVISION 6
DEMOLITION OF STRUCTURES

Section 5. All building permit applications filed with The City of San Diego prior to the effective date of this ordinance shall be exempt from its provisions.

Section 6. This ordinance shall take effect and be in force on the thirtieth (30th) day from and after its passage.

APPROVED: John W. Witt, City Attorney

By Thomas F. Steinke
Thomas F. Steinke
Deputy City Attorney

TFS:ta:wk
09/28/87
Or.Dept:Bldg.Insp.
O-88-53
Form=o.none

Passed and adopted by the Council of The City of San Diego on **NOV 2 1987**,
 by the following vote:

Council Members	Yeas	Nays	Not Present	Ineligible
Abbe Wolfsheimer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bill Cleator	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Gloria McColl	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
District 4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> VACANT
Ed Struiksma	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mike Gotch	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Judy McCarty	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Celia Ballesteros	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mayor Maureen O'Connor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

AUTHENTICATED BY:

MAUREEN O'CONNOR
 Mayor of The City of San Diego, California.

CHARLES G. ABDELNOUR
 City Clerk of The City of San Diego, California.

By *Joseph A. Blackwell*, Deputy.

(Seal)

I HEREBY CERTIFY that the foregoing ordinance was not finally passed until twelve calendar days had elapsed between the day of its introduction and the day of its final passage, to wit, on

OCT 19 1987

NOV 2 1987

, and on _____

~~I FURTHER CERTIFY that said ordinance was read in full prior to its final passage.~~

I FURTHER CERTIFY that the reading of said ordinance in full was dispensed with by a vote of not less than a majority of the members elected to the Council, and that there was available for the consideration of each member of the Council and the public prior to the day of its passage a written or printed copy of said ordinance.

CHARLES G. ABDELNOUR
 City Clerk of The City of San Diego, California.

By *Joseph A. Blackwell*, Deputy.

(Seal)

Office of the City Clerk, San Diego, California

Ordinance Number **0-16970** Adopted **NOV 2 1987**

CERTIFICATE OF PUBLICATION

RECEIVED
CITY CLERK'S OFFICE
1987 NOV 20 PM 2:00
SAN DIEGO, CALIF.

OS

CITY OF SAN DIEGO
202 C STREET, 2ND FLOOR
SAN DIEGO, CA 92101
ATTN: JUNE A. BLACKNELL

IN THE MATTER OF

NO.

AN ORDINANCE AMENDING CHAPTER IX, ARTICLE 1, OF
THE SAN DIEGO MUNICIPAL CODE

I, THOMAS D. KELLEHER, am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the San Diego Daily Transcript, a newspaper of general circulation, printed and published daily, except Saturdays and Sundays, in the City of San Diego, County of San Diego, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of San Diego, State of California, under the date of January 23, 1909, Decree No. 14894; and the

ORDINANCE NUMBER O-16970 (NEW SERIES)

AN ORDINANCE AMENDING CHAPTER IX, ARTICLE 1, OF THE SAN DIEGO MUNICIPAL CODE BY INCORPORATING BY REFERENCE THE UNIFORM BUILDING CODE, 1985 EDITION, TO REPLACE THE 1982 EDITION OF THE UNIFORM BUILDING CODE AND MAKING CERTAIN AMENDMENTS, ADDITIONS AND DELETIONS TO SAID 1985 EDITION OF THE UNIFORM BUILDING CODE.

This ordinance amends the San Diego Municipal Code by incorporating by reference the 1985 Editions of the Uniform Building Code.

This ordinance also provides for certain amendments, additions and deletions to the Uniform Building code which are necessary to provide for local conditions and needs.

A complete copy of the ordinance is available for inspection in the Office of the City Clerk of the City of San Diego, 2nd floor, City Administration Building, 202 "C" Street, San Diego, CA 92101.

Introduced on OCT 19 1987
Passed and adopted by the Council of The City of San Diego on NOV 2 1987

AUTHENTICATED BY: MAUREEN O'CONNOR
Mayor of The City of San Diego, California.
CHARLES G. ABDELNOUR,
City Clerk of The City of San Diego, California.
By JUNE A. BLACKNELL, Deputy.
Pub. November 18

89400

ORDINANCE NUMBER O-16970 (NEW SERIES)

is a true and correct copy of which the annexed is a printed copy and was published in said newspaper on the following date(s), to wit:

NOV. 16

I certify under penalty of perjury that the foregoing is true and correct.

Dated at San Diego, California this 16 day of NOV., 19 87

Thomas D. Kelleher
(Signature)

28 K. 98 K2 = \$54.88
(2.63 x 10.78 x 2 = 56.60)