An ordinance amending the Los Angeles Municipal Code and incorporating by reference portions of the 1994 Edition of the Uniform Building Code and the 1995 Edition of the California Building Code.

THE PEOPLE OF THE CITY OF LOS ANGELES

DO ORDAIN AS FOLLOWS:

Section 1. Division 1 of Article 1 of Chapter IX of the Los Angeles Municipal Code is hereby amended to read:

DIVISION 1

ADMINISTRATION

SEC. 91.101. TITLE, PURPOSE, AND SCOPE.

- **91.101.1 Title.** This article shall be known as the "Los Angeles Building Code," a portion of the Los Angeles Municipal Code, and wherever the word "code" is used in this article it shall mean the "Los Angeles Building Code."
- **91.101.2 Purpose.** The purpose of this article is to safeguard life, limb, health, property and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location and maintenance of all buildings and structures erected or to be erected within the city, and by regulating certain grading operations within the city.

91.101.3 Reserved.

91.101.4 Scope. The provisions of this code shall apply to the construction, alteration, moving, demolition, repair, maintenance and use of any 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.

For additions, alterations, moving and maintenance of buildings and structures, see Division 34. For temporary buildings and structures see Section 91.3103.

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.

- **91.101.5** Work Not in Scope. The provisions of this code shall not apply to any of the following:
 - 1. A building accessory to a dwelling and not located in Fire District No. 1 or 2, provided the building is not more than 64 square feet in area or 8 feet in height and does not contain any heating, plumbing or electrical installation, and is located as permitted by the Los Angeles Zoning Code.
 - 2. Oil derricks.
 - 3. Towers or poles supporting public utility communication lines, antennas, or power transmission lines.
 - 4. Retaining walls which are not over 4 feet in height, measured from the bottom of the footing to the top of the wall, unless supporting a surcharge or sloping earth, or impounding flammable liquids. This exemption shall not apply to retaining walls of any height built on slopes steeper than 5 horizontal to 1 vertical.
 - 5. Water tanks supported directly upon grade if the capacity does not exceed 5,000 gallons (18 927 L) and the ratio of the height to diameter or width does not exceed 2 to 1.
 - 6. Motion picture sets when not supported by any portion of any building.
 - 7. Pergolas and lath houses, both of which shall be outside of any fire district, not over 400 square feet in area, and not supported by or attached to any portion of any building.
 - 8. Work in a public way, dams and drainage structures constructed by or under contract with the Board of Public Works, the Department of Water and Power and the County Flood Control District, unless the structure forms a portion of the support for a building or a structure coming within the jurisdiction of the Department of Building and Safety.
 - 9. Portable amusement devices and structures, including merry-go-rounds, ferris wheels, rotating conveyances, slides, similar devices, and

portable accessory structures whose use is necessary for the operation of such amusement devices and structures; any portable accessory structure included in the provisions of this subdivision shall be limited to a cover or roof over each device, but shall not include any storage building or detached structure which is not an integral part of the device.

- 10. Isolated buildings not larger in area than 16 square feet, including roof projections, and not more than 8 feet in height, if separated by a distance of 20 feet or more.
- 11. Nothing in this code shall apply to any excavation, removal, fill or deposit of any earth or other materials from individual interment sites, underground crypts or burial vaults within a property which is dedicated or used for cemetery purposes, provided that such work does not affect the lateral support or increase the stresses in or pressure upon any adjacent or contiguous property not owned by the cemetery authority.
- 12. The surface mining of minerals in a "G" Surface Mining District as established and provided for in Section 13.03 of the Municipal Code, or where permitted by order of a court of competent jurisdiction.
- 13. The depositing of rubbish or other material at any dump operated by the City of Los Angeles, or by any person pursuant to the provisions of Section 66.15 or 66.25 of the Municipal Code.
- 14. Nothing in this code shall apply to grading in an isolated, self-contained area if the department finds that by reason of such isolation and self-containment no danger to private or public property can now or thereafter result from grading operations.
- 15. Any portable metal hangar less than 2,000 square feet in size, located on a city-owned airport, used for the parking of aircraft only, and bearing evidence of approval by the Department of Motor Vehicles of the State of California for movement on any highway. Such structure shall, as an integral part of its basic construction, be equipped with a hitch or coupling device for towing. It shall accommodate, without further major structural change, wheel and axle assemblies which will provide such structure with a safe means of portability. No water or sanitary facilities shall be permitted in such structure and it shall be equipped with permanent ventilation as required for Group S, Division 3 Occupancies.
- 16. Tents and trailers used for office or shelter purposes accessory to a Christmas tree sales lot during the month of December only, provided the aggregate area of all tents and trailers does not exceed 600 square feet for each

sales lot. (Such tents are regulated by the Fire Department under Article 7, Chapter V of the Los Angeles Municipal Code.)

- 17. Tents accessory to a dwelling and not exceeding 450 square feet in area.
- 18. Signs not exceeding 20 square feet in area, placed upon the surface of the ground, no part of which extends more than 6 feet 6 inches above the underlying ground, which have no mechanical or moving parts or to which no electricity or other source of illumination or power are attached or made a part thereof. Such signs shall be separated from each other a minimum distance of 15 feet.
- 19. Boards and signs used exclusively to display official notices issued by any court or public officer in the performance of a public duty or by a private person in giving legal notice.

SEC. 91.102. UNSAFE BUILDINGS OR STRUCTURES.

The regulations for the abatement of unsafe buildings and structures are enumerated in Division 89 of this code.

SEC. 91.103. VIOLATION.

91.103.1.1 General. No person shall construct, alter, repair, demolish, remove, move, use, occupy or maintain, within the city, any building or structure or any portion thereof, except as provided by this code.

No person shall grade, excavate or fill any land except as provided by this code.

The permissive provisions of this code shall not be presumed to waive any limitations imposed by other statutes or ordinances of the state or city.

All of the provisions of this code shall be limitations for safeguarding life, limb, health, property and public welfare.

If two or more pertinent limitations are not identical, those limitations shall prevail which provide the greater safety to life or limb, health, property or public welfare.

91.103.1.2 Violation of a Building Permit or a Grading Permit. Every person who knowingly and willfully procures a building and/or grading permit without the consent of the owner of record of the property for which the permit is issued, or such person's agent, is guilty of a misdemeanor.

- **EXCEPTION:** This subsection shall not apply to building and/or grading permits obtained pursuant to and in compliance with an order of a court of law or a governmental agency.
- 91.103.1.3 Violation of an Order. No person shall fail to comply with any valid order issued pursuant to any provision or requirement of this code.
- 91.103.2 Making False Statements to the Department. It shall be unlawful for any person, authorized by the department to perform inspections, to make a false or misleading statement, or misrepresentation in any writing submitted to the department.

For purposes of this section a "person authorized by the department to perform inspections" is any person who is a registered deputy inspector, a structural inspector, a certified welder, or certified licensed contractor. The term "writing" shall include, but is not limited to, forms, applications, approvals, reports or certifications required by the department.

Every violation of this section is punishable as a misdemeanor.

SEC. 91.104. ORGANIZATION AND ENFORCEMENT.

91.104.1 Creation of the Department. For the creation of the Department of Building and Safety, see Article VI of the Charter of Los Angeles and Article I, Chapter 2, of Division 22 of the Administrative Code of the City of Los Angeles.

91.104.2 Powers and Duties of the Department.

- 91.104.2.1 General. The powers of the department are enumerated in Section 98.0403.1 of the Los Angeles Municipal Code.
- 91.104.2.2 Authority to Require Exposure of Work. Whenever any work on which called inspections are required, as specified in Section 91.108, is covered or concealed by additional work without first having been inspected, the work shall be exposed for examination upon written notice by the department. The work of exposing and recovering shall not entail expense to the city.
- 91.104.2.3 Right of Entry. The authority for right of entry is enumerated in Section 98.0105 of the Los Angeles Municipal Code.
- 91.104.2.4 Authority to Stop Work. Whenever any construction work is being done contrary to the provisions of any law or ordinance enforced by the department, the department shall have the authority to issue a written notice to the responsible party to stop work on that portion of the work on which the violation has occurred. The notice

shall state the nature of the violation and no work shall be done on that portion until the violation has been rectified and approval obtained from the department.

91.104.2.5 Authority to Stop Use or Occupancy. Whenever any portion of a building is loaded in excess of the loading for which it was constructed, or whenever it houses an occupancy other than that for which it was constructed, or whenever there is an encroachment upon any required court or yard, the department shall have the authority to order by written notice that such violation be discontinued.

The written notice shall state the nature of the violations and shall fix a time for the abatement thereof. If the violations have not been abated by the expiration of the fixed time, the Certificate of Occupancy shall thereupon be canceled.

91.104.2.6 Alternate Materials, Alternate Design and Methods of Construction. New or alternate materials and methods of construction may be approved by the department in accordance with the provisions of Article 8, Chapter IX of the Los Angeles Municipal Code.

91.104.2.7 Building Materials Inspection Required.

- 91.104.2.7.1 No person shall use or cause to be used, in the construction of any building or structure for the erection of which a permit is required by this chapter, any materials which are not specifically permitted by this code, without having first secured the approval of said materials by the department.
- 91.104.2.7.2 The department may require that all materials to be used in the construction of any building or structure, or materials already used or fabricated into a building or structure, be submitted for test to a testing agency approved by the department.
- 91.104.2.7.3 It is unlawful for any person to fail to submit to an approved testing agency within five days after having received a written notice from the department a sample, sufficient for analysis, of any material to be used in the erection or construction of a building or structure, or which has been used or fabricated into a building or structure.
- 91.104.2.7.4 No material required by the department to be submitted to a testing agency for analysis shall be approved by the department unless the person requesting said approval submits a written report of the analysis by such testing agency.

SEC. 91.105. APPEALS.

- 91.105.1 General. Appeals or requests for slight modifications in individual cases from the requirements of this code shall be made in accordance with the procedure established in Section 98.0403.2 of the Los Angeles Municipal Code.
- 91.105.2 Building Advisory Appeal Board. The Building Advisory Appeal Board is hereby abolished. Any duties assigned to the Building Advisory Appeal Board by any provision of law shall be performed as determined by the Superintendent of Building.

91.105.3 Engineering Geology Advisory Committee.

- 91.105.3.1 Function of the Committee. It shall be the function of the Engineering Geology Advisory Committee to advise and counsel the board on appeals involving technical questions of soils engineering, geology, geology/seismology and related matters.
- 91.105.3.2 Establishment of the Committee Member List. The Board of Building and Safety Commissioners shall establish an Engineering Geology Advisory Committee member list (hereinafter in this section referred to as the "committee member list") which shall consist of not less than 10 soils engineers and engineering geologists who are available to serve as members of the Engineering Geology Advisory Committee. At least two of the engineering geologist members and two of the soils engineer members shall have experience in the field of seismic design and safety. Members of said committee shall be exempt from all Civil Service provisions.
- 91.105.3.3 Procedure. When an appeal is made to the Board, and the Board determines that the subject of the appeal involves a problem of soils engineering, geology, geology/seismology or a related matter on which it desires further technical advice before it renders a decision thereon, the Board may select three or more persons from the Engineering Geology Advisory Committee member list to serve on a committee for the purpose of assisting the Board in seeking a solution to said problem, and may refer the matter to such committee members for report and recommendation. At least one member of the committee so designated shall be a soils engineer and one shall be an engineering geologist. The members of the committee so meeting shall review the matter and shall then submit to the board a recommendation. When a matter is referred to the committee as in this section provided, the board shall consider, but is not bound to accept, the recommendation of the committee.
- 91.105.3.4 Compensation of Members. Each member of the committee who is in actual attendance at a meeting requested by the board shall be compensated at the rate of \$50.00 for each four hours or fraction thereof of service. However, in no case shall the compensation of the committee members exceed the fee paid by the appellant under Section 91.105.3.6 of the Los Angeles Municipal Code.

- 91.105.3.5 Self insurance by the City for Committee Members. The provisions of Sections 11.36 through 11.44, inclusive, City of Los Angeles Administrative Code, entitled "Self Insurance by the City for Officers and Employees of Said City," shall apply to each Engineering Geology Advisory Committee member while the member is acting as such, and committee members shall be deemed to be fully covered by the provisions of said sections even though each committee member is retained as an independent person and not as an officer or employee of the city.
- **91.105.3.6** Fees. When a matter is referred to the committee as provided in this section, the appellant in said matter shall pay a referral fee of \$50.00 and shall also pay a fee as follows:
 - 1. Where no more than two lots are involved in the appeal, \$150.00;
 - 2. Where not less than three or more than 10 lots are involved in the appeal, \$300.00;
 - 3. Where more than 10 lots are involved in the appeal, \$600.00.

91.105.4 Sign Advisory Committee.

- 91.105.4.1 Function of the Committee. It shall be the function of a Sign Advisory Committee to advise, counsel and provide recommendations to the Board of Building and Safety Commissioners on matters involving sign regulations.
- 91.105.4.2 Establishment of the Committee Member List. The Board of Building and Safety Commissioners shall establish a Sign Advisory Committee member list representing the various required fields of interest of persons who are available to serve as members of a Sign Advisory Committee. Persons selected for the Sign Advisory Committee list shall possess experience in the design, fabrication, the use or application of signs, or shall have demonstrated a background in the social and environment impacts of signs or the development of sign regulations. Members of said committee shall be exempt from all civil service requirements.
- 91.105.4.3 Procedure. When the board determines that a matter is significant in nature, the board may refer the matter to a Sign Advisory Committee for evaluation and recommendation before it renders a decision thereon. When the matter is referred to a Sign Advisory Committee, the board shall consider, but is not bound to accept, the recommendation of the committee.
- **91.105.4.4** Composition of the Committee. The board shall select five persons from the Sign Advisory Committee member list to serve on a committee. The committee shall be composed of one member from each of the following interests:

- 1. One member of or designated by the Board of Building and Safety Commissioners;
 - 2. One member of or designated by the City Planning Commission; and
- 3. Three public members, one each from the following interests: architecture, sign industry and community groups.
- 91.105.4.5 Compensation of Members. Each member of the committee who is in actual attendance at a meeting requested by the board shall be compensated at the rate of \$50.00 for each four hours or fraction thereof of service. However, in no case shall the compensation of the committee members exceed the fee paid by the applicant under Section 91.105.4.7.
- 91.105.4.6 Self-insurance by the City for Committee Members. The provisions of Sections 11.36 through 11.44, inclusive, of the Los Angeles Administrative Code shall apply to each Sign Advisory Committee member while the member is acting as such, and committee members shall be deemed to be fully covered by the provisions of said sections even though each committee member is retained as an independent person and not as an officer or employee of the city.
- 91.105.4.7 Fees. When a matter is referred to the committee as provided in this section, the applicant in said matter shall pay a referral fee of \$300.00.
 - 91.105.5 Disabled Access Appeals Commission.
- 91.105.5.1 Creation of the Commission. There is hereby established a commission known as the Disabled Access Appeals Commission.
- 91.105.5.2 Membership of the Commission. The Disabled Access Appeals Commission shall be composed of five qualified persons. Two members of the commission shall be physically disabled persons, and two members shall be persons experienced in construction. The fifth member may be any resident of the City of Los Angeles. Commission members shall be appointed by and may be removed by the mayor, subject in both appointment and removal to the approval of the council by a majority vote. In the case of a vacancy during the term of office of any member, the same shall be filled by appointment by the mayor for the period of the unexpired term subject to the approval of the council by a majority vote. The members of the commission shall be exempt from all Civil Service provisions.
- 91.105.5.3 Compensation and Term of Office. Each member of the commission shall be paid \$50.00 per meeting attended, but not to exceed \$250.00 in any one calendar month.

The term of office of the members of the commission shall be five years beginning with the first day of July of the respective years, except that the terms of office of the original five members of the commission appointed pursuant to this subsection shall be such that one term shall expire on the first June 30, one term shall expire on the second June 30, one term shall expire on the fourth June 30, and one term shall expire on the fifth June 30 next following the effective date of the appointment of the original five members. Thereafter, the terms of the succeeding members shall be so designated that the term of office of one member shall expire each year. The period of term of each member shall be designated in the appointment.

Each member of the commission shall have the power to administer oaths.

91.105.5.4 Authority of the Commission. The commission shall have and exercise the following powers:

- 1. To hear and determine written appeals brought by any person from actions taken by the Department of Building and Safety (department) in the enforcement of the requirements of Section 19955, et seq., of the California Health and Safety Code, the provisions of state law dealing with access to public accommodations by physically disabled persons.
- 2. To hear and determine written appeals brought by any person from the rulings, decisions and determinations of the department granting or denying applications for exceptions pursuant to Health and Safety Code Section 19957.
- 3. To hear and determine written appeals brought by any persons wherein it is alleged that there is error or abuse of discretion in any order, requirement, decision, interpretation or other determination made by the department in the enforcement or administration of Title 24, California Administrative Code, Section 110, et seq., and any other federal, state or municipal handicapped access and adaptability requirements.

All appeals shall be reviewed by the department. The department may reverse or modify the action appealed from at any time prior to final action by the commission. Any such new action may then be appealed to the commission.

- 4. To respond to the department's request for advice on any matter within the department's jurisdiction relating to access to public accommodations and housing by the physically disabled.
 - 5. To exercise the authority granted in Section 91.105.6.

91.105.5.5 Appeals.

91.105.5.5.1 Procedures. An appeal to the commission may be filed by any person aggrieved, or by an officer, board, department or bureau of the city. An appeal shall be in writing and shall be filed in the Office of the Board of Building and Safety Commissioners upon appropriate forms provided by the department. An appeal shall set forth specifically the points at issue, the reasons for the appeal, and wherein the appellant believes there was an error or an abuse of discretion by the department.

When considering an appeal from an action by the department, the commission shall make its determination within 30 days from the filing of the appeal. This time limit may be extended by mutual written consent of the applicant and the commission. Upon receipt of the appeal, the commission shall set the matter for hearing and give notice by mail of the time, place and purpose thereof to the appellant, to the applicant, to the owner or owners of the property involved, and to any interested party who has requested in writing to be so notified. Such notice shall be in writing and mailed at least 10 days prior to said hearing. No other notice thereof need be given except in those cases hereinafter mentioned.

The commission may grant, conditionally grant, or deny any appeal. All actions of the commission shall be final. Any action within the jurisdiction of the commission shall be final and conclusive as to the department in the absence of fraud, or abuse of discretion.

A separate appeal shall be filed for each single building. Appeals to the Appeals Commission shall be accompanied by a filing fcc as set forth in Section 98.0403.2 of the Los Angeles Municipal Code. The filing fcc shall cover the first item appealed or requested with respect to that building. An additional fce as shown in the table shall be charged for each other and separate item on the same request.

If the commission fails to act on any appeal within the time limit specified in this subdivision, then the action of the department on the matter shall be final.

91.105.5.5.2 Decision. The decision upon an appeal shall be concurred in by at least three members of the commission. The commission may modify or reverse a ruling, decision or determination appealed from only upon making written findings setting forth specifically wherein the action of the department was in error or constituted an abuse of discretion. The commission shall make specific written findings supporting any modification or reversal.

Upon making a decision, a copy of the findings and determination shall be furnished the applicant, the appellant and the Department of Building and Safety.

91.105.5.5.3 Special Findings. Before granting or affirming the grant of an exception pursuant to Health and Safety Code Section 19957, the commission must find that the application involves a case of practical difficulty, unnecessary hardship, or

extreme differences, and that it is clearly evident that equivalent facilitation and protection will be secured.

- 91.105.5.5.4 Revocation of Approvals. The commission shall revoke or rescind any determination, including the grant of an appeal or exception, if made in error in violation of any provision of law, or in reliance on any false statement or misrepresentation as to a material fact.
- 91.105.5.5.5 Time Limits. The rights and privileges granted by the commission pursuant to any decision, determination, approval, appeal or exception shall be void if all required building permits are not secured within one year of the effective date of such action, or if the permit expires under any of the conditions specified in Section 98.0602 of the Los Angeles Municipal Code.

However, the commission, and the superintendent acting on behalf of the commission, may grant extensions of time if the applicant submits in writing substantial evidence that unusual conditions or circumstances either precluded the securing of all required permits within the allocated time or caused the permit to expire as specified in Section 98.0602 of the Los Angeles Municipal Code.

Requests for extensions of time shall be made not later than 30 days after the expiration times specified in this section.

- 91.105.5.6 Additional Authority. In considering appeals, the commission may exercise the following powers:
 - 1. To appoint one or more hearing officers to conduct hearings and make recommendations to the same extent and in the same manner as the Superintendent of Building acting pursuant to Section 98.0602 of the Los Angeles Municipal Code.
 - 2. To request the attendance of witnesses and the production of evidence before it.
 - 3. To request the city attorney, or an assistant or deputy designated by the city attorney to appear at any hearing before the commission.
 - 4. To adopt rules regarding the filing of appeals, the conduct of its hearings and any other procedural rules in keeping with the provisions of this Division.
- 91.105.5.5.7 Limitations on Jurisdiction. Notwithstanding any other provision of this code, the commission's jurisdiction shall not include the right to hear and

determine an appeal from a department determination, order or action if such appeal is filed:

- 1. On or after the date a criminal citation is issued, charging the appellant with a violation of law based on the facts underlying such determination, order or action; or
- 2. On or after the date a criminal complaint is filed, charging the appellant with a violation of state laws based on such determination, order or action.

Further, the commission's jurisdiction shall not include the right to hear appeals from or otherwise review any action, order or determination of the Board of Building and Safety Commissioners.

91.105.6 Administrative Penalties for Disabled Access Violations.

91.105.6.1 Order of Abatement and Notice of Proposed Penalty. If the superintendent determines that a person has violated or failed to comply with any requirement of the law relating to access to public accommodations and housing by the physically disabled, then the superintendent may issue an order of abatement and notice of proposed penalty to that person.

The order and notice shall be in writing and shall describe with particularity the nature of the violation, including a reference to the provision of law that has been violated. The order shall fix a reasonable time for correction of the violation, and the notice of proposed penalty shall set forth the amount of the penalty.

The order of abatement and notice of proposed penalty shall be served upon the person either personally, or by deposit in the United States mail in a sealed envelope, postage prepaid to the person's last known address.

The order and notice shall also set forth the person's right to a hearing as described in Section 91.105.6.2.

91.105.6.2 Right to Hearing. Any person served with an order of abatement or notice of proposed penalty, may apply in writing to the Disabled Access Appeals Commission for a hearing with respect to the violation alleged, the abatement period, and the amount of the penalty. This request shall be filed within 15 days after the date of service.

If the person does not request a hearing within the prescribed time, then the notice of proposed penalty shall be final, and the amount of any penalty included in the notice shall immediately be due and owing to the City of Los Angeles. The city then shall have

the right to bring an action in any court of competent jurisdiction to enforce the order and collect the amount of the penalty.

If the department determines that there has been compliance with the order of abatement within the time for correction, then the department may rescind the notice of penalty.

91.105.6.3 Time of Hearing; Notice. If the person requests a hearing, the superintendent shall cause the matter to be set for hearing before the Disabled Access Appeals Commission. The hearing shall be scheduled not later than 30 days after the date of the application for hearing. This time limit may be extended with the mutual consent of the person and the commission. It shall be a defense to the affirmation of any penalty that the person complied with the order of abatement within the time for correction.

The decision of the commission on the order of abatement and notice of proposed penalty shall be final, and the amount of any penalty affirmed by the commission shall immediately be due and owing to the City of Los Angeles. The city then shall have the right to bring an action in any court of competent jurisdiction to enforce the order and collect the amount of penalty.

91.105.6.4 Civil Penalties. Any penalty required to be paid under the provisions of this section is a debt owed to the City of Los Angeles. Any person owing a penalty due under the provisions of this section shall be liable in an action brought in the name of the City of Los Angeles in any court of competent jurisdiction for recovery of any such amount.

The conviction of any person for violating any law shall not relieve the person from the obligation to pay any penalty that the person may owe the city, nor shall such payment prevent a prosecution under appropriate provisions of law for any violation of the law. The remedies provided in this section are cumulative. The use of one or more of the remedies prescribed in this section shall not bar the use of any other remedy provided for the enforcement of law.

91.105.6.5 Fee Schedules. The Superintendent shall submit a schedule for the assessment of civil penalties under this section to council for the approval by ordinance.

This schedule shall give due consideration to the appropriateness of the penalty with respect to the following factors:

- 1. The gravity of the violation;
- 2. The good faith of the violator being charged; and
- 3. The history of previous violations.

SEC. 91.106. PERMITS

91.106.1 Permits Required.

91.106.1.1 Building Permits. No person shall erect, construct, alter, repair, demolish, remove or move any building or structure, nor shall any person commence any liquid washing, compressed air cleaning or steam cleaning of exterior surfaces of any building unless said person has obtained a permit therefor from the department. A separate permit shall be obtained for each separate building or structure except that a group of temporary structures erected on one site for a limited period of time may be included on one permit.

Where the installation, alteration or repair of ventilation equipment or ductwork is not included within the scope of a valid building permit, a separate building permit shall be obtained for the work.

Sandblasting, liquid washing, compressed air cleaning, steam cleaning of exterior surfaces of buildings adjacent to and within 20 feet of pedestrian walkways in dedicated streets in the limits of Fire District No. 1 shall be done only between the hours of 11:00 p.m. and 7:00 a.m., or on Sundays.

Where complete plans for a proposed building are filed with the department and where a foundation only permit is issued with respect thereto in accordance with rules established by the Superintendent of Building pursuant to Section 22.19 of the Los Angeles Administrative Code, a building permit may be issued for the remainder of the building within one year after the issuance of the foundation only permit, provided such plans and specifications comply with all applicable Los Angeles Building Code provisions in effect at the time of issuance of such foundation only permit.

91.106.1.2 Grading Permits. No person shall commence or perform any grading, and no person shall import or export any earth materials to or from any grading site, without first having obtained a permit therefor from the department. No person shall perform any grading within areas designated "hillside" unless a copy of the permit is in the possession of a responsible person and available at the site for display upon request.

Any grading project involving more than 100 cubic yards of excavation and involving an excavation in excess of 5 feet (1524 mm) in vertical depth at its deepest point measured from the original ground surface shall be done by a State of California licensed C-12 contractor.

A separate permit shall be required for each grading site. One permit may include the entire grading operation at that site, however.

EXCEPTION: All other provisions of the code shall apply, but a permit will not be required if the work complies with any one of the following conditions:

- 1. The excavation does not exceed 5 feet in vertical depth at its deepest point measured from the original ground surface, and does not exceed 50 cubic yards of material. No such excavation shall create slopes steeper than 2 horizontal to 1 vertical, nor shall it change the existing drainage pattern.
- 2. The fill does not exceed 3 feet in vertical depth at its deepest point measured from the natural ground surface and does not exceed 50 cubic yards of material on any one lot. No such fill shall be placed on a surface having a slope steeper than 10 horizontal to 1 vertical, and no fill shall be made which will change the existing drainage pattern. Furthermore, any amount of fill which is required to be certified shall be accompanied by a grading permit.
- 3. Excavations, located in hillside areas, for caissons or piles under buildings or structures authorized by valid building permits.
- 4. Excavations, not located in hillside areas, for basements, footings, caissons, piles, swimming pools or underground structures which are authorized by valid building permits.

Grading permits may be waived by the Department for excavations under buildings or structures in hillside areas, if the applicant can demonstrate that the site is relatively level, or the excavation is entirely for footings and/or grade beams not exceeding 5 feet deep.

91.106.1.3 Temporary Permits. Before commencing the construction of any work for temporary use, a building permit authorizing such work shall be obtained from the department. Such construction shall be occupied or used only for the period set forth on the permit application, but shall not exceed 120 days.

Except for tents and bleachers, application for permit shall be filed at least seven days prior to the construction, erection or operation of any device, structure, or any work regulated by this article for temporary use.

All temporary construction or installations shall be demolished or removed within five days after the expiration of the Certificate of Occupancy. Requests for inspection must be received by the department at least two days prior to public use or occupancy.

91.106.2 EXCEPTIONS: Permit not required for:

- 1. Where the work regulated by this code is valued at \$300.00 or less, unless it affects the structural stability of a building, or public safety, or is done to make a building conform to the requirements of this code for a change in occupancy.
- 2. Flag poles and towers not erected upon a building and not more than 15 feet high. Radio and television antennae towers which do not exceed 45 feet in height or light standards which do not exceed 30 feet in height.
- 3. Construction sheds and sidewalk protection canopies built pursuant to Division 33.
- 4. Sandblasting, liquid washing, compressed air cleaning, steam cleaning of buildings outside of Fire Districts Nos. 1 and 2 and also those exterior surfaces of buildings which are located more than 20 feet from pedestrian walkways in dedicated streets. Painting, papering and similar work, provided, however, that the values thereof shall be included as part of the value of any new construction for which a permit is required by this code, for the purpose of determining the amount of the fee to be paid for such permit; and provided further that this exception does not include operations such as liquid washing, compressed air cleaning and steam cleaning on the exterior surfaces of buildings adjacent and within 20 feet of pedestrian walkways in dedicated streets where such operations extend above the first story.
- 5. Platforms, walks and driveways not more than 30 inches (762 mm) above grade and not over any basement or story below.
- 6. Exhibits, booths, partitions and display counters for temporary use not exceeding 30 days in conjunction with an exhibit or show and not exceeding 12 feet in height above the floor.
- 7. Outdoor tents or cloth structures for temporary use not exceeding 30 days and not exceeding 12 feet in any dimension, provided such tents are accessory to an indoor or outdoor assembly use on the site.
- 8. Swimming, bathing and wading pools not exceeding 24 inches in depth or having a surface area not exceeding 250 square feet.
- 9. Canopies or awnings located outside of Fire Districts No. 1 and No. 2 extending not more than 4 feet from the exterior wall of the building and attached to Group R Occupancies.
 - 10. Impact hazard glazing pursuant to Section 91.2406.7.

- 11. Work performed by Certified Licensed Contractors in accordance with Section 91.108.12.1.
- 12. Any work accomplished under the auspices of and owned and controlled by the United States of America, by the State of California or the Los Angeles County.
- 13. Masonry or concrete fences not over 3-1/2 feet high, and other fences not over 10 feet high.
- 14. Tanks for the storage of combustible liquids, if resting upon the surface of the ground and surrounded by an impounding basin conforming to the requirements of Article 7 of Chapter V of the Los Angeles Municipal Code (Fire Code).
 - 15. Cases, counters and partitions, not over 5 feet 9 inches high.
- 16. Waterproof pointing of joints in masonry or veneer, also cleaning with detergents which are not injurious to clothing or skin of persons and are not removed by liquid washing, provided work is done from safely enclosed scaffolding which will collect any dust, debris or dropped tools and materials in use.

91.106.3 Permit Applications.

91.106.3.1 Application. To obtain a permit, the applicant shall file an application on a form furnished by the department.

One complete application for each permit shall be filed. Every such application shall:

- 1. Identify and describe the work to be covered by the permit for which application is made.
- 2. Describe the land on which the proposed work is to be done by legal description, street address or similar description that will readily identify and definitely locate the proposed building or work.
 - 3. Indicate the use or occupancy for which the proposed work is intended.
- 4. Be accompanied by plans, diagrams, computations and specifications and other data as required in Section 91.106.3.2.

- 5. State the valuation of any new building or structure or any addition, remodeling or alteration to an existing building.
 - 6. Be signed by the permittee, or an authorized agent.
- 7. Give such other data and information as may be required by the Superintendent of Building.

91.106.3.2 Plans and Specifications.

91.106.3.2.1 Site Plat. A plat of the site shall be filed with each application for a permit.

EXCEPTION: The Superintendent of Building may grant the omission of a site plat when the proposed work is of such a nature that no information is needed to determine compliance with all laws relating to the location of buildings or occupancies.

With respect to the site, the plat shall show the boundaries, lot lines, existing and proposed buildings and structures, neighboring public ways, and sufficient dimensions and other data to enable the department to determine compliance with all laws relating to the location of buildings or occupancies.

91.106.3.2.2 Number of Sets of Plans. Each application for a permit shall be accompanied by two sets of plans and specifications for plan checking.

The number of sets of plans and specifications submitted with each application for a building permit may comply with the regulations of Sections 91.107.3.2 and 91.107.3.3 of this code.

EXCEPTION: The Superintendent of Building may waive the requirement for plans and specifications as required in this article if the superintendent finds that the information on the application is sufficient to show that the work will conform to the provisions of this code and other relevant laws.

- 91.106.3.2.3 Official Stamp. When the plans and specifications fully comply with the provisions of Section 91.106.3.4, Information Required on Plans, the department shall affix an official stamp of approval to each sheet of each set and, upon payment of the permit fee, shall issue one set to the applicant.
- 91.106.3.2.4 Validity of Approval. The stamping or approval of any plans or specifications shall not be held to permit, or to be an approval of, the violation of any provision of this code.

- 91.106.3.2.5 Alterations to Stamped Plans. No stamped or approved plans or specifications shall be altered in any manner, except when and as approved by the department.
- 91.106.3.2.6 Stamped Plans on Job. The stamped set of plans and specifications issued to the applicant shall be kept at the site of the construction or work and shall be available to the authorized representative of the Department. There shall be no deviation from the stamped or approved application, plans or specifications without Department approval.

91.106.3.3 Information and Certification Required on Plans and Specifications.

91.106.3.3.1 General. All plans and specifications submitted to the department for checking shall be drawn with ink or indelible pencil, or shall be made by a reproduction process approved by the department. The first sheet of each set of plans and specifications shall give the street address of the work and the name and address of the owner of the building.

The plans and specifications shall be of sufficient clarity to indicate the nature and extent of the proposed work and to show in detail that it will conform to the provisions of this code and of relevant laws, ordinances, rules, regulations and orders.

Plans for buildings more than two stories in height of other than Group R, Division 3 and Group U Occupancies shall indicate how required structural and fire resistive integrity will be maintained where a penetration will be made for electrical, mechanical, plumbing and communication conduits, pipes and similar systems.

In lieu of detailed specifications, the department may approve reference on the plans to a specific section, subsection or paragraph of this code or other ordinance or law.

Distances and dimensions on the plans, when required to show conformity with the provisions of this code, shall be done in figures.

91.106.3.3.2 Written Records of Computations Required. When a structural design is required for the purpose of obtaining a permit, it shall be justified by a written record of computations filed with the department and each sheet of the drawings and written record of computations shall be signed by or bear the approved stamp of an engineer or architect licensed by the state of California for the type of service performed. On structures which do not require engineers' or architects' signatures according to Article 3, Chapter 7, of the State Civil and Professional Engineers Act, but do require some structural design, the person responsible for such design shall sign the calculations and the sheets of the plans having engineering details thereon.

91.106.3.3.3 Structural Engineering Plans. For buildings exceeding 160 feet in height, each sheet of the structural calculations and structural plans shall be prepared under the supervision of, and shall bear the signature or approved stamp of, a person authorized to practice structural engineering by the state of California. In addition, all architectural sheets shall bear the signature or approved stamp of an architect licensed by the state of California.

91.106.4 Permits Issuance.

91.106.4.1 Issuance. When the department determines that the information on the application and plans is in conformance with this code and other relevant codes and ordinances, the department shall issue a permit upon receipt of the total fees.

EXCEPTIONS:

1. The department shall have the authority to withhold a permit for any building if public sewers are not available, and the provisions of Article 4, Chapter IX of the Los Angeles Municipal Code (Plumbing Code) prohibit the use of a private sewage disposal system on the lot or premises.

Notwithstanding the provisions of Section 1101 of the Uniform Plumbing Code as adopted by Section 94.0601 of the Los Angeles Municipal Code to the contrary, and for any lot or premises located in whole or in part in the San Fernando Valley and certain adjacent areas as described in Section 64.26 A 2 of the Los Angeles Municipal Code:

If public sewers are not available and Article 4, Chapter IX of the Los Angeles Municipal Code (Plumbing Code), does not prohibit the use of a private sewage disposal system, a building permit may issue, provided that:

- A. The owner or owners shall install a holding tank pursuant to permits from the Department of Building and Safety and the Fire Department, and
- B. The owner or owners shall submit a covenant and agreement to run with the land to provide connection to the public sewer when it becomes available, or to vacate if no connection is made. Such covenant and agreement shall be signed by the owner or owners and filed with the county recorder; or
- C. The permit is for four or fewer dwelling units in a residential zone, or for a structure which will not result in the discharge of wastewater.

- 2. The department shall have the authority to withhold permits where the proposed development is located in an area subject to slides or unstable soil which may have an adverse effect on the proposed development or access thereto, as determined by the department. If the apparent safety of the proposed development can be verified pursuant to the provisions of Section 91.7011(d)2 and 91.7011(d)3 of this code, the department shall issue a permit upon receipt of a sworn affidavit which has been recorded by the county recorder, stating that the applicant is fully aware that the proposed development is located in an area subject to slides or unstable soil which may have an adverse effect on the proposed development or access thereto.
- 3. The department shall have the authority to withhold a building permit where the proposed building site is an area subject to inundation, as determined by the department. If it can be shown by authentic past records that any possible inundation is not likely to be of such extent as to be an immediate hazard to occupancy of the proposed building, the department shall issue a building permit upon receipt of a sworn affidavit which has been recorded by the county recorder stating that said applicant is fully aware of the department's finding that the structure is an area subject to inundation.
- 4. The department shall have the authority to withhold permits on projects located within a Special (Fault) Studies Zone established under Chapter 7.5, Division 2, of the California Public Resources Code. Permits may be issued if it can be demonstrated through accepted geologic seismic studies that the proposed structure will be located in a safe manner and not over or astraddle the trace of an active fault. Acceptable geologic seismic studies shall meet the criteria as set forth in rules and regulations established by the Superintendent of Building to assure that such studies are based on sufficient geologic data to determine the location or nonexistence of the active fault trace on a site. Prior to approval of a project, a geologic report defining and delineating any hazard of surface fault rupture shall be required. If the city finds that no undue hazard of this kind exists, the geologic report on such hazard may be waived, with approval of the state geologist.
- 5. The department shall have the authority to withhold a demolition or relocation permit for a residential building composed of two or more residential rental units, under the following circumstances:
 - A. When the applicant states that the purpose for demolition or relocation is to construct a condominium, stock cooperative or community apartment project, permits shall be withheld until all necessary tentative tract or preliminary parcel maps for such new subdivision have been approved by the city.

- B. When the applicant states that the demolition or relocation is not for the purpose of constructing a condominium, stock cooperative or community apartment project, permits shall be withheld until the department receives a sworn affidavit from the real property owner, which has been recorded by the county recorder, stating that said owner waives the right to construct on the subject lot, a condominium, stock cooperative or community apartment project for a period of 10 years from the date of the demolition or relocation, and that such waiver will bind any purchaser, encumbrancer, assignee, devisee and transferee of said property during said 10 year period.
- C. This Exception 5 shall not apply if the building is to be demolished and is:
 - (i) Constructed of unreinforced masonry construction and built pursuant to a building permit issued prior to October 1, 1933, or
 - (ii) To be demolished pursuant to a demolition order issued by the department under authority set forth in Division 89 of Article 1 of Chapter IX of the Los Angeles Municipal Code.
- D. This Exception 5 shall not apply if the applicant demonstrates to the satisfaction of the department that the site will be developed with housing for low to moderate income households, which housing is to be developed, constructed or acquired with federal, state or local government financial assistance.
- E. This Exception 5 shall not apply to two family dwellings or to apartment houses and apartment hotels containing three dwelling units, provided that at least one dwelling unit in each such building is occupied by a record owner of the property.
- 6. The department shall have the authority to withhold permits on projects located within a High Potential Methane Zone or Potential Methane Zone established under Section 91.7101 et seq. of this code. Permits may be issued upon submittal of detailed plans that show adequate protection against flammable gas incursion can be provided by the installation of suitable gas control systems.
- 7. The department shall have the authority to withhold permits for public works capital improvement projects until receipt of written certification from the Cultural Affairs Department that the board, bureau or department of the city authorized by law to construct the project has fully complied with the requirements of the city's Public Works Improvements Arts Program. For

purposes of this section, public works capital improvement project" includes any capital project paid for wholly or in part by the City of Los Angeles or by any board, bureau or department of the city authorized by the City Charter or other law to construct or remodel any building, structure, park, utility, street, sidewalk or parking facility, or any other type of capital project or any portion thereof, within the geographical limits of the city.

8. The department shall have the authority to withhold the building permit where, in the opinion of the Superintendent of Building, the design of a structure, due to the unusual configuration of the structure or parts of the structure or assembly of structural materials therein, does not provide at least the same safeguard against earthquake as provided by the applicable portions of this code when applied in the design of a similar structure of customary configuration.

9. Reserved.

- 10. The department shall have the authority to withhold a building permit or relocation permit for a site if the department determines that demolition or relocation work has been done on the site without the benefit of required demolition or relocation permits. If the department, after notice and hearing, makes this determination, the department shall also have the authority to record an affidavit with the County Recorder stating that no permits for any new development shall be issued on the property for a period of five years.
- 11. The Department shall have the authority to withhold a building permit for a residential building composed of two or more residential rental units, under the following circumstances:
 - A. When the applicant states that the purpose for a building permit is to construct a condominium, stock cooperative or community apartment project, permits shall be withheld until all necessary tentative tract or preliminary parcel maps for the new subdivision have been approved by the City.
 - B. When the applicant states that the purpose for a building permit is for the construction of a building other than a condominium, stock cooperative or community apartment project, a building permit shall be withheld until the Department receives a sworn affidavit from the real property owner, which has been recorded by the County Recorder, stating that the owner waives the right to construct on the subject lot, a condominium, stock cooperative or community apartment project for a period of ten years from the date of the issuance of the building permit, and that the waiver will bind any purchaser, encumbrancer, assignee, devisee and transferee of the property during that ten year period.

Notwithstanding the above, the Department shall have the authority to issue a building permit after the Director of Planning certifies that the project conforms to all of the current standards of approval for new condominiums.

12. The Department of Building and Safety shall have the authority to withhold building permits for the construction of hotels until a conditional use permit allowing the sale of liquor has been granted by the Department of City Planning or until the Department of Building and Safety receives from the property owner a sworn affidavit, signed by the owner and recorded by the Los Angeles County recorder, declaring that the hotel shall not sell or serve liquor on the premises for a period of not less than five years.

91.106.4.2 Retention and Maintenance of Approved Plans.

91.106.4.2.1 Retention of Plans. The duplicate plans and specifications of every building or structure shall be stamped and retained by the department during the life of such building.

EXCEPTION: Plans for the following need not be maintained, except where required by the department:

- 1. Single or multiple dwellings in non-hillside areas which are not part of a common interest development (as defined in Section 1351 (c) of the Civil Code of California), and not more than two stories and basement in height.
- 2. Garages and other structures appurtenant to buildings described in Item 1 of this exception.
 - 3. Farm or ranch buildings.
- 4. Any one story building where the span between bearing walls does not exceed 25 feet. This exception does not, however, apply to a steel frame or concrete building.
- 5. Alterations to commercial buildings, apartments and hotels which do not require the signature of a licensed civil or structural engineer or architect.

91.106.4.2.2 Inspection and Reproduction of Retained Plans.

91.106.4.2.2.1 Inspection of Plans. The copy of the approved building plans maintained by the department as provided by Section 91.106.4.2.1 of the Los Angeles Municipal Code shall be available for inspection only on the premises of the department.

EXCEPTION: Plans or portion of plans for banks, other financial institutions or public utilities which are maintained by the department may not be inspected without written permission from the owner of the building.

91.106.4.2.2.2 Reproduction of Plans. Plans maintained by the Department under Section 91.106.4.2.1 of the Los Angeles Municipal Code may not be duplicated in whole or in part except with the written permission of the certified, licensed or registered professional or his or her successor, if any, who signed the original documents, and the written permission of the original or current owner of the building, or, if the building is part of a common interest development, with the written permission of the board of directors or governing body of the association established to manage the common interest development; or by order of a proper court. In implementing this provision, the Department shall comply with the requirements of Health and Safety Code Section 19851.

The Department shall also furnish the form of an affidavit to be completed and signed by the person requesting to duplicate the official copy of the plans, which contains provisions stating the following:

- 1. That the copy of the plans shall only be used for the maintenance, operation, and use of the building.
- 2. That drawings are instruments of professional service and are incomplete without the interpretation of the certified, licensed, or registered professional of record.
- 3. That subdivision (a) of Section 5536.25 of the Business and Professions Code states that a licensed Architect who signs plans, specifications, reports, or documents shall not be responsible for damage caused by subsequent changes to, or use of, those plans, specifications, reports, or documents where the subsequent changes or uses, including changes or uses made by state or local governmental agencies, are not authorized or approved by the licensed architect who originally signed the plans, specifications, reports, or documents, provided that the architectural service rendered by the architect who signed the plans, specifications, reports, or documents was not also a proximate cause of the damage. Grading plans which are on file with the Department are public records and may be duplicated.

The fees specified in the following provisions 1 or 2 shall be paid by the person requesting duplication of plans:

1. Building plans that have not been microfilmed and are authorized for reproduction, and grading plans that are to be duplicated by other than City services will be released only to a bonded duplicating service which has posted a

bond for the benefit of the City of Los Angeles in an amount at least equal to the value of the plans.

The cost of duplicating the plans shall be paid directly to the duplicating service by the persons requesting duplication. That person shall pay a service fee of \$12.00 for each set of plans released to a bonded duplicating service as herein provided.

- 2. Building plans that have been microfilmed and are authorized for reproduction shall be duplicated by City services. The department shall collect an initial service fee of \$6.00 for each request for reproduction of plans plus a fee of \$0.80 for each sheet requested to be photocopied.
- 91.106.4.2.3 Compliance. A certified copy of the microfilmed plans shall constitute compliance with the requirement of this section.

91.106.4.3 Validity of Permit.

91.106.4.3.1 Limit of Authorization. The issuance of a permit is not an approval or an authorization of the work specified therein. A permit is merely an application for inspection, the issuance of which entitles the permittee to inspection of the work which is described therein.

Permits issued under the requirements of this code shall not relieve the owner of responsibility for securing required permits for work to be done which is regulated by any other code, department or division of the City of Los Angeles.

All permits are issued subject to the following conditions:

If the work described by a valid permit is prohibited by a change in the Los Angeles Municipal Code, then such work may be completed only if the department determines that both substantial liabilities have been incurred, and substantial work has been performed on site, in accordance with the terms of that permit. Work performed and liabilities incurred pursuant to a demolition or relocation permit shall not be considered in determining whether an owner may complete a building or structure for which a building permit has been issued.

91.106.4.3.2 Validity of Other Laws. Neither the issuance of a permit nor the approval by the department of any document shall constitute an approval of any violation of any provision of this code or of any other law or ordinance, and a permit or other document purporting to give authority to violate any law shall not be valid with respect thereto.

- 91.106.4.3.3 Official Grades. The applicant shall satisfy himself as to the correctness of proposed structure elevations and locations with respect to the official grades of public streets and to the policy of the Board of Public Works relative to the location and length of curb depressions for driveways.
- **91.106.4.3.4 Easements.** Before issuing any permit, the department shall require a declaration, under penalty of perjury, from the owner or agent having the property owner's consent stating that:

"The proposed work will not destroy or unreasonably interfere with any access or utility easement belonging to others and located on my property, but in the event such work does destroy or unreasonably interfere with such easement, a substitute easement(s) satisfactory to the holder(s) of the easement will be provided."

91.106.4.4 Expiration, Suspension or Revocation.

- **91.106.4.4.1 General.** The regulations concerning the expiration, suspension and revocation of permits are enumerated in Chapter IX Article 8, Division 6, of the Los Angeles Municipal Code.
- 91.106.4.4.2 Making False Statements to the Department. Any person who willfully or knowingly, with the intent to deceive, makes a false statement or representation, or knowingly fails to disclose a material fact in any documentation required by the department to ascertain facts relative to this section, to the exception in Section 91.107.2.9 or to Section 91.112 of this code, including any oral or written evidence presented, shall be guilty of a misdemeanor.
- 91.106.4.4.3 Unfinished Buildings or Structures. Whenever the department determines by inspection that work on any building or structure for which a permit has been issued and the work started thereon has been suspended for a period of 180 days or more, the owner of the property upon which such structure is located, or other person or agent in control of said property, upon receipt of notice in writing from the department to do so, shall, within 90 days from the date of such written notice, obtain a new permit to complete the required work and diligently pursue the work to completion, or shall remove or demolish the building or structure within 180 days from the date of the written notice.
- 91.106.4.5 Permits for Historical and Cultural Buildings. The department shall not issue a permit to demolish, alter or remove a building or structure of historical, archaeological or architectural consequence if such building or structure has been officially designated, or has been determined by state or federal action to be eligible for designation, on the National Register of Historic Places, or has been included on the City of Los Angeles list of historic cultural monuments, without the department having first

determined whether the demolition, alteration or removal may result in the loss of or serious damage to a significant historical or cultural asset. If the department determines that such loss or damage may occur, the applicant shall file an application and pay all fees for the California Environmental Quality Act Initial Study and Check List, as specified in Section 19.05 of the Los Angeles Municipal Code. If the Initial Study and Check List identifies the historical or cultural asset as significant, the permit shall not be issued without the department first finding that specific economic, social or other considerations make infeasible the preservation of the building or structure.

91.106.4.6 Notification and Posting in a Hillside Grading Area.

- 91.106.4.6.1 In any area designated as a hillside grading area, the department shall not issue (1) a building permit for construction of a building with over 500 square feet of floor area, or (2) a building permit for any addition to an existing building which adds over 500 square feet of floor area, or (3) a grading permit for the grading of more than 1,000 cubic yards of earth materials without having first done the following at least 10 days prior to issuance of the building or grading permit:
 - 1. The department shall send written notices of the permit application, by mail, to the owners of all property abutting the property at which the construction or grading will occur. Notices shall also be sent to the owners of all property across the street or alley when such property is intersected by a projection of the lot lines of the property at which the construction or grading will occur; and
 - 2. The department shall post a notice of the permit application on the property at which the construction or grading will occur.
- 91.106.4.6.2 The applicant seeking the permit shall provide the department with the names and addresses of all persons entitled to receive notice pursuant to Section 91.106.4.6.1.
- **91.106.4.6.3** The department shall collect a fee in the amount of \$40.00 when an application for a building or grading permit described in Section 91.106.4.6.1 is filed with the department.

91.106.4.7 Curb Ramps.

91.106.4.7.1 Condition of Permits. Subject to the provisions of Section 91.106.4.7.2, no building or structure shall be erected or enlarged, and no building permit issued therefor, on any lot, any part of which is within 100 feet of the straight projection of the intersection of the building lines of a corner lot of the block within which subject lot fronts, unless the applicant agrees in writing, and submits the necessary surety in the form of a bond or cash deposit, to construct a corner curb ramp at such corner and in addition, if such lot is within 100 feet of two such intersections to construct corner curb

ramps at each of the two adjacent corners at both intersections, for a total of two ramps. The curb ramp shall comply with the standards contained in Part 2 of Title 24 of the California Code of Regulations. Such improvements procedure shall, in all respects, be in compliance with Section 12.37D of the Los Angeles Municipal Code.

EXCEPTIONS: This section does not apply to the following:

- 1. One or two family dwelling or addition thereto located in a tract, parcel map or subdivision recorded prior to the effective date of this section.
- 2. A building or structure or addition thereto of less than 500 square feet in gross floor area or when such building, structure or addition thereto contains a restaurant or fast food restaurant of less than 200 square feet in gross floor area.
- 3. Where sidewalks are neither currently installed nor required by the city as a condition of development, at either the location of the proposed development or the location of the otherwise proposed curb ramp.
- 91.106.4.7.2 It is hereby determined that the requirements of Section 91.106.4.7.1 hereof shall be imposed as a condition to the erection of any structure or addition thereto wherein handicapped access is otherwise required.

SEC. 91.107. FEES.

91.107.1 General. Fees shall be assessed in accordance with the provisions of this section.

91.107.2 Permit Fees.

- 91.107.2.1 Fees. Before issuing any permit required by this Code, the Department shall collect a fee.
- 91.107.2.1.1 Fee Amount. The amount of the fee shall be as shown in Table No. 1-A of this Code for the total value of all construction work for which the permit is issued, including all painting, papering, roofing, electrical work, plumbing, permanent or fixed heating equipment, elevator equipment, fire sprinkler equipment and any other permanent portions or permanent equipment except as provided in Section 91.106 of this code.

No portion of any building, including mechanical, electrical and plumbing work shall be excluded from the valuation for a building permit because of any other permits required by any governing agency.

EXCEPTIONS: The permit fees for a sign shall be as specified in Section 91.107.2.2.

- 91.107.2.1.1.1 Combined Building-Mechanical Permits. A combined building-mechanical permit shall be issued, provided a fee is paid. The fee shall be as determined by using Table No. 1-A.I of this Code. A combined building-mechanical permit shall entitle the permittee to the inspection of all building, electrical, plumbing, heating, ventilating and air conditioning work in the following systems:
 - 1. A new one family or two family dwelling.
 - 2. Any work necessary and in conjunction with alterations, additions or demolitions to a one- or two-family dwelling. In the event that work in one or more of the mechanical trades is not required, the applicable fee(s) shall not be collected.
 - 3. A pool accessory to a one family or two family dwelling, except that for pools which are exempt from a building permit but may require a permit for electrical, plumbing and heating work, a combined building-mechanical permit shall be issued, provided a fee is paid. The fee shall be 75 percent of the fee determined from Table No. 1-A.
 - 4. A complete solar heating and/or cooling system installation appurtenant to and used exclusively by a one-family or two-family dwelling; or an individual dwelling unit or an efficiency dwelling unit in an apartment house, apartment-hotel or hotel; or a pool accessory to a one-family dwelling.
- 91.107.2.1.1.2 The permit fee for a permit to comply with the requirements of Division 91 of this Code, shall be as specified in Section 91.107.2.12.
- 91.107.2.2 Sign Building Permit Fees. Before issuing a building permit for any sign, the department shall collect a fee. The amount of the building permit fee shall be equal to 3.50 percent of the total value of all construction or work, as determined by the department, for which the building permit is issued, but in no event shall the fee be less than the minimum inspection fee as specified in Section 98.0412 (a) and Footnote No. 4 of Table No. 1-A. The sign building permit fee shall be subject to the surcharge specified in Footnote No. 1 of Table No. 1-A of this code.
- 91.107.2.3 Additional Building Permit Fees. The fee for a supplementary building permit to cover any additional valuation for work included in the original permit shall be the difference between the fee paid for the original permit and the fee which would have been required had the original permit included the entire evaluation.

The fee for a building permit authorizing changes from approved plans or specifications shall be the fee required for a valuation equal to the increase in valuation caused by the change, but no refund shall be made if the change causes a reduction of valuation.

- 91.107.2.4 Awning Installation Fee. Every awning crected and arranged so that temporary shelter may be provided over any portion of a public way shall be subject to an installation fee of \$10.00 per awning, but in no event shall the installation fee per building be less than the minimum inspection fee specified in Section 98.0412 (a) of the Los Angeles Municipal Code.
- 91.107.2.5 Grading Permit. Before issuing any grading permit, the department shall collect a fee, the amount of which shall be as shown in Table No. 1-D of this code.
- 91.107.2.6 Additional Grading Permit Fees. The fee for a grading permit authorizing additional work to that under a valid permit shall be the difference between the fee paid for the original permit and the fee shown for the entire project.
- 91.107.2.7 Plan Maintenance Fees. Before issuing a building permit, the department shall collect a fee for maintaining building plans which are required to be retained by Section 91.106.4:2 of this code.

The amount of the plan maintenance fee shall be 2 percent of the building permit fee, but not less than \$10.00 and not more than \$300.00, and shall be collected for each separate plan to be retained by the department.

91.107.2.8 Fire Hydrant Fee Notice. Before issuing any building permit required by this code, if the total value of all new construction or work for which the permit is issued is \$50,000 or greater, as determined by the department, the department shall collect a fire hydrant fee. The amount of this fee shall be equal to 22/100 of 1 percent of the total value of all construction or work for which the permit is issued. If the applicant for a building permit subject to the fire hydrant fee pays such fee under protest or refuses to pay such fee, the department may issue the permit, but shall affix to the permit a Fire Hydrant Fee Notice to read as follows:

FIRE HYDRANT FEE NOTICE: The City of Los Angeles may amend the Fire Hydrant Fee Ordinance.

The owner of the project designated in this permit shall be obligated to pay to the department a fire hydrant fee in the amount to be calculated pursuant to any amendment to the fire hydrant fee ordinance. This fee will be used to provide adequate fire-safety facilities and services for new development.

EXCEPTION: Section 91.107.2.8 of the Los Angeles Municipal Code shall not apply to any permit for demolition of a building or structure.

The Department shall waive the fire hydrant fees for a building permit for construction work to repair damage resulting from the 1992 local emergency and the 1994 Northridge earthquake.

The Department shall also waive the fire hydrant fees for a building permit to reconstruct or replace any building or structure damaged, destroyed or demolished as a result of the 1992 local emergency and the 1994 Northridge earthquake, if the reconstructed or new building or structure has substantially the same height, length, width, floor area and use as the original building or structure.

The Department of Building and Safety shall cause all money collected pursuant to Section 91.107.2.8 of the Los Angeles Municipal Code to be deposited into the Fire Hydrant Installation and Main Replacement Fund described in Section 5.114 of the Los Angeles Administrative Code for purposes of disbursement as permitted therein; except that \$5.00 from each fire hydrant fee shall be deposited in the general fund pursuant to Section 5.114 of the Los Angeles Administrative Code.

91.107.2.9 Metal Bars, Grilles, Grates, Security Roll down Shutters and Similar Devices. The permit fee for the installation of devices for which a permit is required by Section 91.310.4 of this code shall be \$25.00 for each affected dwelling unit, efficiency dwelling unit, light housekeeping room or guest room in a residential building.

EXCEPTIONS:

- 1. The department shall issue a permit without collection of a fee if it determines that the following conditions are met:
 - A. The metal bars, grilles, grates, security roll down shutters and similar devices were installed prior to June 3, 1986, and
 - B. The dwelling unit is in full compliance with Section 91.310.4 when the first inspection is conducted pursuant to Section 91.310.4.
- 2. The department shall issue a permit without the collection of a fee for all eligible lower income households, as defined by California Health and Safety Code Section 50079.5. The department shall determine whether the applicant meets the applicable criteria for eligibility.
- 91.107.2.10 Certificate of Occupancy for Use of Land. A fee of \$40.00 shall be charged for each Certificate of Occupancy for use of land; however, no fee shall be charged when a Certificate of Occupancy is being issued pursuant to Section 91.109 of this code or when any work which requires a building permit is done.

91.107.2.11 Arts Development Fee.

- 91.107.2.11.1 Arts Fee. The owner of a development project for a commercial or industrial building shall be required to pay an arts fee in accordance with the requirements of this section.
- 91.107.2.11.2 Fee Amount. The Department of Building and Safety shall collect an arts fee in the following amount:
 - 1. Office or research and development. For an office or research and development building, the arts fee shall be \$1.57 per square foot.
 - 2. Retail. All retail establishments shall pay an arts fee of \$1.31 per square foot.
 - 3. Manufacturing. For a manufacturing building, the arts fee shall be \$.51 per square foot.
 - 4. Warehouse. For a warehouse building, the arts fee shall be \$.39 per square foot.
 - 5. Hotel. For a hotel building, the arts fee shall be \$.52 per square foot.

In no event shall the required arts fee exceed either \$1.57 per gross square foot of any structure authorized by the permit or one percent (1%) of the valuation of the project designated on the permit, whichever is lower, as determined by the Department of Building and Safety. Where there are combined uses within a development project or portion thereof, the arts fee shall be the sum of the fee requirements of the various uses listed above. The Cultural Affairs Department shall automatically revise the arts fee annually by an amount equal to the Consumer Price Index for Los Angeles as published by the United States Department of Labor.

- **91.107.2.11.3** Time of Collection. Except as provided in Section 91.107.2.11.6, the Department of Building and Safety shall collect an arts fee before issuance of a building permit for commercial and industrial buildings required by this code.
- 91.107.2.11.4 EXCEPTIONS: The arts fee required by this subdivision shall not be assessed for the following projects or portions thereof:
 - 1. Any project for which the total value of all construction or work for which the permit is issued is \$500,000 or less.
 - 2. The repair, renovation or rehabilitation of a building or structure that does not alter the size or occupancy load of the building.

- 3. The repair, renovation or rehabilitation of a building or structure for the installation of fire sprinklers pursuant to Division 9 of this code.
- 4. The repair, renovation or rehabilitation of a building or structure that has been made to comply with Division 88 (Earthquake Hazard Reduction in Existing Buildings) subsequent to a citation of noncompliance with Division 88.
- 5. The repair, renovation or rehabilitation of a building or structure for any handicapped facilities pursuant to this code.
- 6. All residential buildings or portion thereof. This exception does not include hotels.

91.107.2.11.5 Use of Arts Fees Acquired Pursuant to this Subdivision. Any arts fee collected by the Department of Building and Safety shall be deposited in the Arts Development Fee Trust Fund. Any fee paid into this fund may be used only for the purpose of providing cultural and artistic facilities, services and community amenities which will be available to the development project and its future employees. Any cultural and artistic facilities, services and community amenities provided shall comply with the principles and standards set forth in the Cultural Master Plan when adopted.

At or about the time of collection of any fee imposed by this subdivision, the Cultural Affairs Department shall identify the use to which the arts fee is to be put, and if the use is financing public facilities, the facilities shall be identified.

91.107.2.11.6 Projects Covered by Ordinance 164,243. In 1988, the city enacted Ordinance 164,243 which states in part:

"This ordinance is an interim measure while the City of Los Angeles is giving consideration to the enactment of an Arts Development Fee Ordinance. The owners of a development project shall be obligated to pay an Arts Development Fee if such fee is adopted in the future by the city. The fee will not exceed one percent (1%) of the total value of work and construction authorized by the building permit issued to a development project. This fee would be used to provide adequate cultural and artistic facilities, services and community amenities for the project."

By enacting Section 91.107.2.11 (previously Section 91.0304(b)(11)), the City has adopted the Arts Development Fee referred to by Ordinance 164,243. Accordingly, an arts fee shall be paid to the City of Los Angeles by owners of development projects which received building permits between and including January 15, 1989, and the effective date of this subdivision. This arts fee described in this subdivision shall be paid within 60 days of receipt of a request for payment of an arts fee. All exceptions listed in Section

91.107.2.11.4 shall apply to owners of development projects subject to Ordinance 164.243.

The City Clerk shall bill and collect the Arts Development Fee owed by those persons to whom notice was given pursuant to this paragraph for the period January 15, 1989, through May 7, 1991. The amount due shall be paid in full within 60 days of the billing date unless an agreement to pay in installments pursuant to this paragraph is approved by the City Clerk. Persons indebted to the City of Los Angeles for Arts Development Fees may, upon approval by the City Clerk, enter into an agreement with the City of Los Angeles to pay such fees in installments over a period not to exceed one year. The City Clerk shall collect a service fee of \$10.00 on each monthly installment to recover the cost to the city of processing installment payments. The Cultural Affairs Department is hereby authorized to negotiate and accept payment in kind for the Arts Development Fee owed by those persons to whom notice was given pursuant to this paragraph for the period January 15, 1989, through May 7, 1991. The Cultural Affairs Department shall provide notice to the City Clerk of the name of the person on whose account such in kind payment was accepted, and whether the in kind payment constitutes payment in full or only a specified portion of the Arts Development Fee owed.

The City Clerk is authorized to record payment in full, without further notification to the person billed, for cash or in kind Arts Development Fee payments received that are within \$3.00 of the amount owed.

91.107.2.11.7 The Department shall waive the art fees for a building permit for construction work to repair damages resulting from the 1992 local emergency and the 1994 Northridge earthquake.

The Department shall also waive the art fees for a building permit to reconstruct or replace any building or structure damaged, destroyed or demolished as a result of the 1992 local emergency and the 1994 Northridge earthquake, if the reconstructed or new building or structure has substantially the same height, length, width, floor area and use as the original building or structure.

91.107.2.12 Earthquake Hazard Reduction in Existing Tilt-up Concrete Wall Buildings Permit Fees. The permit fee for construction work which the Department determines is necessary to satisfy the requirements contained in Section 91.9108 of this Code, shall be based on the entire floor area of the building requiring any strengthening work. The fee shall be equal to \$0.0265 per square foot or fraction thereof of the subject building.

91.107.3 Plan Checking Fees.

91.107.3.1 Fees Required. Before formally accepting a set of plans and specifications for checking, the department shall collect a plan checking fee.

- 91.107.3.1.1 The plan check fee for buildings, structures or portions thereof shall be equal to 85 percent of the building permit fee as shown in Table No. 1-A of this code.
 - **EXCEPTION:** Where the occupancy of a residential building or portion thereof is changed, the plan checking fee shall be based on a valuation equal to 85 percent of the replacement value of the building or portion changed.
- 91.107.3.1.2 The plan check fee for signs and/or sign support structures shall be equal to 50 percent of the building permit fee as indicated in Section 91.107.2.2 of this code.
- 91.107.3.1.3 The fee for grading plans shall be 85 percent of the grading permit fee as indicated by Section 91.107.2.5 of this code. The fee for grading work on two or more contiguous sites may be the amount indicated for the sum of the total cubic yards in all the separate sites.
 - **EXCEPTION:** A grading plan check fee will not be required for jobs of 50 cubic yards or less.
- 91.107.3.1.4 The department shall collect a grading preinspection fee of \$65.00 for all grading plans and for any permit application involving work to be done in the hillside grading area.
 - **EXCEPTION:** The grading preinspection fee may be waived when the department determines that the nature of the work does not require preinspection of the worksite.
- 91.107.3.1.5 The department shall collect a sign preinspection fee of \$55.00 when an application for a building permit for a sign is filed with the department.
 - **EXCEPTION:** The sign preinspection fee may be waived when the department determines that the nature of the sign does not require preinspection of the proposed location to determine compliance with applicable requirements.
- 91.107.3.1.6 The department shall collect a demolition preinspection fee of \$55.00 pursuant to Section 91.3303.9.1.4.
 - **EXCEPTION:** The demolition preinspection fee may be waived when the department determines that previous inspections associated with the department's abatement programs have been made.
- 91.107.3.1.7 The department may collect a plan check fee based on an hourly rate of \$75.00 per hour for any time not included by the original plan check fee and shall be in addition to other fees specified in this code.

- 91.107.3.1.8 The department may collect a fee of \$55.00 for any preinspection conducted in conjunction with any proposed work.
- 91.107.3.1.9 The plan check fee for construction pursuant to the requirements of the Earthquake Hazard Reduction in Existing Tilt-up Concrete Wall Buildings contained in Division 91 of this Code shall be equal to the building permit fee as specified in Section 91.107.2.12.
- 91.107.3.2 Plans for More Than One Building. When two or more buildings are to be erected on the same site and the following regulations are complied with, the plan checking fee, if of a lesser amount, may be the fee indicated for the sum of the values of all the separate buildings.
- **91.107.3.2.1** All of the buildings shall be shown on the one set of plans and specifications.
- 91.107.3.2.2 Applications for separate permits for each building shall be filed prior to the checking of the plans.
- 91.107.3.2.3 Two sets of plans and specifications shall be submitted to the department.
- 91.107.3.3 Plans for Duplicate Buildings. When two or more buildings are to be erected from identical plans and specifications and the following regulations are complied with, the plan checking fee, if of a lesser amount, may be the fee indicated for the sum of the values of all the separate buildings.
- 91.107.3.3.1 Applications for separate permits for each building shall be filed prior to the checking of the plans.
 - 91.107.3.3.2 A site plat shall accompany each application for a permit.
- 91.107.3.3.3 The number of sets of plans and specifications submitted to the department shall be one more than the number of applications for permits.
- 91.107.3.3.4 Footings for one or more of the buildings may deviate from the plans and specifications provided that, in each instance, separate footing plans are submitted to the department for checking and a separate permit is secured as specified in Section 91.107.3.4.
- 91.107.3.4 Rechecking Plans. No additional fee shall be charged for verification of the corrections required by the department or other departments. However, when plans are revised by the applicant for reasons other than plan check correction and require

additional plan check time to review the plan revisions, the department shall collect a supplemental plan check fee as specified in Section 91.107.3.1.7.

When plans are resubmitted for review of changes made to previously approved plans, an application for a permit shall be filed.

The plan checking fee in the case of a building permit shall be based on an hourly rate as specified in Section 91.107.3.1.7 and the plan check fee for a grading permit shall be as specified in Section 91.107.3 for the number of cubic yards replaced, removed or omitted that were not previously approved.

When a permit expires by limitation and the work is not completed, the plans shall be resubmitted for checking before the issuance of a new permit. The plan checking fee shall be based on the same valuation as specified for the permit in Section 91.106.4.4.

91.107.4 Expiration of Plan Check. Permits for which an application for plan check has been filed shall be secured within the time limit specified in Section 98.0603 of the Los Angeles Municipal Code.

91.107.5 Additional Fees.

- **91.107.5.1** In addition, the department shall have the authority to collect investigation fees. For investigation fees of work done without a valid building permit, see Section 98.0402 of the Los Angeles Municipal Code.
- 91.107.5.2 The department shall have the authority to collect a fee to cover any additional costs incurred by the department in obtaining code compliance or issuing a permit for work that was done prior to obtaining the required permit. This fee shall be in addition to any other fees required by the Los Angeles Municipal Code. The superintendent shall prepare a fee schedule for this purpose for adoption by ordinance.
- 91.107.6 Refund of Permit Fees. No claim for refund of building permit fees or grading permit fees shall be allowed in whole or in part unless filed with the city clerk within 12 months from the date of expiration of the permits or of any extensions granted pursuant to the provisions of Section 91.107.4 or within 12 months from the date of any department or board action in which a valuation, as required by Section 91.107.2, is lowered pursuant to the provisions of Section 98.0403.1 of the Los Angeles Municipal Code. In the case a permit valuation is lowered, the refund shall be 100 percent of the difference paid and what should have been paid on all fees.

Insofar as the provisions of this section are in conflict with the provisions of Sections 22.12 and 22.13 of the Los Angeles Municipal Code, the language of this subsection shall be construed to control and supersede the language of said sections as to any such conflict.

91.107.7 Processing Fee for Security Bar Certificates of Compliance.

- **91.107.7.1 General.** The Department of Building and Safety shall charge a \$20.00 fee for the processing of each Security Bar Certificate of Compliance. The department shall maintain on file Security Bar Certificates of Compliance.
- **91.107.7.2** Certified security bar installers shall file Security Bar Certificates of Compliance in accordance with provisions of Section 91.108.12.3.2 of this code.
- 91.107.8 Affordable Housing Mitigation Fee Notice. Before issuance of a building permit for any project or structure, the Department of Building and Safety shall affix to the permit an Affordable Housing Mitigation Fee Notice to read as follows:

Affordable Housing Mitigation Fee Notice: The City of Los Angeles is considering the enactment of an Affordable Housing Mitigation Fee Ordinance. The owner of the project designated in this permit shall be obligated to comply with an Affordable Housing Mitigation Fee Ordinance, if such an ordinance is adopted in the future by the city. In no event shall the required fee exceed either \$5.00 per square foot of the structure(s) authorized by the permit or 3.5 percent of the valuation of the project designated on the permit, as determined by the Department of Building and Safety, whichever is lower. This fee shall be used to mitigate any affordable housing needs created by the project.

EXCEPTION: The notice required by this subsection shall not be affixed to building permits for the following projects or portion thereof:

- 1. Any project for which a building permit is issued with less than 40,000 square feet of new floor area as determined by the Department of Building and Safety;
- 2. Any project located within the boundaries of an enterprise zone designated in Section 12.04 of the Los Angeles Municipal Code;
- 3. Any project developed by nonprofit entities such as hospitals, schools, religious institutions, museums, day care providers and other similar organizations, where the construction is directly related to the nonprofit purpose of the organization as determined by the Community Development Department. This exception shall not apply to nonprofit development of leasable commercial office space;
- 4. Any project or portion of a project for industrial, warehouse development or parking structures as defined by the Los Angeles Municipal Code and determined by the Department of Building and Safety;

- 5. Any project within a current neighborhood Community Redevelopment Agency project area as defined in Section 12.04 of the Los Angeles Municipal Code other than the Bunker Hill, Central Business District and Little Tokyo redevelopment areas;
- 6. Any development project where one or more of the following discretionary approvals, initiated by application of the property owner or their representatives, was granted by a government agency between January 1, 1986, and October 1, 1989, and remains valid: zone change, conditional use permit, variance, height district change, zone boundary adjustment, specific plan exception, project permit pursuant to a moratorium ordinance, development agreement, coastal development permit, commercial corner development pursuant to Section 12.27 I 8 of the Los Angeles Municipal Code, project permit pursuant to an interim control ordinance, parcel map, tract map or vesting tentative tract map.

In addition, prior to the issuance of any such building permit, the Department of Planning shall certify in writing that the necessary environmental clearances were completed and that the discretionary approval included a determination of one or more of the following: building location, height, density, use, parking and access of the proposed project;

- 7. Any project for which architectural and structural plans sufficient for a complete plan check for a building permit have been accepted by the Department of Building and Safety and for which plan check fees were collected on or before the effective date of this subsection and for which no subsequent changes are made to those plans which increase the height, floor area or occupancy load by more than 5 percent;
- 8. Any project for an existing building which will not result in the addition of over 40,000 square feet of new space as determined by the Department of Building and Safety; and
- 9. Residential buildings which contain one or more dwelling units, efficiency dwelling units, apartment units or the residential portion of a building that has both residential and nonresidential uses. This exception shall not apply to hotels.
- 10. Any project located within the boundaries of the Central City West Specific Plan Area, as defined in Ordinance No. 163,094, if the developer or project owner agrees by covenant and agreement or development agreement to abide by the linkage fee and replacement

housing obligations set forth in the Draft Specific Plan for the Central City West Specific Plan Area, dated November 2, 1989.

11. The repair, renovation or rehabilitation of a building or structure of historical, archaeological or architectural consequence, if such building or structure has been officially designated, or has been determined by state or federal action to be eligible for designation, on the National Register of Historic Places, or has been included on the City of Los Angeles list of Historic Cultural Monuments.

The Department of Building and Safety shall determine which exceptions apply to any project based on documentation submitted by the applicant prior to the issuance of the building permit.

91.107.9 Waiver of Fees For Chimneys and Walls Damaged by the Northridge Earthquake. The Department of Building and Safety shall waive all fees related to the building permit, plan check and inspection of chimneys and block walls damaged as a result of the Northridge Earthquake and its aftermath, if such are repaired or reconstructed to the seismic standards set forth in U.B.C. Section 3102.4 for chimneys and any seismic standards approved by the Department in response to the Northridge earthquake for fences.

91.107.10 Processing Fees for Soils Engineering, Foundation Investigation, Geology and Seismology Report and for Review of Division of Land Requests.

- 91.107.10.1 General. A fee shall be charged for the processing of each soil, foundation investigation, geology, or seismology report and each division of land request filed with the department for review of deviation. The amount of the fee for other than division of land requests shall be determined from Table No. 1-C.
- 91.107.10.2 Division of Land. Where the Department is required to review a division of land request as part of the City Planning Division of land procedures, a fee, in addition to the fees regulated by Section 91.107.10.1, shall be paid prior to the initiation of such review according to the following:
 - 1. Where a soils or geology report is not required as part of the Department review, the fee shall be \$100.00.
 - 2. Where a soils and/or geology report is required as part of the Department review, the fee shall be equal to and in addition to the applicable fee specified in Section 91.107.10.1 for review of the soils and/or geology report.

SEC. 91.108. INSPECTION.

91.108.1 General. All construction or work for which a permit is required shall be subject to inspection by authorized employees of the department, and certain types of construction shall have continuous inspection by registered deputy inspectors, as specified in Section 91.1701. Prior to the issuance of a Certificate of Occupancy as specified in Section 91.1702, a final inspection shall be made by the department of all construction or work for which a permit has been issued.

EXCEPTIONS:

- 1. When a permit is obtained for reroofing in compliance with Part II of Division 15, the department may waive inspections provided the following persons certify that the materials used comply with Part II of Division 15 and work is performed by:
 - A. A licensed contractor, or
 - B. The owner of the property who either did the work or used employees of the owner to do the work pursuant to Section 7044 of the Business and Professions Code.
- 2. When a permit is obtained for any work performed by Certified Licensed Contractors complying with the requirements of Section 91.108.12.
- 91.108.2 Inspection Record Card. With each permit issued, the department shall furnish a card to the applicant showing the location and nature of the work to be done and the number of the permit.

The permit card shall be posted in a place designated by the Superintendent of Building.

91.108.3 Inspection Requests. It shall be the duty of the person doing the work authorized by a permit to notify the Superintendent of Building that such work is ready for inspection. The Superintendent of Building may require that every request for inspection be filed at least one working day before such inspection is desired. Such request may be in writing or by telephone at the option of the Superintendent of Building.

It shall be the duty of the person requesting any inspections required by this code to provide access to and means for inspection of such work.

91.108.4 Approval Required. Work shall not be done beyond the point indicated in each successive inspection without first obtaining the approval of the Superintendent of Building. The Superintendent, upon notification, shall make the requested inspections and shall either indicate that portion of the construction is satisfactory as completed or

shall notify the permit holder or an agent of the permit holder wherein the same fails to comply with this code. Any portions which do not comply shall be corrected and such portion shall not be covered or concealed until authorized by the Superintendent.

There shall be a final inspection and approval of all buildings and structures when completed and ready for occupancy and use.

- **91.108.5 Required Inspections**. The permittee or his agent shall notify the department when the building or portion thereof is ready for each of the following inspections:
 - 1. Foundations. When the excavation for footings is complete and footing forms and required reinforcing steel are in place, but before any concrete is placed.
 - 2. Wood framing, ventilation equipment installation. When all roof, walls and floor framing, fire stopping and bracing are complete and all pipes, chimneys, vents and ductwork are in place, but before any of this work is covered.
 - 3. Wall covering. When the backing and lath or drywall are in place ready for plaster, stucco or taping.
 - 4. Reinforced concrete. When forms and reinforcing steel are in place ready for concrete.
 - 5. Reinforced masonry. In grouted masonry when vertical reinforcing steel is in place and other reinforcing steel distributed and ready for placing, but before any units are laid up.
 - 6. Structural steel. When structural steel members are in place and required connections are complete, but before concealing any members or connection.
 - 7. Final. When the construction or work is completed and the structure ready for occupancy, but before being occupied.

The permittee or the permittee's agent shall notify the department on the day prior to the day on which inspection is desired.

The department shall approve that portion of the work inspected or notify the responsible person if the work fails to comply with the law. Any portions which do not comply with the law shall be corrected and no portion shall be covered or concealed with additional work until approved.

When any of the above required inspections have been made and that portion of the work approved, the inspector shall so record on the permit card posted on the job.

- 91.108.6 Other Inspections. In addition to the called inspections specified above, the department may make any other inspections of any construction work to ascertain compliance with the provisions of this code and other laws which the department enforces.
- **91.108.7 Reinspections.** Fees for additional inspections shall be assessed in accordance with Section 98.0412 of the Los Angeles Municipal Code.
- 91.108.8 Surveys. In the absence of any designation of the proper location of the lot on which a building is to be erected, for which building a permit has been issued, the department may require the owner to have the lot surveyed and staked by a registered land surveyor or registered civil engineer so that the proper location of the building on the lot may be determined.
- 91.108.9 Inspection of Excavation and Fills. The permittee or the permittee's agent shall notify the department when the grading operation is ready for each of the following inspections:
 - 1. Initial meeting/inspection. When the permittee is ready to begin work, but before any grading operation or brushing is started, a meeting shall be held at the project site with the contractor and the inspectors to discuss the approved plans, soils reports and the sequence of the grading operations.
 - 2. Toe inspection. After the natural ground is exposed and prepared to receive fill, but before any fill is placed.
 - 3. Excavation inspection. After the excavation is started, but before the vertical depth of the excavation exceeds 10 feet.
 - 4. Fill inspection. After the fill emplacement is started, but before the vertical height of the lifts exceeds 10 feet.
 - 5. Drainage device inspection. After forms and pipe are in place, but before any concrete is placed.
 - 6. Rough grading. When all rough grading has been completed. This inspection may be called for at the completion of the rough grading without the necessity of the department having previously reviewed and approved the reports.

7. Final. When all work, including installation of all drainage structures and other protective devices, has been completed and the as graded plan and required reports have been submitted.

The permittee need not wait for the inspector to arrive before proceeding with the work after the inspection required by Item 2 of Section 91.108.9 has been completed.

The department shall approve the work inspected or notify the permittee or owner wherein the work fails to comply with the law. Any portion of the work which does not comply with the law shall be corrected.

- 91.108.10 Revised Grading Plan. If the inspector finds that the soil or other conditions are not as stated in the application for a grading permit, the inspector may refuse to approve further work until a revised grading plan is obtained which conforms to the existing conditions.
- 91.108.11 Approved Fabricators. The inspections provided for in this section shall not be required for construction or installation work done on the premises of a Type II fabricator to whom an approval has been issued pursuant to the provisions of Division C of Article 6 of Chapter IX of the Los Angeles Municipal Code.

91.108.12 Inspections by Certified Licensed Contractors of Work Performed on Detached Single-family Dwellings

- 91.108.12.1 In licu of the inspections made by employees of the Department, as specified in Section 91.108 of this Code, a certified licensed contractor, employed by the owner, upon notification to the Department prior to the commencement of work, may install, inspect and certify the following work as being performed in compliance with the provisions of the Los Angeles Municipal Code for a detached single–family dwelling:
 - 1. The replacement of defective water heaters with one of the equivalent gallonage, Btu rating and vent capacity when the vent does not require relocation or replacement.
 - 2. The replacement of defective forced—air units with one of equivalent size, Btu rating and vent capacity when the vent does not require relocation or replacement.
 - 3. The replacement of defective air—conditioning units with one of equivalent size and Btu rating;
 - 4. The replacement of plumbing fixtures and solar panels with equal kind and quality;

- 5. The replacement of defective domestic water piping within a dwelling, with piping of equivalent size and quality when the installation does not exceed 50 feet in length.
- 6. The replacement of defective metallic water service piping with piping of equivalent size, quality and conductivity;
- 7. The removing of existing roofing and the replacement of roofing materials which is in compliance with Part II of Division 15 and which does not require any alteration to the roof support system.
 - 8. The replacement of defective smoke detectors.
 - 9. The replacement of shower pans with the same size and capacity.
- 10. The installation or replacement of masonry and concrete fences not exceeding six (6) feet in height.
- 91.108.12.2 The employment of a certified licensed contractor by the owner on any work shall not prohibit the department from performing inspections of any work described in Section 91.108.12.1. The called inspections required by Section 91.109 may be delegated to the certified licensed contractor performing the work by the Superintendent of Building.
- 91.108.12.3 The department may allow the use of the certification by a certified licensed contractor in lieu of inspections made by employees of the department only if:
- **91.108.12.3.1** The certified licensed contractor has a valid Certificate of Registration obtained in accordance with Section 91.1705 of this code;
- 91.108.12.3.2 The certified licensed contractor has filed with the Department a Certificate of Compliance for each installation.

The Certificate of Compliance shall be on a form provided by the Department and shall be signed by the property owner and the certified licensed contractor. The Department may require that the certified licensed contractor affix a certification label obtained from the Department on certain types of installations to identify the work certified:

The Certificate of Compliance shall describe the work performed and state that the certified licensed contractor warrants, from personal knowledge, that the materials installed and the work performed are in compliance with approved manufacturer's instructions, specifications and applicable requirements of the Los Angeles Municipal Code.

For the work described in Items 1, 2, and 3 of Section 91.108.12.1, the phrase "personal knowledge" as used in the Certificate of Compliance means that the certified licensed contractor has actual personal knowledge of the facts certified to, or knowledge acquired from an employee of the certified licensed contractor, which employee provided continuous observation of the work or installation at the site in all stages of its progress.

For work set forth in Items 4, 5, and 6 of Section 91.108.12.1, the phrase "personal knowledge" means the certified licensed contractor has actual personal knowledge or knowledge acquired from another certified licensed contractor or a qualified installer.

- 91.108.12.3.3 The Certificate of Compliance processing fee has been paid in accordance with Section 98.0417 of the Los Angeles Municipal Code.
- **91.108.12.3.4** The certified licensed contractor has filed the application for a Certificate of Compliance with the Department within 15 days after completion of the installation.

The certified licensed contractor has submitted a report to the department describing the work the certified licensed contractor performed and declaring that the work complies with all applicable provisions of the Los Angeles Municipal Code. The report shall be made on forms supplied by the department and shall be filed in the records of the department.

91.108.12.4 The certified licensed contractor shall notify the Department of the certified licensed contractor's commencement of work for which the certified licensed contractor has been engaged. This notification shall be made no later than the last business day preceding the commencement of work.

The certified licensed contractor shall inspect all materials to be used or concealed within such work.

While engaged in the work, the certified licensed contractor shall not undertake or engage in any other task or occupation which will interfere with the proper performance of the certified licensed contractor's duties of inspection. The certified licensed contractor shall report all violations of this code which have occurred relating to the construction work to the Superintendent of Building, and such other information relating to the installation work as requested by the Superintendent.

The Department may refuse to issue a Certificate of Compliance if it finds that the contractor has failed to comply with any of these requirements.

SEC. 91.109. CERTIFICATE OF OCCUPANCY.

91.109.1 Certificate Required. In order to safeguard life and limb, health, property and public welfare, every building or structure and every trailer park shall conform to the construction requirements for the subgroup occupancy to be housed therein, or for the use to which the building or structure or trailer park is to be put, as set forth in this article.

No building or structure or portion thereof and no trailer park or portion thereof shall be used or occupied until a Certificate of Occupancy has been issued thereof.

EXCEPTIONS:

- 1. Unless it is specifically required by other provisions of this article, no existing building or portion thereof shall require a Certificate of Occupancy, provided:
 - A. The occupancy housed therein is the same for which the original building permit was issued; and
 - B. The use of a building or portion thereof housing a Group A or E Occupancy and constructed prior to 1934 has not been discontinued for a period of more than six months.
- 2. No structure, the architecture of which inhibits occupancy, shall require a Certificate of Occupancy.
- 91.109.2 Change of Occupancy. See Division 82.
- 91.109.3 Issuance of Certificates. When required by Section 91.109.1, after the receipt and approval of the final inspection report from each of the divisions of the department, and after the city engineer has reported that all required public improvements have been completed, the Superintendent of Building shall issue a Certificate of Occupancy, without charge, to the owner of the building. Duplicates of the certificate may be secured upon the payment of the duplication fee required by ordinance.

When a Certificate of Occupancy is issued, it shall supersede every certificate previously issued for that portion of the building described thereon.

91.109.4 Contents of Certificate. Each certificate shall contain the following:

- 1. The building permit numbers.
- 2. The address of the building.
- 3. The name and address of the owner.
- 4. A description of that portion of the building for which the certificate is issued.
- 5. For Groups A and E Occupancies, the maximum occupant load allowed.
- 6. A statement that the described portion of the building complies with the construction requirements of the Los Angeles Municipal Code for the group of occupancies in which the proposed occupancy is classified.
 - 7. A statement that establishes relevant requirements of the Zoning Code.
- 8. The signature of the Superintendent of Building or an authorize representative of the Superintendent.

91.109.5 Temporary Certificates. Notwithstanding the provisions of Section 91.109.4, if the Superintendent of Building finds that no substantial hazard will result from the occupancy of any building, or portion thereof, before the same is completed, and satisfactory evidence is submitted that the work could not have been completed prior to the time such occupancy is desired because of its magnitude or because of unusual construction difficulties, and the city engineer has reported that all required public improvements have been completed, the Superintendent of Building may issue a temporary Certificate of Occupancy for any building or portion thereof. The Superintendent of Building may issue a temporary Certificate of Occupancy notwithstanding the fact that all required public improvements have not been completed, if the superintendent finds that the failure to complete the public improvements was due to circumstances over which the person applying for the Certificate of Occupancy had no control.

In addition, the Superintendent of Building may issue a temporary Certificate of Occupancy for an existing building, or portion thereof, provided no substantial hazard will result and satisfactory evidence is submitted justifying the need for such temporary occupancy. The department shall collect a fee for each temporary Certificate of Occupancy. The amount of the fee shall be \$100.00 plus an additional fee as shown in Table No. 1-B of this code.

- 1. Schedules of requests for deviation from the provisions of the code and for approval of materials and methods of construction;
 - 2. Schedules of violations of the provisions of this code;
- 3. Schedules of convictions and nonconvictions, and the reasons for nonconvictions, by the city attorney's office;
- 4. Changes and improvements in materials, methods of construction and design;
 - 5. Investigations of fire and structural damage to buildings.
- 91.111.2 Upon request, the board shall consult with and provide advice to the Superintendent of Building on any matter relating to proposed changes of this code.

SEC. 91.112. GRADING CERTIFICATE.

. . . .

- 91.112.1 Certificate Required. No owner of property or other person or agent in control of property shall permit or allow any grading made after October 17, 1952, and not expressly within the exceptions set forth in Section 91.106, to exist on such property unless a Grading Certificate has been issued therefor or unless the grading is being carried on under the authorization of a valid grading permit.
- 91.112.2 Issuance of Certificate. If upon final inspection of any excavation or fill it is found that the work authorized by the grading permit has been satisfactorily completed in accordance with the requirements of this code, the department shall issue to the owner a Grading Certificate covering the work. On the owner's request a separate certificate will be issued for each lot for which building permits have been issued or applied for prior to the completion of the grading.

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Such temporary Certificate of Occupancy shall be valid for a period not to exceed six months. The department may issue additional temporary Certificates of Occupancy. After the expiration of a temporary Certificate of Occupancy, the building or structure shall require a Certificate of Occupancy in accordance with other provisions of this section. Duplicates of the certificate or temporary certificate may be secured upon the payment of the duplication fee required by ordinance.

- 91.109.6 Revocation. The Superintendent of Building shall have the authority to, in writing, suspend or revoke a Certificate of Occupancy issued under the provisions of this code whenever the certificate is issued in error, or on the basis of incorrect information supplied, or when it is determined that the building or structure or portion thereof is in violation of any ordinance or regulation or any of the provisions of this code.
- 91.109.7 Notwithstanding the provisions of Section 91.109.4, whenever public improvements are required in connection with the replacement or restoration of a building destroyed or damaged during the local emergency declared by the Mayor in April, 1992, the completion of those public improvements may be deferred until June 1, 1995, and a temporary Certificate of Occupancy may issue for the new or restored building or a portion thereof prior to the completion of the public improvements. The temporary Certificate of Occupancy shall issue only if the Superintendent of Building finds that no substantial hazard will result from the occupancy of the building or portion thereof prior to the completion of the public improvements. This Section 91.109.7 does not affect any requirement of a bond or other security to warrant the proper completion of the required public improvements.
- **91.109.8** Fire Department Notification. For each Group A and E Occupancy, a copy of the certificate shall be forwarded to the Los Angeles Fire Department.

SEC. 91.110. RESPONSIBILITY OF PERMITTEE.

Building permits shall be presumed to incorporate the provision that the applicant, the applicant's agent, employees or contractors shall carry out the proposed work in accordance with the approved plans and with all requirements of this code and any other laws or regulations applicable thereto, whether specified or not.

No approval shall relieve or exonerate any person from the responsibility of complying with the provisions and intent of this Code.

SEC. 91.111. CODE REVISION.

91.111.1 The Superintendent of Building shall determine what changes in the code are necessary to more adequately protect the public health, safety and welfare, based on studies of the following:

TABLE NO. 1-A PERMIT FEES^{1,2,3,4}

TOTAL VALUATION		FEE	
From	To		
\$ 0.00	\$100 inclusive	None	
100.01	2,000 inclusive	\$42.00	
2,000.01	20,000 inclusive	\$26.00 plus \$.80 per \$100 or fraction thereof of total valuation.	
20,000.01	50,000 inclusive	\$81.00 plus \$5.75 per \$1,000 or fraction thereof of total valuation	
50,000.01	100,000 inclusive	\$145.00 plus \$4.45 per \$1,000 or fraction thereof of total valuation	
100,000.01	500,000 inclusive	\$310.00 plus \$2.85 per \$1,000 or fraction thereof of total valuation	
500,000.01	1,000,000 inclusive	\$425.00 plus \$2.65 per \$1,000 or fraction thereof of total valuation	
Over 1,000,000		\$700.00 plus \$2.40 per \$1,000 or fraction thereof of total valuation	

- The building permit fee specified in this table shall be increased by a surcharge pursuant to Section 2705, Chapter 8, Division 2 of the Public Resources Code of the State of California (State Strong Motion Instrumentation Program). This surcharge shall not be included in the building permit fee for the purpose of determining the plan check fee.
- The permit fee specified in the table above shall be increased by 10 percent for all construction or work required to comply with the rules and regulations adopted by the General Resources Conservation and Development Commission of the State of California. This increase in fee shall be included in the building permit fee for the purpose of determining the plan checking fee.
- The permit fee specified in the table above shall be increased by 12.5 percent for all construction or work required to comply with Title 24, California Code of Regulations, Section 1-110, et seq., the state's disabled access and adaptability requirements. The increase in fee shall be included in the building permit fee for the purpose of determining the plan check fee.
- The minimum permit fee for projects that require more than one inspection shall be double the minimum inspection fee specified in Section 98.0412 (a) of the Los Angeles Municipal Code.

TABLE NO. 1-A.1 COMBINED PERMIT FEES

(R-3 Occ.)	Building	Elec.	Plumb.	Mech.	Combined Fees
New Construction	See Table 1-A	26% of bldg permit fee	26% of bldg permit fee	13% of bldg permit fee	165% of bldg permit fee determined from Table 1-A
Alteration	See Table 1-A	26% of bldg permit fee	26% of bldg permit fee	13% of bldg permit fee	165% of bldg permit fee determined from Table 1-A
Swimming Pool	See Table 1-A				175% of bldg permit fee determined from Table 1-A
Solar Heating and Cooling System	See Table 1-A				

TABLE NO. 1-B TEMPORARY CERTIFICATE OF OCCUPANCY ADDITIONAL FEES

ITEMS	ADDITIONAL FEE	
A Occupancy	\$65.00 each assembly room or area	
E Occupancy	\$65.00 each classroom	
I Occupancy	\$65.00 each floor or portion thereof	
H Occupancy	\$65.00 each floor or portion thereof	
B, F, M or S Occupancy	\$65.00 each floor or portion thereof	
R 1 Occupancy	\$125.00 each floor or portion thereof	
R 3 Occupancy	No additional fee	

TABLE NO. 1 C REPORT FEES^{1,2,3,4}

REPORT	FEES
Foundation investigation ⁵ Soils engineering or geology report ⁶ for the first lot plus \$2.80 for each additional lot or for the first acre plus \$14.00 for each additional acre or fraction thereof, whichever is the greater fee	\$168.00 168.00
Seismology report Supplemental fee for each supplemental foundation investigation, soils engineering, geology or seismology report	168.00 84.00

- Combined reports when submitted together may have the total fee reduced by \$60.00.
- Report fees for minor work (structures, additions, slope repairs or grading) may be reduced to one half of the calculated fee, as determined by the department.
- Fees are based on single projects and contiguous properties.
- Additional fees for division of land review shall be collected as required by Section 91.107.10.
- ⁵ May include soil period evaluation.
- ⁶ May include special studies zones evaluation.

TABLE NO. 1 D GRADING PERMIT FEES

GRADING	FEE
100 cubic yards or less	\$110.00
101- 1,000 cubic yards	\$110.00 for the first 100 cubic yards, plus \$100.00 for each additional 100 cubic yards or fraction thereof.
1,001 10,000 cubic yards	\$1,100.00 for the first 1,000 cubic yards, plus \$110.00 for each additional 1,000 cubic yards or fraction thereof.
10,001 100,000 cubic yards	\$1,900.00 for the first 10,000 cubic yards, plus \$500.00 for each additional 10,000 cubic yards or fraction thereof.
100,001 cubic yards or more	\$6,700.00 for the first 100,000 cubic yards, plus \$250.00 for each additional 10,000 cubic yards or fraction thereof.

Scc. 2. Division 2 of Article 1 of Chapter IX of the Los Angeles Municipal Code is hereby amended to read as follows:

DIVISION 2

DEFINITIONS AND ABBREVIATIONS

SEC. 91.200. RESERVED.

SEC. 91.201. DEFINITIONS.

Section 201 of the U.B.C. is hereby adopted by reference.

SEC. 91.202. A.

Section 202 of the C.B.C. is hereby adopted by reference except that the C.B.C. definitions of the following terms are not adopted:

ACCESSIBLE LOCATION
ADULT
AGED HOME OR INSTITUTION
ALLEY
APPROVED
APPROVED LISTING AGENCY

The following definitions are also adopted:

ALLEY is any public way other than a street or highway, providing a means of vehicular access to abutting property.

APPROVED, shall mean, unless otherwise specifically stated, approved by the Department or by the Board in case of an appeal as provided in Article 8, Chapter IX of the Los Angeles Municipal Code.

SEC. 91.203. B.

Section 203 of the C.B.C. is hereby adopted by reference except that the C.B.C. definitions of the following terms are not adopted:

BUILDING BUILDING, EXISTING BUILDING OFFICIAL The following definitions are also adopted:

BOARD. The Board of Building and Safety Commissioners of the City of Los Angeles.

BUILDING is any structure used or intended for supporting or sheltering any use or occupancy

BUILDING, EXISTING, is an erected building for which a legal building permit has been issued.

BUILDING LINE. Any private property line coterminous with a public way; or a building line established by City ordinance.

BUILDING OFFICIAL is the Superintendent of Building and Safety, or an authorized representative charged with the administration and enforcement of this Code.

SEC. 91,204. C.

Section 204 of the C.B.C. is hereby adopted by reference except that the C.B.C. definitions of the following terms are not adopted:

CARE AND SUPERVISION
CELLULAR CONCRETE
CHIEF OF THE FIRE DEPARTMENT
COMMERCE
COMMERCIAL FACILITIES
CONTROL AREA
CURB CUT
CURB RAMP

The following definitions are also adopted:

C.B.C. shall mean the 1995 Edition of the California Building Code, publication date July 1, 1995. This code is also known as Part 2 of Title 24 of the California Code of Regulations.

CHIEF OF THE FIRE DEPARTMENT is the Chief Engineer and General Manager of the Fire Department or his authorized representative.

CITY shall mean the City of Los Angeles, California.

CONTROL AREA is a space bounded by not less than a one-hour fire-resistive occupancy separation within which the exempted amounts of hazardous materials may be stored, dispensed, handled or used.

SEC. 91.205. D.

Section 205 of the C.B.C. is hereby adopted by reference except that the C.B.C. definitions of the following terms are not adopted:

DANGEROUS BUILDINGS CODE DEPARTMENT

The following definitions are also adopted:

DEPARTMENT the Department of Building and Safety.

SEC. 91.206. E.

Section 206 of the C.B.C. is hereby adopted by reference except that the C.B.C. definitions of the following terms are not adopted:

ELECTRICAL CODE ELEVATOR CODE

The following definitions are also adopted:

ELECTRICAL CODE is the Los Angeles City Electrical Code, Article 3 of Chapter IX of the Los Angeles Municipal Code.

ELEVATOR CODE is the Los Angeles City Elevator Code, Article 2 of Chapter IX of the Los Angeles Municipal Code.

SEC. 91.207. F.

Section 207 of the C.B.C. is hereby adopted by reference except that the C.B.C. definitions of the following terms are not adopted:

FINAL INSPECTION PLACE FIRE CODE FLOOR HOLE FLOOR OPENING

The following definitions are also adopted:

FIRE CODE is the Los Angeles City Fire Code, Article 7 of Chapter V of the Los Angeles Municipal Code.

FIRE DISTRICT is any portion of the City of Los Angeles as described in Division 72.

FOUNDATION-ONLY PERMIT. A building permit issued for that portion of a building which constitutes the footings for the building and which may, subject to the approval of the Department, include those portions of the building below the grade level.

SEC. 91.208. G.

Section 208 of the C.B.C. is hereby adopted by reference except that the C.B.C. definition of the following term is not adopted:

GUEST ROOM

The following definitions are also adopted:

GRADING shall mean excavation or fill or any combination thereof and shall include the conditions resulting from any excavation or fill.

GRAFFITI shall mean any unauthorized inscription, work, figure of design which is marked, etched, scratched, drawn or painted on any structural component of any building, structure or other facility regardless of the nature of the material of that structural component. Graffiti shall constitute a nuisance.

GUEST ROOM is any room or rooms used or intended to be used by a guest for sleeping purposes. Every 100 square feet of superficial floor area in a congregate residence shall be considered to be a guest room..

SEC. 91.209. H.

Section 209 of the C.B.C. is hereby adopted by reference except that the C.B.C. definitions of the following terms are not adopted.

HAZARDOUS SUBSTANCE HEALTH FACILITIES HORIZONTAL EXIT

SEC. 91.210. I.

Section 210 of the C.B.C. is hereby adopted by reference except that the following definition is also adopted:

INDUSTRIAL CATERING TRUCK. An industrial catering truck is a motor vehicle used for the purpose of dispensing and selling liquids from sanitary dispensers and/or ready-to-eat food and beverages which have been prepared and sealed, or packaged on premises having a valid health permit authorizing the preparation of food, other than the vehicle from which said drink, food, or beverages are sold.

SEC. 91.211. J.

Section 211 of the C.B.C. is hereby adopted by reference.

SEC. 91.212. K.

Section 212 of the C.B.C. is hereby adopted by reference

SEC. 91.213. L.

Section 213 of the C.B.C. is hereby adopted by reference except that the C.B.C. definitions of the following terms are not adopted:

LISTED and LISTING

The following definitions are also adopted:

LISTED and LISTING are terms referring to equipment or materials included in a list published by an approved testing laboratory, inspection agency or other organization concerned with product evaluation that maintains periodic inspection of current productions of listed equipment or materials. The published list shall state that the material or equipment complies with approved nationally recognized codes, standards or tests and has been tested or evaluated and found suitable for use in a specified manner.

These terms shall also mean equipment or materials accepted by the state fire marshal as conforming to the provisions of the state fire marshal's regulations and which are included in a list published by the state fire marshal.

SEC. 91.214. M.

Section 214 of the C.B.C. is hereby adopted by reference except that the C.B.C. definitions of the following terms are not adopted:

MECHANICAL CODE MENTALLY RETARDED PERSONS, PROFOUNDLY OR SEVERELY

The following definitions is also adopted:

MECHANICAL CODE is the Los Angeles City Mechanical Code, Article 5 of Chapter IX of the Los Angeles Municipal Code.

SEC. 91.215. N.

Section 215 of the C.B.C. is hereby adopted by reference except that the C.B.C. definitions of the following term is not adopted:

NONAMBULATORY PERSONS

SEC. 91.216. O.

Section 216 of the C.B.C. is hereby adopted by reference except that the C.B.C. definitions of the following term is not adopted:

OCCUPANCY

The following definition is also adopted:

OCCUPANCY is the purpose for which a building, or part thereof, is used or intended to be used. The term "Occupancy" as used in this Code shall include the room housing such occupancy and the space immediately above a roof or structure if used or intended to be used for other than a shelter.

SEC. 91.217. P.

Section 217 of the C.B.C. is hereby adopted by reference except that the C.B.C. definitions of the following terms are not adopted:

PLUMBING CODE PREPARE PROCESSING FOR USE AS PET FOOD PYROXYLIN PLASTIC

The following definition is also adopted:

PLUMBING CODE is the Los Angeles City Plumbing Code, Article 4, Chapter IX of the Los Angeles Municipal Code.

SEC. 91.218. Q.

Section 218 of the C.B.C. is hereby adopted by reference.

SEC. 91.219. R.

Section 219 of the C.B.C. is hereby adopted by reference except that the C.B.C. definitions of the following terms are not adopted:

REASONABLE PORTION RESTRAINT

SEC. 91.220. S.

Section 220 of the C.B.C. is hereby adopted by reference except that the C.B.C. definitions of the following terms are not adopted:

SITE
SQUARE FEET
STATE-OWNED/LEASED BUILDING
STORAGE ACCESS AISLE
STREET
STRUCTURAL OBSERVATION
SUITABLE

The following definitions are also adopted:

SOIL ENGINEER shall mean a civil engineer duly licensed by the State of California who is experienced in the application of the principles of soil mechanics in the investigation, evaluation and design of civil works involving the use of earth materials and who is approved by the Department, or a geotechnical engineer licensed by the State of California.

STREET is any public thoroughfare other than an alley or walk, except that in those cases where a subdivision has been recorded containing lots which abut only on an alley or walk, said alley or walk may be considered to be a street..

STRUCTURAL OBSERVATION means the visual observation of the structural system, including, but not limited to, the elements and connections for general conformance to the approved plans and specifications, at significant construction stages and at completion of the structural system. Structural observation does not include or waive the responsibility for the inspections required by Sections 91.108, 91.1701 or other sections of this code.

SUPERINTENDENT OF BUILDING shall mean the Building Official when referenced in this Code, or the General Manager of the Department of Building and Safety of the City of Los Angeles, or his duly authorized representative.

SEC. 91.221. T.

Section 221 of the C.B.C. is hereby adopted by reference except that the C.B.C. definitions of the following term is not adopted:

TEMPORARY

The following definition is also adopted:

TEMPORARY shall mean buildings and facilities intended for use at one location for not more than one hundred and twenty days and seats intended for use at one location for not more than 90 days.

SEC. 91.222. U.

Section 222 of the C.B.C. is hereby adopted by reference except that the C.B.C. definitions of the following terms are not adopted:

U.B.C.

U.B.C. STANDARDS

The following definitions are also adopted:

U.B.C. shall mean the 1994 edition of the Uniform Building Code as published by the International Conference of Building Officials.

U.B.C. STANDARDS are those standards published in Volume 3 of the Uniform Building Code promulgated by the International Conference of Building Officials, as adopted by the City of Los Angeles. (See Division 35.)

SEC. 91.223. V.

Section 223 of the C.B.C. is hereby adopted by reference.

SEC. 91.224. W.

Section 224 of the C.B.C. is hereby adopted by reference.

SEC. 91.225. X.

Section 225 of the C.B.C. is hereby adopted by reference.

SEC. 91.226. Y.

Section 226 of the C.B.C. is hereby adopted by reference.

SEC. 91.227. Z.

Section 227 of the C.B.C. is hereby adopted by reference.

Sec. 3. Division 3 of Article 1 of Chapter IX of the Los Angeles Municipal Code is hereby amended to read as follows:

DIVISION 3

USE OR OCCUPANCY

SEC. 91.300. BASIC PROVISIONS.

Chapter 3 of the U.B.C. is hereby adopted by reference for the purpose of providing basic building regulations relating to Use or Occupancy with the following exceptions: Sections 301, 303, 305, 307, 308, 310, 311 and 312 of the U.B.C. are not adopted and in lieu thereof Sections 91.301, 91.303, 91.305, 91.307, 91.308, 91.310, 91.311 and 91.312 are added as provided herein.

SEC. 91.301. OCCUPANCY CLASSIFIED.

Every building, whether existing or hereafter erected, shall be classified by the Superintendent of Building according to its use or the character of its occupancy, as set forth in Table 3-A, as a building of one of the following occupancy groups:

Group AAssembly (See Section 91.303.1.1)
Group BBusiness (See Section 304.1 of the U.B.C.)
Group EEducational (See Section 91.305.1)
Group FFactory and Industrial (See Section 306.1 of the U.B.C.)
Group HHazardous (See Section 91.307.1)
Group IInstitutional (See Section 91.308.1)
Group MMercantile (See Section 309.1 of the U.B.C.)
Group RResidential (See Section 91.310.1)
Group SStorage (See Section 91.311.1)
Group UUtility (See Section 91.312.1)

Any occupancy not mentioned specifically or about which there is any question shall be classified by the Superintendent of Building and included in the group which its use most nearly resembles, based on the existing or proposed fire and life hazard.

For change of use of an existing building, see Division 82 of this Code.

SEC. 91.303. REQUIREMENTS FOR GROUP A OCCUPANCIES.

- 91.303.1 Section 303.1 of the U.B.C. is hereby adopted by reference.
- 91.303.2 Section 303.2 of the U.B.C. is hereby adopted by reference.
- 91.303.3 Section 303.3 of the U.B.C. is hereby adopted by reference.
- 91.303.4 Section 303.4 of the U.B.C. is hereby adopted by reference.
- **91.303.5** Section 303.5 of the U.B.C. is hereby adopted by reference.
- 91.303.6 Section 303.6 of the U.B.C. is hereby adopted by reference.
- 91.303.7 Section 303.7 of the U.B.C. is hereby adopted by reference.
- 91.303.8 Section 303.8 of the U.B.C. is hereby adopted by reference.
- 91.303.9 Section 303.9 of the U.B.C. is hereby adopted by reference.
- 91.303.10 Section 303.10 of the C.B.C. is hereby adopted by reference.

SEC. 91.305. REQUIREMENTS FOR GROUP E OCCUPANCIES.

- 91.305.1 Section 305.1 of the C.B.C. is hereby adopted by reference.
- 91.305.2 Construction, Height and Allowable Area.
- **91.305.2.1** Section 305.2.1 of the U.B.C. is hereby adopted by reference.
- 91.305.2.2 Atmospheric Separation Requirements.
- 91.305.2.2.1 Section 305.2.2.1 of the U.B.C. is hereby adopted by reference.
- 91.305.2.2.2 Section 305.2.2.2 of the U.B.C. is hereby adopted by reference.
- 91.305.2.3 Special provisions. Rooms in Divisions 1 and 2 Occupancies used day care purposes, for kindergarten, first- or second-grade pupils, and Division 3 Occupancies shall not be located above or below the first story.

EXCEPTIONS:

- 1. Basements or stories having floor levels located within 4 feet (1219 mm), measured vertically, from adjacent ground level at the point of exit, provided the basement or story has exits directly to the exterior at that level.
- 2. In buildings equipped with an automatic sprinkler system throughout, rooms used for kindergarten, first- and second-grade children or for day-care purposes may be located on the second story, provided there are at least two exits directly to the exterior for the exclusive use of such occupants.

Stages and platforms shall be constructed in accordance with Section 91.405. For attic space partitions and draft stops, see U.B.C. Section 708.

- 91.305.2.4 Section 305.2.4 of the U.B.C. is hereby adopted by reference.
- 91.305.3 Section 305.3 of the U.B.C. is hereby adopted by reference.
- **91.305.4** Section 305.4 of the U.B.C. is hereby adopted by reference.
- 91.305.5 Section 305.5 of the U.B.C. is hereby adopted by reference.
- 91.305.6 Section 305.6 of the U.B.C. is hereby adopted by reference.
- **91.305.7** Section 305.7 of the U.B.C. is hereby adopted by reference.
- 91.305.8 Section 305.8 of the U.B.C. is hereby adopted by reference.
- **91.305.9** Section 305.9 of the U.B.C. is hereby adopted by reference.
- SEC. 91.307. REQUIREMENTS FOR GROUP H OCCUPANCIES.
- 91.307.1 Group H Occupancies Defined.
- 91.307.1.1 Section 307.1.1 of the C.B.C. is hereby adopted by reference.
- 91.307.1.2 Section 307.1.2 of the U.B.C. is hereby adopted by reference.
- 91.307.1.3 Liquid use, dispensing and mixing rooms. Rooms in which Class I, Class II and Class III-A flammable or combustible liquids are used, dispensed or mixed in open containers shall be constructed in accordance with the requirements for a Group H, Division 2 Occupancy and the following:
 - 1. Rooms in excess of 500 square feet (46.5 m²) shall have at least one exterior door approved for fire department access.

- 2. Rooms shall not exceed 1,000 square feet (93.0 m²) in area
- 3. Rooms shall be separated from other areas by an occupancy separation having a fire-resistive rating of not less than one hour for rooms up to 150 square feet (13.9 m²) in area and not less than two hours where the room is more than 150 square feet (13.9 m²) in area. Separations from other occupancies shall not be less than required by Section 91.302 of the Los Angeles Municipal Code and U.B.C. Table 3-B.
- 4. Shelving, racks and wainscoting in such areas shall be of noncombustible construction or wood not less than 1-inch (25 mm) nominal thickness.
- 5. Liquid use, dispensing and mixing rooms shall not be located in basements.
- **91.307.1.4** Section 307.1.4 of the U.B.C. is hereby adopted by reference.
- 91.307.1.5 Section 307.1.5 of the U.B.C. is hereby adopted by reference.
- **91.307.1.6** Section 307.1.6 of the U.B.C. is hereby adopted by reference.
- 91.307.2 Construction, Height and Allowable Area.
- 91.307.2.1 Section 307.2.1 of the U.B.C. is hereby adopted by reference.
- 91.307.2.2 Section 307.2.2 of the U.B.C. is hereby adopted by reference.
- 91.307.2.3 Section 307.2.3 of the U.B.C. is hereby adopted by reference.
- **91.307.2.4** Section 307.2.4 of the U.B.C. is hereby adopted by reference.
- 91.307.2.5 Section 307.2.5 of the U.B.C. is hereby adopted by reference.
- 91.307.2.6 Section 307.2.6 of the U.B.C. is hereby adopted by reference.
- 91.307.2.7 Standby Power. Standby power shall be provided in Group H, Divisions 1 and 2 Occupancies and in Group H, Division 3 Occupancies in which Class I, II or III organic peroxides are stored. The standby power system shall be designed and installed in accordance with the Electrical Code to automatically supply power to all required electrical equipment when the normal electrical supply system is interrupted.

- 91.307.2.8 Emergency Power. An emergency power system shall be provided in Group H, Divisions 6, 7 and 8 Occupancies. The emergency power system shall be designed and installed in accordance with the Electrical Code to automatically supply power to all required electrical equipment when the normal electrical supply system is interrupted.
 - 91.307.2.9 Section 307.2.9 of the U.B.C. is hereby adopted by reference.
 - 91.307.2.10 Section 307.2.10 of the U.B.C. is hereby adopted by reference.
 - 91.307.2.11 Section 307.2.11 of the U.B.C. is hereby adopted by reference.
 - 91.307.2.12 Section 307.2.12 of the U.B.C. is hereby adopted by reference.
 - 91.307.2.13 Section 307.2.13 of the C.B.C. is hereby adopted by reference.
 - **91.307.3** Section 307.3 of the U.B.C. is hereby adopted by reference.
 - **91.307.4** Section 307.4 of the U.B.C. is hereby adopted by reference.
 - 91.307.5 Light, Ventilation and Sanitation.
 - 91.307.5.1 Section 307.5.1 of the U.B.C. is hereby adopted by reference.
 - 91.307.5.2 Section 307.5.2 of the U.B.C. is hereby adopted by reference.
 - 91.307.5.3 Section 307.5.3 of the U.B.C. is hereby adopted by reference.
 - 91.307.5.4 Section 307.5.4 of the U.B.C. is hereby adopted by reference.
 - 91.307.5.5 Section 307.5.5 of the C.B.C. is hereby adopted by reference.
 - 91.307.6 Section 307.6 of the U.B.C. is hereby adopted by reference.
 - **91.307.7** Section 307.7 of the U.B.C. is hereby adopted by reference.
 - 91.307.8 Section 307.8 of the C.B.C. is hereby adopted by reference.
 - 91.307.9 Section 307.9 of the U.B.C. is hereby adopted by reference.
 - 91.307.10 Section 307.10 of the U.B.C. is hereby adopted by reference.
 - 91.307.11 Section 307.11 of the U.B.C. is hereby adopted by reference.

- 91.307.12 Section 307.12 of the U.B.C. is hereby adopted by reference.
- SEC. 91.308. REQUIREMENTS FOR GROUP I OCCUPANCIES.
- 91.308.1 Section 308.1 of the C.B.C. is hereby adopted by reference.
- 91.308.2 Section 308.2 of the C.B.C. is hereby adopted by reference.
- **91.308.3** Section 308.3 of the U.B.C. is hereby adopted by reference.
- 91.308.4 Section 308.4 of the C.B.C. is hereby adopted by reference.
- 91.308.5 Section 308.5 of the U.B.C. is hereby adopted by reference.
- 91.308.6 Section 308.6 of the U.B.C. is hereby adopted by reference.
- 91.308.7 Section 308.7 of the C.B.C. is hereby adopted by reference.
- 91.308.8 Section 308.8 of the C.B.C. is hereby adopted by reference...
- 91.308.9 Section 308.9 of the C.B.C. is hereby adopted by reference.
- 91.308.10 Section 308.10 of the U.B.C. is hereby adopted by reference.
- 91.308.11 Section 308.11 of the C.B.C. is hereby adopted by reference.
- 91.308.12 Section 308.12 of the C.B.C. is hereby adopted by reference.
- **91.308.13** Section 308.13 of the C.B.C. is hereby adopted by reference.
- SEC. 91.310. REQUIREMENTS FOR GROUP R OCCUPANCIES.
- **91.310.1** Section 310.1 of the C.B.C. is hereby adopted by reference.
- 91.310.2 Section 310.2 of the C.B.C. is hereby adopted by reference.
- 91.310.3 Section 310.3 of the U.B.C. is hereby adopted by reference.
- 91.310.4 Access and Exit Facilities and Emergency Escapes.
- 91.310.4.1 Stairs, exits and smokeproof enclosures shall be provided as specified in Division 10 of this code. (See also Section 91.1016 for special requirements and Section 91.1013 for exit markings.)

Access to, and egress from buildings are required to be as specified in Division 11 of this code.

- 91.310.4.2 Every sleeping room below the fourth story shall have at least one operable window or exterior door approved for emergency escape. These emergency escape windows or doors must provide a full clear opening and shall be operable from the inside without the use of special tools.
- 91.310.4.3 All emergency escape windows from sleeping rooms shall have a minimum net clear opening of 5.7 square feet. The minimum net clear opening height dimension shall be 24 inches. The minimum net clear opening width dimension shall be 20 inches. Where windows are provided as a means of escape they shall have a finished sill height not more than 44 inches above the floor.
- 91.310.4.4 No person shall install or maintain bars, grilles, grates, security roll-down shutters, or similar devices on emergency escape windows or doors, regardless of when they were installed.
 - **EXCEPTION:** Emergency escape windows or doors may be covered with bars, grilles, grates, security roll-down shutters or similar devices, provided that the following requirements are met:
 - 1. A permit is obtained from the Department of Building and Safety and a fee is paid as required in Section 91.107.2.9 of this code. Any permit so issued shall be valid for a period of 90 days from its issuance. The department may allow a "certified installer" to be used, in lieu of obtaining a permit, in accordance with Section 91.112.
 - 2. The bars, grilles, grates, security roll-down shutters or similar devices are equipped with a quick-release system, which is openable from the inside without the use of a key or special knowledge or effort, as determined by the Department of Building and Safety.
 - 3. The building is equipped with smoke detectors installed in accordance with Sections 91.310.9.1 and 91.8603 of this code.
 - 4. Such bars, grilles, grates or similar devices shall be equipped with an approved release device for use by the fire department only, on the exterior side for the purpose of fire department emergency access, when required by the authority having jurisdiction.
- 91.310.4.5 Any person who willfully or knowingly, with the intent to deceive, makes a false statement or representation, or knowingly fails to disclose a material fact in any documentation required by the Department to ascertain facts relative to this section,

Section 91.107.2.9 or to Section 91.1706 of this code, including any oral or written evidence presented, shall be guilty of a misdemeanor.

- 91.310.5 Section 310.5 of the C.B.C. is hereby adopted by reference.
- 91.310.6 Room Dimensions.
- 91.310.6.1 Section 310.6.1 of the U.B.C. is hereby adopted by reference.
- 91.310.6.2 Floor Area. Dwelling units and congregate residences shall have at least one room which shall have not less than 120 square feet (11.2 m²) of floor area. Other habitable rooms except kitchens shall have an area of not less than 70 square feet (6.5 m²). If more than two persons occupy a room used for each occupant in excess of two. Efficiency dwelling units shall comply with the requirements of U.B.C. Section 310.7.
 - 91.310.6.3 Section 310.6.3 of the C.B.C. is hereby adopted by reference.
 - 91.310.7 Section 310.7 of the U.B.C. is hereby adopted by reference.
 - 91.310.8 Section 310.8 of the U.B.C. is hereby adopted by reference.
 - 91.310.9 Fire-warning and Sprinkler Systems
 - 91.310.9.1 Fire-warning Systems (Smoke detectors).
- 91.310.9.1.1 Fire-warning Systems—Group R, Division 1 Occupancies. Every dwelling unit, efficiency dwelling unit, congregate residence, guest room and suite in a building shall be provided with smoke detectors which are "listed" as that term is defined in the Electrical Code and approved by the state fire marshal. Smoke detectors which operate at a voltage less than a nominal 120 volts shall be installed in accordance with rules established by the Superintendent of Building pursuant to Section 22.19 of the Los Angeles Administrative Code. In each dwelling unit, detectors shall be mounted on the ceiling or wall of each room used for sleeping purposes and at a point centrally located on the wall or ceiling of the corridor or area giving access to such rooms. In an efficiency dwelling unit and guest room, the detector shall be centrally located on the ceiling or wall of the main room. In a suite, the detector shall be centrally located on the ceiling of the main room and any room used for sleeping purposes. In a dwelling unit or suite where sleeping rooms are on an upper level a detector shall be placed at the center of the ceiling directly above the stairway. All detectors shall receive their primary power from the building wiring. All detectors shall be located in accordance with approved manufacturer's instructions. Wiring shall be permanent and without a disconnecting switch other than that required for overcurrent protection. Care shall be exercised to ensure that the installation will not interfere with the operating characteristics of the

detector. When actuated, the detector shall provide an alarm in the dwelling unit, sleeping room or guest room.

91.310.9.1.2 Fire-warning Systems-Group R, Division 3 Occupancies.

91.310.9.1.2.1 Every dwelling unit and every guest room or congregate residence shall be provided with smoke detectors which are "listed" as that term is defined in the Electrical Code and approved by the state fire marshal. A detector shall be mounted on the ceiling or wall of each room used for sleeping purposes and at a point centrally located on the wall or ceiling of the corridor or area giving access to these rooms. Where sleeping rooms are on an upper level, a detector shall be placed at the center of the ceiling directly above the stairway. All detectors shall receive their primary power from the building wiring. Wiring shall be permanent and without a disconnecting switch other than that required for the overcurrent protection. Care shall be exercised to ensure that the installation will not interfere with the operation of the detector. When actuated, the detector shall provide an alarm in the dwelling unit, sleeping room or guest room. All required detectors shall be located in accordance with the manufacturer's instructions, with no part of the detector located more than 12 inches below the finished surface of the ceiling of the room or corridor in which the detector is required to be installed.

EXCEPTION: Notwithstanding anything above to the contrary, smoke detectors which operate at a voltage less than a nominal 120 volts may be installed. These installations must be in accordance with rules established by the Superintendent of Building pursuant to Section 22.19 of the Los Angeles Administrative Code.

- 91.310.9.1.2 Existing buildings containing Group R, Division 3 Occupancies shall comply with the requirements of Section 91.8603.2 of this code.
- 91.310.9.1.3 Basements. A smoke detector shall be installed in the basement of dwelling units having a stairway which opens from the basement into the dwelling. Such detector shall be connected to a sounding device or other detector to provide an alarm which will be audible in the sleeping area.
- 91.310.9.1.4 Power Source. In new construction, required smoke detectors shall receive their primary power from the building wiring when such wiring is served from a commercial source and shall be equipped with battery backup. The detector shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than those required for overcurrent protection.
- 91.310.9.2 Sprinkler Systems. When required by other provisions of this code, automatic sprinkler systems and standpipes shall be installed as specified in Section 91.307.1.

- 91.310.10 Section 310.10 of the C.B.C. is hereby adopted by reference except for that exception labeled "2a."
 - 91.310.11 Section 310.11 of the C.B.C. is hereby adopted by reference.
 - 91.310.12 Section 310.12 of the C.B.C. is hereby adopted by reference.
 - **91.310.13** Section 310.13 of the C.B.C. is hereby adopted by reference.
- 91.310.14 Anchorage of Water Heaters. Water heaters which are over 4 feet in height from the base to the top of the tank case shall be anchored or strapped to prevent horizontal and vertical displacement due to earthquake.
 - 91.310.15 Section 310.15 of the C.B.C. is hereby adopted by reference.
- 91.310.16 Interior Doors. In any residential building, every interior door in a doorway through which occupants pass shall have a minimum width of 32 inches.
 - **EXCEPTION:** The provisions of this section shall not apply to doors located in shower compartment and bathtub enclosures.
- 91.310.17 Parking Illumination. All parking areas and garages provided for dwelling units or guest rooms shall have a minimum surface illumination of 0.2 footcandle.
 - SEC. 91.311. REQUIREMENTS FOR GROUP S OCCUPANCIES.
 - **91.311.1** Section 311.1 of the U.B.C. is hereby adopted by reference.
 - 91.311.2 Construction, Height and Allowable Area.
 - **91.311.2.1** Section 311.2.1 of the U.B.C. is hereby adopted by reference.
 - 91.311.2.2 Special provisions.
- 91.311.2.2.1 Group S, Division 3 with Group A, Division 3; Group B; Group M or R, Division 1 or 2 Occupancy above. Other provisions of this code notwithstanding, a basement or first story of a building may be considered as a separate and distinct building for the purpose of area limitations, limitation of number of stories and type of construction, when all of the following conditions are met:
 - 1. The basement or first story is of Type I construction and is separated from the building above with a three-hour occupancy separation. See Section U.B.C. 302.3.

- 2. The building above the three-hour occupancy separation contains only Group A, Division 3; Group B; or Group M or R, Division 1 or 2 Occupancies.
- 3. The building below the three-hour occupancy separation is a Group S, Division 3 Occupancy used exclusively for the parking and storage of private or pleasure-type motor vehicles.

EXCEPTIONS:

- 1. Entry lobbies, mechanical rooms and similar uses incidental to the operation of the building.
- 2. Group B office, drinking and dining establishments and Group M retail occupancies in addition to those uses incidental to the operation of the building (including storage areas), provided that the entire structure below the three-hour occupancy separation is protected throughout by an automatic sprinkler system.
- 3. Group A, Division 3, occupancies, in addition to those uses incidental to the operation of the building (including storage areas) provided that:
- 3.1 Exits from areas above the three-hour occupancy separation shall be constructed and maintained independently from those required for the Group A, Division 3 occupancy.
- 3.2 Mechanical equipment necessary for the operation of the Group A, Division 3 occupancy be designed and maintained without connecting to like systems servicing other portions of the building.
- 3.3 The entire structure below the three-hour occupancy separation is protected throughout by an automatic sprinkler system.
- 4 The maximum building height in feet shall not exceed the limits set forth in Table 5-B for the least type of construction involved.
- 91.311.2.2.2 Section 311.2.2.2 of the U.B.C. is hereby adopted by reference.
- 91.311.2.3 Section 311.2.3 of the U.B.C. is hereby adopted by reference.
- 91.311.3 Section 311.3 of the U.B.C. is hereby adopted by reference.
- 91.311.4 Section 311.4 of the U.B.C. is hereby adopted by reference.

- 91.311.5 Section 311.5 of the U.B.C. is hereby adopted by reference.
- 91.311.6 Section 311.6 of the U.B.C. is hereby adopted by reference.
- 91.311.7 Section 311.7 of the U.B.C. is hereby adopted by reference.
- 91.311.8 Section 311.8 of the U.B.C. is hereby adopted by reference.
- 91.311.9 Section 311.9 of the U.B.C. is hereby adopted by reference.
- 91.311.10 Section 311.10 of the U.B.C. is hereby adopted by reference.
- SEC. 91.312. REQUIREMENTS FOR GROUP U OCCUPANCIES.
- 91.312.1 Group U Occupancies Defined. Group U Occupancies shall include buildings or structures, or portions thereof, and shall be:
 - Division 1. Private garages, carports, sheds and agricultural buildings.
 - **Division 2.** Fences, tanks and towers. For occupancy separations, see Table 3-B.
 - 91.312.2 Construction, Height and Allowable Area.
 - 91.312.2.1 Section 312.2.1 of the U.B.C. is hereby adopted by reference.
- 91.312.2.2 Special Area Provisions. The total area of a private garage used only as a parking garage for private or pleasure-type motor vehicles where no repair work is done or fuel dispensed may be 3,000 square feet (279 m²), provided the provisions set forth in Item 1 or 2 below are satisfied. More than one 3,000-square-foot (279 m²) Group U, Division 1 Occupancy may be within the same building, provided each 3,000-square-foot (279 m²) area is separated by area separation walls complying with U.B.C. Section 504.6.
 - 1. For a mixed-occupancy building, the exterior wall and opening protection for the Group U, Division 1 portion of the building shall be as required for the major occupancy of the building. For such mixed-occupancy building, the allowable floor area of the building shall be as permitted for the major occupancy contained therein.
 - 2. For a building containing only a Group U, Division 1 Occupancy, the exterior wall and opening protection shall be as required for a building classified as a Group R, Division 1 Occupancy.

Automobile access through an area separation wall separating Group U, Division 1 Occupancies shall not be allowed.

- 91.312.2.3 Section 312.2.3 of the U.B.C. is hereby adopted by reference.
- 91.312.3 Section 312.3 of the U.B.C. is hereby adopted by reference.
- 91.312.4 Section 312.4 of the U.B.C. is hereby adopted by reference.
- 91.312.5 Section 312.5 of the U.B.C. is hereby adopted by reference.
- 91.312.6 Reserved.
- 91.312.7 Section 312.7 of the C.B.C. is hereby adopted by reference.
- 91.312.8 Ventilation Requirements. Ventilation shall be provided as specified in Division 12.
- Sec. 4. Division 4 of Article 1 of Chapter IX of the Los Angeles Municipal Code is hereby amended to read as follows:

DIVISION 4

SPECIAL USE AND OCCUPANCY

SEC. 91.400. BASIC PROVISIONS.

Chapter 4 of the U.B.C. is hereby adopted by reference for the purpose of providing basic building regulations relating to Special Use and Occupancy with the following exceptions: Sections 402, 403, 404, 405, 407, 409, 410, 412, 413, 414, 415, 416 and 418 of the U.B.C. are not adopted and in lieu thereof Sections 91.402, 91.403, 91.404, 91.405, 91.407, 91.409, and 91.410 are added as provided herein. Section 413a of the C.B.C. is hereby adopted by reference.

SEC. 91.402. ATRIA.

- 91.402.1 General. Buildings, of Type I construction, other than Group H and I Occupancies and, with automatic sprinkler protection throughout may have atria complying with the provisions of this section. Such atria shall have a minimum opening area and dimension as set forth in Table 4–A.
- 91.402.2 Smoke-control System. An automatic activated smoke-control system meeting the requirements of Section 91.905 of the Los Angeles Municipal Code shall be provided within the atrium and areas open to the atrium.

- 91.402.3 Enclosure of Atria. Atria shall be separated from adjacent spaces by not less than one-hour fire-resistive construction. **EXCEPTIONS**:
 - 1. The separation between atria and tenant spaces that are not guest rooms, congregate residences or dwelling units may be omitted at three floor levels.
 - 2. Open balconies not used are required exits are permitted within the atrium.

Openings in the atrium enclosure other than fixed glazing shall be protected by smoke—and draft—control assemblies conforming to U.B.C. Section 1005.8. **EXCEPTION:** In other than Group R, Division 1 Occupancies, doors which are maintained automatic closing, in accordance with U.B.C. Section 713.2, by actuation of a smoke detector, or self—closing may be used when protected as required for glazed openings in Exception 2 below.

Fixed glazed openings in the atrium enclosure shall be equipped with fire windows having a fire—resistive rating of not less than three—fourths hour, and the total area of such openings shall not exceed 25 percent of the area of the common wall between the atrium and the room into which the opening is provided.

EXCEPTIONS:

- 1. In Group R, Division 1 Occupancies, openings may be unprotected when the floor area of each guest room, congregate residence or dwelling unit does not exceed 1,000 square feet (93 m²) and each room or unit has an approved exit not entering the atrium.
- 2. Guest rooms, dwelling units, congregate residences and tenant spaces may be separated from the atrium by approved fixed wired glass set in steel frames. In lieu thereof, tempered or laminated glass or listed glass block may be used, subject to the following:
 - 2.1 The glass shall be protected by a sprinkler system equipped with listed quick-response sprinklers. The sprinkler system shall completely wet the entire surface of the glass wall when actuated. Where there are walking surfaces on both sides of the glass, both sides of the glass shall be so protected.
 - 2.2 The tempered or laminated glass shall be in a gasketed frame so installed that the glazing system may deflect without breaking (loading) the glass before the sprinkler system operates.
 - 2.3 The glass block wall assembly shall be installed in accordance with its listing for a three—fourths—hour fire—resistive rating and U.B.C. Section 2110.
 - 2.4 Obstructions such as curtain rods, drapery traverse rods, curtains, drapes or similar materials shall not be installed between the sprinkler and the glass.

- **91.402.4 Travel Distance.** The required travel distance from the atrium space to an enclosed stairway, exterior door or exit passageway shall not exceed 150 feet (45,720 mm).
- 91.402.5 Exits and Corridors. All required exits shall be independent of the atrium.
- 91.402.5.1 Corridor Locations. All required exit corridors shall be located so as not to adjoin the atrium space unless said corridor is separated from the atrium by minimum one—hour fire—resistive construction. Fixed glazing within said corridor adjoining an atrium shall be limited to approved \(^1/_4\) inch—thick wired glass set in steel frames, and said openings shall not exceed 25 percent of the area of the common wall between the corridor and the atrium.
 - 91.402.6 Section 402.6 of the U.B.C. is hereby adopted by reference.
 - 91.402.7 Section 402.7 of the U.B.C. is hereby adopted by reference.
 - 91.402.8 Section 402.8 of the U.B.C. is hereby adopted by reference.
 - 91.402.9 Section 402.9 of the U.B.C. is hereby adopted by reference.
- 91.402.10 Combustible Furnishings in Atria. The quantity of combustible furnishings in atria shall not exceed that specified in the Fire Code. Areas in atria that are more than 20 feet below ceiling-mounted sprinklers shall be limited as to the amount of combustible furnishings and decorative materials to not more than 1 pound per square foot. Such combustibles shall be limited to materials having a maximum of 7,500 Btu per pound. In computation of the above, no more than an average of 3 pounds per square foot shall be concentrated in any one area. All decorative materials shall be noncombustible or shall be flame—retardant treated and be so maintained. Devices generating an open flame shall not be used or installed within.
- **91.402.11 Fire Alarm.** An approved fire alarm system shall be installed to include all levels from the ground floor and above.
- 91.402.12 Uses Allowed. Uses within the atrium shall be limited to lobby, foyer, or other similar space.
- SEC. 91.403. SPECIAL PROVISIONS FOR GROUP B OFFICE BUILDINGS; GROUP H, DIVISION 8; AND GROUP R, DIVISION 1 OCCUPANCIES.
 - 91.403.1 Section 403.1 of the C.B.C. is hereby adopted by reference.

91.403.2 Automatic Sprinkler System.

- 91.403.2.1 System Design. The automatic sprinkler system shall be provided throughout the building as specified by the City of Los Angeles Plumbing Code, 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.

Sprinkler control valves, shutoff valves and a water-flow detecting device shall be provided at the lateral connection to the riser for each floor. Such valves and devices shall be electrically supervised to automatically sound an appropriate signal transmitted to locations in accordance with U.B.C. Section 403.5.

- 2. In Seismic Zones 2, 3 and 4, in addition to the main water supply, a secondary on-site supply of water shall be automatically available. The quantity of secondary on-site supply of water shall be as required in the City of Los Angeles Plumbing Code.
- 3. Every high-rise building shall be protected by an automatic fire-extinguishing system installed in conformance to NFPA 13 and the provisions of this subsection; except that automatic sprinklers may be omitted in rooms or areas in accordance with Section 91.904.1.2 of the Los Angeles Municipal Code and U.B.C. Section 904.4.
- 91.403.3 Smoke Detection. Smoke detectors shall be provided in accordance with this section and the Mechanical Code. Smoke detectors shall be connected to an automatic fire alarm system installed in accordance with the Fire Code. The actuation of any detector required by this section shall operate the emergency voice alarm signaling system and automatically shall place into operation the smoke control system meeting the requirements of Division 9.

Smoke detectors shall be located as follows:

- 1. In every mechanical equipment, electrical, transformer, telephone equipment, elevator machine or similar room and in elevator lobbies. Elevator lobby detectors shall be connected to an alarm verification zone or be listed as releasing devices.
- 2. In the main, supply-air, return—air and exhaust—air plenum of each air—moving system shall be located in a serviceable area. **EXCEPTION:** When the space supplied by the air-moving equipment is served by a total area coverage smoke-detection system complying with U.F.C. Standard 10-2, interconnection to such system may be used to accomplish the required shutoff.

- 3. At each connection to a vertical duct or riser serving two or more stories from a supply-air and return—air duct or plenum of an air—moving system. In Group R, Division 1 Occupancies, an approved smoke detector may be used in each return—air riser carrying not more than 5,000 cubic feet per minute (2360 L/s) and serving not more than 10 air inlet openings.
- 4. For Group R, Division 1 Occupancies in all interior corridors serving as a required exit for a occupant load of 10 or more.
- 91.403.4 Section 403.4 of the U.B.C. is hereby adopted by reference.
- 91.403.5 Section 403.5 of the C.B.C. is hereby adopted by reference.
- 91.403.6 Central Control Station.
- 91.403.6.1 Section 403.6.1 of the C.B.C. is hereby adopted by reference, except for Item Number 14.
 - 91.403.6.2 Section 403.6.2 of the C.B.C. is hereby adopted by reference.
- 91.403.7 Elevators. Elevators and elevator lobbies shall comply with the provisions of Division 30 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 not be more than four 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 not be of less than one-hour fire-resistive construction. Openings through such walls shall be protected with three-fourthshour automatic-closing fire assemblies actuated by a smoke detector and shall conform to U.B.C. Section 1005.8. **EXCEPTIONS:**
 - 1. The main entrance-level elevator lobby in office buildings.
 - 2. Elevator lobbies located within an atrium complying with the provisions of Section 91.402.
 - 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 required exit without passing through the elevator lobby.

- 2. Each elevator lobby shall be provided with an approved listed 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. If the main floor detector or a transfer floor detector is activated, all cars serving the main floor or transfer floor shall return to a location approved by the fire department and Superintendent of Building and be under manual control only. The smoke detector shall meet the requirements of Title 8, California Administrative Code (Elevator Safety Orders). 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 into the machine room. Such sleeves shall be no larger than necessary for free passage of the cables. Each elevator machine room shall be treated as a separate smoke—control zone.
- 4. A permanent sign shall be installed in each elevator cab adjacent to the floor status indicator and at each elevator call station on each floor, reading IN CASE OF FIRE USE STAIRWAY FOR EXIT. DO NOT USE ELEVATOR.
- 5. At least one elevator car serving all floors shall have a minimum inside car platform of 4 feet 3 inches deep by 6 feet 8 inches wide with a minimum clear opening width of 42 inches, unless otherwise designed and approved to provide equivalent utility to accommodate an ambulance stretcher having a minimum size of 22 inches by 78 inches in its horizontal position. This elevator shall be identified.

91.403.8 Standby Power, Light and Emergency Systems.

91.403.8.1 Section 403.8.1 of the C.B.C. is hereby adopted by reference.

91.403.8.2 Section 403.8.2 of the U.B.C. is hereby adopted by reference.

91.403.8.3 Section 403.8.3 of the C.B.C. is hereby adopted by reference.

91.403.9 Section 403.9 of the C.B.C. is hereby adopted by reference.

91.403.10 Section 403.10 of the U.B.C. is hereby adopted by reference.

SEC. 91.404. COVERED MALL BUILDINGS.

- **91.404.1** Section 404.1 of the U.B.C. is hereby adopted by reference.
- 91.404.2 Types of Construction.
- **91.404.2.1 Type of Construction.** Any building in which there is a mall shall be of Type I construction.

91.404.3 Special Provisions.

- 91.404.3.1 Automatic Sprinkler Systems. The covered mall building shall be provided with an automatic sprinkler system conforming to the provisions of the City of Los Angeles Plumbing Code. In three-level malls, a water curtain shall be installed between the mall and all tenant areas except where such areas are separated by minimum one-hour fire-resistive construction. The automatic sprinkler system shall comply with the following:
 - 1. All automatic sprinkler system control valves shall be electrically supervised by fire department approved central, proprietary or remote station or a local alarm service which will give an audible signal at a constantly attended location.
 - 2. The automatic sprinkler system shall be complete and operative throughout the covered mall building prior to occupancy of any of the tenant spaces. The separation between an unoccupied tenant space and the covered mall building shall be subject to the approval of the Superintendent of Building and fire department.
 - 3. Sprinkler protection for the mall shall be independent from that provided for tenant spaces. However, tenant spaces may be supplied by the same system if they can be independently controlled.

The respective increases for area and height for covered mall buildings, including anchor buildings, specified in U.B.C. Section 311.9 and Sections 91.505 and 91.506 of this code, shall be permitted.

- 91.404.3.2 Section 404.3.2 of the U.B.C. is hereby adopted by reference.
- 91.404.3.3 Smoke-control System. An automatic smoke-control system meeting the requirements of Section 91.905 of the Los Angeles Municipal Code shall be provided.

EXCEPTION: A smoke-control system need not be provided when both of the following conditions exist:

1. The mall does not exceed one story, and

- 2. The gross leasable area does not exceed 24,000 square feet (2230 m²).
- 91.404.3.4 Section 404.3.4 of the U.B.C. is hereby adopted by reference.
- 91.404.3.5 Section 404.3.5 of the U.B.C. is hereby adopted by reference.
- 91.404.3.6 Public Address System. Covered mall buildings exceeding 50,000 square feet (4645.2 m²) in total floor area shall be provided with a public address system accessible for use by the Fire Department. Covered mall buildings of 50,000 square feet (4645.2 m²) or less in total floor area, when provided with a public address system, shall have such system accessible for use by the Fire Department. Public address systems in covered malls not equipped with a manual or automatic fire alarm system shall comply with NFPA 72.
- 91.404.3.7 Plastic Panels and Plastic Signs. Within every story or level and from side wall to side wall of each tenant space or mall, approved plastic panels and signs shall be limited as follows:
 - 1. They shall not exceed 20 percent of the wall area facing the mall;
 - 2. They shall not exceed a height of 36 inches (914 mm) except that if the sign is vertical then the height shall not exceed 96 inches (2438 mm) and the width shall not exceed 36 inches (914 mm);
 - 3. They shall be located a minimum distance of 18 inches (457 mm) from adjacent tenants.
 - 4. All edges and the back shall be fully encased in metal.
 - 91.404.3.8 Section 404.3.8 of the U.B.C. is hereby adopted by reference.
- 91.404.3.9 Openings Between Anchor Building and Mall. Except for the occupancy separation between Group R, Division 1 sleeping rooms and the mall, openings between anchor buildings and the mall need not be protected.
- 91.404.3.10 Standby Power. Covered mall buildings exceeding 50,000 square feet (4645.2 m²) shall be provided with standby power systems which are capable of operating the public address system, exit signs, emergency lighting, the smoke–control activation system and the smoke–control equipment as required by Section 91.905 of the Los Angeles Municipal Code.
- **91.404.3.11 Plastic Diffusers.** Approved plastic diffusers that are an integral part of a lighting fixture listed by an approved laboratory may be used in any installation

within the mall or in exitways provided such plastic diffusers shall occupy not more than 15 square feet of any 100 square feet of ceiling area.

- 91.404.3.12 Luminous Ceiling. Plastic luminous ceilings are not allowed in malls.
- 91.404.3.13 Kitchens. All areas housing cooking equipment such as ranges, griddles, ovens, deep—fat fryers, barbecues and rotisseries shall be separated from any mall by a one—hour occupancy separation conforming to U.B.C. Section 302.3. All grease hoods shall be equipped with a fire—extinguishing system approved by the Los Angeles Fire Department.

91.404.3.14 Toilets Required.

- 1. Every mall regulated by this division shall have an accessible toilet facility for each sex on each level of the mall for every 24,000 square feet or fraction thereof of mall floor area. The mall floor area shall be the area of the first floor level of the mall exclusive of the gross leasable area of that level. Each toilet facility shall be accessible from the mall without passing through a tenant space.
- 2. A toilet facility for the men shall consist of a minimum of one urinal, one water closet and one lavatory. A toilet facility for the women shall consist of a minimum of two water closets and one lavatory.
- 3. Toilet facilities required by this section shall comply with Section 91.2902 of the Los Angeles Municipal Code and Division 11 of this code.

91.404.4 Access and Exit Facilities.

91.404.4.1 General. Each tenant space and the covered mall building shall be provided with exits as required by this section and Division 10 of this code. Where there is a conflict between the requirements of Division 10 and the requirements of this section, the requirements of this section shall apply.

Access to and egress from buildings required to be accessible shall be provided as specified in Division 11.

- 91.404.4.2 Section 404.4.2 of the U.B.C. is hereby adopted by reference.
- 91.404.4.3 Number of Exits. When the distance of travel to the mall exceeds 75 feet (22 860 mm) within the public area of a tenant space or when the occupant load served by the exit to the mall exceeds 50, not less than two exits shall be provided, and one shall be independent from mall. The occupant load of a public sales area shall be

computed at 30 square feet (2.8 m²) per occupant. Occupant loads for other areas shall be computed in accordance with Table 10–A. All exit doors from the mall shall be provided with panic hardware or shall omit any lock or latch.

- 91.404.4.4 Section 404.4.4 of the U.B.C. is hereby adopted by reference.
- 91.404.4.5 Distance to Exits. Within each individual tenant space in a covered mall building the maximum distance of travel from any point to an exterior exit door, exit passageway, enclosed stairway or entrance to the mall shall not exceed 200 feet (60 960 mm).

The maximum distance of travel from any point within a mall to an exterior exit door, exit passageway or an enclosed stairway shall not exceed 200 feet (60 960 mm).

- 91.404.4.6 Section 404.4.6 of the U.B.C. is hereby adopted by reference.
- 91.404.4.7 Malls. For the purpose of providing required egress, malls may be considered as corridors but need not comply with the requirements of Section 91.1005.7 of this code and U.B.C. Section 1005.8 when the width of mall is as specified in this section.

The minimum aggregate clear width of the mall shall be 30 feet (9144 mm). There shall be a minimum of 15 feet (4572 mm) clear width to a height of 8 feet (2438 mm) on each side of the mall between any projection from a tenant space bordering the mall and the nearest kiosk, vending machine, bench, display or other obstruction to egress. Kiosks, vending machines and similar uses shall be spaced at least 20 feet (6096 mm) from each other and shall not be more than 300 square feet (28 m²) in area.

Malls which do not conform to the requirements of this section shall comply with the requirements of Section 91.1005.7 of this code, and U.B.C. Section 1005.8.

- **91.404.4.8 Security Grilles and Doors.** Horizontal sliding or vertical security grilles or doors which are a part of a required means of egress shall conform to the following:
 - 1. They must remain secured in the full open position during the period of occupancy by the general public.
 - 2. Doors or grilles shall not be brought to the closed position when there are more than 10 persons occupying spaces served by a single exit or 50 persons occupying spaces served by more than one exit.
 - 3. The doors or grilles shall be openable from within without the use of any special knowledge or effort when the space is occupied.

EXCEPTION: Mall doors and grills can be in closed position when space is occupied by employees only and not open for business.

4. When two or more exits are required, not more than one half of the exits may be equipped with horizontal sliding or vertical rolling grilles or doors.

91.404.5 Occupancy.

91.404.5.1 General. Covered mall buildings shall be classified as Group M Occupancies and may contain accessory uses consisting of Group A, B, E or R, Division 1 Occupancies. The aggregate area of all accessory uses within a covered mall building shall not exceed 25 percent of the gross leasable area.

An attached garage for the parking or storage of private or pleasure—type motor vehicles having a capacity of not more than nine persons and open parking garages may be considered as separate buildings when they are separated from the covered mall building by an occupancy separation having a fire—endurance time period of at least two hours.

91.404.5.2 Section 404.5.2 of the U.B.C. is hereby adopted by reference.

SEC. 91.405. STAGES AND PLATFORMS.

- 91.405.1 Section 405.1 of the U.B.C. is hereby adopted by reference.
- **91.405.2** Section 405.2 of the U.B.C. is hereby adopted by reference.
- 91.405.3 Stages.
- 91.405.3.1 Section 405.3.1 of the U.B.C. is hereby adopted by reference.
- **91.405.3.2** Section 405.3.2 of the U.B.C. is hereby adopted by reference.
- 91.405.3.3 Section 405.3.3 of the U.B.C. is hereby adopted by reference.
- 91.405.3.3.1 Smoke Control. Smoke control system shall comply with applicable requirements of Division 9. A means shall be provided to maintain the smoke level not less than 6 feet (1829 mm) above the highest level of assembly seating or above the top of the proscenium opening where proscenium wall and opening protection is provided. The system shall be activated independently by each of the following: (1) activation of the sprinkler system in the stage area and (2) by a manually operated switch at an approved location. The emergency ventilation system shall be connected to both normal and standby power. The fan(s) power wiring and ducts shall be located and

properly protected to assure a minimum 20 minutes of operation in the event of activation.

- 91.405.3.3.2 Section 405.3.3.2 of the U.B.C. is hereby adopted by reference.
- 91.405.3.4 Section 405.3.4 of the U.B.C. is hereby adopted by reference.
- 91.405.3.5 Section 405.3.5 of the U.B.C. is hereby adopted by reference.
- **91.405.3.6** Section 405.3.6 of the U.B.C. is hereby adopted by reference.

SEC. 91.407. CELLULOSE NITRATE FILM.

The handling and storage of cellulose nitrate motion picture film shall conform to the requirements of Article 29 of National Fire Protection Association pamphlet No. 40 entitled "Cellulose Nitrate Motion Picture Film."

SEC. 91.409. PEDESTRIAN WALKWAYS.

- **91.409.1** Section 409.1 of the U.B.C. is hereby adopted by reference.
- 91.409.2 Section 409.2 of the U.B.C. is hereby adopted by reference.
- 91.409.3 Section 409.3 of the U.B.C. is hereby adopted by reference.
- 91.409.4 Section 409.4 of the U.B.C. is hereby adopted by reference.
- 91.409.5 Section 409.5 of the U.B.C. is hereby adopted by reference.
- 91.409.6 Section 409.6 of the U.B.C. is hereby adopted by reference.
- 91.409.7 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 91.1003.2 of this code.
 - 91.409.8 Section 409.8 of the U.B.C. is hereby adopted by reference.

SEC. 91.410. MEDICAL GAS SYSTEMS IN GROUPS B AND I OCCUPANCIES.

Medical gas systems in Groups B and I Occupancies shall be installed and maintained in accordance with this section, the Plumbing Code and the Fire Code. When nonflammable gas cylinders for such systems are located inside buildings, they shall be in

a separate room or enclosure separated from the rest of the building by not less than one-hour fire-resistive construction. Doors to the room or enclosure shall be self-closing smoke- and draft-control assemblies having a fire-protection rating of not less than one hour. Rooms shall have at least one exterior wall in which there are not less than two vents of not less than 36 square inches (0.023 m²) in area per vent. One vent shall be within 6 inches (152 mm) of the floor and one shall be within 6 inches (152 mm) of the ceiling.

EXCEPTION: When an exterior wall cannot be provided for the room, automatic sprinklers shall be installed within the room and the room shall be vented to the exterior through ducting contained within a one-hour-rated shaft enclosure. Approved mechanical ventilation shall provide six air changes per hour for the room.

Sec. 5. Division 5 of Article 1 of Chapter IX of the Los Angeles Municipal Code is hereby amended to read as follows:

DIVISION 5

GENERAL BUILDING LIMITATIONS

SEC. 91.500. BASIC PROVISIONS.

Chapter 5 of the U.B.C. is hereby adopted by references for the purpose of providing basic building regulations relating to General Building Limitation with the following exceptions: Sections 503, 505 and 506 of the U.B.C. are not adopted and in lieu thereof Sections 91.503, 91.505 and 91.506 are added as provided herein.

SEC. 91.503. LOCATION ON PROPERTY.

- **91.503.1** Section 503.1 of the U.B.C. is hereby adopted by reference.
- **91.503.2** Section 503.2 of the U.B.C. is hereby adopted by reference.
- **91.503.3** Section 503.3 of the U.B.C. is hereby adopted by reference.
- **91.503.4** Section 503.4 of the U.B.C. is hereby adopted by reference.
- 91.503.5 Fire Districts. Buildings located in a fire district shall have exterior wall protection as specified in Division 72 in addition to the general requirements of this section.
- 91.503.6 Separation from Oil Wells. No building more than 400 square feet in area and less than 36 feet in height shall be erected within 50 feet from the center of an oil

well casing and no building 36 feet in height shall be erected closer to the center of an oil well casing than a horizontal distance equal to one and one-half times the height of the building, provided however, that such distance need not exceed 200 feet. Said building shall be measured vertically from the adjacent ground elevation adjoining such building to the ceiling of the top story.

EXCEPTIONS: The distance separation between a building and an oil well may be reduced to:

- 1. 35 feet if a solid masonry wall not less than 6 feet high and 6 inches thick is constructed between the oil well and all portions of said buildings which are less than 50 feet from the wall;
- 2. 25 feet if all walls of the building which are located less than 50 feet from the oil well are of one-hour fire-resistive construction, have no openings, and are surmounted by a 3 foot high parapet;
- 3. 15 feet if all walls of the building which are located less than 50 feet from the oil well are of two-hour fire-resistive construction, have no openings, and are surmounted by a 3 foot high parapet.

No building used for the housing of human beings located on any premises where there is a school, hospital, sanitarium, theater or motion picture theater shall be within 200 feet from the center of an oil well casing, nor shall any public utility fuel manufacturing plant, or public utility electrical generating, receiving or distribution plant be located closer than 200 feet from the center of the oil well casing.

SEC. 91.505. ALLOWABLE AREA INCREASES.

- **91.505.1** Section 505.1 of the U.B.C. is hereby adopted by reference.
- **91.505.2** Section 505.2 of the U.B.C. is hereby adopted by reference.
- 91.505.3 Automatic Sprinkler Systems. The areas specified in Table 5–B and U.B.C. Section 504.2 may be tripled in one-story buildings and doubled in buildings of more than one story if the building is provided with an approved automatic sprinkler system throughout. The area increases permitted in this section may be compounded with that specified in U.B.C. Sections 505.1.1, 505.1.2 or 505.1.3. The increases permitted in this section shall not apply when automatic sprinkler systems are installed under the following provisions:
 - 1. Section 91.506 for an increase in allowable number of stories.

- 2. U.B.C. Section 904.2.5.1 for Group H, Divisions 1, 2 and 8 Occupancies.
- 3. Substitution for one-hour fire-resistive construction pursuant to U.B.C. Section 508.
 - 4. Section 91.402, Atria.

91.505.4 Yard Restriction. The increase in area and height permitted by U.B.C. Sections 504.1 and 504.2 of this section and Section 91.506 respectively shall not be allowed unless or until the owner of the required yard shall file with the Department an agreement binding such owner, heirs and assignees, to set aside the required yard as an unobstructed space having no improvements. Such agreement shall be recorded in the Los Angeles County Recorder's Office.

SEC. 91.506. MAXIMUM HEIGHT OF BUILDINGS AND INCREASES.

The maximum height and number of stories of buildings shall be dependent on the character of the occupancy and the type of construction and shall not exceed the limits set forth in Table 5-B, except as provided in this section and as specified in U.B.C. Section 302.1 for mixed occupancy buildings.

EXCEPTIONS:

- 1. Towers, spires and steeples erected as a part of a building and not used for habitation or storage are limited as to height only by structural design if completely of noncombustible materials, or may extend not to exceed 20 feet (6096 mm) above the height limit in Table 5-B if of combustible materials.
- 2. The height of one-story aircraft hangars shall not be limited if the building is provided with automatic sprinkler systems throughout as specified in Division 9 and is entirely surrounded by public ways or yards not less in width than one and one-half times the height of the building.

The story limits set forth in Table 5–B may be increased by one story if the building is provided with an approved automatic sprinkler system throughout. The increase in the number of stories for automatic sprinkler systems shall not apply when the automatic sprinkler systems throughout are installed under the following provisions:

- 1. Section 91.904.2.5 of the Los Angeles Municipal Code for Group H, Divisions 1, 2, 3, 6, 7 and 8 Occupancies.
- 2. Section 91.505 of the Los Angeles Municipal Code for an increase in allowable area.

- 3. Substitution for one-hour fire-resistive construction pursuant to U.B.C. Section 508.
 - 4. Section 91.402, Atria.
- 5. C.B.C. Section 904.2.6 for Group I, Divisions 1.1 and 1.2 Occupancies used as hospitals, nursing homes or health-care centers in Type II One-hour, Type IV or Type V One-hour construction.

See Divisions 3 and 4 for special occupancy provisions.

Sec. 6. Division 6 of Article 1 of Chapter IX of the Los Angeles Municipal Code is hereby amended to read as follows:

DIVISION 6

TYPES OF CONSTRUCTION

SEC. 91.600. BASIC PROVISIONS.

Chapter 6 of the U.B.C. is hereby adopted by reference for the purpose of providing basic building regulations relating to Types of Construction with the following exceptions: Sections 601, 602 and 603 of the U.B.C. are not adopted and in lieu thereof Sections 91.601, 91.602 and 91.603 are added as provided herein.

SEC. 91.601. CLASSIFICATION OF ALL BUILDINGS BY TYPES OF CONSTRUCTION AND GENERAL REQUIREMENTS.

- **91.601.1** Section 601.1 of the U.B.C. is hereby adopted by reference.
- **91.601.2** Section 601.2 of the U.B.C. is hereby adopted by reference.
- 91.601.3 Section 601.3 of the U.B.C. is hereby adopted by reference.
- 91.601.4 Section 601.4 of the U.B.C. is hereby adopted by reference.
- 91.601.5 Exceptions to Table 6-A.
- 91.601.5.1 Section 601.5.1 of the U.B.C. is hereby adopted by reference.
- 91.601.5.2 Fixed Partitions.
- 91.601.5.2.1 Section 601.5.2.1 of the U.B.C. is hereby adopted by reference.

- 91.601.5.2.2 Hotels, Apartments and Group R, Divisions 2.1.1, 2.2 and 2.2.1 Occupancies. Interior nonload—bearing partitions within individual dwelling units in apartment houses and guest rooms or suites in hotels when such dwelling units, guest rooms or suites are separated from each other and from corridors by not less than one—hour fire—resistive construction may be constructed of:
 - 1. Noncombustible materials or fire-retardant-treated wood in buildings of any type of construction; or
 - 2. Combustible framing with noncombustible materials applied to the framing in buildings of Type III or V construction.

Openings to such corridors shall be equipped with doors conforming to U.B.C. Section 1005.8 regardless of the occupant load served.

For use of plastics in partitions, see U.B.C. Section 2603.10.

- 91.601.5.3 Section 601.5.3 of the U.B.C. is hereby adopted by reference.
- 91.601.5.4 Section 601.5.4 of the U.B.C. is hereby adopted by reference.
- 91.601.5.5 Section 601.5.5 of the U.B.C. is hereby adopted by reference.
- 91.601.5.6 Section 601.5.6 of the U.B.C. is hereby adopted by reference.
- 91.601.5.7 Section 601.5.7 of the U.B.C. is hereby adopted by reference.
- SEC. 91.602. TYPE I FIRE-RESISTIVE BUILDINGS.
- **NOTE:** For additional requirements see Section 91.403 of the Los Angeles Municipal Code on High-rise Office buildings, Group H, Division 8 and Group R, Division 1 Occupancies.
 - 91.602.1 Section 602.1 of the U.B.C. is hereby adopted by reference.
 - **91.602.2** Section 602.2 of the U.B.C. is hereby adopted by reference.
 - **91.602.3** Section 602.3 of the U.B.C. is hereby adopted by reference.
 - 91.602.4 Section 602.4 of the U.B.C. is hereby adopted by reference.
- 91.602.5 Roofs. Except in retail sales and storage areas classified as Groups M and S, Division 1 Occupancies and in Group H Occupancies, roofs and their members, other than the structural frame, may be of unprotected noncombustible materials when

every part of the roof framing, including the structural frame, is 25 feet (7620 mm) or more above the floor, balcony or gallery immediately below.

Heavy-timber members in accordance with U.B.C. Section 605.6 may be used for such unprotected members in one-story buildings.

When every part of the structural framework of the roof of a Group A or E Occupancy or of an atrium is not less than 25 feet (7620 mm) above any floor, balcony or gallery, fire protection of all members of the roof construction, including those of the structural frame, may be omitted. Heavy-timber members in accordance with U.B.C. Section 605.6 may be used for such unprotected members in one-story buildings.

Roofs of unprotected noncombustible or heavy-timber construction conforming to U.B.C. Section 605.6.4 may be less than 25 feet (7620 mm) above any floor, balcony or gallery of a Group A, Division 2.1 Occupancy having an occupant load of 10,000 or more when all of the following conditions are met:

- 1. The building is not more than one story in height, except for multilevel areas located under the roof and used for locker rooms, exiting, concession stands, mechanical rooms and others accessory to the assembly room.
- 2. The area in which the roof clearance is less than 25 feet (7620 mm) does not exceed 35 percent of the area encompassed by the exterior walls.
- 3. An approved supervised automatic sprinkler system shall be installed throughout.

Where every part of the structural steel framework of the roof of a Group A or E Occupancy is more than 18 feet (5486 mm) and less than 25 feet (7620 mm) above any floor, balcony or gallery, the roof construction shall be protected by a ceiling of not less than one—hour fire—resistive construction.

Roof coverings shall be as specified in Division 15.

SEC. 91.603. TYPE II BUILDINGS.

NOTE: For additional requirements see Section 91.403 on High-rise Office Buildings, Group H, Division 8 and Group R, Division 1 Occupancies.

91.603.1 Section 603.1 of the U.B.C. is hereby adopted by reference.

91.603.2 Section 603.2 of the U.B.C. is hereby adopted by reference.

91.603.3 Section 603.3 of the U.B.C. is hereby adopted by reference.

- 91.603.4 Section 603.4 of the U.B.C. is hereby adopted by reference.
- **91.603.5.** Section 603.5 of the U.B.C. is hereby adopted by reference.
- Sec. 7. Division 7 of Article 1 of Chapter IX to the Los Angeles Municipal Code is hereby amended to read as follows:

DIVISION 7

FIRE-RESISTANT MATERIALS AND CONSTRUCTION

SEC. 91,700. BASIC PROVISIONS.

Chapter 7 of the U.B.C. is hereby adopted by reference for the purpose of providing basic building regulations relating to Fire-Resistant Materials and Construction with the following exceptions: Sections 709, 710, and 713 of the U.B.C. are not adopted and in lieu thereof Sections 91.709, 91.710, and 91.713 are added as provided herein.

SEC. 91.709. WALLS AND PARTITIONS.

- 91.709.1 Section 709.1 of the U.B.C. is hereby adopted by reference.
- 91.709.2 Section 709.2 of the U.B. C. is hereby adopted by reference.
- 91.709.3 Section 709.3 of the U.B. C. is hereby adopted by reference.
- 91.709.4 Section 709.4 of the U. B. C. is hereby adopted by reference.
- 91.709.5 Section 709.5 of the U. B. C. is hereby adopted by reference.
- 91.709.6 Through Penetration. Penetrating items passing entirely through both protective membranes of bearing walls required to have an approved fire—resistance rating and walls requiring protected openings shall be protected with through—penetration fire stops suitable for the method of penetration. Through-penetration fire stops shall be qualified by test in accordance with U.B.C. Standard No. 7-5. EXCEPTIONS:
 - 1. Penetrations not larger than a 4-inch (100 mm) nominal pipe or 16 square inches (10 320 mm²) in overall cross-sectional area containing noncombustible penetrating items, where the annular space between the penetrating items and the wall assembly being penetrated is filled with a material which will prevent the passage of flame and hot gases sufficient to ignite cotton waste when subjected to U.B.C. Standard 7-1 time-temperature fire conditions under a minimum positive pressure differential of 0.01-inch (0.25 mm) water column at the location of the

penetration for the time period at least equal to the fire-resistance rating of the wall assembly.

2. Penetrations not larger than a 4-inch (100 mm) nominal copper or ferrous pipe and conduit or 16 square inches (10 320 mm²) of overall cross-sectional area containing copper or ferrous penetrating items, where the annular space between the penetrating items and the wall assembly being penetrated is filled with concrete, grout or mortar for the full thickness of the wall assembly (or the thickness necessary to provide the required fire-resistance rating of the assembly being penetrated) at the location of the penetration in concrete and masonry wall assemblies.

The T rating for through—penetration fire stops in fire—rated walls requiring protected openings shall apply to penetrations in the following locations:

- 1. Above corridor ceilings which are not part of a fire-resistive assembly.
- 2. Below any ceiling.

EXCEPTION: Any through—penetrating item not larger than a 4-inch (100 mm) nominal pipe or 16 square inches (10 320 mm²) in overall cross-sectional area need not have a T rating.

- 91.709.7 Section 709.7 of the U.B. C. is hereby adopted by reference.
- 91.709.8 Section 709.8 of the U.B.C. is hereby adopted by reference.
- SEC. 91.710. FLOOR-CEILINGS OR ROOF-CEILINGS.
- 91.710.1 Section 710.1 of the U.B. C. is hereby adopted by reference.
- 91.710.2 Section 710.2 of the U.B.C. is hereby adopted by reference.
- 91.710.3 Floors. Fire—resistive floors and floors which are part of a floor—ceiling assembly shall be continuous without openings or penetrations in order to completely separate one story or basement from another.

EXCEPTIONS:

- 1. Openings enclosed in fire-resistive-rated shaft enclosures in accordance with U.B.C. Section 711.1.
 - 2. Exit enclosures in accordance with Division 10.
 - 3. Openings permitted in accordance with U.B.C. Section 711.3.

- 4. Atria constructed in accordance with Section 91.402 of this code.
- 5. Penetrations protected with approved through-penetration fire stops installed to provide an F rating or a T rating in accordance with U.B.C. Section 702. The T rating shall apply only to:
 - 5.1 Penetrations which are not contained within a wall at the point where they penetrate the floor, or
 - 5.2 Penetrations which are larger than a 4-inch (100 mm) nominal pipe or 16 square inches (10 320 mm²) in overall cross-sectional area.
- 6. Penetrations not larger than a 4-inch (100 mm) nominal pipe or 16 square inches (10 320 mm²) in overall cross-sectional area containing noncombustible penetrating items, where the annular space between the penetrating items and the floor assembly being penetrated is filled with a material which will prevent the passage of flame and hot gases sufficient to ignite cotton waste when subjected to U.B.C. Standard 7-1 time-temperature fire conditions under a minimum positive pressure differential of 0.01-inch (0.25 mm) water column at the location of the penetration for the time period at least equal to the fire-resistance rating of the floor assembly.
- 7. Penetrations not larger than a 4-inch (100 mm) nominal copper or ferrous pipe and conduit or 16 square inches (10 320 mm²) of overall cross-sectional area containing copper or ferrous penetrating items, where the annular space between the penetrating items and the floor assembly being penetrated is filled with concrete, grout or mortar for the full thickness of the floor assembly (or the thickness necessary to provide the required fire-resistance rating of the assembly being penetrated) at the location of the penetration in concrete floor assemblies.
- 91.710.4 Section 710.4 of the U.B. C. is hereby adopted by reference.
- 91.710.5 Section 710.5 of the U.B.C. is hereby adopted by reference.
- 91.710.6 Section 710.6 of the U.B.C. is hereby adopted by reference.

SEC. 91.713. FIRE–RESISTIVE ASSEMBLIES FOR PROTECTION OF OPENINGS.

- 91.713.1 Section 713.1 of the U.B. C. is hereby adopted by reference.
- 91.713.2 Section 713.2 of the U.B. C. is hereby adopted by reference.

91.713.3 Identification of Fire Doors, Fire Windows and Fire Dampers. Fire doors, fire windows and fire dampers shall have an approved label or listing mark, indicating the fire—protection rating, which is permanently affixed at the factory where fabrication and assembly are done. Periodic inspections shall be made by an approved inspection agency during fabrication and assembly.

Oversized fire doors may be installed when approved by the Superintendent of Building. The doors shall be labeled or be furnished with a certificate of inspection from an approved agency.

- 91.713.4 Section 713.4 of the U.B. C. is hereby adopted by reference.
- 91.713.5 Section 713.5 of the U.B. C. is hereby adopted by reference.
- 91.713.6 Section 713.6 of the U.B. C. is hereby adopted by reference.
- 91.713.7 Section 713.7 of the U.B.C. is hereby adopted by reference.
- 91.713.8 Section 713.8 of the U.B. C. is hereby adopted by reference.
- 91.713.9 Glazing. Glazing materials and glass block assemblies shall be qualified by tests in accordance with U.B.C. Standard 7–2 (for fire doors) or U.B.C. Standard 7–4 (for fire windows) as appropriate for the use, and they shall be labeled for the required fire—protection rating and installed in accordance with their listing. Glazing in fire door assemblies and in fire window assemblies subject to human impact in hazardous locations as indicated in Section 91.2406.4 shall comply with U.B.C. Section 2406.3.

Glazing not less than ¼ inch thick reinforced with wire mesh No. 24 gauge or heavier embedded in the glass with openings not larger than 1 inch square may be used pursuant to Section 98.0501 of the Los Angeles Municipal Code.

- 91.713.10 Smoke Dampers. Not less than Class II, 250°F. (121°C.) smoke dampers complying with approved recognized standards (see Division 35, Part III) shall be installed and be accessible for inspection and servicing in the following ducted or unducted air openings at:
 - 1. Penetrations of area or occupancy separation walls.
 - 2. Penetrations of the fire-resistive walls of fire-rated corridors serving as required exits.

- 3. Penetrations of shaft enclosures. **EXCEPTION:** Exhaust—only openings serving continuously operating fans and protected using the provisions of Division 9.
 - 4. Penetrations of smoke barriers.
 - 5. Penetrations of elevator lobbies required by U.B.C. Section 3002.
- 6. Penetrations of areas of refuge. **EXCEPTION:** Ventilation systems specifically designed and protected to supply outside air to these areas during an emergency.

A smoke damper need not be provided when it can be demonstrated that the smoke damper is not essential to limit the passage of smoke under passive conditions and the proper function of a smoke—control system complying with Division 9 does not depend on the operation of the damper. Smoke dampers may be omitted at openings which must be maintained open for proper operation of a mechanical control system provided that adequate protection against smoke migration, in the event of system failure, has been provided.

- 91.713.11 Fire Dampers. Fire dampers complying with the requirements of approved recognized standards (see Division 35, Part III) shall be installed and be accessible for inspection and servicing in the following ducted and unducted air openings at:
 - 1. Penetrations through area separation walls or occupancy separations.
 - 2. Penetrations of the fire-resistive construction of corridors serving as required exits.
 - 3. Penetrations of shaft enclosures. EXCEPTIONS:
 - 1. Duct penetrations by steel exhaust air subducts extending vertically upward at least 22 inches (559 mm) above the top of the opening in a vented shaft where the airflow is upward.
 - 2. Penetrations of a fire—resistive floor forming the base of a shaft enclosure may be protected by fire dampers listed for installation in the horizontal position.
 - 4. Penetrations of the ceiling of fire-resistive floor-ceiling or roof-ceiling assemblies shall be protected in accordance with U.B.C. Section 710.2.
 - 5. Penetrations of an atrium enclosure element.

- 6. Penetrations of the building exterior required to have protected openings by Section 91.503.
- 7. Penetrations of areas of refuge. **EXCEPTION:** Ventilation systems specifically designed and protected to supply outside air to these areas during an emergency.

A fire damper is not required where fire tests have demonstrated that fire dampers are not required to maintain the fire resistance of the construction.

The operating temperature of the fire-damper actuating device shall be approximately 50°F. (10°C.) above the normal temperature within the duct system, but not less than 160°F. (71°C.). The operating temperature of the actuating device may be increased to not more than 286°F. (141°C.) when located in a smoke-control system complying with Division 9.

- 91.713.12 Section 713.12 of the U.B. C. is hereby adopted by reference.
- 91.713.13 Signs. When required by the Superintendent of Building, a sign shall be displayed permanently near or on each required fire door in letters not less than 1 inch (25 mm) high to read as follows:

FIRE DOOR DO NOT OBSTRUCT

PART I 12936 Sec. 8. Division 8 of Article 1 of Chapter IX of the Los Angeles Municipal Code is hereby amended to read as follows:

DIVISION 8

INTERIOR FINISHES

SEC. 91.800. BASIC PROVISIONS.

Chapter 8 of the U.B.C. is hereby adopted by reference for the purpose of providing basic building regulations relating to Interior Finishes with the following exceptions: Sections 802 and 804 and Table No. 8-B of the U.B.C. are not adopted and in lieu thereof Sections 91.802 and 91.804 and Table 8-B are added as provided herein.

SEC. 91.802. TESTING AND CLASSIFICATION OF MATERIALS.

91.802.1. Section 802.1 of the U.B.C. is hereby adopted by reference.

91.802.2 Classification. The classes of materials based on their flame—spread index shall be as set forth in Table 8–A. The smoke density shall be as set forth in Table No. 8-B and where not specified shall be no greater than 450 when tested in accordance with U.B.C. Standard 8–1 in the way intended for use.

SEC. 91.804. MAXIMUM ALLOWABLE FLAME SPREAD.

91.804.1 General. The maximum flame-spread class of finish materials used on interior walls and ceilings shall not exceed that set forth in Table 8-B.

EXCEPTIONS: 1. Except in Group I Occupancies and in enclosed vertical exitways, Class III may be used in other exitways and rooms as wainscoting extending not more than 48 inches (1219 mm) above the floor and for tack and bulletin boards covering not more than 5 percent of the gross wall area of the room.

- 2. When an approved sprinkler system complying with U.B.C. Standard 9–1 or 9–3 is provided, the flame-spread classification rating may be reduced one classification, but in no case shall materials having a classification greater than Class III be used. This reduction shall not apply to malls or area open to malls.
- 3. The exposed faces of Type IV-H.T., structural members and Type IV-H.T., decking and planking, where otherwise permissible under this code, are excluded from flame-spread requirements.
- 91.804.2. Section 804.2 of the U.B.C. is hereby adopted by reference.

TABLE 8-B—MAXIMUM INTERIOR FINISH NUMERICAL CLASSIFICATIONS¹

OCCUPANCY GROUP	ENCLOSED VERTICAL EXITWAYS		OTHER EXITWAYS ^{2,8}		ROOMS OR AREAS8	
	Flame Spread	Smoke Density	Flame Spread	Smoke Density	Flame Spread	Smoke Density
A	I	150	11	300	II ³	300
E	I	150	II	300	III	450
I	I	150	I ⁴	150	II⁵	300
Н	I	150 ·	II	300	III _e	450
B, F, M and S	Ī	150	II	300	III	450
R-1	I	150	II	300	III	450
R-3	III	450	III	450	III ⁷	450
U	NO RESTRICTIONS					

Foam plastics shall comply with the requirements specified in Section 91.2602. Carpeting on ceilings and textile wall coverings shall comply with the requirements specified in U.B.C. Sections 804.2 and 805, respectively.

^{2.} Finish classification is not applicable to interior walls and ceilings of exterior exit balconies.

^{3.} In Group A, Divisions 3 and 4 Occupancies, Class III may be used.

^{4.} In Group I, Divisions 2 and 3 Occupancies, Class II may be used or Class III when the Division 2 or 3 is sprinklered.

^{5.} In rooms in which personal liberties of inmates are forcibly restrained, Class I material only shall be used.

⁶. Over two stories shall be of Class II.

^{7.} Flame-spread provisions are not applicable to kitchens and bathrooms of Group R, Division 3 Occupancies.

^{8.} Class I materials only may be used in malls, and Class I or II materials only in areas open to malls.

Sec. 9. Division 9 of Article 1 of Chapter IX of the Los Angeles Municipal Code is hereby amended to read as follows:

DIVISION 9

FIRE-PROTECTION SYSTEMS

SEC. 91.900. BASIC PROVISIONS.

Chapter 9 of the U.B.C. is hereby adopted by reference for the purpose of providing basic building regulations relating to Fire-Protection Systems with the following exceptions: Sections 903, 904 and 905 and Table 9-A of the U.B.C. are not adopted in lieu thereof Sections 91.903, 91.904 and 91.905 and Table 9-A are added as provided herein.

SEC. 91.903 Section 903 of the U.B.C. is hereby adopted by reference, except that the following terms are hereby added to read as follows:

Sprinkler Alarm is a local alarm unit assembly or apparatus approved for the service and so constructed and installed that any flow of water from a sprinkler system equal to or greater than that from a single automatic sprinkler will result in an audible alarm signal on the premises.

Sprinkler System, for fire-protection purposes, is an integrated system of underground and overhead piping designed in accordance with fire-protection engineering standards. The installation includes a water supply, such as a gravity tank, fire pump, reservoir or pressure tank and/or connection by underground piping to a city main.

The portion of the sprinkler system above ground is a network of specially sized or hydraulically designed piping installed in a building, structure or area, generally overhead, and to which sprinklers are connected in a systematic pattern. The system includes a controlling valve and a device for actuating alarm when the system is in operation. The system is usually activated by heat from a fire and discharges water over the fire area.

SEC. 91.904. FIRE-EXTINGUISHING SYSTEMS.

91.904.1 Installation Requirements.

91.904.1.1 General. Fire—extinguishing systems required in this code shall be installed in accordance with the requirements of Article 4, Chapter IX of the Los Angeles Municipal Code (Plumbing Code). Fire hose threads used in connection with

fire—extinguishing systems shall be national standard hose thread or as approved by the fire department.

The location of fire department hose connections shall be approved by the fire department.

In buildings used for high-piled combustible storage, fire protection shall be in accordance with the Los Angeles Municipal Code.

91.904.1.2 Standards. Fire-extinguishing systems shall comply with Article 4, Chapter IX of the Los Angeles Municipal Code (Plumbing Code).

EXCEPTIONS:

- 1. Automatic fire—extinguishing systems not covered by Article 4, Chapter IX of the Los Angeles Municipal Code (Plumbing Code) shall be approved and installed in accordance with Article 7, Chapter V of the Los Angeles Municipal Code (Fire Code).
- 2. Automatic sprinkler systems may be connected to the domestic water-supply main when approved by the Superintendent of Building, provided the domestic water supply is of adequate pressure, capacity and sizing for the combined domestic and sprinkler requirements. In such case, the sprinkler system connection shall be made between the public water main or meter and the building shutoff valve, and there shall not be intervening valves or connections. The fire department connection may be omitted when approved by the fire department.
- 3. Automatic sprinkler systems in Group R Occupancies four stories or less may be in accordance with U.B.C. Standard 9–3.
- **91.904.1.3** Section 904.1.3 of the U.B.C. is hereby adopted by reference.
- 91.904.2 Automatic Fire-Extinguishing Systems.
- 91.904.2.1 Section 904.2.1 of the U.B.C. is hereby adopted by reference.
- 91.904.2.2 Section 904.2.2 of the U.B.C. is hereby adopted by reference.
- 91.904.2.3 Section 904.2.3 of the U.B.C. is hereby adopted by reference.
- 91.904.2.4 Group E Occupancies.
- Sec. 91.904.2.4.1 Section 904.2.4 of the U.B.C. is hereby adopted by reference.

Sec. 91.904.2.4.2 Basements. An automatic sprinkler system shall be installed in basements classified as Group E Occupancy.

Sec. 91.904.2.4.3 Stairs. An automatic fire sprinkler system shall be installed in enclosed usable space below or over a stairway in Group E Occupancies: See Section 1009.6.

91.904.2.5 Group H Occupancies.

91.904.2.5.1 Section 904.2.5.1 of the U.B.C. is hereby adopted by reference.

91.904.2.5.2 Section 904.2.5.2 of the U.B.C. is hereby adopted by reference.

91.904.2.5.3 Group H, Division 6 Occupancies. An automatic fire-extinguishing system shall be installed throughout buildings containing Group H, Division 6 Occupancies. The design of the sprinkler system shall not be less than that required under U.B.C. Standard 9-1 for the occupancy hazard classifications as follows:

LOCATION	OCCUPANCY HAZARD		
	. CLASSIFICATION		
Fabrication areas	Ordinary Hazard Group 2		
Service corridors	Ordinary Hazard Group 2		
Storage rooms without dispensing	Ordinary Hazard Group 2		
Storage rooms with dispensing	Extra Hazard Group 2		
Exit corridors	Ordinary Hazard Group 21		

[.] When the design area of the sprinkler system consists of a corridor protected by one row of sprinklers, the maximum number of sprinklers that needs to be calculated is 13.

91.904.2.5.4 Section 904.2.5.4 of the C.B.C. is hereby adopted by reference.

91.904.2.6 Section 904.2.6 of the C.B.C. is hereby adopted by reference.

91.904.2.7 Section 904.2.7 of the U.B.C. is hereby adopted by reference.

91.904.2.8 Section 904.2.8 of the U.B.C. is hereby adopted by reference.

91.904.3 Sprinkler System Monitoring and Alarms.

91.904.3.1 Section 904.3.1 of the U.B.C. is hereby adopted by reference.

91.904.3.2 Alarms. An approved audible sprinkler flow alarm shall be provided on the exterior of the building in an approved location as required by Article 4, Chapter IX of the Los Angeles Municipal Code (Plumbing Code). An approved audible sprinkler

flow alarm to alert the occupants shall be provided in the interior of the building in a normally occupied location. Actuation of the alarm shall be as set forth in Article 4, Chapter IX of the Los Angeles Municipal Code (Plumbing Code).

- 91.904.3.3 Section 904.3.3 of the C.B.C. is hereby adopted by reference.
- 91.904.4 Section 904.4 of the U.B.C. is hereby adopted by reference.
- 91.904.5 Standpipes.
- 91.904.5.1 Section 904.5.1 of the U.B.C. is hereby adopted by reference.
- 91.904.5.2 Section 904.5.2 of the U.B.C. is hereby adopted by reference.
- 91.904.5.3 Location of Class I Standpipes. There shall be a Class I standpipe outlet connection at every floor-level landing of every required stairway above or below grade. Outlets at stairways shall be located within the exit enclosure or, in the case of pressurized enclosures, within the vestibule or exterior balcony, giving access to the stairway.

Risers and laterals of Class I standpipe systems not located within an enclosed stairway or pressurized enclosure shall be protected by a degree of fire resistance equal to that required for vertical enclosures in the building in which they are located.

EXCEPTION: In buildings equipped with an approved automatic sprinkler system, risers and laterals which are not located within an enclosed stairway or pressurized enclosure need not be enclosed within fire—resistive construction.

There shall be a three-way outlet above the roof line when the roof has a slope of less than 4 units vertical in 12 units horizontal (33.3% slope).

In buildings where more than one standpipe is provided, the standpipes shall be interconnected at the bottom.

- **91.904.5.4** Section 904.5.4 of the U.B.C. is hereby adopted by reference.
- **91.904.5.5** Section 904.5.5 of the U.B.C. is hereby adopted by reference.
- 91.904.6 Section 904.6 of the U.B.C. is hereby adopted by reference.
- SEC. 91.905. SMOKE CONTROL.
- **91.905.1** Section 905.1 of the U.B.C. is hereby adopted by reference.

- 91.905.2 Section 905.2 of the U.B.C. is hereby adopted by reference.
- 91.905.3 Section 905.3 of the U.B.C. is hereby adopted by reference.
- **91.905.4** Section 905.4 of the U.B.C. is hereby adopted by reference.
- 91.905.5 Section 905.5 of the U.B.C. is hereby adopted by reference.
- **91.905.6** Section 905.6 of the U.B.C. is hereby adopted by reference.
- **91.905.7** Section 905.7 of the U.B.C. is hereby adopted by reference.
- 91.905.8 Section 905.8 of the U.B.C. is hereby adopted by reference.
- 91.905.9 Detection and Control Systems.
- 91.905.9.1 Section 905.9.1 of the U.B.C. is hereby adopted by reference.
- 91.905.9.2 Section 905.9.2 of the U.B.C. is hereby adopted by reference.
- 91.905.9.3 Activation. Smoke-control systems shall be activated as follows:
- 1. Mechanical smoke-control systems, using the pressurization method, serving buildings having occupied floors more than 75 feet (22 860 mm) above or 75 feet (22 860 mm) below exit grade shall have completely automatic control.
- 2. Mechanical smoke-control systems using the airflow or exhaust method shall have completely automatic control.
- 3. Passive smoke-control systems may be actuated by approved spot-type detectors listed for releasing service.
- 91.905.9.4 Automatic control. Whenever completely automatic control is required or used, the automatic—control sequences shall be initiated by activation of any required initiating device of an approved fire alarm system.
 - 91.905.9.5 Section 905.9.5 of the U.B.C. is hereby adopted by reference.
 - 91.905.10 Section 905.10 of the U.B.C. is hereby adopted by reference.
 - 91.905.11 Section 905.11 of the U.B.C. is hereby adopted by reference.
 - 91.905.12 Section 905.12 of the U.B.C. is hereby adopted by reference.

91.905.13 Section 905.13 of the U.B.C. is hereby adopted by reference.

91.905.14 Section 905.14 of the U.B.C. is hereby adopted by reference.

91.905.15 Acceptance Testing.

91.905.15.1 Section 905.15.1 of the U.B.C. is hereby adopted by reference.

91.905.15.2 Section 905.15.2 of the U.B.C. is hereby adopted by reference.

91.905.15.3 Section 905.15.3 of the U.B.C. is hereby adopted by reference.

91.905.15.4 Section 905.15.4 of the U.B.C. is hereby adopted by reference.

91.905.15.5 Section 905.15.5 of the U.B.C. is hereby adopted by reference.

91.905.15.6 Section 905.15.6 of the U.B.C. is hereby adopted by reference.

91.905.15.7 Section 905.15.7 of the U.B.C. is hereby adopted by reference.

91.905.15.8 Section 905.15.8 of the U.B.C. is hereby adopted by reference.

91.905.15.9 Section 905.15.9 of the U.B.C. is hereby adopted by reference.

91.905.15.10 Section 905.15.10 of the U.B.C. is hereby adopted by reference.

91.905.15.11 System Testing. Prior to the issuance of a Certificate of Occupancy, all of the smoke-control systems shall be tested as required by the Department of Building and Safety and the Fire Department and shall show compliance with the Department's minimum standards. The tests shall be conducted in the presence of an authorized representative from both Departments. The test of the smoke-control system shall also include tests to measure smoke clearance and obscurity. A report of the results shall be submitted to both Departments.

91.905.15.12 Periodic Retesting. After occupancy of the building, all operating parts of the smoke-control systems shall be retested every six months in accordance with the retest requirements established by the Department of Building and Safety and the Fire Department. The retest shall be conducted by an approved inspection agency or by the owner or the owner's representative when so approved by both Departments. Also, a report of the test results shall be submitted to both Departments.

Section 91.905.16 of the U.B.C. is hereby adopted by reference.

TABLE 9-A—STANDPIPE REQUIREMENTS

OCCUPANCY	NONSPRINKLERED BUILDING ¹		SPRINKLERED BUILDING ^{2,3}	
x 304.8 for mm x 0.0929 for m ²	Standpipe Class	Hose Requirement	Standpipe Class	Hose Requirement
1. Occupancies exceeding 150 ft. in height and more than one story	· III	Yes	III	No
2. Occupancies 4 stories or more but less than 150 ft. in height, except in Group R, Division 3 ⁷	[I and II ⁴] (or III)	yes	I	No
3. Group A Occupancies with occupant load exceeding 1,000 ⁶	II	Yes	No requirement	No
4. Group A, Division 2.1 Occupancies over 5,000 square feet in area used for exhibition	П	Yes	II	Yes
5. Groups I, H, B, S, M, F, Division 1 Occupancies less than 4 stories in height but greater than 20,000 square feet per floor ⁷	.II ⁴	Yes	No requirement	No
6. Stages more than 1,000 square feet in area	П	No .	III	No

- Except as otherwise specified in Item 4 of this table, Class II standpipes need not be provided in basements having an automatic fire—extinguishing system throughout.
- The standpipe system may be combined with the automatic sprinkler system.
- Portions of otherwise sprinklered buildings which are not protected by automatic sprinklers shall have Class II standpipes installed as required for the unsprinklered portions.
- In open structures where Class II standpipes may be damaged by freezing, the Superintendent of Building may authorize the use of Class I standpipes which are lacated required for Class II standpipes.
- 5. Hose is required for Class II standpipes only.
- 6. Class II standpipes need not be provided in assembly areas used solely for worship.
- For the purposes of this table, occupied roofs of parking structures shall be considered an additional story. In parking structures, a tier is a story.

Sec. 10. Division 10 of Article 1 of Chapter IX of the Los Angeles Municipal Code is hereby amended to read as follows:

DIVISION 10

MEANS OF EGRESS

SEC. 91.1000. BASIC PROVISIONS.

Chapter 10 of the U.B.C. is hereby adopted by reference for the purpose of providing basic building regulations relating to Means of Egress with the following exceptions: Sections 1001, 1002, 1003, 1004, 1005, 1006, 1007, 1008, 1009, 1013, 1016, 1017, 1019 and 1022 and Table 10-A of the U.B.C. are not adopted and in lieu thereof Sections 91.1001, 91.1002, 91.1003, 91.1004, 91.1005, 91.1006, 91.1007, 91.1009, 91.1013, 91.1016, 91.1017, 91.1019 and 91.1022 and Table 10-A are added as provided herein. Sections 1023, 1024 and 1025 and Figures 10-1 through and including 10-11B of the C.B.C. are hereby adopted by reference

SEC. 91.1001. GENERAL.

- **91.1001.1** Section 1001.1 of the U.B.C. is hereby adopted by reference.
- **91.1001.2** Section 1001.2 of the C.B.C. is hereby adopted by reference, except the term HORIZONTAL EXIT is not adopted and the following terms are amended to read as follows:
 - **EXIT** is a continuous and unobstructed means of egress to a public way and shall include intervening aisles, doors, doorways, gates, corridors, exterior exit balconies, ramps, stairways, pressurized enclosures, exit passageways, exit courts and yards.
 - **EXTERIOR STAIRWAY** is a stairway that is open on two adjacent sides, except for required structural columns and open-type handrails and guardrails. The adjoining open areas shall be either yards, courts or public ways; the other two sides may be enclosed by the exterior walls of the building. It may have a roof above the uppermost landing.
 - **TRAVEL DISTANCE** is the total length of the exit path an occupant must travel from any point within the occupied portions of a building to reach an exterior exit door, exit passageway door or an enclosed exit stairway door.
 - 91.1001.3 Section 1001.3 of the U.B.C. is hereby adopted by reference.
 - 91.1001.4 Section 1001.4 of the U.B.C. is hereby adopted by reference.

- 91.1001.5 Section 1001.5 of the U.B.C. is hereby adopted by reference.
- 91.1001.6 Section 1001.6 of the U.B.C. is hereby adopted by reference.
- 91.1001.7 Section 1001.7 of the U.B.C. is hereby adopted by reference.
- 91.1001.8 Section 1001.8 of the U.B.C. is hereby adopted by reference.
- 91.1001.9 Section 1001.9 of the C.B.C. is hereby adopted by reference.
- SEC. 91.1002. OCCUPANT LOAD.
- 91.1002.1 Determination of Occupant Load.
- 91.1002.1.1 Section 1002.1.1 of the U.B.C. is hereby adopted by reference.
- 91.1002.1.2 Section 1002.1.2 of the C.B.C. is hereby adopted by reference.
- 91.1002.1.3 Section 1002.1.3 of the U.B.C. is hereby adopted by reference.
- 91.1002.1.4 Section 1002.1.4 of the U.B.C. is hereby adopted by reference.
- 91.1002.2 Section 1002.2 of the U.B.C. is hereby adopted by reference.
- 91.1002.3 Posting of Room Capacity. Any room having an occupant load of 50 or more where fixed seats are not installed, and which is used for assembly, purpose, shall have the capacity of the room posted in a conspicuous place on an approved sign near the main exit from the room. Such signs shall be maintained legible by the owner or the owner's authorized agent and shall indicate the number of occupants permitted for each room use.
 - **EXCEPTION:** The Superintendent of Building may require the posting of room capacity for any use as determined by the Superintendent of Building, necessary to ensure the health and safety of the occupants.
 - 91.1002.4. Section 1002.4 of the U.B.C. is hereby adopted by reference.
 - SEC. 91.1003 EXITS REQUIRED.
- 91.1003.1 Number of Exits. Every building or usable portion thereof shall have at least one exit, not less than two exits where required by Table 10-A and additional exits as required by this section.

For the purposes of this section, basements and occupied roofs shall be provided with exits as required for stories. **EXCEPTION:** Occupied roofs on Group R, Division 3 Occupancies may have one exit if such occupied areas are less than 500 square feet (46.45 m²) and are located no higher than immediately above the second story.

Floors complying with the provisions for mezzanines as specified in U.B.C. Section 507, Item 4, Exception 3, shall be provided with exits as specified therein.

Occupants on stories above the first and in basements shall have access to not less than two separate exits from the story or basement. **EXCEPTIONS:**

- 1. Second stories having an occupant load less than 10 may be provided with only one exit.
- 2. Two or more dwelling units on the second story or in a basement may have access to only one common exit when the total occupant load served by that exit does not exceed 10.
- 3. Except as provided in Table 10-A, only one exit need be provided from the second floor or a basement within an individual dwelling unit or a Group R, Division 3 congregate residence.
- 4. When the third floor within an individual dwelling unit or a Group R, Division 3 congregate residence does not exceed 500 square feet (46.45 m²), only one exit need be provided from that floor.
- 5. Floors and basements used exclusively for service of the building may have one exit. For the purposes of this exception, storage rooms, laundry rooms, maintenance offices and similar uses shall not be considered as providing service to the building.
- 6. Storage rooms, laundry rooms and maintenance offices not exceeding 300 square feet (27.87 m²) in floor area may be provided with only one exit.
- 7. Elevator lobbies may have one exit provided the use of such exit does not require keys, tools, special knowledge or effort.

For special requirements see the following sections: Group A, Section 91.1016; Group E, Section 91.1017; Group H, U.B.C. Section 1018; Group I, Section 91.1019; Rooms Containing Fuel-fired Equipment and Cellulose Nitrate Handling Rooms, U.B.C. Section 1020; Reviewing Stands, Grandstands and Bleachers, U.B.C. Section 1021; Laboratories, U.B.C. Sections 304.2.2 and 305.2.4; and Open Parking Garages, U.B.C. Section 311.9.

Every story or portion thereof having an occupant load of 501 to 1,000 shall not have less than three exits.

Every story of portion thereof having and occupant load of 1,001 or more shall not have less than four exits.

The number of exits required from any story of a building shall be determined by using the occupant load of that story plus the percentages of the occupant of the occupant loads of floors which exit into the level under consideration as follows:

- 1. Fifty percent of the occupant load in the first adjacent story above and the first adjacent story below, when a story below exits through the level under consideration.
- 2. Twenty-five percent of the occupant load in the story immediately beyond the first adjacent story.

The maximum number of exits required for any story shall be maintained until egress is provided from the structure. (See U.B.C. Section 1010.)

91.1003.2 Width. The total width of exits in inches (mm) shall not be less than the total occupant load served by an exit multiplied by 0.3 (7.62) for stairways and 0.2 (5.08) for other exits nor less than specified elsewhere in this code. Such widths of exits shall be divided approximately equally among the separate exits.

The total exit width from any story of a building shall be determined by using the occupant load of that story plus 33 percent of the occupant load in the first story above and the first adjacent story below when a story below exits through the level under consideration.

The maximum exit width required from any story of a building shall be maintained.

- **91.1003.3** Section 1003.3 of the U.B.C. is hereby adopted by reference.
- 91.1003.4 Section 1003.4 of the U.B.C. is hereby adopted by reference.
- 91.1003.5 Exits through Adjoining Rooms. Rooms may have one required exit that passes through an adjoining or intervening room which provides a direct, obvious and unobstructed means of travel to an exit corridor, exterior exit door, exit passageway or enclosed stairway, provided the total travel distance does not exceed that permitted by other provisions of this code.

EXCEPTIONS:

- 1. Rooms within dwelling units may exit through more than one intervening room.
- 2. Rooms with a cumulative occupant load of 10 or less may exit through more than one intervening room.

In other than dwelling units, exits shall not pass through kitchens, store rooms, restrooms, closets or spaces used for similar purposes.

Foyers, lobbies and reception rooms constructed as required for corridors shall not be construed as intervening rooms.

- **91.1003.6** Section 1003.6 of the C.B.C. is hereby adopted by reference.
- **91.1003.7** Section 1003.7 of the C.B.C. is hereby adopted by reference.
- 91.1003.8 Section 1003.8 of the C.B.C. is hereby adopted by reference.
- 91.1003.9 Section 1003.9 of the C.B.C. is hereby adopted by reference.
- 91.1003.10 Section 1003.10 of the C.B.C. is hereby adopted by reference.

SEC. 91.1004. DOORS.

- **91.1004.1** Section 1004.1 of the C.B.C. is hereby adopted by reference.
- 91.1004.2 Section 1004.2 of the U.B.C. is hereby adopted by reference.
- 91.1004.3 Type of Lock or Latch. Exit doors shall be openable from the inside without the use of a key or any special knowledge or effort.

EXCEPTIONS:

1. In Groups B, F, M and S Occupancies, key-locking hardware may be used on the main exit when the main exit consists of a single door or pair of doors if there is a readily visible, durable sign on or adjacent to the door stating THIS DOOR MUST REMAIN UNLOCKED DURING BUSINESS HOURS. The sign shall be in letters not less than 1 inch (25 mm) high on a contrasting background. When unlocked, the single door or both leaves of a pair of doors must be free to swing without operation of any latching device. The use of this exception may be revoked by the Superintendent of Building for due cause.

2. Exit doors from individual dwelling units, buildings or rooms; Group R, Division 3 congregate residences; and guest rooms of Group R Occupancies having an occupant load of 10 or less may be provided with a night latch, dead bolt or security chain, provided such devices are openable from the inside without the use of a key or tool, or special knowledge or effort and mounted at a height not to exceed 48 inches (1219 mm) above the finished floor.

Bars, grilles, grates or similar devices placed over any required exit door shall be openable from the inside without the use of a key, tool, or any special knowledge or effort. Such bars, grilles, grates or similar devices shall be equipped with an approved release device for use by the fire department only on the exterior side for the purpose of fire department emergency access, when required by the authority having jurisdiction.

Manually operated edge- or surface-mounted flush bolts and surface bolts are prohibited. When exit doors are used in pairs and approved automatic flush bolts are used, the door leaf having the automatic flush bolts shall have no doorknob or surface-mounted hardware. The unlatching of any leaf shall not require more than one operation.

EXCEPTIONS:

- 1. Group R, Division 3 Occupancies.
- 2. When a pair of doors serving a room not normally occupied are needed for the movement of equipment, manually operated edge or surface bolts may be used and a door closer need not be provided on the inactive leaf.
- **91.1004.3.1** Section 1004.3.1 of the C.B.C. is hereby adopted by reference.
- 91.1004.4 Section 1004.4 of the U.B.C. is hereby adopted by reference.
- 91.1004.5 Section 1004.5 of the C.B.C. is hereby adopted by reference.
- 91.1004.6 Section 1004.6 of the C.B.C. is hereby adopted by reference.
- **91.1004.7** Section 1004.7 of the U.B.C. is hereby adopted by reference.
- 91.1004.8 Special Doors. Revolving, sliding and overhead doors shall not be used as required exits. Manually operated horizontal sliding doors may be used when serving an occupant load of 10 or less. Large family day-care homes may use manually operated horizontal sliding doors when serving an occupant load of 12 or less. **EXCEPTION:** Horizontal sliding doors complying with U.B.C. Standard 7-8 may be used:
 - 1. In elevator lobby separations.

- 2. Other than Groups A and H Occupancies, where smoke barriers are required.
- 3. When serving an occupant load of less than 50 in any occupancy other than a Group H Occupancy.

Power-operated doors complying with U.B.C. Standard 10-1 may be used for exit purposes. Such doors when swinging shall have two guide rails installed on the swing side projecting out from the face of the door jambs for a distance not less than the widest door leaf. Guide rails shall not be less than 30 inches (762 mm) in height with solid or mesh panels to prevent penetration into door swing and shall be capable of resisting a horizontal load at top of rail of not less than 50 pounds per lineal foot (730 N/m). **EXCEPTIONS:**

- 1. Walls or other type separators may be used in lieu of the above guide rail, provided all the criteria are met.
- 2. Guide rails in industrial or commercial occupancies not accessible to the public may conform with the exception to U.B.C. Section 509.3.
- 3. Doors swinging toward flow of traffic shall not be permitted for use by untrained pedestrian traffic unless actuating devices start to function at least 8 feet 11 inches (2718 mm) beyond the door in an open position and guide rails extend 6 feet 5 inches (1956 mm) beyond the door in an open position.

Clearances for guide rails shall be as follows:

- 1. Six inches (152 mm) maximum between rails and leading edge of door at the closest point in its arc of travel.
- 2. Six inches (152 mm) maximum between rails and the door in an open position.
- 3. Two inches (51 mm) minimum between rail at hinge side and door in an open position.
- 4. Two inches (51 mm) maximum between freestanding rails and jamb or other adjacent surface.
- 91.1004.8.1 Section 1004.8.1 of the C.B.C. is hereby adopted by reference.

- 91.1004.9 Section 1004.9 of the U.B.C. is hereby adopted by reference. However, Section 1004.9 a of the C.B.C. is hereby adopted by reference and shall apply to buildings or structures required to comply with C.B.C. Sections 101.17.9 or 101.17.11 (access and adaptability requirements).
 - 91.1004.10 Section 1004.10 of the U.B.C. is hereby adopted by reference.
 - 91.1004.11 Section 1004.11 of the U.B.C. is hereby adopted by reference.
 - 91.1004.12 Section 1004.12 of the U.B.C. is hereby adopted by reference.
 - SEC. 91.1005. CORRIDORS AND EXTERIOR EXIT BALCONIES.
 - 91.1005.1 Section 1005.1 of the U.B.C. is hereby adopted by reference.
 - 91.1005.2 Section 1005.2 of the C.B.C. is hereby adopted by reference.
- 91.1005.3 Height. Corridors and exterior exit balconies shall have a clear height of not less than 7 feet (2134 mm) measured to the lowest projection from the ceiling.
- In Group I, Divisions 1.1, 1.2 and 3 Occupancies, ceilings shall have a clear height of not less than 8 feet (2438 mm) from the finished floor.
 - 91.1005.4 Section 1005.4 of the U.B.C. is hereby adopted by reference.
 - **91.1005.5** Section 1005.5 of the U.B.C. is hereby adopted by reference.
 - 91.1005.6 Section 1005.6 of the C.B.C. is hereby adopted by reference.
- 91.1005.7 Construction. Walls of corridors serving Group I; and Group R, Division 2 Occupancies having an occupant load of seven or more; in Groups E; and R, Division 1 Occupancy having an occupant load of 10 or more and walls of corridors serving other occupancies having an occupant load of 30 or more shall be of not less than one-hour fire-resistive construction and the ceilings shall not be less than that required for a one-hour fire-resistive floor or roof system.

EXCEPTIONS:

- 1. One-story buildings housing Group S, Division 2 Occupancies.
- 2. Corridors more than 30 feet (9144 mm) in width where occupancies served by such corridors have at least one exit independent from the corridor. (See Division 4 for covered malls.)

- 3. Exterior sides of exterior exit balconies.
- 4. In Group I, Division 3 Occupancies such as jails, prisons, reformatories and similar buildings with open-barred cells forming corridor walls, the corridors and cell doors need not be fire resistive.
- 5. Corridor walls and ceilings need not be of fire-resistive construction within office spaces having an occupant load of 100 or less when the entire story in which the space is located is equipped with an automatic sprinkler system throughout and an automatic smoke-detection system installed within the corridor. The actuation of any detector shall activate alarms audible in all areas served by the corridor.
- 6. In other than Type I or II construction, exterior exit balcony roof assemblies may be of heavy-timber construction without concealed spaces.
- 7. Within office spaces occupied by a single tenant, partial height partitions which form corridors and which do not exceed 6 feet (1829 mm) in height need not be fire resistive, provided they are constructed in accordance with Section 91.601.5 and are not more than three fourths of the floor-to-ceiling height.
- 8. Corridor walls and ceilings need not be of fire-resistive construction within office spaces having an occupant load of 100 or less when the building in which the space is located is equipped with an automatic sprinkler system throughout.

When the ceiling of the entire story is an element of a one-hour fire-resistive floor or roof system, the corridor walls may terminate at the ceiling. When the room-side fire-resistive membrane of the corridor wall is carried through to the underside of a fire-resistive floor or roof above, the corridor side of the ceiling may be protected by the use of ceiling materials as required for one-hour floor or roof system construction or the corridor ceiling may be of the same construction as the corridor walls.

Ceilings of noncombustible construction may be suspended below the fireresistive ceiling.

For wall and ceiling finish requirements, see Table 8-B.

For restrictions on the use of corridors to convey air, see Article 5, Chapter IX of the Los Angeles Municipal Code (Mechanical Code).

- 91.1005.8 Section 1005.8 of the U.B.C. is hereby adopted by reference.
- 91.1005.9 Section 1005.9 of the U.B.C. is hereby adopted by reference.

91.1005.10 Section 1005.10 of the U.B.C. is hereby adopted by reference.

SEC. 91.1006. STAIRWAYS.

- 91.1006.1. Section 1006.1 of the U.B.C. is hereby adopted by reference.
- 91.1006.2. Section 1006.2 of the U.B.C. is hereby adopted by reference.
- 91.1006.3. Section 1006.3 of the U.B.C. is hereby adopted by reference.
- 91.1006.4. Section 1006.4 of the U.B.C. is hereby adopted by reference.
- 91.1006.5. Section 1006.5 of the U.B.C. is hereby adopted by reference.
- **91.1006.6.** Section 1006.6 of the U.B.C. is hereby adopted by reference.
- 91.1006.7. Section 1006.7 of the U.B.C. is hereby adopted by reference.
- 91.1006.8. Section 1006.8 of the U.B.C. is hereby adopted by reference.
- 91.1006.9. Section 1006.9 of the U.B.C. is hereby adopted by reference. However, Sections 1006.9.1a and 1006.9.2a of the C.B.C. are hereby adopted by reference for buildings or structures required to comply with C.B.C. Sections 101.17.9 or 101.17.11 (access and adaptability requirements).
 - 91.1006.10. Section 1006.10 of the U.B.C. is hereby adopted by reference.
 - **91.1006.11.** Section 1006.11 of the U.B.C. is hereby adopted by reference.
- 91.1006.12 Interior Stairway Construction. Interior stairways shall be constructed as specified in U.B.C. Sections 602.4, 603.4, 604.4, 605.4 and 606.4.

Except when enclosed usable space under stairs is prohibited by U.B.C. Section 1009.6, the walls and soffits of the enclosed space shall be protected on the enclosed side as required for one-hour fire-resistive construction.

Stairways exiting directly to the exterior of a building four or more stories in height shall be provided with means for emergency entry for Fire Department access.

91.1006.13 Section 1006.13 of the U.B.C. is hereby adopted by reference.

91.1006.14 Stairway to Roof. In every building four or more stories in height, all required stairways that extend to the top floor of the building or the top floor of a portion of the building shall extend to the roof surface.

EXCEPTIONS:

- 1. Stairways in Group R, Division 3 Occupancies and stairways within individual apartments in Group R, Division 1 Occupancies shall not be required to extend to the roof surface.
- 2. Stairways in buildings with roof slopes steeper than 4 in 12 shall not be required to extend to the roof surface, but shall be provided with an approved hatch openable to the exterior not less than 16 square feet in area with a minimum dimension of 2 feet. The hatch need not be provided on smokeproof enclosures.
- 91.1006.15 Section 1006.15 of the C.B.C. is hereby adopted by reference.
- 91.1006.16 Section 1006.16 of the U.B.C. is hereby adopted by reference.
- 91.1006.16.1 Section 1006.16.1 of the C.B.C. is hereby adopted by reference.
- 91.1006.16.2 Section 1006.16.2 of the C.B.C. is hereby adopted by reference.
- 91.1006.16.3 Section 1006.16.3 of the C.B.C. is hereby adopted by reference.

SEC. 91.1007. RAMPS.

- 91.1007.1 Section 1007.1 of the U.B.C. is hereby adopted by reference. However, Section 1007.1a of the C.B.C. is hereby adopted by reference for buildings or structures required to comply with C.B.C. Sections 101.17.9 or 101.17.11 (access and adaptability requirements).
- 91.1007.2 Section 1007.2 of the U.B.C. is hereby adopted by reference. However, Section 1007.2a of the C.B.C. is hereby adopted by reference for buildings or structures required to comply with C.B.C. Sections 101.17.9 or 101.17.11 (access and adaptability requirements).
- 91.1007.3 Section 1007.3 of the U.B.C. is hereby adopted by reference. However, Section 1007.3a of the C.B.C. is hereby adopted by reference for buildings or structures required to comply with C.B.C. Sections 101.17.9 or 101.17.11 (access and adaptability requirements).
- 91.1007.4 Section 1007.4 of the U.B.C. is hereby adopted by reference. However, Section 1007.4a of the C.B.C. is hereby adopted by reference for buildings or

structures required to comply with C.B.C. Sections 101.17.9 or 101.17.11 (access and adaptability requirements).

- 91.1007.5 Section 1007.5 of the U.B.C. is hereby adopted by reference. However, Section 1007.5.a of the C.B.C. is hereby adopted by reference for buildings or structures required to comply with C.B.C. Sections 101.17.9 or 101.17.11 (access and adaptability requirements).
 - 91.1007.6 Section 1007.6 of the U.B.C. is hereby adopted by reference.
 - 91.1007.7 Section 1007.7 of the U.B.C. is hereby adopted by reference.
 - 91.1007.8 Section 1007.8 of the U.B.C. is hereby adopted by reference.
 - 91.1007.9 Section 1007.9 of the U.B.C. is hereby adopted by reference.
 - 91.1007.10 Section 1007.10 of the C.B.C. is hereby adopted by reference.
 - 91.1007.11 Section 1007.11 of the C.B.C. is hereby adopted by reference.
 - SEC. 91.1009. STAIRWAY, RAMP AND ESCALATOR ENCLOSURES.
- **91.1009.1** General. Interior stairways, ramps or escalators shall be enclosed as specified in this section.

EXCEPTIONS:

- 1. In other than Groups H and I Occupancies, an enclosure need not be provided for a stairway, ramp or escalator serving only one adjacent floor. Any two such interconnected floors shall not be open to other floors. For enclosure of escalators serving Groups B, F, M and S Occupancies, see U.B.C. Sections 304.6, 306.6, 309.6 and 311.6. This exception shall not apply to a basement.
- 2. Stairs in Group R, Division 3 Occupancies and stairs within individual dwelling units in Group R, Division 1 Occupancies need not be enclosed.
- 3. Stairs in open parking garages, as defined in U.B.C. Section 311.9, need not be enclosed.
- **91.1009.2.** Section 1009.2 of the U.B.C. is hereby adopted by reference.
- 91.1009.3 Openings into Enclosures. Openings into exit enclosures other than permitted exterior openings shall be limited to those necessary for exiting from a

normally occupied space into the enclosure and exiting from the enclosure. Other penetrations into and opening through the exit enclosure are prohibited except for ductwork and equipment necessary for independent stair pressurization, sprinkler piping, standpipes and electrical conduit serving the stairway and terminating in a listed box not exceeding 16 square inches (10 323 m²) in area. Penetrations and communicating openings between adjacent exit enclosures are not permitted regardless of whether the opening is protected.

All exit doors in an exit enclosure shall be protected by a fire assembly having a fire-protection rating of not less than one hour where one-hour enclosure construction is permitted in U.B.C. Section 1009.2 and one and one-half hours where two-hour enclosure construction is required by U.B.C. Section 1009.2. Doors shall be maintained self-closing or shall be automatic closing by actuation of a smoke detector as provided for in U.B.C. Section 713.2. The maximum transmitted temperature end point shall not exceed 4505 F. (2325 C.) above ambient at the end of 30 minutes of the fire exposure specified in U.B.C. Standard 7-2.

In buildings more than five stories in height, every stairway enclosure shall be provided with exit doors which are openable to the interior of the building and are separated by not more than four intervening stories. These doors shall be openable from inside the stairway enclosure without the use of a key or special knowledge and shall be identified by a sign bearing the words ALTERNATE EMERGENCY ESCAPE. Security alarm system may be used on these doors.

91.1009.4 Extent of Enclosure. Stairway and ramp enclosures shall include landings and parts of floors connecting stairway flights and shall also include a corridor or exit passageway on the ground floor leading from the stairway to the exterior of the building. Openings into the corridor or exit passageway shall comply with the requirements of Section 91.1009.3 of the Los Angeles Municipal Code.

EXCEPTION:

Enclosed corridors or exit passageways are not required from unenclosed stairways or ramps.

- 91.1009.5 Section 1009.5 of the U.B.C. is hereby adopted by reference.
- 91.1009.6 Section 1009.6 of the U.B.C. is hereby adopted by reference.
- 91.1009.7 Section 1009.7 of the U.B.C. is hereby adopted by reference.

91.1009.8 Section 1009.8 of the U.B.C. is hereby adopted by reference.

SEC. 91.1013. EXIT SIGNS.

91.1013.1 Where Required. When two or more exits from a story are required by Section 91.1003 of the Los Angeles Municipal Code, exit signs shall be installed at stair enclosure doors, and other required exits from the story. When two or more exits are required from a room or area, exit signs shall be installed at the required exits from the room or area and where otherwise necessary to clearly indicate the direction of egress.

EXCEPTIONS:

- 1. Main exterior exit doors which obviously and clearly are identifiable as exits need not be signed when approved by the Superintendent of Building.
- 2. Group R, Division 3, and individual units of Group R, Division 1 Occupancies.
- 3. Exits from rooms or areas with an occupant load of less than 50 when located within a Group I, Division 1.1, 1.2 or 2 Occupancy or a Group E, Division 3 day-care occupancy.
- 91.1013.2 Section 1013.2 of the U.B.C. is hereby adopted by reference.
- 91.1013.3 Section 1013.3 of the C.B.C. is hereby adopted by reference.
- 91.1013.4 Section 1013.4 of the C.B.C. is hereby adopted by reference.
- 91.1013.5 Floor-Level Exit Signs. When exit signs are required by Division 10, additional approved low-level exit signs which are internally or externally illuminated, photoluminescent or self-luminous, shall be provided in all interior rated exit corridors of Group A; Group E; and Group R, Division 1 Occupancies.

EXCEPTION: Group E Occupancies where direct exits have been provided from each classroom.

The bottom of the sign shall not be less than 10 inches (254 mm) or more than 12 inches (305 mm) above the floor level. For exit doors, the sign shall be on the door or adjacent to the door with the closest edge of the sign or marker within 4 inches (102 mm) of the door frame.

- 91.1013.5.1 Section 1013.5.1a of the C.B.C. is hereby adopted by reference.
- 91.1013.6 Section 1013.6 of the U.B.C. is hereby adopted by reference.
- SEC. 91.1016. GROUP A OCCUPANCIES.
- 91.1016.1 Section 1016.1 of the U.B.C. is hereby adopted by reference.
- 91.1016.2 Section 1016.2 of the U.B.C. is hereby adopted by reference.
- 91.1016.3 Section 1016.3 of the U.B.C. is hereby adopted by reference.
- 91.1016.4 Section 1016.4 of the U.B.C. is hereby adopted by reference.
- 91.1016.5 Section 1016.5 of the C.B.C. is hereby adopted by reference.
- SEC. 91.1017. GROUP E OCCUPANCIES.
- 91.1017.1 Section 1017.1 of the U.B.C. is hereby adopted by reference.
- 91.1017.2 Section 1017.2 of the U.B.C. is hereby adopted by reference.
- 91.1017.3 Travel Distance.
- 91.1017.3.1 Section 1017.3.1 of the U.B.C. is hereby adopted by reference.
- 91.1017.3.2 From Any Location. All portions of unsprinklered buildings shall not be more than 150 feet (45 720 mm) from either an exterior exit door, an exit passageway or an enclosed stairway measured along the line of travel. In a building protected throughout with an automatic sprinkler system such distance may be increased to 225 feet (68 580 mm). In buildings not more than two stories in height protected throughout with smoke detectors, the distance may be increased to 175 feet (53 340 mm).
 - 91.1017.4 Section 1017.4 of the U.B.C. is hereby adopted by reference.
 - 91.1017.5 Section 1017.5 of the U.B.C. is hereby adopted by reference.
 - 91.1017.6 Section 1017.6 of the U.B.C. is hereby adopted by reference.

- 91.1017.7 Section 1017.7 of the U.B.C. is hereby adopted by reference.
- 91.1017.8 Section 1017.8 of the U.B.C. is hereby adopted by reference.
- 91.1017.9 Section 1017.9 of the U.B.C. is hereby adopted by reference.
- 91.1017.10 Section 1017.10 of the U.B.C. is hereby adopted by reference.
- 91.1017.11 Section 1017.11 of the U.B.C. is hereby adopted by reference.
- 91.1017.12 Section 1017.12 of the U.B.C. is hereby adopted by reference.
- SEC. 91.1019. Group I OCCUPANCIES.
- 91.1019.1 Section 1019.1 of the C.B.C. is hereby adopted by reference.
- 91.1019.2 Section 1019.2 of the U.B.C. is hereby adopted by reference.
- 91.1019.3 Corridors. The minimum clear width of a corridor shall be determined as specified in Section 91.1003.2 of the Los Angeles Municipal Code, but shall not be less than 44 inches (1118 mm), except that corridors serving any area housing one or more nonambulatory persons shall not be less than 8 feet (2438 mm) in width.

EXCEPTIONS:

- 1. Corridors serving surgical areas of Group I, Division 1.2 Occupancies shall not be less than six feet (1829 mm) in width until reaching an exterior door, enclosed exit stairway and shall not pass through an adjoining room.
- 2. Group I, Divisions 1 A and 2 A Occupancies need not have corridors 8 feet (2438 mm) in width provided they have semidirect or direct exiting.
- 3. In Group I, Division 3 Occupancies such as jails, prisons, reformatories and similar buildings with open-barred cells forming corridor walls, the open-barred cell corridor walls or open-barred cell corridor doors need not be fire resistive.

Any change in elevation of the floor in a corridor serving nonambulatory persons shall be made by means of a ramp.

Corridors shall comply with Section 91.1005 of the Los Angeles Municipal Code except that in hospitals and nursing homes classified as Group I, Division 1.1 Occupancies the following exceptions apply in buildings provided with fire sprinkler systems throughout complying with Division 9, and when staff/nursing stations are provided on each floor level:

- 1. Nurses' stations including space for doctors' and nurses' charting and communications constructed as required for corridors need not be separated from corridors.
- 2. Waiting areas and similar spaces constructed as required for corridors need not be separated from corridors, provided:
 - 2.1 Each space is located to permit direct visual supervision by the facility staff, and
 - 2.2 The space and corridors into which the space opens are in the same smoke compartment and the space is protected by an approved electrically supervised automatic smoke-detection system.
 - 3. Door closers need not be installed on doors to patient sleeping rooms.
- 4. Fixed fully tempered or laminated glass in wood or metal frames may be used in corridor walls, provided the glazed area does not exceed 25 percent of the area of the corridor wall of the room.
- 5. The total area of glass in corridor walls is not limited when the glazing is fixed 1/4-inch-thick (6.4 mm) wired glass in steel frames and the size of individual glazed panel does not exceed 1,296 square inches (0.836 m²).
- 91.1019.4 Section 1019.4 of the U.B.C. is hereby adopted by reference.
- 91.1019.5 Section 1019.5 of the U.B.C. is hereby adopted by reference.
- 91.1019.6 Section 1019.6 of the U.B.C. is hereby adopted by reference.

SEC. 91.1022. BUILDING SECURITY.

See Division 67 for requirements governing building security.

TABLE 10-A-MINIMUM EGRESS REQUIREMENTS¹

USE ²		MINIMUM OF TWO EXITS OTHER THAN ELEVATORS ARE REQUIRED WHERE	OCCUPANT LOAD FACTOR (square feet)	
		NUMBER OF OCCUPANTS IS AT LEAST	× 0.0929 for m ²	
1.	Aircraft hangars		<u></u>	
	(no repair)	10	500	
2.	Auction rooms	30	7	
3.	Assembly areas, concentrated use (without fixed seats) Auditoriums	50	7	
	Churches and chapels Dance floors			
	Lobby accessory to assembly occupancy			
1	Lodge rooms	1		
	Reviewing stands			
	Stadiums			
	Waiting area	50	· 3	
4.	Assembly areas, less-concentrated use	50	15	
ł	Conference rooms	1		
	Dining rooms	1.		
	Drinking establishments Exhibit rooms			
	Gymnasiums			
	Lounges			
	Stages)		
5.	Bowling alley (assume no occupant load for bowling lanes)	50	4	
6.	Children's homes and homes for the aged	6	80	
7.	Classrooms	50	20	
8.	Congregate residences	10	200	
9.	Courtrooms	50	40	
10.	Dormitories	10	50	
11.	Dwellings	10	300	
12.	Exercising rooms	50	50	
13.	Garage, parking	30	200	
14.	Hospitals and sanitariums—			
!	Health-care center	10	80	
	Nursing homes			
1	Sleeping rooms	6	80	
	Treatment rooms	10	80	

(Continued)

TABLE 10-A-MINIMUM EGRESS REQUIREMENTS1-(Continued)

USE ²		MINIMUM OF TWO EXITS OTHER THAN ELEVATORS ARE	OCCUPANT LOAD FACTOR ³ (square feet) × 0.0929 for m ²	
		REQUIRED WHERE NUMBER OF OCCUPANTS IS AT LEAST		
15.	Hotels and apartments	10	200	
16.	Kitchen—commercial	30	200	
17.	Library reading room	50	50	
18.	Locker rooms	30	50	
19.	Malls (see Division 4)	_		
20.	Manufacturing areas	30	200	
21.	Mechanical equipment room	30	300	
22.	Nurseries for children (day care)	7	35	
23.	Offices	30	100	
24.	School shops and vocational rooms	50	50	
25.	Skating rinks	50	50 on the skating area; 15 on the deck	
26.	Storage and stock rooms	30	300	
27.	Stores—retail sales rooms Basements and ground floor	50 5	30	
	Upper floors	50	60	
28.	Swimming pools	50	50 for the pool area; 15 on the deck	
29.	Warehouses	30	500	
30.	All others	50	100	

¹ Access to, and egress from, buildings for persons with disabilities shall be provided as specified in Division 11.

² For additional provisions on number of exits from Groups H and I Occupancies and from rooms containing fuel—fired equipment or cellulose nitrate, see U.B.C. Section 1018, Section 91.1019 and U.B.C. Section 1020, respectively.

³ This table shall not be used to determine working space requirements per person.

⁴ Occupant load based on five persons for each alley, including 15 feet (4572 mm) of runway.

⁵ See Section 91.1003 for basement exit requirements.

Sec. 11. Division 11 of Article 1 of Chapter IX of the Los Angeles Municipal Code is hereby amended to read as follows:

DIVISION 11

ACCESSIBILITY

SEC. 91.1100. BASIC PROVISIONS.

Chapter 11-A (except for Section 1108A), and Chapters 11-B and 11-C of the C.B.C. are hereby adopted by reference for the purpose of providing basic building regulations relating to Accessibility.

Sec. 12. Division 12 of Article 1 of Chapter IX of the Los Angeles Municipal Code is hereby amended to read as follows:

DIVISION 12

INTERIOR ENVIRONMENT

SEC. 91.1200. BASIC PROVISIONS.

Chapter 12 of the U.B.C. is hereby adopted by reference for the purpose of providing basic building regulations relating to Interior Environment with the following exceptions: Sections 1202 and 1205 of the U.B.C. are not adopted and in lieu thereof Sections 91.1202 and 91.1205 are added as provided herein. Section 1208-A of Appendix Chapter 12 of the C.B.C. is hereby adopted by reference.

SEC. 91.1202. LIGHT AND VENTILATION IN GROUPS A, B, E, F, H, I, M AND S OCCUPANCIES.

91.1202.1 Section 1202.1 of the U.B.C. is hereby adopted by reference.

91.1202.2 Ventilation,

91.1202.2.1 General. All enclosed portions of Groups A, B, E, F, H, I, M and S Occupancies customarily occupied by human beings, other than rooms and areas for which requirements are specified elsewhere in this section, shall be provided with natural ventilation by means of openable exterior openings with an area not less than \(\frac{1}{20} \) of the total floor area or shall be provided with a mechanically operated ventilation system. Such exterior openings shall open directly onto a public way or a yard or court as set forth in U.B.C. Section 1203.4. Such mechanically operated ventilation system shall be capable of supplying

a minimum of 15 cubic feet per minute (7 L/s) of outside air per occupant in all portions of the building during such time as the building is occupied. If the velocity of the air at a register exceeds 10 feet per second (3 m/s), the register shall be placed more than 8 feet (2438 mm) above the floor directly beneath.

Toilet rooms shall be provided with a fully openable exterior window with an area not less than 3 square feet (0.279 m²), or a vertical duct not less than 100 square inches (64 516 mm²) in area for the first water closet plus 50 square inches (32 258 mm²) of area for each additional water closet, or a mechanically operated exhaust system capable of providing a complete change of air every 15 minutes. Such mechanically operated exhaust systems shall be connected directly to the outside, and the point of discharge shall be at least 3 feet (914 mm) from any opening which allows air entry into occupied portions of the building.

For ventilation of hazardous vapors or fumes in Group H Occupancies, see U.B.C. Sections 307.5.2 and 1202.2.3 and for Group S, Division 3 Occupancies, see U.B.C. Section 1202.2.7.

91.1202.2.2 Group B Occupancies. In all buildings classified as Group B Occupancies or portions thereof where Class I, II or III—A liquids are used, a mechanically operated exhaust ventilation shall be provided sufficient to produce six air changes per hour. Such exhaust ventilation system shall be taken from a point at or near the floor level. When a mechanical ventilation system is used, it shall be capable of providing uniform air movement for the entire floor as approved by the department.

91.1202.2.3 Section 1202.2.3 of the U.B.C. is hereby adopted by reference.

91.1202.2.4 Section 1202.2.4 of the U.B.C. is hereby adopted by reference.

91.1202.2.5 Section 1202.2.5 of the U.B.C. is hereby adopted by reference.

91.1202.2.6 Section 1202.2.6 of the U.B.C. is hereby adopted by reference.

91.1202.2.7 Section 1202.2.7 of the U.B.C. is hereby adopted by reference.

SEC. 91.1205. VENTILATION IN GROUP U OCCUPANCIES.

Every Group U Occupancy used for the storage of motor vehicles shall be equipped with louvered or screened openings not less than 60 square inches in area for every 200 square feet of floor area. Such openings shall be located in an exterior wall or connected to a continuous duct leading to the outside air.

EXCEPTION: Garage structures accessory to Group R, Division 3 occupancies.

Sec. 13. Division 13 is hereby added to Article 1 of Chapter IX of the Los Angeles Municipal Code to read as follows:

DIVISION 13

ENERGY CONSERVATION

SEC. 91.1301. GENERAL.

In order to comply with the purpose of this Division, buildings shall be designed to comply with requirements of Part 6, Title 24 of the California Building Standards Code - California Energy Code, 1995 Edition.

SEC. 91.1302. SOLAR ENERGY COLLECTORS.

Approved collectors which function as building components shall comply with the applicable provisions of the code.

Approved collectors located above or upon a roof and not functioning as building components shall not reduce the required fire–resistance or fire–retardancy classification of the roof–covering materials.

EXCEPTIONS:

- 1. Approved collectors installed on one- and two-family dwellings.
- 2. Approved noncombustible collectors located on buildings not over three stories in height or 9,000 square feet (836 m²) in total floor area.
- 3. Approved collectors that comply with the provisions of U.B.C. Section 2603.14.

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Sec. 14. Division 14 is hereby added to Article 1 of Chapter IX of the Los Angeles Municipal Code to read as follows:

DIVISION 14

EXTERIOR WALL COVERINGS

SEC. 91.1400. BASIC PROVISIONS.

Chapter 14 of the U.B.C. is hereby adopted by reference for the purpose of providing basic building regulations relating to Exterior Wall Coverings with the following exceptions: Sections 1402 and 1403 of the U.B.C. are not adopted and in lieu thereof Sections 91.1402 and 91.1403 are added as provided herein.

SEC. 91.1402. WEATHER PROTECTION.

- 91.1402.1 Section 1402.1 of the U.B.C. is hereby adopted by reference.
- 91.1402.2 Section 1402.2 of the U.B.C. is hereby adopted by reference.
- 91.1402.3 Section 1402.3 of the U.B.C. is hereby adopted by reference.
- 91.1402.4 Walls. In residential buildings containing habitable rooms, any room having enclosing walls which are below adjacent ground level and retain earth or adjacent to a planter area shall be dampproofed in a manner approved by the department.

In all buildings, except detached one- and two-family dwellings and their accessory buildings, the first 9 feet, measured from grade, of exterior walls and doors shall be built and maintained with a graffiti-resistant finish consisting of either a hard, smooth impermeable surface such as ceramic tile, baked enamel or a renewable coating of an approved anti-graffiti material or a combination of both.

91.1402.5 Floors. In residential buildings containing habitable rooms, any concrete slab floor which is constructed on grade and located below the adjacent ground level at any point shall be dampproofed in a manner approved by the department.

SEC. 91.1403. VENEER.

91.1403.1 Section 1403.1 of the U.B.C. is hereby adopted by reference.

- 91.1403.2 Section 1403.2 of the U.B.C. is hereby adopted by reference.
- 91.1403.3 Section 1403.3 of the U.B.C. is hereby adopted by reference.
- 91.1403.4 Design.
- **91.1403.4.1 General.** The design of all veneer shall comply with the requirements of Division 16 and this section.

Veneer shall support no load other than its own weight and the vertical dead load of veneer above.

Surfaces to which veneer is attached shall be designed to support the additional vertical and lateral loads imposed by the veneer.

Consideration shall be given for differential movement of supports, including that caused by temperature changes, shrinkage, creep and deflection.

In no case shall veneer be considered as part of the wall in computing strength or deflection nor shall it be considered a part of the required thickness of the wall. Deflection of lateral support of veneer, including wood studs, shall be no greater than h/500.

- 91.1403.4.2 Section 1403.4.2 of the U.B.C. is hereby adopted by reference.
- 91.1403.4.3 Section 1403.4.3 of the U.B.C. is hereby adopted by reference.
- 91.1403.5 Section 1403.5 of the U.B.C. is hereby adopted by reference.
- 91.1403.6 Anchored Veneer.
- 91.1403.6.1 Section 1403.6.1 of the U.B.C. is hereby adopted by reference.
- 91.1403.6.2 Section 1403.6.2 of the U.B.C. is hereby adopted by reference.
- 91.1403.6.3 Section 1403.6.3 of the U.B.C. is hereby adopted by reference.
- 91.1403.6.4 Application.
- **91.1403.6.4.1** Section 1403.6.4.1 of the U.B.C. is hereby adopted by reference.

91.1403.6.4.2 Masonry and stone units [5 inches (127 mm) maximum in thickness]. Masonry and stone veneer not exceeding 5 inches (127 mm) in thickness may be anchored directly to structural masonry, concrete or study in one of the following manners:

1. Wall ties shall be corrosion resistant, made of sheet metal, shall have a minimum thickness of .0785 inch (02.00 mm) (No. 14 galvanized sheet gage) by 1 inch (25.4 mm) and shall be attached to the backing, as the veneer is laid, by minimum #10 hex head galvanized screws with penetration of at least 2 inches (51 mm) into the framing member, placed not more than 1/4 inch (6.35 mm) above the extended leg of the angle tie. Wall ties shall be spaced so as to support not more than 2 square feet (0.19 m²) of wall area but shall not be more than 24 inches (610 mm) on center horizontally. In Seismic Zones 3 and 4, wall ties shall have a lip or hook on the extended leg that will engage or enclose a horizontal joint reinforcement wire having a diameter of 0.148 inch (3.76 mm) (No. 9 B.W. gage) or equivalent. The joint reinforcement shall be continuous with butt splices between ties permitted.

When applied over wood stud construction, the studs shall be spaced a maximum of 16 inches (406 mm) on center and approved paper, a minimum 30# fiberglass felt, 4 inch (102 mm) minimum on horizontal laps and 6 inch (152 mm) minimum on end laps, shall first be applied over minimum 15/32 inch (12 mm) plywood sheathing except as otherwise provided in Section 91.1402, and an air space of at least 1-inch (25 mm) shall be maintained between the backing and the veneer. Spot bedding at all ties shall be of cement mortar.

2. Veneer may be applied with 1-inch-minimum (25 mm) grouted backing space which is reinforced by not less than 2-inch by 2-inch (51 mm by 51 mm) 0.065 inch (1.65 mm) (No. 16 B.W. gage) galvanized wire mesh placed over waterproof paper backing and anchored directly to stud construction. Such construction shall be allowed to a height not to exceed 4 feet (1219 mm) above grade.

The stud spacing shall not exceed 16 inches (406 mm) on center. The galvanized wire mesh shall be anchored to wood studs by galvanized steel wire furring nails at 4 inches (102 mm) on center or by barbed galvanized nails at 6 inches (152 mm) on center with a 1½-inch-minimum (29 mm) penetration. The galvanized wire mesh may be attached to steel studs by equivalent wire ties. If this method is applied over solid sheathing the mesh must be furred for embedment in grout. The wire mesh must be attached at the top and bottom with not less than 8-penny (64 mm) common wire nails. The grout fill shall be placed to fill the space intimately around the mesh and veneer facing.

91.1403.6.4.3 Stone units [10 inches (254 mm) maximum in thickness]. Stone veneer units not exceeding 10 inches (254 mm) in thickness may be anchored directly to structural masonry or concrete. Anchor ties shall not be less than 0.109 inch (2.77 mm) (No. 12 B.W. gage) galvanized wire, or approved equal, formed as an exposed eye and extending

not less than ½ inch (3 mm) beyond the face of the backing. The legs of the loops shall not be less than 6 inches (152 mm) in length bent at right angles and laid in the masonry mortar joint and spaced so that the eyes or loops are 12 inches (254 mm) maximum on center in both directions. There shall be provided not less than a 0.109 inch (2.77 mm) (No. 12 B.W. gage) galvanized wire tie, or approved equal, threaded through the exposed loops for every 2 square feet (0.19 m²) of stone veneer. This tie shall be a loop having legs not less than 15 inches (381 mm) in length so bent that it will lie in the stone veneer mortar joint. The last 2 inches (51 mm) of each wire leg shall have a right angle bend. One inch (25 mm) of cement grout shall be placed between the backing and the stone veneer.

91.1403.6.4.4 Section 1403.6.4.4 of the U.B.C. is hereby adopted by reference.

91.1403.6.4.5 Section 1403.6.4.5 of the U.B.C. is hereby adopted by reference.

Sec. 15. Division 15 of Article 1 of Chapter IX of the Los Angeles Municipal Code is hereby amended to read as follows:

DIVISION 15

ROOFS AND ROOF STRUCTURES

SEC. 91.1500. BASIC PROVISIONS.

Chapter 15 of the U.B.C. is hereby adopted by reference for the purpose of providing basic building regulations relating to Roofs and Roof Structures with the following exceptions: Sections 1503, 1504, 1506 and 1507 and Tables 15-A, 15-D-1, and D-2 of the U.B.C. are not adopted.

PART I - GENERAL PROVISIONS

SEC. 91.1503. ROOF-COVERING REQUIREMENTS.

Structural design calculation shall be required to demonstrate that the entire building or structure is capable of supporting the vertical and lateral forces when the installation weight of slate shingles or clay tiles or any other roof-covering materials above the wood structural panel and underlayment is in excess of 6 pounds per square foot.

The roof covering on any structure regulated by this code shall be as specified in Table 15-A and as classified in Section 91.1504 of the Los Angeles Municipal Code.

EXCEPTION: Corrugated sheets of approved plastics may be used as transparent or translucent roofing material for open patio covers not exceeding 400 square feet in area and conforming to the provisions of Division 31 of this Code.

Notwithstanding any other provision of this code, the roof covering of any addition to a building shall comply with this Division. If alterations or repairs require the replacement of more than 10 percent of the roof covering of the building within a 12 month period then the entire roof covering shall be made to conform to this Division.

The roof-covering assembly includes the roof deck, underlayment, insulation and covering which is assigned a roof-covering classification.

SEC. 91.1504. ROOF-COVERING CLASSIFICATION.

91.1504.1 Class A Roof Covering. A Class A roof covering shall be one of the following roofings:

- 1. Any Class A roofing assembly, other than a wood shake or shingle.
- 2. Asbestos-cement shingles or sheets.
- 3. Exposed concrete slab roof, with approved weatherproof material.
- 4. Sheet ferrous or copper roof covering.
- 5. Slate shingles.
- 6. Clay or concrete roof tile.
- 91.1504.2 Section 1504.2 of the U.B.C. is hereby adopted by reference.
- 91.1504.3 Section 1504.3 of the U.B.C. is hereby adopted by reference.
- 91.1504.4 Section 1504.4 of the U.B.C. is hereby adopted by reference.
- 91.1504.5 Section 1504.5 of the U.B.C. is hereby adopted by reference.
- SEC. 91.1506. ROOF DRAINAGE.
- **91.1506.1** Section 1506.1 of the U.B.C. is hereby adopted by reference.
- 91.1506.2 Section 1506.2 of the U.B.C. is hereby adopted by reference.
- **91.1506.3** Section 1506.3 of the U.B.C. is hereby adopted by reference.
- 91.1506.4 Section 1506.4 of the U.B.C. is hereby adopted by reference.
- **91.1506.5** Section 1506.5 of the U.B.C. is hereby adopted by reference.
- 91.1506.6 Drainage Under Public Sidewalks. Pipes carrying drainage water under public sidewalks shall be constructed in accordance with the Department of Public Works requirements.

SEC. 91.1507. ROOF-COVERING MATERIALS AND APPLICATION.

- 91.1507.1 Section 1507.1 of the U.B.C. is hereby adopted by reference.
- 91.1507.2 Section 1507.2 of the U.B.C. is hereby adopted by reference.
- **91.1507.3** Section 1507.3 of the U.B.C. is hereby adopted by reference.
- 91.1507.4 Section 1507.4 of the U.B.C. is hereby adopted by reference.

- 91.1507.5 Section 1507.5 of the U.B.C. is hereby adopted by reference.
- 91.1507.6 Section 1507.6 of the U.B.C. is hereby adopted by reference.
- 91.1507.7 Clay or Concrete Tile. Tile of clay or concrete shall comply with U.B.C. Standard 15–5 and shall be installed in accordance with manufacturer's instructions and Tables 15–D–1 and 15–D–2. Tiles may be installed in accordance with Section 91.1514 of the Los Angeles Municipal Code.
 - **91.1507.8** Section 1507.8 of the U.B.C. is hereby adopted by reference.
 - 91.1507.9 Section 1507.9 of the U.B.C. is hereby adopted by reference.
 - 91.1507.10 Section 1507.10 of the U.B.C. is hereby adopted by reference.
- 91.1507.11 Slate Shingles. Slate shingles shall be installed in an approved manner or in accordance with Section 91.1514 of the Los Angeles Municipal Code.
 - 91.1507.12 Section 1507.12 of the U.B.C. is hereby adopted by reference.
 - 91.1507.13 Section 1507.13 of the U.B.C. is hereby adopted by reference.
 - 91.1507.14 Section 1507.14 of the U.B.C. is hereby adopted by reference.

SEC. 91.1514. SPÉCIAL REQUIREMENTS FOR CLAY OR CONCRETE TILE AND SLATE SHINGLE.

91.1514.1 Alternate Method of Attachment.

- 91.1514.1.1 General. Except as noted, Table 15-D-1 or 15-D-2, slate shingles and clay or concrete roof tiles may be attached using wires and metal strips conforming to this Section.
- 91.1514.1.2 Wire. Wire for attaching slate shingles and clay or concrete tiles shall be copper, brass or stainless steel capable of supporting four times the weight of the shingles or tiles. Wire supporting a single shingle or tile shall not be smaller than 1/16 inch (1.6 mm) in diameter. Continuous wire ties supporting more than one tile shall not be smaller than 0.084 inches (2.13 mm) in diameter.

On concrete roofs, wires shall be secured in place by wire loops embedded into the concrete not less than 2 inches (50.8 mm). The wire loops shall be spaced not more

than 36 inches (838 mm) on center parallel to the eaves, and spaced vertically to allow for the minimum 3 inch (76.2 mm) apart.

- 91.1514.1.3 Metal Strips. Metal strips for attaching slate shingles or clay or concrete roof tiles shall be copper, brass or stainless steel capable of supporting four times the weight of the shingle or tile.
- 91.1514.1.4 Attachment of Wires and Metal Straps. Where continuous ties of twisted wire, interlocking wires or metal strips extending from the ridge to the eave are used to attach the tile, the ties shall be attached to the roof construction at the ridge, eave and at intervals not exceeding 10 feet (3050 mm) on center. The ties within 2 feet (610 mm) of the rake shall be attached at intervals of not more than 5 feet (1524 mm). Attachment for continuous ties shall be nails, screws, staples or approved clips of the same material as the ties and shall not be subjected to withdrawal forces. Attachments for continuous ties shall have an allowable working stress in shear of not less than twice the dead weight of the tile tributary to the attachment, but not less than 300 pounds (136 kg).
- 91.1514.2 Maximum Roof Slope. Slate shingles and clay or concrete tiles on roofs or walls having slopes exceeding 24 units vertical in 12 units horizontal (200 per cent slope) shall be attached as required for veneer in Division 14 of this code.
- SEC. 91.1515. SPECIAL REQUIREMENTS FOR HIGH WIND AREAS. In those areas designated by the Superintendent as subject to high wind velocity, the underlayment shall be a 30-pound-minimum weight felt and shall be attached to the roof deck with 1-inch-minimum-diameter headed nails or nails driven through tin caps. EXCEPTION: Shingles of 235 pounds minimum weight with a 14-pound felt underlayment and attached with standard nailing may be used without the special 30-pound underlayment and larger nails.

Asphalt and asbestos shingles shall be bonded to the underlayment with a one-inch diameter spot of asphalt cement under each tab or by using a 1/8-inch diameter minimum bead of asphalt cement. **EXCEPTION:** Bonding by asphalt cement will not be required for self-sealing shingles which bear the Underwriters' Laboratories, Inc. label for wind-resistant shingles.

PART II - REROOFING

SEC. 91.1516. GENERAL REROOFING PROVISIONS.

All reroofing shall conform to the applicable provisions of this Division.

A roof covering shall not be applied over existing wood shakes or shingles.

Roofing materials and methods of application shall comply with the U.B.C. Standards or shall follow manufacturer's installation requirements when approved by the Superintendent.

Installation of roof covering on existing buildings shall require design calculations submitted by an engineer or architect licensed by the State of California when the total installed weight of the finished roof covering materials above the wood structural panel and under layment exceeds 6 pounds per square foot. The design calculations shall demonstrate that the entire building is adequate to support the vertical and lateral forces imposed by the new roofing.

EXCEPTIONS:

- 1. Design calculations shall not be required when the total installed weight of the finished roof covering materials does not exceed the weight of the roof covering materials that are removed.
- 2. Design calculations for a one story, single-family dwelling are not required when a report is submitted by a licensed engineer or architect and approved by the Superintendent of Building.

SEC. 91.1517. BUILT-UP ROOFS.

91.1517.1 General. Built—up roof covering shall be completely removed before applying the new roof covering. New roofing conforming to Section 91.1503 shall be applied except that when the new roof is to be applied directly to a nailable deck which has residual bitumen adhering to it, a rosin—sized or other dry sheet shall be installed prior to the installation of the new roof system.

EXCEPTION: The Superintendent of Building may allow existing roof coverings to remain when inspection or other evidence reveals all of the following:

- 1. That the roof structure is sufficient to sustain the weight of the additional dead load of the roof covering.
- 2. There is not more than one existing roof covering on the structure.
 - 3. The existing roof covering is securely attached to the deck.
 - 4. The roof deck is structurally sound.

5. The existing insulation is not water soaked.

91.1517.2 Preparation of Roof and Application of New Covering.

- 91.1517.2.1 General. When reroofing without removal of existing roof coverings is permitted by the Superintendent of Building and when the conditions specified in the exceptions to Section 91.1517.1 of the Los Angeles Municipal Code above have been met, the reroofing shall be accomplished in accordance with this section.
- 91.1517.2.2 Over Gravel-Surfaced Roof Coverings. Over gravel-surfaced roof coverings, the roof shall be cleaned of all loose gravel and debris. All blisters, buckles and other irregularities shall be cut and made smooth and secure. Minimum 3/8-inch (9.5 mm) insulation board shall be nailed or securely cemented to the existing roofing with hot bitumen over which a new roof complying with Section 91.1503 of the Los Angeles Municipal Code shall be installed. When insulation board is to be attached with hot bitumen, the existing surface shall be primed.

Alternatively, on nailable decks only, all existing gravel shall be spudded off to provide a smooth surface. All blisters, buckles and other irregularities shall be cut and made smooth and secure. A rosin–sized or other dry sheet shall be installed and a base sheet as defined in the code shall be mechanically fastened in place. New roofing conforming to Section 91.1503 of the Los Angeles Municipal Code shall be applied.

91.1517.2.3 Over Smooth or Cap—Sheet Surface. Over smooth or cap—sheet surfaced roof coverings, all blisters, buckles and other irregularities shall be cut and made smooth and secure. In the case of nonnailable decks, a base sheet shall be spot cemented to the existing roofing. New roofing conforming to Section 91.1503 of the Los Angeles Municipal Code shall be applied.

In the case of nailable decks, a base sheet shall be nailed in place. In those cases where residual materials may cause the new base sheet to adhere to the old roof, a rosin-sized dry or other sheet shall be installed under the base sheet. New roofing conforming to Section 91.1503 of the Los Angeles Municipal Code shall be applied.

91.1517.3 Construction Details.

- 91.1517.3.1 Flashings and Edgings. Vent flashings, metal edgings, drain outlets, metal counterflashing and collars shall be removed and cleaned. Rusted metal shall be replaced. Metal shall be primed with cutback primer prior to installation. Collars and flanges shall be flashed per the roofing manufacturer's instructions.
- 91.1517.3.2 Intersecting Walls. All concrete and masonry walls shall be completely cleaned and primed to receive new flashing. All vertical walls, other than

concrete or masonry, shall have the surface finish material removed to a height of approximately 6 inches (153 mm) above the deck new roof surface to receive new roofing and flashing. All rotted wood shall be replaced with new materials. Surface finish material shall be replaced.

91.1517.3.3 Parapets. Parapets of area separation walls shall have noncombustible faces, including counterflashing and coping materials.

EXCEPTION: Combustible roofing may extend 7 inches (178 mm) above the roof surface.

91.1517.3.4 Cant Strips. Where space permits, cant strips shall be installed at all angles. All angles shall be flashed with at least two more layers than in the new roof with an exposed finish layer of inorganic felt or mineral surfaced cap sheet.

SEC. 91.1518. SHINGLES.

91.1518.1 Asphalt and Fiberglass Shingle Application. Not more than two overlays of asphalt shingles shall be applied over an existing asphalt shingle roof.

On structures with a slope of 2 units vertical in 12 units horizontal (16.7% slope) or greater and having no more than one existing built-up roof, one overlay of asphalt shingles may be applied, provided:

- 1. If the built-up roof has a gravel surface, the gravel must first be spudded off to provide a smooth surface. All blisters and irregularities shall be cut and made smooth and secure and as underlayment of not less than Type 30 nonperforated felt shall be installed.
- 2. If the built-up roof has a smooth or cap-sheet surface, all blisters and irregularities shall be cut and made smooth and secure and as underlayment of not less than Type 30 nonperforated felt shall be installed.
- 91.1518.2 Flashing and Edgings. Rusted or damaged flashing, vent caps and metal edgings shall be replaced with new materials as necessary.

SEC, 91.1519. CLAY OR CONCRETE TILE AND SLATE SHINGLE.

Clay or concrete tile or slate shingle roofing shall be installed per Table 15-D-1 or 15-D-2.

For roofs with spaced sheathing, a minimum of 15/32-inch plywood shall be applied perpendicular to the rafters in a staggered pattern with all panel joints occurring

over continuous wood members or within 6-inch of the rafters below. Plywood shall be nailed with 10d nails spaced 6-inch on center at panel edges and 12-inch on center at the intermediate supporting rafters, or as required by design calculations.

Tile roofs may be applied over existing roof coverings when approved by the Superintendent of Building. Such installations shall be substantiated by structural data indicating that the existing or modified roof-framing system is adequate to support the additional tile roof covering.

Existing tile roofing shall be removed and cleaned. Damaged or rusted flashing and cracked or broken tile shall be replaced. Tile shall be applied in accordance with the requirements of Section 91.1507.7 of the Los Angeles Municipal Code (application of clay or concrete tile) and in conformance with the original manufacturer's specifications.

EXCEPTION: When the original manufacturer's specifications are no longer available, the tile may be reinstalled to match the prior installation except that clay and terra-cotta hips and ridge tile shall be reinstalled with portland cement mortar.

SEC. 91.1520. METAL ROOFING.

Reroofing with metal roofing shall be in accordance with the original manufacturer's specifications or when the original manufacturer's specifications are no longer available as required by U.B.C. Section 1507.8.

SEC. 91.1521. SPRAY POLYURETHANE FOAM ROOFS.

- 91.1521.1 General. Spray-applied polyurethane foam may be applied directly to an existing built-up roofing system when the completed assembly is a Class A or B roof covering that meets the criteria in Section 91.2602.5.3 of the Los Angeles Municipal Code. When applied on a fire-resistive roof-ceiling assembly, the completed assembly shall comply with U.B.C. Section 710.1.
- 91.1521.2 Inspection of Existing Roof. The Superintendent of Building may allow existing roof coverings to remain when inspection or other evidence reveals all of the following:
 - 1. That the roof structure is sufficient to sustain the weight of the additional dead load of the roof covering.
 - 2. The existing roof covering is securely attached to the deck.
 - 3. The roof deck is structurally sound.

4. The existing insulation is not water soaked.

91.1521.3 Preparation of Roof and Application of New Covering.

- 91.1521.3.1 General. When reroofing without removal of existing roof coverings is permitted by the Superintendent of Building and when the conditions specified in Section 91.1521.2 of the Los Angeles Municipal Code above have been met, the reroofing shall be accomplished in accordance with this section.
- 91.1521.3.2 Over Gravel-Surfaced Roof Coverings. Over gravel-surfaced roof coverings, the roof shall be cleaned of all loose gravel and debris. All blisters, buckles and other irregularities shall be cut and be made smooth and secure. The completed assembly must meet the conditions set forth in Section 91.2602.5.3 of the Los Angeles Municipal Code, and U.B.C. Section 710.1, when applied on a fire-resistive roof-ceiling assembly.
- **91.1521.3.3** Over Smooth or Cap—Sheet Surfaces. Spray—applied polyurethane foam roofing may be applied directly to a properly prepared smooth or cap—sheet surface. The completed assembly must meet the conditions set forth in Section 91.2602.5.3 of the Los Angeles Municipal Code, and U.B.C. Section 710.1, when applied on a fire—resistive roof—ceiling assembly.

91.1521.4 Construction Details.

- 91.1521.4.1 Flashings and Edgings. Flashings and waterproof coverings for expansion joints shall be compatible with the polyurethane foam system.
- 91.1521.4.2 Miscellaneous Materials. Miscellaneous materials such as adhesives, elastomeric caulking compounds, metal, vents and drains shall be a composite part of the roof system.

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TABLE 15-A—MINIMUM ROOF CLASSES

	. TYPES OF CONSTRUCTION								
	I	· II		III		IV V		V	
OCCUPANCY	F.R.	F.R.	One-hour	N	One-hour	N	H.T.	One-hour	N
A-1	В	В		_		_			_
A) 2–2.1	· B	В	В	<u> </u>	В	_	В	В	
A-3	В	В	В	В	В	В	В	В	В
A-4	В	В	В	В	В	В	В	В	В
В	В	В	В	В	В	В	В	В	В
E) B	В	В	В	Ј в	В	. В	В	В
F	В	В	В	В	В	В	В	В	В
H-1	A	A	A	Α				_	_
H) 2-3-4-5-6-7	A	В	В	В	В	В	В	В	В
I) 1.1–1.2–2	A	В	В	_	В		В	, B	
I-3	A	В	В		Вι		<u> </u>	В	_
M	В	В	В	В	В	В	В	В	В
R-1	В	В	В	В	В	В	В	В	${f B}$
R-3	В	В	Ј в ј	В] в	В	,B	В	${f B}$
S-1, S-3	В	В	В	В	В	В	В	В	В
S-2, S-5	В	В	В	В	В	\mathbf{B}^{\cdot}	В	В	В
S-4 .	В	В	В	В		_	_	-	_
U	В	В	В	В	В	В	В	В	B

See U.B.C. Section 308.2.2.2.

A—Class A roofing.

N-No requirements for fire resistance.

H.T.—Heavy timber.

B-Class B roofing.

F.R.—Fire resistive.

TABLE 15-D-1—ROOFING TILE APPLICATION FOR ALL TILES

		ROOF SLOPE 2-1/2 UNITS VERTICAL IN 12 UNITS HORIZONTAL (21% Slope) TO LESS THAN 3 UNITS VERTICAL IN 12 UNITS HORIZONTAL (25% Slope)	ROOF SLOPE 3 UNITS VERTICAL IN 12 UNITS HORIZONTAL (25% Slope) AND OVER			
1.	Deck requirements	Wood Structural Panels per U.B.C. Table 23-I-S-1 and 23-I-S-2.				
2.	Underlayment	Built-up roofing membrane, three plies minimum, applied per U.B.C. Section 1507.6. Surfacing not required.	One layer of 30 pound felt ⁴ side lapped 3 inches (51 mm) and end lapped 6 inches (153 mm).			
3.	Attachment ¹ Type of fasteners ³	Hot dipped galvanized ring shank nails or approved equivalent not less than No. 11 gage, 5/16-inch (7.9 mm) head. Fasteners shall comply with the requirements of U.B.C. Chapter 23, Division III. Fasteners shall be long enough to penetrate into the sheathing 3/4 inch (19 mm) or through the thickness of the sheathing, whichever is less.				
	Number of fasteners ¹	Two fasteners per tile. For tile 8-inches (203 mm) in width or less and fastener at center of head, one fastener per tile. ²				
4.	Tile headlap	3 inches (76.2 mm) minimum.				
5.	Flashing	Per U.B.C. Sections 1508.4 and 1509.				

In areas designated as High Wind Velocity by the Superintendent of Building or where the roof height exceeds 40 feet (12 192 mm) above grade, all tiles shall be attached as follows:

- 1. The heads of all tiles shall be nailed.
- 2. The noses of all eave course tiles shall be fastened with approved clips.
- 3. All rake tiles shall be nailed with two nails.
- 4. The noses of all ridge, hip and rake tiles shall be set in a bead of approved roofer's mastic.
- On slopes over 24 units vertical in 12 units horizontal (200% slope), the nose end of all tiles shall be securely fastened.
- Approved wire ties may be used in lieu of each nail as noted in Section 91.1514 of this Code.
- ⁴ Underlayment felt shall comply with ASTM D-225.

TABLE 15-D-2—CLAY OR CONCRETE ROOFING TILE APPLICATION INTERLOCKING TILE WITH PROJECTING ANCHOR LUGS—MINIMUM ROOF SLOPE 4 UNITS VERTICAL IN 12 UNITS HORIZONTAL (33.3% Slope)

	ROOF SLOPE	4 UNITS VERTICAL IN 12 UNITS HORIZONTAL (33.3% Slope) AND OVER	
1.	Deck requirements See Table 15-D-1 of this Code.		
2.	Underlayment	One layer 30 pound felt 4 side lapped 3 inches (51 mm) and end lapped 6 inches (153 mm).	
3.	Attachment ¹ Type of fasteners	Hot dipped galvanized ring shank nails or approved equivalent not less than No. 11 gage, 5/16-inch (7.9 mm) head. Fasteners shall comply with the requirements of U.B.C. Chapter 23, Division III. Fasteners shall be long enough to penetrate through battens ² and into sheathing 3/4-inch (19 mm) or through the thickness of the sheathing, whichever is less. Horizontal battens are required for slopes 7 units vertical in 12 units horizontal and over.	
	No. of fasteners:	One fastener per tile. ³	
4.	Tile headlap	3-inch (76 mm) minimum.	
5.	Flashing	Per U.B.C. Sections 1508.4 and 1509.	

¹ In areas designated as High Wind Velocity by the Superintendent of Building or where the roof height exceeds 40 feet (12 192 mm) above grade, all tiles shall be attached as follows:

- 1. The heads of all tiles shall be nailed.
- 2. The noses of all eave course tiles shall be fastened with a special clip.
- 3. All rake tiles shall be nailed with two nails.
- 4. The noses of all ridge, hip and rake tiles shall be set in a bead of approved roofer's mastic.
- ² Battens shall not be less than 1-inch by 2-inch (25.4 mm by 51 mm) nominal. Provisions shall be made for drainage beneath battens by a minimum of 1/8-inch (3.2 mm) risers at each nail or by 4-foot-long (1219 mm) battens with at least ½-inch (13 mm) separation between battens. Battens shall be fastened with approved fasteners spaced at not more than 24 inches (610 mm) on center.
- ³ On slopes over 12 units vertical to 12 units horizontal (100% slope), the nose end of all tiles shall be securely fastened. Nails must be ½-inch (13 mm) from the edge of the batten.
- ⁴ Underlayment felt shall comply with ASTM D-225.

[file: ch-15a-t] 1-31-96 Sec. 16. Division 16 of Article 1 of Chapter IX of the Los Angeles Municipal Code is hereby amended to read as follows:

DIVISION 16

STRUCTURAL FORCES

SEC. 91.1600. BASIC PROVISIONS.

Chapter 16 of the U.B.C. is hereby adopted by reference for the purpose of providing basic building regulations relating to Structural Forces with the following exceptions: Sections 1605, 1609, 1611, 1628, 1629, 1631 and 1633 of the U.B.C. are not adopted and in lieu thereof Sections 91.1605, 91.1609, 91.1611, 91.1628, 91.1629, 91.1631 and 91.1633 are added as provided herein.

SEC. 91.1605. ROOF DESIGN.

- 91.1605.1 General. Roofs shall sustain, within the stress limitations of this code, all dead loads plus unit live loads as set forth in Table 16–C. The live loads shall be assumed to act vertically upon the area projected upon a horizontal plane. Occupied roofs shall be designed for the appropriate live load per Table 16–A.
 - 91.1605.2 Section 1605.2 of the U.B.C. is hereby adopted by reference.
 - 91.1605.3 Section 1605.3 of the U.B.C. is hereby adopted by reference.
 - **91.1605.4** Section 1605.4 of the U.B.C. is hereby adopted by reference.
 - **91.1605.5** Section 1605.5 of the U.B.C. is hereby adopted by reference.
 - 91.1605.6 Section 1605.6 of the U.B.C. is hereby adopted by reference.
 - SEC. 91.1609. SPECIAL DESIGN.
 - 91.1609.1 Section 1609.1 of the U.B.C. is hereby adopted by reference.
- 91.1609.2 Retaining Walls. See Section 91.1819 of the Los Angeles Municipal Code for design requirements for retaining wall.
 - 91.1609.3 Section 1609.3 of the U.B.C. is hereby adopted by reference.
 - 91.1609.4 Section 1609.4 of the U.B.C. is hereby adopted by reference.

SEC. 91.1611. ANCHORAGE OF CONCRETE OR MASONRY WALLS.

Concrete or masonry walls shall be anchored to all floors, roofs and other structural elements which provide required lateral support for the wall. Such anchorage shall provide a positive direct connection capable of resisting the horizontal forces specified in this Division or a minimum force of 300 pounds per lineal foot (4.40 kN/m) of wall, whichever is greater. Walls shall be designed to resist bending between anchors where the anchor spacing exceeds 4 feet (1220 mm). Required anchors in masonry walls of hollow units or cavity walls shall be embedded in a reinforced grouted structural element of the wall. See U.B.C. Section 1630, and Sections 91.1631.2.8 and 91.1631.2.9.3 of the Los Angeles Municipal Code.

SEC. 91.1628. MINIMUM DESIGN LATERAL FORCES AND RELATED EFFECTS.

- 91.1628.1 Section 1628.1 of the U.B.C. is hereby adopted by reference.
- 91.1628.2 Section 1628.2 of the U.B.C. is hereby adopted by reference.
- 91.1628.3 Section 1628.3 of the U.B.C. is hereby adopted by reference.
- 91.1628.4 Section 1628.4 of the U.B.C. is hereby adopted by reference.
- 91.1628.5 Section 1628.5 of the U.B.C. is hereby adopted by reference.
- 91.1628.6 Section 1628.6 of the U.B.C. is hereby adopted by reference.
- 91.1628.7 Section 1628.7 of the U.B.C. is hereby adopted by reference.
- 91.1628.8 Story Drift Limitation.
- 91.1628.8.1 Section 1628.8.1 of the U.B.C. is hereby adopted by reference.
- 91.1628.8.2 Section 1628.8.2 of the U.B.C. is hereby adopted by reference.
- 91.1628.8.3 Section 1628.8.3 of the U.B.C. is hereby adopted by reference.
- 91.1628.8.4 Base Shear. If the base shear for dynamic lateral force procedure is greater than that determined by Item 1 of Section 91.1629.5.3 of the Los Angeles Municipal Code, then drift limits may be exceeded when approved by the department.
 - 91.1628.9 Section 1628.9 of the U.B.C. is hereby adopted by reference.

91.1628.10 Section 1628.10 of the U.B.C. is hereby adopted by reference.

SEC. 91.1629. DYNAMIC LATERAL-FORCE PROCEDURES.

- **91.1629.1** Section 1629.1 of the U.B.C. is hereby adopted by reference.
- 91.1629.2 Section 1629.2 of the U.B.C. is hereby adopted by reference.
- 91.1629.3 Section 1629.3 of the U.B.C. is hereby adopted by reference.
- 91.1629.4 Section 1629.4 of the U.B.C. is hereby adopted by reference.
- 91.1629.5 Response Spectrum Analysis.
- 91.1629.5.1 Section 1629.5.1 of the U.B.C. is hereby adopted by reference.
- 91.1629.5.2 Section 1629.5.2 of the U.B.C. is hereby adopted by reference.
- 91.1629.5.3 Scaling of results. The base shear for a given direction determined using these procedures, when less than the values below, shall be scaled up to these values.
 - 1. The base shear shall be increased to the following percentage of the values determined from the procedures of Section 91.1628 of the Los Angeles Municipal Code:
 - 1.1 One hundred percent for irregular buildings.
 - 1.2 Ninety percent for regular buildings, except that the base shear shall not be less than 80 percent of that determined from Section 91.1628 of the Los Angeles Municipal Code using the period, *T*, calculated from Method A.

All corresponding response parameters, including deflections, member forces and moments, shall be increased proportionately.

- 2. The base shear for a given direction determined using these procedures, when more than the values in Item 1 above shall not be scaled down without Department approval. All corresponding response parameters may be adjusted proportionately.
- 91.1629.5.4 Section 1629.5.4 of the U.B.C. is hereby adopted by reference.

- 91.1629.5.5 Section 1629.5.5 of the U.B.C. is hereby adopted by reference.
- 91.1629.5.6 Section 1629.5.6 of the U.B.C. is hereby adopted by reference.
- **91.1629.6** Section 1629.6 of the U.B.C. is hereby adopted by reference.
- SEC. 91.1631. DETAILED SYSTEMS DESIGN REQUIREMENTS.
- **91.1631.1.** Section 1631.1 of the U.B.C. is hereby adopted by reference.
- 91.1631.2 Structural Framing Systems.
- 91.1631.2.1 Section 1631.2.1 of the U.B.C. is hereby adopted by reference.
- 91.1631.2.2 Section 1631.2.2 of the U.B.C. is hereby adopted by reference.
- 91.1631.2.3 Section 1631.2.3 of the U.B.C. is hereby adopted by reference.
- 91.1631.2.4 Section 1631.2.4 of the U.B.C. is hereby adopted by reference.
- 91.1631.2.5 Section 1631.2.5 of the U.B.C. is hereby adopted by reference.
- 91.1631.2.6 Section 1631.2.6 of the U.B.C. is hereby adopted by reference.
- 91.1631.2.7 Concrete Frames. In Seismic Zone No. 4 all concrete space frames required by design to be part of the lateral force-resisting system and all concrete frames located in the perimeter line of vertical support shall be special moment-resisting space frames.
 - **EXCEPTION:** Frames in the perimeter line of the vertical support of buildings designed with shear walls along or near the same perimeter lines which take 100 percent of the design lateral forces need only conform with U.B.C. Section 1631.2.4.
 - 91.1631.2.8 Anchorage of Concrete or Masonry Walls.
- 91.1631.2.8.1 General. Concrete or masonry walls shall be anchored to all floors and roofs which provide lateral support for the wall. The anchorage shall provide a positive direct connection between the wall and floor or roof construction capable of resisting the horizontal forces specified in U.B.C. Section 1630 or Section 91.1611 of the Los Angeles Municipal Code. Requirements for developing anchorage forces in diaphragms and for design of wall anchorages are given in Section 91.1631.2.9 of the Los

Angeles Municipal Code below. Diaphragm deformation shall be considered in the design of the supported walls.

91.1631.2.8.2 Definitions. For the purpose of this subsection certain terms are defined as follows:

Anchorage System(s) all structural elements, which support the wall in the lateral direction, including wall anchorage and continuity tie (cross-tie) connectors in subdiaphragms and main diaphragms for new construction, retrofit and repairs.

- 91.1631.2.8.3 Pilaster Anchorage Forces. When pilasters are present in the wall, the anchorage force at the pilasters shall be calculated considering the wall panels between the pilasters as supported on four sides.
- **91.1631.2.8.4** Symmetry. Symmetry of connectors in the anchorage system is required. Eccentricity may be allowed when it can be shown that all components of forces are positively resisted and justified by calculations or tests.
- 91.1631.2.8.5 Minimum Roof Member Size. Wood members used to develop anchorage forces to the diaphragm must be at least 3x for new construction and replacement. All such members must be checked for gravity and earthquake as part of the wall anchorage system.
- 91.1631.2.8.6 Combination of Anchor Types. To repair and retrofit existing buildings, a combination of different anchor types of different behavior or stiffness shall not be permitted. The capacity of the new and existing connectors cannot be added.
- 91.1631.2.8.7 Prohibited Connectors. Usage of connectors that were bent and/or stretched from the intended use shall be prohibited.

91.1631.2.9 Diaphragms.

91.1631.2.9.1 Deflection. The deflection in the plane of the diaphragm shall not exceed the permissible deflection of the attached elements. Permissible deflection shall be that deflection which will permit the attached element to maintain its structural integrity under the individual loading and continue to support the prescribed loads.

91.1631.2.9.2 Floor and Roof Diaphragms. Floor and roof diaphragms shall be designed to resist the forces determined in accordance with the following formula:

$$F_{px} = \frac{F_{i} + \sum_{i=x}^{n} F_{i}}{\sum_{i=x}^{n} w_{i}} w_{px}$$
(31-1)

The force $F_{\mu\nu}$ determined from U.B.C. Formula (31–1) need not exceed 0.75 Z I $w_{\mu\nu}$, but shall not be less than 0.35 Z I $w_{\mu\nu}$.

When the diaphragm is required to transfer lateral forces from the vertical resisting elements above the diaphragm to other vertical resisting elements below the diaphragm due to offset in the placement of the elements or to changes in stiffness in the vertical elements, these forces shall be added to those determined from Formula (31–1).

91.1631.2.9.3 Flexible Diaphragms. Design forces for flexible diaphragms, and their connections providing lateral supports for walls or frames of masonry or concrete, shall be calculated using an R_w not to exceed 6.

91.1631.2.9.4 Diaphragms Supporting Concrete or Masonry Walls.

- 1. Diaphragms supporting concrete or masonry walls shall have continuous ties or struts between diaphragm chords to distribute the anchorage forces specified in Section 91.1631.2.8 of the Los Angeles Municipal Code. The spacing of the continuous ties shall not exceed 24 feet. Added chords and crossties may be used to form subdiaphragms to transmit the anchorage forces to the continuous wall-to-wall crossties. The maximum diaphragm shear used to determine the depth of the subdiaphragm shall be 250 pounds per foot.
- 2. Where wood diaphragms are used to laterally support concrete or masonry walls, the anchorage shall conform to Section 91.1631.2.8 of the Los Angeles Municipal Code above. In Seismic Zones 2, 3 and 4 anchorage shall not be accomplished by use of toenails or nails subject to withdrawal, nor shall wood ledgers or framing be used in cross–grain bending or cross–grain tension, and the continuous ties required by Item 1 above shall be in addition to the diaphragm sheathing.
- 91.1631.2.9.5 Design of Steel Wall Anchorage Elements. The steel elements of the wall anchorage system shall be designed by the allowable stress design method using a load factor of 1.7. Strength design, using a load factor of 1.7 for earthquake loading, shall be used for the design of anchor embedment in concrete.

91.1631.2.9.6 Design for Irregular Structures.

- I. Connections of diaphragms to the vertical elements and to collectors and connections of collectors to the vertical elements in structures in Seismic Zones 3 and 4, having a plan irregularity of Type A, B, C or D in Table 16–M, shall be designed without considering one—third increase usually permitted in allowable stresses for elements resisting earthquake forces.
- 2. In structures in Seismic Zones 3 and 4 having a plan irregularity of Type B in Table 16–M, diaphragm chords and drag members shall be designed considering independent movement of the projecting wings of the structure. Each of these diaphragm elements shall be designed for the more severe of the following two assumptions:

Motion of the projecting wings in the same direction.

Motion of the projecting wings in opposing directions.

EXCEPTION: This requirement may be deemed satisfied if the procedures of Section 91.1629 of the Los Angeles Municipal Code in conjunction with a three–dimensional model have been used to determine the lateral seismic forces for design.

- 3. When designing the diaphragm to comply with the requirements stated above, the return walls and fins/canopies at entrances shall be considered. Design for the seismic deflection of return walls, and fins/canopies at entrances, to insure deflection compatibly with the diaphragm, by either seismically isolating the element or attaching the element and integrating its load into the diaphragm.
- 91.1631.2.10 Section 1631.2.10 of the U.B.C. is hereby adopted by reference.
- 91.1631.2.11 Section 1631.2.11 of the U.B.C. is hereby adopted by reference.

SEC. 91.1633. EARTHQUAKE-RECORDING INSTRUMENTATION.

- **91.1633.1 Applicability**. The requirements of this section shall apply to buildings for which permits were issued after July 1, 1965.
- 91.1633.2 General. Every building over six stories in height with aggregate floor area of 60,000 square feet or more, and every building over 10 stories in height regardless of the floor area, shall be provided with three approved recording accelerographs.

EXCEPTION: A building selected by the State of California as part of its Strong Motion Instrumentation Program (Section 2700, Chapter 8, Division 2, California State Public Resources Code) need not comply with this section until such time as it ceases to be part of such program.

- 91.1633.3 Maintenance. Maintenance and service of the instruments shall be provided by the owner of the building, subject to the approval of the Superintendent of Building. Data produced by the instruments shall be made available to the Superintendent of Building on request.
- 91.1633.4 Location. The instruments shall be located in the basement, midportion, and near the top of the building. Each instrument shall be located so that access is maintained at all times an is unobstructed by room contents. A sign stating MAINTAIN CLEAR ACCESS TO THIS INSTRUMENT shall be posted in a conspicuous location.
- 91.1633.5 Instrumentation of Existing Buildings. All owners of existing structures selected by the jurisdiction authorities shall provide accessible space for the installation of appropriate earthquake-recording instruments. Locations of said instruments shall be determined by the jurisdiction authorities. The jurisdiction authorities shall make arrangements to provide, maintain and service the instruments. Data shall be the property of the jurisdiction, but copies of individual records shall be made available to the public on request and the payment of an appropriate fee.
- Sec. 17. Division 17 of Article 1 of Chapter IX of the Los Angeles Municipal Code is hereby amended to read as follows:

DIVISION 17

STRUCTURAL TESTS AND INSPECTIONS

SEC 91.1700. BASIC PROVISIONS.

Chapter 17 of the U.B.C. is hereby adopted by reference for the purpose of providing basic building regulations relating to Structural Tests and Inspections with the following exceptions: Sections 1701 and 1702 of the U.B.C. are not adopted and in lieu thereof Sections 91.1701 and 91.1702 are added as provided herein.

SEC. 91.1701. SPECIAL INSPECTIONS.

91.1701.1 General.

In addition to the inspections to be made by employees of the Department, as specified in Section 91.108 of the Los Angeles Municipal Code, the owner shall employ a registered deputy inspector. The inspector shall be qualified under Section 91.1701.2 of the Los Angeles Municipal Code. The inspector may be employed either directly or through the architectural or engineering firm in charge of the design of the structure, or through the geologic or soils engineering firm providing technical design data for the project, or through an independent approved inspection/test firm. In any case, the inspector shall be approved by and shall be responsible to the architectural or engineering firm in charge of the design of the structure, or the geologic or soils engineering firm providing technical design data for the project. The registered deputy inspector shall provide continuous inspection on the types of work listed under Section 91.1701.5 of the Los Angeles Municipal Code.

91.1701.2 Registered Deputy Inspectors. Application for registration as a registered deputy inspector shall be made to the Superintendent of Building on a form furnished by the department. A separate application shall be made for each type of registration desired.

A committee appointed by the Superintendent of Building shall examine each applicant as to his or her experience and training for performing the duties of an inspector of the type for which application has been made. Additionally, the applicant will be examined on the applicant's knowledge of the Los Angeles Municipal Code and deputy inspector duties, responsibilities and procedures. When satisfied as to the fitness of the applicant, the Superintendent of Building shall issue a Certificate of Registration. Upon application for renewal of a Certificate of Registration, the applicant shall be reexamined to ascertain the applicant's fitness to perform the duties of inspector of the type for which application has been made.

EXCEPTION: If the department determines that the initial examination (which includes general knowledge, code requirements and plan comprehension) for the special inspector program under the International Conference of Building Officials (ICBO) is equivalent to the above—described initial or renewal examination, then the department may accept the results of the ICBO examination in lieu of department's examination in that category; however, the department will be examining the applicant's knowledge of the Los Angeles Municipal Code and deputy inspector duties, responsibilities and procedures.

The Superintendent of Building shall issue separate certificates for each of the following types of inspectors: reinforced concrete, reinforced masonry, structural welding and soils/grading.

Nothing herein shall be deemed to prohibit any one person from being qualified for more than one type of inspection, provided he or she makes application, pays the required fees, takes the required examinations and is duly qualified by the Superintendent of Building for each type.

Each Certificate of Registration shall expire three years from the date of issuance, but may be renewed by the Superintendent of Building within a grace period of 30 days thereafter.

The Superintendent of Building shall keep on file in his or her office a current classified list, open to public inspection, of the names of all registered deputy inspectors, showing the type of work each has been authorized to inspect.

Upon evidence, satisfactory to the Superintendent of Building, of incompetence, of willful or negligent failure to observe or report violations of this code, or of any other failure to perform properly and effectively the duties assumed by a registered deputy inspector, the Superintendent of Building may revoke, suspend or refuse to renew any Certificate of Registration, but prior to such action, the holder shall be given an opportunity to appear before the Superintendent of Building and be heard.

Except where there is an employee of the City of Los Angeles inspecting buildings or structures being erected or repaired by the city, no registered deputy inspector shall receive any compensation whatsoever from the city. Such deputy inspector shall undertake and perform the duties of inspection solely on the request of the owner or the owner's agent. Such designation shall be deemed to determine that the duties incident to such inspection are within the course and scope of the inspector's employment by such owner or agent, and except where the inspector is in fact an employee of the city, as aforesaid, the inspector shall not be deemed an employee of the city, the contractor, a subcontractor or a material vendor for any purpose.

91.1701.3 Duties and Responsibilities of the Registered Deputy Inspector.

1. The registered deputy inspector employed on any work must be present during the execution of all the work the deputy inspector has undertaken to inspect. The deputy inspector shall notify the department of the commencement of inspection of a job and shall specify the type of inspection for which the deputy inspector has been engaged. This notification shall be made no later than the last working day preceding such commencement of inspection. The deputy inspector shall report to the job sufficiently in advance of construction to review the plans

and to inspect all materials to be used or concealed within such work; shall inspect the construction, erection, placing or other use of such materials; and shall observe whether there is compliance with the code as to all of the foregoing. During the execution of the work, the deputy inspector shall not undertake or engage in any other task or occupation which will interfere with the proper performance of the duties of such inspections. The deputy inspector shall report, as directed, to the Superintendent of Building, noting all violations of this code which have occurred and such other information as may be required. At the conclusion of the deputy inspector's duties, on any project which has been completed in accordance with this code, the deputy inspector shall submit a report to the department setting forth the portion of the work inspected. The report shall be made on forms supplied by the department and shall be filed in the records of the Department.

- 2. Nothing herein shall be deemed to authorize any registered deputy inspector to approve the pouring of concrete, the placement of masonry, structural steel or fill prior to the approval of the soil condition by the regular building inspector.
- 3. Where, in the opinion of the department, the magnitude or complexity of a job is sufficient to warrant, additional registered deputy inspectors may be required.
- 4. Where, in the opinion of the department, the registered deputy inspector is negligent in the performance of the deputy inspector's duties, the job shall be stopped.

91.1701.3.1 Fees for Registered Deputy Inspector.

- 1. Before accepting an application for registration as a registered deputy inspector, the department shall collect an initial examination fee of \$165.00. A separate application shall be submitted and a separate initial examination fee shall be collected for each type of registration desired. When the applicant passes the initial examination, a Certificate of Registration fee of \$120.00 shall be collected for each type of initial examination passed.
- 2. Before renewing a Certificate of Registration as deputy inspector, the department shall collect a renewal examination fee in the amount of \$145.00 for each type of registration to be renewed. When the applicant passes the renewal examination, a Certificate of Registration renewal fee in the amount of \$110.00 shall be collected for each type of renewal examination passed.

3. If the department accepts the results of the applicant's ICBO examination in lieu of taking the department's initial or renewal examination, then the department's initial or renewal examination fee as specified in this subsection shall be reduced to \$50.00 for each applicable type of registration for which application has been made. An examination will be given for each type of registration. Upon passing the examination, a Certificate of Registration fee or renewal fee as specified in this subsection shall be collected.

91.1701.3.2 Failure to Pass Examination for Registered Deputy Inspector.

- 1. Every applicant who fails to pass an examination shall not be eligible for another examination until 90 days after taking the previous examination. Any applicant who fails to pass on the third trial shall not be again eligible until six months thereafter.
- 2. Every applicant who fails to pass a reexamination shall not be eligible for another reexamination until 30 days after taking the previous examination.
- **91.1701.4** Section 1701.4 of the U.B.C. is hereby adopted by reference.
- **91.1701.5 Types of Work.** Except as provided in Section 91.1701.1 of the Los Angeles Municipal Code, the types of work listed below shall be inspected by a special inspector.
 - 1. Concrete. Continuous inspection at the jobsite as specified in this section shall be provided on all concrete where the design strength f_c exceeds 2,000 psi.

When concrete work is performed away from the jobsite, but not on the premises of an approved fabricator, a deputy inspector for reinforced concrete shall perform the following services:

- 1.1 Inspection of reinforcement in place prior to placement of any type of concrete.
- 1.2 Continuous inspection during batching of concrete where the design strength f_c exceeds 2,000 psi.
- 1.3 Continuous inspection during the placement of any concrete where the design strength f'_c exceeds 2,000 psi.

- **2.** Bolts Installed in Concrete. Prior to and during the placement of concrete around bolts when stress increases permitted by Footnote 5 of U.B.C. Table 19–E or U.B.C. Section 1925 are utilized.
- 3. Special Moment-Resisting Concrete Frame. As required by U.B.C. Section 1921.9.
 - 4. Reinforcing Steel and Prestressing Steel Tendons.
 - **4.1** During all stressing and grouting of tendons in prestressed concrete.
 - 4.2 During placing of reinforcing steel and prestressing tendons for all concrete required to have special inspection by Item 1.

EXCEPTION: The registered deputy inspector need not be present continuously during placing of reinforcing steel and prestressing tendons, provided the special inspector has inspected for conformance with the approved plans prior to the closing of forms or the delivery of concrete to the jobsite.

5. Welding.

- 5.1 Special Moment-Resisting Steel Frames. As required by Sections 91.2211.7 of the Los Angeles Municipal Code and U.B.C. Section 2212.5.
 - 5.2 All structural welding of reinforcing steel.

EXCEPTIONS:

- 1. When welding is done in an approved fabricator's shop.
- 2. When approved by the building official, single-pass fillet welds when stressed to less than 50 percent of allowable stresses may have periodic inspections in accordance with Section 91.1701.6.2 of this code. For periodic inspection, the inspector shall check qualifications of welders at the start of work and then make final inspection of all welds for compliance after completion of welding.

6. High-Strength Bolting. As required by U.B.C. Chapter 22, Division IV. Such inspections may be performed on a periodic basis in accordance with the requirements of Section 91.1701.6 of the Los Angeles Municipal Code.

EXCEPTIONS:

- 1. High-strength bolts are specified, but design stresses are within the allowable stress range of A 307 bolts.
 - 2. High-strength bolts that are designed as tension connectors.

7. Structural Masonry.

7.1 For masonry, other than fully grouted open—end hollow—unit masonry, during preparation and taking of any required prisms or test specimens, placing of all masonry units, placement of reinforcement, inspection of grout space, immediately prior to closing of cleanouts, and during all grouting operations.

EXCEPTION: For hollow—unit masonry where the f_m is no more than 1,500 psi (10.34 MPa) for concrete units or 2,600 psi (17.93 MPa) for clay units, special inspection may be performed as required for fully grouted open—end hollow—unit masonry specified in Item 7.2 below.

7.2 For fully grouted open—end hollow—unit masonry during preparation and taking of any required prisms or test specimens, at the start of laying units, after the placement of reinforcing steel, grout space prior to each grouting operation, and during all grouting operations.

EXCEPTION: Special inspection as required in Items 7.1 and 7.2 above need not be provided when design stresses have been adjusted as specified in Division 21 of this code to permit noncontinuous inspection. This exception shall not apply to walls with an effective height to width ratio exceeding 30.

- 8. Reinforced Gypsum Concrete. When cast-in-place Class B gypsum concrete is being mixed and placed.
- 9. Insulating Concrete Fill. During the application of insulating concrete fill when used as part of a structural system.

EXCEPTION: The special inspections may be limited to an initial inspection to check the deck surface and placement of reinforcing. The control activity inspector shall supervise the preparation of compression test specimens during this initial inspection.

- 10. Spray-Applied Fireproofing. As required by U.B.C. Standard 7–6, shall require inspection by a controlled activity inspector. See Section 91.1701.11.
- 11. Piling, Drilled Piers and Caissons. During driving and testing of piles and construction of cast-in-place drilled piles or caissons. See Items I and 4 for concrete and reinforcing steel inspection.
- 12. Shotcrete. During the taking of test specimens and placing of all shotcrete and as required by U.B.C. Section 1922.10, and Sections 91.1922.11 and 91.1922.14.11 of the Los Angeles Municipal Code. Inspection shall be performed by controlled activity inspectors in accordance with Section 91.1701.11 of the Los Angeles Municipal Code.

EXCEPTION: Shotcrete work fully supported on earth, minor repairs and when, in the opinion of the, Superintendent of Building, no special hazard exists.

- 13. Grading. Under all conditions where the site grading or foundation earthwork planned on a project in the hillside area has any of the following:
 - 13.1 A contiguous grading area exceeding 60,000 square feet.
 - 13.2 An excavated or filled slope steeper than two horizontal to one vertical.
 - 13.3 An excavated slope exceeding 40 feet in height and the top of which is within 20 feet of a property line coterminous with improved private property or a public way.
 - 13.4 Foundation excavations below a one horizontal to one vertical plane inward and down from the property line.

EXCEPTION: The Department may waive continuous inspection where minor areas or heights are involved and no unusual hazards exist.

14. Smoke-Control System.

- 14.1 During erection of ductwork and prior to concealment for the purposes of leakage testing and recording of device location.
- 14.2 Prior to occupancy and after sufficient completion for the purposes of pressure difference testing, flow measurements, and detection and control verification.
- 15. Special Cases. Work which, in the opinion of the, Superintendent of Building, involves unusual hazards or conditions.

91.1701.6 Continuous and Periodic Special Inspection.

- 91.1701.6.1 Continuous Special Inspection. Continuous special inspection means that the deputy inspector is on the site at all times observing the work requiring deputy inspector.
- 91.1701.6.2 Periodic Special Inspection. Some inspections may be made on a periodic basis provided this periodic scheduled inspection is performed as outlined in the project plans and specifications and approved by the Superintendent of Building.
- 91.1701.7 Approved Fabricators. The special inspections provided in this section, except those set forth in Section 91.1701.9 of the Los Angeles Municipal Code, shall not be required for the work done on the premises of a Type I fabricator to whom an approval has been issued pursuant to the provisions of Division C of Article 6 of Chapter IX of the Los Angeles Municipal Code.
- 91.1701.8 Structural Inspection—Concrete. During the construction of all buildings over 160 feet in height with concrete special moment—resisting space frames, a structural inspector under the supervision of the engineer responsible for the structural design shall be present to inspect the materials and workmanship for conformance with approved plans, specifications and change orders involved in construction of the ductile frames and shear walls. Such inspection may be made by one or more structural inspectors, provided that at least one structural inspector is present during the placement of all concrete and reinforcement in the structural frame and shear walls.

The number of structural inspectors to be provided for each structure shall be determined by the engineer responsible for the structural design, provided that more than one structural inspector shall be provided where the magnitude of a structure prevents a single inspector from adequately performing the inspection.

The owner shall provide for each structural inspector. Each structural inspector shall be paid by the owner directly or through the person responsible for the structural design. Each structural inspector shall be responsible to the person who prepared the structural design.

The inspection by the structural inspector or inspectors shall be in addition to inspections made by department employees as specified in Section 91.108 of the Los Angeles Municipal Code and by registered deputy inspectors as specified for other parts of the work in Section 91.1701.1 of the Los Angeles Municipal Code.

Prior to the issuance of the Certificate of Occupancy each structural inspector shall submit a report in writing to the engineer and the department certifying that the portions of the structural frame inspected by such inspector were constructed in accordance with the approved plans, specifications, change orders, and Division 19 of this code.

91.1701.9 Structural Inspection—Steel. During the fabrication and erection of buildings over 160 feet in height with structural steel moment—resisting space frames, a registered deputy inspector under the supervision of the engineer responsible for the structural design shall be present during the performance of all structural welding or the installation of all high—strength bolts whether in a fabricator's shop or at the jobsite.

91.1701.10 Certification. For buildings exceeding 160 feet in height the engineer responsible for the structural design and the general contractor responsible for the construction, or their competent authorized representatives, shall make periodic inspections of the work at the site to verify general compliance with the approved plans, specifications and change orders. The engineer and general contractor shall submit a statement in writing to the building department stating that they know from personal knowledge that the materials installed and the structural work performed is in compliance with the approved plans, specifications and change orders.

The phrase "personal knowledge" as used above in reference to the engineer and general contractor is interpreted to mean the personal knowledge which is the result of such general observation by the engineer and general supervision by the contractor of the work as is required of and accepted from both the engineer and general contractor in the superintendence of construction of the building and as distinguished from the continuous personal superintendence of the special inspector and/or deputy inspector who are continuously at the site during the progress of the work. The exercise of reasonable diligence to obtain the facts is required and anyone who intentionally remains ignorant may be charged with knowledge. The interpretation of personal knowledge as it applies to the special inspector and/or deputy inspector is that the inspector(s) must have actual personal knowledge that the requirements of the plans and specifications are being carried

out, obtained by the inspector's continuous observation of the work of construction at the site in all stages of its progress.

91.1701.11 Controlled Activities. In addition to the construction or work inspected as described in Sections 91.108, 91.1701.1, 91.1701.8 and 91.1701.9 of the Los Angeles Municipal Code, there are other construction activities which are sufficiently important to the structural stability of the structure, the occupants of and the fire and life safety of the structure that inspection by a specially qualified inspector of such activities is necessary in order to ensure compliance with the requirements of this code. These controlled activities may occur during off–site fabrication or during on–site construction.

Inspections by controlled activity inspectors will be required in accordance with regulations promulgated by the superintendent where:

- 1. The structure is more than five stories or 60 feet in height.
- 2. The structure exceeds 50,000 square feet of ground area or 200,000 square feet of total floor area.
 - 3. Nondestructive structural testing methods are utilized.
- 4. The quality identification markings of the materials used are not inspectable after installation.
- 5. The manner of use of materials precludes full inspection after installation.

EXCEPTION: The department may waive continuous or intermittent inspection required by this subsection where minor quantities are involved and no unusual hazards exist.

In addition to the projects included in the above categories, the Superintendent may require controlled activity inspections, if the Superintendent determines that such inspections are needed to ensure compliance with the provisions of this code and the work involves:

- A. Unique, novel or innovative construction.
- B. Highly complex or intricate construction.
- C. Unique, novel or innovative grading, earth support or foundation procedures.
- D. New methods of construction not yet provided for in the rules and regulations.

Controlled activity inspection authority will be issued only as a supplement to a valid deputy inspector registration. The superintendent shall adopt rules and regulations implementing the provisions of this subsection. These regulations may establish, and set the requirements for, different types of controlled activity inspectors.

- 91.1701.12 Certifications by Architect, Engineer or Geologist. If a structure or portion thereof has been designed to utilize higher stresses requiring continuous inspection, the architect or engineer in responsible charge of such a design shall certify by signature to the department that to the best of his or her knowledge the structure or portion utilizing higher stresses was constructed in conformity with the approved design. If the grading or foundation earthwork has required continuous inspection, the responsible engineering geologist or soils engineer shall certify by signature to the department that to the best of his or her knowledge the field work was completed in conformity with the technical design data.
- 91.1701.13 Department's Responsibility. The employment of a registered deputy inspector for any work does not deprive the department of the right to make periodic or called inspections of all or portions of such work. On any work requiring continuous inspection by a registered deputy inspector, the called inspections required by Sections 91.108.5 and 91.108.9 of the Los Angeles Municipal Code may be delegated to the registered deputy inspector by the Superintendent of Building.
- 91.1701.14 Structural, Termite and Fungus Damage. Every building raised from its foundation shall be inspected. If there is any superficial evidence of structural damage, the existence of termites, or fungus growth, the permittee shall remove and renew the damaged or infested members before reseating the building or before moving it from its existing site or into the city.
- 91.1701.15 Emergencies or Catastrophes. In the event of an emergency or of a major catastrophe in the city, the department may deputize emergency building inspectors for the Department. The inspectors shall receive no compensation from the city, and they shall be appointed for such periods of time as the department may deem advisable.

91.1701.16. Structural Inspectors.

- 91.1701.16.1 Qualifications. Each structural inspector selected by the engineer shall have at least five years' experience in the design or inspection of reinforced concrete buildings, shall have a thorough knowledge of the quality control of concrete and placement, and shall be able to interpret the structural drawings and specifications. The department shall be notified in writing of each selection by the engineer.
- 91.1701.16.2 Department Acceptance. Each structural inspector selected by the engineer to perform the inspection shall make application to the department for

acceptance. The department shall examine each applicant and each applicant's experience record to confirm that the person has the qualifications to perform the structural inspections required by Section 91.1701.8 of the Los Angeles Municipal Code and shall notify the engineer as to the acceptability of each applicant. Approval granted by the Department shall be effective until the issuance of the Certificate of Occupancy.

91.1701.16.3 Duties. The structural inspector or inspectors required by Section 91.1701.8 of the Los Angeles Municipal Code shall perform continuous inspection on the quality and placement of all concrete and reinforcement in the structural frame of the building. The structural inspector present shall not permit concrete to be placed in the forms until all preparation for its placement is complete, including preparations of surfaces, and accurate positioning of reinforcement and forms.

Each structural inspector shall immediately report to the engineer and the Superintendent of Building all deviations observed by such inspector from the structural drawings, specifications, and the requirements of the code. At the conclusion of the inspector's duties on the project, the inspector shall submit a report as required in Section 91.1701.8.

Where a single structural inspector has been approved by the Department for a structure, and where, in the opinion of the department, such structural inspector is negligent in the performance of duties, or in the event that such inspector is absent from the job during the placement of reinforcement or concrete, the job shall be suspended until another structural inspector has been approved for the job by the department.

91.1701.17. Controlled Activity Inspection Authority.

- 91.1701.17.1 Registration. The procedures and conditions of registration as a controlled activity inspector shall be the same as applicable to a deputy inspector under Section 91.1701.16.1 of the Los Angeles Municipal Code, except that the extent and duration of controlled inspection authority shall be as specified in the rules and regulations adopted by the Superintendent.
- 91.1701.17.2 Duties. Except as otherwise indicated by regulations promulgated by the superintendent, the duties and responsibilities for a controlled activity inspector shall be the same as specified for a deputy inspector under Section 91.1701.16.2 of the Los Angeles Municipal Code.
- 91.1701.17.3 Fees. The procedures for the examination, registration and renewal of authority as a controlled activity inspector shall be the same as specified for deputy inspectors under Section 91.1701.16.3 of the Los Angeles Municipal Code. However, the fees for registration are modified to be:

Initial authority registration:
Examination, including one class\$20.00
Additional classes, per class
Registration
Adding classes to existing authority:
Examination and registration, per class
Renewal;

91.1701.17.4 Section 91.1701.16.2 of the Los Angeles Municipal Code applies to the application, examination and renewal process for registration as a controlled activity inspector.

91.1701.18. Certification of Welders.

91.1701.18.1 The department shall establish rules and regulations setting forth conditions and provisions precedent to the issuance of welder's certifications.

A fee of \$85.00 shall be paid on each application for certification or renewal and \$37.00 of such fee shall be paid prior to the department's examination for a new certification. Certificates shall be issued for a period of three years and may be renewed for additional three—year periods.

91.1701.18.2 The Superintendent of Building shall suspend or revoke any certificate upon evidence of failure of the person so certified to conduct welding operations in compliance with any of the conditions upon which it is based, or where quality of workmanship is not equivalent to that required by the code, or for any of the reasons set forth in Article 8 of Chapter IX of the Los Angeles Municipal Code. Any such action shall be in accordance with the provisions of Article 8 of Chapter IX of the Los Angeles Municipal Code.

SEC. 91.1702. STRUCTURAL OBSERVATION.

Structural observation shall be provided in Seismic Zone 4 when one of the following conditions exists:

- 1. The structure is defined in U.B.C. Table 16–K as Occupancy Category I, II or III, or
- 2. The structure is required to comply with Section 91.403 of the Los Angeles Municipal Code, or
 - 3. When so designated by the architect or engineer of record, or

4. When such observation is specifically required by the Superintendent of Buildings.

The owner shall employ the engineer or architect responsible for the structural design, or another engineer or architect designated by the engineer or architect responsible for the structural design, to perform structural observation as defined in Section 91.220 of the Los Angeles Municipal Code. Observed deficiencies shall be reported in writing to the owner's representative, special inspector, contractor and the Superintendent of Buildings. The structural observer shall submit to the Superintendent of Buildings a written statement that the site visits have been made and identifying any reported deficiencies which, to the best of the structural observer's knowledge, have not been resolved.

SEC. 91.1705. CERTIFIED LICENSED CONTRACTORS.

91.1705.1 Registration. Application for registration as a certified licensed contractor shall be made to the Superintendent of Building on a form furnished by the department and a separate application shall be made for each type of registration desired. Before the application can be accepted, the applicant must furnish proof satisfactory to the department that the applicant holds a valid active California State Contractor's License in the same specialty as the certification requested.

91.1705.2 Application.

- 91.1705.2.1 Forms. Application for a Certificate of Registration shall be made on a form furnished by the department.
- 91.1705.2.2 Information Necessary. The application shall bear the name and address of the applicant and, if the applicant is employed by a firm, partnership or corporation, the names of the principal officers should also be included. The application shall carry other information deemed necessary by the department.
- 91.1705.2.3 Verification. The applicant shall declare that the information contained in the application is true and correct.
- **91.1705.2.4 Fee.** The application shall be accompanied by an examination fee of \$100.00.

91.1705.3 Examination.

91.1705.3.1 Examination Required. Before issuance of a Certificate of Registration, the applicant shall have successfully passed the examination required for the

issuance of the Certificate of Registration within 90 days preceding the date of the issuance. To be eligible for the examination for a Certificate of Registration, the applicant shall have a valid California State Contractor's License in an appropriate specialty and a valid City Business Tax Certificate.

91.1705.3.2 Board of Examiners. The Superintendent of Building and/or board of examiners composed of three qualified persons appointed by the Superintendent shall conduct examinations.

The results of every examination shall be subject to the approval of the Superintendent of Building.

Each examiner shall serve at the pleasure of the Superintendent of Building. Each examiner shall serve for a period of one year, unless reappointed by the Superintendent.

- 91.1705.3.3 Scope of Examination. The examination shall, in the judgment of the Superintendent, fairly determine the ability of the applicant to perform properly the work which he or she would be authorized to do by the Certificate of Registration applied for, and may include the following:
 - 1. A written test.
 - 2. Practical tests as may be required.
 - 3. An oral interview as may be required.
 - 4. Such other tests as may be required by the board of examiners.
- **91.1705.3.4** Time of Examination. The applicant shall be examined as soon as practicable after filing an application.
- 91.1705.3.5 Rules and Regulations. The department shall have the authority to establish rules and regulations for the conduct of examinations.
- 91.1705.3.6 Fitness of Applicant. Any applicant may be required to submit satisfactory proof of his or her fitness to carry out the intent of this code.
- 91.1705.3.7 Failure to Pass. An applicant who fails to pass an examination shall not be eligible for another examination until four weeks after taking the previous examination.

91.1705.4 Issuance of Certificates.

91.1705.4.1 The Superintendent of Building shall issue separate Certificates of Registration for each of the following categories:

- 1. F.A.U./A.C. units; evaporative coolers.
- 2. Domestic water piping/plumbing fixtures/hot water heaters/solar panels.
 - 3. Reroofing and roof repair.
 - 4. Electrical equipment/fixtures/smoke detectors.
 - 5. Masonry and concrete fences.
 - 6. Masonry chimney repairs.
 - 7. Shower pan replacement.

Nothing herein prohibits any person from being qualified for more than one type of certification, provided the person makes application, pays the required fees, and takes the required examinations and is duly qualified by the Superintendent of Building for each type of certification.

- **91.1705.4.2** Upon payment of a \$25.00 fee, the department may issue a Certificate of Registration to every applicant who passes the required examination for a certified licensed contractor.
- 91.1705.4.3 Each Certificate of Registration shall expire three years from the date of issuance.
- 91.1705.4.4 The Superintendent of Building shall keep on file a list, open to public inspection, of the names of all registered certified licensed contractors, showing the type of work each has been authorized to inspect.
- 91.1705.4.5 Renewal of Certificates. Expired Certificates of Registration may be renewed at any time within 12 months following the date of expiration. However, after the first month, the renewal fee shall be increased 10 percent for each subsequent month.

After a Certificate of Registration has been expired for one year, it may not be renewed; rather a new application for a new certificate must be submitted at that time.

91.1705.5 Exhibition of Certificate.

- 91.1705.5.1 Every person having a fixed place of business shall keep his or her Certificate of Registration posted in some conspicuous location at his or her place of business during the time the certificate is in force.
- **91.1705.5.2** Every person not having a fixed place of business shall carry his or her Certificate of Registration with him or her at all times while doing any inspections or other work pursuant to this certificate.

91.1705.6 Revocation of Certificate. The Superintendent of Building may revoke, suspend or refuse to renew any Certificate of Registration upon a showing of incompetence, willful or negligent failure to observe or report violations of this code, or failure to maintain a valid active California State Contractor's License in the same specialty as the certification. Prior to such action, the holder shall be given an opportunity to appear before the Superintendent of Building and be heard.

Suspension or revocation of any Certificate of Registration issued under this section shall be in accordance with the provisions of Article 8 of Chapter IX of the Los Angeles Municipal Code.

SEC. 91.1706. CERTIFIED SECURITY BAR INSTALLER.

91.1706.1 General. A certified security bar installer may certify to the Department of Building and Safety that any bars, grilles, grates, security rolldown shutters, or similar devices installed on required emergency escape windows or doors meet the requirements of Section 91.310.4.4 of this code.

The department may allow the use of a certified installer if:

- 1. The certified installer obtains a Certificate of Registration in accordance with the provisions of this section.
- 2. The certified installer files with the department a Certificate of Compliance for each dwelling unit for which certification is being made. The Certificate of Compliance shall be on a form provided by the department and shall be signed by the property owner and the certified installer.
- 3. The Certificate of Compliance processing fee is paid in accordance with Section 91.107.7 of this code.
- 4. The certified installer files the Certificate of Compliance with the department within 15 days after completion of the installation.
- 91.1706.2 Registration. A certified installer shall obtain a Certificate of Registration from the Department of Building and Safety.

91.1706.3 Application.

91.1706.3.1 Forms. Application for a certified security bar installer Certificate of Registration shall be made on a form furnished by the department.

- **91.1706.3.2 Information Necessary.** The application shall bear the name and address of the applicant and, if a firm, partnership or corporation, the names of the principal officers. The application shall carry other information deemed necessary by the department.
- 91.1706.3.3 Verification. The applicant shall declare that the information contained in the application is true and correct.
- 91.1706.3.4 Fees. The application shall be accompanied by an examination fee of \$100.00.

91.1706.4 Examination.

- 91.1706.4.1 Examination Required. Before any person shall be issued a Certificate of Registration, the applicant, who must be an officer in the case of a firm, partnership or corporation, shall have successfully passed the examination required for the issuance of the certificate within 90 days preceding the date of the issuance.
- 91.1706.4.2 Experience Required. To be eligible for the examination for a registration certificate, the applicant shall have a valid California State Contractor's License in an appropriate specialty and a valid City Business Tax Certificate.
- 91.1706.4.3 Board of Examiners. The Superintendent of Building or a board of examiners composed of three qualified persons appointed by the Superintendent shall conduct examinations.

The results of every examination shall be subject to the approval of the Superintendent of Building.

Each examiner shall serve at the pleasure of the Superintendent of Building. Each examiner shall serve for a period of one year unless reappointed by the Superintendent.

- 91.1706.4.4 Scope of Examination. The examination shall, in the judgment of the board, fairly determine the ability of the applicant to perform properly the work which he or she would be authorized to do by the certificate applied for, and may include the following:
 - A. A written test.
 - B. Practical tests as may be required.
 - C. An oral interview as may be required.
 - D. Such other tests as may be required by the board.

- 91.1706.4.5 Time of Examination. The applicant shall be examined as soon as practicable after filing an application.
- 91.1706.4.6 Rules and Regulations. The department shall have the authority to establish rules and regulations for the conduct of examinations.
- 91.1706.4.7 Fitness of Applicant. Any applicant for a certificate may be required to submit satisfactory proof of his or her fitness to carry out the intent of this code.
- 91.1706.4.8 Failure to Pass. Every applicant who fails to pass an examination shall not be eligible for another examination until four weeks after taking the previous examination. Any applicant who fails to pass on the third trial shall not be eligible again until six months thereafter.

91.1706.5 Issuance of Certificates.

- 91.1706.5.1 Upon the payment of a \$70.00 fee, the department may issue a Certificate of Registration to every applicant who passes the required examination for a certified security bar installer.
- 91.1706.5.2 Renewal of Certificates. Expired certificates may be renewed at any time within 12 months following the date of expiration. However, after the first month, the renewal fee shall be increased by 10 percent for each subsequent month.

After a certificate has been expired for one year, it may not be renewed; however, an applicant may apply for a new certificate at that time.

91.1706.6 Exhibition of Certificate.

- 91.1706.6.1 Every person having a fixed place of business shall keep his or her Certificate of Registration posted in some conspicuous location at his or her place of business during the time the certificate is in force.
- 91.1706.6.2 Every person not having a fixed place of business shall carry his or her Certificate of Registration with him or her at all times while doing any work pursuant to this certificate.
- 91.1706.7 Revocation of Certificate. Any certificate may be suspended or revoked in accordance with the provisions of Article 8 of Chapter IX of the Los Angeles Municipal Code.

91.1706.8 Transfer of Certificate. No certificate shall be transferrable. A Certificate of Registration issued to a firm, partnership or corporation may not be transferred. The dissolution of a firm, partnership or corporation renders the certificate void.

Sec. 18. Division 18 of Article 1 of Chapter IX of the Los Angeles Municipal Code is hereby amended to read as follows:

DIVISION 18

FOUNDATIONS AND RETAINING WALLS

SEC 91.1800. BASIC PROVISIONS.

Chapter 18 of the U.B.C. is hereby adopted by reference for the purpose of providing basic building regulations relating to Foundations and Retaining Walls with the following exceptions: Sections 1801, 1802, 1804, 1806, 1807, 1810 through 1814 inclusive and Table 18-I-D of the U.B.C. are not adopted and in lieu thereof Sections 91.1801, 91.1802, 91.1804, 91.1806, 91.1807 and 91.1819 and Table 18-I-D, Table 18-I-E and Figure 18-I-2 are added as provided herein.

SEC. 91.1801. SCOPE.

91.1801.1 General. This Division sets forth requirements for excavations and fills for any building or structure and for foundations and retaining structures.

Reference is made to Division 70 for requirements governing excavation, grading and earthwork construction, including fills and embankments.

91.1801.2 Section 1801.2 of the U.B.C. is hereby adopted by reference.

SEC. 91.1802. QUALITY AND DESIGN.

The quality and design of materials used structurally in excavations, footings and foundations shall conform to the requirements specified in Divisions 16, 19, 21, 22 and 23 of this code.

Excavations and fills shall comply with Division 70 of this code.

SEC. 91.1804. FOUNDATION INVESTIGATION.

- 91.1804.1 General. The classification of the soil at each building site shall be determined when required by the Superintendent of Building. The Superintendent of Building may require that this determination be made by a soils engineer.
- **91.1804.2 Investigation.** The classification shall be based on observation and any necessary tests of the materials disclosed by borings or excavations made in appropriate locations. Additional studies may be necessary to evaluate soil strength, the effect of moisture variation on soil-bearing capacity, compressibility, liquefaction and expansiveness.
- 91.1804.3 Reports. The soil classification and design bearing capacity shall be shown on the plans, unless the foundation conforms to Table 18-I-D of this code. The Superintendent of Building may require submission of a written report of the investigation which shall include, but need not be limited to, the following information:
 - 1. A plot showing the location of all test borings and/or excavations and all proposed structures.
 - 2. Descriptions and classifications of the materials encountered.
 - 3. Potential and elevation of underground water table and its fluctuation.
 - 4. Recommendations for foundation type and design criteria, including bearing capacity, provisions to mitigate the effects of expansive soils, provisions to mitigate the effects of liquefaction on soil strength and the effects of adjacent loads.
 - 5. Expected total and differential settlement.
- 91.1804.4 Footings on Expansive Soils. Footing systems on expansive soil shall be constructed in a manner that will minimize damage to the structure from movement of the soil. When approved by the Superintendent of Building, the footings shall be constructed in accordance with the recommendations of the soils engineer. For residential-type buildings, where such an approved method of construction is not provided, footings and floor slabs shall comply with the following requirements:
 - 1. Depth of footings below the natural and finish grades shall not be less than 24 inches for exterior and 18 inches for interior footings.
 - 2. Exterior walls and interior bearing walls shall be supported on continuous footings.

- 3. Footings shall be reinforced with at least two continuous ½-inch-diameter deformed reinforcing bars. One bar shall be placed within 4 inches of the bottom of the footing and one within 4 inches of the top of the footings.
- 4. Concrete floor slabs on grade shall be placed on a 4-inch fill of coarse aggregate or on a moisture barrier membrane. The slabs shall be at least 3½ inches thick and shall be reinforced with welded wire mesh or deformed reinforcing bars. Welded wire mesh shall have a cross-sectional area of not less than 5/100 square inch (0.05 sq. in.) per foot each way. Reinforcing bars shall have a diameter of not less than 3/8 inch and be spaced at intervals not exceeding 24 inches each way.
- 5. The soil below an interior concrete slab shall be saturated with moisture to a depth of 18 inches prior to placing the concrete.
- 91.1804.5 Liquefaction Potential and Soil Strength Loss. When required by Section 91.1804.2 of the Los Angeles Municipal Code a geotechnical report is required by the Department, the potential for soil liquefaction and soil strength loss during earthquakes shall be evaluated during the geotechnical investigation. The geotechnical report shall assess potential consequences of any liquefaction and soil strength loss, including estimation of differential settlement, lateral movement or reduction in foundation soil-bearing capacity, and discuss mitigating measures. Such measures shall be given consideration in the design of the building and may include, but are not limited to, ground stabilization, selection of appropriate foundation type and depths, selection of appropriate structural systems to accommodate anticipated displacements or any combination of these measures.

EXCEPTIONS:

- 1. The Superintendent of Building may waive this evaluation upon receipt of written opinion of a qualified soils engineer or certified engineering geologist that liquefaction is not probable.
- 2. A detached, single-story dwelling of Group R, Division 3 Occupancy with or without attached garages.
 - 3. Group U, Division 1 Occupancies.
 - 4. Fences,

The potential for liquefaction and soil strength loss shall be evaluated for a site peak ground acceleration that, as a minimum, conforms to the probability of exceedance specified in U.B.C. Section 1629.2. Peak ground acceleration may be determined based

on a site-specific study taking into account soil amplification effects. In the absence of such a study, peak ground acceleration may be assumed equal to the seismic zone factor in U.B.C. Table 16-I.

- 91.1804.6 Section 1804.6 of the U.B.C. is hereby adopted by reference.
- 91.1804.7 Section 1804.7 of the U.B.C. is hereby adopted by reference.
- **SEC. 91.1806. FOOTINGS.**
- 91.1806.1 General. Footings and foundations shall be constructed of masonry or concrete, shall be found on native undisturbed materials or approved certified fill, and shall extend below the frost line. Footings of concrete and masonry shall be of solid material. Foundations supporting wood shall extend at least 6 inches (152 mm) above the adjacent finish grade. Footings shall have a minimum depth below finished grade as indicated in Table 18-I-D of this code unless another depth is recommended by a soils engineer in a report approved by the Department.

The provisions of this section do not apply to building and foundation systems in those areas subject to scour and water pressure by wind and wave action. Buildings and foundations subject to such loads shall be designed in accordance with approved national standards.

- 91.1806.2 Section 1806.2 of the U.B.C. is hereby adopted by reference.
- 91.1806.3 Stepped Foundations. Foundations for all buildings where the surface of the ground slopes more than 1 unit vertical in 10 units horizontal (10% slope) shall be level or shall be stepped so that both top and bottom of such foundation are level. This stepping requirement shall also apply to grade beams supporting walls. Provide 1 #4 bar top and bottom as shown in Figure 18-I-2 of this code.
 - 91.1806.4 Footings on or Adjacent to Slopes.
 - 91.1806.4.1 Section 1806.4.1 of the U.B.C. is hereby adopted by reference.
- 91.1806.4.2 Building Clearance From Ascending Slopes. In general, buildings below slopes shall be set a sufficient distance from the slope to provide protection from slope drainage, erosion and shallow failures. Except as provided for in U.B.C. Section 1806.4.6 and U.B.C. Figure 18-I-1, the following criteria will be assumed to provide this protection. Where the existing slope is steeper than 1 unit vertical in 1 unit horizontal (100% slope), the toc of the slope shall be assumed to be at the intersection of a horizontal plane drawn from the top of the foundation and a plane drawn tangent to the slope at an angle of 45 degrees to the horizontal. Where a retaining wall is constructed at

the toe of the slope, the height of the slope shall be measured from the top of the retained earth behind the wall to the top of the slope, and the required setback shall be measured to the outer face of the retaining wall.

- 91.1806.4.3 Section 1806.4.3 of the U.B.C. is hereby adopted by reference.
- 91.1806.4.4 Section 1806.4.4 of the U.B.C. is hereby adopted by reference.
- 91.1806.4.5 Section 1806.4.5 of the U.B.C. is hereby adopted by reference.
- 91.1806.4.6 Section 1806.4.6 of the U.B.C. is hereby adopted by reference.
- 91.1806.5 Footing Design. Except for special provisions of U.B.C. Section 1808 covering the design of piles, all portions of footings shall be designed in accordance with the structural provisions of this code and shall be designed to minimize differential settlement and the effects of expansive soils when present. All footings shall be continuous and shall be reinforced with minimum one #4 bar, top and bottom.

Slab-on-grade and mat-type footing for buildings located on expansive soils may be designed in accordance with the provisions of U.B.C. Division III or such other engineering design based on geotechnical recommendation as approved by the Superintendent of Building. All footings shall be continuous and shall be reinforced with minimum one # 4 bar, top and bottom.

- 91.1806.6 Foundation Plates or Sills. Foundation plates or sills shall be bolted to the foundation or foundation wall with not less than ½-inch (13 mm) nominal diameter steel bolts embedded at least 9 inches (229 mm) into the concrete or masonry and spaced not more than 4 feet (1219 mm) apart. There shall be a minimum of two bolts per piece with one bolt located within 12 inches (305 mm) of each end of each piece. A properly sized nut and washer shall be tightened on each bolt to the plate. Foundation plates and sills shall be the kind of wood specified in U.B.C. Section 2317.4.
 - 91.1806.7 Section 1806.7 of the U.B.C. is hereby adopted by reference.
 - 91.1806.8 Section 1806.8 of the U.B.C. is hereby adopted by reference.
 - 91.1806.9 Section 1806.9 of the U.B.C. is hereby adopted by reference.
- 91.1806.10 Footings on Approved Compacted Fills. Dwelling footings located partially or wholly upon compacted filled ground shall meet the following minimum requirements:

- 1. Exterior and interior bearing wall footings shall be continuous and shall be reinforced with a minimum one No. 4 bar top and bottom.
- 2. Interior floor and nonbearing wall supports may be pier footings not less than 16 inches in plan view unless unusual soil conditions require the use of continuous footings reinforced as in Item 1.
- 3. Provisions shall be made to preserve the continuity of beam action in the footing wall at under-floor access openings.

EXCEPTION: The requirement for reinforcing steel called for above may be eliminated only after a definite recommendation of the soils engineer in a written report which is acceptable to the department. This exception applies only to controlled compacted fills of uniform thickness.

4. Measure of settlement. Prior to permitting building on high fills, the department may require the determination of the settlement characteristics of such fills to establish that any movements have substantially ceased. In such cases, a system of benchmarks shall be installed at critical points on the fill and accurate measurement of both horizontal and vertical movements shall be taken for a period of time sufficient to define the settlement behavior. In no case shall the period of time be less than one year, with at least four consecutive checks made at intervals of three months.

SEC. 91.1807. PILES - GENERAL REQUIREMENTS.

- 91.1807.1 Section 1807.1 of the U.B.C. is hereby adopted by reference.
- **91.1807.2** Section 1807.2 of the U.B.C. is hereby adopted by reference.
- 91.1807.3 Section 1807.3 of the U.B.C. is hereby adopted by reference.
- **91.1807.4** Section 1807.4 of the U.B.C. is hereby adopted by reference.
- 91.1807.5 Column Action. All piles standing unbraced in air, water or material not capable of lateral support, shall conform with the applicable column formula as specified in this code. Such piles driven into firm ground may be considered fixed and laterally supported at 5 feet (1524 mm) below the ground surface and in soft material at 10 feet (3048 mm) below the ground surface unless otherwise prescribed by a soils engineer in a geotechnical report approved by the Department
 - 91.1807.6 Section 1807.6 of the U.B.C. is hereby adopted by reference.

91.1807.7 Section 1807.7 of the U.B.C. is hereby adopted by reference.

91.1807.8 Section 1807.8 of the U.B.C. is hereby adopted by reference.

91.1807.9 Section 1807.9 of the U.B.C. is hereby adopted by reference.

91.1807.10 Section 1807.10 of the U.B.C. is hereby adopted by reference.

91.1807.11 Section 1807.11 of the U.B.C. is hereby adopted by reference.

TABLE 18-I-D FOUNDATIONS FOR STUD BEARING WALLS MINIMUM REQUIREMENTS^{1 & 2}

NUMBER OF FLOORS SUPPORTED BY THE	THICKNESS OF FOUNDATION WALL (inches)		WIDTH OF FOOTING (inches)	THICKNESS OF FOOTING (inches)	DEPTH BELOW UN-DISTURBED GROUND SURFACE (inches)
FOUNDATION ³	x 25.4 for mm Concrete Unit Masonry		x 25.4 for mm		
1 2 3	6 8 10	6 8 10	12 15 18	6 7 8	12 18 24

Where unusual conditions or frost conditions are found, footings and foundations shall be as required in Section 91.1806.1 of this code.

The ground under the floor may be excavated to the elevation of the top of the footing.

Foundations may support a roof in addition to the stipulated number of floors.

Foundations supporting roofs only shall be as required for supporting one floor.

SEC. 91.1819. RETAINING WALLS.

91.1819.1 Design. Retaining walls shall be designed to resist the lateral pressure of the retained material determined in accordance with accepted engineering principles.

The soil characteristics and design criteria necessary for such a determination shall be obtained through investigation, subsurface exploration, analyses and report by a soils engineer, subject to the department's approval.

EXCEPTION: Freestanding walls which are not over 15 feet in height, or basement walls which have spans of 15 feet or less between supports, may be designed in accordance with Section 91.1819.2 of the Los Angeles Municipal Code.

91.1819.2 Arbitrary Design Method. Walls which retain drained earth and come within the limits of the exception above may be designed for an assumed earth pressure equivalent to that exerted by a fluid weighing not less than shown in Table 18-1-E of this code. A vertical component equal to one third of the horizontal force so obtained may be assumed at the plane of contact between the retained soil and wall surface when considering the total resisting moment taken at the toe of the wall. Such a vertical component will not be permitted when filter fabric is used behind retaining walls.

The depth of the retained earth shall be the vertical distance below the ground surface measured at the wall face for stem design or measured at the heel of the footing for overturning and sliding.

Retaining walls shall be designed to resist sliding and overturning by at least 1.5 times the lateral force or overturning moment.

91.1819.3 Surcharge. Any superimposed loading, except retained earth, shall be considered as surcharge and provided for in the design. Uniformly distributed loads may be considered as equivalent added depth of retained earth. Surcharge loading due to continuous or isolated footings shall be determined by the following formulas or by an equivalent method approved by the Superintendent of Building.

Resultant lateral force:

$$R = \frac{0.3 \ P \ h^2}{x^2 + h^2}$$

Location of lateral resultant:

$$d = x \left[\left(\frac{x^2}{h^2} + 1 \right) \left(\tan^{-1} \frac{h}{x} \right) - \left(\frac{x}{h} \right) \right]$$

WHERE:

R = resultant lateral force measured in pounds per foot of wall width
 P = resultant surcharge loads of continuous or isolated footings measured in pounds per foot of length parallel to the wall
 x = distance of resultant load from back face of wall measured in feet

h = depth below point of application of surcharge loading to top of wall footing measured in feet

d = depth of lateral resultant below point of application of surcharge loading measured in feet.

 $\tan^{-1} h/x =$ The angle in radians whose tangent is equal to h/x

Loads applied within a horizonal distance equal to the wall stem height, measured from the back face of the wall, shall be considered as surcharge.

For isolated footings having a width parallel to the wall less than 3 feet, "R" may be reduced to one-sixth the calculated value.

The resultant lateral force "R" shall be assumed to be uniform for the length of footing parallel to the wall, and to diminish uniformly to zero at the distance "x" beyond the ends of the footing.

Vertical pressure due to surcharge applied to the top of the wall footing may be considered to spread uniformly within the limits of the stem and planes making an angle of 45 degrees with the vertical.

91.1819.4 Bearing Pressure and Overturning. The maximum vertical bearing pressure under any retaining wall shall not exceed that allowed by this division except as provided for by a special soil investigation. The resultant of vertical loads and lateral pressures shall pass through the middle one third of the base.

91.1819.5 Lateral Pressures. Retaining walls shall be restrained against sliding by lateral sliding resistance of the base against the earth, by lateral bearing against the soil, or by a combination of the two. Allowable lateral bearing and lateral sliding resistance values shall not exceed those allowed in this division except as provided by a special soil investigation.

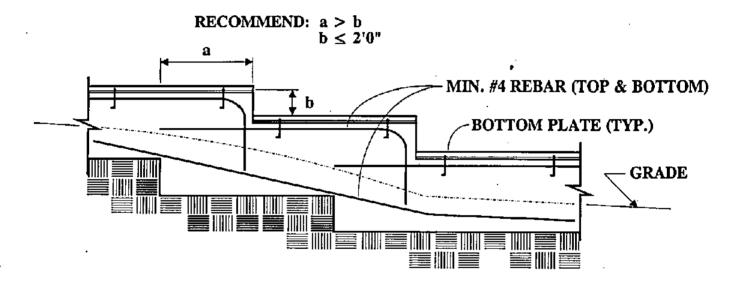
When used, keys shall be assumed to lower the plane of lateral sliding resistance and the depth of lateral bearing to the level of the bottom of the key. Lateral bearing pressures shall be assumed to act on a vertical plane located at the toe of the footing.

91.1819.6 Construction. No retaining wall shall be constructed of wood or stone.

91.1819.7 Special Condition. Whenever, in the opinion of the department, the adequacy of the foundation material to support a wall is questionable, an unusual surcharge condition exists such as seepage pressure, or whenever the retained earth is so stratified or of such a character as to invalidate normal design assumptions, the department may require a special soil investigation before approving any permit for such a wall.

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STEPPED FOUNDATIONS Figure No. 18-I-2

TABLE NO. 18-I-E

SURFACE SLOPE OF RETAINED MATERIAL* HORIZONTAL TO VERTICAL	EQUIVALENT FLUID WEIGHT LB./FT.
LEVEL	30
5 to 1	32
- 4 to 1	35
3 to 1	38
2 to 1	43
1.5 to 1	55
1 to 1	80

^{*} Where the surface slope of the retained earth varies, the design slope shall be obtained by connecting a line from the top of the wall to the highest point on the slope whose limits are within the horizontal distance from the stem equal to the stem height of the wall.

Sec. 19. Division 19 of Article 1 of Chapter IX of the Los Angeles Municipal Code is hereby amended to read as follows:

DIVISION 19

CONCRETE

SEC. 91.1900 BASIC PROVISIONS.

Chapter 19 of the U.B.C. is hereby adopted by reference for the purpose of providing basic building regulations relating to Concrete with the following exceptions: Sections 1907, 1909, 1912, 1918, 1921 and 1922 of the U.B.C. are not adopted and in lieu thereof Sections 91.1907, 91.1909, 91.1912, 91.1918, 91.1921 and 91.1922 are added as provided herein.

SEC. 91.1907. DETAILS OF REINFORCEMENT.

- **91.1907.0** Section 1907.0 of the U.B.C. is hereby adopted by reference.
- 91.1907.1 Section 1907.1 of the U.B.C. is hereby adopted by reference.
- 91.1907.2 Section 1907.2 of the U.B.C. is hereby adopted by reference.

- 91.1907.3 Section 1907.3 of the U.B.C. is hereby adopted by reference.
- 91.1907.4 Section 1907.4 of the U.B.C. is hereby adopted by reference.
- 91.1907.5 Section 1907.5 of the U.B.C. is hereby adopted by reference.
- 91.1907.6 Section 1907.6 of the U.B.C. is hereby adopted by reference.
- 91.1907.7 Section 1907.7 of the U.B.C. is hereby adopted by reference.
- 91.1907.8 Section 1907.8 of the U.B.C. is hereby adopted by reference.
- 91.1907.9 Section 1907.9 of the U.B.C. is hereby adopted by reference.
- 91.1907.10 Lateral Reinforcement for Compression Members.
- 91.1907.10.1 Section 1907.10.1 of the U.B.C. is hereby adopted by reference.
- 91.1907.10.2 Section 1907.10.2 of the U.B.C. is hereby adopted by reference.
- 91.1907.10.3 Section 1907.10.3 of the U.B.C. is hereby adopted by reference.
- 91.1907.10.4 Section 1907.10.4 of the U.B.C. is hereby adopted by reference.
- 91.1907.10.5 Ties. Tie reinforcement for compression members shall conform to the following:
 - 91.1907.10.5.1 Section 1907.10.5.1 of the U.B.C. is hereby adopted by reference.
- 91.1907.10.5.2 In Seismic Zones Nos. 0 and 1, vertical spacing of ties shall not exceed 16 longitudinal bar diameters, 48 tie bar or wire diameters, or least dimension of the compression member. In Seismic Zones Nos. 2 and 3 lateral ties shall be placed at top and bottom of the column for a distance of one sixth of the clear column height, or the maximum column dimension whichever is greater, but not less than 18 inches. The tie spacing shall not be greater than 8 bar diameters, 24 tie diameters or one half the least column dimension. Ties for the remaining column height may be spaced as required in Seismic Zones Nos. 0 and 1.

In Seismic Zone Number 4, lateral ties shall be provided for the entire height of the column with spacing not greater than 6 bar diameters, 18 tie diameters, one third the least column dimension, or 6 inches.

For frame members which are not part of the lateral-force-resisting system, the number of ties provided shall not be less than the shear demand when the members are subjected to 3 (Rw/8) times the displacements resulting from the specified lateral forces in conformance with the requirements of Section 91.1631.2.4 of the Los Angeles Municipal Code.

- 91.1907.10.5.3 Section 1907.10.5.3 of the U.B.C. is hereby adopted by reference.
- 91.1907.10.5.4 Section 1907.10.5.4 of the U.B.C. is hereby adopted by reference.
- **91.1907.10.5.5** Section 1907.10.5.5. of the U.B.C. is hereby adopted by reference.
 - 91.1907.10.5.6 Section 1907.10.5.6 of the U.B.C. is hereby adopted by reference.
 - 91.1907.11 Section 1907.11 of the U.B.C. is hereby adopted by reference.
 - 91.1907.12 Section 1907.12 of the U.B.C. is hereby adopted by reference.
 - SEC. 91.1909. STRENGTH AND SERVICEABILITY REQUIREMENTS.
 - 91.1909.0 Section 1909.0 of the U.B.C. is hereby adopted by reference.
 - 91.1909.1 Section 1909.1 of the U.B.C. is hereby adopted by reference.
 - 91.1909.2 Section 1909.2 of the U.B.C. is hereby adopted by reference.
 - 91.1909.3 Design Strength.
 - 91.1909.3.1 Section 1909.3.1 of the U.B.C. is hereby adopted by reference.
 - 91.1909.3.2 Section 1909.3.2 of the U.B.C. is hereby adopted by reference.
 - 91.1909.3.3 Section 1909.3.3 of the U.B.C. is hereby adopted by reference.
- 91.1909.3.4 In Seismic Zones 3 and 4, strength-reduction factors shall be as given above except for the following:
- 91.1909.3.4.1 The shear strength-reduction factor shall be 0.6 instead of 0.9 for the design of walls, topping slabs used as diaphragms over precast concrete members, chords and collector members for the diaphragms and structural framing members, with the exception of joints, if their nominal shear strength is less than the shear corresponding

to development of their nominal flexural strength. The shear strength-reduction factor for joints shall be 0.85.

- **91.1909.3.4.2** Section 1909.3.4.2 of the U.B.C. is hereby adopted by reference.
- 91.1909.4 Section 1909.4 of the U.B.C. is hereby adopted by reference.
- 91.1909.5 Section 1909.5 of the U.B.C. is hereby adopted by reference.
- SEC. 91.1912. DEVELOPMENT AND SPLICES OF REINFORCEMENT.
- 91.1912.0 Section 1912.0 of the U.B.C. is hereby adopted by reference.
- 91.1912.1 Section 1912.1 of the U.B.C. is hereby adopted by reference.
- 91.1912.2 Section 1912.2 of the U.B.C. is hereby adopted by reference.
- 91.1912.3 Section 1912.3 of the U.B.C. is hereby adopted by reference.
- 91.1912.4 Section 1912.4 of the U.B.C. is hereby adopted by reference.
- 91.1912.5 Section 1912.5 of the U.B.C. is hereby adopted by reference.
- 91.1912.6 Section 1912.6 of the U.B.C. is hereby adopted by reference.
- 91.1912.7 Section 1912.7 of the U.B.C. is hereby adopted by reference.
- 91.1912.8 Section 1912.8 of the U.B.C. is hereby adopted by reference.
- **91.1912.9** Section 1912.9 of the U.B.C. is hereby adopted by reference.
- 91.1912.10 Section 1912.10 of the U.B.C. is hereby adopted by reference.
- 91.1912.11 Section 1912.11 of the U.B.C. is hereby adopted by reference.
- 91.1912.12 Section 1912.12 of the U.B.C. is hereby adopted by reference.
- 91.1912.13 Section 1912.13 of the U.B.C. is hereby adopted by reference.
- 91.1912.14 Splices of Reinforcement.
- 91.1912.14.1 Section 1912.14.1 of the U.B.C. is hereby adopted by reference.

- 91.1912.14.2 Section 1912.14.2 of the U.B.C. is hereby adopted by reference.
- 91.1912.14.3 Welded Splices and Mechanical Connections.
- **91.1912.14.3.1** Section 1912.14.3.1 of the U.B.C. is hereby adopted by reference.
- 91.1912.14.3.2 The design, details and workmanship of welded splices in reinforcement shall be as set forth in U.B.C. Standard 19-2. Welding procedures shall be as approved in accordance with rules and regulations established by the Department. All welding shall be done by welders certified specifically for the welding of reinforcing steel in accordance with the provisions of U.B.C. Section 306.3. Reinforcement steel conforming to ASTM A615, A616, and A617 shall not be welded except as approved by the Department. Each application for approval of a qualified welding procedure shall be accompanied by a fee of \$50.00 for each separate welding procedure.
 - 91.1912.14.3.3 Section 1912.14.3.3 of the U.B.C. is hereby adopted by reference.
 - **91.1912.14.3.4** Section 1912.14.3.4 of the U.B.C. is hereby adopted by reference.
 - **91.1912.14.3.5** Section 1912.14.3.5 of the U.B.C. is hereby adopted by reference.
 - **91.1912.14.3.6** Section 1912.14.3.6 of the U.B.C. is hereby adopted by reference.
 - 91.1912.15 Section 1912.15 of the U.B.C. is hereby adopted by reference.
 - 91.1912.16 Section 1912.16 of the U.B.C. is hereby adopted by reference.
 - 91.1912.17 Section 1912.17 of the U.B.C. is hereby adopted by reference.
 - 91.1912.18 Section 1912.18 of the U.B.C. is hereby adopted by reference.
 - 91.1912.19 Section 1912.19 of the U.B.C. is hereby adopted by reference.
 - SEC. 91.1918. PRESTRESSED CONCRETE.
 - 91.1918.0 Section 1918.0 of the U.B.C. is hereby adopted by reference.
 - 91.1918.1 Section 1918.1 of the U.B.C. is hereby adopted by reference.
 - 91.1918.2 General.
 - 91.1918.2.1 Section 1918.2.1 of the U.B.C. is hereby adopted by reference.

- 91.1918.2.2 Section 1918.2.2 of the U.B.C. is hereby adopted by reference.
- 91.1918.2.3 Section 1918.2.3 of the U.B.C. is hereby adopted by reference.
- 91.1918.2.4 Provisions shall be made for effects on adjoining construction of elastic and plastic deformations, deflections, changes in length and rotations due to prestressing. Effects of temperature and shrinkage shall also be included. When posttensioned prestressed elements are poured monolithically with, or rigidly connected to, other portions of a structure, the effects of creep, elastic shortening, and drying shrinkage shall be accounted for in the design. The determination of effective prestress in the concrete shall take into account any force necessary to deflect columns or walls to allow for shortening of the prestressed element.
 - 91.1918.2.5 Section 1918.2.5 of the U.B.C. is hereby adopted by reference.
 - 91.1918.2.6 Section 1918.2.6 of the U.B.C. is hereby adopted by reference.
- 91.1918.2.7 Continuity across closure strips shall not be assumed in the design unless proper provisions are made to account for shortening, creep, shrinkage and movements at the joint.
 - 91.1918.3 Section 1918.3 of the U.B.C. is hereby adopted by reference.
 - 91.1918.4 Section 1918.4 of the U.B.C. is hereby adopted by reference.
 - 91.1918.5 Section 1918.5 of the U.B.C. is hereby adopted by reference.
 - 91.1918.6 Section 1918.6 of the U.B.C. is hereby adopted by reference.
 - 91.1918.7 Section 1918.7 of the U.B.C. is hereby adopted by reference.
 - 91.1918.8 Section 1918.8 of the U.B.C. is hereby adopted by reference.
 - 91.1918.9 Section 1918.9 of the U.B.C. is hereby adopted by reference.
 - 91.1918.10 Section 1918.10 of the U.B.C. is hereby adopted by reference.
 - 91.1918.11 Section 1918.11 of the U.B.C. is hereby adopted by reference.
 - 91.1918.12 Section 1918.12 of the U.B.C. is hereby adopted by reference.
 - 91.1918.13 Section 1918.13 of the U.B.C. is hereby adopted by reference.

- 91.1918.14 Section 1918.14 of the U.B.C. is hereby adopted by reference.
- 91.1918.15 Section 1918.15 of the U.B.C. is hereby adopted by reference.
- 91.1918.16 Section 1918.16 of the U.B.C. is hereby adopted by reference.
- 91.1918.17 Section 1918.17 of the U.B.C. is hereby adopted by reference.
- 91.1918.18 Section 1918.18 of the U.B.C. is hereby adopted by reference.
- 91.1918.19 Section 1918.19 of the U.B.C. is hereby adopted by reference.

SEC. 91.1921. REINFORCED CONCRETE STRUCTURES RESISTING FORCES INDUCED BY EARTHQUAKE MOTIONS.

- 91.1921.0 Section 1921.0 of the U.B.C. is hereby adopted by reference.
- 91.1921.1 Section 1921.1 of the U.B.C. is hereby adopted by reference.
- 91.1921.2 Section 1921.2 of the U.B.C. is hereby adopted by reference.
- 91.1921.3 Section 1921.3 of the U.B.C. is hereby adopted by reference.
- 91.1921.4 Section 1921.4 of the U.B.C. is hereby adopted by reference.
- **91.1921.5** Section 1921.5 of the U.B.C. is hereby adopted by reference.
- 91.1921.6 Shear Walls, Diaphragms and Trusses.
- 91.1921.6.1 Section 1921.6.1 of the U.B.C. is hereby adopted by reference.
- 91.1921.6.2 Reinforcement.
- **91.1921.6.2.1** Section 1921.6.2.1 of the U.B.C. is hereby adopted by reference.
- **91.1921.6.2.2** Section 1921.6.2.2 of the U.B.C. is hereby adopted by reference.
- **91.1921.6.2.3** Section 1921.6.2.3 of the U.B.C. is hereby adopted by reference.
- 91.1921.6.2.4 All continuous reinforcement in shear walls, diaphragms, trusses, struts, ties, chords and collector members shall be anchored or spliced in accordance with the provisions for reinforcement in tension as specified in U.B.C. Section 1921.5.4. Splices in horizontal reinforcement shall be staggered. Splices in two curtains where

used shall not occur in the same location. For chords and collector members, the reinforcement shall be spaced not closer than the 3 d_b or 1-1/2 inches and the concrete cover shall be no less than 2-1/2 d_b , or 2 inches or as required per U.B.C. Sections 1907.6 and 1907.7.

- 91.1921.6.3 Section 1921.6.3 of the U.B.C. is hereby adopted by reference.
- 91.1921.6.4 Section 1921.6.4 of the U.B.C. is hereby adopted by reference.
- 91.1921.6.5 Section 1921.6.5 of the U.B.C. is hereby adopted by reference.
- 91.1921.6.6 Section 1921.6.6 of the U.B.C. is hereby adopted by reference.
- 91.1921.6.7 Section 1921.6.7 of the U.B.C. is hereby adopted by reference.
- 91.1921.6.8 Section 1921.6.8 of the U.B.C. is hereby adopted by reference.
- 91.1921.6.9 Section 1921.6.9 of the U.B.C. is hereby adopted by reference.
- 91.1921.6.10 Section 1921.6.10 of the U.B.C. is hereby adopted by reference.
- 91.1921.6.11 Section 1921.6.11 of the U.B.C. is hereby adopted by reference.
- 91.1921.6.12 Section 1921.6.12 of the U.B.C. is hereby adopted by reference.
- 91.1921.7 Frame Members Not Part of the Lateral-force-resisting System.

91.1921.7.1 All frame members which are not part of the lateral-force-resisting system shall be designed according to the magnitude of moments induced in those members when subjected to 3 (Rw/8) times the elastic design displacements using cracked section properties resulting from lateral forces in conformance with the requirements of U.B.C. Section 1631.2.4. In addition, the maximum shear and moment demand of the member shall include the restraint induced by adjacent ramps, stairs, and spandrels. Further, non-frame columns shall be assumed to be fixed at points of lateral support unless it can be demonstrated otherwise. Such members shall satisfy the minimum reinforcement requirements of Section 91.1907 of the Los Angeles Municipal Code and U.B.C. Sections 1910, 1911, 1921.3.2.1 and 1921.4.2.1.

Ties shall have hooks not less than 135 degrees with the extensions more than six tie-bar diameters or 3 inches. Crossties, as defined in U.B.C. Section 1921.1, are allowed. Tie spacing shall be within a distance equal to half the tie spacing from the face of the joint.

- 91.1921.7.1.1 Section 1921.7.1.1 of the U.B.C. is hereby adopted by reference.
- 91.1921.7.1.2 When the induced moment does not exceed the design moment strength of the frame members, members with factored axial compressive forces exceeding (A_gfc/10) shall satisfy U.B.C. Section 1921.3.2.1 and Section 91.1921.7.2.2 of the Los Angeles Municipal Code.
- 91.1921.7.2 When the induced moment does not exceed the design moment strength of the frame members, members with factored axial compressive forces exceeding (A_gf_c/10) shall satisfy the following special requirements unless they comply with U.B.C. Section 1921.4.4.
 - **91.1921.7.2.1** Section 1921.7.2.1 of the U.B.C. is hereby adopted by reference.
- 91.1921.7.2.2 Lateral ties shall be provided for the entire height of the column with spacing not greater than 6 bar diameters, 18 tie diameters, one-third the least column dimension, or 6 inches. The first tie shall be within 2 inches of the face of the joint.
 - 91.1921.7.3 Section 1921.7.3 of the U.B.C. is hereby adopted by reference.
 - 91.1921.8 Section 1921.8 of the U.B.C. is hereby adopted by reference.
 - 91. 1921.9 Section 1921.9 of the U.B.C. is hereby adopted by reference.
 - SEC. 91.1922. SHOTCRETE.
- 91.1922.1 General. Shotcrete shall be defined as mortar or concrete pneumatically projected at high velocity onto a surface. Except as specified in this section, shotcrete shall conform to the regulations of this Division for plain concrete or reinforced concrete and applicable parts of ACI 506R-90. The term "Shotcrete" when used in this section shall include both Wet-mix shotcrete and Dry-mix gunite. Wet-mix shotcrete is concrete in which all of the ingredients including water are mixed before introduction into the placing equipment. The term "Gunite" when used in this section is Dry-mix shotcrete or Pneumatically Placed Concrete which is concrete in which water is added immediately prior to discharge from the nozzle. Gunite shall meet the additional provisions of Section 91.1922.14 of the Los Angeles Municipal Code where they differ from those specified for shotcrete.
 - 91.1922.2 Section 1922.2 of the U.B.C. is hereby adopted by reference.
 - 91.1922.3 Section 1922.3 of the U.B.C. is hereby adopted by reference.
 - 91.1922.4 Section 1922.4 of the U.B.C. is hereby adopted by reference.

- 91.1922.5 Section 1922.5 of the U.B.C. is hereby adopted by reference.
- 91.1922.6 Section 1922.6 of the U.B.C. is hereby adopted by reference.
- 91.1922.7 Section 1922.7 of the U.B.C. is hereby adopted by reference.
- 91.1922.8 Section 1922.8 of the U.B.C. is hereby adopted by reference.
- 91.1922.9 Section 1922.9 of the U.B.C. is hereby adopted by reference.
- 91.1922.10 Section 1922.10 of the U.B.C. is hereby adopted by reference.
- 91.1922.11 Inspections.
- 91.1922.11.1 During Placement. Shotcrete requires continuous inspection by a Registered Deputy Inspector. The Registered Deputy Inspector shall provide continuous inspection during the placement of all reinforcing, the placement of shotcrete, and the assembly, shooting, testing, and disassembly of test panels and shall submit a statement indicating compliance with the plans and specifications.
 - 91.1922.11.2 Section 1922.11.2 of the U.B.C. is hereby adopted by reference.
 - 91.1922.12 Section 1922.12 of the U.B.C. is hereby adopted by reference.
 - 91.1922.13 Conditions,
- 91.1922.13.1 Shotcrete shall not be placed where the stream from the nozzle cannot directly impinge on the surface on which the concrete is to be placed. Where the condition precludes the possibility of obtaining cores from the structure, this method shall not be used.
- 91.1922.13.2 Details of cold joints, including slope of joints, shall be placed on the approved plans.
- 91.1922.13.3 Reinforcing steel shall be securely tied in place in a manner that prevents any movement during the shotcrete placement.
- 91.1922.13.4 The height of a layer shall be limited to not more than 3 feet (914 mm) and a succeeding layer shall not be placed in less than 30 minutes. No sloughing or sagging shall be permitted.

- **EXCEPTION:** A licensed Civil Engineer or Architect may authorize a succeeding layer to be placed in less than three hours, but not less than two hours, based on the mix design, climate conditions and job conditions.
- 91.1922.13.5 The minimum slump shall be 1-1/2" and the maximum slump shall be 2-1/2". Slump shall be measured at the point of discharge from the mixer, except that the building inspector may require slump tests at the discharge point where water may have been added.
- 91.1922.13.6 A capable nozzleman's helper with an air blow pipe shall be provided to assist the nozzleman in keeping all rebound build-up out of the work.
- 91.1922.13.7 Additional workers may be required to take the rebound from the work if the rebound cannot be removed by the air blow pipe.
- 91.1922.13.8 No keyways or embedments shall be placed in front that will interfere with the stream from the nozzle.
- 91.1922.13.9 The contractor agrees to provide a designated liaison between his crew, the Deputy Inspector and the building inspector.
- 91.1922.13.10 The Deputy Inspector shall be interviewed and approved by Department representatives prior to inspecting the work at the job site and one deputy shall be assigned to each nozzle and hopper.
- 91.1922.13.11 Rigid or other approved backing shall be placed against the earth where there is any likelihood of soil being dislodged in sufficient quantity to damage the concrete during the application of shotcrete. Rigid or other approved backing shall be used where a void in the embankment is to be bridged.
- 91.1922.13.12 In the event that a previously presumed solid embankment should slough or shed dirt in sufficient quantity to damage the concrete, the shotcrete placement work in that area shall cease until a rigid backing is installed and any contaminated shotcrete is removed.

91.1922.14 Gunite.

91.1922.14.1 General. For the purposes of this subsection all gunite shall consist of a mixture of fine aggregate (3 percent to 6 percent moisture content) and cement pneumatically placed by a suitable mechanism and to which water is added immediately prior to discharge from the nozzle.

- 91.1922.14.2 Materials. The proportions of cement to aggregate in loose dry volumes shall not be less than 1 to 4-1/2.
- 91.1922.14.3 Aggregate. All aggregates shall comply with the requirements for fine aggregate shotcrete.
- **91.1922.14.4** Water. An accurately calibrated pressure gauge shall be provided in the water line. The water shall have a minimum pressure of 60 psi plus an additional 5 psi for each 10 feet of rise in elevation between the pressure gauge and the nozzle.
- 91.1922.14.5 Equipment. The cement and aggregate shall be mixed without added water in a batch mixer for not less than one minute and shall be discharged completely before the mixer is recharged. Other types of mixing equipment may be used when approved by the Department. Nozzles used to place concrete for structural purposes shall have a maximum size of 1-5/8 inches.
- 91.1922.14.6 Reinforcement. The requirements for the reinforcement shall be the same as U.B.C. Section 1922.4 except that contact splices may be made in bars not larger than No. 5 without preconstruction testing provided the reinforcing steel maintains a minimum spacing of three bar diameters at splices.
- 91.1922.14.7 Curing. Gunite shall be kept constantly damp for a period of not less than 14 days after being deposited, unless other approved methods are specified on the stamped plans.
- 91.1922.14.8 Defective Work. Rebound, pockets, sags, sloughing, or other defects occurring in the work shall be cut out and replaced.

91.1922.14.9 Testing.

91.1922.14.9.1 Test Cores. A minimum of three cores shall be taken for each 150 cubic yards, or fraction thereof, of gunite deposited. The cores shall be taken and tested in accordance with the ASTM Standards referenced by U.B.C. Section 1903.8. The cores shall be tested 28 days from the date the gunite is deposited and the tests shall show a 28-day strength at least equal to the fc specified on the plans.

EXCEPTION: Where the quantity of gunite is less than 3 cubic yards, one core test shall be provided for each cubic yard or fraction thereof.

A suitable test may be substituted for cores where the design is based on a maximum of 2000 psi and less than 50 cubic yards of gunite is deposited.

- 91.1922.14.9.2 Alternative Test Cores. Where the condition precludes the possibility of obtaining cores from the structure, the Superintendent of Building may approve cores taken from a representative test panel made at the same time and under the same conditions as the concrete is deposited.
- **91.1922.14.10 Inspection**. The application of all gunite shall be continuously inspected by a Registered Deputy Inspector approved by the Department.
- 91.1922.14.11 Design. The design of all gunite shall be based on stresses not exceeding 3,000 psi except where higher design stresses are approved by the Superintendent of Building. The fundamental principles used in the design of reinforced gunite shall be the same as those of reinforced concrete as given in this Division.
 - **EXCEPTION:** Where bars larger than No. 7 are used, the development length as determined in accordance with Section 91.1912 shall be increased by one-third.
- Sec. 20. Division 20 of Article 1 of Chapter IX of the Los Angeles Municipal Code is hereby amended to read as follows:

DIVISION 20

LIGHT WEIGHT METALS

SEC 91.2000. BASIC PROVISIONS.

Chapter 20 of the U.B.C. is hereby adopted by reference for the purpose of providing basic building regulations relating to Lightweight Metals.

Sec. 21. Division 21 of Article 1 of Chapter IX of the Los Angeles Municipal Code is hereby amended to read as follows:

DIVISION 21

MASONRY

SEC 91.2100. BASIC PROVISIONS.

Chapter 21 of the U.B.C. is hereby adopted by reference for the purpose of providing basic building regulations relating to Masonry with the following exceptions: Sections 2102, 2104, 2106, 2107 and 2108 of the U.B.C. are not adopted and in lieu thereof Sections 91.2102, 91.2104, 91.2106, 91.2107, and 91.2108 are added as provided herein.

SEC. 91.2102. MATERIAL STANDARD.

91.2102.1 Section 2102.1 of the U.B.C. is hereby adopted by reference.

91.2102.2 Standards of Quality. The standards listed below are hereby adopted.

1. Aggregates.

- 1.1 ASTM C 144, Aggregates for Masonry Mortar
- 1.2 ASTM C 404, Aggregates for Grout

2. Cement.

- 2.1 U.B.C. Standard 21–11, Masonry Cement
- 2.2 U.B.C. Standard 19-1, Portland Cement and Blended Hydraulic Cements
- 2.3 U.B.C. Standard 21–14, Mortar Cement

3. Lime.

- 3.1 U.B.C. Standard 21–12, Quick Lime for Structural Purposes
- 3.2 U.B.C. Standard 21–13, Hydrated Lime for Masonry Purposes. When Types N and NA hydrated lime are used in masonry mortar, they shall comply with the provisions of U.B.C. Standard 21–15, Section 21.1506.7, excluding the plasticity requirement.

4. Masonry units of clay or shale.

- 4.1 ASTM C 34 and C 112, Method C, Structural Clay Load-bearing Wall Tile
- 4.2 ASTM C 56, Structural Clay Nonload-bearing Tile
- 4.3 U.B.C. Standard 21–1, Section 21.101, Building Brick (solid units)
- 4.4 ASTM C 126, Ceramic Glazed Structural Clay Facing Tile, Facing Brick and Solid Masonry Units. Load-bearing glazed brick shall conform to the weathering and structural requirements of U.B.C. Standard 21–1, Section 21.106, Facing Brick
- 4.5 ASTM C 34 and C 112, Method C, Structural Clay Facing Tile
- 4.6 U.B.C. Standard 21–1, Section 21.106, Facing Brick (solid units)
- 4.7 U.B.C. Standard 21–1, Section 21.107, Hollow Brick
- 4.8 ASTM C 67, Sampling and Testing Brick
- 4.9 ASTM C 212, Structural Clay Facing Tile
- 4.10 ASTM C 530, Structural Clay Non-Loadbearing Screen Tile

5. Masonry units of concrete.

- 5.1 U.B.C. Standard 21–3, Concrete Building Brick
- 5.2 U.B.C. Standard 21–4, Hollow and Solid Load-bearing Concrete Masonry Units
- 5.3 U.B.C. Standard 21–5, Nonload-bearing Concrete Masonry Units
- 5.4 ASTM C 140, Sampling and Testing Concrete Masonry Units
- 5.5 ASTM C 426, Standard Test Method for Drying Shrinkage of Concrete Block

6. Masonry units of other materials.

- 6.1 Calcium silicate.
 - U.B.C. Standard 21-2, Calcium Silicate Face Brick (Sand-lime Brick)
- 6.2 U.B.C. Standard 21–9, Unburned Clay Masonry Units

- 6.3 ACI-704, Cast Stone
- 6.4 U.B.C. Standard 21–17, Test Method for Compressive Strength of Masonry Prisms

7. Connectors.

- 7.1 Wall ties and anchors made from steel wire shall conform to U.B.C. Standard 21–10, Part II, and other steel wall ties and anchors shall conform to A 36 in accordance with U.B.C. Standard 22–1. Wall ties and anchors made from copper, brass or other nonferrous metal shall have a minimum tensile yield strength of 30,000 psi (207 MPa).
- 7.2 All such items not fully embedded in mortar or grout shall either be corrosion resistant or shall be coated after fabrication with copper, zinc or a metal having at least equivalent corrosion–resistant properties.

8. Mortar.

- 8.1 U.B.C. Standard 21–15, Mortar for Unit Masonry
- 8.2 U.B.C. Standard 21–16, Field Test Specimens for Mortar
- 8.3 U.B.C. Standard 21–20, Standard Test Method for Flexural Bond Strength of Mortar Cement

9. Grout.

- 9.1 U.B.C. Standard 21–9, Grout for Masonry
- 9.2 U.B.C. Standard 21–18, Method of Sampling and Testing Grout

10. Reinforcement.

- 10.1 U.B.C. Standard 21-10, Part I, Joint Reinforcement for Masonry
- 10.2 ASTM A 615, A 616, A 617, A 706, A 767, and A 775, Deformed and Plain Billet-steel Bars, Rail-steel Deformed and Plain Bars, Axle-steel Deformed and Plain Bars, and Deformed Low-alloy Bars for Concrete Reinforcement
- 10.3 U.B.C. Standard 21–10, Part II, Cold–drawn Steel Wire for Concrete Reinforcement

SEC. 91.2104. CONSTRUCTION.

- 91.2104.1 Section 2104.1 of the U.B.C. is hereby adopted by reference.
- 91.2104.2 Section 2104.2 of the U.B.C. is hereby adopted by reference.
- 91.2104.3 Section 2104.3 of the U.B.C. is hereby adopted by reference.
- 91.2104.4 Section 2104.4 of the U.B.C. is hereby adopted by reference.
- 91.2104.5 Section 2104.5 of the U.B.C. is hereby adopted by reference.
- 91.2104.6 Grouted Masonry.
- 91.2104.6.1 Section 2104.6.1 of the U.B.C. is hereby adopted by reference.

91.2104.6.2 Construction requirements. Reinforcement shall be placed prior to grouting. Bolts shall be accurately set with templates or by approved equivalent means and held in place to prevent dislocation during grouting.

Segregation of the grout materials and damage to the masonry shall be avoided during the grouting process.

Grout shall be consolidated by mechanical vibration during placement before loss of plasticity in a manner to fill the grout space. Grout pours greater than 12 inches (300 mm) in height shall be reconsolidated by mechanical vibration to minimize voids due to water loss. Grout pours 12 inches (300 mm) or less in height shall be mechanically vibrated or puddled.

In one-story buildings having wood-frame exterior walls, foundations not over 24 inches (600 mm) high measured from the top of the footing may be constructed of hollow-masonry units laid in running bond without mortared head joints. Any standard shape unit may be used, provided the masonry units permit horizontal flow of grout to adjacent units. Grout shall be solidly poured to the full height in one lift and shall be puddled or mechanically vibrated.

In nonstructural elements which do not exceed 8 feet (2440 mm) in height above the highest point of lateral support, mortar of pouring consistency may be substituted for grout when the masonry is constructed and grouted in pours of 12 inches (300 mm) or less in height.

In multiwythe grouted masonry, vertical barriers of masonry shall be built across the grout space the entire height of the grout pour and spaced not more than 30 feet (9144 mm) horizontally. The grouting of any section of wall between barriers shall be completed in one day with no interruption longer than one hour.

91.2104.7 Section 2104.7 of the U.B.C. is hereby adopted by reference.

91.2104.8 Section 2104.8 of the U.B.C. is hereby adopted by reference.

SEC. 91.2106. GENERAL DESIGN REQUIREMENTS.

91.2106.1 Section 2106.1 of the U.B.C. is hereby adopted by reference.

91.2106.2 Working Stress Design and Strength Design Requirements for Reinforced Masonry.

91.2106.2.1 Section 2106.2.1 of the U.B.C. is hereby adopted by reference.

- 91.2106.2.2 Section 2106.2.2 of the U.B.C. is hereby adopted by reference.
- **91.2106.2.3** Section 2106.2.3 of the U.B.C. is hereby adopted by reference.
- 91.2106.2.4 Section 2106.2.4 of the U.B.C. is hereby adopted by reference.
- 91.2106.2.5 Section 2106.2.5 of the U.B.C. is hereby adopted by reference.
- 91.2106.2.6 Section 2106.2.6 of the U.B.C. is hereby adopted by reference.
- 91.2106.2.7 Section 2106.2.7 of the U.B.C. is hereby adopted by reference.
- 91.2106.2.8 Section 2106.2.8 of the U.B.C. is hereby adopted by reference.
- 91.2106.2.9 Section 2106.2.9 of the U.B.C. is hereby adopted by reference.
- 91.2106.2.10 Section 2106.2.10 of the U.B.C. is hereby adopted by reference.
- 91.2106.2.11 Section 2106.2.11 of the U.B.C. is hereby adopted by reference.
- 91.2106.2.12 Section 2106.2.12 of the U.B.C. is hereby adopted by reference.
- 91.2106.2.13 Section 2106.2.13 of the U.B.C. is hereby adopted by reference.
- 91.2106.2.14 Section 2106.2.14 of the U.B.C. is hereby adopted by reference.
- 91.2106.2.15 Section 2106.2.15 of the U.B.C. is hereby adopted by reference.

91.2106.3 Additional Working Stress Design and Strength Design Requirements for Reinforced Masonry.

- 91.2106.3.1 Section 2106.3.1 of the U.B.C. is hereby adopted by reference.
- 91.2106.3.2 Section 2106.3.2 of the U.B.C. is hereby adopted by reference.
- 91.2106.3.3 Section 2106.3.3 of the U.B.C. is hereby adopted by reference.
- 91.2106.3.4 Section 2106.3.4 of the U.B.C. is hereby adopted by reference.
- 91.2106.3.5 Section 2106.3.5 of the U.B.C. is hereby adopted by reference.
- 91.2106.3.6 Section 2106.3.6 of the U.B.C. is hereby adopted by reference.

- 91.2106.3.7 Section 2106.3.7 of the U.B.C. is hereby adopted by reference.
- 91.2106.3.8 Section 2106.3.8 of the U.B.C. is hereby adopted by reference.
- SEC. 91.2107. WORKING STRESS DESIGN OF MASONRY.
- 91.2107.1 Section 2107.1 of the U.B.C. is hereby adopted by reference.
- 91.2107.2 Section 2107.2 of the U.B.C. is hereby adopted by reference.
- 91.2107.3 Design of Unreinforced Masonry. Not Adopted
- SEC. 91.2108. STRENGTH DESIGN OF MASONRY.
- 91.2108.1 Section 2108.1 of the U.B.C. is hereby adopted by reference.
- 91.2108.2 Reinforced Masonry.
- 91.2108.2.1 Section 2108.2.1 of the U.B.C. is hereby adopted by reference.
- 91.2108.2.2 Section 2108.2.2 of the U.B.C. is hereby adopted by reference.
- 91.2108.2.3 Design of Beams, Piers and Columns.
- **91.2108.2.3.1** Section 2108.2.3.1 of the U.B.C. is hereby adopted by reference.
- 91,2108.2.3.2 Section 2108.2.3.2 of the U.B.C. is hereby adopted by reference.
- 91.2108.2.3.3 Section 2108.2.3.3 of the U.B.C. is hereby adopted by reference.
- 91.2108.2.3.4 Section 2108.2.3.4 of the U.B.C. is hereby adopted by reference.
- 91.2108.2.3.5 Design Strength. Design strength provided by beam, pier or column cross sections in terms of axial force, shear and moment shall be computed as the nominal strength multiplied by the applicable strength–reduction factor, φ, specified in U.B.C. Section 2108.1.4.
 - **91.2108.2.3.6** Section 2108.2.3.6 of the U.B.C. is hereby adopted by reference.
 - 91.2108.2.3.7 Section 2108.2.3.7 of the U.B.C. is hereby adopted by reference.
 - 91.2108.2.3.8 Section 2108.2.3.8 of the U.B.C. is hereby adopted by reference.

91.2108.2.3.9 Section 2108.2.3.9 of the U.B.C. is hereby adopted by reference.

91.2108.2.3.10 Section 2108.2.3.10 of the U.B.C. is hereby adopted by reference.

91.2108.2.3.11 Section 2108.2.3.11 of the U.B.C. is hereby adopted by reference.

91.2108.2.3.12 Section 2108.2.3,12 of the U.B.C. is hereby adopted by reference.

91.2108.2.4 Wall Design for Out-of-Plane Loads.

91.2108.2.4.1 Section 2108.2.4.1 of the U.B.C. is hereby adopted by reference.

91.2108.2.4.2 Section 2108.2.4.2 of the U.B.C. is hereby adopted by reference.

91,2108.2.4.3 Section 2108.2.4.3 of the U.B.C. is hereby adopted by reference.

91.2108.2.4.4 Walls with Factored Axial Load of $0.04 f'_m$ or Less. The procedures set forth in this section, which consider the slenderness of walls by representing effects of axial forces and deflection in calculation of moments, shall be used when the vertical load stress at the location of maximum moment does not exceed $0.04 f'_m$ as computed by Formula (8–28). The value of f'_m shall not exceed 6,000 psi (41.3 MPa).

$$\frac{Pw + Pf}{Ag} \le 0.04 f'm \tag{8-28}$$

Walls shall have a minimum nominal thickness of 6 inches (153 mm).

Required moment and axial force shall be determined at the midheight of the wall and shall be used for design. The factored moment, M_{ν} , at the midheight of the wall shall be determined by Formula (8–29).

$$M_{u} = \frac{w_{u} h^{2}}{8} + P_{uf} \frac{e}{2} + P_{u} \Delta_{u}$$
 (8-29)

WHERE:

$$P_u = P_{uw} + P_{uf} \tag{8-30}$$

 Δ_{u} = Deflection at midheight of wall due to factored loads.

The design strength for out-of-plane wall loading shall be determined by Formula (8-31).

$$M_u \le \phi M_n \tag{8-31}$$

WHERE:

$$M_n = A_{sc} f_v (d - a/2)$$
 (8-32)

$$A_{se} = (A_s f_v + P_u) / f_v$$
, effective area of steel (8-33)

$$a = (P_u + A_s f_v) / 0.85 f_m^r b$$
, depth of stress block due to factored loads (8–34)

The principal wall reinforcement in the direction of span shall not be spliced in the middle third of the wall span.

Principal reinforcing in partially grouted masonry walls shall not be spaced more than 32 inches on center.

91.2108.2.4.5 Section 2108.2.4.5 of the U.B.C. is hereby adopted by reference.

91.2108.2.4.6 Section 2108.2.4.6 of the U.B.C. is hereby adopted by reference.

91.2108.2.4.7 Inspection required. Los Angeles City Department of Building and Safety registered deputy inspector shall provide continuous inspection during all wall construction when the height—to—thickness ratio exceeds 30.

91.2108.2.5 Section 2108.2.5 of the U.B.C. is hereby adopted by reference.

91.2108.2.6 Section 2108.2.6 of the U.B.C. is hereby adopted by reference.

Part III - 12939

Sec. 22. Division 22 of Article 1 of Chapter IX of the Los Angeles Municipal Code is hereby amended to read as follows:

DIVISION 22

STEEL

SEC. 91.2200. BASIC PROVISIONS.

Chapter 22 of the U.B.C. is hereby adopted by reference for the purpose of providing basic building regulations relating to Steel with the following exceptions: Sections 2202, 2203, 2205, 2209 and 2211 of the U.B.C. are not adopted and in lieu thereof Sections 91.2202, 91.2203, 91.2205, 91.2209 and 91.2211 are added as provided herein.

SEC. 91,2202. DESIGN AND IDENTIFICATION OF STEEL FOR STRUCTURES.

91.2202.1 Section 2202.1 of the U.B.C. is hereby adopted by reference.

91.2202.2 Identification.

- 91.2202.2.1 General. Steel furnished for structural load—carrying purposes shall be properly identified for conformity to the ordered grade in accordance with approved national standards accepted by City of Los Angeles, the provisions of this Division and the appropriate U.B.C. Standards. Steel which is not readily identifiable as to grade from marking and test records shall be tested to determine conformity to such standards.
- 91.2202.2.2 Structural steel. Structural steel shall be identified by the mill in accordance with approved national standards accepted by City of Los Angeles. When such steel is furnished to a specified minimum yield point greater than 36,000 pounds per square inch (psi) (248 MPa), the American Society for Testing and Materials (ASTM) or other specification designation shall be so indicated.

The fabricator shall maintain identity of the material and shall maintain suitable procedures and records attesting that the specified grade has been furnished in conformity with the applicable standard. The fabricator's identification mark system shall be established and on record prior to fabrication.

When structural steel is furnished to a specified minimum yield point greater than 36,000 psi (248 MPa), the ASTM or other specification designation shall be included near the erection mark on each shipping assembly or important construction component over any shop coat of paint prior to shipment from the fabricator's plant. Pieces of such steel which are to be cut to smaller sizes shall, before cutting, be legibly marked with the

SEC. 91.2209. WELDING.

Welding procedures, welder qualification requirements and welding electrodes shall be in accordance with U.B.C. Divisions V, VIII and IX or X and approved national standards.

All welding, except when performed at the shop of an approved fabricator, shall be done by operators certified by the department for the type of operation involved in accordance with the provisions of Section 91.1701.18 of the Los Angeles Municipal Code.

Complete details of location, type, size and amount of all welds shall be clearly shown on the plans. Where symbols are used on the plans, they shall be the "Standard Welding Symbols," AWS A2.4, of the American Welding Society. When it is necessary to use a special crection sequence of welding to minimize locked—up stresses or distortion, the department may require such erection sequence of welding to be shown on the plans.

Welding procedures are qualified if in accordance with the AWS. Other welding procedures require special qualification approval by the department. Each application for a special qualification shall be accompanied by a fee of \$50.00.

SEC. 91.2211. STEEL STRUCTURES RESISTING FORCES INDUCED BY EARTHQUAKE MOTIONS IN SEISMIC ZONES 3 AND 4.

- 91.2211.1 Section 2211.1 of the U.B.C. is hereby adopted by reference.
- 91.2211.2 Section 2211.2 of the U.B.C. is hereby adopted by reference.
- 91.2211.3 Section 2211.3 of the U.B.C. is hereby adopted by reference.
- 91.2211.4 Section 2211.4 of the U.B.C. is hereby adopted by reference.
- 91.2211.5 Section 2211.5 of the U.B.C. is hereby adopted by reference.
- **91.2211.6** Section 2211.6 of the U.B.C. is hereby adopted by reference.
- 91.2211.7 Special Moment-Resisting Frame (SMRF) Requirements.
- 91.2211.7.1 Girder-to-Column Connection.
- 91.2211.7.1.1 Section 2211.7.1.1 of the U.B.C. is hereby adopted by reference.
- 91.2211.7.1.2 Connection Strength.

fabricator's identification mark on each of the smaller-sized pieces to provide continuity of identification. When subject to fabrication operations, prior to assembling into members, which might obliterate paint marking, such as blast cleaning, galvanizing or heating for forming, such pieces of steel shall be marked by steel die stamping or by a substantial tag firmly attached.

Individual pieces of steel having a minimum specified yield point in excess of 36,000 psi (248 MPa), which are received by the fabricator in a tagged bundle or lift or which have only the top shape or plate in the bundle or lift marked by the mill shall be marked by the fabricator prior to use in accordance with the fabricator's established identification marking system.

91.2202.2.3 Cold-formed carbon and low-alloy steel. Cold-formed carbon and low-alloy steel used for structural purposes shall be identified by the mill in accordance with approved national standards accepted by City of Los Angeles. When such steel is furnished to a specified minimum yield point greater than 33,000 psi (228 MPa), the fabricator shall indicate the ASTM or other specification designation, by painting, decal, tagging or other suitable means, on each lift or bundle of fabricated elements.

When cold-formed carbon and low-alloy steel used for structural purposes has a specified yield point equal to or greater than 33,000 psi (228 MPa), which was obtained through additional treatment, the resulting minimum yield point shall be identified in addition to the specification designation.

91.2202.2.4 Section 2202.2.4 of the U.B.C. is hereby adopted by reference.

91.2202.2.5 Section 2202.2.5 of the U.B.C. is hereby adopted by reference.

SEC. 91.2203. STRUCTURAL STEEL CONSTRUCTION.

The design, fabrication and erection of structural steel shall be in accordance with the requirements of U.B.C. Division VIII (LRFD) or U.B.C. Division IX (ASD). Seismic design of structures, where required, shall comply with the following:

Section 91.2211 or 91.2212 of the Los Angeles Municipal Code for structures designed in accordance with U.B.C. Division IX (ASD) or approved national standards accepted by City of Los Angeles.

SEC. 91,2205. COLD-FORMED STAINLESS STEEL CONSTRUCTION.

The design of cold-formed stainless steel structural members shall be in accordance with approved national standards accepted by City of Los Angeles. (See Section 91.2202 of the Los Angeles Municipal Code.)

Connection configurations utilizing welds or high-strength bolts shall demonstrate by approved cyclic test results or calculation, the ability to sustain inelastic rotation and develop the strength criteria in U.B.C. Section 2211.7.1.1 considering the effects of steel overstrength and strain hardening.

- 91.2211.7.1.3 Section 2211.7.1.3 of the U.B.C. is hereby adopted by reference.
- 91.2211.7.2 Section 2211.7.2 of the U.B.C. is hereby adopted by reference.
- 91.2211.7.3 Section 2211.7.3 of the U.B.C. is hereby adopted by reference.
- 91.2211.7.4 Section 2211.7.4 of the U.B.C. is hereby adopted by reference.
- 91.2211.7.5 Section 2211.7.5 of the U.B.C. is hereby adopted by reference.
- 91,2211,7.6 Section 2211.7.6 of the U.B.C. is hereby adopted by reference.
- 91.2211.7.7 Section 2211.7.7 of the U.B.C. is hereby adopted by reference.
- 91.2211.7.8 Section 2211.7.8 of the U.B.C. is hereby adopted by reference.
- 91.2211.7.9 Section 2211.7.9 of the U.B.C. is hereby adopted by reference.
- 91.2211.7.10 Section 2211.7.10 of the U.B.C. is hereby adopted by reference.
- 91.2211.8 Section 2211.8 of the U.B.C. is hereby adopted by reference.
- 91.2211.9 Section 2211.9 of the U.B.C. is hereby adopted by reference.
- 91.2211.10 Section 2211.10 of the U.B.C. is hereby adopted by reference.
- 91.2211.11 Section 2211.11 of the U.B.C. is hereby adopted by reference.
- Sec. 23. Division 23 of Article 1 of Chapter IX of the Los Angeles Municipal Code is hereby amended to read as follows.

DIVISION 23.

WOOD

SEC 91.2300. BASIC PROVISIONS.

Chapter 23 of the U.B.C. is hereby adopted by reference for the purpose of providing basic building regulations relating to Wood with the following exceptions:

Sections 2302, 2306, 2311, 2314, 2315, 2316, 2317 and 2326 and Tables 23-I-1, 23-I-K-1 23-I-K-2, 23-I-Q, 23-I-R-3 and 23-I-W of the U.B.C. are not adopted and Sections 91.2302, 91.2306, 91.2311, 91.2314, 91.2315, 91.2316, 91.2317 and 91.2326 and Tables 23-I-1, 23-I-K-1 23-I-K-2, 23-I-Q, 23-I-R-3, 23-I-W, and 23-I-R-4 and Figure 23-I-Y-1 are added as provided herein.

SEC. 91.2302. DEFINITIONS AND SYMBOLS.

91.2302.1 Section 2302.1 of the U.B.C. is hereby adopted by reference, except the term FIBERBOARD is not adopted.

91.2302.2 Section 2302.2 of the U.B.C. is hereby adopted by reference.

SEC, 91,2306. HORIZONTAL MEMBER DESIGN.

91.2306.1 Section 2306.1 of the U.B.C. is hereby adopted by reference.

91.2306.2 Section 2306.2 of the U.B.C. is hereby adopted by reference.

91.2306.3 Section 2306.3 of the U.B.C. is hereby adopted by reference.

91.2306.4 Horizontal Shear in Notched Beams. When rectangular—shaped girders, beams or joists are notched at points of support on the tension side, they shall meet the design requirements of that section in bending and in shear. The horizontal shear stress at such point shall be calculated by Formula (6–2):

$$f_{v} = \frac{3 V}{2 b d'} \left(\frac{d}{d'}\right) \tag{6-2}$$

WHERE:

d = total depth of beam.

d' = actual depth of beam at notch.

When girders, beams or joists with circular cross section are notched at points of support on the tension side, they shall meet the design requirements of that section in bending and in shear. The actual shear stress at such point shall be calculated by Formula (6–3).

$$f_{v} = \left(\frac{3 \ V}{2 \ A_{n}}\right) \left(\frac{d}{d_{n}}\right) \tag{6-3}$$

WHERE:

 A_n = cross-sectional area of notched member.

d = total depth of beam.

 d_n = actual depth of beam at notch.

For bending members with other than rectangular or circular cross section and notched at points of support on the tension side, the actual shear stress parallel to grain shall be calculated in accordance with conventional engineering mechanics.

When girders, beams or joists are notched at points of support on the compression side, they shall meet design requirements for that net section in bending and in shear. The shear at such point shall not exceed the value calculated by Formula (6-4):

$$V = \frac{2}{3} F_{\nu} b \left[d - \left(\frac{d - d'}{d'} \right) e \right]$$
 (6-4)

WHERE:

d = total depth of beam.

d' = actual depth of beam at notch.

e = distance notch extends inside the inner edge of support.

The shear for the notch on the compression side shall be further limited to the value determined for a beam of depth d' if e exceeds d'.

The alternate provisions of U.B.C. Division VIII, U.B.C. Section 2364, do not apply when designing notched beams.'

91.2306.5 Section 2306.5 of the U.B.C. is hereby adopted by reference.

91.2306.6 Section 2306.6 of the U.B.C. is hereby adopted by reference.

91.2306.7 Section 2306.7 of the U.B.C. is hereby adopted by reference.

91.2306.8 Section 2306.8 of the U.B.C. is hereby adopted by reference.

SEC. 91.2311. TIMBER CONNECTORS AND FASTENERS.

91.2311.1 Section 2311.1 of the U.B.C. is hereby adopted by reference.

91.2311.2 Section 2311.2 of the U.B.C. is hereby adopted by reference.

91.2311.3 Nails and Spikes.

91.2311.3.1 Safe Lateral Strength. A common wire nail driven perpendicular to grain of the wood, when used to fasten wood members together, shall not be subjected to a greater load causing shear and bending than the safe lateral strength of the wire nail or spike as set forth in U.B.C. Table 23–I–G.

A wire nail driven parallel to the grain of the wood shall not be subjected to more than two thirds of the lateral load allowed when driven perpendicular to the grain. For structures in Seismic Zone 4, toenails shall not be used to transfer lateral forces in excess of 150 pounds/foot from diaphragms to shear walls, drag struts or other elements nor shear walls to other elements. Toenails shall not be subjected to more than five sixths of the load allowed for nails driven perpendicular to grain.

91,2311.3.2 Section 2311.3.2 of the U.B.C. is hereby adopted by reference.

91.2311.3.3 Section 2311.3.3 of the U.B.C. is hereby adopted by reference.

91.2311.4 Section 2311.4 of the U.B.C. is hereby adopted by reference.

91.2311.5 Section 2311.5 of the U.B.C. is hereby adopted by reference.

91.2311.6 Section 2311.6 of the U.B.C. is hereby adopted by reference.

SEC. 91.2314. WOOD SHEAR WALLS AND DIAPHRAGMS.

91.2314.1 General. Lumber, wood structural panel and particleboard diaphragms may be used to resist horizontal forces in horizontal and vertical distributing or resisting elements, provided the deflection in the plane of the diaphragm, as determined by calculations, tests or analogies drawn therefrom, does not exceed the permissible deflection of attached distributing or resisting elements. See U.B.C. Standard 23–2 for a method of calculating the deflection of a blocked wood structural panel diaphragm.

Permissible deflection shall be that deflection up to which the diaphragm and any attached distributing or resisting element will maintain its structural integrity under assumed load conditions, i.e., continue to support assumed loads without danger to occupants of the structure.

Connections and anchorages capable of resisting the design forces shall be provided between the diaphragms and the resisting elements. Openings in diaphragms which materially affect their strength shall be fully detailed on the plans and shall have their edges adequately reinforced to transfer all shearing stresses.

Size and shape of diaphragms shall be limited as set forth in Table 23-I-I of this code.

In all buildings in Seismic Zone 4, lumber, wood structural panel and particleboard diaphragms shall not be considered as transmitting lateral forces by rotation.

EXCEPTIONS: One-story, attached or detached residential garages or similar Group U Division 1 wood-framed structures with a maximum depth (normal to the open side) of 25 feet.

Diaphragm sheathing nails or other approved sheathing connectors shall be driven flush but shall not fracture the surface of the sheathing.

Cantilevered diaphragms supporting floors or roofs above shall not exceed 15% of the distance between lines of lateral load resisting elements from which the diaphragm cantilevers.

91.2314.2 Section 2314.2 of the U.B.C. is hereby adopted by reference.

91.2314.3 Wood Structural Panel Diaphragms. Horizontal and vertical diaphragms sheathed with wood structural panels may be used to resist horizontal forces not exceeding those set forth in U.B.C. Table 23–I–J–1 for horizontal diaphragms and Table 23–I–K–1 of this code for vertical diaphragms, or may be calculated by principles of mechanics without limitation by using values of nail strength and wood structural panel shear values as specified elsewhere in this code. Wood structural panels for horizontal diaphragms shall be as set forth in U.B.C. Tables 23–I–S–1 and 23–I–S–2 for corresponding joist spacing and loads. Wood structural panels in shear walls shall be at least 3/8 inch (9.5 mm) thick and studs shall be spaced 16 inches (406 mm) on center maximum.

Maximum spans for wood structural panel subfloor underlayment shall be as set forth in U.B.C. Table 23–I–T–1. Wood structural panels used for horizontal and vertical diaphragms shall conform to U.B.C. Standard 23–2 or U.B.C. Standard 23–3.

All boundary members shall be proportioned and spliced where necessary to transmit direct stresses. Framing members shall be at least 2-inch (51 mm) nominal in the dimension to which the wood structural panel is attached. In general, panel edges shall bear on the framing members and butt along their center lines. Nails shall be placed not less than ½-inch (13 mm) from the panel edges and not less than 3/8-inch (9.5 mm) from the edge of the connecting members for shear greater than 300 pounds per foot. Nails shall be place not less than 3/8-inch (9.5 mm) from panels edges and not less than 1/4-inch from the edge of the connecting members for shears of 300 pound per foot or less.

Nails shall be firmly driven into the framing members. No unblocked panels less than 12 inches (305 mm) wide shall be used.

Where the wood structural panel is applied on both faces of a shear wall in accordance with Table 23–I–K–1 of this code, allowable shear for the wall may be taken as twice the tabulated shear for one side, except that where the shear capacities are not equal, the allowable shear shall be either the shear for the side with the higher capacity or twice the shear for the side with the lower capacity, whichever is greater.

Diaphragms with panel edges supported in accordance with U.B.C. Tables 23-I-S-1, 23-I-S-2 and 23-I-T-1 shall not be considered as blocked diaphragms unless blocking or other means of shear transfer is provided.

- 91.2314.4 Section 2314.4 of the U.B.C. is hereby adopted by reference.
- 91.2314.5 Wood Shear Walls and Diaphragms in Seismic Zones 3 and 4.
- 91.2314.5.1 Section 2314.5.1 of the U.B.C. is hereby adopted by reference.
- 91.2314.5.2 Section 2314.5.2 of the U.B.C. is hereby adopted by reference.
- 91.2314.5.3 Section 2314.5.3 of the U.B.C. is hereby adopted by reference.
- 91.2314.5.4 Section 2314.5.4 of the U.B.C. is hereby adopted by reference.
- 91.2314.5.5 Section 2314.5.5 of the U.B.C. is hereby adopted by reference.
- 91.2314.5.6 Hold-down Connectors. Hold-down connectors shall be designed to resist shear wall overturning moments using the cyclic load values or 75% of the static load values for the product pursuant to the applicable department approved research report. Connector bolts into wood framing require approved plate washers. Hold-downs shall be tightened just prior to covering the wall framing.
- 91.2314.5.7 Shear Wall Sill Plates. Sill plates supporting shear walls with seismic loads greater than 300 lbs per foot require a 3 inch (76.2 mm) nominal or thicker plate and shall be designed to transfer the loading to the framing or foundation below. Foundation anchor bolts in such walls shall have an approved plate washer under each nut. The bolts shall be tightened just prior to covering the wall framing.

The superintendent shall have the authority to promulgate standards for plate washers.

91.2314.5.8 Mechanical Penetration of Wood Shear Walls and Plate Members. The maximum accumulated length of openings in a shear wall shall not

exceed 20% of the wall length. Plumbing, electrical, and other mechanical penetrations of the top or bottom plate framing members shall be limited to Figure 23-I-Y-1 of this code.

EXCEPTION: Openings or penetrations may exceed this amount where designed and shown on the approved drawings.

SEC. 91.2315. RESERVED.

SEC. 91.2316. WOOD COMBINED WITH MASONRY OR CONCRETE.

91.2316.1 Dead Load. Wood members shall not be used to permanently support the dead load of any masonry or concrete.

EXCEPTIONS:

- 1. Masonry or concrete nonstructural floor or roof surfacing not more than 4 inches thick may be supported by wood members.
- 2. Any structure may rest upon wood piles constructed in accordance with the requirements of Division 18 of this code.
 - 3. Reserved.
- 4. Glass block masonry having an installed weight of 20 pounds per square foot (97.6 kg/m²) or less and installed with the provisions of U.B.C. Section 2109.5. When glass block is supported on wood floors, the floors shall be designed to limit deflection and shrinkage to 1/600 of the span of the supporting members and the allowable stresses for the framing members shall be reduced in accordance with U.B.C. Section 2304.3.4, Item 1.

91.2316.2 Section 2316.2 of the U.B.C. is hereby adopted by reference.

SEC. 91.2317. DECAY AND TERMITE PROTECTION.

91.2317.1 Section 2317.1 of the U.B.C. is hereby adopted by reference.

91.2317.2 Section 2317.2 of the U.B.C. is hereby adopted by reference.

91.2317.3 Section 2317.3 of the U.B.C. is hereby adopted by reference.

91.2317.4 Section 2317.4 of the U.B.C. is hereby adopted by reference.

91.2317.5 Section 2317.5 of the U.B.C. is hereby adopted by reference.

- 91.2317.6 Section 2317.6 of the U.B.C. is hereby adopted by reference.
- 91.2317.7 Section 2317.7 of the U.B.C. is hereby adopted by reference.
- 91.2317.8 Section 2317.8 of the U.B.C. is hereby adopted by reference.
- 91.2317.9 Section 2317.9 of the U.B.C. is hereby adopted by reference.
- 91.2317.10 Section 2317.10 of the U.B.C. is hereby adopted by reference.
- **91.2317.11** Section 2317.11 of the U.B.C. is not adopted.
- 91.2317.12 Section 2317.12 of the U.B.C. is hereby adopted by reference.
- 91.2317.13 Section 2317.13 of the U.B.C. is hereby adopted by reference.

SEC. 91.2326. CONVENTIONAL LIGHT–FRAME CONSTRUCTION PROVISIONS.

91.2326.1 General. The requirements in this section are intended for conventional, light—frame construction. Other methods may be used provided a satisfactory design is submitted showing compliance with other provisions of this code.

Only the following occupancies may be constructed in accordance with Section 91.2326 of the Los Angeles Municipal Code:

- 1. One story buildings housing Group R Occupancies.
- 2. One-story Occupancy Category 4 buildings, as defined in U.B.C. Table 16–K, when constructed on a slab-on-grade floor.
 - 3. Group U Occupancies.
 - 4. Reserved.
- 5. For all occupancies, interior nonload-bearing partitions 8 feet (2440 mm) or higher shall be laterally braced at the top at 8 feet (2440 mm) maximum on center.

When total loads exceed those specified in U.B.C. Tables 23–I–V–J–1, 23–I–V–J–3, and 23–I–V–R–1, 23–I–V–R–2, 23–I–V–R–3, 23–I–V–R–4, 23–I–V–R–7, 23–I–V–R–8, 23–I–V–R–9 and 23–I–V–R–10; 23–V–R–1, 23–V–R–3, 23–V–R–7, 23–V–R–9, 23–VI–A, 23–VI–B, 23–VI–C, 23–VI–D, an engineering design shall be provided for the gravity load system.

EXCEPTION: Two-story buildings housing Group R residential occupancies of 4 units or less may utilize conventional, light-frame construction when all the following are complied with:

- 1. The building is of rectangular shape with a length to width ratio not exceeding 2:1.
- 2. All exterior walls shall be in one plane vertically from the foundation to the top of the second story with braced wall panels installed as required by Section 91.2326.11.3 of the Los Angeles Municipal Code.
- 3. Floors with cantilevered balconies (exit or private) are only permitted when the following are complied with:
 - (1) Floor joists are 2 inches by 10 inches (51 mm by 254 mm) nominal or larger and spaced at not more than 16 (406 mm) on center, with a maximum cantilever of six feet.
 - (2) The ratio of the back span to the cantilever is at least 2 to 1.
 - (3) A continuous rim joist is connected to ends of all cantilevered joists. The rim joists may be spliced using a galvanized metal tie no less than 0.058 inches (1.47 mm; 16 gauge) thickness and 1-1/2 inches (38 mm) wide, fastened with six 16d nails.
- 91.2326.2 Design of Portions. When a building of otherwise conventional construction contains nonconventional structural elements, those elements and their vertical and lateral load carrying structural supports shall be designed in accordance with U.B.C. Section 1603.3.
- 91.2326.3 Additional Requirements for Conventional Construction in Highwind Areas. Section 2326.3 of the U.B.C. is not adopted.
- 91.2326.4 Additional Requirements for Conventional Construction in Seismic Zones 0, 1, 2 and 3. Section 2326.4 of the U.B.C. is not adopted
- 91.2326.5 Additional Requirements for Conventional Construction in Seismic Zone 4.
- 91.2326.5.1 Braced Wall Lines. Buildings shall be provided with exterior and interior braced wall lines. Spacing shall not exceed 25 feet (7620 mm) on center in both the longitudinal and transverse directions in each story.

EXCEPTION: One story U-1 occupancy private parking garages accessory to a R-1 or R-3 occupancy provided:

- 1. Detached or attached garage is not more than 25 feet (7620 mm) in length or width.
- 2. The roof and three enclosing walls are solid sheathed with 15/32 inch (12 mm) CDX wood structural panels nailed with 8d common at 6:6:12.
- 3. Wall openings for a door or window, maximum 3 feet (914 mm) wide, may be allowed provided a minimum of two, 4 foot (1220 mm) wide wood structural braced panels are provided in each such wall.
- 91.2326.5.2 Section 2326.5.2 of the U.B.C. is hereby adopted by reference.
- 91.2326.5.3 Veneer. Anchored masonry and stone wall veneer shall not exceed 5 inches (127 mm) in thickness and shall conform to the requirements of Division 14 of this code and shall not extend more than 4 feet (1220 mm) above the grade at the first story.

Adhesive masonry and stone wall veneer shall not exceed two inches (51 mm) in thickness and shall conform to the requirements of Division 14 of this code.

- 91.2326.5.4 Unusually Shaped Buildings. When of unusual shape, buildings of light-frame construction shall have a lateral-force-resisting system designed to resist the forces specified in Division 16 of this code. One or more of the following shall be considered to constitute an unusual shape:
- 91.2326.5.4.1 When exterior braced wall panels, as required by Section 91.2326.11.3 of this Los Angeles Municipal Code, are not in one plane vertically from the foundation to the uppermost story in which they are required.
- 91.2326.5.4.2 When a section of floor or roof is not laterally supported by braced wall lines on all edges.
 - 91.2326.5.4.3 Section 2326.5.4.3 of the U.B.C. is hereby adopted by reference.
 - 91.2326.5.4.4 Section 2326.5.4.4 of the U.B.C. is hereby adopted by reference.
 - **91.2326.5.4.5** Section 2326.5.4.5 of the U.B.C. is hereby adopted by reference.
 - **91.2326.5.4.6** Section 2326.5.4.6 of the U.B.C. is hereby adopted by reference.

- 91.2326.5.4.7 Other configurations which, in the opinion of the Superintendent of Building, create irregularities or discontinuities which are not addressed by Section 91.2326 of the Los Angeles Municipal Code.
- 91.2326.5.5 Lumber Roof Decks. Lumber roof decks shall have solid diagonal sheathing.
- 91.2326.5.6 Interior Braced Wall Support. Interior braced wall lines shall be supported on continuous foundations at intervals not exceeding 25 feet (7620 mm).
 - 91.2326.6 Section 2326.6 of the U.B.C. is hereby adopted by reference.
- 91.2326.7 Girders. Girders for single-story construction or girders supporting loads from a single floor shall not be less than 4 inches by 6 inches (102 mm by 153 mm) for spans 6 feet (1829 mm) or less, provided that girders are spaced not more than 8 feet (2438 mm) on center. Other girders shall be designed to support the loads specified in this code. Girder end joints shall occur over supports. When a girder is spliced over a support, a minimum 1-1/2 inch (38 mm) by 16 gauge (1.5 mm) galvanized metal tie with three 16d nails each side of the splice shall be provided. The end of beams or girders supported on masonry or concrete shall not have less than 3 inches (76 mm) of bearing.
 - 91.2326.8 Floor Joists.
 - 91.2326.8.1 Section 2326.8.1 of the U.B.C. is hereby adopted by reference.
 - 91.2326.8.2 Section 2326.8.2 of the U.B.C. is hereby adopted by reference.
- 91.2326.8.3 Framing Details. Joists shall be supported laterally at the ends and at each support by solid blocking except where the ends of joists are nailed to a header, band or rim joist or to an adjoining stud or by other approved means. Solid blocking shall not be less than 2 inches (51 mm) in thickness and the full depth of joist.

Notches on the ends of joists shall not exceed one fourth the joist depth. Holes bored in joists shall not be within 2 inches (51 mm) of the top or bottom of the joist, and the diameter of any such hole shall not exceed one third the depth of the joist. Notches in the top or bottom of joists shall not exceed one sixth the depth and shall not be located in the middle third of the span.

Joist framing from opposite sides of a beam, girder or partition shall be lapped at least 3 inches or the opposing joists shall be tied together in an approved manner.

Joists framed into the side of a wood girder shall be supported by framing anchors.

- 91.2326.8.4 Framing Around Openings. Trimmer and header joists shall be doubled, or of lumber of equivalent cross section, when the span of the header exceeds 4 feet (1219 mm). The ends of header joists more than 6 feet (1829 mm) long shall be supported by framing anchors or joist hangers unless bearing on a beam, partition or wall. Tail joists over 12 feet (3658 mm) long shall be supported at header by framing anchors.
 - 91.2326.8.5 Section 2326.8.5 of the U.B.C. is hereby adopted by reference.
 - 91.2326.8.6 Section 2326.8.6 of the U.B.C. is hereby adopted by reference.
 - 91.2326.9 Subflooring.
 - 91.2326.9.1 Section 2326.9.1 of the U.B.C. is hereby adopted by reference.
- 91.2326.9.2 Wood Structural Panels. Where used as structural subflooring, wood structural panels shall be as set forth in U.B.C. Tables 23–I–S–1 and 23–I–S–2. Wood structural panel combination subfloor underlayment shall have maximum spans as set forth in U.B.C. Table 23–I–T–1.
 - 91.2326.9.3 Section 2326.9.3 of the U.B.C. is hereby adopted by reference.
 - 91.2326.9.4 Section 2326.9.4 of the U.B.C. is hereby adopted by reference.
 - 91.2326.10 Section 2326.10 of the U.B.C. is hereby adopted by reference.
 - 91.2326.11 Wall Framing.
- 91.2326.11.1 Size, Height and Spacing. The size, height and spacing of studs shall be in accordance with Table 23–I–R–3 of this code except that Utility grade studs shall not be used.
- 91.2326.11.2 Framing Details. Studs shall be placed with their wide dimension perpendicular to the wall. Not less than three studs shall be installed at each corner of an exterior wall.
 - **EXCEPTION:** At corners, a third stud may be omitted through the use of wood spacers or backup cleats of 3/8-inch-thick (9.5 mm) wood structural panel, 3/8-inch (9.5 mm) Type 2-M particleboard, 1-inch-thick (25 mm) lumber or other approved devices which will serve as an adequate backing for the attachment of facing materials. Where fire-resistance ratings or shear values are involved, wood spacers, backup cleats or other devices shall not be used unless specifically approved for such use.

Bearing and exterior wall studs shall be capped with double top plates installed to provide overlapping at corners and at intersections with other partitions. End joints in double top plates shall be offset at least 48 inches (2438 mm).

Interior nonbearing partitions may be capped with a single top plate installed to provide overlapping at corners and at intersections with other walls and partitions. The plate shall be continuously tied at joints by solid blocking at least 16 inches (406 mm) in length and equal in size to the plate or by 1/8-inch by 1-1/2-inch (3.2 mm by 38 mm) metal ties with spliced sections fastened with two 16d nails on each side of the joint.

Studs shall have full bearing on a plate or sill not less than 2 inches (51 mm) in thickness having a width not less than that of the wall studs.

91.2326.11.3 Bracing. Braced wall lines shall consist of braced wall panels which meet the requirements for location, type and amount of bracing specified in Table 23–I–W of this code and are in line or offset from each other by not more than 4 feet (1219 mm). Braced wall panels shall start at not more than 8 feet (2438 mm) from each end of a braced wall line. All braced wall panels shall be clearly indicated on the plans. Construction of braced wall panels shall be by one of the following methods:

- 1. Reserved.
- 2. Reserved.
- 3. Wood structural panel sheathing with a thickness not less than 5/32 inch (12 mm) for 16-inch (406 mm) stud spacing in accordance with U.B.C. Tables 23-I-M-1 and 23-I-N-1.
 - 4. Reserved.
 - Reserved.
 - 6. Reserved.
- 7. Portland cement plaster on studs spaced 16 inches (406 mm) on center installed in accordance with Table 25–I of this code.
 - 8. Reserved.

For method 3, each braced wall panel must be at least 48 inches (1219 mm) in length, covering three stud spaces, studs shall be maximum 16 inches (406 mm) apart.

For method 7, each braced wall panel must be at least 96 inches (2438 mm) in length.

Dimension ratio for braced wall panel shall be 2 vertical to 1 horizontal.

All vertical joints of panel sheathing shall occur over studs. Horizontal joints shall occur over blocking equal in size to the studding except where waived by the installation requirements for the specific sheathing materials.

The top of braced wall panels shall be laterally braced at each top corner and at maximum 24 inch intervals along the top plate.

Braced wall panel construction types shall not be mixed within a braced wall line.

Holes for plumbing and electrical installations in wall panels shall be limited in size and location as specified in Section 91.2314.5.8 of the Los Angeles Municipal Code.

At interior braced wall lines, all braced wall panels extending to the roof sheathing shall be attached to parallel roof rafters or blocking with minimum 2 approved framing clips (18 gauge minimum) with 4-8d nails per leg (8-8d nails per clip). Clips shall be located as close to the end of the braced panel as possible, with one clip at each end of the panel.

Braced wall panel sole plates shall be nailed to the floor framing and top plates shall be connected to the framing above in accordance with Table 23–I–Q of this code. Sills shall be bolted to the foundation or slab in accordance with Section 91.1806.6 of the Los Angeles Municipal Code. Where joists are perpendicular to braced wall lines above, blocking shall be provided under and in line with the braced wall panels.

91.2326.11.4 Section 2326.11.4 of the U.B.C. is not adopted.

91.2326.11.5 Section 2326.11.5 of the U.B.C. is not adopted.

91.2326.11.6 Headers. Headers and lintels shall conform to the requirements set forth in this paragraph and together with their supporting systems shall be designed to support the loads specified in this code or shall comply with Table 23-I-R-4 of this code. All openings 4 feet (1219 mm) wide or less in bearing walls shall be provided with headers consisting of either two pieces of 2-inch (51 mm) framing lumber placed on edge and securely fastened together or 4-inch (102 mm) lumber of equivalent cross section. All openings more than 4 feet (1219 mm) wide shall be provided with headers or lintels. Each end of a lintel or header shall have a length of bearing of not less than 1½ inches (38 mm) for the full width of the lintel.

91.2326.11.7 Section 2326.11.7 of the U.B.C. is hereby adopted by reference.

91.2326.11.8 Bridging. Unless covered by interior or exterior wall coverings or sheathing meeting the minimum requirements of this code, all stud partitions or walls

with studs having a height—to—least—thickness ratio exceeding 50 shall have bridging not less than 2 inches (51 mm) in thickness and of the same width as the studs fitted snugly and nailed thereto to provide adequate lateral support.

- 91.2326.11.9 Section 2326.11.9 of the U.B.C. is hereby adopted by reference.
- **91.2326.11.10** Section 2326.11.10 of the U.B.C. is hereby adopted by reference.
- 91.2326.12 Roof and Ceiling Framing.
- 91.2326.12.1 Section 2326.12.1 of the U.B.C. is hereby adopted by reference.
- 91.2326.12.2 Section 2326.12.2 of the U.B.C. is hereby adopted by reference.
- 91.2326.12.3 Section 2326.12.3 of the U.B.C. is hereby adopted by reference.
- 91.2326.12.4 Section 2326.12.4 of the U.B.C. is hereby adopted by reference.
- 91.2326.12.5 Section 2326.12.5 of the U.B.C. is hereby adopted by reference.
- 91.2326.12.6 Rafter Ties. Rafters shall be nailed to adjacent ceiling joists to form a continuous tie between exterior walls when such joists are parallel to the rafters. Where not parallel, rafters shall be tied to 2—inch by 4—inch (25 mm by 102 mm) (nominal) minimum—size crossties. Rafter ties shall be spaced not more than 2 feet on center.
 - 91.2326.12.7 Section 2326.12.7 of the U.B.C. is hereby adopted by reference.
 - 91.2326.12.8 Section 2326.12.8 of the U.B.C. is hereby adopted by reference.
- 91.2326.12.9 Roof Sheathing. Roof sheathing shall be in accordance with U.B.C. Tables 23-I-S-1 and 23-I-S-2 for wood structural panels.

Joints in lumber sheathing shall occur over supports unless approved end-matched lumber is used, in which case each piece shall bear on at least two supports.

Wood structural panels used for roof sheathing shall be bonded by intermediate or exterior glue. Wood structural panel roof sheathing exposed on the underside shall be bonded with exterior glue.

- 91.2326.12.10 Section 2326.12.10 of the U.B.C. is hereby adopted by reference.
- 91.2326.13 Section 2326.13 of the U.B.C. is hereby adopted by reference.

TABLE 23-I-1. MAXIMUM DIAPHRAGM DIMENSION RATIOS

MATERIAL		HORIZONTAL DIAPHRAGMS	VERTICAL DIAPHRAGMS
		Maximum Span- Width Ratios	Maximum Height- Width Ratios
1.	Diagonal sheathing, conventional	3:1	2:1
2.	Diagonal sheathing, special	4:1	2:1
3.	Plywood and particleboard, nailed all edges	4:1	2:1
4.	Plywood and particleboard, blocking omitted]
	at intermediate joints	4:1	2:1

TABLE 23–I-K–1. ALLOWABLE SHEAR FOR WIND OR SEISMIC FORCES IN POUNDS PER FOOT FOR WOOD STRUCTURAL PANEL SHEAR WALLS WITH FRAMING OF DOUGLAS FIR–LARCH OR SOUTHERN PINE^{1, 2, 4 & 6}

	MINIMUM NOMINAL PANEL THICKNESS (inches) MINIMUM NAIL PENETRATION IN FRAMING (inches)			PANELS APPLIED DIRECT TO FRAMING Nail Spacing at Plywood Panel Edges					
PANEL GRADE			NAIL SIZE (Common)						
•	X 25.4 for mm			x 25.4 for mm					
	A 25.4		Ī	6	23				
	3/8	1-1/2	8d	175	200	200	200		
STRUCTURAL I	15/32 7	1-1/2	8d	210	320	410	550		
	15/327	1-5/8	10d ^s	255	380	500	650		
C-D, C-C STRUCTURAL	3/8	1-1/4	6d	150	200	200	200		
II, plywood panel siding and other grades covered in	3/8	1-1/2	8 d	165	200	200	200		
U.B.C. Standard 25–9.	15/32 7	1-1/2	8d	200	285	370	480		
	15/32 ⁷	1-5/8	10ds	230	345	450	580		
	19/32	1-5/8	10d ⁵	255	380	500	650		

All panel edges backed with 2-inch nominal or thicker framing. Plywood installed either horizontally or vertically. Space nails at 12 inches on center along intermediate framing members. These values are for short-time loads due to wind or earthquake and must be reduced 25 percent for normal loading. Allowable shear values for nails in framing members of other species set forth in Table No. 25-17-J of U.B.C. Standards shall be calculated for all grades by multiplying the values for common nails by the following factors: Group III, 0.82 and Group IV, 0.65.

Framing at adjoining panel edges shall be 3-inch nominal or thicker and sill plates shall be 3-inch nominal or thicker for all shear values exceeding 300 pounds per foot. Nails shall be staggered where nails are spaced 2 inches on center.

Nails shall be staggered where nails are spaced 2 inches on center.

Where plywood is applied on both faces of a wall and nail spacing is less than 6 inches on center on either side, panel joints shall be offset to fall on different framing members or framing shall be 3-inch nominal or thicker and nails on each side shall be staggered.

Framing at adjoining panel edges shall be 3-inch nominal or thicker and nails shall be staggered where 10d nails having penetration into framing of more than 1-5/8 inches are spaced 3 inches or less on center.

Nails shall be placed not less than 1/2-inch from the panel edges and not less than 3/8-inch from the edge of the connecting members for shear greater than 300 pounds per foot. Nails shall be place not less than 3/8-inch from panels edges and not less than 1/4-inch from the edge of the connecting members for shears of 300 pound per foot or less.

The maximum allowable shear for 3-ply plywood is 200 pounds per foot.

TABLE 23-I-K-2. ALLOWABLE SHEAR FOR WIND OR SEISMIC FORCES IN POUNDS PER FOOT FOR PARTICLEBOARD SHEAR WALLS WITH FRAMING OF DOUGLAS FIR-LARCH OR SOUTHERN PINE^{1,2}

PANEL	MINIMUM NOMINAL	MINIMUM NAIL	PANELS APPLIED DIRECTLY TO FRAMING							
GRADE	PANEL THICKNESS (inches)	FENETRATION IN FRAMING (inches)	Nail Size	non or x 25.4 for mm						
			(Common or Galvanized Box)							
				6	4	3	2			
	x 25.4 fc	or mm		x 0.0146 for N/mm						
2-M-W	3/8	1-1/4	6d	175	175	175	175			
	3/8			175	175	175	175			
	7/16	1-1/2	8d	175	175	175	175			
	1/2			175	175	175	175			
	1/2	4.440	10d³	175	175	175	175			
	5/8	1-5/8		175 ·	175	175	175			

All panel edges backed with 2-inch (51 mm) nominal or thicker framing. Panels installed either horizontally or vertically. Space nails at 12 inches (305 mm) on center along intermediate framing members. These values are for short-time loads due to wind or earthquake and must be reduced 25 percent for normal loading. Allowable shear values for nails in framing members of other species set forth in U.B.C. Table 23-III-J of U.B.C. Division III shall be calculated for all grades by multiplying the values for common and galvanized box nails by the following factors: Group III, 0.82 and Group IV, 0.65.

Where particleboard is applied on both faces of a wall and nail spacing is less than 6 inches (152 mm) on center on either side, panel joints shall be offset to fall on different framing members, or framing shall be 3-inch (76 mm) nominal or wider and nails on each side shall be staggered.

Framing at adjoining panel edges shall be 3-inch (76 mm) nominal or wider and nails shall be staggered where 10d nails having penetration into framing of more than 1-5/8 inches (41 mm) are spaced 3 inches (76 mm) or less on center.

TABLE 23-I-Q. NAILING SCHEDULE

CON	NECTION	NAILING ¹
1.	Joist to sill or girder, toenail	3–8d
2.	Bridging to joist, toenail each end	2-8d
3.	1" x 6" (25 mm x 152 mm) subfloor or less to each joist, face nail	. 2–8d
4.	Wider than 1" x 6" (25 mm x 152 mm) subfloor to each joist, face na	uil 3–8d
5.	2" (51 mm) subfloor to joist or girder, blind and face nail	2-16d
6.	Sole plate to joist or blocking, typical face nail Sole plate to joist or blocking, at braced wall panels	16d at 16" (406 mm) o.c. 3-16d per 16" (406 mm)
7.	Top plate to stud, end nail	2–16d
8.	Stud to sole plate	4-8d, toenail or 2-16d, end nail
9.	Double studs, face nail	16d at 24" (610 mm) o.c.
10.	Doubled top plates, typical face nail Double top plates, lap splice	16d at 16" (406 mm) o.c. 8-16d
11.	Blocking between joists or rafters to top plate, toenail	3–8d
12.	Rim joist to top plate, toenail	8d at 6" (152 mm) o.c.
13.	Top plates, laps and intersections, face nail	2–16d
14.	Continuous header, two pieces 166	d at 16" (406 mm) o.c. along each edge
15.	Ceiling joists to plate, toenail	3–8d
16.	Continuous header to stud, toenail	4-8d
17.	Ceiling joists, laps over partitions, face nail	3–16d
18.	Ceiling joists to parallel rafters, face nail	3 – 16d
19.	Rafter to plate, toenail	3-8d
20.	1" (25 mm) brace to each stud and plate, face nail	2–8d
21.	1" x 8" (25 mm x 203 mm) sheathing or less to each bearing, face na	il 2–8d
22.	Wider than 1" x 8" (25 mm x 203 mm) sheathing to each bearing, fac	ce nail 3–8d
23.	Built-up corner studs	16d at 24" (610 mm) o.c.
24.	Built-up girder and beams	20d at 32" (813 mm) o.c. at top and bottom and staggered 2–20d at ends and at each splice
25.	2" (51 mm) planks	2-16d at each bearing

(Continued)

TABLE 23-I-Q. NAILING SCHEDULE—(Continued)

CON	INECTION	NAILING ¹
26.	Wood structural panels and particleboard:2	
	Subfloor, roof and wall sheathing (to framing): (1 inch = 25.4 mm)	
	½" and less	6d³
	19/32"–3/4"	8d⁴ or 6d⁵
	7/8"-1"	8d ³
	1-1/8"-11/4"	10d⁴ or 8d⁵
	Combination subfloor—underlayment (to framing): (1 inch = 25.4 mm)	•
	3/4" and less	6ds
	7/8"-1"	8d ^s
	1-1/8"—1-1/4"	10d4 or 8d5
27.	Panel siding (to framing):	
	½" (13 mm) or less	6d ⁶
	5/8" (16 mm)	. 8d ⁶
28.	Fiberboard sheathing:7	
	½" (13 mm)	No. 11 ga. ⁸
		6 d ⁴
		No. 16 ga. ⁹
	25/32" (20 mm)	No. 11 ga. ⁸
		8d⁴
,	•	No. 16 ga. ⁹
29.	Interior paneling	
	1/4" (6.4 mm)	4d ¹⁰
	3/8" (9.5 mm)	' 6d ¹¹

- 1 Common or box nails may be used except where otherwise stated. Shank diameter and length shall not be less than that of the common or box nail specified by this table.
- For douglas fir framing, nails spaced at 6 inches (152 mm) on center at edges, 12 inches (305 mm) at intermediate supports except 6 inches (152 mm) at all supports where spans are 48 inches (1219 mm) or more. For nailing of wood structural panel and particleboard diaphragms and shear walls, refer to Section 91.2314.3 of the Los Angeles Municipal Code. Nails for wall sheathing may be common, box or casing. When nailing to hem-fir, sill plates shall be at 4 inches (102 mm) on center.
- 3 Common or deformed shank.
- 4 Common.
- 5 Deformed shank.
- 6 Corrosion-resistant siding or casing nails conforming to the requirements of U.B.C. Section 2325.1.
- 7 Fasteners spaced 3 inches (76 mm) on center at exterior edges and 6 inches (152 mm) on center at intermediate supports.
- 8 Corrosion-resistant roofing nails with 7/16-inch-diameter (11 mm) head and 11/2-inch (38 mm) length for ½-inch (13 mm) sheathing and 13/4-inch (44 mm) length for 25/32-inch (20 mm) sheathing conforming to the requirements of U.B.C. Section 2325.1.
- 9 Corrosion-resistant staples with nominal 7/16-inch (11 mm) crown and 11/8-inch (29 mm) length for ½-inch (13 mm) sheathing and 11/2-inch (38 mm) length for 25/32 inch (20 mm) sheathing conforming to the requirements of U.B.C. Section 2325.1.

- Panel supports at 16 inches (406 mm) [20 inches (508 mm) if strength axis in the long direction of the panel, unless otherwise marked]. Casing or finish nails spaced 6 inches (152 mm) on panel edges, 12 inches (305 mm) at intermediate supports.
- Panel supports at 24 inches (610 mm). Casing or finish nails spaced 6 inches (152 mm) on panel edges, 12 inches (305 mm) at intermediate supports.

TABLE 23-I-R-3. SIZE, HEIGHT AND SPACING OF WOOD STUDS

STUD		BEARING	WALLS		NONBEARING WA	LLS
SIZE (inches)	Laterally Unsupported Stud Height ¹ (feet)	Supporting Roof and Ceiling Only	Roof and One Floor, Two		Laterally Unsupported Stud Height ¹ (feet)	Spacing (inches)
		Sp	pacing (inches)		
x 25.4 for mm	x 304.8 for mm	x 25.4 for mm		x 304.8 for mm	x 25.4 for mm	
1. 2 x 3 ²			_		10	16
2. 2 x 4	10	16	16		14	16
3. 3 x 4	10	16	16	16	14	16
4. 2 x 5	10	16	16	_	16	. 16
5. 2 x 6	10	16	16	16	16	16

Listed heights are distances between points of lateral support placed perpendicular to the plane of the wall. Increases in unsupported height are permitted where justified by an analysis. Shall not be used in exterior walls.

²

TABLE 23-I-R-41. SPAN AND SUPPORT OF WOOD HEADERS

Header	Max Header Span Supporting Roof Load Only	Max Header Span Supporting Floor and Roof Load
4 x 4	4' - 6"	2' - 6"
4 x 6	7' - 6"	3' - 6"
4 x 8	10' - 0" 4	4' - 6"
4 x 10	12' - 6" ⁴	6'- 0"
4 x 12	16' - 0" ^{3,4}	7'- 6"
Header and supports must be engineered	Greater than 16'	Greater than 7'6"

NOTES:

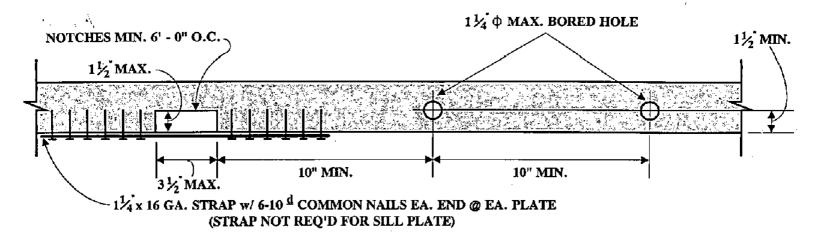
- 1. Lumber for headers shall be douglas fir-larch no. 2 or better.
- 2. Required nailing: header shall be fastened to adjacent king stud with two 16d common or box nails at each corner. Face nailing through king stud into header within upper and lower one-third of header.
- 3. Non-bearing wall at garage opening only; Douglas fir-larch no. 1 only.
- 4. Double king studs shall be provided at each end of header.
- 5. For spans less than 4 feet, provide minimum two, 2x members on edge.

TABLE 23-I-W. BRACED WALL PANELS¹

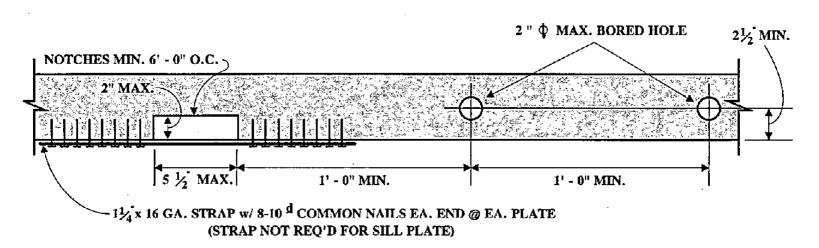
SEISMIC		CONSTRUCTION METHOD 2							BRACED PANEL
ZONE	CONDITION	1	2	3	4	5	6	7	LOCATION AND LENGTH ³
	One story, top of two or three story		X	Х	X	X	Х	X	
0, 1 AND 2A	First story of two story or second story of three story	· · · · · · · · · · · · · · · · · · ·							
	First story of three story		X	X	X	Х	X	X	Each end and not more than 25 feet (7620 mm) on center
	One story, top of two story			Х				Х	Each end and not more than 25 feet (7620 mm) on center
2B, 3 and 4	First story of two story			Х					Each end and not more than 25 feet (7620 mm) on center but not less than 25% of building length

¹ This table specifies minimum requirements for braced panels which form interior or exterior braced wall lines.
² See Section 91.2326.11.3 of the Los Angeles Municipal Code for full description.

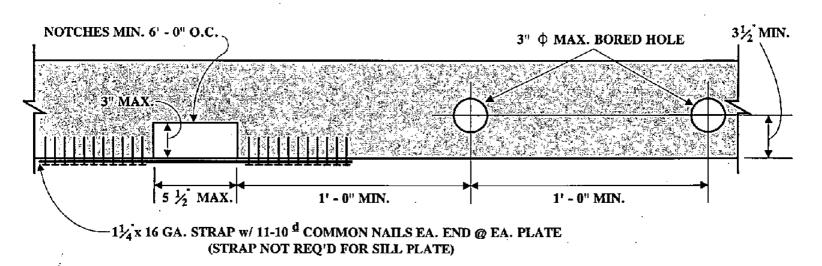
³ Building length is the dimension parallel to the braced wall length.



2 x 4 DBL. TOP PLATE 2 x 4 or 3 x 4 SILL PLATE SIM.



2 x 6 DBL. TOP PLATE 2 x 6 or 3 x 6 SILL PLATE SIM.



2 x 8 DBL. TOP PLATE 2 x 8 or 3 x 8 SILL PLATE SIM. Sec. 24. Division 24 of Article 1 of Chapter IX of the Los Angeles Municipal Code is hereby amended to read as follows.

DIVISION 24

GLASS AND GLAZING

SEC. 91.2400. BASIC PROVISIONS.

Chapter 24 of the U.B.C. is hereby adopted by reference for the purpose of providing basic building regulations relating to Glass and Glazing with the following exceptions: Section 2406 of the U.B.C. is not adopted and in lieu thereof Section 91.2406 is added as provided herein.

SEC. 91.2406. SAFETY GLAZING.

- 91.2406.1 Section 2406.1 of the U.B.C. is hereby adopted by reference.
- 91.2406.2 Section 2406.2 of the U.B.C. is hereby adopted by reference.
- 91.2406.3 Section 2406.3 of the U.B.C. is hereby adopted by reference.
- 91.2406.4 Section 2406.4 of the U.B.C. is hereby adopted by reference.
- **91.2406.5.** Section 2406.5 of the U.B.C. is hereby adopted by reference.
- **91.2406.6.** Section 2406.6 of the U.B.C. is hereby adopted by reference.
- 91.2406.7 Impact Hazard Glazing.
- 91.2406.7.1 Impact Hazard Glazing. When application is made for a permit for alterations, repairs or additions to real property, the permit shall be withheld until the department receives a sworn affidavit from the real property owner stating that:
 - 1. Prior to final inspection of the work under the permit, the owner shall replace the glass in every existing sliding glass panel of sliding-type doors, other than wardrobe doors and bathroom shower doors and French-type wooden doors, in the residential portion of the building with approved impact hazard glazing pursuant to U.B.C. Sections 2406.1, 2406.2 and 2406.3; or
 - 2. The owner declares the existing glazing of the glass in every sliding glass panel of sliding—type doors, other than wardrobe doors and bathroom shower doors and French—type wooden doors, in the residential portion of the building

complies with the impact hazard glazing requirements pursuant to U.B.C. Sections 2406.1, 2406.2 and 2406.3.

EXCEPTION: The owner may install film on the glass in every existing sliding glass panel of sliding-type doors, other than wardrobe doors and bathroom shower doors and French-type wooden doors, in the residential portion of the building with film approved by the department.

91.2406.7.2 The provisions of this subsection shall apply only in the following circumstances:

- 1. To a Group R, Division 3 Occupancy, if a permit is issued with a valuation of \$10,000 or more per unit for alterations, repairs or additions;
- 2. To a Group R, Division 1 Occupancy, if a permit is issued for \$3,000 or more per dwelling unit and/or guest room for alterations, repairs or additions;
- 3. To an individual unit of a Group R, Division 1 Occupancy townhouse or condominium, if a permit is issued for \$10,000 or more for that individual unit for alterations, repairs or additions; and
- 4. To any Group R Occupancy that is sold or exchanged, including an individual townhouse or condominium unit.
- Sec. 25. Division 25 of Article 1 of Chapter IX of the Los Angeles Municipal Code is hereby amended to read as follows.

DIVISION 25

GYPSUM BOARD AND PLASTER

SEC 91.2500. BASIC PROVISIONS.

Chapter 25 of the U.B.C. is hereby adopted by reference for the purpose of providing basic building regulations relating to Gypsum Board and Plaster with the following exceptions: Section 2513 and Table 25-I of the U.B.C. are not adopted and in lieu thereof Section 91.2513 and Table 25-I are added as provided herein.

SEC. 91.2513. SHEAR-RESISTING CONSTRUCTION WITH WOOD FRAME.

- 91.2513.1 Section 2513.1 of the U.B.C. is hereby adopted by reference.
- 91.2513.2 Section 2513.2 of the U.B.C. is hereby adopted by reference.

91.2513.3 Section 2513.3 of the U.B.C. is hereby adopted by reference.

91.2513.4 Height-to-Length Ratio. The maximum allowable height-to-length ratio for the construction in this section shall be 2 to 1. Wall sections having height-to-length ratios in excess of $1-\frac{1}{2}$ to 1 shall be blocked. All shear walls designed to resist loads in Seismic Zone 4 shall have the maximum allowable height-to-length ratio of 1 to 1.

91.2513.5. Section 2513.5 of the U.B.C. is hereby adopted by reference.

TABLE 25-I. ALLOWABLE SHEAR FOR WIND OR SEISMIC FORCES IN POUNDS PER FOOT FOR VERTICAL DIAPHRAGMS OF LATH AND PLASTER OR GYPSUM BOARD FRAME WALL ASSEMBLIES¹

TYPE OF MATERIAL	THICKNESS OF MATERIAL	WALL CONSTRUCTION	NAIL SPACING ² MAXIMUM (inches)	SHEAR	VALUE	MINIMUM NAIL SIZE ^{3,4}	
	x 25.4 for mm	x 25.4 for mm 14.6 for N/m		r N/m			
				Seismic ^{5&6}	Wind	x 25.4 for mm	
1. Expanded metal, or woven wire lath ² and portland cement plaster	7/8"	Unblocked	6	90	180	No. 11 gage, 11/2" long, 7/16" head No. 16 gage staple, 7/8" legs	
2. Gypsum lath	3/8" lath and ½" plaster	Unblocked	5	60	100	No. 13 gage, 11/8" long, 19/64" head, plasterboard blued nail	
3. Gypsum sheathing board	½" x 2' x 8'	Unblocked	4	60	75	No. 11 gage, 13/4" long, 7/16" head,	
	½" x 4' ½" x 4'	Blocked Unblocked	4 7	60	175 100	diamond-point, galvanized	
4. Gypsum wallboard or		Unblocked	7	60	100	5d cooler or wallboard	
veneer base	1/2"		4	60	125	7	
		Blocked	7	60	125	7	
			4	60	150	7	
•		Unblocked	7	60	115	6d cooler or wallboard	
	5/8*		4	60	145	7	
		Blocked	7	60	145	7	
	}	1	4	60	175	7	
The second state of		Blocked Two ply	Base ply: 9 Face ply: 7	60	250	Base ply—6d cooler or wallboard Face ply—8d cooler or wallboard	

These vertical diaphragms shall not be used to resist loads imposed by masonry or concrete construction. See U.B.C. Section 2513.2. Values shown are for short-term loading due to wind or due to seismic loading in Seismic Zones 0, 1, 2A and 2B. Values shown in Items 2, 3 and 4 shall be reduced 50 percent for loading due to earthquake in Seismic Zones 3 and 4.

² Applies to nailing at all studs, top and bottom plates and blocking.

³ Alternate nails may be used if their dimensions are not less than the specified dimensions.

For properties of cooler or wallboard nails, see U.B.C. Section 2340.1.2.

⁵ This construction shall not be used in the lowest level of wood construction in a multi-leveled building.

- This maximum height to length ratio for shear walls constructed of these materials shall not exceed one (1). Self-furring lath attached with staples may be permitted for non-structural application only.

Sec. 26. Division 26 of Article 1 of Chapter IX of the Los Angeles Municipal Code is hereby amended to read as follows:

DIVISION 26

PLASTIC

SEC. 91.2600. BASIC PROVISIONS.

Chapter 26 of the U.B.C. is hereby adopted by reference for the purpose of providing basic building regulations relating to Pastic with the following exceptions: Sections 2602, 2603 and 2604 of the U.B.C. are not adopted and in lieu thereof of Sections 91.2602, 91.2603, and 91.2604 are added as provided herein.

SEC. 91.2602. FOAM PLASTIC INSULATION.

- 91.2602.1 Section 2602.1 of the U.B.C. is hereby adopted by reference.
- 91.2602.2 Section 2602.2 of the U.B.C. is hereby adopted by reference.
- 91.2602.3 Section 2602.3 of the U.B.C. is hereby adopted by reference.
- 91.2602.4 Section 2602.4 of the U.B.C. is hereby adopted by reference.
- 91.2602.5 Special Provisions.
- 91.2602.5.1 Section 2602.5.1 of the U.B.C. is hereby adopted by reference.
- 91.2602.5.2 Section 2602.5.2 of the U.B.C. is hereby adopted by reference.
- 91.2602.5.3 Roofing. Foam plastic insulation meeting the requirements of U.B.C. Sections 2602.2, 2602.3 and 2602.4 may be used as part of a roof-covering assembly, provided the assembly with the foam plastic insulation is a Class A or B roof covering when tested in accordance with U.B.C. Standard No. 15–2. Foam plastic insulation which is a part of a Class A or B roof-covering assembly need not meet the requirements of U.B.C. Sections 2602.2, 2602.3 and 2602.4 provided the assembly with the foam plastic insulation also meet the requirements of U.B.C. Section 601.3 Item 3.

Any roof covering installed in accordance with this code and the manufacturer's instructions may be applied over foam plastic insulation when the foam is separated from the interior of the building by plywood sheathing not less than ½ inch (12.7 mm) in thickness bonded with exterior glue, with edges supported by blocking, tongue-and-groove joints or other approved type of edge support, or an equivalent material. The thermal barrier requirement is waived.

For all roof applications, the smoke-developed rating shall not be limited.

- 91.2602.5.4. Section 2602.5.4 of the U.B.C. is hereby adopted by reference.
- **91.2602.6.** Section 2602.6 of the U.B.C. is hereby adopted by reference.
- SEC. 91.2603. LIGHT-TRANSMITTING PLASTICS.
- 91.2603.1 General. Section 2603.1 of the U.B.C. is hereby adopted by reference.
- 91.2603.2 Section 2603.2 of the U.B.C. is hereby adopted by reference.
- 91.2603.3 Section 2603.3 of the U.B.C. is hereby adopted by reference.
- 91.2603.4 Section 2603.4 of the U.B.C. is hereby adopted by reference.
- 91.2603.5 Light-transmitting Exterior Wall Panels. In Type V-N construction, approved plastics may be installed in exterior walls provided the walls are not required to have a fire-resistive rating.

In types of construction other than Type V-N, approved plastics may be installed in exterior walls, provided the walls are not required to have a fire-resistive rating, subject to the following requirements:

- 1. Approved exterior wall panels shall not be installed more than 40 feet (12 192 mm) above grade level.
- 2. Approved exterior wall panels shall not be installed in exterior walls located less than 10 feet (3048 mm) from the property line determined in accordance with U.B.C. Section 503.
- 3. The area and size shall be limited to that set forth in U.B.C. Table 26-A.

EXCEPTIONS:

- 1. In structures which are provided with approved flame barriers extending 30 inches (762 mm) beyond the exterior wall in the plane of the floor, there need be no vertical separation at the floor except that provided by the vertical thickness of the flame—barrier projection.
- 2. When an approved automatic sprinkler system is provided throughout the building, the maximum percentage area of plastic panels in the exterior wall and the maximum square feet of any individual panel

may be increased 50 percent above that set forth in U.B.C. Table 26-A, and the separation requirements, both vertical and horizontal, as set forth in U.B.C. Table 26-A may be reduced by 50 percent.

- 91.2603.6 Section 2603.6 of the U.B.C. is hereby adopted by reference.
- 91.2603.7 Section 2603.7 of the U.B.C. is hereby adopted by reference.
- 91.2603.8 Section 2603.8 of the U.B.C. is hereby adopted by reference.
- 91.2603.9 Section 2603.9 of the U.B.C. is hereby adopted by reference.
- 91.2603.10 Section 2603.10 of the U.B.C. is hereby adopted by reference.
- 91.2603.11 Awnings and Patio Covers. Approved plastics may be used in awnings and patio covers. All such awnings shall be constructed in accordance with provisions specified in Section 91.3206 of the Los Angeles Municipal Code for projections and appendages. For patio covers, see Division 31 of this code.
 - 91.2603.12 Section 2603.12 of the U.B.C. is hereby adopted by reference.
 - 91.2603.13 Section 2603.13 of the U.B.C. is hereby adopted by reference.
 - 91.2603.14 Section 2603.14 of the U.B.C. is hereby adopted by reference.

SEC. 91.2604. PLASTIC VENEER.

When used within a building, plastic veneer shall comply with the interior finish requirements of Division 8 of this code. Exterior plastic veneer shall be of approved plastics materials as defined in Division 2 of this code, shall be applied to Type V buildings only. and shall comply with the following:

- 1. Plastic veneer shall not be attached to any exterior wall to a height greater than 50 feet (15 240 mm) above grade.
- 2. Sections of plastic veneer shall not exceed 300 square feet (27.9 m²) in area and shall be separated by a minimum of 4 feet (1219 mm) vertically.

EXCEPTION: The area and separation requirements and the smoke-density limitation are not applicable to plastic veneer applied to Type V-N buildings, provided the walls are not required to have a fire-resistive rating.

Sec. 27. Division 27 of Article 1 of Chapter IX of the Los Angeles Municipal Code is hereby amended to read as follows.

DIVISION 27

ELECTRICAL SYSTEMS

SEC 91.2700. BASIC PROVISIONS.

Chapter 27 of the U.B.C. is hereby adopted by reference for the purpose of providing basic building regulations relating to Electrical Systems with the following exception: Section 2701 of the U.B.C. is not adopted and in lieu thereof Section 91.2701 is added as provided herein.

SEC. 91.2701. ELECTRICAL CODE.

Electrical systems shall be in accordance with Article 3, Chapter IX of the Los Angeles Municipal Code (Electrical Code).

Sec. 28. Division 28 of Article 1 of Chapter IX of the Los Angeles Municipal Code is hereby amended to read as follows.

DIVISION 28

MECHANICAL SYSTEMS

SEC 91.2800. BASIC PROVISIONS.

Chapter 28 of the U.B.C. is hereby adopted by reference for the purpose of providing basic building regulations relating to Mechanical Systems with the following exceptions: Sections 2801 and 2802 of the U.B.C. are not adopted and in lieu thereof Sections 91.2801 and 91.2802 are added as provided herein.

SEC. 91.2801. MECHANICAL CODE.

The installation and maintenance of heating, ventilating, product removal, cooling and refrigerating systems shall be in accordance with Article 5, Chapter IX of the Los Angeles Municipal Code (Mechanical Code).

SEC. 91.2802. REFRIGERATION SYSTEM MACHINERY ROOM.

Refrigeration systems shall comply with Article 5, Chapter IX of the Los Angeles Municipal Code (Mechanical Code). When a refrigeration machinery room is required, it shall be separated from the remainder of the building or located on the property as

required for a Group H, Division 7 Occupancy, regardless of area. A horizontal occupancy separation may be limited to the actual floor area of the machinery room. Structural supporting elements shall be protected for the type of construction only and not the occupancy separation. Exits from the machinery room shall comply with U.B.C. Section 1020. Nothing contained herein shall be used to limit the height or area of the building or the machinery room. The refrigeration system, its refrigerant and its safety devices shall be maintained in accordance with Article 7, Chapter V of the Los Angeles Municipal Code (Fire Code).

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Sec. 29. Division 29 of Article 1 of Chapter IX of the Los Angeles Municipal Code is hereby amended to read as follows:

DIVISION 29

PLUMBING SYSTEMS

SEC. 91.2900. BASIC PROVISIONS.

Chapter 29 of the U.B.C. is hereby adopted by reference for the purpose of providing basic building regulations relating to Plumbing Systems with the following exceptions: Sections 2901, 2902 and 2903 of the U.B.C. are not adopted and in lieu thereof of Sections 91.2901 and 91,2902 are added as provided herein.

SEC. 91.2901. PLUMBING CODE.

Plumbing systems shall comply with this Division and Article 4, Chapter IX of the Los Angeles Municipal Code (Plumbing Code).

SEC. 91.2902. NUMBER OF FIXTURES.

- 91.2902.1 General. The number of plumbing fixtures within a building shall not be less than set forth in this section and in Article 4, Chapter IX of the Los Angeles Municipal Code (Plumbing Code).
 - 91.2902.2. Section 2902.2 of the U.B.C. is hereby adopted by reference.
 - **91.2902.3.** Section 2902.3 of the U.B.C. is hereby adopted by reference.
 - 91.2902.4. Section 2902.4 of the U.B.C. is hereby adopted by reference.
 - 91.2902.5. Section 2902.5 of the U.B.C. is hereby adopted by reference.
 - 91.2902.6. Section 2902.6 of the C.B.C. is hereby adopted by reference.
- Sec. 30. Division 30 of Article 1 of Chapter IX of the Los Angeles Municipal Code is hereby amended to read as follows:

DIVISION 30

ELEVATORS, DUMBWAITERS, ESCALATORS AND MOVING WALKS

SEC. 91.3000. BASIC PROVISIONS.

Chapter 30 of the U.B.C. is hereby adopted by reference for the purpose of providing basic building regulations relating to Elevators, Dumbwaiters, Escalators and Moving Walks with the following exceptions: Sections 3001, 3003 and 3004 of the U.B.C. are not adopted and in lieu thereof Sections 91.3001, 91.3003 and 91.3004 are added as provided herein. Sections 3008 and 3009 of the C.B.C. is hereby adopted by reference.

SEC. 91.3001. SCOPE.

The provisions of this Division shall apply to the design, construction, installation, operation, alteration and repair of elevators, dumbwaiters, escalators and moving walks and their hoistways. All elevators shall comply with the additional requirements of Article 2, Chapter IX of the Los Angeles Municipal Code (Elevator Code).

SEC. 91.3003. SPECIAL PROVISIONS.

91.3003.1 Section 3003.1 of the U.B.C. is hereby adopted by reference.

91.3003.2 Smoke—Detection Recall. When the elevator vertical travel is 25 feet (7620 mm) or more, each associated elevator lobby or entrance area and associated machine rooms shall be provided with an approved listed smoke detector for elevator recall purposes only. The detector may serve to close the elevator lobby door and additional doors at the hoistway opening allowed in U.B.C. Section 3007.

When the lobby or entrance area smoke detector, or machine room smoke detector is activated, elevator doors shall be prevented from opening and all cars serving that lobby or entrance area, or served by equipment in that machine room, shall return to the main floor where they shall be under manual control only. If the main floor or transfer floor lobby or entrance—area smoke detector is activated, all cars serving the main floor or transfer floor shall return to a location approved by the chief of the Fire Department and Superintendent of Building where they shall be under manual control only.

91.3003.3 Section 3003.3 of the U.B.C. is hereby adopted by reference.

91.3003.4 Size of Cab and Control Locations.

- 91.3003.4.1 General. In buildings three or more stories in height served by an elevator, at least one elevator serving all floors shall accommodate a wheelchair, in accordance with this section.
- 91.3003.4.1.1 General—Size of Cab and Control Locations and Requirements for Accommodation of People with Disabilities. In buildings two or more stories in height, served by an elevator, or a building served by an elevator required for accessibility by Section 101.17 of the California Building Code, all elevators provided shall accommodate a wheelchair.

EXCEPTIONS:

- 1. When the enforcing agency determines that compliance with any regulation under this section would create an unreasonable hardship, an exception to such regulation shall be granted when equivalent facilitation is provided, and where it can be demonstrated that a person using a wheelchair can enter and operate the elevator.
- 2. These provisions shall not apply to existing buildings when legal or physical constraints will not allow compliance with these regulations or equivalent facilitation without creating an unreasonable hardship. See Section 101.17 of the California Building Code.
- 91.3003.4.2 Section 3003.4.2 of the C.B.C. is hereby adopted by reference.
- 91.3003.4.3 Section 3003.4.3 of the U.B.C. is hereby adopted by reference.
- 91.3003.4.4 Section 3003.4.4 of the U.B.C. is hereby adopted by reference.
- 91.3003.4.5 Section 3003.4.5 of the C.B.C. is hereby adopted by reference.
- 91.3003.4.6 Section 3003.4.6 of the C.B.C. is hereby adopted by reference.
- **91.3003.4.7** Section 3003.4.7 of the U.B.C. is hereby adopted by reference. However, Section 3003.4.7a of the C.B.C. is hereby adopted by reference and shall apply to buildings or structures required to comply with C.B.C. Section 101.17.11.
- **91.3003.4.8** Section 3003.4.8 of the U.B.C. is hereby adopted by reference. However, Section 3003.4.8a of the C.B.C. is hereby adopted by reference and shall apply to buildings or structures required to comply with C.B.C. Section 101.17.11.
- 91.3003.4.9 Section 3003.4.9 of the U.B.C. is hereby adopted by reference. However, Section 3003.4.9a of the C.B.C. is hereby adopted by reference and shall apply to buildings or structures required to comply with C.B.C. Section 101.17.11.

- 91.3003.4.10 Section 3003.4.10 of the U.B.C. is hereby adopted by reference.
- 91.3003.4.11 Section 3003.4.11 of the U.B.C. is hereby adopted by reference.
- 91.3003.4.12 Section 3003.4.12 of the U.B.C. is hereby adopted by reference.
- 91.3003.4.13 Section 3003.4.13 of the C.B.C. is hereby adopted by reference.
- 91.3003.4.14 Section 3003.4.14 of the U.B.C. is hereby adopted by reference.
- 91.3003.4.15 Section 3003.4.15a of the C.B.C. is hereby adopted by reference.
- 91.3003.4.16 Section 3003.4.16 of the U.B.C. is hereby adopted by reference. However, Section 3003.4.16a of the C.B.C. is hereby adopted by reference and shall apply to buildings or structures required to comply with C.B.C. Section 101.17.11.
 - 91.3003.4.17 Section 3003.4.17 of the C.B.C. is hereby adopted by reference.
 - 91.3003.4.18 Emergency Devices for Summoning Assistance.

Refer to Article 2, Chapter IX of the Los Angeles Municipal Code (Elevator Code) for requirements.

- 91.3003.5 Section 3003.5 of the U.B.C. is hereby adopted by reference.
- 91.3003.6 Section 3003.6 of the U.B.C. is hereby adopted by reference.
- 91.3003.7 Section 3003.7 of the U.B.C. is hereby adopted by reference.
- 91.3003.8 Photoelectric Tube Bypass Switch.

Refer to Article 2, Chapter IX of the Los Angeles Municipal Code (Elevator Code) for requirements.

91.3003.9 Operation of Elevators under Fire or Other Emergency Conditions.

Refer to Article 2, Chapter IX of the Los Angeles Municipal Code (Elevator Code) for requirements.

SEC. 91.3004. HOISTWAY VENTING.

Shafts (hoistways) housing elevators extending through more than two floor levels shall be vented to the outside. The area of the vent shall not be less than 3-1/2

percent of the area of the elevator shaft, provided a minimum of 3 square feet (0.279 m²) per elevator is provided.

EXCEPTIONS:

- 1. When energy conservation requires that the vents be normally closed, automatic venting by actuation of an elevator lobby detector or power failure may be accepted. When hoistway pressurization is used, venting upon power failure may be accepted. In either case, a manual override shall be provided.
- 2. When exempted pursuant to provisions of the ANSI Code which are adopted as part of Section 92.0202 of the Los Angeles Municipal Code.

The venting of each individual hoistway shall be independent from any other hoistway venting, and the interconnection of separate hoistway venting, and the interconnection of separate hoistways for the purpose of venting is prohibited.

Sec. 31. Division 31 of Article 1 of Chapter IX of the Los Angeles Municipal Code is hereby amended to read as follows.

DIVISION 31

SPECIAL CONSTRUCTION

SEC. 91.3100. BASIC PROVISIONS.

Chapter 31 of the U.B.C. is hereby adopted by reference for the purpose of providing basic building regulations relating to Special Construction with the following exceptions: Sections 3102 and 3103 of the U.B.C. are not adopted and in lieu thereof Sections 91.3102, 91.3103, 91.3111 through 91.3126 and Table 31-C are added as provided herein.

SEC. 91.3102. CHIMNEYS, FIREPLACES AND BARBECUES.

- **91.3102.1** Section 3102.1 of the U.B.C. is hereby adopted by reference.
- 91.3102.2. Section 3102.2 of the U.B.C. is hereby adopted by reference.
- 91.3102.3 Chimneys, General.
- 91.3102.3.1 Section 3102.3.1 of the U.B.C. is hereby adopted by reference.
- 91.3102.3.2 Section 3102.3.2 of the U.B.C. is hereby adopted by reference.

- 91.3102.3.3 Section 3102.3.3 of the U.B.C. is hereby adopted by reference.
- 91.3102.3.4 Section 3102.3.4 of the U.B.C. is hereby adopted by reference.
- 91.3102.3.5 Section 3102.3.5 of the U.B.C. is hereby adopted by reference.
- 91.3102.3.6 Section 3102.3.6 of the U.B.C. is hereby adopted by reference.
- 91.3102.3.7 Section 3102.3.7 of the U.B.C. is hereby adopted by reference.
- 91.3102.3.8 Section 3102.3.8a of the C.B.C. is hereby adopted by reference.
- 91.3102.4 Masonry Chimneys.
- 91.3102.4.1 Design. Masonry chimneys shall be designed and constructed to comply with U.B.C. Sections 3102.3.2 and 3102.4.2. Notwithstanding any other provisions of this Code, an existing masonry chimney which is altered or repaired more than 10 percent of its replacement cost within any 12-month period shall have its entire chimney structure comply with the current requirements of Chapter IX of the Los Angeles Municipal Code.
 - 91.3102.4.2 Section 3102.4.2 of the U.B.C. is hereby adopted by reference.
- 91.3102.4.3 Reinforcing and seismic anchorage. Metal chimneys shall be anchored at each joist with two 1-1/2 inch by 1/8-inch metal straps looped around the outside of the chimney installations and nailed with six 8d nails per strap to the roof or ceiling framing.

The masonry and concrete chimney shall be designed per Division 21 of this code and shall be tied to a structural element of the building capable of providing lateral resistance for the horizontal forces specified in U.B.C. Section 1630. The anchorage of the ties to the resisting structural element shall be designed for the loads specified in U.B.C. Section 1630.

- 91.3102.4.4 Section 3102.4.4 of the U.B.C. is hereby adopted by reference.
- 91.3102.4.5 Section 3102.4.5 of the U.B.C. is hereby adopted by reference.
- **91.3102.4.6** Section 3102.4.6 of the U.B.C. is hereby adopted by reference.
- 91.3102.4.7 Section 3102.4.7 of the U.B.C. is hereby adopted by reference.
- 91.3102.5 Section 3102.5 of the U.B.C. is hereby adopted by reference.

91.3102.6 Section 3102.6 of the U.B.C. is hereby adopted by reference.

91.3102.7 Section 3102.7 of the U.B.C. is hereby adopted by reference.

SEC. 91.3103. TEMPORARY BUILDINGS OR STRUCTURES.

Temporary buildings or structures such as reviewing stands and other miscellaneous structures, sheds in conjunction with construction work and canopies or fences used for the protection of the public around may be erected by obtaining a Temporary Permit. Such buildings or structures shall comply with this code or other standards approved by the Superintendent of Building. Temporary buildings or structures shall be completely removed upon the expiration of the time limit stated in the permit.

SEC. 91.3111. GENERAL.

91.3111.1 Purpose. The purpose of Sections 91.3111 to 91.3122 of the Los Angeles Municipal Code is to establish minimum standards of safety for the construction and use of tents, awnings or other fabric enclosures and air—supported, air—inflated and membrane—covered cable or frame structures, collectively known as membrane structures.

91.3111.2 Scope.

91.3111.2.1 Tent Structures. These building standards govern the use of tents, awnings or other fabric enclosures, including places of assemblage, in or under which 10 or more persons may gather for any lawful purpose.

EXCEPTIONS:

- 1. Tents, awnings or other fabric enclosures used to cover or enclose private swimming pools and similar facilities on the premises of private one—and two—family dwellings.
 - 2. Tents used to conduct committal services on the ground of a cemetery.
- 3. Tents, awnings or other fabric enclosures erected and used within a sound stage, or other similar structural enclosure which is equipped with an overhead automatic sprinkler system.
- 4. Tensioned membrane roof materials supported by rigid frames or installed on a mast and cable system, provided such structures conform to the requirements of one of the types of construction as described in these regulations.
- 5. Fabric structures which are part of mobile homes, recreational vehicles, or commercial coaches governed by the provisions of Division 13, Part 2, Health and Safety Code (Department of Housing and Community Development).

Outdoor tents or cloth-covered structures shall be used only for assembly purposes.

EXCEPTIONS:

- 1. Outdoor tents or cloth-covered structures not exceeding 12 feet in width may be used for purposes accessory to an indoor assembly use on the site.
- 2. During the month of December only, outdoor tents may be used for office or other purposes accessory to a Christmas tree sales lot, provided the trees are not displayed or sold within the tents.
- 91.3111.2.2 Membrane Structures. The provisions of this division shall apply to membrane structures erected for a period of 120 days or longer. Those erected for a shorter period of time shall comply with applicable provisions of the Fire Code.
 - **EXCEPTION:** Water storage facilities, water clarifiers, water treatment plants, sewer plants, aquaculture pond covers, residential and agricultural greenhouses and similar facilities not used for human occupancy need meet only the requirements of Sections 91.3112.2 and 91.3115 of this Code.
- 91.3111.3 Definitions. For the purpose of this division, certain terms are defined as follows:
- **AIR-INFLATED STRUCTURE** is a building where the shape of the structure is maintained by air pressurization of cells or tubes to form a barrel vault over the usable area. Occupants of such a structure do not occupy the pressurized area used to support the structure.
- AIR-SUPPORTED STRUCTURE is a building wherein the shape of the structure is attained by air pressure and occupants of the structure are within the elevated pressure area. Air-supported structures are of two basic types:
 - 1. Single skin—Where there is only the single outer skin and the air pressure is directly against that skin.
 - 2. **Double skin**—Similar to a single skin, but with an attached liner which is separated from the outer skin and provides an air space which serves for insulation, acoustic, aesthetic or similar purposes.

A cable-restrained air-supported structure is one in which the uplift is resisted by cables or webbing which are anchored to either foundations or deadmen. Reinforcing cable or webbing may be attached by various methods to the membrane or may be an integral part of the membrane. This is not a cable-supported structure.

CABLE STRUCTURE is a nonpressurized structure in which a mast and cable system provide support and tension to the membrane weather barrier and the membrane imparts structural stability to the structure.

CANOPY is a temporary structure, enclosure or shelter constructed of fabric or pliable material supported by any manner except by air or the contents it protects and is open, without sidewalls or drops, on 75 percent or more the perimeter.

CPAI-8 is a specification for flame-resistant materials used in camping tentage, promulgated in 1975 by Canvas Products Association International.

FLAME RETARDANT OR FLAME RESISTANT is fabric or material resistant to flame or fire to the extent that it will successfully withstand standard flame—resistance tests adopted and promulgated by the state fire marshal.

FRAME—COVERED STRUCTURE is a nonpressurized building wherein the structure is composed of a rigid framework to support tensioned membrane which provides the weather barrier.

MEMBRANE is a thin, flexible, impervious material capable of being supported by an air pressure of 1.5 inches of water column (373 Pa).

NONCOMBUSTIBLE MEMBRANE STRUCTURE is a membrane structure in which the membrane and all component parts of the structure are noncombustible as defined by Section 91.215.

OCCUPANT LOAD shall be as set forth in Division 10.

PLACES OF ASSEMBLAGE is any circus, side show, carnival, tent show, theater, skating rink, dance hall or any other exhibition, production, engagement or offering, or other place of assemblage in or under which 10 or more persons may gather for any lawful purpose.

TEMPORARY STRUCTURE is an enclosure or shelter constructed of materials as described in this chapter and crected for a period of less than 120 days.

TENT is a shelter, structure or enclosure made of fabric or similar pliable material which derives its support from mechanical means such as poles, ropes, cables, stakes or similar devices.

Assemblage Tent is a tent used or intended for use as a place of assemblage.

Large Tent is a tent designed and intended for any use for occupancy by 10 or more persons.

Small Tent is a tent designed and intended for any use for occupancy by less than 10 persons.

SEC. 91.3112. TYPE OF CONSTRUCTION AND GENERAL REQUIREMENTS.

91.3112.1 General. Membrane structures shall be classified as Type V–N construction, except that noncombustible membrane structures may be classified as Type II–N construction.

EXCEPTION: A noncombustible membrane structure used exclusively as a roof and located more than 25 feet (7620 mm) above any floor, balcony or gallery is deemed to comply with the roof construction requirements for Type I and Type II fire-resistant construction, provided that such a structure complies with the requirements of this section.

91.3112.2 Membrane Material. Membranes shall be either noncombustible as defined by Section 91.215 of this Code, or flame retardant conforming to U.B.C. Standard 31–1, which is a part of this code (see Division 35).

EXCEPTION: Plastic less than 20-mil (0.51 mm) thickness used in greenhouses and for aquaculture pond covers need not be flame retardant.

91.3112.3 Applicability of Other Provisions. Except as specifically otherwise required by this section, membrane structures shall meet all applicable provisions of this code. Roof coverings shall be fire retardant.

EXCEPTION: Roof coverings for Group M, Division 1 Occupancies not exceeding 1,000 square feet (93 m²) in area need not be fire retardant.

- **91.3112.4** Allowable Floor Areas. The area of a membrane structure shall not exceed the limits set forth in U.B.C. Table 5–B, except as provided in Section 91.505 of the Los Angeles Municipal Code.
- 91.3112.5 Maximum Height. Membrane structures shall not exceed one story nor shall they exceed the height limits in feet (mm) set forth in U.B.C. Table 5–B.

EXCEPTION: Noncombustible membrane structures serving as roof only.

SEC. 91.3113. INFLATION SYSTEMS.

- 91.3113.1 General. Air-supported and air-inflated structures shall be provided with primary and auxiliary inflation systems to meet the minimum requirements of this section.
- 91.3113.2 Equipment Requirements. The inflation system shall consist of one or more blowers and shall include provisions for automatic control to maintain the required inflation pressures. The system shall be so designed as to prevent overpressurization of the system.

In addition to the primary inflation system, in buildings exceeding 1,500 square feet (193.4 m²) in area, there shall be provided an auxiliary inflation system with sufficient capacity to maintain the inflation of the structure in case of primary system failure.

The auxiliary inflation system shall operate automatically if there is a loss of internal pressure or should the primary blower system become inoperative.

Blower equipment shall meet the following requirements:

- 1. Blowers shall be powered by continuous rated motors at the maximum power required for any flow condition as required by the structural design.
- 2. Blowers shall be provided with inlet screens, belt guards and other protective devices as may be required by the building official to provide protection from injury.
 - 3. Blowers shall be housed within a weather-protecting structure.
- 4. Blowers shall be equipped with back draft check dampers to minimize air loss when inoperative.
- 5. Blower inlets shall be located to provide protection from air contamination. Location of inlets shall be approved by the Superintendent of Building.
- 91.3113.3 Emergency Power. Whenever an auxiliary inflation system is required, an approved standby power-generating system shall be provided. The system shall be equipped with a suitable means for automatically starting the generator set upon failure of the normal electrical service and for automatic transfer and operation of all the required electrical functions at full power within 60 seconds of such normal service failure. Standby power shall be capable of operating independently for a minimum of four hours.

SEC. 91.3114. SECTION PROVISIONS.

A system capable of supporting the membrane in the event of deflation shall be provided in all air—supported and air—inflated structures having an occupant load of more than 50 or when covering a swimming pool regardless of occupant load. Such system shall maintain the membrane at least 7 feet (2134 mm) above the floor, seating area or surface of the water.

EXCEPTION: Membrane structures used as a roof for Type I or Type II fire-resistant construction must be maintained not less than 25 feet (7620 mm) above floor or seating areas.

SEC. 91.3115. ENGINEERING DESIGN.

All membrane structures shall be structurally designed in accordance with criteria approved by the building official and developed by an engineer or architect licensed by the state

to practice as such.

SEC. 91.3116. LARGE TENTS.

Large tents shall conform to the provisions of this division.

SEC. 91.3117. LOCATION OF TENTS.

- 91.3117.1 Any tent or combination of tents having a floor area of 1,500 square feet or less shall be located not less than 10 feet from any real property line or building.
- 91.3117.2 Any tent or combination of tents having a floor area in excess of 1,500 square feet, but less than 15,000 square feet shall be located not less than 30 feet from any real property line or building.
- 91.3117.3 Any tent or combination of tents having a floor area in excess of 15,000 square feet shall be located not less than 50 feet from any real property line or building.
- 91.3117.4 Tents shall be arranged to exit independently of each other. Such tents may, however, be joined together by means of corridors, and such corridors shall be open to the sky. On each side of such corridor and directly opposite each other, there shall be provided openings equivalent to the width of the corridor. These openings shall be equipped with sliding curtains or left entirely open and clear of any obstruction.
- 91.3117.5 When approved by the enforcing agency, tents may be located in or on permanent buildings provided such use does not constitute an undue hazard.
- 91.3117.6 The enforcing agency may also approve the location of tents closer than that specified in this section if required passageways are provided and, in his or her opinion, adequate safety is afforded.
- 91.3117.7 An unobstructed passageway not less than 6 feet in width and free from guy ropes or other obstructions shall be maintained on all sides of all tents having an area of more than 1,500 square feet, but less than 15,000 square feet. If the area of the tent exceeds 15,000 square feet, or if the seating capacity exceeds 1,000 persons, the unobstructed passageway shall not be less than 10 feet in clear width.

SEC. 91.3118. STRUCTURAL REQUIREMENTS.

Tents shall be adequately guyed, supported and braced to withstand a wind pressure or suction of 10 pounds per square foot. The poles and their sporting guys, stays, stakes, fastenings, and similar supporting members or devices shall be of sufficient strength and attached so as to resist wind pressure of 20 pounds per square foot of projected area of the tent. The enforcing authority may require certification of the provisions of this section from a structural, civil or other qualified registered engineer.

SEC. 91.3119. EXIT REQUIREMENTS.

Except as provided in this section, the exit requirements of Division 10 shall prevail.

- 91.3119.1 Spacing. Exits shall be spaced at approximately equal intervals around the perimeter of the tent and shall be so located that no point is more than 100 feet from an exit.
- 91.3119.2 Number and Width. Exits shall be provided in accordance with U.B.C. Table No. 31 B.
- 91.3119.2 Passageways. Smooth-surfaced passageways free and clear of any steps or obstruction whatsoever and equal in width to the exits they serve shall be provided from all exits to a public way.
 - **EXCEPTION:** Tents located in or on permanent buildings may have exits through such buildings provided the building exits are adequate to accommodate the occupant load.
- 91.3119.3 Obstructions. Exits, aisles and passageways shall not be blocked or have their minimum clear width obstructed in any manner by ticket offices, turnstiles, concessions, chairs, equipment, animal chutes, poles or guy ropes, or anything whatsoever, nor shall they be blocked by persons for whom no seats are available.

In occupancies having fixed seating, and on request of the owner or manager, the enforcing agency may permit modifications from the provisions of this code to accommodate seating for handicapped persons using mechanical aids such as, but not limited to, walkers and wheelchairs.

91.3119.4 Exit Signs. Exits signs shall be installed in accordance with Division 10.

SEC. 91.3120. HEATING EQUIPMENT.

- 91.3120.1 All heating equipment installed in tents shall be approved for such use by the enforcing authority. Only comfort heating equipment shall be permitted.
- 91.3120.2 All gas—, solid— or liquid—fuel—fired comfort heating equipment shall be vented to the outside air by means of a flue or vent approved for use with the type of equipment used and in such a manner that no portion of the tent is within 12 inches of the flue or vent. Vents for solid—fuel—fired heating equipment shall be equipped with spark arresters having openings no larger than 1/4—inch wire mesh.

EXCEPTION: Approved heaters designed for use without vents may be used in approved locations where otherwise permitted.

- 91.3120.3 Comfort heating equipment shall be rigidly supported to prevent overturning and shall be provided with guards to protect against ignition of clothing and other combustible material.
- 91.3120.4 Comfort heating equipment shall not be located within 10 feet of exits, aisles or passageways.
- 91.3120.5 All other gas-, solid- or liquid-fuel-fired appliances, including, but not limited to, forges, kitchen ranges and stoves, and water heaters, shall be located not less than 50 feet from any tent used as a place of public assemblage.

SEC. 91.3121. MEMBRANE (AIR-SUPPORTED AND AIR-INFLATED) STRUCTURES.

Except as provided in Article 32 of the City of Los Angeles Fire Code, membrane structures having an occupant load of 10 or more shall comply with the provisions of this division.

SEC. 91.3122. ALTERNATE MEANS OF PROTECTION.

When approved by the enforcing agency, exceptions to the provisions of these building standards may be permitted, provided alternate means of protection which are at least equal to these regulations in quality, strength, effectiveness, fire resistance, durability and safety are provided.

Electrical installations serving and installed within tents shall comply with the applicable requirements of the City of Los Angeles Electrical Code.

Tents shall not be considered suitable sleeping places when it is found necessary to provide heating facilities in order to maintain a minimum temperature of 60°F within such tent during the period of occupancy.

SEC. 91.3123. PATIO COVERS DEFINED.

Patio covers are one-story structures not exceeding 12 feet in height. Enclosure walls may have any configuration, provided the open area of the longer wall and one additional wall is equal to at least 65 percent of the area below a minimum of 6 feet 8 inches of each wall, measured from the floor. Openings may be enclosed with insect screening or plastic.

Patio covers may be detached or attached to other buildings as accessories to Group U, Group R, Division 3, or to single dwelling units in Group R, Division 1 Occupancies. Patio covers shall be used only for recreational, outdoor living purposes and not as carports, garages, storage rooms or habitable rooms.

SEC. 91.3124 DESIGN LOADS.

Patio covers shall be designed and constructed to sustain, within the stress limits of this code, all dead loads plus a minimum vertical live load of 10 pounds per square foot. Such covers shall be designed to resist a minimum horizontal wind load of 10 pounds per square foot. In addition, they shall be designed to support a minimum wind uplift equal to the horizontal wind load acting vertically upward normal to the roof surface, except that for structures not more than 10 feet above grade the uplift may be three fourths of the horizontal wind load. When enclosed with insect screening or plastic, wind loads shall be applied to the structure, assuming it is fully enclosed.

EXCEPTIONS:

- 1. If projecting not more than 7 feet from the face of the exterior wall of the building no live load or wind uplift design is required.
- 2. If projecting more than 7 feet and if covered with cloth only the frame need be designed for the required live load and wind uplift load.

SEC. 91.3125. LIGHT AND VENTILATION.

Exterior openings required for light and ventilation may open into a patio structure conforming to U.B.C. Section 1203.

SEC. 91.3126. FOOTINGS.

A patio cover may be supported on a concrete slab on grade without footings, provided the slab is not less than 3-1/2 inches (89 mm) thick and further provided that the columns do not support live and dead loads in excess of 750 pounds (3.34 kN) per column.

TABLE NO. 31 C

CAPACITY	MINIMUM	WIDTH OF	TOTAL OF
OF TENT	NUMBER	EACH EXIT	ALL EXITS
	OF EXITS	(feet)	(feet)
20 to 49	2	3	6
50 to 299	2	4	8
300 to 599	3	5	15
600 to 999	4	6	24
1000 to 1999	5	8	40
2000 or more	6	(I additional foot for each 50	
<u>:</u>		persons)	

Sec. 32. Division 32 of Article 1 of Chapter IX of the Los Angeles Municipal Code is hereby amended to read as follows.

DIVISION 32

PROJECTIONS FROM BUILDINGS AND CONSRUCTION IN THE PUBLIC RIGHT OF WAY

SEC. 91.3200. BASIC PROVISIONS.

Chapter 32 of the U.B.C. is hereby adopted by reference for the purpose of providing basic building regulations relating to Projections From Buildings and Construction in the Public Right of Way with the following exceptions: Sections 3201, 3204, 3205, 3206, and 3207 of the U.B.C. are not adopted and in lieu thereof Sections 91.3201, 91.3204, 91.3205, 91.3206, 91.3207 and 91.3208 are added as provided herein.

SEC. 91.3201. GENERAL.

No part of any structure or any appendage thereto, except signs, shall project beyond the building line of the building site, except as specified in this division.

Structures or appendages regulated by this code shall be constructed of materials as specified in U.B.C. Section 705.

The projection of any structure or appendage shall be the distance measured horizontally from the building line to the outermost point of the projection.

Nothing in this code shall prohibit the construction and use of a structure between buildings and over or under a public way, provided the structure complies with all requirements of this code.

No portion of any projection from any building shall be allowed over any roadway below an elevation 14 feet above the roadway surface.

No provisions of this division shall be construed to permit the violation of other laws or ordinances regulating the use and occupancy of public property.

SEC. 91,3204. ARCHITECTURAL PROJECTIONS.

91.3204.1 Definition. For the purpose of this section:

Architectural Projection shall mean any projection not intended for shelter or occupancy and which extends beyond the outer face of an exterior wall of a building, but shall not include signs.

91.3204.2 Building Area. The floor area of every building shall include all portions of architectural projections.

EXCEPTION: Any architectural projection which is entirely separated from the supporting building by an exterior wall and which is not wider than 5 feet need not be included in the floor area.

- 91.3204.3 Projection Beyond Building Line. No architectural projection shall extend beyond a building line or into an exit court more than the following:
 - 1. Clearance above grade less than 8 feet (2438 mm)--no projection is permitted.
 - 2. Clearance above grade over 8 feet (2438 mm)-- 1 inch (25 mm) of projection is permitted for each additional inch of clearance, provided that no such projection shall exceed a distance of 4 feet (1219 mm).
- 91.3204.4 Construction of Architectural Projections. Every architectural projection shall be of the same period of fire resistance as that required for the exterior walls to which it is attached, or it may be constructed of noncombustible materials.

EXCEPTION: If entirely separated from the interior of the building by exterior walls, an architectural projection may be of wood not less than 1-1/2 inches in thickness, provided that portion of the architectural projection exceeding 12 feet above grade shall not cover an area exceeding 10 percent of that portion of the exterior wall extending above 12 feet.

91.3204.5 Heights. No portion of an architectural projection shall extend to an elevation more than 20 feet higher than the roof adjacent thereto.

91.3204.6 Area. The total area of all architectural projections which project beyond the building line shall not exceed those limitations shown below.

PROJECTION BEYOND BUILDING LINE (Inches)	PERCENTAGE OF GROSS AREA OF EXTERIOR WALL TO WHICH ATTACHED* (Percent)
Less than 12	No limitations
12 to 18	20
Over 18 to 24	15
Over 24 to 30	5

^{*}The total area of all projections extending 12 inches or more beyond the building line may not exceed 20 percent of the gross area of the exterior wall to which they are attached.

SEC. 91.3205. MARQUEES.

91.3205.1 Approval of Plans and Specifications. The plans and specifications and the type, design, arrangement and location of every marquee shall be approved by the Board of Cultural Affairs Commissioners of the City of Los Angeles and the Board of Public Works of the City of Los Angeles prior to the issuance of a building permit.

91.3205.2 Projection from Exterior Walls. The projection of a marquee beyond the exterior wall of any building shall not exceed 12 feet nor two thirds of the distance from the building line to the face of the curb. No portion of any marquee shall extend over any roadway, or be nearer to the face of the curb than 3 feet, measured in a horizontal direction.

91.3205.3 Height and Clearance. The lowest portion of every marquee shall not be less than 8 feet nor more than 20 feet above the pavement beneath.

91.3205.4 Dimensions. The total vertical height of every marquee or canopy at every point or portion thereof, including the border or outer boundary thereof, measured from the level or elevation of the lowest to highest portion thereof shall not exceed the following heights, based on the length of the marquee or canopy measured parallel with the front of the building to which it is attached, to wit:

Vertical Height
4 feet
6 feet
9 feet

Provided, however, that ornamentations may be constructed on top of and as a part of a border at the outer boundary of a marquee or canopy, provided the total length of all such ornamentations does not exceed 20 percent of the length of the front, side and ends of such marquee and provided no portion of any such ornamentation is higher than the level or elevation permitted by the foregoing table. Any attached sign shall be considered a portion of the marquee.

- 91.3205.5. Section 3205.5 of the U.B.C. is hereby adopted by reference.
- 91.3205.6 Roof Construction. The roof or any part thereof may be a skylight, provided wire glass is used not less than 1/4 inch thick with no single pane more than 18 inches wide.

Every roof and skylight of a marquee shall be sloped to downspouts which shall conduct any drainage from the marquee under the sidewalk to the curb.

- 91.3205.7. Section 3205.7 of the U.B.C. is hereby adopted by reference.
- 91.3205.8 Signs. Signs shall not be attached to any portion of the marquee except the periphery. Cloth or banner signs or drop-roll curtains may be suspended below the exterior periphery and extend within 7 feet of the grade.
 - SEC, 91,3206. AWNINGS.
 - 91.3206.1. Section 3206.1 of the U.B.C. is hereby adopted by reference.
- 91.3206.2 Construction. Awnings shall have noncombustible frames but may have combustible coverings. Awnings shall be either fixed, retractable, folding or collapsible. Awnings in any configuration shall not obstruct the use of a required exit.

The length of a single section of collapsible—type awning shall not exceed 20 lineal feet. Every awning roof shall slope from the building on one plane and shall have a maximum pitch of 60 degrees with the horizontal.

- **EXCEPTION:** The pitch with the horizontal may be increased to exceed 60 degrees if the vertical height of the awning does not exceed the height of the building or 14 feet, whichever is less.
- 91.3206.3 Projection. Awnings may extend over public way not more than 7 feet (2134 mm) from the face of a supporting building, but no portion shall extend nearer than 2 feet (610 mm) to the face of the nearest curb line measured horizontally. In no case shall the awning extend over public way greater than two thirds of the distance from the property line to the nearest curb in front of the building site.
- 91.3206.4 Clearances. All portions of any awning shall be at least 8 feet (2438 mm) above any public walkway.

EXCEPTIONS:

- 1. Any valance attached to an awning shall not project above the roof of the awning at the point of attachment and shall not extend more than 12 inches (305 mm) below the roof of the awning at the point of attachment, but in no case shall any portion of a valance be less than 7 feet (2134 mm) in height above a public way. The valance attached to an awning shall be of cloth unless it is fabricated of the same material used for the roof of the awning. A metal valance may have a reinforcing member at or near the lower edge.
- 2. Boxed ends shall not extend above the roof of the awning. Valances may be attached to boxed ends with the maximum height of 12 inches (305 mm) below the leading or outer edge of the awning.
- 3. Operating equipment must be so designed and constructed that the awning may be retracted, folded or collapsed against the face of the exterior walls without the use of scaffolding or ladders and such equipment shall not project more than 6 inches (152 mm) beyond the exterior wall of the building when installed below a height of 8 feet (2438 mm).
- 91.3206.5 Location. Awnings erected on buildings more than 14 feet (4267 mm) above street level shall be placed over exterior wall openings only.
- 91.3206.6 Signs. No sign, lettering or advertising delineation shall be placed on any portion of an awning except the valance. Detachable signs shall be considered a part of and comply with the requirements of a valance. Awnings above a height of 14 feet (4267 mm) shall have no sign; lettering, or advertising delineation.
- 91.3206.7 Fire Escape Clearance. Where awnings are placed under a fire escape equipped with a drop ladder, provision shall be made for a 24-inch by 24-inch opening through the awning at the top ladder location. This opening may be closed temporarily by a snap-on canvas cover. Any covering for an opening in a metal awning shall be of an approved design.
- **91.3206.8 Maintenance.** All new awnings shall be installed and maintained in accordance with the provisions of this section and all existing awnings shall be made to comply with said provisions.

All awnings shall be maintained in a structurally safe condition, and the appearance of the awning shall be such that it will not be detrimental to surrounding property.

91.3206.9 Identification. Every awning installation shall bear an identifying tag giving the name and address of the manufacturer.

SEC. 91.3207. DOORS.

Power-operated doors and their guide rails shall not project over public property. Other doors, either fully opened or when opening, shall not project more than 1 foot (305 mm) beyond the property line, except that in alleys no projection beyond the property line is permitted. Doors opening over property line shall be approved by Department of Public Works prior to the issuing of a permit.

SEC. 91.3208. EXTERIOR BALCONIES.

91.3208.1 Projections from Exterior Walls. No exterior balcony shall project more than 4 feet beyond the exterior walls of a building. No exterior balcony shall project over public property.

EXCEPTION: An exterior balcony serving Group R, Division 1 or Group R, Division 3 Occupancies may project 5 feet beyond the exterior of a Type V building.

91.3208.2 Construction.

91.3208.2.1 The floor of every exterior balcony shall be constructed as required for second—floor construction of the building to which the balcony is attached, but shall not be of less than one—hour fire—resistive construction when the exterior wall requires a fire—resistive time period.

EXCEPTION: Exterior balconies which require one-hour fire-resistive construction may be constructed with a surface of 1-inch noncombustible material in lieu of a finish layer of tongue-and-groove flooring or 5/8-inch plywood.

91.3208.2.2 Exterior balcony railings shall be composed of noncombustible materials or of the same materials as required for the exterior walls of the building.

EXCEPTION: Type V buildings may have balcony rails of wood not less than 1-1/2 inches in thickness.

Sec. 33. Division 33 of Article 1 of Chapter IX of the Los Angeles Municipal Code is hereby amended to read as follows.

DIVISION 33

SITE WORK DEMOLITION AND CONSTRUCTION

SEC. 91.3300. BASIC PROVISIONS.

Chapter 33 of the U.B.C. is hereby adopted by reference for the purpose of providing basic building regulations relating to Site Work, Demolition and Construction with the following

exceptions: Sections 3301 and 3303 of the U.B.C. are not adopted and in lieu thereof Sections 91.3301, 91.3303 and 91.3304 are added as provided herein.

SEC. 91.3301. EXCAVATIONS AND FILLS.

91.3301.1 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 later movement.

For footings on adjacent slopes see Section 91.1806.4 of this code.

Fills to be used to support the foundations of any building or structure shall be placed in accordance with the provisions of Division 70 of this code.

This section shall not be construed to waive the requirements of the General Safety Orders of the Department of Industrial Relations of the State of California, nor the provisions of Section 832 of the Civil Code of California concerning the rights of coterminous owners as to excavations.

See Division 70 of this code for all grading, excavation and fill requirements.

91.3301.2.1 Protection of Adjoining Property. The requirements of protection of adjacent property with respect to excavations shall be as provided in Section 832 of the Civil Code of California.

Notice: Prior to the issuance of any permit which authorizes an excavation where the excavation is to be of a greater depth than are the walls or foundation of any adjoining building or structure and located closer to the property line than the depth of the excavation, the owner of the subject site shall provide the Department of Building and Safety with evidence that the adjacent property owner or owners have been given a 30-day written notice of such intent to make an excavation. This notice shall state the depth to which such excavation is intended to be made and when the excavation will commence. This notice shall be by certified mail, return receipt requested.

91.3301.2.2 Underpinning.

91.3301.2.2.1 General. In constructing underpinning, all portions of the structure shall be supported in such manner that no structural material is stressed beyond the yield point.

91.3301.2.2.2 Closure. All spaces between the existing footing and the underpinning shall be packed full of mortar conforming to the provisions of U.B.C. Section 2103 and having no slump when tested by the method specified in ASTM C 143.

91.3301.2.3 Temporary Excavations and Shoring.

- 91.3301.2.3.1 General. Excavations shall not remove the lateral support from a public way, from an adjacent property or from an existing structure. For the purpose of this section, the lateral support shall be considered to have been removed when any of the following conditions exist:
 - 1. The excavation exposes any adverse geological formations which would affect the lateral support of a public way, of an adjacent property or of an adjacent structure.
 - 2. The excavation extends below a plane extending downward at an angle of 45 degrees from the edge of the public way, or an adjacent property.

EXCEPTION: Normal footing excavations not exceeding 2 feet in depth will not be construed as removing lateral support.

- 3. The excavation extends below a plane extending downward at an angle of 45 degrees from the bottom of a footing of an existing structure.
- 91.3301.2.3.2 Removal of Lateral Support. Approval of the Department of Public Works shall be obtained prior to the issuance of a permit for any excavation which would remove the lateral support from a public way.

Excavations adjacent to an existing structure, an adjacent property or public way may exceed one horizontal to one vertical where either:

I. A soil report recommending that the slope may be in excess of one to one has been approved by the Department and the Department of Public Works when the excavation is adjacent to a public way.

When justified by the soils engineer, the department may approve the use of the proposed building and/or shoring to support an adjacent structure on an adjoining property in lieu of underpinning, provided:

- (i) Evidence is submitted that the adjoining property owner has been notified in advance of the proposed excavation in compliance with Section 832 of the Civil Code of California.
- (ii) The owner of the subject site records a sworn affidavit with the Office of the County Recorder which will inform future owners of the subject site that

- the lateral support of a portion of the building footings on the adjoining property is provided by the subterranean walls of the building on the subject site
- 2. Underpinning is designed to support adjacent structures and temporary shoring is designed to support the excavation and plans are approved and permits are issued by the Department.

Temporary shoring shall be designed for an earth pressure equivalent to that exerted by a fluid weighing not less than 30 pounds per cubic foot plus all surcharge loads or as recommended by a soils engineer and approved by the department.

Soils bearing values shall be those specified in Division 18 of this code or those recommended by a soils engineer and approved by the department.

The design of the required temporary shoring and necessary underpinning shall include a sequence of construction and installation.

Allowable stresses used in the design of temporary shoring may be increased 33-1/3 percent for structural and reinforcing steel and 25% for wood. No increase will be permitted for concrete. Other values shall be those prescribed by the code.

SEC. 91.3303. PROTECTION OF PEDESTRIANS DURING CONSTRUCTION OR DEMOLITION.

- **91.3303.1** Section 3303.1 of the U.B.C. is hereby adopted by reference.
- 91.3303.2 Temporary Use of Streets and Alleys.

Public Works Permit. Nothing contained in this section shall be construed to grant permission to use, construct, or place a canopy over any street or public place without first obtaining the necessary permits from the Department of Public Works.

- 91.3303.3 Section 3303.3 of the U.B.C. is hereby adopted by reference.
- 91.3303.4 Section 3303.4 of the U.B.C. is hereby adopted by reference.
- **91.3303.5** Section 3303.5 of the U.B.C. is hereby adopted by reference.
- **91.3303.6** Section 3303.6 of the U.B.C. is hereby adopted by reference.
- **91.3303.7** Section 3303.7 of the U.B.C. is hereby adopted by reference.
- 91.3303.8 Section 3303.8 of the U.B.C. is hereby adopted by reference.

91.3303.9 Demolition. The work of demolishing the entire building or structure shall conform to the following regulations.

91.3303.9.1 Permits and Plans.

- 91.3303.9.1.1 Permits. Every building or structure to be demolished shall obtain a separate permit. The permit shall show the type of demolition procedure to be used.
- 91.3303.9.1.2 To Whom Issued. Demolition permits must be obtained by a licensed wrecking contractor (C-21).

EXCEPTIONS:

1. One—or two-story wood—frame residential buildings and one—story wood—frame commercial buildings, where the maximum spans do not exceed 25 feet, may be demolished by an owner who owns the building and the lot on which the building is located, or by labor in his/her employ when under the direction and control of said owner. The owner must personally sign a statement on the back of the application which reads as follows:

<i>I</i> ,	am the owner
(Name-	Print)
of the building and lot located	d at
(Addr	essPrint)
-	erformed by me or by day labor in
	oy any person in violation of the
•	license law or the Labor Code of
ine siate of Cattjornia ret insurance.	ating to workers' compensation
(Date)	(Signature)

- 2. Demolition permits may be issued to a licensed general contractor (Class B-1) if he/she is the contractor for a new building to be erected on the site, and if the plans have been filed or a permit has been issued for the building.
- 91.3303.9.1.3 Plans and Specifications Required. No permit for demolition work will be issued until satisfactory plans and procedures have been submitted to and approved by the Building Department. For one—or two—family dwellings and accessory buildings, a dimensioned plot plan on the application showing the location of buildings and distances from property lines will be satisfactory. All other buildings will require a plot plan and such additional plans and procedures as are necessary to show that the demolition work will be conducted without creating

a hazardous condition. Some of the features or conditions requiring additional detailed plans and procedures are:

- 1. Walls more than 20 feet in height from story to story.
- 2. A basement within 6 feet of another building.
- 3. Footings adjacent to, and extending below, the footings of another building.
- 4. When the entire structure is not to be demolished.
- 5. One or more party walls.
- 6. When, in the opinion of the Superintendent of Building, some unusual feature exists or hazardous condition is created.
 - 7. Any prestressed or post-tensioned concrete structure.
 - 8. Any building with five or more stories.
 - 9. Any building for which a variance is being requested.

Plans and specifications must provide for any one or more of the following which may be involved:

- 1. Protection of adjacent property.
- 2. Method and sequence of demolishing building.
- 3. Shoring for high walls.
- 4. Underpinning of adjacent footings.
- 5. Required retaining walls.
- 6. Anchorage and other details for party walls.
- 7. Filling of basements.
- 8. Thickness of remaining party walls.
- 9. Other demolition or structural features.
- 10. Required clearances.

91.3303.9.1.4 Preinspection Required. A demolition preinspection shall be required for all proposed demolition of buildings (including accessory buildings) or structures on a site and shall be conducted before the issuance of a demolition permit. A demolition preinspection fee pursuant to Section 91.107.3.1.6 of this code shall be collected prior to the issuance of any demolition permits.

EXCEPTION: The demolition preinspection and demolition preinspection fee may be waived when the department determines that previous inspections associated with the department's abatement programs have been made.

91.3303.9.1.5 Special Permits. In all cases where a protection fence or canopy must be constructed in the public way or where barricading a street or portion thereof is necessary to comply with the instruction set for herein, a "Street Use Permit" shall be obtained from the Department of Public Works. This permit shall be obtained prior to issuance of a demolition permit.

Approval by the Department of Public Works, Bureau of Engineering, shall be obtained prior to the issuance of a permit for any demolition work which removes the lateral support from a public way. Section 91.3301.2.3 of this code defines lateral support. Lateral support of a public way shall be considered to have been removed when a wall providing lateral support of a public way or any building elements that stabilize the wall are demolished.

A permit for the removal of any underground tank used for storage of flammable liquids shall be obtained from the Fire Department.

91.3303.9.2 Inspection.

- 91.3303.9.2.1 Call for Inspection, A call for inspection must be made at least 24 hours before work is to be started.
- 91.3303.9.2.2 Protection Device Inspection. All required protection devices must be in place and inspected and approved by the building inspector prior to starting any work.
- 91.3303.9.2.3 Field Card. The Demolition Inspection Record Form No. B&S B-8b must be posted on the jobsite. This card must be signed by the inspector approving the method of demolition to be used before work is started. A separate approval signature is required for each demolition method used. If the method of demolition is to be changed during the course of the job, the inspector must be called and a new approval signature obtained before the new method is started.
- 91.3303.9.2.4 Sewer Cap Inspection. When the sewer has been capped, it shall not be covered until an inspection has been made by the department. The inspection should be requested at least 24 hours before the inspection is needed.

91.3303.9.3 Demolition Procedures.

91.3303.9.3.1 Protection Devices. Barricades, protection fences and protection canopies shall be provided and constructed in accordance with the requirements of Section 91.3303.7 of this code.

EXCEPTIONS:

- 1. For single-family dwellings, a barrier only will be required.
- 2. A protection canopy or protection fence will not be required where the adjoining public way is partially closed and properly barricaded so as to prohibit all pedestrian and vehicular traffic within the required clearance during the entire demolition operation. See Section 91.3303.9.1.5 of this code for Department of Public Works permit requirements.
- 91.3303.9.3.2 General Requirements. No structural member in any story shall be demolished or removed until the story next above is completely removed.

EXCEPTIONS:

- 1. Two-story Type V buildings of wood-frame construction.
- 2. Two-story buildings of any type, provided no first story structural member is removed before all of its supported load is removed.
- 3. Where the method of demolition used and the plan of operation are approved by the department as complying with the intent of this section.
- 91.3303.9.3.3 Handling of Materials. All materials shall be handled within the building area or within an area bounded by a barricade approved by the Superintendent of Building. Free-fall dumping over the exterior wall of a building will not be permitted from a height greater than 25 feet.
- 91.3303.9.3.4 Prevention of Dust. All debris shall be sufficiently wet at the time of handling to prevent dust from arising.
- 91.3303.9.3.5 Hand Wrecking. Hand wrecking methods may be used on any type building, provided the required protection devices are installed and approved. Hand wrecking may include the use of any type of hand-held tools. The use of small wheel-mounted pneumatic tools will be permitted if first approved by the building inspector.
- 91.3303.9.3.6 Dozer or Loader Wrecking. Dozer or loader wrecking shall not be used except on one—or two—story buildings with a maximum wall height of 24 feet. The building must be located a minimum distance from the public way and adjoining property at least equal to the maximum wall height of the building.

EXCEPTION: For wood-frame residential buildings, the required clearance may be reduced, provided reasonable safety precautions are taken.

- 91.3303.9.3.7 Clam Shell Wrecking. Clam shell wrecking shall not be used unless the building is located a distance from the public way and adjoining property at least equal to one half the maximum height of the building. The separation need not, however, exceed twice the maximum story height of the building.
- 91.3303.9.3.8 Cable Wrecking. Cable wrecking shall include all wrecking methods using a cable, whether applied to a single wall or an entire building.

Cable wrecking will be allowed only in those cases where the building is located a distance from the public way and adjoining property greater than one and one—half times the maximum height of the building. Where cable wrecking is to be used on a single wall, the clear distance required need not exceed twice the height of the wall being demolished.

Prior to the issuance of a permit for cable wrecking, the demolition contractor shall submit for approval to the Department a detailed description of the method and sequence for demolishing the building and the safety precautions to be taken.

91.3303.9.3.9 Ball Wrecking. Ball wrecking shall not be used unless the building is located a distance from the public way and adjoining property at least equal to one and one—half times the maximum height of the building. The separation need not, however, exceed 50 feet.

Prior to the issuance of a permit for ball wrecking, the demolition contractor shall submit for approval to the Department a detailed description of the method and sequence for demolishing the building and the safety precautions to be taken.

91.3303.9.3.10 Use of Explosives. Explosives shall not be used in the demolition of a building without the specific written approval of the Department of Building and Safety. No approval will be granted for the use of explosives in a manner which would violate Section 91.3303 of this code. All necessary permits and procedure approvals must be obtained from the Fire Department prior to the use of explosives.

91.3303.9.4 Deviations Permitted.

- 91.3303.9.4.1 Equivalent Protection. Deviations from the requirements specified above for the demolition of buildings or structures may be requested where conditions warrant and provided equivalent protection is furnished. This modification of requirements must be well detailed and requires an approval in writing from the Department of Building and Safety prior to commencing any demolition work.
- 91.3303.9.4.2 Application for Modification. Before any request for deviations can be acted upon, an application for modification shall be filed with the Department of Building and Safety. The application shall be on a Request for Modification of Building Ordinances Form No.

B&S Com 31. The application must be accompanied by an adequately detailed demolition plan and procedure of demolition.

- 91.3303.9.5 Dangerous Conditions During Demolition. Should a dangerous condition develop during the demolition of a structure, the demolition contractor shall immediately barricade the dangerous area, notify the Department of Building and Safety and take immediate steps to minimize the hazard. The Superintendent of Building may require the permittee to submit a scheme of operation and no further work shall be done until such statement or plan is approved by the Superintendent of Building.
- 91.3303.9.6 Erection of Fence. Within five days following the demolition of all structures on a lot located in any zone, and where construction of a replacement structure has not commenced, a temporary and unobstructed chainlink fence with lockable gates shall be erected at the perimeter of the vacant lot to completely enclose the lot. The chainlink fence shall be a minimum of 8 feet, but not more than 10 feet in height, maintained in good repair, and posted with a "No Dumping" sign made of noncombustible material measuring at least 12 by 24 inches. The department may approve alternate fencing when conditions warrant such alternate fencing.

In the event fencing has not been erected as required by this provision, the department may enforce this provision as provided in Section 91.8904 of this code and other relevant sections cited therein.

The fencing shall be removed upon approval of the department in conjunction with any subsequent use or improvement on the lot.

EXCEPTION: Upon application to the department, the department may waive the fencing requirement where it finds that fencing is not warranted to ensure that problems of trespass, trash accumulation and other illegal use do not occur on the vacant lot. If, however, after granting such waiver the department subsequently finds that fencing is warranted due to conditions which exist on the vacant lot, the department shall issue a notice to that effect and may enforce this provision as provided in Section 91.8904 of this code and other relevant sections cited therein.

SEC. 91.3304. TOILET FACILITIES DURING CONSTRUCTION.

- 91.3304.1 Toilet Facilities Required. No person shall commence or proceed with the erection, construction, alteration, repair, raising, adding to, removal or demolition of any building or structures, unless adequate, suitable, sanitary toilet facilities under the control of such person are provided for the use of any person employed or working upon such building or structure. Such toilet facilities shall be located upon or within a reasonable distance of the lot, premises, or site upon which such work is being done. In no case shall the line of travel to any toilet facility exceed 500 feet.
- 91.3304.2 Toilet Standards. Every toilet shall be of the water—flush type and connected to a public sewer or a private sewage disposal system built in accordance with the provisions of

Article 4, Chapter IX of the Los Angeles Municipal Code (Plumbing Code). All toilet structures shall be completely enclosed on four sides and the top, and the door shall be self-closing; the toilet floor shall be smooth, and screened ventilation shall be provided for the toilet compartment. Where workers are employed during the night hours, the toilet building shall be provided with artificial light. In lieu of flush water closets, approved chemical toilets which meet the requirements of Chapter III of the Los Angeles Municipal Code may be provided.

Sec. 34. Division 34 of Article 1 of Chapter IX of the Los Angeles Municipal Code is hereby amended to read as follows.

DIVISION 34

EXISTING STRUCTURES

SEC. 91.3400. BASIC PROVISIONS.

Chapter 34 of the U.B.C. is not adopted and in lieu thereof Sections 91.3401 is added as provided herein.

SEC. 91.3401. APPLICATION TO EXISTING BUILDINGS AND STRUCTURES.

For regulations applicable to existing buildings and structures, see Divisions 81, 82, 83, 84, 85, 86, 88 and 89 of this code.

Sec. 35. Division 35 of Article 1 of Chapter IX of the Los Angeles Municipal Code is hereby amended to read as follows.

DIVISION 35

UNIFORM BUILDING CODE STANDARDS

SEC. 91.3500. BASIC PROVISIONS.

Chapter 35 of the U.B.C. is hereby adopted by reference for the purpose of providing basic building regulations relating to Uniform Building Code Standards (1994 Edition).

- Sec. 36. Divisions 36 through and including Division 60, and Division 64 are hereby repealed.
- Sec. 37. Division 71 of Article 1 of Chapter IX is hereby added to the Los Angeles Municipal Code to read as follows.

DIVISION 71

METHANE SEEPAGE DISTRICT REGULATIONS

SEC. 91.7101. PURPOSE.

This Division sets forth the minimum requirements of the City of Los Angeles for control of methane intrusion emanating from geologic formations. The requirements do not regulate flammable vapor that may originate in and propagate from other sources which include, but are not limited to, ruptured hazardous material transmission lines, underground atmospheric tanks, or similar installations. (The provisions of this Division were formerly found in Division 15.),

SEC. 91.7102. DEFINITIONS.

For purposes of this Division, certain words and phrases are defined as follows:

Adequate Ventilation shall mean the mechanical ventilation of a structure corresponding to a minimum of four air changes per hour.

Flammable Gas shall mean any gascous substance capable of sustaining combustion or explosion.

Gas-detection System shall mean one or more electrical devices capable of continuous monitoring for the presence of flammable gas and containing an audible alarm capable of alerting occupants that a hazardous atmosphere exists. The system and any device which is part of the system shall be subject to Department of Building and Safety and Fire Department approval.

Multiple Residential shall mean a use occupancy by more than two families.

Qualified Engineer shall mean a civil engineer currently registered in the State of California and possessing experience in the design of subsurface gas control systems.

Single Family shall mean a use occupancy by two families or less.

Unenclosed Building shall mean a roofed structure where exterior walls have openings equal to at least 25 percent of the total perimeter wall area.

Vent System shall mean a series of perforated pipes composed of acceptable materials, suitably designed and installed above the water table to collect and disperse flammable gas.

SEC. 91.7103. BOUNDARIES.

Boundaries of zones set forth herein are measured from center line to center line of named streets unless otherwise described, and are more specifically designated graphically by the copy of map designated Plate 4 attached to Council File No. 85–0563–S3, the original of which map is on file with the department of building and safety of the city. East, south, north, west and similar directions are general only.

91.7103.1 The High Potential Methane Zone Boundaries Are as Follows:

Detroit Street south from Third Street to Fourth Street, east to La Brea Avenue, south to Sixth Street, west to Detroit Street, south to Wilshire Boulevard, west to Cloverdale Avenue, south to Olympic Boulevard, west to Stanley Avenue, north to Eighth Street, west to San Diego Way, north to Warner Drive, west to McCarthy Vista, north to Wilshire Boulevard, west to La Jolla Avenue, north to Orange Street, west to Sweetzer Avenue, north to Blackburn Avenue, east to La Jolla Avenue, north to First Street, east to Fairfax Avenue, southeast on a line to a point 250 feet north of Third Street and approximately 250 feet west of the center line of Gardner Avenue, south to Third Street and east to Detroit Street.

91.7103.2 The Potential Methane Zone Boundaries Are as Follows:

Rossmore Avenue south from Melrose Avenue to Eighth Street, west to La Brea Avenue, south to Olympic Boulevard, west to San Vicente Boulevard, northwest along San Vicente Boulevard to Third Street, west to Robertson Boulevard, north to Beverly Boulevard, east to La Cienega Boulevard, north to Oakwood Avenue, east to La Brea Avenue, north to Melrose Avenue and east to Rossmore Avenue.

SEC. 91.7104. HIGH POTENTIAL METHANE ZONE REQUIREMENTS.

91.7104.1 Existing Construction.

- 91.7104.1.1 All commercial, industrial and institutional buildings shall have an approved Methane Control System, which shall include the following minimum requirements: a vent system and a gas-detection system, installed in the basement or lowest floor level on grade, and within the underfloor space in buildings with raised foundations. The gas-detection system shall be designed to automatically activate the vent system when an action level equal to 25% of the Lower Explosive Limit (LEL) methane concentration is detected within those areas;
- 91.7104.1.2 All multiple residential buildings shall have adequate ventilation as defined in Section 91.7102 of this code or a gas-detection system installed in the basement or on the lowest floor level on grade, and within the underfloor space in buildings with raised foundations.
- 91.7104.1.3 Paved areas over 5,000 square feet and within 15 feet of the exterior wall of commercial, industrial, institutional or multiple residential buildings shall be vented;

- 91.7104.1.4 All single-family dwellings with basements shall have a gas detection system which is periodically calibrated and maintained in proper operating condition in accordance with manufacturer's installation and maintenance specifications.
 - **EXCEPTION:** Dwellings on raised foundations having basements open above ground level on at least two sides, where the openings are to a suitably ventilated underfloor area.
- 91.7104.1.5 Any building located within both the High Potential Methane Zone and the Potential Methane Zone shall comply with the more restrictive provisions of the High Potential Methane Zone:
- 91.7104.1.6 Unenclosed buildings are exempt from this Section. Enclosed rooms located within an unenclosed building shall comply with the requirements of this Section.

91.7104.2 New Construction.

- 91.7104.2.1 All commercial, industrial, institutional and multiple residential buildings shall be shielded between the building and the earth by a sealing layer of oil-resistant materials approved by the Department;
- 91.7104.2.2 All commercial, industrial, institutional and multiple residential buildings over 50 feet in width shall be provided with an approved vent system located under the shielding to provide venting to areas outside the building;
- 91.7104.2.3 All commercial, industrial, and institutional buildings shall be provided with an approved Methane Control System, which shall include these minimum requirements: a vent system and gas-detection system which shall be installed in the basements or the lowest floor level on grade, and within underfloor space of buildings with raised foundations. The gas-detection system shall be designed to automatically activate the vent system when an action level equal to 25% of the Lower Explosive Limit (LEL) methane concentration is detected within those areas;
- 91.7104.2.4 All multiple residential buildings shall have adequate ventilation as required by this Code or a gas-detection system installed in basements or the lowest floor level on grade, and within the underfloor space of buildings with raised foundation;
- 91.7104.2.5 Paved areas over 5,000 square feet and within 15 feet of the exterior wall of commercial, industrial, institutional or multiple residential buildings shall be vented.
- 91.7104.2.6 All commercial, industrial, institutional and multiple residential buildings covering over 50,000 square feet of lot area or with more than one level of basement shall be independently analyzed by a qualified engineer, as defined in Section 91.7102 of this code, hired by the building owner. The engineer shall investigate and recommend mitigating measures which will prevent or retard potential methane gas seepage into the building. In addition to the other

items listed in this section, the owner shall implement the engineer's design recommendations subject to Department of Building and Safety and Fire Department approval;

- 91.7104.2.7 All single—family dwellings with concrete slab floors on grade shall be shielded between the building and the earth by a sealing layer of oil—resistant materials approved by the Department. An approved vent system shall be provided under the shielding to provide venting to areas outside the building;
- 91.7104.2.8 All single-family dwellings with basements shall have a gas-detection system which is periodically calibrated and maintained in proper operating condition as set forth in the manufacturing specifications;
- 91.7104.2.9 Swimming pools shall be permitted only where it can be demonstrated through engineering geologic studies that the pool will be located above the high oil and ground water levels for this area:
- 91.7104.2.10 Unenclosed buildings are exempt from this section. Enclosed rooms located within an unenclosed building shall comply with the requirements of this section.

SEC. 91.7105. POTENTIAL METHANE ZONE REQUIREMENTS.

91.7105.1 Existing Construction.

- 91.7105.1.1 All commercial, industrial, institutional and multiple residential buildings, shall have adequate ventilation or a gas-detection system installed in basements or the lowest floor level on grade, and within underfloor space of buildings with raised foundations;
- 91.7105.1.2 When gas is detected on the site, paved areas over 5,000 square feet and within 15 feet of the exterior wall of commercial, industrial, institutional or multiple residential buildings shall be vented;
- 91.7105.1.3 All single-family dwellings with basements shall have a gas-detection system which is periodically calibrated, installed and maintained in proper condition in accordance with manufacturer's installation and maintenance specifications.
 - **EXCEPTION:** Dwellings on raised foundations having basements open above ground level on least 3 sides, where the openings are to be to a suitably ventilated underfloor area;
- 91.7105.1.4 Any building located within both the High Potential Methane Zone and the Potential Methane Zone shall comply with the more restrictive provisions of the High Potential Methane Zone;
- 91.7105.1.5 Unenclosed buildings are exempt from this section. Any rooms located within an unenclosed building shall comply with the requirements of this section.

91.7105.2 New Construction.

- 91.7105.2.1 All commercial, industrial, institutional and multiple residential buildings shall be shielded between the building and the earth by a sealing layer of oil-resistant materials approved by the Department.
- 91.7105.2.2 All commercial, industrial, institutional and multiple residential buildings covering over 50,000 square feet of lot area or with more than one level of basement shall be independently analyzed by a qualified engineer, hired by the building owner. The engineer shall investigate and recommend mitigating measures which will prevent or retard potential methane gas seepage into the building. In addition to the other items listed in this section, the owner shall implement the engineer's design recommendations subject to Department of Building and Safety and Fire Department approval.
- 91.7105.2.3 All commercial, industrial, institutional and multiple residential buildings, shall have adequate ventilation or a gas-detection system installed in basements or the lowest floor level on grade, and within the underfloor space of buildings with raised foundations;
- 91.7105.2.4 When gas is detected during soil exploration or foundation preparation, paved areas over 5,000 square feet and within 15 feet of the exterior wall of commercial, industrial, institutional or multiple residential buildings shall be vented;
- 91.7105.2.5 When gas is detected during soil exploration or foundation preparation, all commercial, industrial, institutional and multiple residential buildings over 50 feet in width shall be provided with an approved vent system located under the shielding to provide venting to areas outside the building;
- 91.7105.2.6 All single-family dwellings with basements shall have a gas-detection system which is periodically calibrated and maintained in proper operating condition as set forth in the manufacturer's specifications;
- 91.7105.2.7 Unenclosed buildings are exempt from this section. Enclosed rooms located within the unenclosed building shall comply with the requirements of this Section;
- 91.7105.3 Any building located within both the High Potential Methane Zone and the Potential Methane Zone shall comply with the more restrictive provisions of the High Potential Methane Zone.

SEC. 91.7106. TESTING, MAINTENANCE AND SERVICE OF GAS-DETECTION SYSTEM.

The testing, maintenance and service procedure for each gas—detection system shall be performed in accordance with the manufacturer's current written instructions. These instructions shall be approved and on file with the Fire Department. Testing and service shall be performed by a person approved by the fire department. Notwithstanding the manufacturer's instructions

regarding frequency of the testing and service procedure, testing and service of each system shall be performed at least once annually.

SEC. 91.7107. EMERGENCY PROCEDURES.

With the exception of single-family dwellings, all buildings required by this Division to have a gas-detection system or vent system shall, subject to Fire Department approval, have established emergency procedures which include, but are not limited to, the following:

- 91.7107.1 Assignment of a responsible person as safety director to work with the Fire Department in the establishment, implementation and maintenance of an emergency plan.
- 91.7107.2 Conspicuous posting of the fire department's telephone number in areas designated by the Fire Department.
- 91.7107.3 Conspicuous posting of emergency plan procedures approved by the Fire Department.

SEC. 91.7108. APPLICATION OF METHANE SEEPAGE DISTRICT REGULATIONS TO LOCATIONS OR AREAS OUTSIDE THE SECTION 91.7103 BOUNDARIES.

Upon a determination by the Department of Building and Safety that a hazard may exist from methane intrusion at a geographical location or in an area outside the boundaries established in Section 91.7103 of this code, the Department of Building and Safety and the Fire Department may enforce any or all of the requirements of Division 71 of this code as required to preclude potential fire or explosion from methane concentration.

SEC. 91.7109. ADDITIONAL REMEDIAL MEASURES.

- 91.7109.1 In the event the concentration of methane gas in any building located in the High Potential Methane Zone or in the Methane Potential Zone reaches or exceeds 25 percent of the minimum concentration of gas that will form an ignitable mixture with air at ambient temperature and pressure, the owner shall hire a qualified engineer to investigate, recommend and implement mitigating measures. Such measures shall be subject to approval of the Building and Safety Department and Fire Department.
- **91.7109.2** Any abandoned oil well encountered during construction shall be evaluated by the Fire Department and may be required to be reabandoned in accordance with applicable rules and regulations of the Division of Oil and Gas of the State of California.

Sec. 38. Division 72 of Article 1 of Chapter IX is hereby added to the Los Angeles Municipal Code to read as follows.

DIVISION 72

FIRE DISTRICT REGULATIONS

SEC. 91.7200. PURPOSE. These Fire District Regulations were formerly found in Division 16.

SEC. 91.7201. GENERAL.

91.7201.1 Fire District No. 1 Boundaries.

Fire District No. 1 shall include:

- I. Downtown. All of the territory bounded by the following streets or freeways:
- 1. Harbor Freeway from the Santa Monica Freeway to the Santa Ana Freeway;
 - 2. Santa Ana Freeway from the Harbor Freeway to Alameda Street;
 - 3. Alameda Street from the Santa Ana Freeway to Fourth Street;
 - 4. Fourth Street from Alameda Street to Central Avenue;
 - 5. Central Avenue from Fourth Street to the Santa Monica Freeway; and
 - 6. Santa Monica Freeway from Central Avenue to the Harbor Freeway.
- II. Hollywood. All of the territory bounded by the following streets:
 - 1. Yucca Street from Highland Avenue to Gower Street;
 - 2. Gower Street from Yucca Street to De Longpre Avenuc;
 - 3. De Longpre Avenue from Gower Street to Vine Street;
 - 4. Vine Street from De Longpre Avenue to Fountain Avenue;
 - 5. Fountain Avenue from Vine Street to Wilcox Avenue;
 - 6. Wilcox Avenue from Fountain Avenue to Sunset Boulevard;

- 7. Sunset Boulevard from Wilcox Avenue to Highland Avenue;
- 8. Highland Avenue from Sunset Boulevard to Hollywood Boulevard;
- 9. Hollywood Boulevard from Highland Avenue to Orchid Avenue;
- 10. Orchid Avenue from Hollywood Boulevard to Franklin Avenue;
- 11. Franklin Avenue from Orchid Avenue to Highland Avenue;
- 12. Highland Avenue from Franklin Avenue to Yucca Street;
- 13. All of the territory within 100 feet of Hollywood Boulevard between Hillhurst Avenue and La Brea Avenue; and,
- 14. All of the territory within 100 feet of Sunset Boulevard between Hillhurst Avenue and the city boundary line 190 feet west of Havenhurst Drive.
- III. Wilshire. All of the territory bounded by the following streets:
 - 1. Sixth Street from Western Avenue to Commonwealth Avenue;
 - 2. Commonwealth Avenue from Sixth Street to Wilshire Boulevard;
 - 3. Wilshire Boulevard from Commonwealth Avenue to Catalina Street;
 - 4. Catalina Street from Wilshire Boulevard to Eighth Street;
 - 5. Eighth Street from Catalina Street to Mariposa Avenue;
 - 6. Mariposa Avenue from Eighth Street to Seventh Street;
 - 7. Seventh Street from Mariposa Avenue to Ardmore Avenue;
 - 8. Ardmore Avenue from Seventh Street to Wilshire Boulevard:
 - 9. Wilshire Boulevard from Ardmore Avenue to Western Avenue;
 - 10. Western Avenue from Wilshire Boulevard to Sixth Street; and
- 11. All of the territory within 100 feet of Wilshire Boulevard between the eastern city boundaries of the City of Beverly Hills and the Harbor Freeway, with the exception of the territory within 100 feet of Wilshire Boulevard located between Wilton Place and Highland Avenue.

- IV. Beverly Fairfax. All of the territory bounded by the following streets:
- 1. Beverly Boulevard from Fairfax Avenue to a point 120 feet west of Gardner Avenue;
- 2. A line 120 feet west of and parallel to Gardner Avenue from Beverly Boulevard to Third Street;
- 3. Third Street from a point 120 feet west of Gardner Avenue to Fairfax Avenue; and
 - 4. Fairfax Avenue from Third Street to Beverly Boulevard.
- V. Crenshaw. All of the territory bounded by the following streets:
 - 1. Crenshaw Boulevard from Thirty-ninth Street to Stocker Street;
 - 2. Stocker Street from Crenshaw Boulevard to Rosalia Drive;
 - 3. Rosalia Drive from Stocker Street to Marlton Avenue;
 - 4. Marlton Avenue from Rosalia Drive to Thirty-ninth Street; and
 - 5. Thirty-ninth Street from Marlton Avenue to Crenshaw Boulevard.
- VI. Century City. All of the territory bounded by the following streets:
- 1. Santa Monica Boulevard between Century Park West and the westerly city boundary of the City of Beverly Hills;
- 2. The westerly city boundary of the City of Beverly Hills from Santa Monica Boulevard to Olympic Boulevard;
- 3. Olympic Boulevard from the westerly city boundary of the City of Beverly Hills to Century Park West; and
- 4. Century Park West from Olympic Boulevard to Santa Monica Boulevard.

Excepting that portion of the above–described territory described as follows:

Beginning at the point of intersection of the center line of Olympic Boulevard and Century Park West, thence northwesterly along center line of Century Park West 791 feet, thence N50° 29'00" E822.21 feet, thence S39° 29'13" E9.63 feet, thence S84° 29'13" E29.59 feet, thence N50° 30'47" E19.00 feet, thence S39° 29'13" E295.17 feet, thence S35 38'00" E to the center line of Olympic Boulevard thence southwesterly along said center line to the point of beginning.

VII. Westwood. All of the territory bounded by the following streets:

- 1. Le Conte Avenue from Levering Avenue to Tiverton Avenue;
- 2. Tiverton Avenue from Le Conte Avenue to the intersection of Lindbrook Drive and Glendon Avenue;
- 3. Glendon Avenue from the intersection of Lindbrook Drive and Tiverton Avenue to Wilshire Boulevard;
 - 4. Wilshire Boulevard from Glendon Avenue to Gayley Avenue;
- 5. Gayley Avenue from Wilshire Boulevard to the alley 200 feet north of Wilshire Boulevard;
- 6. The alley directly west of Gayley Avenue from a point 200 feet north of Wilshire Boulevard and Weyburn Avenue;
- 7. Weyburn Avenue from the alley west of Gayley Avenue to Gayley Avenue;
 - 8. Gayley Avenue from Weyburn Avenue to Levering Avenue;
 - 9. Levering Avenue from Gayley Avenue to Le Conte Avenue; and
- 10. All of the territory within 100 feet of Wilshire Boulevard between Veteran Avenue and the westerly city limits of the City of Beverly Hills; and
- 11. All of the territory within 100 feet of Wilshire Boulevard between Centinela Avenue and Federal Avenue.

VIII. Van Nuys, All of the territory bounded by the following streets:

- 1. Vesper Avenue from Calvert Street to Victory Boulevard;
- 2. Victory Boulevard from Vesper Avenue to Sylmar Avenue;
- 3. Sylmar Avenue from Victory Boulevard to Calvert Street;

- 4. Calvert Street from Sylmar Avenue to Vesper Avenue; and
- 5. All of the territory within 100 feet of Van Nuys Boulevard between Victory Boulevard and Sherman Way.
- IX. Venice. All of the territory bounded by the following streets:
- 1. Horizon Avenue from Ocean Front Walk to Pacific Avenue;
 - 2. Pacific Avenue from Horizon Avenue to Eighteenth Avenue;
 - 3. Eighteenth Avenue from Pacific Avenue to Ocean Front Walk; and
 - 4. Ocean Front Walk from Eighteenth Avenue to Horizon Avenue.
- X. San Pedro. All of the territory bounded by the following streets:
 - 1. Fourth Street from Pacific Avenue to Harbor Boulevard;
 - 2. Harbor Boulevard from Fourth Street to Seventh Street;
 - 3. Seventh Street from Harbor Boulevard to Beacon Street:
 - 4. Beacon Street from Seventh Street to Eighth Street;
 - 5. Eighth Street from Beacon Street to Pacific Avenue; and
 - 6. Pacific Avenue from Eighth Street to Fourth Street.

Excepting that portion of the above–described territory described as follows:

Beginning at the point of intersection of the easterly line of Mesa Street and the southerly line of Fourth Street; thence southerly along said easterly line of Mesa Street to the northerly line of the alley running parallel to said Fourth Street and distant 155 feet southerly of the center line of said Fourth Street; thence along the northerly line of said alley to a point 498 feet from the easterly line of said Mesa Street; thence south 10 feet and thence easterly to the westerly line of Centre Street; thence northerly along said westerly line to the southerly line of said Fourth Street; thence westerly along said southerly line to the point of beginning.

91.7201.2 Fire District No. 2. Fire District No. 2 shall be all the territories on the Zoning Map, which is made a part of Article 2, Chapter I of the Los Angeles Municipal Code (Zoning Code) as being in the PB, C, or M zones, except those territories designated as C1 or C1.5 zones or territories located in Fire District No. 1.

- 91.7201.3 Mountain Fire District. The Mountain Fire District shall be all of the territory so designated by the boundaries shown on the Mountain Fire District Map as established in Section 57.25.01 of the Los Angeles Municipal Code.
- 91.7201.4 Buildings Overlapping Fire District Boundaries. Every building or structure having any part thereof within a fire district shall be deemed to be entirely in that fire district.

A building or structure located partly within two or more fire districts shall comply throughout to the more restrictive provisions of each fire district.

SEC. 91.7202. ADDITIONS TO BUILDINGS.

An addition may be made to any building in a fire district if the added portion conforms to this division, and also if the entire building, including the addition, is within the limit of area specified in Section 91.505 of this code for building of like type and occupancy.

EXCEPTION: An addition to a provisional structure shall not be permitted.

SEC. 91.7203. GENERAL REQUIREMENTS.

- **91.7203.1 General.** In addition to the general requirements of this code every building located in a fire district shall conform to the requirements of this Division.
- 91.7203.2 Nonconforming Buildings. Alterations and repairs to a nonconforming building in a fire district shall conform to the provisions of Divisions 81 and 86 of this code.

The provisions of this subsection are subject to the roofing requirements of Section 91.1503 of this code.

- 91.7203.3 Construction Sheds and Canopies. Construction sheds and protection canopies may be erected in a fire district if there is compliance with the other provisions of this code.
- 91.7203.4 Projections from Buildings. Projections from buildings conforming to the regulations of Division 32 of othis code may be constructed in any fire district.

91.7203.5 Sprinklers.

91.7203.5.1. In every building in Fire District No. 1 and Fire District No. 2, every story or basement with a floor surface elevation more than 4 feet lower than the highest elevation of the floor landing or tread of any required exit from that story shall be sprinklered.

EXCEPTION: Sprinklers need not be installed in locations expressly excepted in Article 4, Chapter IX of the Los Angeles Municipal Code (Plumbing Code), provided other approved fire-protection equipment is installed.

91.7203.5.2 An automatic sprinkler system shall be installed in every building of Group B, Division 2 occupancy constructed in Fire District No. 1 or Fire District No. 2 with a floor area exceeding 3,000 square feet.

EXCEPTION: Fire sprinklers are not required:

- 1. In type I or II buildings.
- 2. In buildings that are divided into areas, not exceeding 3,000 square feet, with walls of two-hour fire-resistive construction.
- 3. In locations expressly excepted in Article 4, Chapter IX of the Los Angeles Municipal Code (Plumbing Code), provided other approved fire-protection equipment is installed.
- 91.7203.6 Miscellaneous Structures. In Fire Districts Nos. 1 and 2, isolated structures constructed of noncombustible materials may be unprotected if used for other than human occupancy.

Loading platforms having no roof and not over 48 inches above the ground may be of wood. Loading platforms shall be enclosed and shall be firestopped into areas not exceeding 2,500 square feet.

SEC. 91.7204. SPECIAL REQUIREMENTS FOR FIRE DISTRICT NUMBER 1.

91.7204.1 Types of Buildings Permitted. Every building in Fire District No. 1 shall be one of the following types:

Type I; Type II–FR.; Type II One–hour; Type III–N; Type III One–hour; Type III N; or provisional structures as provided in Section 91.7205 of this code.

91.7204.2 Type II—N Buildings. Every building of Type II—N construction in Fire District No. 1, except provisional structures allowed by this section, shall have at least two—hour fire—resistive construction for exterior walls within 10 feet of and facing a property line and shall have at least one—hour fire—resistive construction for exterior walls facing a property line and less than 30 feet distance therefrom.

EXCEPTION: Such walls may be one-hour less fire-resistive than specified herein if the building is not more than one story in height or more than 2500 square feet in area.

- 91.7204.3 Openings in Exterior Walls. In the following cases all openings in the exterior walls of buildings in Fire District No. 1, other than provisional structures, shall be protected by a fire assembly having a three-fourths-hour fire-resistive rating:
 - 1. When within 10 feet of a property line;
 - 2. When within 20 feet of an unprotected opening in another building;
 - 3. When within 20 feet of a building which has less than one-hour fire-resistive exterior walls;
 - 4. When within 20 feet of the opposite side of a public way.

SEC. 91.7205. PROVISIONAL STRUCTURES IN FIRE DISTRICTS NUMBERS 1 AND 2.

- 91.7205.1 **Definitions.** For the purposes of this section, "provisional structure" shall mean any structure complying with the provisions of this section.
- 91.7205.2 Size Limit. A Type V provisional structure shall not exceed 12 feet in its longest dimension, 12 feet in height, or 100 square feet in overall area, including any roof projection.
- A Type II-N provisional structure shall not exceed 400 square feet in building area and shall not exceed 12 feet in height.
- **91.7205.3** Exterior Walls. The requirements of Section 91.503 shall not apply to provisional structures.

The exterior walls of a Type II—N provisional structure shall not be required to have a fire—resistive time period of construction.

The exterior walls of a Type V provisional structure shall be of one-hour fire-resistive construction.

EXCEPTION: The exterior walls of a Type V provisional structure which is located on an automobile parking station lot are not required to have a time period of fire resistance if the structure does not exceed 12 feet in its longest dimension and 50 square feet in overall area, including any roof projection and, provided further, that such structure shall be used in conjunction with the business of operating an automobile parking lot and shall maintain a setback from every street front not less than one third the lot depth.

91.7205.4 Location. A provisional structure shall be located not less than 40 feet from any building of Type II—N or Type V construction.

91.7205.5 Parking Lot Structures. In lieu of a permanent foundation, a provisional structure used as an automobile parking lot office may be anchored to an asphalt slab by four or more 1/2-inch by 12-inch metal pins or equivalent anchorage. Toilet facilities will not be required.

SEC. 91.7206. SPECIAL REQUIREMENTS FOR FIRE DISTRICT NUMBER 2.

- 91.7206.1 Types of Buildings Permitted. Buildings in Fire District No. 2 may be of any type of construction permitted by this code with the further restriction that Type V buildings shall also comply with this section.
- 91.7206.2 Type V Buildings. One—or two—story Type V buildings in Fire District No. 2 shall have exterior walls of one—hour fire—resistive construction. Three—story Type V buildings shall be limited to Group B, Group F, Division 2, Group M, Group S, Division 2 and Group R Occupancies and shall be of one—hour fire—resistive construction throughout.

EXCEPTION: The one-hour fire-resistive construction required by this subsection for exterior walls of one- or two-story buildings is not required where:

- 1. The wall faces an open yard on the lot or public way or any combination thereof equal to a total width of 60 feet.
 - 2. The building is sprinklered throughout.
- 3. The walls of greenhouses and lath houses use standard 3/8-inch-thick wood lath which is evenly spaced so that a minimum of 40 percent of the wall is open.
 - 4. The structure is a cooling tower or a water tank.

The exceptions in this subsection shall not modify any other provision of this code that requires fire—resistive construction because of occupancy or location on the lot.

SEC. 91.7207. SPECIAL REQUIREMENTS FOR MOUNTAIN FIRE DISTRICTS.

91.7207.1 Unenclosed Under-floor Areas. Residential buildings shall have all under-floor areas completely enclosed to the ground with construction as required for exterior walls.

EXCEPTIONS:

1. Complete enclosure shall not be required where the underside of all exposed floors and all exposed structural columns, beams and supporting walls are protected as required for exterior one-hour fire-resistive construction.

- 2. The area under cantilevered balconies and unroofed walking decks need not be considered as under—floor area, provided exposed utilities, pipes or other mechanical devices are not located in the area.
- 91.7207.2 Utilities. All utilities, pipes, furnaces, water heaters or other mechanical devices located in an exposed under-floor area of a residential building shall be enclosed with material as required for one-hour fire-resistive construction. Adequate covered access openings for servicing such utilities shall be provided as required by appropriate codes.
- 91.7207.3 Attic Openings. All exterior attic openings shall be protected with a minimum 1/4—inch corrosion—resistant screen.

SEC. 91.7208. PROHIBITED VEHICLES.

No vehicle in Fire Districts Number 1 and 2 shall be used for any occupancy except as permitted for a mobile home, travel trailer or camp car in a park designed for such use or for industrial catering trucks as defined in Section 91.210 of this code.

Sec. 39. **Urgency Clause.** The City Council finds and declares that this Ordinance is required for the immediate protection of the public peace, health and safety for the following reasons.

This Ordinance creates a higher seismic design standards than the current standards in effect for Conventional (Wood) Light-frame Construction, roofing and reroofing of existing buildings. This Ordinance is necessary to prevent structures from being built or repaired using inadequate seismic design standards.

Absent compliance with these standards, such work or repairs could fail in a future earthquake thus jeopardizing the health and safety and welfare of the building tenants, employees, visitors and pedestrians. Therefore, this Ordinance shall immediately become effective pursuant to Los Angeles City Charter Section 281 after posting for ten days pursuant to Los Angeles City Charter Section 31 and have an operative date of January 1, 1996.

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Scc. 40. The City Clerk shall certify to the passage of this ordinance and cause the same to be published by posting for ten days in three public places in the City of Los Angeles, to wit: one copy on the bulletin board located at the Main Street entrance to the City Hall of the City of Los Angeles; one copy on the bulletin board located on the ground level at the Los Angeles Street entrance to the Los Angeles Police Department in said City; and one copy on the bulletin board located at the Temple Street entrance to the Hall of Records in said City.

I hereby certify that the foregoing ordinance was passed by the Council of the City of Los Angeles, at its meeting of FEB 28 1996 ELIAS MARTINEZ, City Clerk √5 1996 Approved Approved as to form and legality: FEB 1 3 1996 JAMES K. HAHN, City Attorney CLAUDIA McGEE HENRY

Part V - 12941

File No. __

15615

Senior Assistant City Attorney

95-2195

DECLARATION OF POSTING ORDINANCE

I, MARIA C. RICO, state as follows: I am, and was at all times hereinafter mentioned, a resident of the State of California, over the age of eighteen years, and a Deputy City Clerk of the City of Los Angeles, California.

Ordinance No. 170953, entitled: 1996 Edition of the Los Angeles Building Code, a copy of which is hereto attached, was finally adopted by the Council of the City of Los Angeles on February 28, 1996, & under direction of said Council & said City Clerk, pursuant to Section 31 of the Charter of the City of Los Angeles, on March 7, 1996 I posted a true copy of said ordinance at each of three public places located in the City of Los Angeles, California, as follows: one copy on the bulletin board at the Main Street entrance to City Hall of said City, one copy on the bulletin board on the ground level at the Los Angeles Street entrance to the Los Angeles Police Department in said City, & one copy on the bulletin board at the Temple Street entrance to the Hall of Records of the County of Los Angeles in said City.

The copies of said ordinance posted as aforesaid were kept posted continuously & conspicuously for ten days, or more, beginning 3-7-96 to and including 3-17-96.

I declare under penalty of perjury that the foregoing is true & correct. Signed this 7th day of March 1996 at Los Angeles, California.

Deputy City Clerk

Effective Date: March 17, 1996 C.F. 95-2195

(Rev. 2/95)