



Office of the City Manager

ACTION CALENDAR
November 27, 2007

To: Honorable Mayor and Members of the City Council
 From: *PK* Phil Kamlarz, City Manager
 Submitted by: Dan Marks, Director, Planning and Development Department
 Subject: Adoption of Berkeley Building Codes

RECOMMENDATION

Conduct a public hearing, and, upon conclusion,

1. Adopt the second reading of an ordinance repealing and re-enacting the Berkeley Building, Electrical, Mechanical and Plumbing Codes and related procedural and stricter provisions in BMC Chapters 19.28, 19.30, 19.32 and 19.36;
2. Adopt a Resolution (Attachment 2) setting forth findings of local conditions that require more stringent regulations than those provided by the 2007 California Building Code and rescinding Resolution No. 60,862–N.S.

FISCAL IMPACTS OF RECOMMENDATION

The recommended Codes provide for adoption of fees by resolution to pay for costs related to their enforcement. As part of the Permit Service Center Fund 833, revenues have consistently paid all costs of Building and Safety's operations and are expected to continue to do so. The direct fiscal impact to the City of adopting the new codes has been approximately \$20,400 for the purchase of new fire codebooks, inspection guides, inspection forms, and training already expended as part of the division's FY 2007 and 2008 budget. Additional training and materials funds up to \$20,000 are provided for in the FY 2008 budget.

Neither the new state codes overall, nor the continuing local amendments, are expected to create significant cost increases for homeowners, builders or developers.

SUMMARY

On November 6, 2007, the City Council adopted the first reading of an ordinance to adopt the building and related codes. As detailed in the November 6 report recommending the adoption, the ordinance provides for the adoption of the State Codes with certain local amendments as the Berkeley Codes, effective January 1, 2008. Without local action, the 2007 California Codes will become automatically effective on that date, and the City will not maintain the local amendments that are tailored to Berkeley. In compliance with state law, findings showing the amendments are justified by local topographic, geologic or climatic conditions, are provided in attachment 2 for

adoption.

Because of the closure of the Permit Service Center for the Reduced City Service Days over the winter holidays, the last day to file for a building permit that will be reviewed under the current Codes will be Friday, December 21, 2007. Over 1,000 building permit applicants are being notified by mail of this information.

Since all the codes being adopted, except the International Existing Building Code (IEBC) in Article 6, are mandated by the state, they can be adopted by reference with no special procedure. Article 6, which is being updated to incorporate the latest IEBC, provides the standards for retrofit of existing soft story, tilt-up, and certain concrete buildings by adopting by reference certain Appendix A Chapters of the 2006 IEBC. Because this amendment adopts codes by reference not mandated by the State, California Government Code 50022.2 requires a public hearing between the first and second readings of the adoption ordinance.

State code sections proposed to be amended in this year's adoption are shown in the ordinance with local changes in regular type and unchanged State portions in *italics*. All other sections of the state Codes are adopted by reference as though fully set forth therein.

RATIONALE FOR RECOMMENDATION

Local Codes must be adopted every three years, or State Codes go into effect without local amendments. Adoption of local amendments and findings are needed to customize the State Codes to Berkeley's particular administrative, topographic, geologic and climatic conditions. The purpose of the non-administrative local amendments is to provide a higher level of safety than is reflected in the State-adopted 2007 Codes. The fire and seismic danger and other local conditions, as described in detail in the attached resolution of findings, justify the Berkeley Code provisions that are stricter than the State Code.

ALTERNATIVE ACTIONS CONSIDERED

Adopt the State Codes with fewer, or no, local amendments; or take no action, and let the state mandated codes take effect without local amendments designed for Berkeley.

CONTACT:

Joan MacQuarrie, Building Official, Manager Building and Safety Division, 981-7441

Attachments:

1. Ordinance
2. Resolution

ORDINANCE NO. –N.S.

REPEALING AND REENACTING BERKELEY MUNICIPAL CODE CHAPTERS 19.28 (CALIFORNIA BUILDING CODE), 19.30 (ELECTRICAL CODE), 19.32 (MECHANICAL CODE), AND 19.36 (PLUMBING CODE)

BE IT ORDAINED by the Council of the City of Berkeley as follows:

Section 1. That Berkeley Municipal Code Chapter 19.28, is hereby repealed and reenacted to read as follows:

Chapter 19.28

BERKELEY BUILDING CODE*

Sections:

19.28.010 Adoption of the California Building Code.

Article 1. Administrative provisions and definitions.

19.28.020 Adoption of Appendix Chapter 1 Administration

19.28.030 19.28.030 Adoption of Certain Sections of Chapter 1 General Code Provisions

Article 2. Live/Work occupancies.

19.38.040 Section 313 Live/work occupancies

Article 3. Restrictions in fire zones.

19.28.50 Chapter 7A Materials and Construction Methods for Exterior Wildlife Exposure.

Article 4. Wood Burning Appliances

19.28.060 Wood Burning Appliances.

Article 5. Construction in the Right of Way.

19.29.070 Projection into public right of way - Revocation and removal indemnification and hold harmless.

Article 6. Existing Buildings

19.28.080 Adoption of certain chapters of the 2006 International Existing Building Code by reference

Article 7. Repairs after Natural Disaster.

19.28.090 Repairs To Buildings And Structures Damaged by the Occurrence of a Natural Disaster.

Article 8. Earthquake Recording Instrumentation.

19.29.100 Earthquake Recording Instrumentation.

Article 9. Amendments To Structural Standards.

19.29.110 Various Technical Amendments To Structural Standards.

Article 10. Amendments from the Berkeley Fire Code

19.29.111 Various Amendments from the Berkeley Fire Code Adopted by Reference

* See Ch. 1.24 for abatement of nuisances by City.

19.28.010 Adoption of the California Building Code.

- A. The California Building Code, 2007 edition, as adopted in Title 24 part 2 of the California Code of Regulations, including Appendix Chapter 1, Administration; Appendix Chapter 16, Division II of the 2001 California Building Code; and Appendix Chapter 34, Division III of the 2001 California Building Code are hereby adopted and made a part of this Chapter as though fully set forth herein, subject to the modifications thereto which are set forth in this chapter. One copy of this Code is on file in the office of the City Clerk of the City of Berkeley.
- B. This chapter shall be known as the "Berkeley Building Code" and shall be referred to in this Chapter as "this code." Article 1. provides for the local administration of all California Codes.
- C. This chapter will become effective on January 1, 2008, and shall not apply to any building permit submitted by December 21, 2007.

Article 1. Administrative Provisions and Definitions

19.28.20 Adoption of Appendix Chapter 1 Administration

Appendix Chapter 1 of Volume 1 of the California Building Code, as revised below, is adopted for the administration of the Berkeley Codes. All sections in the appendix chapter are renumbered to be preceded by the letter "A".

APPENDIX CHAPTER 1

ADMINISTRATION

SECTION A101 – GENERAL

A101.1 Title. *These regulations shall be known as the Berkeley Building Code, hereinafter referred to as "this code."*

A101.2 Scope. *The provisions of this code shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures.*

Exception: *Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories above grade plane in height*

with a separate means of egress and their accessory structures shall comply with the California Building Code.

Appendices. Provisions in the appendices shall not apply unless specifically adopted.

A101.3 Intent. The purpose of this code is to establish the minimum requirements to safeguard the public health, safety and general welfare through structural strength, means of egress facilities, stability, sanitation, adequate light and ventilation, energy conservation, and safety to life and property from fire and other hazards attributed to the built environment and to provide safety to firefighters and emergency responders during emergency operations.

A101.4 Referenced codes. The other codes listed in Appendix Chapter 1, Sections 101.4.1 through 101.4.7 and referenced elsewhere in this code shall be considered part of the requirements of this code to the prescribed extent of each such reference.

A101.4.1 Electrical. The provisions of the Berkeley Electrical Code shall apply to the installation of electrical systems, including alterations, repairs, replacement, equipment, appliances, fixtures, fittings and appurtenances thereto.

A101.4.2 Gas. The provisions of the Berkeley Mechanical Code shall apply to the installation of gas piping from the point of delivery, gas appliances and related accessories as covered in this code. These requirements apply to gas piping systems extending from the point of delivery to the inlet connections of appliances and the installation and operation of residential and commercial gas appliances and related accessories.

A101.4.3 Mechanical. The provisions of the Berkeley Mechanical Code shall apply to the installation, alterations, repairs and replacement of mechanical systems, including equipment, appliances, fixtures, fittings and/or appurtenances, including ventilating, heating, cooling, air-conditioning and refrigeration systems, incinerators and other energy-related systems.

A101.4.4 Plumbing. The provisions of the Berkeley Plumbing Code shall apply to the installation, alteration, repair and replacement of plumbing systems, including equipment, appliances, fixtures, fittings and appurtenances, and where connected to a water or sewage system and all aspects of a medical gas system. The provisions of the Berkeley Plumbing Code shall apply to private sewage disposal systems.

A101.4.5 Property maintenance. The provisions of the Berkeley Mechanical Code shall apply to existing structures and premises; equipment and facilities; light, ventilation, space heating, sanitation, life and fire safety

hazards; responsibilities of owners, operators and occupants; and occupancy of existing premises and structures.

A101.4.6 Fire prevention. *The provisions of the Berkeley Fire Code shall apply to matters affecting or relating to structures, processes and premises from the hazard of fire and explosion arising from the storage, handling or use of structures, materials or devices; from conditions hazardous to life, property or public welfare in the occupancy of structures or premises; and from the construction, extension, repair, alteration or removal of fire suppression and alarm systems or fire hazards in the structure or on the premises from occupancy or operation.*

A101.4.7 Energy. *The provisions of the California Energy Code, Title 24, Part 6 shall apply to all matters governing the design and construction of buildings for energy efficiency.*

Exception: (OSHPD 1, 2 & 4) *Not required by OSHPD.*

A102 SECTION 102 – APPLICABILITY

A102.1 General. *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.*

A102.1.1 Additional requirements. (OSHPD 1, 2, 3, & 4)
See Chapter 1, Section 101.7.

A102.2 Other laws. *The provisions of this code shall not be deemed to nullify any provisions of local, state or federal law.*

A102.3 Application of references. *References to chapter or section numbers, or to provisions not specifically identified by number, shall be construed to refer to such chapter, section or provision of this code.*

A102.4 Referenced codes and standards. *The codes and standards referenced in this code shall be considered part of the requirements of this code to the prescribed extent of each such reference. Where differences occur between provisions of this code and referenced codes and standards, the provisions of this code shall apply.*

A102.5 Partial invalidity. *In the event that any part or provision of this code is held to be illegal or void, this shall not have the effect of making void or illegal any of the other parts or provisions.*

A102.6 Existing structures. *The legal occupancy of any structure existing on the date*

of adoption of this code shall be permitted to continue without change, except as is specifically covered in this code, the Berkeley Mechanical Code or the Berkeley Fire Code, or as is deemed necessary by the building official for the general safety and welfare of the occupants and the public.

A103 SECTION 103 – DEPARTMENT OF BUILDING SAFETY

Creation of enforcement agency. The Division of Building and Safety is hereby created and the official in charge thereof shall be known as the building official.

A103.1 Appointment. *The building official shall be appointed by the City Manager.*

A103.2 Deputies. *In accordance with the prescribed procedures of this jurisdiction and with the concurrence of the appointing authority, the building official shall have the authority to appoint a deputy building official, the related technical officers, inspectors, plan examiners and other employees. Such employees shall have powers as delegated by the building official. For the maintenance of existing properties, see the California Mechanical Code.*

A104 SECTION 104 – DUTIES AND POWERS OF BUILDING OFFICIAL

A104.1 General. *The building official is hereby authorized and directed to enforce the provisions of this code. The building official shall have the authority to render interpretations of this code and to adopt policies and procedures in order to clarify the application of its provisions. Such interpretations, policies and procedures shall be in compliance with the intent and purpose of this code. Such policies and procedures shall not have the effect of waiving requirements specifically provided for in this code.*

A104.2 Applications and permits. *The building official shall receive applications, review construction documents and issue permits for the erection, and alteration, demolition and moving of buildings and structures, inspect the premises for which such permits have been issued and enforce compliance with the provisions of this code.*

A104.3 Notices and orders. *The building official shall issue all necessary notices or orders to ensure compliance with this code.*

A104.4 Inspections. *The building official shall make all of the required inspections, or the building official shall have the authority to accept reports of inspection by approved agencies or individuals. Reports of such inspections shall be in writing and be certified by a responsible officer of such approved agency or by the responsible individual. The building official is authorized to engage such expert opinion as deemed necessary to report upon unusual technical issues that arise, subject to the approval of the appointing authority.*

A104.5 Identification. *The building official shall carry proper identification when inspecting structures or premises in the performance of duties under this code.*

A104.6 Right of entry. *Where it is necessary to make an inspection to enforce the provisions of this code, or where the building official has reasonable cause to believe that there exists in a structure or upon a premises a condition which is contrary to or in violation of this code which makes the structure or premises unsafe, dangerous or hazardous, the building official is authorized to enter the structure or premises at reasonable times to inspect or to perform the duties imposed by this code, provided that if such structure or premises be occupied that credentials be presented to the occupant and entry requested. If such structure or premises is unoccupied, the building official shall first make a reasonable effort to locate the owner or other person having charge or control of the structure or premises and request entry. If entry is refused, the building official shall have recourse to the remedies provided by law to secure entry.*

A104.7 Department records. *The building official shall keep official records of applications received, permits and certificates issues, fees collected, reports of inspections, and notices and orders issued. Such records shall be retained in the official records for the period required for retention of public records.*

A104.8 Liability. *The building official, member of the board of appeals or employee charged with the enforcement of this code, while acting for the jurisdiction in good faith and without malice in the discharge of the duties required by this code or other pertinent law or ordinance, shall not thereby be rendered liable personally and is hereby relieved from personal liability for any damage accruing to persons or property as a result of any act or by reason of an act or omission in the discharge of official duties. Any suit instituted against an officer or employee because of an act performed by that officer or employee in the lawful discharge of duties and under the provisions of this code shall be defended by legal representative of the jurisdiction until the final termination of the proceedings. The building official or any subordinate shall not be liable for cost in any action, suit or proceeding that is instituted in pursuance of the provisions of this code.*

A104.9 Approved materials and equipment. *Materials, equipment and devices approved by the building official shall be constructed and installed in accordance with such approval.*

A104.9.1 Used materials and equipment. *The use of used materials which meet the requirements of this code for new materials is permitted. Used equipment and devices shall not be reused unless approved by the building official.*

A104.10 Modifications. *Wherever there are practical difficulties involved in*

carrying out the provisions of this code, the building official shall have the authority to grant modifications for individual cases, upon application of the owner or owner's representative, provided the building official shall first find that special individual reason makes the strict letter of this code impractical and the modification is in compliance with the intent and purpose of this code and that such modification does not lessen health, accessibility, life and fire safety, or structural requirements. The details of action granting modifications shall be recorded and entered in the files of the department of building safety.

A104.11 Alternative materials, design and methods of construction and equipment. *The provisions of this code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative has been approved. An alternative material, design or method of construction shall be approved where the building official finds that the proposed design is satisfactory and complies with the intent of the provisions of this code, and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in this code in quality, strength, effectiveness, fire resistance, durability and safety.*

A104.11.1 Research reports. *Supporting data, where necessary to assist in the approval of materials or assemblies not specifically provided for in this code, shall consist of valid research reports from approved sources.*

A104.11.2 Tests. *Whenever there is insufficient evidence of compliance with the provisions of this code, or evidence that a material or method does not conform to the requirements of this code, or in order to substantiate claims for alternative materials or methods, the building official shall have the authority to require tests as evidence of compliance to be made at no expense to the jurisdiction. Test methods shall be as specified in this code or by other recognized test standards. In the absence of recognized and accepted test methods, the building official shall approve the testing procedures. Tests shall be performed by an approved agency. Reports of such tests shall be retained by the building official for the period required for retention of public records.*

A104.11.3 Peer review (OSHPD 1 & 4) *When peer review is required, it shall be performed pursuant to Section 3414A.*

A105 SECTION 105 – PERMITS

A105.1 Required. *Any owner or authorized agent who intends to construct, enlarge, alter, repair, move, demolish or change the occupancy of a building or structure, or to erect, install, enlarge, alter, repair, remove, convert or replace any electrical, gas, mechanical or plumbing system, the installation of which is*

regulated by this code, or to cause any such work to be done, shall first make application to the building official and obtain the required permit. If applicable, a City of Berkeley business license shall also be applied for and obtained as provided in the business license ordinance of the City of Berkeley.

A105.2 Work exempt from permit. Exemptions from permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction.

Building:

1. One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed 120 square feet (11 m²).
2. Fences not over 6 feet (1829 mm) high.
3. Oil derricks.
4. Retaining walls that are not over 4 feet (1219 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge or impounding Class I, II or IIIA liquids.
5. Water tanks supported directly on grade if the capacity does not exceed 5,000 gallons (18,925L) and the ratio of height to diameter or width does not exceed 2:1.
6. Sidewalks and driveways not more than 30 inches (762 mm) above adjacent grade, and not over any basement or story below and are not part of an accessible route.
7. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
8. Temporary motion picture, television and theater stage sets and scenery.
9. Prefabricated swimming pools accessory to a Group R-3 occupancy that are less than 24 inches (610 mm) deep, do not exceed 5,000 gallons (18,925L) and are installed entirely above ground.
10. Shade cloth structures constructed for nursery or agricultural purposes, not including service systems.
11. Swings and other playground equipment accessory to detached one- and two-family dwellings.

12. *Window awnings supported by an exterior wall that do not project more than 54 inches (1372 mm) from the exterior wall and do not require additional support of Group R-3 and U occupancies.*
13. *Nonfixed and movable fixtures, cases, racks, counters and partitions not over 5 feet 9 inches (1753 mm) in height*
14. *Light standards which do not exceed 15 feet (4572 mm) in height.*
15. *Playground equipment.*

Electrical:

Repairs and maintenance: *Minor repair work, including the replacement of lamps or the connection of approved portable electrical equipment to approved permanently installed receptacles.*

Radio and television transmitting stations: *The provisions of this code shall not apply to electrical equipment used for radio and television transmissions, but do apply to equipment and wiring for a power supply and the installations of towers and antennas.*

Temporary testing systems: *A permit shall not be required for the installation of any temporary system required for the testing or servicing of electrical equipment or apparatus.*

Gas:

1. *Portable heating appliance.*
2. *Replacement of any minor part that does not alter approval of equipment or make such equipment unsafe.*

Mechanical:

1. *Portable heating appliance.*
2. *Portable ventilation equipment.*
3. *Portable cooling unit.*
4. *Steam, hot or chilled water piping within any heating or cooling equipment regulated by this code.*
5. *Replacement of any part that does not alter its approval or make it unsafe.*

6. *Portable evaporative cooler.*
7. *Self-contained refrigeration system containing 10 pounds (5 kg) or less of refrigerant and actuated by motors of 1 horsepower (746W) or less.*

Plumbing:

1. *The stopping of leaks in drains, water, soil, waste or vent pipe, provided, however, that if any concealed trap, drain pipe, water, soil, waste or vent pipe becomes defective and it becomes necessary to remove and replace the same with the new material, such work shall be considered as new work and a permit shall be obtained and inspection made as provided in this code.*
2. *The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures and the removal and reinstallation of water closets, provided such repairs do not involve or require the replacement or rearrangement of valves, pipes or fixtures.*

A105.2.1 Emergency repairs. *Where equipment replacements and repairs must be performed in an emergency situation, the permit application shall be submitted within the next working business day to the building official.*

A105.2.2 Repairs. *Application or notice to the building official is not required for ordinary repairs to structures, replacement of lamps or the connection of approved portable electrical equipment to approved permanently installed receptacles. Such repairs shall not include the cutting away of any wall, partition or portion thereof, the removal or cutting of any structural beam or load-bearing support, or the removal or change of any required means of egress, or rearrangement of parts of a structure affecting the egress requirements; nor shall ordinary repairs include addition to, alteration of, replacement or relocation of any standpipe, water supply, sewer, drainage, drain leader, gas, soil, waste, vent or similar piping, electric wiring or mechanical or other work affecting public health or general safety.*

A105.2.3 Public service agencies. *A permit shall not be required for the installation, alteration or repair of generation, transmission, distribution or metering or other related equipment that is under the ownership and control of public service agencies by established right.*

A105.3 Application for permit. *To obtain a permit, the applicant shall first file an application therefore in writing on a form furnished by the department of building safety for that purpose. 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 and occupancy for which the proposed work is intended.*
4. *Be accompanied by construction documents and other information as required in Section 106.*
5. *State the valuation of the proposed work.*
6. *Be signed by the applicant, or the applicant's authorized agent.*
7. *Give such other data and information as required by the building official.*

A105.3.1 Action on application. *The building official shall examine or cause to be examined applications for permits and amendments thereto within a reasonable time after filing. If the application or the construction documents do not conform to the requirements of pertinent laws, the building official shall reject such application in writing, stating the reasons therefore. If the building official is satisfied that the proposed work conforms to the requirements of this code and laws and ordinances applicable thereto, the building official shall issue a permit therefore as soon as practicable.*

A105.3.2 Time limitation of application. *An application for a permit for any proposed work shall expire 180 days after the date of filing, unless it can be demonstrated by the applicant that such application has been pursued in good faith or a permit has been issued; except that the Permit Services Coordinator is authorized to grant one or more extensions of time for additional periods not exceeding a total of 1 (one) year. The extension shall be requested in writing and justifiable cause demonstrated. Prior to the application being deemed abandoned, further extensions of time for a period of 180 days may be granted by the building official on a case-by-case basis if demonstrated by the applicant that such application has been pursued in good faith. The building official may grant an extension of time of up to one year to complete the work, upon receipt of a written request from the permittee. The written request shall be accompanied by the payment of a fee set by resolution of the City Council. No permit shall be extended more than once.*

A105.4 Validity of permit. *The issuance or granting of a permit shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of this code or of any other ordinance of the jurisdiction. Permits presuming to give authority to violate or cancel the provisions of this code or other ordinances of the jurisdiction shall not be valid. The issuance of a permit based on construction documents and other data shall not prevent the building official from requiring the correction of errors in the construction documents and other data. The building official is also authorized to prevent occupancy or use of a structure where in violation of this code or of any other ordinances of this jurisdiction.*

A105.5 Expiration. Permits issued pursuant to the chapters enforced by the building official shall expire one year from the date of issuance, unless longer time periods are authorized by the building official.

Prior to expiration of the permit, the building official may grant an extension of time of one year to complete the work, upon receipt of a written request from the permittee. The written request shall be accompanied by the payment of a fee set by resolution of the City Council. No permit shall be extended more than once.

When a new permit is required to complete the work, a new permit application shall be filed describing the remaining work to be done. If a site visit or other review is required to determine the extent of the remaining work, a fee may be charged to make such determination.

A105.6 Suspension or revocation. *The building official is authorized to suspend or revoke a permit issued under the provisions of this code wherever the permit is issued in error or on the basis of incorrect, inaccurate or incomplete information, or in violation of any ordinance or regulation or any of the provisions of this code.*

A105.7 Placement of permit. *The building permit or copy shall be posted on the site of the work in a location that is visible from the street until the completion of the project.*

A106 SECTION A106 – CONSTRUCTION DOCUMENTS

A106.1 Submittal documents. *Construction documents, statement of special inspections and other data shall be submitted in one or more sets with each permit application. The construction documents shall be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed. Where special conditions exist, the building official is authorized to require additional construction documents to be prepared by a registered design professional.*

Exception: *The building official is authorized to waive the submission of construction documents and other data not required to be prepared by a registered design professional if it is found that the nature of the work applied for is such that review of construction documents is not necessary to obtain compliance with this code.*

A106.1.1 Information on construction documents. *Construction documents shall be dimensioned and drawn upon suitable material. Electronic media documents are permitted to be submitted when approved by the building official. Construction documents shall be of sufficient clarity to*

indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of this code and relevant laws, ordinances, rules and regulations, as determined by the building official.

A106.1.1.1 Fire protection system shop drawings. *Shop drawings for the fire protection system(s) shall be submitted to indicate conformance with this code and the construction documents and shall be approved prior to the start of system installation. Shop drawings shall contain all information as required by the referenced installation standards in Chapter 9.*

A106.1.2 Means of egress. *The construction documents shall show in sufficient detail the location, construction, size and character of all portions of the means of egress in compliance with the provisions of this code. In other than occupancies in Groups R-2, R-3, and 1-1, the construction documents shall designate the number of occupants to be accommodated on every floor, and in all rooms and spaces.*

A106.1.3 Exterior wall envelope. *Construction documents for all buildings shall describe the exterior wall envelope in sufficient detail to determine compliance with this code. The construction documents shall provide details of the exterior wall envelope as required, including flashing, intersections with dissimilar materials, corners, end details, control joints, intersections at roof, eaves or parapets, means of drainage, water-resistive membrane and details around openings.*

The construction documents shall include manufacturer's installation instructions that provide supporting documentation that the proposed penetration and opening details described in the construction documents maintain the weather resistance and the fire resistance of the exterior wall envelope. The supporting documentation shall fully describe the exterior wall system which was tested, where applicable, as well as the test procedure used.

A106.2 Site plan. *The construction documents submitted with the application for permit shall be accompanied by a site plan showing to scale the size and location of new construction and existing structures on the site, distances from lot lines, the established street grades and the proposed finished grades and, as applicable, flood hazard areas, floodways, and design flood elevations; and it shall be drawn in accordance with an accurate boundary line survey. In the case of demolition, the site plan shall show construction to be demolished and the location and size of existing structures and construction that are to remain on the site or plot. The building official is authorized to waive or modify the requirement for a site plan when the application for permit is for alteration or repair or when otherwise warranted.*

A106.3 Examination of documents. *The building official shall examine or cause to be examined the accompanying construction documents and shall ascertain by such examinations whether the construction indicated and described is in accordance with the requirements of this code and other pertinent laws or ordinances.*

A106.3.1 Approval of construction documents. *When the building official issues a permit, the construction documents shall be approved, in writing or by stamp, as “Reviewed for Code Compliance.” One set of construction documents so reviewed shall be retained by the building official. The other set shall be returned to the applicant, shall be kept at the site of work and shall be open to inspection by the building official or a duly authorized representative.*

A106.3.2 Previous approvals. *This code shall not require changes in the construction documents, construction or designated occupancy of a structure for which a lawful permit has been heretofore issued or otherwise lawfully authorized, and the construction of which has been pursued in good faith within 180 days after the effective date of this code and has not been abandoned.*

A106.3.3 Phased approval. *The building official is authorized to issue a permit for the construction of foundations or any other part of a building or structure before the construction documents for the whole building or structure have been submitted, provided that adequate information and detailed statements have been filed complying with pertinent requirements of this code. The holder of such permit for the foundation or other parts of a building or structure shall proceed at the holder’s own risk with the building operation and without assurance that a permit for the entire structure will be granted.*

A106.3.4 Design professional in responsible charge.

A106.3.4.1 General. *When it is required that documents be prepared by a registered design professional, the building official shall be authorized to require the owner to engage and designate on the building permit application a registered design professional who shall act as the registered design professional in responsible charge. If the circumstances require, the owner shall designate a substitute registered design professional in responsible charge who shall perform the duties required of the original registered design professional in responsible charge. The building official shall be notified in writing by the owner if the registered design professional in responsible charge is changed or is unable to continue to perform the duties.*

The registered design professional in responsible charge shall be

responsible for reviewing and coordinating submittal documents prepared by others, including phased and deferred submittal items, for compatibility with the design of the building.

Where structural observation is required by Section 1709, the statement of special inspections shall name the individual or firms who are to perform structural observation and describe the stages of construction at which structural observation is to occur (see also duties specified in Section 1704).

A106.3.4.2 Deferred submittals. *For the purposes of this section, deferred submittals are defined as those portions of the design that are not submitted at the time of the application and that are to be submitted to the building official within a specified period.//Deferral of any submittal items shall be submitted to the registered design professional in responsible charge who shall review them and forward them to the building official with a notation indicating that the deferred submittal documents have been reviewed and been found to be in general conformance to the design of the building. The deferred submittal items shall not be installed until the design and submittal documents have been approved by the building official.*

A106.4 Amended construction documents. *Work shall be installed in accordance with the approved construction documents, and any changes made during construction that are not in compliance with the approved construction documents shall be resubmitted for approval as an amended set of construction documents.*

A106.5 Retention of construction documents. *One set of approved construction documents shall be retained by the building official for a period of not less than 180 days from date of completion of the permitted work, or as required by state or local laws.*

A107 SECTION 107 – TEMPORARY STRUCTURES AND USES

A107.1 General. *The building official is authorized to issue a permit for temporary structures and temporary uses. Such permits shall be limited as to time of service, but shall not be permitted for more than 180 days. The building official is authorized to grant extensions for demonstrated cause.*

A107.2 Conformance. *Temporary structures and uses shall conform to the structural strength, fire safety, means of egress, accessibility, light, ventilation and sanitary requirements of this code as necessary to ensure public health, safety and general welfare.*

A107.3 Temporary power. *The building official is authorized to give permission to temporarily supply and use power in part of an electric installation before such installation has been fully completed and the final certificate of completion has been issued. The part covered by the temporary certificate shall comply with the requirements specified for temporary lighting, heat or power in the Berkeley Electrical Code.*

A107.4 Termination of approval. *The building official is authorized to terminate such permit for a temporary structure or use and to order the temporary structure or use to be discontinued.*

A108 SECTION 108 – FEES

A108.1 Payment of fees. *A permit shall not be valid until the fees prescribed by law have been paid, nor shall an amendment to a permit be released until the additional fee, if any, has been paid.*

A108.2 Schedule of permit fees. *Fees for permits and inspections and other related services under this Code shall be assessed and paid as set forth by resolution of the City Council. Unless waived or deferred as provided by local regulations, a plan review fee and other fees as specified in the resolution shall be paid at the time of submitting any documents for review, and additional fees as specified in the resolution shall be paid at issuance of the permit.*

A108.3 Building permit valuations. *The applicant for a permit shall provide an estimated permit value at time of application. Permit valuations shall include total value of work, including materials and labor, for which the permit is being issued, such as electrical, gas, mechanical, plumbing equipment and permanent systems. If, in the opinion of the building official, the valuation is underestimated on the application, the permit shall be denied, unless the applicant can show detailed estimates to meet the approval of the building official. Final building permit valuation shall be set by the building official.*

A108.4 Work commencing before permit issuance. *Whenever any work for which a permit is required by this Code has been commenced without first obtaining said permit, an investigation fee, in addition to the permit fee, shall be collected whether or not a permit is then or subsequently issued. The investigation fee shall be equal to the amount of the permit fee required by the code. The minimum investigation fee shall be as set forth by resolution of the City Council. The payment of such investigation fee shall not exempt any person from compliance with all the provisions of this code nor from any penalty prescribed by law.*

A108.5 Related fees. *The payment of the fee for the construction, alteration, removal*

or demolition for work done in connection to or concurrently with the work authorized by a building permit shall not relieve the applicant or holder of the permit from the payment of other fees that are prescribed by law.

A108.5.1 Reinspection fees. A reinspection fee, as set forth by resolution of the City Council, may be assessed for each inspection or reinspection when such portion of work for which inspection is called for under Section 109 is not complete or when corrections called for are not made.

This subsection is not to be interpreted as requiring reinspection fees the first time a job is rejected for failure to comply with the requirements of this code, but as controlling the practice of calling for inspections before the job is ready for such inspection or reinspection.

Reinspection fees may be assessed when the inspection record card is not posted or otherwise available on the work site, the approved plans are not readily available to the inspector, for failure to provide access on the date for which inspection is requested, or for deviating from plans requiring the approval of the building official.

To obtain a reinspection, the applicant shall pay the reinspection fee as set forth by resolution of the City Council. In instances where reinspection fees have been assessed, no additional inspection of the work will be performed until the required fees have been paid.

A108.6 Refunds. *The building official is authorized to establish a refund policy.*

A109 SECTION 109 – INSPECTIONS

A109.1 General. *Construction or work for which a permit is required shall be subject to inspection by the building official and such construction or work shall remain accessible and exposed for inspection purposes until approved. Approval as a result of an inspection shall not be construed to be an approval of a violation of the provisions of this code or of other ordinances of the jurisdiction. Inspections presuming to give authority to violate or cancel the provisions of this code or of other ordinances of the jurisdiction shall not be valid. It shall be the duty of the permit applicant to cause the work to remain accessible and exposed for inspection purposes. Neither the building official nor the jurisdiction shall be liable for expense entailed in the removal or replacement of any material required to allow inspection.*

A109.2 Preliminary inspection. *Before issuing a permit, the building official is authorized to examine or cause to be examined buildings, structures and sites for which an application has been filed.*

A109.3 Required inspections. The building official, upon notification, shall make the inspections set forth in Sections 109.3.1 through 109.3.10.

A109.3.1 Footing and foundation inspection. Footing and foundation inspections shall be made after excavations for footings are complete and any required reinforcing steel is in place. For concrete foundations, any required forms shall be in place prior to inspection. Materials for the foundation shall be on the job, except where concrete is ready mixed in accordance with ASTM C 94, the concrete need not be on the job.

A109.3.2 Concrete slab and under-floor inspection. Concrete slab and under-floor inspections shall be made after in-slab or under-floor reinforcing steel and building service equipment, conduit, piping accessories and other ancillary equipment items are in place, but before any concrete is placed or floor sheathing installed, including the subfloor.

A109.3.3 Lowest floor elevation. In flood hazard areas, upon placement of the lowest floor, including the basement, and prior to further vertical construction, the elevation certification required in Section 1612.5 shall be submitted to the building official.

A109.3.4 Frame inspection. Framing inspections shall be made after the roof deck or sheathing, all framing, fireblocking and bracing are in place and pipes, chimneys and vents to be concealed are complete and the rough electrical, plumbing, heating wires, pipes and ducts are approved.

A109.3.5 Lath and gypsum board inspection. Lath and gypsum board inspections shall be made after lathing and gypsum board, interior and exterior, is in place, but before any plastering is applied or gypsum board joints and fasteners are taped and finished.

Exception: Gypsum board that is not part of a fire-resistance-rated assembly or a shear assembly.

A109.3.6 Fire-resistant penetrations. Protection of joints and penetrations in fire-resistance-rated assemblies shall not be concealed from view until inspected and approved.

A109.3.7 Energy efficiency inspections. Inspections shall be made to determine compliance with Chapter 13 and shall include, but not be limited to, inspections for: envelope insulation R and U values, fenestration U value, duct system R value, and HVAC and water-heating equipment efficiency.

A109.3.8 Other inspections. In addition to the inspections specified above, the building official is authorized to make or require other inspections of any construction work to ascertain compliance with the provisions of this code

and other laws that are enforced by the department of building safety.

A109.3.9 Special inspections. *For special inspections, see Section 1704.*

A109.3.10 Final inspection. *The final inspection shall be made after all work required by the building permit is completed.*

A109.3.11 Final inspections for re-roofing. *A final inspection and approval shall be obtained from the building official when the re-roofing is complete and for certain residential buildings containing gas heating appliances when the certification requirements of Housing Code Section 701.4(b) have been met.*

A109.4 Inspection agencies. *The building official is authorized to accept reports of approved inspection agencies, provided such agencies satisfy the requirements as to qualifications and reliability.*

A109.5 Inspection requests. *It shall be the duty of the holder of the building permit or their duly authorized agent to notify the building official when work is ready for inspection. It shall be the duty of the permit holder to provide access to and means for inspections of such work that are required by this code.*

A109.6 Approval required. *Work shall not be done beyond the point indicated in each successive inspection without first obtaining the approval of the building official. The building official, upon notification, shall make the requested inspections and shall either indicate the portion of the construction that is satisfactory as completed, or notify the permit holder or his or her agent wherein the same fails to comply with this code. Any portions that do not comply shall be corrected and such portion shall not be covered or concealed until authorized by the building official.*

A110 SECTION 110 – CERTIFICATE OF OCCUPANCY

A110.1 Use and occupancy. *No building or structure shall be used or occupied, and no change in the existing occupancy classification of a building or structure or portion thereof shall be made until the building official has issued a certificate of occupancy therefore as provided herein. Issuance of a certificate of occupancy shall not be construed as an approval of a violation of the provisions of this code or of other ordinances of the jurisdiction.*

A110.2 Certificate issued. *After the building official inspects the building or structure and finds no violations of the provisions of this code or other laws that are enforced by the department of building safety, the building official shall issue a certificate of occupancy that contains the following:*

1. *The building permit number.*
2. *The address of the structure.*
3. *The name and address of the owner.*
4. *A description of that portion of the structure for which the certificate is issued.*
5. *A statement that the described portion of the structure has been inspected for compliance with the requirements of this code for the occupancy and division of occupancy and the use for which the proposed occupancy is classified.*
6. *The name of the building official.*
7. *The edition of the code under which the permit was issued.*
8. *The use and occupancy, in accordance with the provisions of Chapter 3.*
9. *The type of construction as defined in Chapter 6.*
10. *The design occupant load.*
11. *If an automatic sprinkler system is provided, whether the sprinkler system is required.*
12. *Any special stipulations and conditions of the building permit.*

A110.3 Temporary occupancy. *The building official is authorized to issue a temporary certificate of occupancy before the completion of the entire work covered by the permit, provided that such portion or portions shall be occupied safely. The building official shall set a time period during which the temporary certificate of occupancy is valid.*

A110.4 Revocation. *The building official is authorized to, in writing, suspend or revoke a certificate of occupancy or completion, or a temporary certificate of occupancy, issued under the provisions of this code wherever the certificate is issued in error, or on the basis of incorrect information supplied, or where 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.*

A111 SECTION A111 – SERVICE UTILITIES

A111.1 Connection of service utilities. *No person shall make connections from a utility, source of energy, fuel or power to any building or system that is regulated*

by this code for which a permit is required, until released by the building official.

A111.2 Temporary connection. *The building official shall have the authority to authorize the temporary connection of the building or system to the utility source of energy, fuel or power.*

A111.3 Authority to disconnect service utilities. *The building official shall have the authority to authorize disconnection of utility service to the building, structure or system regulated by this code and the codes referenced in case of emergency where necessary to eliminate an immediate hazard to life or property. The building official shall notify the serving utility, and wherever possible the owner and occupant of the building, structure or service system of the decision to disconnect prior to taking such action. If not notified prior to disconnecting, the owner or occupant of the building, structure or service system shall be notified in writing, as soon as practical thereafter.*

A112 SECTION A112 – BOARD OF APPEALS

A112.1 General. *In order to hear and decide appeals of orders, decisions, or determinations made by the building official relative to the application and interpretation of this code, there shall be and is hereby created a board of appeals consisting of the Housing Advisory Commission pursuant to Section 19.44.020 of the Berkeley Housing Code. The Building Official may convene and consult with an advisory panel of qualified individuals. This advisory panel is intended to help the Building Official in formulating and making staff recommendations to the Housing Advisory Commission. The advisory panel may provide written and/or oral presentations to the Housing Advisory Commission as needed.*

A112.2 Limitations on authority. *An application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of this code do not fully apply or an equally good or better form of construction is proposed. The board shall have no authority to waive requirements of this code.*

A112.3 Qualifications. *The board of appeals shall consist of members meeting the qualifications required for the Housing Advisory Commission. The advisory panel shall consist of individuals found by the Building Official to be qualified by experience and training in the specific area of the appeal who are not employees of the jurisdiction.*

A113 SECTION A113 – VIOLATIONS

A113.1 Unlawful acts. *It shall be unlawful for any person, firm or corporation to erect, construct, alter, extend, repair, move, remove, demolish or occupy any building,*

structure or equipment regulated by this code, or cause same to be done, in conflict with or in violation of any of the provisions of this code.

A113.2 Notice of violation. *The building official is authorized to serve a notice of violation or order on the person responsible for the erection, construction, alteration, extension, repair, moving, removal, demolition or occupancy of a building or structure in violation of the provisions of this code, or in violation of a permit or certificate issued under the provisions of this code. Such order shall direct the discontinuance of the illegal action or condition and the abatement of the violation.*

A113.3 Prosecution of violation. *If the notice of violation is not complied with promptly, the building official is authorized to request the legal counsel of the jurisdiction to institute the appropriate proceeding at law or in equity to restrain, correct or abate such violation, or to require the removal or termination of the unlawful occupancy of the building or structure in violation of the provisions of this code or of the order or direction made pursuant thereto.*

A113.4 Violation penalties. *Any person who violates a provision of this code or fails to comply with any of the requirements thereof or who erects, constructs, alters or repairs a building or structure in violation of the approved construction documents or directive of the building official, or of a permit or certificate issued under the provisions of this code, shall be subject to penalties as prescribed by law. Violations of this Code are misdemeanors, but may be cited or charged, at the election of the enforcing officer, Building Official, or City Attorney, as infractions, subject to an election by the defendant under Penal Code Subsection 17(d). Nothing in this Section shall prevent any other remedy afforded by law.*

A114 SECTION A114 – STOP WORK ORDER

A114.1 Authority. *Whenever the building official finds any work regulated by this code being performed in a manner either contrary to the provisions of this code or dangerous or unsafe, the building official is authorized to issue a stop work order.*

A114.2 Issuance. *The stop work order shall be in writing and shall be given to the owner of the property involved, or to the owner's agent, or to the person doing the work. Upon issuance of a stop work order, the cited work shall immediately cease. The stop work order shall state the reason for the order, and the conditions under which the cited work will be permitted to resume.*

A114.3 Unlawful continuance. *Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be subject to*

penalties as prescribed by law.

A115 SECTION 115 – UNSAFE STRUCTURES AND EQUIPMENT

A115.1 Conditions. *All buildings, structures and equipment regulated by this code that are structurally unsafe or not provided with adequate egress, or that constitute a fire hazard, or are otherwise dangerous to human life are, for the purpose of this section, unsafe. Any use of structures or equipment constituting a hazard to safety, health or public welfare by reason of inadequate maintenance, dilapidation, obsolescence, fire hazard, disaster, damage or abandonment is, for the purpose of this section, an unsafe use. Parapet walls, cornices, spires, towers, tanks, statuary and other appendages or structural members that are supported by, attached to, or part of a building and that are in deteriorated condition or otherwise unable to sustain the design loads that are specified in this code are hereby designated as unsafe building appendages.*

All such unsafe buildings, equipment, structures or appendages are hereby declared to be public nuisances and shall be abated by repair, rehabilitation, demolition or removal in accordance with the procedures set forth in Chapters 1.24, 19.28, 19.40 and 19.44 of the BMC as applicable. As an alternative, the building official, or other employee or official of this jurisdiction as designated by the City Council, may institute any other appropriate action to prevent, restrain, correct or abate the violation.

Whenever a permit is issued to correct a violation pursuant to the chapters enforced by the building official, or pursuant to any other law, ordinance, rule or regulation, to rehabilitate, repair, or demolish a dangerous, substandard, illegal, unsafe or unsanitary building or structure, electrical, plumbing, or mechanical installation, or to otherwise abate a nuisance, the building official shall establish a reasonable time for the completion of the work.

A115.2 Record. *The building official shall cause a report to be filed on an unsafe condition. The report shall state the occupancy of the structure and the nature of the unsafe condition.*

A115.3 Notice. *If an unsafe condition is found, the building official shall serve on the owner, agent or person in control of the structure, a written notice that describes the condition deemed unsafe and specifies the required repairs or improvements to be made to abate the unsafe condition, or that requires the unsafe structure to be demolished within a stipulated time. Such notice shall require the person thus notified to declare immediately to the building official acceptance or rejection of the terms of the order.*

A115.4 Method of service. *Such notice shall be deemed properly served if a copy thereof is (a) delivered to the owner personally; (b) sent by certified or*

registered mail addressed to the owner at the last known address with the return receipt requested; or (c) delivered in any other manner as prescribed by local law. If the certified or registered letter is returned showing that the letter was not delivered, a copy thereof shall be posted in a conspicuous place in or about the structure affected by such notice. Service of such notice in the foregoing manner upon the owner's agent or upon the person responsible for the structure shall constitute service of notice upon the owner.

A115.5 Restoration. The structure or equipment determined to be unsafe by the building official is permitted to be restored to a safe condition. To the extent that repairs, alterations or additions are made or a change of occupancy occurs during the restoration of the structure, such repairs, alterations, additions or change of occupancy shall comply with the requirements of Section 105.2.2 and Chapter 34.

A115.6 Safety Assessment Placards. A new section is added as follows:

A115.6.1 Intent. This section establishes standard placards to be used to indicate the condition of a structure for continued occupancy. The chapter further authorizes the Building Official and his or her authorized representatives to post the appropriate placard at each entry point to a building or structure upon completion of a safety assessment.

A115.6.2 Application of Provisions. The provisions of this section are applicable to all building and structure of all occupancies regulated by the City of Berkeley. The Council may extend the provisions as necessary.

A115.6.3 Definitions.

A115.6.3.1 "Safety Assessment" is a visual, non-destructive examination of a building or structure for the purpose of determining the condition for continued occupancy.

A115.6.3.2 Placards. The following are verbal descriptions of the official jurisdiction placards to be used to designate the condition for continued occupancy of buildings or structures. Copies of actual placards are on file in the Planning Department.

INSPECTED – Lawful Occupancy Permitted is to be posted on any building or structure wherein no apparent structural hazard has been found. This placard is not intended to mean that there is no damage to the building or structure.

RESTRICTED USE is to be posted on each building or structure that has been damaged wherein the damage has resulted in some form of restriction to be the continued occupancy. The individual who posts this placard will note in general terms the type of damage encountered and will clearly and concisely note the restrictions on continued occupancy.

UNSAFE – Do Not Enter or Occupy is to be posted on each building or structure that has been damaged such that continued occupancy poses a threat to life safety. Building or structures posted

with this placard shall not be entered under any circumstances except as authorized in writing by the Building Official, or his or her authorized representative. Safety assessment teams shall be authorized to enter these building at any time. This placard is not to be used or considered as a demolition order. The individual who posts this placard will note in general terms the type of damage encountered.

A115.6.4 Content of placard. The BMC Section number and the words “City of Berkeley” shall be permanently affixed to each placard.

A115.6.5 Unlawful to remove. Once a placard has been attached to a building or structure, it is not to be removed, altered or covered until done so by an authorized representative of the Building Official. It shall be unlawful for any person, firm or corporation to alter, remove, cover or deface a placard unless authorized pursuant to this section.

19.28.030 Adoption of Certain Sections of Chapter 1 General Code Provisions

Only Sections 101.1, 102, 108, 109.1, 110.3, and 111, of Chapter 1, (i.e. those required by the California Building Code Matrix Adoption Table) are adopted, revised as follows:

A. 101.1 Title. is revised as follows:

These regulations shall be known as the “Berkeley Building Code, may be cited as such, and shall be referred to herein as “this code.” This code adopts the California Building Code with local amendments.

B. 101.3 Scope. is revised to make the code applicable to the jurisdiction of the City of Berkeley rather than the State of California..

C. 109.1.2 Special conditions for persons with disabilities requiring appeals action ratification. Is revised as follows:

Whenever reference is made in these regulations to this section, the findings and determinations required to be rendered by the local enforcing agency shall be subject to ratification through an appeals process as specified in Section A109.1 of the California Building Code and in Section 19.44.020 of the Berkeley Municipal Code (BMC).

Article 2. Live/Work Occupancies

19.28.040 Section 313 Live work occupancies. A new section is added to Chapter 3 Use and Occupancy Classification. as follows:

313.1 Live work occupancies defined.

Group LW occupancies shall be: Live/work and work/live uses located outside of residential zoning districts where artists, artisans and similarly situated individuals occupy joint living and work quarters. When the combined live and work area within

a unit exceeds 1500 square feet such unit shall be classified by the building official as a work/live occupancy and shall be included in the B/M/F occupancy group that its use most nearly resembles as set forth in Chapter 3 of the California Building Code. When the combined live and work area within a unit is 1500 square feet or less such unit shall be classified as live/work R occupancy under the CBC.

313.2 Requirements for live/work occupancies.

A. General Requirements.

1. Any building which contains a live/work or work/live occupancy shall comply with the latest edition of the CBC except as provided for herein. Each live/work and work/live occupancy shall comply with the standards of habitability set forth in the California Building Code.
2. Buildings or parts of buildings containing live/work or work/live occupancies shall be equipped with fire sprinklers and fire alarms designed and installed in accordance with the requirements of Chapter 9 of the latest edition of the CBC, the latest edition of the California Fire Code (CFC) and other application regulations of the Fire Department, which may vary, depending upon the use, size of the structure and location of the structure.
3. Live/work or work/live units shall be separated from each other and from the rest of the building by not less than one-hour fire resistive occupancy separations.

B. Living Space and Accessory Uses. Any workroom or area within a live/work unit shall be deemed an accessory use to the primary residential occupancy. Any residential area within a work/live unit shall be deemed an accessory use to the primary non-residential occupancies. In no case shall there be less than 120 square feet of living area exclusive of kitchen, bath, closets and hallways in any live/work or work/live occupancy. For purposes of calculating this 120 square foot requirement, the living room, dining room, family room, sleeping area or other area designated for a similar use of a residential nature shall be deemed as living area. All other habitable rooms except kitchens shall have an area of not less than 70 square feet. Single room residential areas (efficiency dwelling units) shall comply with the requirements of CBC Section 310.7).

C. Electrical, Mechanical, and Plumbing Requirements. Except as otherwise stated herein, all electrical, mechanical, and plumbing work in any building which contains any live/work and or work/live occupancies shall satisfy the latest edition of the California Plumbing, Mechanical and Electrical Codes as amended by the Berkeley Municipal Code.

D. Energy Conservation. Buildings or parts of buildings containing live/work or work/live occupancies shall comply with the Title 24 energy efficiency standards for residential buildings, unless otherwise determined by the building official.

Exception: Where an occupancy separation within an individual unit is installed between live and work areas, the Title 24 energy standards for the respective occupancies may apply.

E. Disabled Access.

1. Buildings with three or more work/live or live/work units shall comply with

the residential disabled access requirements of Chapter 11A of the CBC.

2. Regardless of the number of units, any area within work/live or live/work occupancies, where such area is available for use by clients, employees or the general public, shall in addition comply with commercial disabled access requirements of the most recent edition of the CBC.

Exception: In lieu of an accessible public bathroom in each work/live or live/work unit, fully accessible bathroom facilities may be provided in common areas located on an accessible route of travel within a reasonable distance of accessible units.

3. Any live/work or work/live occupancies shall also comply with the accessibility requirements of the California, Plumbing, Mechanical, and Electrical Codes.

F. Occupancy Requirements, Exiting, and Area Separations.

1. Any building or part of building which contains one or more work/live occupancies shall satisfy the following requirements:

a) Any building or part of building shall comply with the applicable provisions of the CBC requirements for the respective occupancy group, as defined by CBC Section 301.

b) The living area of each unit containing any work/live occupancy shall be provided with at least one exit which does not require persons to exit through the work area.

2. Any building or part of building which contains live/work occupancies shall satisfy the following requirements:

a) Building or part of building containing one or two live/work units shall comply with the requirements for R-3 occupancy.

b) Building or part of building containing three or more live/work units shall comply with the requirements for R-1 occupancy.

3. Any building containing floor area in excess of 10,000 square feet shall be permitted if and only if they are subdivided with area separation walls into portions of no more than 10,000 square feet in accordance with Section 504.6 of the most recent edition of the CBC.

Exception: Such area separation walls shall not be required in buildings where fire sprinklers are required pursuant to Section 19.28.130(A) and not required by any other provision of this Code or the Uniform Fire Code.

4. Buildings which contain both live/work and work/live occupancies shall comply with the most restrictive applicable requirements of Sections 19.28.130(F) 1 and 2 above.

G. Mixed uses and other uses in live/work. Mixed use occupancies shall be classified by the building official in accordance with this code and shall comply with all of the requirements of this code including, but not limited to, occupancy separation, allowable area and independent exits as required by this code of the proposed occupancy.

H. Relationship to other code requirements. Except with respect to those requirements, standards and provisions specifically imposed by this Chapter, construction materials and methods of construction shall be governed by and in accordance with the CBC. In the event there is a conflict between any

requirement, standard or provision imposed by this Chapter and any other provision, standard or requirement of state law, the more restrictive standard shall apply.

Article 3. Restrictions in Fire Zones

19.28.050 Chapter 7A Materials and Construction Methods for Exterior Wildlife Exposure. A new chapter replacing CBC Chapter 7A is adopted as follows:

A. 701A.1 Fire zones defined.

For the purpose of this code, three fire zones are created and established in the city, said fire zones to be known and designated as Fire Zone One, Fire Zone Two, and Fire Zone Three.

B. 702A.1 Restrictions in fire zone one.

Fire Zone One shall encompass the entire City of Berkeley except for Fire Zones Two and Three. Buildings or structures complying with the requirements of this code may be erected, constructed, moved within or into Fire Zone One.

C. 703A.1 Restrictions in fire zone two.

A. General. Fire Zone Two encompasses those areas designated as Combined Hillside Districts in the Official Zoning Map of the City of Berkeley as it may be amended from time to time. Buildings or structures hereafter erected, constructed, or moved within or into Fire Zone Two shall comply with the requirements for buildings or structures in Fire Zone One and in addition shall meet the requirements of this section. Except as expressly limited herein, the following requirements, standards, and provisions shall apply to the construction, re-construction, alteration, re-roofing, and repair of any building or structure located in Fire Zone Two:

Exception: Structures exempt from a building permit under CBC Sec A105.2.

B. Roofing. A minimum Class 'A' roofing assembly, as defined in the latest edition of the California Building Code, is required for all new construction and for re-roofing. Acceptable standards for Class 'A' rating shall be any assembly, except as noted below, defined in the latest applicable edition of this code as Class 'A,' and any Class 'A' assembly listed by an approved listing agency including but not limited to ICBO, Warnock-Hersey, and Underwriters Lab. Tile roofs shall be stopped at the eave ends to preclude entry of flame or embers under the tile. Wooden shakes and shingles are prohibited roof coverings regardless of the assembly rating of the roof system.

Exception: Replacement of less than 50% of the roof area within a 5 year period.

Whenever a structure is re-roofed, a spark arrestor as specified in section 7 below is required.

C. Solid roofed structures: Solid roofed structures, such as gazebos, carports and patio covers, shall be of heavy timber, non-combustible or one-hour fire resistive construction throughout.

Exception: Structures located over non-combustible surfaces extending a minimum of 5 feet measured horizontally in any direction beyond the footprint of such structures.

D. Roof decks shall be of any approved non-combustible material or 3" thick spaced wood decking.

Exceptions:

1. Replacement of less than 50% of a legally constructed roof deck within a 5 year period.
2. Portable roof decks less than 16 square feet per module.

E. Exterior Walls: Exterior walls of buildings or structures shall be constructed with materials approved for one-hour fire resistive construction on the exterior side or any alternate equivalent assembly approved by the Building Official. Additionally, wood shingles and shakes applied to vertical surfaces shall be fire retardant treated by the manufacturer.

Exception: Where less than 50% of any wall surface is being replaced or repaired, and the matching of the new plane to the existing plane on that wall is not possible.

Note: These provisions apply only where rated fire resistive exterior walls are not otherwise required.

F. Decks, Balconies and Exterior Stairs: All decks, balconies and exterior stairs located on a slope of 15% or greater shall be of one of the following:

1. One-hour fire resistive construction
2. Heavy timber construction
3. Noncombustible materials
4. Any combination of the above

Exceptions:

1. Decks, balconies and exterior stairs located on a slope of less than 15% that extends a minimum of 5 feet measured horizontally in any direction beyond the footprint of such structures.
2. Decks, balconies and exterior stairs located over non-combustible surfaces extending a minimum of 5 feet measured horizontally in any direction beyond the footprint of such structures.
3. Portions of decks, stairs and balconies more than fifteen (15) feet above grade shall not be required to be protected as otherwise required herein regardless of slope.
4. New or replaced landings and stairs with a combined projected area of 25 square feet or less.
5. The replacement of decking boards on legally constructed existing decks.
6. Handrails, guardrails, and trim.

The underside of decks, balconies and exterior stairs may be unprotected if totally enclosed with materials approved for one-hour fire resistive

construction on the exterior side or any alternate equivalent assembly approved by the Building Official, and is carried down to the ground such that fire cannot enter underneath, provided the decking material consists of 3" thick minimum lumber.

Note: Heavy timber construction for decks, balconies and exterior stairs is defined in section 605.6 of the California Building Code as modified to require the following nominal minimum member sizes: 8"x 8" columns, 6"x 10" floor framing members, 3" thick spaced decking, 3"x minimum ledgers, 4"x minimum stringers and 3"x minimum treads.

G. Miscellaneous structures: Trellises, arbors and similar garden structures shall be of one hour, heavy timber or non-combustible construction.

Exceptions:

1. Miscellaneous structures located more than 20 feet from another structure and more than 10 feet from a property line.
2. Trellises, arbors, and similar garden structures constructed over noncombustible surfaces which extend at least 5 feet measured horizontally in any direction beyond the outer edge of the structure.

H. Spark arrestors. All chimneys of fireplaces, stoves, barbecues or heating appliances using solid fuel shall be provided with an approved spark arrestor as prescribed in this code. Whenever modification has been made to any of these appliances, or whenever a structure is re-roofed, a spark arrestor is required. The net free area of the spark arrestor shall be not less than four times the net free area of the outlet of the chimney. The spark arrestor shall have heat and corrosion resistance equivalent to twelve gauge wire, nineteen gauge galvanized wire, or twenty-four gauge stainless steel. Openings shall not permit the passage of spheres having a diameter larger than one-half inch and shall not block the passage of spheres having a diameter of less than three-eighths inch. The arrestor shall be securely attached to the chimney or stovepipe and shall be adequately supported. The use of bands, mollies, masonry anchors or mortar ties are recommended depending upon the individual need.

I. Windows and Doors. Exterior windows, window walls, doors with glazing, and skylights shall be tempered glass or multi-layered glazed panels.

J. Overhangs. Roof overhangs extending more than ten inches from exterior walls shall be protected by any one of the following:

1. One-hour fire resistive materials are required on the underside of the overhangs. Fascias are required and shall be protected on the backside by materials approved for one-hour fire-resistive construction or 2"x minimum fascia shall be used.
2. "Heavy timber" construction.

Exception: When all portions of the eave or overhang are greater than sixteen feet above grade, or when the eaves or overhangs are above noncombustible patios, sidewalks or driveways which extend at least 5 feet beyond the roof drip edge, these requirements and

standards shall not apply.

K. Vents. Vents shall meet the following requirements:

1. Underfloor and roof vents shall be prohibited on any side of a structure facing a slope down and away from the structure.
2. Eave vents, where installed, shall not be a continuous strip, and shall incorporate features which shall inhibit intrusion of fire including but not limited to “midget louvers.”

Exception: Vents equipped with manual or automatic dampers.

L. Unenclosed under floor area. Buildings or structures shall have all under floor areas enclosed to the ground with construction as required for exterior walls.

Exception: 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.

M. Underground utility connections. For new construction, provisions shall be made for the undergrounding of all utilities serving the property, including but not limited to electrical, telephone and cable television, by the installation of appropriately sized underground conduits extending from the street property line to the location of the electric service panel and/or other applicable utility panel or junction. The conduit shall be extended a minimum of twelve inches above grade adjacent to the house and capped off. The installation must be in accordance with the most current PG&E standards and other applicable laws.

D. 704A.4 Restrictions in fire zone three.

A. General. Fire Zone Three encompasses those areas designated as Environmental Safety Districts on the Official Zoning Map of the City of Berkeley, as it may be amended from time to time. Buildings or structures hereinafter erected, constructed, moved, altered, added, or repaired within or into Fire Zone Three shall comply with the requirements for buildings and structures in Fire Zones One and Two and in addition shall meet the requirements of this section.

B. Fire Warning System. All residential units shall be equipped with a Fire Warning System as specified by the residential smoke detector requirements of the current edition of the California Building Code and with an audible exterior alarm. The exterior alarm must meet the requirements of NFPA 72 or equivalent and generate 45 decibels ten feet from the alarm, or more.

C. Automatic Fire Sprinklers Section Fire Code Section 903.2.21 Any new construction requiring a permit determined to be \$100,000 or more in construction costs or new additions to existing structures shall be required to install automatic fire sprinklers throughout the existing structure.

D. Utilities. Utilities, pipes, furnaces, water heaters or other mechanical devices located in an exposed underfloor area of a building or structure shall

be enclosed with material as required for exterior one-hour fire resistive construction. Adequate covered access openings for servicing and ventilation of such facilities shall be provided as required by appropriate codes.

E. Control of brush or vegetation. Brush and vegetation shall be controlled as required in the Berkeley Fire Code.

F. Special Conditions. The following additional conditions must be met:

1. Public access roads and fire trails. No person(s) shall use any public access road or fire trail for the storage of any construction material, stationary construction equipment, construction office, portable refuse container, or earth from any grading or excavating.
2. Water Service. The water service to the site shall be installed with a ¾" hose bib connection prior to beginning any wood framing. The person responsible for the construction shall have at the site a 75 ft ¾" hose available.

Article 4 Wood Burning Appliances

19.28.060 3114 Wood Burning Appliances. A new section is added to CBC Chapter 31 Masonry as follows:

3114.1 Wood Burning Appliances

A. The purpose of this section is to reduce the health risks caused by wood smoke under the climatic conditions applicable to Berkeley.

B. For purposes of this section the following terms shall be defined as set forth below.

1. "EPA" means the United States Environmental Protection Agency.
2. "EPA Certified" means any wood heater that is labeled "EPA Certified" in accordance with the standards in Title 40, Part 60, Subpart AAA, of the Code of Federal Regulations in effect at the time the wood heater is installed.
3. "Pellet heater" means wood heaters that burn pellet fuel exclusively and are either EPA-certified or exempted under EPA requirements set forth in Part 60 Title 40, Subpart AAA, of the Code of Federal Regulations, February 26, 1988.
4. "Wood-burning" means that an appliance burns wood or any wood-based solid fuel, including but not limited to wood pellets.
5. "Wood burning cooking device" means any wood-burning device that is designed or primarily used for cooking.
6. "Wood-burning fireplace" means any permanently-installed masonry or factory-built wood-burning appliance, either open or with doors in front of the combustion chamber, which is neither a wood heater as defined in 40 CFR 60.531 nor designed and used for cooking.

C. No wood-burning fireplace or wood heater as defined in 40 CFR 60.531, that is not EPA certified may be installed in any occupancy.

Exception: Existing masonry fireplaces maybe repaired in accordance with the applicable codes in effect at the time of the

proposed repair or reconstruction. For purposes of this exception, the term repair includes resurfacing the combustion chamber, but does not include replacing any other part of the combustion chamber.

D. No wood-burning cooking device may be installed in any occupancy unless it is equipped with an abatement device that adequately controls particulate emissions and is permitted by the San Francisco Bay Area Air Quality Management District (BAAQMD), prior to issuance of the permit by the City of Berkeley for installation of such appliances.

E. Pellet heaters are not prohibited by this section.

F. Any person planning to install a wood-burning fireplace, oven or stove must submit verifiable documentation to the City showing that the appliance conforms to the requirements of this section.

Article 5. Projection into Public Right of Way

- 19.28.070** A new section is added to CBC Section 3201 [Encroachments into the Public Right of Way] General as follows:
3201.5 Projection into public right of way - Revocation and removal – Indemnification and hold harmless.

Any permits granted pursuant to this Code which allow any projection upon, over, or under the public right of way may be revoked by the City at any time. Upon such revocation, the permittee or his or her successor(s) or assignee(s) shall forthwith remove such projection at his or her cost and expense and without any cost or expense whatsoever to the City.

Any person who is granted a permit pursuant to the provisions of this Code which allows a projection upon, over or under the public right of way shall by the issuance of such permit thereby indemnify and hold harmless the City of Berkeley, its officers and employees of and from any and all liabilities, claims, demands, actions or causes of action for injury or injuries to any person or persons or death or deaths of any person or persons or damage to property arising out of or occasioned in any way by the issuance of said permit, the work performed pursuant to such permit, or the existence of such projection. The obligation of such indemnification and hold harmless provision shall be applicable to the successor(s) and assignee(s) of the permittee.

Article 6. Existing Buildings

- 19.28..080** A new section is added to CBC Section 3401 [Existing Structures] General. as follows:
3401.5 Adoption of certain chapters of the 2006 International Existing Building Code by reference.

When provisions for seismic retrofit work are not triggered by other requirements of this code, the following Appendix A Chapters of the 2006 International Existing Building Code (IEBC) published by the International Code Council are hereby adopted by reference as standards for the types of buildings

as designated therein:

Chapter 2, Earthquake Hazard Reduction in Existing Reinforced Concrete and Reinforced Masonry Wall Buildings with Flexible Diaphragms,

Chapter 4, Earthquake Hazard Reduction in Existing Wood-frame Residential Buildings with Soft, Weak or Open-front walls and

Chapter 5, Earthquake Hazard Reduction in Existing Concrete Buildings and Concrete with Masonry Infill Buildings.

The designated IEBC Chapters are made a part of this chapter as though fully set forth herein, subject to the modifications thereto in this chapter for voluntary seismic retrofit:

Article 7. Repairs after Natural Disaster

19.28.90 A new section is added to CBC Section 3401 [Existing Structures] General, adopting Appendix Chapter 34, Division III, of the 2001 California Building Code with the following changes:

3401.6 Repairs To Buildings And Structures Damaged by the Occurrence of a Natural Disaster.

3401.5.1 Purpose

3401.5.2 General

3401.5.3 Structural Repairs

When the damage ratio does not exceed 0.10 (10 percent), buildings and structures, except substantial essential service facilities included as Category IV buildings and structures in CBC Table 1604.5, shall at a minimum be restored to their pre-event condition.

When the damage ratio is greater than 0.10 (10 per cent) but less than 0.5 (50%), buildings and structures, except substantial essential service facilities included as Category IV buildings and structures in CBC Table 1604.5, shall have the damaged structural members including all critical ties and connections associated with the damaged structural members, all structural members supported by the damaged members, and all structural members supporting the damaged members, repaired and strengthened to bring them into compliance with the force levels and connection requirements of the Building Code. This criteria shall apply to essential service facilities when the damage ratio is less than 0.30 (30 per cent).

Exception: *for buildings with rigid diaphragms where the above require repair and strengthening increases the rigidity of the resisting members, the entire lateral-force-resisting system of the building shall be investigated. When, in the opinion of the building official, an unsafe or adverse condition has been created as a result of the increase in rigidity, the condition shall be corrected.*

When the damage ratio is greater than 0.50 (50 per cent), buildings and structures, except substantial essential service facilities included as Category IV buildings and structures in CBC Table 1604.5, shall at a minimum have the entire building or structure strengthened to comply with the force levels and connection requirements of the Building Code. This criteria shall apply to essential service facilities when the damage ratio is less than 0.30 (30 per cent).

3401.5.4. Nonstructural Repairs to Light Fixtures and Suspended Ceilings

Under all damage ratios, when light fixtures and the suspension system of suspended ceilings are damaged, the damaged light fixtures and suspension systems shall be repaired to fully comply with the requirements of this code. Undamaged light fixtures and suspension systems shall have the additional support and bracing, provided that is required in this code.

Article 8. Earthquake Recording Instrumentation.

19.29.100 A new section is added to CBC Chapter 16A Structural Design adopting Appendix Chapter 16, Division II, of the 2001 California Building Code with the following changes:

16.14 Earthquake Recording Instrumentation.

CBC 1614.1A General.

Every building over six stories in height with an aggregate floor area of 60,000 square feet (5574 square meters) or more, and every building over 10 stories in height regardless of floor area, shall be provided with not less than three approved recording accelerographs. The accelerographs shall be interconnected for common start and common timing.

CBC 1614.2A Location

CBC 1614.3A Maintenance

CBC 1614.4A Instrumentation of Existing Buildings

Article 9. Technical Amendments To Structural Standards.

19.29.110 Technical Amendments To Structural Standards.

A. Section 1614, 1614.1 and 1614.1.3 is added to Chapter 16 of the 2007 California Building Code to read as follows:

1614.1 General. The text of ASCE 7 shall be modified as indicated in this Section.

1614.1.3 ASCE 7, Section 12.8.1.1. Modify ASCE 7 Section 12.8.1.1 by amending Equation 12.8-5 as follows:

$$C_s = 0.04 \underline{0.044 S_{DS}} \geq 0.01 \quad (\text{Eq. 12.8-5})$$

B. Section 1614, 1614.1 and 1614.1.7 is added to Chapter 16 of the 2007 California Building Code to read as follows:

1614.1 General. The text of ASCE 7 shall be modified as indicated in this Section.

1614.1.7 ASCE 7, Section 12.12.3. Replace ASCE 7 Section 12.12.3 as follows:

12.12.3 Minimum Building Separation. All structures shall be separated from adjoining structures. Separations shall allow for the maximum inelastic response displacement (Δ_M). Δ_M shall be determined at critical locations with consideration for both translational and torsional displacements of the structure as follows:

$$\Delta_M = C_d \delta_{\max} \quad \text{(Equation 16-45)}$$

where δ_{\max} is the calculated maximum displacement at Level x as define in ASCE 7 Section 12.8.4.3.

Adjacent buildings on the same property shall be separated by at least a distance Δ_{MT} , where

$$\Delta_{MT} = \sqrt{(\Delta_{M1})^2 + (\Delta_{M2})^2} \quad \text{(Equation 16-46)}$$

and Δ_{M1} and Δ_{M2} are the maximum inelastic response displacements of the adjacent buildings.

Where a structure adjoins a property line not common to a public way, the structure shall also be set back from the property line by at least the displacement, Δ_M , of that structure.

Exception: Smaller separations or property line setbacks shall be permitted when justified by rational analyses.

C. Section 1908.1 is amended to read as shown below and Section 1908.1.17 is added to Chapter 19 of the 2007 California Building Code to read as follows:

1908.1 General. The text of ACI 318 shall be modified as indicated in Sections 1908.1.1 through 1908.1.17.

1908.1.17 ACI 318, Section 14.8. Modify ACI 318 Section 14.8.3 and 14.8.4 replacing equation (14-7), (14-8) and (14-9).

1. Modify equation (14-7) of ACI 318 Section 14.8.3 as follows:

I_{cr} shall be calculated by Equation (14-7), and M_a shall be obtained by iteration of deflections.

$$I_{cr} = \frac{E_s}{E_c} \left(A_s + \frac{P_u}{f_y} \frac{h}{2d} \right) (d - c)^2 + \frac{l_w c^3}{3} \quad (14-7)$$

and the value E_s/E_c shall not be taken less than 6.

2. Modify ACI 318 Sec. 14.8.4 as follows:

14.8.4 – Maximum out-of-plane deflection, Δ_s , due to service loads, including P Δ effects, shall not exceed $l_c/150$.

If M_a , maximum moment at mid-height of wall due to service lateral and eccentric loads, including P Δ effects, exceed $(2/3) M_{cr}$, Δ_s shall be calculated by Equation (14-8):

$$\Delta_s = \frac{2}{3} \Delta_{cr} + \frac{M_a - \frac{2}{3} M_{cr}}{M_n - \frac{2}{3} M_{cr}} \left(\Delta_n - \frac{2}{3} \Delta_{cr} \right) \quad (14-8)$$

If M_a does not exceed $(2/3) M_{cr}$, Δ_s shall be calculated by Equation (14-9):

$$\Delta_s = \left(\frac{M_a}{M_{cr}} \right) \Delta_{cr} \quad (14-9)$$

where:

$$\Delta_{cr} = \frac{5 M_{cr} l_c^2}{48 E_c I_g}$$

$$\Delta_n = \frac{5 M_n l_c^2}{48 E_c I_{cr}}$$

Article 10. Amendments from the Berkeley Fire Code

19.29.120 The following amendments from the Berkeley Fire Code are hereby adopted by reference:

- A. Section 504.4 Roof accessibility [Additional subsection]
- B. Section 703.2.4 Fusible Links [Additional subsection]
- C. Section 903.3.1.2 NFPA 13R sprinkler systems. [Amended subsection]
- D. Section 903.4.3 Floor control Valves. (Added this paragraph to section)
- E. Section 903.2.8 Group S-1. [Amended subsection] Section 903.2.9 Group S-2. [Amended subsection] Section 903.2.9.1 Commercial Parking Garages. [Amended subsection]
- F. Section 903.2.10 Windowless stories in all occupancies. [Amended subsection]
- G. Section 903.2.10 Windowless stories in all occupancies. [Amended subsection]
- H. Section 903.2.10.1 Stories and basements without openings. [Amended subsection]
- I. Section 903.2.18 Automatic Sprinkler Requirements for Existing Hotels [Additional subsection]
- J. Section 903.2.19 Structures in the Berkeley Marina Area [Additional subsection]
- K. Section 903.2.20 Public Self-Storage Buildings [Additional subsection]
- L. Section 903.2.21 Panoramic Hill District [Additional subsection]
- M. Section 907.2.8.1 Group R Occupancies [Amended subsection]
- N. Section 907.2 (Additional paragraph to this section)
- O. Section 907.3 (Additional paragraph to amended this section)
- P. Section 907.3.1 Occupancy [Amended subsection].
- Q. Section 907.3.1.5 Existing R-1 hotels and motels [Amended subsection]
- R. 907.3.1.7 Group R-2 Occupancies [Amended subsection]
- S. 914.3 High-Rise Buildings [Amended subsection]

Section 2. That Berkeley Municipal Code Chapter 19.30 is hereby repealed and reenacted to read as follows:

Chapter 19.30

BERKELEY ELECTRICAL CODE

Sections:

- 19.30.010 Adoption of California Electrical Code.**
- 19.30.020 Title.**
- 19.30.030 Administrative provisions.**
- 19.30.040 Authority to disconnect utilities in emergencies.**
- 19.30.050 Authority to condemn electrical system and equipment.**
- 19.30.060 Approval to connect utilities.**
- 19.30.070 Connection after order to disconnect.**
- 19.30.080 Work for which a permit is not required.**

19.30.010 Adoption of California Electrical Code.

All of the provisions of the California Electrical Code, 2007 Edition, (CEC) California Code of Regulations, Title 24, Part 3, with the following local administrative

amendments therewith are hereby adopted and made a part of this chapter as though fully set forth herein. A copy of this code is on file for use and examination by the public in the office of the City Clerk of the City of Berkeley.

19.30.020 Title.

This code shall be known as the “Berkeley Electrical Code” and may be cited as “this code.”

19.30.030 Administrative provisions.

All of the administrative provisions contained in Article 1 of Section 19.28, the Berkeley Building Code, shall apply to this code as well and take precedence over any CEC administrative provision contained in Article 89 General Code Provisions that may conflict.

19.30.040 Authority to disconnect utilities in emergencies.

CEC Section 89.108.9.3 is added to read as follows: The Building Official or his or her authorized representative shall have the authority to disconnect electrical power or other energy service supplied to the building, structure or building service equipment therein regulated by this code in case of emergency where necessary to eliminate an immediate hazard to life or property. The Building Official or his or her authorized representative shall, whenever possible, notify the serving utility, the owner and occupants of the building, structure or electrical system or equipment of the decision to disconnect prior to taking such action, and shall notify the serving utility, owner and occupant of the building, structure or building service equipment, in writing, of the disconnection as soon as possible thereafter.

19.30.050 Authority to condemn electrical system and equipment.

CEC Section 89.108.9.4 is added to read as follows: Whenever the Building Official determines that an electrical system or electrical equipment regulated by this code is hazardous to life, health or property, the Building Official may order in writing that such electrical system or equipment either be removed or restored to a safe condition. The written notice shall fix a reasonable time limit for compliance with such order. Persons shall not use or maintain defective electrical systems or equipment after receiving such notice except as may be provided therein.

When equipment or an installation is to be disconnected, a written notice of such disconnection and the reasons therefore shall be given within 24 hours of the order to disconnect to the serving utility, the owner and occupants of the building, structure or premises.

When equipment or an installation is maintained in violation of this code and in violation of a notice issued pursuant to the provisions of this section, the Building Official shall institute appropriate action to prevent, restrain, correct or abate the violation.

Unsafe electrical systems or equipment are hereby declared to be public nuisances and shall be abated by repair, rehabilitation, demolition or removal in accordance with the procedures set forth in Chapter 19.40 of the BMC for residential buildings and

Berkeley Building Code for all other buildings, or any alternate procedure that may be adopted by the City of Berkeley. In addition, the City Attorney may pursue other appropriate action to prevent, restrain, correct or abate the violation as provided for in the BMC. Remedies under this section are cumulative.

19.30.060 Authority to connect utilities.

CEC Section 89.108.9.5 is added to read as follows: Clearance for connection of one utility, either gas or electrical, will be withheld until final building, electrical, plumbing, heating and/or air conditioning inspections are made and approval has been given for any new building or change in occupancy classification to an existing building (as defined in Section 301 of the Berkeley Building Code) for which connection to such utilities is sought, unless approval has been first obtained from the Building Official, as provided by a Temporary Certificate of Occupancy or Final Certificate of Occupancy.

19.30.070 Connection after order to disconnect.

CEC Section 89.108.9.6 is added to read as follows: Persons shall not make connections from an energy or power supply or supply power to an electrical system or equipment that has been disconnected or ordered to be disconnected by the Building Official, or the use of which has been ordered to be discontinued by the Building Official, until the Building Official authorizes the reconnection and use of the electrical system or equipment.

19.30.080 Work for which a permit is not required.

CEC Section 89.108.9.7 is added to read as follows: An electrical permit shall not be required for the following:

- A. Minor work consisting of the work specified in Section A105.2 of the California Building Code.
- B. The following work involving low voltage:
 - a. Electrical wiring, devices, appliances, apparatus, or equipment operating at less than 25 volts and not capable of supplying more than 50 watts of energy. Electric utilization equipment approved for connection to suitable permanently installed receptacles.
 - b. Low-energy, control, and signal circuits that are not an integral part of an appliance and in which the power is limited from a source having a rated output of not more than thirty 30 volts and 1,000 volt-amperes.
 - c. Private telephone, intercom, sound and communications systems operating at less than 30 volts; provided, however, that a permit shall be obtained for the power supplies required by the above systems.

Exemption from the permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction.

Section 3. That Berkeley Municipal Code Chapter 19.32 is hereby repealed and reenacted to read as follows:

Chapter 19.32

BERKELEY MECHANICAL CODE

Sections:

- 19.32.010 Adoption of the California Mechanical Code.**
- 19.32.020 Title.**
- 19.32.030 Administrative provisions.**

19.32.010 Adoption of the California Mechanical Code.

All of the provisions of the California Mechanical Code, 2007 Edition, (CMC) California Code of Regulations, Title 24, Part 4, with the following local administrative amendments, are hereby adopted and made a part of this Chapter as though fully set forth herein. A copy of this Code is on file for use and examination by the public in the office of the City Clerk of the City of Berkeley.

19.32.020 Title.

This Code shall be known as the “Berkeley Mechanical Code” and may be cited as “this Code.”

19.32.030 Administrative provisions.

All of the administrative provisions contained in Article 1 of Section 19.28, the Berkeley Building Code, shall apply to this Code as well and take precedence over any CEC administrative provision contained in Chapter 1 General Code Provisions that may conflict therewith.

For regulations governing wood burning appliances, see BMC 19.28.230.

Section 4. That Berkeley Municipal Code Chapter 19.36 is hereby repealed and reenacted to read as follows:

Chapter 19.36

BERKELEY PLUMBING CODE

Sections:

- 19.36.010 Adoption of the California Plumbing Code.**
- 19.36.020 Title.**
- 19.36.030 Administrative provisions.**

19.36.010 Adoption of the California Plumbing Code.

The 2007 Edition of the California Plumbing Code, (CPC) California Code of Regulations, Title 24, Part 5 including Appendices A, B, C, D and I, is hereby adopted and made a part of this Chapter as though fully set forth herein. One copy of this Code is on file for use and examination by the public in the office of the City Clerk of the City of Berkeley.

19.36.020 Title.

This Code shall be known as the “Berkeley Plumbing Code” and may be cited as “this Code.”

19.36.030 Administrative provisions.

All of the administrative provisions contained in Article 1 of Section 19.28, the Berkeley Building Code, shall apply to this Code as well and take precedence over any CEC administrative provision contained in Article 89 General Code Provisions that may conflict.

Section 5. Copies of this Bill shall be posted for two days prior to adoption in the glass case located near the walkway in front of Old City Hall, 2134 Martin Luther King Jr. Way. Within fifteen days of adoption, copies of this Ordinance shall be filed at each branch of the Berkeley Public Library and the title shall be published in a newspaper of general circulation.

RESOLUTION NO. –N.S.

ADOPT FINDINGS AS TO LOCAL CLIMATIC, GEOLOGICAL AND TOPOGRAPHICAL CONDITIONS RENDERING REASONABLY NECESSARY VARIOUS ENUMERATED LOCAL BUILDING STANDARDS THAT ARE MORE STRINGENT THAN THOSE MANDATED BY THE CALIFORNIA BUILDING CODE

BE IT RESOLVED by the City Council of the City of Berkeley as follows:

WHEREAS, the City is proposing to adopt various enumerated changes and modifications to the California Building Code, as set forth below; and

WHEREAS, Health & Safety Code §17925 allows the local appeals board to make modifications or changes to the California Building Code and other regulations adopted pursuant to Health & Safety Code §17921(a) which result in more stringent local requirements; and

WHEREAS, Health & Safety Code §17925, §17958.5 and §17958.7 require that such changes be supported by findings made by the governing body that such more stringent local requirements are necessary because of “local climatic, geological or topographical conditions or factors;” and

WHEREAS, such findings must be made available as a public record and a copy thereof with each such modification or change shall be filed with the California Standards Commission:

NOW THEREFORE, BE IT RESOLVED by the City Council that it finds that each of the various proposed changes or modifications to the California Building Code which are listed enumerated below are reasonably necessary because of local conditions in the area encompassed by the City of Berkeley, as set forth below:

A. LOCAL CONDITIONS

1. Climatic Conditions.

a. Discussion.

The City of Berkeley is located at the geographic center of the Bay Area. The western limits are defined by the Bay at near sea level and the eastern limits by the abruptly rising Berkeley Hills to 1,200 feet. The eastern limit faces open parklands and open space (covered with vegetative fuel loading) to the east and is exposed to a unique danger from wild land fires during periods of hot, dry weather in the summer months. Many of the Berkeley homes in this area have wood shake and shingle roofs and are surrounded by brush type vegetation. The situation is made even worse by the negative effects of high wind conditions during the fire season. During May to October,

critical climatic fire conditions occur where the temperature is greater than 80°F, the wind speed is greater than 15 mph, fuel moisture is less than or equal to 10.0 percent, wind direction is from north to the east-southeast and the ignition component is 65 or greater. These conditions occur more frequently during the fire season but this does not preclude the possibility that a serious fire could occur during other months of the year. The critical climate fire conditions create a situation conducive to rapidly moving, high intensity fires. Fires starting in the wild land areas along the easterly border are likely to move rapidly westward into Berkeley's urban areas.

In September 1923, critical climatic fire conditions were in effect and Berkeley sustained one of the most devastating fires in California's history. A fire swept over the range of the hills to the northeast of Berkeley and within two hours was attacking houses within the City limits. A total of 130 acres of built-up territory burned. 584 Berkeley buildings were wholly destroyed and about 30 others seriously damaged. By far the greater portion were single-family dwellings, but among the number were 63 apartments, 13 fraternity, sorority and students' house clubs and 6 hotels and boarding houses.

In December of 1980, during critical climatic fire conditions, a small fire started at Berkeley's northeast limits and within minutes five homes were totally destroyed by fire.

On October 20, 1991, a disastrous firestorm swept down from the Oakland hills. Within the first few hours, thousands of people were evacuated. Ultimately over 3,000 dwelling units were destroyed, of which more than 70 were in Berkeley. This fire matched the pattern established by the fires of 1923 and 1980. Additionally, the conditions that led to it were the same as the conditions that led to a 1970 fire that destroyed 70 homes in Oakland.

In addition, Berkeley frequently experiences cold winter days with accompanying temperature inversions which trap wood smoke near the ground and increase air pollution. These stagnant air days are marked by increased acute respiratory disease, including asthma, and a small but consistent increase in deaths from heart and lung disease. During these periods the usual onshore flow of clean marine air ceases and wood smoke air pollution becomes an area-wide phenomena. Studies by the Bay Area Air Quality Management District suggest that between 20 and 50% of air polluting small particles come from residential wood burning.

b. Summary.

Local climatic conditions of limited rainfall, low humidity, high temperatures and high winds along with existing building construction create extremely hazardous fire conditions that adversely affect the acceleration intensity and size of fires in the City. The same climatic conditions may result in the concurrent occurrence of one or more fires, which may spread in the more populated areas of the City without adequate fire department personnel to protect against and control such a situation.

2. Geological and Topographical Conditions.

a. Discussion.

The City of Berkeley is in a region of high seismic activity and has the San Andreas earthquake fault to the west and the Calaveras earthquake fault to the east. Berkeley is traversed by the Hayward fault. All three faults are known to be active as evidenced by the damaging earthquakes they have produced in the last 100 years and can, therefore, be expected to do the same in the future. Of primary concern to Berkeley is the Hayward Fault, which has been estimated to be capable of earthquakes exceeding a magnitude of 7.0 on the Richter scale, and extends through mainly residential areas and passes through a small business district and the University of California. A large number of underground utilities cross the fault, including major water supply lines. Intensified damage during an earthquake may be expected in those areas of poorer ground along the Bay, west of Interstate 80 and in known slide areas, as well as hillside areas (occupied mainly by dwellings) located within or near the fault zone; some areas are steep and have been subjected to slides. The waterfront areas and areas in the Berkeley flatlands immediately adjacent to creeks and water streams present a major potential for soil liquefaction hazard. The Eastshore Freeway may liquefy and fail under heavy shaking or it may be inundated by a tsunami. The north hill area is most susceptible to landslides because of the steepness of slopes, the presence of soft and unconsolidated sediments, plus extensive water content in the ground. Panoramic Way and other hill areas with narrow and winding streets may face the problem of isolation from the rest of the City. Great potential damage can be related to the likely collapse of freeway overpasses. In the event of a major earthquake, Berkeley's firefighting capability could be greatly affected by loss of its main water supply. There is existing evidence that movement has taken place in the reinforced concrete Claremont Water Tunnel, which normally supplies approximately 90% of the water used by Berkeley. There is also the strong possibility of inundation due to failure of water reservoirs in the hill area. For the purposes of disaster response planning, Berryman Reservoir in Berkeley is assumed to fail, and Summit Reservoir at Kensington in Berkeley is assumed to be badly leaking. Additional potential situations inherent in such an occurrence include broken natural gas mains and ensuing fire in the streets, building fires, as the result of broken service connections, the need for rescues for collapsed structures, and the rendering of first aid and other medical attention to a large number of people.

The City of Berkeley has many homes built throughout the urban portion of Berkeley Hill area that are reached by narrow and often winding paved streets which hamper access for fire apparatus and escape routes for residents. In addition, many of the hillside homes are on the extreme eastern edge of the City and require longer response times for the total required firefighting force. In the areas north and south of the University of California, there are large concentrations of apartments, rooming houses, and fraternity and sorority houses. A number of apartments in these areas are of wood frame construction and are up to five stories in height from grade level. The fire potential is moderately high due to building congestion, heights, and wood shingle roof coverings and siding. Fires can be expected to involve large groups of buildings in these areas. It is noted that Berkeley most probably has more physically impaired people per capita than any other community in the United States. It is estimated that 14% of the approximate population of 108,000 in Berkeley are physically impaired. At

least one half of this percentage is severely physically impaired, i.e., not able to see, hear or walk. Emergency egress and rescue for these people are more difficult during a fire or other life safety emergency.

The East Shore Freeway, running along the western edge of Berkeley, is one of the most heavily used and congested freeway sections in the state. Noted impacts have been increased rates of asthma, particularly among children. The proximity of Berkeley to this freeway and its location downwind from prevailing patterns negatively affects air quality, thus increasing the impact of wood smoke in Berkeley.

b. Summary.

Local climatic, geological and topographical conditions include high seismic activity, many narrow and winding streets (with slide potential for blockage in the abruptly rising Berkeley hills) and large concentrations of residential type buildings as well as a major freeway. These conditions create an extremely serious problem for the Fire Department when a major earthquake occurs. Many situations will result in limiting or total blockage of fire department emergency vehicular traffic, overtaxed fire department personnel and a total lack of resources for the suppression of fire in buildings and structures in the City of Berkeley. In addition, under these local conditions, the presence of wood smoke can cause increased disease, including asthma, and increased deaths from heart and lung disease.

B. REASONABLE NECESSITY

The proposed changes and modifications to the California Building Code are reasonably necessary due to the local conditions set forth above because they reduce the risks to life and property which result from the City's climate and location astride an active earthquake fault. They are further justified for the reasons set forth below.

In adopting the California Building Code as the Berkeley Building Code, the City proposes to make certain substantive modifications which effect is to impose more stringent requirements locally than are mandated by the California Building Code. These are (1) building standards relating to increased fire resistance in Fire Zones 2 and 3 (Berkeley Building Code Chapter 19.28 Article 3); (2) standards to reduce the risk caused by wood smoke under the climatic conditions of Berkeley (Berkeley Building Code Chapter 19.28 Article 4); existing building standards for retrofit of certain building types with seismic weaknesses (Berkeley Building Code Chapter 19.28 Article 6); standards for repair of buildings damaged in a natural disaster (Berkeley Building Code Chapter 19.28, Article 7); a requirement for earthquake recording instrumentation in certain buildings; provisions requiring retrofitting of unreinforced masonry buildings (Berkeley Building Code Chapter 19.38,); and provisions governing the identification and analysis of soft, weak, or open front buildings (Berkeley Building Code Chapter 19.39) These more stringent local requirements are reasonably necessary to address risks created by local conditions set forth above for the following reasons.

- a. The modifications made by Chapter 19.28, Article 3 and Article 10 reduce the risk to life and property created by wildfires in the hill areas of the City.

- b. The modifications made by Chapter 19.28, Article 4, reduce the risk to life created by wood smoke throughout the City.
- c. The modifications made by Chapter 19.28, Article 6, Article 7, Article 8 Article 9, and Article 10 and Chapters 19.38 and 19.39 reduce the risk to life and property of, and hasten recovery from, predictable future earthquakes.

BE IT FURTHER RESOLVED by the City Council that certain local amendments to the Codes are not more stringent than the provisions of the California Codes but rather cover matters not addressed by those Codes or are administrative in nature, as follows:

Chapter 19.28, Article 2 (Requirements for Group LW Occupancies) of the Berkeley Building Code is a local amendment which does not change or modify California Building Code requirements or standards, but simply reflects existing practice in applying said requirements and standards to occupancies that are not defined in said Code.

Chapter 19.28, Article 1, (Administrative provisions and definitions) and Article 5 (Construction in the Right of Way) and all amendments to Chapter 19.30 (California Electrical Code), to Chapter 19.32 (California Mechanical Code), and to Chapter 19.36 (California Plumbing code) are local amendments to the California Codes affecting administration provisions only

NOTICE OF PUBLIC HEARING – BERKELEY CITY COUNCIL

ADOPTION OF 2007 CALIFORNIA BUILDING AND RELATED CODES WITH CERTAIN LOCAL AMENDMENTS, INCLUDING BY REFERENCE CERTAIN SECTIONS OF APPENDIX CHAPTER 1 OF THE 2006 INTERNATIONAL EXISTING BUILDING CODE (IEBC)

NOTICE IS HEREBY GIVEN that the City Council of the City of Berkeley will conduct a public hearing on an Ordinance repealing and reenacting Berkeley Municipal Code Chapters 19.28 (California Building Code), 19.30 (Electrical Code), 19.32 (Mechanical Code), And 19.36 (Plumbing Code). As part of the regular three-year cycle of code adoption, the ordinance adopts the 2007 California Codes with certain local administrative and stricter amendments. These amendments include adopting standards for the retrofit of certain existing buildings contained in Chapter 2, Earthquake Hazard Reduction in Existing Reinforced Concrete and Reinforced Masonry Wall Buildings with Flexible Diaphragms; Chapter 4, Earthquake Hazard Reduction in Existing Wood-frame Residential Buildings with Soft, Weak or Open-front walls; and Chapter 5, Earthquake Hazard Reduction in Existing Concrete Buildings and Concrete with Masonry Infill Buildings of the 2006 IEBC published by the International Code Council

The hearing will be held on Tuesday, November 27, 2007 at 7:00 p.m. in the City Council Chambers, 2134 Martin Luther King, Jr. Way.

A copy of the agenda material for this hearing will be available on the City’s website at www.ci.berkeley.ca.us as of November 16, 2007.

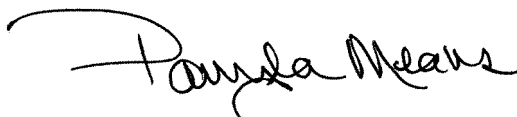
Written comments should be mailed or delivered directly to the City Clerk, 2180 Milvia Street, Berkeley, CA 94704, in order to ensure delivery to all Councilmembers and inclusion in the agenda packet. Comments received no later than Monday, November 19, 2007, will be included in Council agenda packets. Comments received thereafter will be submitted to Council as supplemental communications at the meeting. For further information regarding comments, call Pamyła Means, MMC, City Clerk, 981-6900. FAX: (510) 981-6901. TDD: (510) 981-6903.

For further information, please contact Daniel Lambert, Senior Management Analyst, at 981-7406 or email dlambert@ci.berkeley.ca.us

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I hereby certify that the Notice for this Public Hearing of the Berkeley City Council was posted at the display case located near the walkway in front of Council Chambers, 2134 Martin Luther King Jr. Way, as well as on the City’s website, on November 14, 2007.



Pamyła Means, MMC, City Clerk