



# CITY OF LONG BEACH

DEPARTMENT OF DEVELOPMENT SERVICES

333 West Ocean Blvd., 4<sup>th</sup> Floor Long Beach, CA 90802 (562) 570-5237 Fax: (562) 570-6205

November 9, 2010

HONORABLE MAYOR AND CITY COUNCIL  
City of Long Beach  
California

## RECOMMENDATION:

Receive the supporting documentation into the record, conclude the public hearing, and declare the Ordinance adopting and amending the 2010 Edition of the California Building Standards Codes and the 1997 Edition of the Uniform Housing Code by amending and restating Title 18 of the Long Beach Municipal Code, and by repealing Chapter 21.62, read for the first time and laid over to the next regular meeting of the City Council for final reading; and

Adopt a Resolution making findings and determinations relating to the adoption of more restrictive Code provisions, where appropriate. (Citywide)

## DISCUSSION

Every three years, the State of California adopts new model codes (known collectively as the California Building Standards Code) to establish uniform standards for the construction and maintenance of buildings, electrical systems, plumbing systems, mechanical systems, and fire and life safety systems. Sections 17922, 17958 and 18941.5 of the California Health and Safety Code require that the latest edition of the California Building Standards Code and Uniform Housing Code apply to local construction 180 days after publication. The 2010 Edition of the California Building Standards Code adopted by the California Building Standards Commission was published July 1, 2010. The 1997 Edition of the Uniform Housing Code was adopted by the California Department of Housing and Community Development as provided for in the California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 1, Article 5, Section 32. Therefore, State law requires that these codes become effective at the local level on January 1, 2011.

Title 18 of the Long Beach Municipal Code (LBMC) is the City's code that regulates the construction of buildings and structures. It is based upon the 2010 Edition of the California Building Standards Code. Part 2.5 of the California Building Standards Code is the 2010 Edition of the California Residential Code, and is based on the International Residential Code. The International Residential Code is used extensively throughout the nation; however, this is the first time it will be used in California. This code regulates the construction of one- and two-family dwellings and townhouses not more than three (3) stories in height. Part 11 of the California Building Standards Code is the 2010 Edition of

the California Green Building Standards Code, and will be the first mandatory code in the nation to require homes and buildings be designed and constructed utilizing sustainable construction practices in the areas of energy efficiency, water efficiency and conservation, material conservation, and environmental quality. Additionally, Low Impact Development (LID) Standards, designed to retain and reuse rainwater onsite in new developments, have been incorporated in Chapter 18.74 of Title 18 of the City's Municipal Code. The LID Standards are based on regional standards from the City and County of Los Angeles, providing coordination between regional jurisdictions, and are consistent with upcoming efforts to update the City's Storm Water Permit. They are complementary to the City's Model Landscape Ordinance, Green Building Ordinance, and the California Green Building Standards Code. The LID Standards will take effect on July 1, 2011 and will be voluntary until that time. The provisions of the State mandated Code and Title 18 of the City's Code are summarized in the attached document titled "Summary of Code Regulations" (Exhibit A).

Prior to adoption, State law does permit local jurisdictions to amend the State codes in certain circumstances. Such amendments can only be enacted when an express finding is made that such amendments are reasonably necessary because of local climatic, geological and/or topographical conditions that affects the jurisdiction.

Staff from the Department of Development Services' Building and Safety Bureau, the Fire Department's Fire Prevention Bureau, and the Office of Sustainability have reviewed the State codes and are recommending a number of local amendments in order to address concerns of a local nature. The proposed amendments consist of structural, green building standards, fire and life safety, and administrative provisions. These amendments are adopted to protect the community from the hazards of future earthquakes, to prevent fire related hazards and to require sustainable construction practices that support the Sustainable City Action Plan.

The proposed amendments are detailed in the attached Ordinance and Resolution. A summary of the proposed changes is detailed in the attached document titled "Final Statement of Reasons for Proposed 2011 Code Amendments to Title 18 of the Long Beach Municipal Code" (Exhibit B). The proposed amendments have been circulated to industry, local individuals and groups. Public notice to increase awareness of the State mandated Code includes posting information on the Department's website, making flyers available at the public counter, announcing the changes in the Department's newsletter, providing multiple press releases, posting information on the City's social networking sites, spreading the news via several E-Notify and email distribution lists, and posting to local newspapers. A community workshop was held on October 27<sup>th</sup>; additional workshops are scheduled for November 11<sup>th</sup> and December 9<sup>th</sup> to highlight the provisions of the State mandated Code for the public. An initial draft of the proposed amendments was presented at the October 18, 2010 meeting of the Board of Examiners, Appeals and Condemnation. If adopted by the City Council, copies of the Ordinance and Resolution will be submitted to the California Building Standards Commission as required by State law.

This letter was reviewed by Assistant City Attorney Michael J. Mais on October 18, 2010 and by Budget Management Officer Victoria Bell on October 26, 2010.

### California Environmental Quality Act (CEQA)

The proposed amendments to the California Building Standards Code and Uniform Housing Code are exempt from the provisions of the California Environmental Quality Act ("CEQA") pursuant to CEQA Guidelines Section 15061(b)(3). The purpose of the State mandated Code update is to provide minimum standards to safeguard health, safety and public welfare for all types of construction. Buildings and projects that are subject to CEQA are reviewed prior to the issuance of a building permit.

### SUSTAINABILITY

State law requires the adoption of the 2010 Edition of the California Green Building Standards Code, which will require homes and buildings to be designed and constructed utilizing sustainable construction practices. These new State mandated regulations, coupled with the City's existing Model Landscaping Ordinance, Construction Demolition Debris Recycling Ordinance, and Green Building Ordinance, will help to preserve and protect the community to realize a healthier, cleaner and more viable environment for the City.

The LID Standards promote the goal of environmental sustainability by helping improve the quality of receiving waters, protecting the Los Angeles and San Gabriel River watersheds, maintaining natural drainage paths, and protecting potable water supplies within the City.

The California Green Building Standards Code, the LID Standards, and local green amendments support the Sustainable City Action Plan, adopted in February 2010, and specifically include provisions for green building and sustainable development, urban nature, waste reduction, and water and energy conservation to create a more sustainable Long Beach.

### TIMING CONSIDERATIONS

State law requires that the effective date of the Ordinance be January 1, 2011. City Council action is requested on November 9 2010, in order to comply with this State mandated deadline.

### FISCAL IMPACT

There will be no fiscal or job impact as a result of the recommended action.

### SUGGESTED ACTION:

Approve recommendation.

HONORABLE MAYOR AND CITY COUNCIL

November 9, 2010

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Respectfully submitted,



AMY J. BODEK  
DIRECTOR OF DEVELOPMENT SERVICES



ALAN PATALANO  
FIRE CHIEF

AJB:AP:TQH:LB:JR:dz:mr

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Attachments: City Council Ordinance, with Ordinance Exhibit A  
City Council Resolution, with Resolution Exhibit A  
Exhibit A - Summary of Code Regulations  
Exhibit B - Final Statement of Reasons for Proposed 2011 Code Amendment Title 18 of the  
LBMCC

APPROVED:

  
\_\_\_\_\_  
PATRICK H. WEST  
CITY MANAGER

OFFICE OF THE CITY ATTORNEY  
ROBERT E. SHANNON, City Attorney  
333 West Ocean Boulevard, 11th Floor  
Long Beach, CA 90802-4664

1 RESOLUTION NO.  
2

3 A RESOLUTION OF THE CITY COUNCIL OF THE  
4 CITY OF LONG BEACH ADOPTING AND MAKING  
5 EXPRESS FINDINGS AND DETERMINATIONS RELATING  
6 TO THE ENACTMENT OF ADMINISTRATIVE  
7 AMENDMENTS, AND, WHERE APPROPRIATE, MORE  
8 RESTRICTIVE BUILDING STANDARDS CODE  
9 PROVISIONS THAN THOSE OF THE CALIFORNIA  
10 BUILDING CODE, CALIFORNIA RESIDENTIAL CODE,  
11 CALIFORNIA GREEN BUILDING STANDARDS CODE,  
12 CALIFORNIA FIRE CODE AND UNIFORM HOUSING CODE;  
13 FINDING THAT SAID AMENDMENTS AND  
14 MODIFICATIONS TO THE CODES ARE REASONABLY  
15 NECESSARY BECAUSE OF THE LOCAL CLIMATIC,  
16 GEOLOGICAL OR TOPOGRAPHICAL CONDITIONS  
17 EXISTING IN LONG BEACH; AND INSTRUCTING THE  
18 DIRECTOR OF DEVELOPMENT SERVICES AND THE FIRE  
19 CHIEF TO TRANSMIT SAID FINDINGS AND  
20 DETERMINATIONS TO THE CALIFORNIA BUILDING  
21 STANDARDS COMMISSIONS IN ACCORDANCE WITH  
22 CALIFORNIA HEALTH AND SAFETY CODE SECTIONS  
23 17922, 17958 AND 18941.5  
24

25 WHEREAS, California Health and Safety Code Sections 17922, 17958 and  
26 18941.5 require all cities to adopt, as the City of Long Beach Building Standards Code,  
27 the California Building Standards Code adopted pursuant to the provisions of Chapter 4  
28 of Part 2.5 of Division 13 of the California Health and Safety Code and the 1997 Edition

1 of the Uniform Housing Code adopted pursuant to the California Code of Regulations,  
2 Title 25, Division 1, Chapter 1, Subchapter 1, Article 5, Section 32; and

3 WHEREAS, Section 17958.5 of the California Health and Safety Code  
4 provides, in pertinent part, as follows:

5 "...a city or county may make those changes or modifications in the  
6 requirements contained in the provisions published in the California Building Standards  
7 Code and the other regulations adopted pursuant to Section 17922, including, but not  
8 limited to, green building standards, as it determines, pursuant to the provisions of  
9 Section 17958.7, are reasonably necessary because of local climatic, geological, or  
10 topographical conditions;" and

11 WHEREAS, prior to making the modifications permitted under Section  
12 17958.5 of the California Health and Safety Code, this Council is required to make an  
13 express finding that such modifications or changes are reasonably necessary because of  
14 local climatic, geological or topographical conditions; and

15 WHEREAS, the City of Long Beach is traversed by the Newport-Inglewood  
16 Fault System, is near the San Andreas Fault, and is surrounded by other earthquake  
17 faults; and

18 WHEREAS, the Newport-Inglewood Fault System is a right lateral, local  
19 reverse slip type of faulting, approximately 75 km in length extending from Culver City to  
20 the north to Costa Mesa to the south of the City, has a slip rate of 0.6 mm/yr with a  
21 probable magnitude of 6.0 to 7.2, and is generally considered a major Southern California  
22 earthquake fault which may experience rupture at any time; and

23 WHEREAS, the City is located by the International Building Code in  
24 Seismic Design Category D, E or F, and the International Residential Code in Seismic  
25 Design Category D2 or E, which is considered by experts to be one of the most active  
26 seismic regions in the world; and

27 WHEREAS, the Northridge Earthquake that occurred on January 17, 1994,  
28 was only a moderate Richter Magnitude 6.8 earthquake, yet caused damage in the Los

1 Angeles Basin area to more than 115,000 buildings and the vacation of 21,000 residential  
2 units including 2,000 homes; and

3 WHEREAS, there were 57 persons who lost their lives in this earthquake,  
4 but there could have been several thousand more casualties, if the earthquake had  
5 occurred at midday during the workweek when most buildings would be occupied instead  
6 of at 4:31 a.m. on a holiday; and

7 WHEREAS, seismic experts report a significantly high probability for a  
8 larger earthquake occurring in the greater Los Angeles Basin area within the next 30  
9 years; and

10 WHEREAS, unusually large earthquakes cause extraordinary stresses on  
11 buildings and structures and Fire Department resources which require more stringent  
12 building regulations than would otherwise be required; and

13 WHEREAS, the City requires the extra margin of safety due to the  
14 necessity of providing on site fire protection in a seismic emergency when Fire  
15 Department resources could be greatly delayed or overwhelmed; and

16 WHEREAS, the Northridge Earthquake provided valuable insight into the  
17 vulnerabilities of some building systems, designs and materials to the unanticipated level  
18 of damage; and

19 WHEREAS, the City, in cooperation with other major jurisdictions within the  
20 region, are continuing efforts to protect the community from the hazards of future  
21 earthquakes through the Los Angeles Regional Uniform Code Program (LARUCP) which  
22 creates uniformity of building regulations adopted by the cities and county of the Los  
23 Angeles region; and

24 WHEREAS, the California Building Code, California Residential Code and  
25 California Fire Code have not yet fully addressed the lessons learned from the Northridge  
26 Earthquake; and

27 WHEREAS, the City is located within the Los Angeles Basin, one of the  
28 most polluted metropolitan areas and one of the most heavily modified watersheds in the

1 nation, with a climate system capable of producing major winds, fire and rain related  
2 disasters and is a densely populated area having residential and nonresidential buildings  
3 constructed within a region where environmental resources are scarce; and

4 WHEREAS, in February 2010, the Long Beach City Council adopted a  
5 Sustainable City Action Plan, which includes initiatives, goals and actions to create a  
6 more sustainable Long Beach, and specifically calls out goals for green building and  
7 sustainable development, urban nature, waste reduction, and water and energy  
8 conservation.

9 NOW, THEREFORE, in order to provide adequate protection under the  
10 unique local geologic and climatic conditions set forth above, the City of Long Beach  
11 makes the following findings and determinations relative to the adoption of administrative  
12 amendments, and where appropriate, the adoption of more restrictive Building Standards  
13 Code provisions than those of the California Building Code, California Residential Code,  
14 California Green Building Standards Code, California Fire Code and the Uniform Housing  
15 Code:

16 Section 1. Findings for the amendments to the California Building Code  
17 are attached as Exhibit "A" and incorporated herein by this reference as if set forth in full.

18 Section 2. The Director of Development Services is instructed to, and  
19 shall, transmit a copy of this resolution together with any appropriate supporting  
20 documentation, to the California Building Standards Commission in accordance with  
21 California Health and Safety Code Section 17958.7.

22 This resolution shall take effect on January 1, 2011, upon its adoption by  
23 the City Council, and the City Clerk shall certify to the vote adopting this resolution.

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I hereby certify that the foregoing resolution was adopted by the City Council of the City of Long Beach at its meeting of \_\_\_\_\_, 2010, by the following vote:

Ayès: Councilmembers: \_\_\_\_\_

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\_\_\_\_\_

\_\_\_\_\_

Noes: Councilmembers: \_\_\_\_\_

\_\_\_\_\_

Absent: Councilmembers: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
City Clerk

OFFICE OF THE CITY ATTORNEY  
ROBERT E. SHANNON, City Attorney  
333 West Ocean Boulevard, 11th Floor  
Long Beach, CA 90802-4664

FINDINGS FOR 2011 CODE AMENDMENTS TO TITLE 18 OF THE LBMC

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Section 18.40.010 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment adopts the latest edition of the California Building Code and makes minor editorial changes.

Section 18.40.020 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect the state agencies and the applicable referenced sections.

Section 18.40.030 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment reference the various amendments proposed to the California Building Code.

Section 18.40.040 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect that certain chapter, appendices, and/or sections deleted are non-mandatory provisions.

Section 18.40.050 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reference to a dictionary to be used for words not defined in the code since the IBC does not have such a reference.

Section 18.40.060 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to clarify that the Building Official is authorized to make the final determination on the proposed occupancy of a structure where such use is not specifically provided for in the code.

Section 18.40.070 – Amendment is necessary on the basis of a local geologic condition. Additional reinforcement for heavy veneer, stone and masonry veneer was needed after the 1994 Northridge Earthquake. There were numerous observations of veneer pulling away from wood stud framing following the Northridge Earthquake. Most of it was due to corrosion and weakness in the anchor ties and mesh connections to the framing. Where sheathing was beneath the veneer, nail attachments were often not attached to the wall framing below. A joint SEAOSC and LA City committee findings indicated significant loss of veneer from buildings due to inadequate design and construction. Design provisions were developed based on a detailed study of the 1994 Northridge Earthquake. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.080 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect the appropriate reference to the City's Municipal Code for submission of construction documents.

Section 18.40.090 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reference the appropriate flood hazard information.

Section 18.40.100 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect the appropriate reference to the City's Municipal Code for flood related inspections.

Section 18.40.110 – Amendment is necessary on the basis of a local geologic condition. The modification to omit the importance factor from Equation 16-44 will ensure that a safe seismic separation distance is maintained for important facilities from adjoining structures. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.120 – Amendment is necessary on the basis of a local geologic condition. The steel Buckling Restrained Braced Frame (BRBF) system was first approved for use in the 2003 NEHRP Provisions. The values for the approximate period perimeters  $C_t$  and  $x$  were also approved as part of that original BSSC Proposal 6-6R (2003). It was an oversight that these parameters were not carried forward into the 2005 Edition of the ASCE 7. Currently, these two factors can be found in Appendix R of AISI 341-05. There, they function only as a placeholder that will be removed in the next version upon approval by ASCE 7 Task Committee on Seismic. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.130 – Amendment is necessary on the basis of a local geologic condition. Observed damages to one and two family dwellings of light frame construction after the Northridge Earthquake may have been partially attributed to vertical irregularities common to this type of occupancy and construction. In an effort to improve quality of construction and incorporate lesson learned from studies after the Northridge Earthquake, the modification to ASCE 7-05 Section 12.2.3.1 limits the number of stories and height of the structure to two stories will significantly minimize the impact of vertical irregularities and concentration of inelastic behavior from mixed structural systems. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.140 – Amendment is necessary on the basis of a local geologic condition. The importance factor,  $I$ , was dropped from equation 12.8-16 by mistake while transcribing it from NEHRP Recommended Provisions (2003) equation 5.2-16. For buildings with importance factor,  $I$ , higher than 1.0, stability coefficient should include the importance factor. The modification is consistent with the provisions adopted by OSPHD and DSA-SS as reflected in Section 1615.10.5 of the 2010 California Building Code. SEAOSC Steel Committee had supported the proposed modification during the 2007 code adoption process. The modification is intended to improve the likelihood that important and critical buildings and structures remain operational in the event of an emergency resulting from seismic activities. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.150 – Amendment is necessary on the basis of a local geologic condition. A joint Structural Engineers Association of Southern California (SEAOSC), Los Angeles County and Los Angeles City Task Force investigated the performance of concrete and masonry construction with flexible wood diaphragm failures after the Northridge earthquake. It was concluded at that time that continuous ties are needed at specified spacing to control cross grain tension in the interior of the diaphragm. Additionally, there was a need to limit subdiaphragm allowable shear loads to control combined orthogonal stresses within the diaphragm. Recognizing the importance and need to continue the recommendation made by the task force while taking into consideration the improve performances and standards for diaphragm construction today, this amendment require continuous tie spacing limit to 40 ft and to use 75% of the allowable code diaphragm shear to determine the depth of the sub-diaphragm in lieu of the 300 plf and is deemed appropriate and acceptable. Due to the frequency of this type of failure during the past significant earthquakes, various jurisdictions within the Los Angeles region have taken this additional step to prevent roof or floor diaphragms from pulling away from concrete or masonry walls. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.160 – Amendment is necessary on the basis of a local geologic condition. The California Building Code has little to no information regarding the safe design and construction

requirements for ceiling suspension systems subject to seismic loads. It is through the experience of prior earthquakes, such as the Northridge Earthquake, that this amendment is proposed so as to minimize the amount of bodily and building damage within the spaces in which this type of ceiling will be installed. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.170 – Amendment is necessary on the basis of a local geologic condition. Results from studies after the 1994 Northridge Earthquake indicated that a lot of the damages were attributed to lack of quality control during construction resulting in poor performance of the building or structure. Therefore, this amendment requires special inspection for concrete with a compressive strength greater than 2,500 pounds per square inch. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.180 – Amendment is necessary on the basis of a local geologic condition. Studies after the Northridge Earthquake revealed that great confusion exist in the field over what is required by the code in the way of special inspection beyond just piles and caissons. Connecting grade beams used in driven deep foundations will generally act like concrete beams and should not be treated like typical footings. Section 1704.4 requires concrete beams to have special inspection, but exempts the footings of buildings three stories or less in height. This amendment clarifies that the grade beams that connect driven deep foundations are not exempt from special inspection even if they are used as part of the foundation system. They are an essential part of the driven deep foundation system and should receive the same level of inspection, particularly since this type of system must resist the higher seismic demand loads in this region. The modification to require special inspection of connecting grade beams ensures adequate performance of the foundation system. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.190 – Amendment is necessary on the basis of a local geologic condition. Studies after the Northridge Earthquake revealed that great confusion exist in the field over what is required by the code in the way of special inspection beyond just piles and caissons. Connecting grade beams used in cast-in-place deep foundations will generally act like concrete beams and should not be treated like typical footings. Section 1704.4 requires concrete beams to have special inspection, but exempts the footings of buildings three stories or less in height. This amendment clarifies that the grade beams that connect cast-in-place deep foundations are not exempt from special inspection even if they are used as part of the foundation system. They are an essential part of the cast-in-place deep foundation system and should receive the same level of inspection, particularly since this type of system must resist the higher seismic demand loads in this region. The modification to require special inspection of connecting grade beams ensures adequate performance of the foundation system. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.200 – Amendment is necessary on the basis of a local geologic condition. In southern California, very few detached one- or two-family dwellings not exceeding two stories above grade plane are built as "box-type" structures, specially for those in hillside areas and near the oceanfront. Many steel moment frames or braced frames and/or cantilevered columns within buildings can still be shown as "regular" structures by calculations. With the higher seismic demand placed on buildings and structures in this region, the language in Sections 1705.3 Item 3 of the California Building Code would permit many detached one- or two-family dwellings not exceeding two stories above grade plane with complex structural elements to be constructed without the benefit of special inspections. By requiring special inspections, the quality of major structural elements and connections that affect the vertical and lateral load resisting systems of the structure will greatly be increased. The exception should only be allowed for detached one- or two-family dwellings not exceeding two stories above grade plane assigned to Seismic Design Category A, B and C. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.210 – Amendment is necessary on the basis of a local geologic condition. The language in Section 1710.1 of the California Building Code permits the owner to employ any registered design professional to perform structural observations with minimum guideline. However, it is important to recognize that the registered design professional responsible for the structural design has thorough knowledge of the building he/she designed. By requiring the registered design professional responsible for the structural design or their designee who were involved with the design to observe the construction, the quality of the observation for major structural elements and connections that affect the vertical and lateral load resisting systems of the structure will greatly be increased. Additional requirements are provided to help clarify the role and duties of the structural observer and the method of reporting and correcting observed deficiencies to the building official. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.220 – Amendment is necessary on the basis of a local geologic condition. With the higher seismic demand placed on buildings and structures in this region, the language in Section 1710.2 Item 3 of the California Building Code would permit many low-rise buildings and structures with complex structural elements to be constructed without the benefit of a structural observation. By requiring a registered design professional to observe the construction, the quality of the observation for major structural elements and connections that affect the vertical and lateral load resisting systems of the structure will greatly be increased. An exception is provided to permit simple structures and buildings to be excluded. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.230 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect the appropriate reference to the City's Municipal Code for alternate test procedure.

Section 18.40.240 – Amendment is necessary on the basis of a local geologic and climatic condition. No substantiating data has been provided to show that wood foundation is effective in supporting buildings and structures during a seismic event while being subject to deterioration caused by the combined detrimental effect of constant moisture in the soil and wood-destroying organisms. Wood foundation systems, when they are not properly treated and protected against deterioration, have performed very poorly and have led to slope failures. Most contractors are typically accustomed to construction in dry and temperate weather in the Southern California region and are not generally familiar with the necessary precautions and treatment of wood that makes it suitable for both seismic event and wet applications. The proposed amendment takes the precautionary steps to reduce or eliminate potential problems that may result in using wood foundation systems that experience relatively rapid decay due to the fact that the region does not experience temperatures cold enough to destroy or retard the growth and proliferation of wood-destroying organisms. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic or climatic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.250 – Amendment is necessary on the basis of a local geologic condition. With the higher seismic demand placed on buildings and structures in this region, it is deemed necessary to take precautionary steps to reduce or eliminate potential problems that may result by following prescriptive design provisions that does not take into consideration the surrounding environment. Plain concrete performs poorly in withstanding the cyclic forces resulting from seismic events. In addition, no substantiating data has been provided to show that under-reinforced foundation walls are effective in resisting seismic loads and may potentially lead to a higher risk of failure. It is important that the benefit and expertise of a registered design professional be obtained to properly analyze the structure and take these issues into consideration. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.260 – Amendment is necessary on the basis of a local geologic condition. With the higher seismic demand placed on buildings and structures in this region, precautionary steps are proposed to reduce or eliminate potential problems that may result for under reinforced footings located on sloped surfaces. Requiring minimum reinforcement for stepped footings is intended to address the problem of poor performance of plain or under-reinforced footings during a seismic event. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.270 – Amendment is necessary on the basis of a local geologic condition. No substantiating data has been provided to show that under-reinforced footings are effective in resisting seismic loads and may potentially lead to a higher risk of failure. Therefore, the amendment requires minimum reinforcement in continuous footings to address the problem of poor performance of plain or under-reinforced footings during a seismic event. With the higher seismic demand placed on buildings and structures in this region, precautionary steps are proposed to reduce or eliminate potential problems that may result by following prescriptive design provisions for footing that does not take into consideration the surrounding environment. It was important that the benefit and expertise of a registered design professional be obtained to properly analysis the structure and takes these issues into consideration. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Task Force that investigated the poor performance observed in 1994 Northridge Earthquake. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.280 – Amendment is necessary on the basis of a local geologic and climatic condition. No substantiating data has been provided to show that timber footings is effective in supporting buildings and structures during a seismic event while being subject to deterioration caused by the combined detrimental effect of constant moisture in the soil and wood-destroying organisms. Timber footings, when they are not properly treated and protected against deterioration, have performed very poorly. Most contractors are typically accustomed to construction in dry and temperate weather in the Southern California region and are not generally familiar with the necessary precautions and treatment of wood that makes it suitable for both seismic event and wet applications. The proposed amendment takes the precautionary steps to reduce or eliminate potential problems that may result by using timber footings that experience relatively rapid decay due to the face that the region does not experience temperatures cold enough to destroy or retard the growth and proliferation of wood-destroying organisms. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic or climatic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.290 – Amendment is necessary on the basis of a local geologic and climatic condition. No substantiating data has been provided to show that timber deep foundation is effective in supporting buildings and structures during a seismic event while being subject to deterioration caused by the combined detrimental effect of constant moisture in the soil and wood-destroying organisms. Timber deep foundation, when they are not properly treated and protected against deterioration, has performed very poorly. Most contractors are typically accustomed to construction in dry and temperate weather in the Southern California region and are not generally familiar with the necessary precautions and treatment of wood that makes it suitable for both seismic event and wet applications. The proposed amendment takes the precautionary steps to reduce or eliminate potential problems that may result by using timber deep foundation that experience relatively rapid decay due to the face that the region does not experience temperatures cold enough to destroy or retard the growth and proliferation of wood-destroying organisms. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic or climatic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.300 – Amendment is necessary on the basis of a local geologic condition. This amendment is intended to carry over critical provisions for the design of concrete columns in moment frames from the UBC. Increased confinement is critical to the integrity of such columns and these

modifications ensure that it is provided when certain thresholds are exceeded. In addition, this amendment carries over from the UBC a critical provision for the design of concrete shear walls. It essentially limits the use of very highly gravity-loaded walls in being included in the seismic load resisting system, since their failure could have catastrophic effect on the building. Furthermore, this amendment was incorporated in the code based on observations from the 1994 Northridge Earthquake. Rebar placed in very thin concrete topping slabs have been observed in some instances to have popped out of the slab due to insufficient concrete coverage. This modification ensures that critical boundary and collector rebars are placed in sufficiently thick slab to prevent buckling of such reinforcements. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.310 – Amendment is necessary on the basis of a local geologic condition. By virtue of ACI 318 Section 21.1.1.7(d), intermediate precast structural walls designed under Section 21.4, material requirements intended under provisions 21.1.4, 21.1.5, 21.1.6, and 21.1.7 would be excluded for structures assigned to Seismic Design Category D, E or F. Clarification of ACI 318 Chapter 21 is needed to ensure that structural walls designed under ASCE 7 Table 12.2-1 using the intermediate wall panel category would conform to ductility requirements comparable to special structural wall; and conformance to the long standing practice of ACI 318 to impose special requirements for high seismic design regions. This amendment gives explicit requirement under which design and detailing need to conform to special structural wall system provision in ACI-318 Section 21.9, which covers both cast-in-place as well as precast. This amendment further gives building officials the tools to enforce minimum life safety building performance under earthquake forces in Seismic Design Category D, E or F. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.320 – Amendment is necessary on the basis of a local geologic condition. The design provision for wall pier detailing was originally introduced by SEAOC in 1987 to legacy Uniform Building Code (UBC) and was included in the 1988 UBC through the 1997 UBC (2002 CBC). The wall pier detailing provision prescribed under Section 1908.1.4 was intended for high seismic zones equivalent to current Seismic Design Category D, E or F. Section 1908.1.3 was added as a complement of wall pier detailing in Seismic Design Category C (formerly seismic zones 2A and 2B under the legacy model code). ACI 318 Commentary R 21.1.1 emphasized “it is essential that structures assigned to higher Seismic Design Categories possess a higher degree of toughness”, and further encourages practitioners to use special structural wall system in regions of high seismic risk. ASCE 7 Table 12.2-1 permits intermediate precast structural wall system in Seismic Design Category D, E or F. Current Section 1908.1.3 does not limit to just structures assigned to Seismic Design Category C. The required shear strength under 21.3.3, referenced in current Section 21.4.5, is based on  $V_u$  under either nominal moment strength or two times the code prescribed earthquake force. The required shear strength in 21.6.5.1, referenced in Section 21.9.10.2 (IBC 1908.1.4), is based on the probable shear strength,  $V_e$  under the probable moment strength,  $M_{pr}$ . In addition, the spacing of required shear reinforcement is 8 inches on center under current Section 21.4.5 instead of 6 inches on center with seismic hooks at both ends under Section 21.9.10.2. Requirement of wall pier under Section 21.9.10.2 would enhance better ductility. Current practice in commercial buildings constructed using precast panels wall system have large window and door openings and/or narrow wall piers. Wall panels varying up to three stories high with openings resembles wall frame which is not currently recognized under any of the defined seismic-force resisting systems other than consideration of structural wall system. Conformance to special structural wall system design and detailing of wall piers ensures minimum life safety performance in resisting earthquake forces for structures in Seismic Design Category D, E or F. Proposed modification separates wall piers designed for structures assigned to Seismic Design Category C from those assigned to Seismic Design Category D, E or F. This modification is consistent with the amendment adopted by DSA-SS as reflected in Section 1916.4.4 of the 2010 Edition of the California Building Code; and reflects code change proposal approved for 2012 IBC during the 2009/2010 code development hearing. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.330 – Amendment is necessary on the basis of a local geologic condition. This amendment requires minimum reinforcement in continuous footings to address the problem of poor

performance of plain or under-reinforced footings during a seismic event. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance observed in 1994 Northridge Earthquake. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.340 – Amendment is necessary on the basis of a local geologic condition. With the higher seismic demand placed on buildings and structures in this region, the amendment takes the precautionary steps to reduce or eliminate potential problems that may result permitting a reduced edge thickness of the footing that support walls without taking into consideration the surrounding environment. In addition, no substantiating data has been provided to show that the reduced edge thickness is effective in resisting seismic loads and may potentially lead to a higher risk of failure. It is important that the benefit and expertise of a registered design professional be obtained to properly analyze the structure and take these issues into consideration. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.350 – Amendment is necessary on the basis of a local geologic condition. A number of significant technical modifications have been made since the adoption of AISC 341-05. One such change incorporates AWS D1.8/D1.8M by reference for welding related issues. This change will be included in AISC 341-10 that is to be incorporated by reference into the 2012 Edition of the International Building Code. This amendment is consistent with actions taken by both DSA-SS and OSHPD to incorporate such language in the 2010 Edition of the California Building Code. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.360 – Amendment is necessary on the basis of a local geologic condition. Past test results on braces used in steel concentrically braced frames (SCBF) indicated that many commonly used sections and brace configurations do not meet seismic performance expectations. Specific parameters that were shown to affect the ductility of braces included net-section, section type, width-thickness ratio of the cross section and member slenderness. Square and rectangular cross-section HSS were shown to be particularly susceptible to fracture due to local buckling behavior of the cross section and, therefore, are not recommended by SEAOSC Seismology and Steel Committee for special concentric braced frame applications. Grout-filled HSS members exhibit more favorable local buckling characteristics, significantly altering the post-yield behavior of these sections. Both SEAOSC Seismology and Steel Committee recommended this modification during the 2007 code amendment process. Furthermore, OSHPD has taken the same position and is continuing this recommendation as reflected in Section 2205A.4.1.5.1 to Chapter 22 of the 2010 Edition of the California Building Code. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.370 – Amendment is necessary on the basis of a local geologic and climatic condition. No substantiating data has been provided to show that wood used in retaining or crib walls are effective in supporting buildings and structures during a seismic event while being subject to deterioration caused by the combined detrimental effect of constant moisture in the soil and wood-destroying organisms. Wood used in retaining or crib walls, when they are not properly treated and protected against deterioration, have performed very poorly. Most contractors are typically accustomed to construction in dry and temperate weather in the Southern California region and are not generally familiar with the necessary precautions and treatment of wood that makes it suitable for both seismic event and wet applications. The proposed amendment takes the precautionary steps to reduce or eliminate potential problems that may result by using wood in retaining or crib walls that experience relatively rapid decay due to the fact that the region does not experience temperatures cold enough to destroy or retard the growth and proliferation of wood-destroying organisms. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic or climatic activity and to establish criteria for repair of damaged property following a local emergency.



Section 18.40.380 – Amendment is necessary on the basis of a local geologic condition. The overdriving of nails into the structural wood panel still remains a concern when pneumatic nail guns are used for wood structural panel shear wall nailing. Box nails were observed to cause massive and multiple failures of the typical 3/8-inch thick plywood during the 1994 Northridge Earthquake. The use of clipped head nails continues to be restricted from being used in wood structural panel shear walls where the minimum nail head size must be maintained in order to minimize nails from pulling through sheathing materials. Clipped or mechanically driven nails used in wood structural panel shear wall construction were found to perform much less in previous wood structural panel shear wall testing done at the University of California Irvine. The existing test results indicated that, under cyclic loading, the wood structural panel shear walls were less energy absorbent and less ductile. The panels reached ultimate load capacity and failed at substantially less lateral deflection than those using same size hand-driven nails. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance observed in 1994 Northridge Earthquake. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.390 – Amendment is necessary on the basis of a local geologic condition. Many of the hold-down connectors currently in use do not have any acceptance report based on dynamic testing protocol. This amendment continues to limit the allowable capacity to 75% of the acceptance report value to provide an additional factor of safety for statically tested anchorage devices. Cyclic forces imparted on buildings and structures by seismic activity cause more damage than equivalent forces that are applied in a static manner. Steel plate washers will reduce the additional damage that can result when hold-down connectors are fastened to wood framing members. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance observed in 1994 Northridge Earthquake. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.400 – Amendment is necessary on the basis of a local geologic condition. The Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the damages to buildings and structures during the 1994 Northridge Earthquake recommended reducing allowable shear values in wood structural panel shear walls or diaphragms that were not substantiated by cyclic testing. That recommendation was consistent with a report to the Governor from the Seismic Safety Commission of the State of California recommending that code requirements be "more thoroughly substantiated with testing." The allowable shear values for wood structural panel shear walls or diaphragms fastened with staples are based on monotonic testing and does not take into consideration that earthquake forces load shear wall or diaphragm in a repeating and fully reversible manner. In September 2007, limited cyclic testing was conducted by a private engineering firm to determine if wood structural panels fastened with staples would exhibit the same behavior as the wood structural panels fastened with common nails. The test result revealed that wood structural panel fastened with staples appeared to be much lower in strength and stiffness than wood structural panels fastened with common nails. It was recommended that the use of staples as fasteners for wood structural panel shear walls or diaphragms not be permitted to resist seismic forces in structures assigned to Seismic Design Category D, E and F unless it can be substantiated by cyclic testing. Furthermore, the cities and county within the Los Angeles region has taken extra measures to maintain the structural integrity of the framing of shear walls and diaphragms designed for high levels of seismic forces by requiring wood sheathing be applied directly over the framing members and prohibiting the use of panels placed over gypsum sheathing. This amendment is intended to prevent the undesirable performance of nails when gypsum board softens due to cyclic earthquake displacements and the nail ultimately does not have any engagement in a solid material within the thickness of the gypsum board. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.410 – Amendment is necessary on the basis of a local geologic condition. The Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task

Force that investigated the damages to buildings and structures during the 1994 Northridge Earthquake recommended reducing allowable shear values in wood structural panel shear walls or diaphragms that were not substantiated by cyclic testing. That recommendation was consistent with a report to the Governor from the Seismic Safety Commission of the State of California recommending that code requirements be "more thoroughly substantiated with testing." The allowable shear values for wood structural panel shear walls or diaphragms fastened with stapled nails are based on monotonic testing and does not take into consideration that earthquake forces load shear wall or diaphragm in a repeating and fully reversible manner. In September 2007, limited cyclic testing was conducted by a private engineering firm to determine if wood structural panels fastened with stapled nails would exhibit the same behavior as the wood structural panels fastened with common nails. The test result revealed that wood structural panel fastened with stapled nails appeared to be much lower in strength and stiffness than wood structural panels fastened with common nails. It was recommended that the use of stapled nail as fasteners for wood structural panel shear walls or diaphragms not be permitted to resist seismic forces in structures assigned to Seismic Design Category D, E and F unless it can be substantiated by cyclic testing. Furthermore, the cities and county within the Los Angeles region has taken extra measures to maintain the structural integrity of the framing of shear walls and diaphragms designed for high levels of seismic forces by requiring wood sheathing be applied directly over the framing members and prohibiting the use of panels placed over gypsum sheathing. This amendment is intended to prevent the undesirable performance of nails when gypsum board softens due to cyclic earthquake displacements and the nail ultimately does not have any engagement in a solid material within the thickness of the gypsum board. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.420 – Amendment is necessary on the basis of a local geologic condition. Due to the high geologic activities in the Southern California area and the expected higher level of performance on buildings and structures, this amendment limits the location where shear walls sheathed with lath, plaster or gypsum board are used in multi-level buildings. The poor performance of such shear walls sheathed with other materials in the 1994 Northridge Earthquake was investigated by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Task Force and formed the basis for this amendment. Considering that shear walls sheathed with lath, plaster or gypsum board are less ductile than steel moment frames or wood structural panel shear walls, the cities and county of the Los Angeles region has taken the necessary measures to limit the potential structural damage that may be caused by the use of such walls at the lower level of multi-level building that are subject to higher levels of seismic loads. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.430 – Amendment is necessary on the basis of a local geologic condition. With the higher seismic demand placed on buildings and structures in this region, interior walls can easily be called upon to resist over half of the seismic loading imposed on simple buildings or structures. Without a continuous foundation to support the braced wall line, seismic loads would be transferred through other elements such as non-structural concrete slab floors, wood floors, etc. The change is to limit the use of the exception to structures assigned to Seismic Design Category A, B or C where lower seismic demands are expected. Requiring interior braced walls be supported by continuous foundations is intended to reduce or eliminate the poor performance of buildings or structures. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.440 – Amendment is necessary on the basis of a local geologic condition. Additional weight attributed to the use of heavy veneer substantially increases loads to conventionally braced walls in an earthquake. Moreover, normal to wall loads that occur in an earthquake can seriously overstress wood bearing walls in combined seismic/gravity load combinations. Numerous conventionally framed veneer covered structures sustained serious damages in the Northridge Earthquake as a result of the heavy weight of the veneer. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.450 – Amendment is necessary on the basis of a local geologic condition. This amendment specifies minimum sheathing thickness and nail size and spacing so as to provide a uniform standard of construction for designers and buildings to follow. This is intended to improve the performance level of buildings and structures that are subject to the higher seismic demands placed on buildings or structure in this region. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance observed in 1994 Northridge Earthquake. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.460 – Amendment is necessary on the basis of a local geologic condition. Due to the high geologic activities in the Southern California area and the expected higher level of performance on buildings and structures, this amendment limit the use of staple fasteners in resisting or transferring seismic forces. In September 2007, limited cyclic testing data was provided to the ICC Los Angeles Chapter Structural Code Committee showing that stapled wood structural shear panels do not exhibit the same behavior as the nailed wood structural shear panels. The test results of the stapled wood structural shear panels appeared much lower in strength and drift than the nailed wood structural shear panel test results. Therefore, the use of staples as fasteners to resist or transfer seismic forces shall not be permitted without being substantiated by cyclic testing. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.470 – Amendment is necessary on the basis of a local geologic condition. Due to the high geologic activities in the Southern California area and the expected higher level of performance on buildings and structures, this amendment limit the use of staple fasteners in resisting or transferring seismic forces. In September 2007, limited cyclic testing data was provided to the ICC Los Angeles Chapter Structural Code Committee showing that stapled wood structural shear panels do not exhibit the same behavior as the nailed wood structural shear panels. The test results of the stapled wood structural shear panels appeared much lower in strength and drift than the nailed wood structural shear panel test results. Therefore, the use of staples as fasteners to resist or transfer seismic forces shall not be permitted without being substantiated by cyclic testing. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.40.480 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect the appropriate reference to the City's Municipal Code for inspection related requirements.

Section 18.40.490 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to clarify the requirement for changes in occupancy and to reflect the appropriate reference to the City's Municipal Code.

Section 18.40.500 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect the appropriate reference to the City's Municipal Code for moving buildings or structures.

Section 18.40.510 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes by deleting a non-mandatory provision.

Section 18.40.520 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety

Code. This amendment makes minor editorial changes to reflect the appropriate reference to the City's Municipal Code for permit related requirements.

Section 18.40.530 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes by deleting the last two sentences that are non-mandatory provisions.

Section 18.40.540 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect the appropriate reference to the City's Municipal Code for when permits are exempt.

Section 18.40.550 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect the appropriate reference to the City's Municipal Code for permit application related requirements.

Section 18.40.560 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect the appropriate reference to the City's Municipal Code for submittal document related requirements.

Section 18.40.570 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect the appropriate reference to the City's Municipal Code for inspection related requirements.

Section 18.41.010 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment adopts the latest edition of the California Residential Code and makes minor editorial changes.

Section 18.41.020 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect the state agencies and the applicable referenced sections.

Section 18.41.030 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reference the various amendments proposed to the California Residential Code.

Section 18.41.040 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect that certain chapter, appendices, and/or sections deleted are non-mandatory provisions.

Section 18.41.050 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reference to a dictionary to be used for words not defined in the code since the IRC does not have such a reference.

Section 18.41.060 – Amendment is necessary on the basis of a local geologic condition. After the 1994 Northridge Earthquake, the Wood Frame Construction Joint Task Force recommended that the quality of wood frame construction needed to be greatly improved. One such recommendation identified by the Task Force is to improve the quality and organization of structural plans prepared by the engineer

or architect so that plan examiners, building inspectors, contractors and special inspectors may logically follow and construct the presentation of the seismic force-resisting systems in the construction documents. For buildings or structures located in Seismic Design Category D<sub>0</sub>, D<sub>1</sub>, D<sub>2</sub> or E that are subject to a greater level of seismic forces, the requirement to have a California licensed architect or engineer prepare the construction documents is intended to minimize or reduce structural deficiencies that may cause excessive damage or injuries in wood frame buildings. Structural deficiencies such as plan and vertical irregularities, improper shear transfer of the seismic force-resisting system, missed details or connections important to the structural system, and the improper application of the prescriptive requirements of the California Residential Code can be readily addressed by a registered design professional. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.070 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect the appropriate climatic and geographic design criteria for buildings and structures within the City.

Section 18.41.080 – Amendment is necessary on the basis of a local geologic condition. With the higher seismic demand placed on buildings and structures in this region, precautionary steps are proposed to reduce or eliminate potential problems that may result by limiting the type of irregular conditions specified in the International Residential Code. Such limitations are intended to reduce the potential structural damage expected in the event of an earthquake. The cities and county of the Los Angeles region has taken extra measures to maintain the structural integrity of the framing of the shear walls and all associated elements when designed for high levels of seismic loads. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.090 – Amendment is necessary on the basis of a local geologic and climatic condition. No substantiating data has been provided to show that wood foundation is effective in supporting buildings and structures during a seismic event while being subject to deterioration caused by the combined detrimental effect of constant moisture in the soil and wood-destroying organisms. Wood foundation, when they are not properly treated and protected against deterioration, have performed very poorly and have led to slope failures. Most contractors are typically accustomed to construction in dry and temperate weather in the Southern California region and are not generally familiar with the necessary precautions and treatment of wood that makes it suitable for both seismic event and wet applications. The proposed amendment takes the precautionary steps to reduce or eliminate potential problems that may result in using wood foundation that experience relatively rapid decay due to the fact that the region does not experience temperatures cold enough to destroy or retard the growth and proliferation of wood-destroying organisms. However, an exception is made for non-occupied, single-story storage structures that pose significantly less risk to human safety and may utilize the wood foundation guidelines specified in this Chapter. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic and climatic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.100 – Amendment is necessary on the basis of a local geologic condition. With the higher seismic demand placed on buildings and structures in this region, precautionary steps are proposed to reduce or eliminate potential problems that may result for under-reinforced footings located on sloped surfaces. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.110 – Amendment is necessary on the basis of a local geologic condition. The amendment limit the use of the exception to structures assigned to Seismic Design Category A, B or C where lower seismic demands are expected. Requiring interior braced walls be supported by continuous foundations is intended to reduce or eliminate the poor performance of buildings or structures. The amendment makes modification and changes to better limit personal injury and property damage as a

result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.120 – Amendment is necessary on the basis of a local geologic condition. Requiring minimum reinforcement for stepped footings is intended to address the problem of poor performance of plain or under-reinforced footings during a seismic event. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.130 – Amendment is necessary on the basis of a local geologic and climatic condition. No substantiating data has been provided to show that wood foundation wall is effective in supporting buildings and structures during a seismic event while being subject to deterioration caused by the combined detrimental effect of constant moisture in the soil and wood-destroying organisms. Wood foundation walls, when they are not properly treated and protected against deterioration, have performed very poorly and have led to slope failures. Most contractors are typically accustomed to construction in dry and temperate weather in the Southern California region and are not generally familiar with the necessary precautions and treatment of wood that makes it suitable for both seismic event and wet applications. The proposed amendment takes the precautionary steps to reduce or eliminate potential problems that may result in using wood foundation walls that experience relatively rapid decay due to the fact that the region does not experience temperatures cold enough to destroy or retard the growth and proliferation of wood-destroying organisms. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic and climatic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.140 – Amendment is necessary on the basis of a local geologic condition. There is no limitation for weight of mechanical and plumbing fixtures and equipments in the International Residential Code. Requirements from ASCE 7-05 and the International Building Code would permit equipment weighing up to 400 lbs when mounted at 4 feet or less above the floor or attic level without engineering design. Where equipment exceeds this requirement, it is the intent of this amendment that a registered design professional is required to analyze if the floor support is adequate and structurally sound. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.150 – Amendment is necessary on the basis of a local geologic condition. Section R502.10 of the Code does not provide any prescriptive criteria to limit the maximum floor opening size nor does Section R503 provide any details to address the issue of shear transfer near larger floor openings. With the higher seismic demand placed on buildings and structures in this region, it is important to ensure that a complete load path is provided to reduce or eliminate potential damages caused by seismic forces. Requiring blocking with metal ties around larger floor openings and limiting opening size is consistent with the requirements of Section R301.2.2.2.5. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.160 – Amendment is necessary on the basis of a local geologic condition. The Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the damages to buildings and structures during the 1994 Northridge Earthquake recommended reducing allowable shear values in wood structural panel shear walls or diaphragms that were not substantiated by cyclic testing. That recommendation was consistent with a report to the Governor from the Seismic Safety Commission of the State of California recommending that code requirements be "more thoroughly substantiated with testing." The allowable shear values for wood structural panel shear walls or diaphragms fastened with staples are based on monotonic testing and does not take into consideration that earthquake forces load shear wall or diaphragm in a repeating and fully reversible manner. In September 2007, limited cyclic testing was conducted by a private engineering firm to determine if wood structural panels fastened with staples would exhibit the same behavior as the wood structural panels fastened with common nails. The test result revealed that wood structural panel fastened with staples appeared to be much lower in strength and stiffness than wood structural panels

fastened with common nails. It was recommended that the use of staples as fasteners for wood structural panel shear walls or diaphragms not be permitted to resist seismic forces in structures assigned to Seismic Design Category D<sub>0</sub>, D<sub>1</sub> and D<sub>2</sub> unless it can be substantiated by cyclic testing. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.170 – Amendment is necessary on the basis of a local geologic condition. The cities and county of the Los Angeles region have taken extra measures to maintain the structural integrity of the framing of the shear wall system for buildings and structures subject to high seismic loads by eliminating single top plate construction. The performance of modern day braced wall panel construction is directly related to an adequate load path extending from the roof diaphragm to the foundation system. A single top plate is likely to be over nailed due to the nailing requirements at a rafter, stud, top plate splice, and braced wall panel edge in a single location. In addition, notching on a single top plate for plumbing, ventilation and electrical wiring may reduce the load transfer capacity of the plate without proper detailing. Majority of buildings and structures designed and built per the California Residential Code with a single top plate may not need structural observation and special inspections. The potential construction mistakes mentioned above could not be caught and corrected by knowledgeable engineers and inspectors, and could jeopardize structural performance of buildings and structures located in high seismic areas. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.180 – Amendment is necessary on the basis of a local geologic condition. The Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the damages to buildings and structures during the 1994 Northridge Earthquake recommended reducing allowable shear values in wood structural panel shear walls or diaphragms that were not substantiated by cyclic testing. That recommendation was consistent with a report to the Governor from the Seismic Safety Commission of the State of California recommending that code requirements be "more thoroughly substantiated with testing." The allowable shear values for wood structural panel shear walls or diaphragms fastened with staples are based on monotonic testing and does not take into consideration that earthquake forces load shear wall or diaphragm in a repeating and fully reversible manner. In September 2007, limited cyclic testing was conducted by a private engineering firm to determine if wood structural panels fastened with staples would exhibit the same behavior as the wood structural panels fastened with common nails. The test result revealed that wood structural panel fastened with staples appeared to be much lower in strength and stiffness than wood structural panels fastened with common nails. It was recommended that the use of staples as fasteners for wood structural panel shear walls or diaphragms not be permitted to resist seismic forces in structures assigned to Seismic Design Category D<sub>0</sub>, D<sub>1</sub> and D<sub>2</sub> unless it can be substantiated by cyclic testing. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.190 – Amendment is necessary on the basis of a local geologic condition. Due to the high geologic activities in the Southern California area and the expected higher level of performance on buildings and structures, this proposed local amendment increase the length and limits the location where shear walls sheathed with lath, plaster or gypsum board are used in multi-level buildings. In addition, shear walls sheathed with other materials are prohibited in Seismic Design Category D<sub>0</sub>, D<sub>1</sub> and D<sub>2</sub> to be consistent with the design limitation for similar shear walls found in the California Building Code. The poor performance of such shear walls in the 1994 Northridge Earthquake was investigated by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Task Force and formed the basis for this amendment. Considering that shear walls sheathed with lath, plaster or gypsum board are less ductile than steel moment frames or wood structural panel shear walls, the cities and county of the Los Angeles region has taken the necessary measures to limit the potential structural damage that may be caused by the use of such walls at the lower level of multi-level building that are subject to higher levels of seismic loads. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.200 – Amendment is necessary on the basis of a local geologic condition. 3/8" thick 3 ply-plywood shear walls experienced many failures during the Northridge Earthquake. Box nails were observed to cause massive and multiple failures of the typical 3/8" thick 3-ply plywood during the Northridge Earthquake. This amendment specifies minimum sheathing thickness, nail size and spacing so as to provide a uniform standard of construction for designers and buildings to follow. This is intended to improve the performance level of buildings and structures that are subject to the higher seismic demands and reduce and limit potential damages to property. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance observed in 1994 Northridge Earthquake. In September 2007, limited cyclic testing was conducted by a private engineering firm to determine if wood structural panels fastened with staples would exhibit the same behavior as the wood structural panels fastened with common nails. The test result revealed that wood structural panel fastened with staples appeared to be much lower in strength and stiffness than wood structural panels fastened with common nails. It was recommended that the use of staples as fasteners for wood structural panel shear walls or diaphragms not be permitted to resist seismic forces in structures assigned to Seismic Design Category D<sub>0</sub>, D<sub>1</sub> and D<sub>2</sub> unless it can be substantiated by cyclic testing. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.210 – Amendment is necessary on the basis of a local geologic condition. 3/8" thick 3 ply-plywood shear walls experienced many failures during the Northridge Earthquake. Box nails were observed to cause massive and multiple failures of the typical 3/8" thick 3-ply plywood during the Northridge Earthquake. This amendment specifies minimum sheathing thickness, nail size and spacing so as to provide a uniform standard of construction for designers and buildings to follow. This is intended to improve the performance level of buildings and structures that are subject to the higher seismic demands and reduce and limit potential damages to property. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance observed in 1994 Northridge Earthquake. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.220 – Amendment is necessary on the basis of a local geologic condition. 3/8" thick 3 ply-plywood shear walls experienced many failures during the Northridge Earthquake. Box nails were observed to cause massive and multiple failures of the typical 3/8" thick 3-ply plywood during the Northridge Earthquake. This amendment specifies minimum sheathing thickness, nail size and spacing so as to provide a uniform standard of construction for designers and buildings to follow. This is intended to improve the performance level of buildings and structures that are subject to the higher seismic demands and reduce and limit potential damages to property. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance observed in 1994 Northridge Earthquake. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.230 – Amendment is necessary on the basis of a local geologic condition. The modification to increase the lap splice requirement will improve performance of buildings and structures and is consistent with ACI 318. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.240 – Amendment is necessary on the basis of a local geologic condition. 3/8" thick 3 ply-plywood shear walls experienced many failures during the Northridge Earthquake. Box nails were observed to cause massive and multiple failures of the typical 3/8" thick 3-ply plywood during the Northridge Earthquake. This amendment specifies minimum sheathing thickness, nail size and spacing so as to provide a uniform standard of construction for designers and buildings to follow. This is intended to improve the performance level of buildings and structures that are subject to the higher seismic



demands and reduce and limit potential damages to property. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance observed in 1994 Northridge Earthquake. In September 2007, limited cyclic testing was conducted by a private engineering firm to determine if wood structural panels fastened with staples would exhibit the same behavior as the wood structural panels fastened with common nails. The test result revealed that wood structural panel fastened with staples appeared to be much lower in strength and stiffness than wood structural panels fastened with common nails. It was recommended that the use of staples as fasteners for wood structural panel shear walls or diaphragms not be permitted to resist seismic forces in structures assigned to Seismic Design Category D<sub>0</sub>, D<sub>1</sub> and D<sub>2</sub> unless it can be substantiated by cyclic testing. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.250 – Amendment is necessary on the basis of a local geologic condition. 3/8" thick 3 ply-plywood shear walls experienced many failures during the Northridge Earthquake. Box nails were observed to cause massive and multiple failures of the typical 3/8" thick 3-ply plywood during the Northridge Earthquake. This amendment specifies minimum sheathing thickness, nail size and spacing so as to provide a uniform standard of construction for designers and buildings to follow. This is intended to improve the performance level of buildings and structures that are subject to the higher seismic demands and reduce and limit potential damages to property. This amendment reflects the recommendations by the Structural Engineers Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor performance observed in 1994 Northridge Earthquake. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.260 – Amendment is necessary on the basis of a local geologic condition. The addition of the word "or" will prevent the use of unreinforced parapets in Seismic Design Category D<sub>0</sub>, D<sub>1</sub> or D<sub>2</sub>, or on townhouses in Seismic Design Category C. The modification prohibits the use of unreinforced masonry and is intended to prevent non-ductile failures and sudden structural collapses. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.270 – Amendment is necessary on the basis of a local geologic condition. Reinforcement using longitudinal wires for buildings and structures located in high seismic areas are deficient and not as ductile as deformed rebar. Having vertical reinforcement closer to the ends of masonry walls helps to improve the seismic performance of masonry buildings and structures. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.280 – Amendment is necessary on the basis of a local geologic condition. The number of nails required for the heel joint connection per Table R802.5.1(9) can be excessive depending on the rafter slope, spacing, and roof span. This footnote is intended to help prevent the splitting of connecting wood members when large numbers of nail are required as stated in the National Design Specification for Wood Construction (NDS). The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.290 – Amendment is necessary on the basis of a local geologic condition. This amendment provides provisions to ensure that the ends of wood members and the points of bearing have adequate lateral support to prevent rotation and to help stabilized the members during construction. This amendment is consistent with and similar to requirements contained in the National Design Specification for Wood Construction (NDS). The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.300 – Amendment is necessary on the basis of a local geologic condition. Wood trusses are engineered structural elements that require engineered design and calculations. This amendment provides clarifications that all wood truss design drawings are to be prepared by a registered professional. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.310 – Amendment is necessary on the basis of a local geologic condition. Section R802 of the Code does not provide any prescriptive criteria to limit the maximum roof opening size nor does Section R803 provide any details to address the issue of shear transfer near larger roof openings. With the higher seismic demand placed on buildings and structures in this region, it is important to ensure that a complete load path is provided to reduce or eliminate potential damages caused by seismic forces. Requiring blocking with metal ties around larger roof openings and limiting opening size is consistent with the requirements of Section R301.2.2.2.5. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.41.320 – Amendment is necessary on the basis of a local geologic condition. The performance of fireplace/chimney without anchorage to the foundation has been observed to be inadequate during major earthquakes. The lack of anchorage to the foundation can result in the overturning or displacement of the fireplace/chimney. The amendment makes modification and changes to better limit personal injury and property damage as a result of seismic activity and to establish criteria for repair of damaged property following a local emergency.

Section 18.42.010 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment adopts the latest edition of the California Electrical Code and makes minor editorial changes.

Section 18.42.020 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect the state agencies and the applicable referenced sections.

Section 18.42.030 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reference the various amendments proposed to the California Electrical Code.

Section 18.42.040 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect that certain chapter, appendices, and/or sections deleted are non-mandatory provisions.

Section 18.43.010 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment adopts the latest edition of the California Plumbing Code and makes minor editorial changes.

Section 18.43.020 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect the state agencies and the applicable referenced sections.

Section 18.43.030 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code.

Code. This amendment makes minor editorial changes to reference the various amendments proposed to the California Plumbing Code.

Section 18.43.040 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect that certain chapter, appendices, and/or sections deleted are non-mandatory provisions.

Section 18.44.010 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment adopts the latest edition of the California Mechanical Code and makes minor editorial changes.

Section 18.44.020 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect the state agencies and the applicable referenced sections.

Section 18.44.030 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reference the various amendments proposed to the California Mechanical Code.

Section 18.44.040 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect that certain chapter, appendices, and/or sections deleted are non-mandatory provisions.

Section 18.45.010 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment adopts the latest edition of the Uniform Housing Code and makes minor editorial changes.

Section 18.45.020 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect the state agencies and the applicable referenced sections.

Section 18.45.030 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reference the various amendments proposed to the Uniform Housing Code.

Section 18.45.040 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect that certain chapter, appendices, and/or sections deleted are non-mandatory provisions.

Section 18.45.050 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to prohibit certain uses and provide provisions for the maintenance and repair of existing building and structures.

Section 18.46.010 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment adopts the latest edition of the California Energy Code.

Section 18.46.020 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect the state agencies and the applicable referenced sections.

Section 18.47.010 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment adopts the latest edition of the California Green Building Standards Code and makes minor editorial changes.

Section 18.47.020 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect the state agencies and the applicable referenced sections.

Section 18.47.030 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reference the various amendments proposed to the California Green Building Standards Code.

Section 18.47.040 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reflect that certain chapter, appendices, and/or sections deleted are non-mandatory provisions.

Section 18.47.050 – Amendment is necessary on the basis of a local climatic and environmental condition. Under the existing definition of Low-Rise Residential Building, measures in the California Green Building Standards Code would not be applicable to new residential buildings and structures four stories and greater. With the amendment in Section 18.47.070 that defines Low-Rise Residential Building, this amendment would allow application of the measures in Chapter 5 and Appendix Chapter A5 for new residential buildings greater than six stories. This amendment would also allow applicability Chapter 5 and Appendix Chapter A5 to OSHPD 3 occupancies. The modification to require higher efficiencies of energy usage and greater beneficial use of environmental material will be achieved with the expansion of the Mandatory and Voluntary requirements. The amendment makes modification and changes to better preserve and protect the community where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions and to realize a healthier, cleaner and more viable environment for the City's residents, its workforce and visitors.

Section 18.47.060 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 17958, 17958.5 and 17958.7 of the California Health and Safety Code. This amendment makes minor editorial changes to reference to a dictionary to be used for words not defined in the code since the code does not have such a reference.

Section 18.47.070 – Amendment is necessary on the basis of a local climatic and environmental condition. Under the existing definition of Low-Rise Residential Building, measures in the California Green Building Standards Code would not be applicable to new residential buildings and structures four stories and greater. This amendment would allow application of the measures in Chapter 4 and Appendix Chapter A4 for new residential buildings and structures six stories and less. The 2010 California Green Building Standards Code contains the word "sustainable" but does not define it. Although it is a term used in association with green building, the word "sustainability" is often confused to mean the same as green building. The amendment allows clarity and distinguishing understanding while providing for a general definition. The modification to require higher efficiencies of energy usage and greater beneficial use of environmental material will be achieved with the expansion of Low Rise Residential Building. The amendment makes modification and changes to better preserve and protect the community where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions and to realize a healthier, cleaner and more viable environment for the City's residents, its workforce and visitors.

Section 18.47.080 – Amendment is necessary on the basis of a local climatic and environmental condition. The amendment is intended to reduce the impact of buildings and structures on the Earth by requiring the use of more environmentally friendly materials that emits less pollution and are healthier for its occupants. By requiring more buildings or structures to be “green”, better indoor air quality and less expensive operational cost due to demand for heating, cooling and use of water will be achieved. It is estimated that the average green building uses 30% less energy and 30-50% less water than a comparable building. In addition, conventional buildings account for 30% of greenhouse gas emissions. The construction of green buildings will result in a smaller carbon footprint as compared to a conventional building, thus reducing the City’s contribution to climate change. Green building will help to foster an environment whereby residents are more likely to get out of their cars and into their neighborhoods which helps to reduce emissions by decreasing car use. The amendment makes modification and changes to better preserve and protect the community where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions and to realize a healthier, cleaner and more viable environment for the City’s residents, its workforce and visitors.

Section 18.47.090 – Amendment is necessary on the basis of a local climatic and environmental condition. Requiring topsoil protection promotes air quality and the objectives of the previously adopted construction and demolition recycling program. The amendment makes modification and changes to better preserve and protect the community where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions and to realize a healthier, cleaner and more viable environment for the City’s residents, its workforce and visitors.

Section 18.47.100 – Amendment is necessary on the basis of a local climatic and environmental condition. The amendment is deemed appropriate and feasible at furthering the goals of the Sustainable City Action Plan that promotes water permeability and supports water conservation policies. This helps to further the City’s efforts in improving water quality through the reduction of urban runoff associated with non-permeable surfaces. The Los Angeles and San Gabriel Rivers watershed receives an estimated 840,000 pounds of waste per year. By increasing permeability, the City seek to reduce the peak flow-rate and excess volume of runoff that with it carries waste and pollutants, and contributes to erosion of the rivers and natural drainage systems. The California Department of Water Resources continues to categorize the drought condition within the state as a Year 3 “Dry” Drought. As a result, the Long Beach Board of Water Commissioners in 2008 called on all Southern California cities to implement a more aggressive, permanent, extraordinary conservation measures, particularly prohibitions on certain outdoor water uses, in light of the rapid depletion of critical in-state water supply reserves. The City is preparing for future “Severe” or “Extreme” drought conditions through water conservation efforts and increasing potable water supplies. The City on average uses 60 million gallons of potable water every day. To meet the goals of the Sustainable City Action Plan and to prepare for an indefinite and uncertain number of days with higher drought risk, the amendment incorporates the objectives associated with the City’s model landscaping ordinance. The amendment makes modification and changes to better preserve and protect the community where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions and to realize a healthier, cleaner and more viable environment for the City’s residents, its workforce and visitors.

Section 18.47.110 – Amendment is necessary on the basis of a local climatic and environmental condition. The amendment is deemed appropriate and feasible at furthering the goals of the Sustainable City Action Plan that promotes water permeability and supports water conservation policies. This helps to further the City’s efforts in improving water quality through the reduction of urban runoff associated with non-permeable surfaces. The Los Angeles and San Gabriel Rivers watershed receives an estimated 840,000 pounds of waste per year. By increasing permeability, the City seek to reduce the peak flow-rate and excess volume of runoff that with it carries waste and pollutants, and contributes to erosion of the rivers and natural drainage systems. The amendment makes modification and changes to better preserve and protect the community where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions and to realize a healthier, cleaner and more viable environment for the City’s residents, its workforce and visitors.

Section 18.47.120 – Amendment is necessary on the basis of a local climatic and environmental condition. The amendment ensures that the achievements associated with the City’s Green Building Ordinance adopted on May 5, 2009 will incorporate the principles of environmental sustainability, resource usage and efficiency, and ensures the health and productivity of the City’s residents, its workforce and visitors. The amendment maintains the City’s previously approved bicycle amenities requirement that contains higher thresholds than the CalGreen Code and demonstrates the City’s continued leadership in energy and resource efficiency and alternative forms of transport. The amendment makes modification and changes to better preserve and protect the community where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions and to realize a healthier, cleaner and more viable environment for the City’s residents, its workforce and visitors.

Section 18.47.130 – Amendment is necessary on the basis of a local climatic and environmental condition. The amendment requires that weather-based or soil moisture-based irrigation controllers shall be provided regardless of which entity provides and installs landscaping. The amendment will then capture a larger number of landscaping projects with greater flexibility for water savings. The existing code requirement that conditions a smart controller when landscaping is provided and installed at the time of final inspection will remain as it appears in the CalGreen Code. The amendment makes modification and changes to better preserve and protect the community where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions and to realize a healthier, cleaner and more viable environment for the City’s residents, its workforce and visitors.

Section 18.47.140 – Amendment is necessary on the basis of a local climatic and environmental condition. The amendment adopts the voluntary measure associated with Tier 1 standards relating to the efficient use of resources, recycling excessive waste produced during the construction process, and to advance and promote a culture of conservation. The amendment makes modification and changes to better preserve and protect the community where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions and to realize a healthier, cleaner and more viable environment for the City’s residents, its workforce and visitors.

Section 18.47.150 – Amendment is necessary on the basis of a local climatic and environmental condition. The amendment adopts the voluntary measure associated with Tier 1 standards relating to water resistance and moisture management that promotes the efficient use of resources. The amendment seeks to prevent the excess waste associated with premature replacements and repairs that can be avoided through proper maintenance and practices. The amendment makes modification and changes to better preserve and protect the community where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions and to realize a healthier, cleaner and more viable environment for the City’s residents, its workforce and visitors.

Section 18.47.160 – Amendment is necessary on the basis of a local climatic and environmental condition. In 2006, the City was able to divert 69% of its waste into recycling or reuse. Among large cities, this diversion rate was the second highest in the nation. Through various programs such as residential curbside recycling, household hazard waste roundups, consistent public outreach, elementary school recycling education, and classes for at-home composting, the City has been able to remain at the forefront of sustainable practices. To this extent, construction and demolition waste contributes to about 25 to 30% of the entire waste in the United States according to the Sustainable Cities Institute. The amendment references the City’s Construction and Demolition Recycling Program Ordinance adopted on May 15, 2007 in lieu of the CalGreen Code provisions, stipulating a diversion rate of 60% (10% more than the CalGreen Code), and expanding the recycling efforts the City has previously enacted that helps continue to keep landfills from prematurely reaching capacity and by reducing overall resource consumption. The amendment makes modification and changes to better preserve and protect the community where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions and to realize a healthier, cleaner and more viable environment for the City’s residents, its workforce and visitors.

Section 18.47.170 – Amendment is necessary on the basis of a local climatic and environmental condition. The amendment references the City’s previously approved bicycle amenities requirement

which contains higher thresholds than the CalGreen Code and demonstrates the City's continued leadership in energy and resource efficiency. The City has made significant progress in encouraging bicycle activity with a number of innovative bicycle facilities including Southern California's first bike boulevard, green painted bike lanes with "sharrows" (shared bicycle and automobile lanes) and two dedicated bike lanes in downtown Long Beach. The City Council has proclaimed Long Beach to be the most bicycle friendly city in the nation and the City has amassed \$17 million dollars in grant funding to implement 200 miles of new Class I and II bicycle facilities, new bike racks, a car and bike-share program, bicycle safety and awareness campaign, and bike boulevards. This amendment requiring bicycle parking supports the use of alternative transportation modes as viable alternatives to the automobile, thus reducing the number of vehicle miles traveled and fuel consumption within the City and thus limiting the environmental impact to the Earth. The amendment makes modification and changes to better preserve and protect the community where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions and to realize a healthier, cleaner and more viable environment for the City's residents, its workforce and visitors.

Section 18.47.180 – Amendment is necessary on the basis of a local climatic and environmental condition. Adopting voluntary prescriptive measures relating to building orientation is a form of energy efficiency practices that utilize natural processes of cooling and heating to help deter excess usage of HVAC systems. The amendment makes modification and changes to better preserve and protect the community where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions and to realize a healthier, cleaner and more viable environment for the City's residents, its workforce and visitors.

Section 18.47.190 – Amendment is necessary on the basis of a local climatic and environmental condition. Adopting voluntary prescriptive measures relating to roofing and hardscape are forms of energy efficiency practices that utilize natural processes of cooling and heating to help deter excess usage of HVAC systems. More efficient hardscapes reduces the heat-island effect that tends to increase the demand for energy. The amendment makes modification and changes to better preserve and protect the community where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions and to realize a healthier, cleaner and more viable environment for the City's residents, its workforce and visitors.

Section 18.47.200 – Amendment is necessary on the basis of a local climatic and environmental condition. The amendment is deemed appropriate and feasible at furthering the goals of the Sustainable City Action Plan that promotes water permeability and supports water conservation policies. This helps to further the City's efforts in improving water quality through the reduction of urban runoff associated with non-permeable surfaces. The Los Angeles and San Gabriel Rivers watershed receives an estimated 840,000 pounds of waste per year. By increasing permeability, the City seek to reduce the peak flow-rate and excess volume of runoff that with it carries waste and pollutants, and contributes to erosion of the rivers and natural drainage systems. The California Department of Water Resources continues to categorize the drought condition within the state as a Year 3 "Dry" Drought. As a result, the Long Beach Board of Water Commissioners in 2008 called on all Southern California cities to implement a more aggressive, permanent, extraordinary conservation measures, particularly prohibitions on certain outdoor water uses, in light of the rapid depletion of critical in-state water supply reserves. The City is preparing for future "Severe" or "Extreme" drought conditions through water conservation efforts and increasing potable water supplies. The City on average uses 60 million gallons of potable water every day. To meet the goals of the Sustainable City Action Plan and to prepare for an indefinite and uncertain number of days with higher drought risk, the amendment incorporates the objectives associated with the City's model landscaping ordinance. The amendment makes modification and changes to better preserve and protect the community where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions and to realize a healthier, cleaner and more viable environment for the City's residents, its workforce and visitors.

Section 18.47.210 – Amendment is necessary on the basis of a local climatic and environmental condition. Adopting voluntary measures regarding energy efficient equipment and appliances encourages the usage of cleaner and more efficient technology which helps reduce the demand and transport of energy. In 2007, the City's residents and businesses used 2.9 billion kilowatt-hours of electricity. The

Sustainable City Action Plan is committed to reducing this amount by 15% over the next 10 years. As a result, more energy efficient, technological mandates will contribute to reducing energy consumption through the use of efficient appliances and equipment that is used on a daily basis. To further meet this objective and reduce the City's carbon footprint, the amendment requires that the source of energy be sustainable. The amendment makes modification and changes to better preserve and protect the community where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions and to realize a healthier, cleaner and more viable environment for the City's residents, its workforce and visitors.

Section 18.47.220 – Amendment is necessary on the basis of a local climatic and environmental condition. In 2006, the City was able to divert 69% of its waste into recycling or reuse. Among large cities, this diversion rate was the second highest in the nation. Through various programs such as residential curbside recycling, household hazard waste roundups, consistent public outreach, elementary school recycling education, and classes for at-home composting, the City has been able to remain at the forefront of sustainable practices. To this extent, construction and demolition waste contributes to about 25 to 30% of the entire waste in the United States according to the Sustainable Cities Institute. The amendment references the City's Construction and Demolition Recycling Program Ordinance adopted on May 15, 2007 in lieu of the CalGreen Code provisions, stipulating a diversion rate of 60% (10% more than the CalGreen Code), and expanding the recycling efforts the City has previously enacted that helps continue to keep landfills from prematurely reaching capacity and by reducing overall resource consumption. The amendment makes modification and changes to better preserve and protect the community where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions and to realize a healthier, cleaner and more viable environment for the City's residents, its workforce and visitors.

Section 18.48.010 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment adopts the latest edition of the California Fire Code and makes minor editorial changes.

Section 18.48.020 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment makes minor editorial changes to reflect the state agencies and the applicable referenced sections.

Section 18.48.030 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment reference the various amendments proposed to the California Fire Code.

Section 18.48.040 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment makes minor editorial changes to reflect that certain chapter, appendices, and/or sections deleted are non-mandatory provisions

Section 18.48.050 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment names this code as the Fire Code for the City of Long Beach.

Section 18.48.060 – Amendment is necessary on the basis of local topography conditions. This amendment adds ocean waters under Long Beach jurisdiction to the Fire Code.

Section 18.48.070 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment adds supplemental rules and regulations to carry out the intent of the code.



Section 18.48.080 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment clarifies the appointment of the fire code official.

Section 18.48.090 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment provides special requirements for ocean areas and the vessels that operate there.

Section 18.48.100 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment clarifies length of time records shall be retained.

Section 18.48.110 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to provide for three types of permits.

Section 18.48.120 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to include inspections permits.

Section 18.48.130 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment provides for a declaration of intended use.

Section 18.48.140 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to include inspections permits

Section 18.48.150 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to include additional operational permits.

Section 18.48.160 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to include additional operational permits.

Section 18.48.170 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to include inspection permits.

Section 18.48.180 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to include additional construction and inspection permits.

Section 18.48.190 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment clarifies applicable code reference.

Section 18.48.200 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language for the responsibility of keeping an accurate count of building occupants.

Section 18.48.210 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment clarifies language for violation penalties.

Section 18.48.220 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment clarifies language for stop work orders.

Section 18.48.230 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment clarifies language for permit fees.

Section 18.48.240 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language for cost recovery and reporting requirements.

Section 18.48.250 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment defines a "high rise structure".

Section 18.48.260 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment provides definitions for fire chief and fire code official.

Section 18.48.270 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment provides definitions for boat yard, safety container and small craft.

Section 18.48.280 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment clarifies responsibility of property owners to maintain alleys free of hazards.

Section 18.48.290 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment establishes conditions for open burning.

Section 18.48.300 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment establishes conditions for recreational burning.

Section 18.48.310 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language for installation of guard posts.

Section 18.48.320 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language for fire access roads.

Section 18.48.330 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language for fire access roads.

Section 18.48.340 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to clarify location and illumination of address numbers.

Section 18.48.350 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language for key box maintenance.

Section 18.48.360 – Amendment is necessary on the basis of local geological conditions. The City of Long Beach is located by the International Building Code in Seismic Design Category D, E or F, and by the International Residential Code in Seismic Design Category D<sub>2</sub> or E, which is considered by experts to be one of the most active seismic regions in the world, and therefore requires these densely populated occupancies have this added means of escape.

Section 18.48.370 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment directs the code user to the proper section for protection of vehicular damage.

Section 18.48.380 – Amendment is necessary on the basis of local geological conditions. The City of Long Beach is located by the International Building Code in Seismic Design Category D, E or F, and by the International Residential Code in Seismic Design Category D<sub>2</sub> or E, which is considered by experts to be one of the most active seismic regions in the world, and therefore requires these extra margins of safety due to the necessity of providing on site fire protection in a seismic emergency when fire department resources could be greatly delayed and overwhelmed. This amendment provides clarifications for fire sprinkler systems.

Section 18.48.390 – Amendment is necessary on the basis of local geological conditions. The City of Long Beach is located by the International Building Code in Seismic Design Category D, E or F, and by the International Residential Code in Seismic Design Category D<sub>2</sub> or E, which is considered by experts to be one of the most active seismic regions in the world, and therefore requires these extra margins of safety due to the necessity of providing on site fire protection in a seismic emergency when fire department resources could be greatly delayed and overwhelmed. This amendment provides fire sprinkler requirements for non residential buildings.

Section 18.48.400 – Amendment is necessary on the basis of local geological conditions. The City of Long Beach is located by the International Building Code in Seismic Design Category D, E or F, and by the International Residential Code in Seismic Design Category D<sub>2</sub> or E, which is considered by experts to be one of the most active seismic regions in the world, and therefore requires these extra margins of safety due to the necessity of providing on site fire protection in a seismic emergency when fire department resources could be greatly delayed and overwhelmed. This amendment provides fire sprinkler requirements for residential buildings.

Section 18.48.410 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment provides for a safety margin when performing hydraulic calculations.

Section 18.48.420 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to clarify fire alarm signal reporting.

Section 18.48.430 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language for exterior alarm device.

Section 18.48.440 – Amendment is necessary on the basis of local geological conditions. The City of Long Beach is located by the International Building Code in Seismic Design Category D, E or F, and by the International Residential Code in Seismic Design Category D<sub>2</sub> or E, which is considered by experts to be one of the most active seismic regions in the world, and therefore requires these extra margins of safety due to the necessity of providing on site fire protection in a seismic emergency when

fire department resources could be greatly delayed and overwhelmed. This amendment adds language for interior alarm device.

Section 18.48.450 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment adds language to clarify minimum pressure requirements.

Section 18.48.460 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment adds language to clarify building evacuation and fire alarm systems.

Section 18.48.470 – Amendment is necessary on the basis of local geological conditions. The City of Long Beach is located by the International Building Code in Seismic Design Category D, E or F, and by the International Residential Code in Seismic Design Category D<sub>2</sub> or E, which is considered by experts to be one of the most active seismic regions in the world, and therefore requires these extra margins of safety due to the necessity of providing on site life safety systems in a seismic emergency when fire department resources could be greatly delayed and overwhelmed. This amendment adds language for fire alarm and smoke removal systems.

Section 18.48.480 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to clarify temperature ratings of smoke and heat vents.

Section 18.48.490 – Amendment is necessary on the basis of local geological conditions. The City of Long Beach is located by the International Building Code in Seismic Design Category D, E or F, and by the International Residential Code in Seismic Design Category D<sub>2</sub> or E, which is considered by experts to be one of the most active seismic regions in the world, and therefore requires this extra margin of safety due to the probability of damage to water supplies. This amendment provides requirements for fire department connections.

Section 18.48.500 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to clarify location of fire department connections.

Section 18.48.510 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to clarify access to fire department connections.

Section 18.48.520 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to clarify protection of exit ways from vehicular damage.

Section 18.48.530 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to clarify stairways to roof.

Section 18.48.540 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment adds language to clarify access to roof hatch or trap doors.

Section 18.48.550 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to clarify designation of stairway 1.

Section 18.48.560 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to clarify this does not apply to temporary situations.

Section 18.48.570 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to clarify the protection against physical damage from vehicles.

Section 18.48.580 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language for the installation and maintenance of vapor processing systems.

Section 18.48.590 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment adds language for welding and cutting aboard vessels.

Section 18.48.600 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to clarify the City of Long Beach insurance requirements.

Section 18.48.610 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to clarify the City of Long Beach prohibition of fireworks and associated insurance requirements.

Section 18.48.620 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to clarify underground tank installation.

Section 18.48.630 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to clarify the amounts of flammable or combustible liquids in residential occupancies.

Section 18.48.640 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language for the storage of liquefied petroleum gas in buildings.

Section 18.48.650 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language for the use of liquefied petroleum gas.

Section 18.48.660 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language for the installation of liquefied petroleum gas in tanks.

Section 18.48.670 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to clarify the type of cabinet.

Section 18.48.680 – Amendment is necessary for administrative clarification, and does not modify a Building Standard pursuant to Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and Safety Code. This amendment expands language to clarify the requirement for fire safety officer.

Section 18.48.690 – Amendment is necessary on the basis of local geological conditions. The City of Long Beach is located by the International Building Code in Seismic Design Category D, E or F, and by the International Residential Code in Seismic Design Category D<sub>2</sub> or E<sub>1</sub>, which is considered by experts to be one of the most active seismic regions in the world, and therefore requires these extra margins of safety due to the necessity of providing on site fire protection in a seismic emergency when fire department resources could be greatly delayed and overwhelmed. This amendment provides language to clarify reduction of fire flow requirements.

## SUMMARY OF CODE REGULATIONS

STATE CODE	LONG BEACH CODE	SUMMARY AND PURPOSE OF CODE
Part 2 California Building Code (CBC)	Chapter 18.40 Building Code	The provisions of the California Building Code adopted in Chapter 18.40 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.
Part 2.5 California Residential Code (CRC)	Chapter 18.41 Residential Code	The provisions of the California Residential Code adopted in Chapter 18.41 shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, removal and demolition of detached one- and two-family dwellings and townhouses not more than three (3) stories above grade plane in height with a separate means of egress and their accessory structures.
Part 3 California Electrical Code (CEC)	Chapter 18.42 Electrical Code	The provisions of the California Electrical Code adopted in Chapter 18.42 shall apply to the installation of electrical systems, including alterations, repairs, replacement, equipment, appliances, fixtures, fittings and appurtenances thereto.
Part 4 California Mechanical Code (CMC)	Chapter 18.44 Mechanical Code	The provisions of the California Mechanical Code adopted in Chapter 18.44 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.
Part 5 California Plumbing Code (CPC)	Chapter 18.43 Plumbing Code	The provisions of the California Plumbing Code adopted in Chapter 18.43 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.
Part 6 California Energy Code	Chapter 18.46 Energy Code	The provisions of the California Energy Code adopted in Chapter 18.46 shall apply to all matters governing the design and construction of buildings for energy efficiency.
Part 8 California Historical Building Code	Chapter 18.40 Building Code	The provisions of the California Historical Building Code adopted in Chapter 18.40 is to provide regulations for the preservation, restoration, rehabilitation, relocation or reconstruction of buildings or properties designated as qualified historical buildings or properties.
Part 9 California Fire Code (CFC)	Chapter 18.48 Fire Code	The provisions of the California Fire Code adopted in Chapter 18.48 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.
Part 10 California Existing Building Code	Chapter 18.40 Building Code	The provisions of the California Existing Building Code adopted in Chapter 18.40 is to establish

		minimum standards for structural seismic resistance and primarily to reduce the risk of life loss or injury.
Part 11 California Green Building Standards Code (CALGreen)	Chapter 18.47 Green Building Standards Code	The provisions of the California Green Building Standards Code adopted in Chapter 18.47 shall apply to the planning, design, operation, construction, use and occupancy of every newly constructed building or structure, unless otherwise indicated in this title, throughout the City.
1997 Edition of Uniform Housing Code	Chapter 18.45 Housing Code	The provisions of the Uniform Housing Code adopted in Chapter 18.45 is to provide minimum standards to safeguard life or limb, health, property, and public welfare by regulating and controlling the use and occupancy, location, and maintenance of all residential buildings and structures within the City.
	Chapter 18.74 Low Impact Development Standards	The provisions of the Low Impact Development Standards adopted in chapter 18.74 is to require the use of low impact development (LID) standards in the planning and construction of development projects, to promote the goal of environmental sustainability by helping to improve the quality of receiving waters, protecting the Los Angeles and San Gabriel River watersheds, maintaining natural drainage paths, and protecting potable water supplies within the City.





**FINAL STATEMENT OF REASONS (FSOR)  
FOR PROPOSED 2011 AMENDMENTS TO  
TITLE 18 OF THE LONG BEACH MUNICIPAL CODE**

PREPARED BY

**LBD** DEVELOPMENT SERVICES



**SUSTAINABLE  
LONG BEACH**

### **CHAPTER 18.01 GENERAL PROVISIONS**

LBDS propose the creation of this new chapter. This is a result of renumbering Chapter 18.04 General Provisions to this new Chapter 18.01 General Provisions. General provisions contained in other chapters of Title 18 are relocated to this new chapter to better reflect the provisions of this chapter. Highlight of the proposed editorial and administrative changes includes the following:

- Add new code section to clarify and address work not within the scope of this title,
- Update section or chapter references to the appropriate sections or chapters in Title 18 relating to the 2010 Edition of the California Building Standards Code required by state law to be adopted by the city,
- Update the provisions relating to existing buildings or structures to be consistent with the model code language in the 2010 Edition of the California Building Standards Codes,
- Add new code sections to reference provisions of Chapters 18.20, 18.21 and 18.60 for unsafe buildings and structures, long-term boarded and vacated buildings, and moved buildings or structures, and
- Add new code section to reference provisions of Section 18.04.010.D for temporary structures and uses.

### **CHAPTER 18.02 DEFINITIONS**

LBDS propose the creation of this new chapter. This is the result of renumbering Chapter 18.08 Definitions to this new Chapter 18.02 Definitions. Highlight of the proposed editorial and administrative changes includes the following:

- Update chapter reference to the appropriate sections or chapters in Title 18 relating to 2010 Edition of the California Building Standards Code required by state law to be adopted by the city,
- Update section references to reflect revisions in Title 18,
- Correct the name of the Department from "Planning and Building" to "Development Services",
- Delete definition of "Approved Fabricator" and "International Building Code" as it is no longer necessary and such definitions are defined the 2010 Edition of the California Building Standards Code,
- Add reference to Webster's Third New International Dictionary of the English Language, Unabridged for the purpose of providing ordinarily accepted meanings for terms used in this title,
- Add new definitions to reflect the 2010 Edition of the California Green Building Standards Code, California Energy Code, California Residential Code and the 1997 Edition of the Uniform Housing Code required by state law to be adopted by the city,
- Update definition of "valuation" to be consistent with the model code language in the 2010 Edition of the California Building Standards Code,

### **CHAPTER 18.03 ADMINISTRATION AND ENFORCEMENT**

LBDS propose the creation of this new chapter. Administration and enforcement provisions contained in other chapters of Title 18 are relocated to this new chapter to better reflect the provisions of this chapter. Highlight of the proposed editorial and administrative changes includes the following:

- Relocate the administrative and enforcement provisions of Chapter 18.20 pertaining to the Building Official authorities and duties from Sections 18.20.010 thru 18.20.085 to this new chapter where the provisions are updated to be consistent with the model code language in the 2010 Edition of the California Building Standards Codes,
- Relocate the administrative and enforcement provisions of Chapters 18.32, 18.36 and 18.44 pertaining to the Building Official authorities and duties related to electrical, plumbing and mechanical installation to this new chapter where the provisions are updated to be consistent with the model code language in the 2010 Edition of the California Building Standards Codes,
- Relocate the administrative provisions of Chapter 18.04 pertaining to the granting of modification and alternate material from Sections 18.04.090 and 18.04.100 to this new chapter where the provisions are updated to be consistent with the model code language in the 2010 Edition of the California Building Standards Codes, and
- Update section references to reflect revisions in Title 18.

#### **CHAPTER 18.04 PERMITS**

LBDS proposes editorial and administrative changes to this chapter that includes the following:

- Update section references to reflect revisions in Title 18,
- Change the title name of this chapter from "General Provisions" to "Permits" to better reflect the provisions contained in this chapter,
- Permit provisions contained in other chapters of Title 18 are relocated to this chapter to better reflect the provisions of this chapter,
- Update the provisions relating to permit applications to be consistent with the model code language in the 2010 Edition of the California Building Standards Codes,
- Add new code section to address time limitation of permit application,
- Add new code section to address temporary permits,
- Update the provisions relating to work exempted from permit to be consistent with the model code language in the 2010 Edition of the California Building Standards Code,
- Replace reference to "Group R-3 and U occupancies" with "one- or two-family dwelling and related accessory building or structure" to be consistent with the model code language in the 2010 Edition of the California Building Standards Codes,
- Update the provisions relating to the validity of permit to be consistent with the model code language in the 2010 Edition of the California Building Standards Codes, and
- Update the provisions relating to the responsibility and requirement of permittee.

#### **CHAPTER 18.05 SUBMITTAL DOCUMENTS**

LBDS propose the creation of this new chapter. Submittal documents provisions contained in other chapters of Title 18 are relocated to this new chapter to better reflect the provisions of this chapter. Highlight of the proposed editorial and administrative changes includes the following:

- Update the provisions relating to the site plan requirement to be consistent with the model code language in the 2010 Edition of the California Building Standards Codes,
- Update section references to reflect revisions in Title 18,
- Add new code section to clarify information required on construction documents for flood hazard areas,
- Update the provisions relating to the examination of construction documents to be consistent with the model code language in the 2010 Edition of the California Building Standards Code, and
- Clarify that changes not authorized or approval by the registered design professional is subject to the provisions of Sections 5536.25 and 6735 of the California Business and Professions Code.

#### **CHAPTER 18.06 FEES**

LBDS propose the creation of this new chapter. Provisions relating to fees contained in other chapters of Title 18 are relocated to this new chapter to better reflect the provisions of this chapter. Highlight of the proposed editorial and administrative changes includes the following:

- Update section references to reflect revisions in Title 18,
- Add new code section to collect fees from permit applicant on behalf of the California Building Standards Commission for the development, adoption, publication, updating and educational efforts associated with green building standards as required by the Health and Safety Code Sections 18930.5, 18931.6 and 18931.7 resulting from the passage of SB 1473 (Stats. 2008, c. 719),
- Relocate the fee provisions for the subtrade permit and plan check from Chapter 18.12, 18.16, 18.32, 18.36, and 18.44 into this new chapter,
- Update the reference to the "California State Energy Resources Conservation and Development Commission" to the "California Energy Commission" to reflect the change in the commission's name,
- Reintroduce a code enforcement fee that was inadvertently removed from the previous code adoption cycle,
- Create new fee for plan review and permit related to the enforcement of the new CalGreen Code in Chapter 18.47,
- Create new fee for plan review and permit related to the enforcement of LID standards in chapter 18.74

- Relocate the fee provisions for the board of appeals from Chapter 18.12 and 18.20 into this new chapter, and
- Correct the name of the Director for the Department from "Director of Planning and Building" to "Director of Development Services".

#### **CHAPTER 18.07 INSPECTIONS**

LBDS propose the creation of this new chapter. Provisions relating to inspections of buildings and structures contained in Chapter 18.16 and other chapters of Title 18 (Chapters 18.32, 18.36, 18.40, etc.) are relocated to this new chapter to better reflect the provisions of this chapter. Highlight of the proposed editorial and administrative changes includes the following:

- Update section references to reflect revisions in Title 18,
- Update the provisions relating to inspection to be consistent with the model code language in the 2010 Edition of the California Building Standards Code,
- Add new code section to clarify required inspections relating to grading operation, and
- Change the expiration date for certificate issued to special inspector from one year to three year.

#### **CHAPTER 18.08 CERTIFICATE OF OCCUPANCY**

LBDS proposes editorial and administrative changes to this chapter that includes the following:

- Change the title name of this chapter from "Definition" to "Certificate of Occupancy" to better reflect the provisions contained in this chapter,
- Provisions relating to certificate of occupancy and temporary certificate of occupancy contained in Chapter 18.16 and other chapters of Title 18 are relocated to this chapter to better reflect the provisions of this chapter,
- Update section references to reflect revisions in Title 18, and
- Update the provisions relating to certificate of occupancy and temporary certificate of occupancy to be consistent with the model code language in the 2010 Edition of the California Building Standards Codes.

#### **CHAPTER 18.09 VIOLATIONS**

LBDS propose the creation of this new chapter. Provisions relating to violations of the building and construction code contained in other chapters of Title 18 are relocated to this new chapter to better reflect the provisions of this chapter. Highlight of the proposed editorial and administrative changes includes the following:

- Relocate the violation provisions of Sections 18.04.040, 18.16.010.C, 18.12.100.E and 18.20.080 to this new chapter where the provisions are appropriately group with other provisions that address violations and updated to be consistent with the model code language in the 2010 Edition of the California Building Standards Code,
- Add new code sections to provide clarification on noticing, prosecution and penalties for violations,
- Expand the name of entities who may be charged with a violation of the code from "person" to "person, firm or corporation",
- Add code language to include "as determined by legal council of the city" for cases where a determination is made regarding misdemeanor, and
- Include "plan examination" as another approval type that cannot be construed to be an approval of a violation of the title or any other law.

#### **CHAPTER 18.10 BOARD OF APPEALS**

LBDS propose the creation of this new chapter. Provisions relating to the Board of Examiners, Appeals and Condemnation and the Disabled Access Appeals Board contained in other chapters of Title 18 or in City Council Resolution are relocated to this new chapter to better reflect the provisions of this chapter. Highlight of the proposed editorial and administrative changes includes the following:

- Add new code section to reference the provisions of Chapter 2.18 is applicable to all Boards,
- Relocate the administrative and enforcement provisions of Chapter 18.20 pertaining to the Board of

Examiners, Appeals and Condemnation authorities and duties from Sections 18.20.090 thru 18.20.100 to this new chapter where the provisions are appropriately group with other provisions that address appeals relating to the Building Official's determination and updated to be consistent with the code language in this chapter,

- Incorporated the provisions for the Disabled Access Appeals Board, created by Council Resolution, into this chapter,
- Correct the name of the Department from "Planning and Building" to "Development Services", and
- Add new code section to clarify the limitation of the Boards' authority.

#### **CHAPTER 18.17 TRANSPORTATION IMPROVEMENT FEE**

LBDS proposes minor editorial changes to this chapter that include correcting the name of the Director for the Department from "Director of Planning and Building" to "Director of Development Services" in Sections 18.17.070 and 18.17.080, and update section references to reflect revisions in Title 18.

#### **CHAPTER 18.18 PARK AND RECREATION FACILITIES FEE**

LBDS proposes minor editorial changes to this chapter that include correcting the name of the Director for the Department from "Director of Planning and Building" to "Director of Development Services" in Sections 18.18.060, 18.18.070, 18.18.080, 18.18.100, and 18.18.120.B, and update section references to reflect revisions in Title 18.

#### **CHAPTER 18.19 LONG BEACH AIRPORT TRAFFIC STUDY AREA TRAFFIC FEE AND MITIGATION REQUIREMENTS**

LBDS proposes minor editorial changes to this chapter that include correcting of the name of the Director for the Department from "Director of Planning and Building" to "Director of Development Services" in Sections 18.19.090 and 18.19.100, and update section references to reflect revisions in Title 18.

#### **CHAPTER 18.20 UNSAFE BUILDINGS OR STRUCTURES**

LBDS proposes editorial and administrative changes to this chapter that includes the following:

- Change the title name of this chapter from "Administration and Enforcement" to "Unsafe Buildings or Structures" to better reflect the provisions contained in this chapter,
- Relocate the administrative and enforcement provisions of this chapter pertaining to the Building Official authorities and duties from Sections 18.20.010 thru 18.20.085 to the new Chapter 18.03 Administration and Enforcement where the provisions are updated to be consistent with the model code language in the 2010 Edition of the California Building Standards Codes,
- Relocate the administrative and enforcement provisions of this chapter pertaining to the Board of Examiners, Appeals and Condemnation authorities and duties from Sections 18.20.090 thru 18.20.100 to the new Chapter 18.10 Board of Appeals where the provisions are appropriately group with other provisions that address appeals relating to the Building Official's determination and updated to be consistent with the model code language in the 2010 Edition of the California Building Standards Codes,
- Change the title from "The Building and Safety Bureau" to the "Department of Development Services" provisions for posting of a placard for vacated building,
- Update the use of the word "he" or "his" to "he or she" or "his or her",
- Update fee by referencing the fees set forth in the City Council resolution,
- Change the title of the "Superintendent of Building and Safety" to "Building Official" for consistency throughout the chapter,
- Correct the name of the Department from "Planning and Building" to "Development Services", and
- Update section references to reflect revisions in Title 18.

#### **CHAPTER 18.21 MAINTENANCE OF LONG-TERM BOARDED AND VACATED BUILDINGS**

LBDS proposes minor editorial changes to this chapter that includes the following:

- Update section references to reflect revisions in Title 18,

- Change the title of the “Superintendent of Building and Safety” to “Building Official” for consistency throughout the chapter,
- Correct the name of the Director from “Director of Community Development” to “Director of Development Services”, and
- Correct the name of the Department from “Planning and Building” to “Development Services”.

**CHAPTER 18.22 POLICE FACILITIES IMPACT FEE**

LBDS proposes minor editorial changes to this chapter that include correcting the name of the Director for the Department from “Director of Planning and Building” to “Director of Development Services” in Sections 18.22.060, 18.22.070 and 18.22.080; and correcting the name of the “Planning Department” to the “Planning Bureau” in Section 18.22.060.

**CHAPTER 18.23 FIRE FACILITIES IMPACT FEE**

LBDS proposes minor editorial changes to this chapter that include correcting the name of the Director for the Department from “Director of Planning and Building” to “Director of Development Services” in Sections 18.23.060, 18.23.070 and 18.23.080; and correcting the name of the “Planning Department” to the “Planning Bureau” in Section 18.23.060.

**CHAPTER 18.40 BUILDING CODE**

LBDS propose the renumbering of Chapter 18.24 to Chapter 18.40. State law requires that local jurisdictions adopt the 2010 Edition of the California Building Code by January 1, 2011. LBDS propose amendments to various provisions of the California Building Code in order to address concerns of a local nature pursuant to Section 17958 of the California Health and Safety Code. Several structural amendments were made to the Long Beach Municipal Code in 1999 as the result of lessons learned from the Northridge Earthquake. These amendments are proposed to be carried forward into the current iteration of the code. These amendments were adopted to protect the community from the hazards of future earthquakes and are also being adopted by many of the jurisdictions in the area, including but not limited to the City and County of Los Angeles as part of the Los Angeles Regional Uniform Code Program. Several additional structural amendments will be made to the California Building Code based on information that became available since the previous code adoption. Some of the changes are administrative in nature in that they do not constitute changes, modifications or additions to the California Building Standards Code. In addition, LBDS propose administrative amendments to clarify that all structures, other than one- and two-family dwellings and townhomes, must be built under the new California Building Code.

**CHAPTER 18.41 RESIDENTIAL CODE**

LBDS propose the creation of this new chapter. State law requires that local jurisdictions adopt the 2010 Edition of the California Residential Code by January 1, 2011. This is the first time the state has mandated the use of the California Residential Code. LBDS propose amendments to various provisions of the California Residential Code in order to address concerns of a local nature pursuant to Section 17958 of the California Health and Safety Code. Several structural amendments were made to the Long Beach Municipal Code in 1999 as the result of lessons learned from the 1994 Northridge Earthquake. These amendments are proposed to be carried forward into the current iteration of the California Residential Code. These amendments were adopted to protect the community from the hazards of future earthquakes and are also being adopted by many of the jurisdictions in the area, including but not limited to the City and County of Los Angeles as part of the Los Angeles Regional Uniform Code Program. Several additional structural amendments will be made to the California Residential Code to be consistent with amendments made to the California Building Code. Some of the changes are administrative in nature in that they do not constitute changes, modifications or additions to the California Building Standards Code. In addition, LBDS propose administrative amendments to clarify that all one- and two-family dwellings and townhomes must be built under the new California Residential Code.

**CHAPTER 18.42 ELECTRICAL CODE**

LBDS propose the creation of this new chapter. This is a result of renumbering and combining Chapters 18.28 and 18.32 to new Chapter 18.42. State law requires that local jurisdictions adopt the 2010 Edition of the California Electrical Code by January 1, 2011. Some of the changes are administrative in nature in that they do not constitute changes, modifications or additions to the California Building Standards Code.

**CHAPTER 18.43 PLUMBING CODE**

LBDS propose the creation of this new chapter. This is a result of renumbering and combining Chapters 18.40 and 18.44 to new Chapter 18.43. State law requires that local jurisdictions adopt the 2010 Edition of the California Plumbing Code by January 1, 2011. Some of the changes are administrative in nature in that they do not constitute changes, modifications or additions to the California Building Standards Code.

**CHAPTER 18.44 MECHANICAL CODE**

LBDS propose the renumbering of Chapter 18.36 to Chapter 18.44. State law requires that local jurisdictions adopt the 2010 Edition of the California Mechanical Code by January 1, 2011. Some of the changes are administrative in nature in that they do not constitute changes, modifications or additions to the California Building Standards Code.

**CHAPTER 18.45 HOUSING CODE**

LBDS propose the creation of this new chapter. This is a result of relocating several provisions relating to the adoption and amendments of the Housing Code from Chapter 18.24 to this new Chapter 18.45. State law requires that local jurisdictions adopt the most current edition of the Uniform Housing Code. Several amendments were made to the Long Beach Municipal Code in previous code adoption cycle. These amendments are proposed to be carried forward into the current iteration of the code. Some of the changes are administrative in nature in that they do not constitute changes, modifications or additions to the California Building Standards Code.

**CHAPTER 18.46 ENERGY CODE**

LBDS propose the creation of this new chapter. State law requires that local jurisdictions adopt the 2008 Edition of the California Building Energy Efficiency Standards by January 1, 2010.

**CHAPTER 18.47 GREEN BUILDING STANDARDS CODE**

LBDS propose the creation of this new chapter. State law requires that local jurisdictions adopt the 2010 Edition of the California Green Building Standards Code by January 1, 2011. LBDS propose amendments to various provisions of the California Green Building Standards Code in order to address concerns of a local nature. The City of Long Beach a densely populated area having residential and nonresidential buildings constructed within a region where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions. The proposed modification will result in a healthier, cleaner and more viable environment for the City's residents, its workforce and visitors and therefore need to be incorporated into the code to assure that new buildings and structures are designed and constructed in accordance with the scope and objectives of the California Green Building Standards Code.

**CHAPTER 18.48 FIRE CODE**

State law requires that local jurisdictions adopt the 2010 Edition of the California Fire Code by January 1, 2011. LBFD propose amendments to various provisions of the California Fire Code in order to address concerns of a local nature pursuant to Section 17958 of the California Health and Safety Code. Several fire and life safety amendments were made to the Long Beach Municipal Code as the result of lessons learned from the prevention of fire and life safety related hazards. These amendments are proposed to be carried forward into the current iteration of the code. These amendments were adopted to protect the community from fire and life safety related hazards. Some of the changes are administrative in nature in

that they do not constitute changes, modifications or additions to the California Building Standards Code.

#### **CHAPTER 18.60 MOVING BUILDINGS**

LBDS propose the creation of this new chapter. This is a result of renumbering Chapter 18.52 Moving Buildings to this new Chapter 18.60 Moving Buildings. Highlight of the proposed minor editorial changes includes the following:

- Correct the name of the Department from "Planning and Building" to "Development Services",
- Change the title of the "Superintendent of Building and Safety" to "Building Official" to be consistent with the use of the later title found throughout this chapter,
- Correct the name of the "Park Department" to the "Department of Parks, Recreation and Marine", and
- Correct the name of the "Department of Engineering" to the "Department of Public Works."

#### **CHAPTER 18.61 NPDES AND SUSMP REGULATIONS**

LBDS propose the creation of this new chapter. This is a result of renumbering Chapter 18.95 to this new Chapter 18.61. Highlight of the proposed minor editorial changes includes the following:

- Change the title of the "Superintendent of Building and Safety" to "Building Official" to be consistent with the use of the later title found throughout this chapter, and
- Permit the person responsible for certifying that the project complies with the requirement to be a registered design professional licensed in the State of California in lieu of limiting it to the architect or engineer.

#### **CHAPTER 18.62 REPORT ON AVAILABLE OFF-STREET PARKING SPACES UPON RESALE**

LBDS propose the creation of this new chapter. This is a result of renumbering Chapter 18.76 to this new Chapter 18.62. LBDS proposes minor editorial and administrative changes to this chapter that includes the following:

- Update section references to reflect revisions in Title 18,
- Correct the name of the Director for the Department from "Director of Planning and Building" to "Director of Development Services",
- Correct the name of the Department from "Planning and Building" to "Development Services", and
- Update reference of "inspector" to "department's duly authorize representative" in Section 18.62.060 to ensure that it may be someone other than an inspector that may be authorize to provide this inspection.

#### **CHAPTER 18.63 ALTERNATIVE BUILDING REGULATIONS FOR LIVE/WORK USES**

LBDS propose the creation of this new chapter. This is a result of renumbering Chapter 18.90 to this new Chapter 18.63. LBDS proposes minor editorial and administrative changes to this chapter that includes the following:

- Update section references to reflect revisions in Title 18,
- Correct the name of the Department from "Planning and Building" to "Development Services",
- Update Subsection A of Section 18.63.040 by replacing "Section 3407 of the 1994 UBC Appendix Chapter 34, Division 1" with "Chapter 10 of the California Building Code adopted in Chapter 18.40" and to reference Section 3406 of the California Building Code adopted in Chapter 18.40 for existing fire escape requirement to be consistent with the model code language in the 2010 Edition of the California Building Standards Codes,
- Update Subsection B of Section 18.63.040 by replacing "Section 3408 of the 1994 UBC Appendix Chapter 34, Division 1" with "Section 708 of the California Building Code adopted in Chapter 18.40" to be consistent with the model code language in the 2010 Edition of the California Building Standards Codes,
- Update Subsection C of Section 18.63.040 by replacing "Section 1005.8 of the 1994 UBC" with "Section 715 of the California Building Code adopted in Chapter 18.40" to be consistent with the model code language in the 2010 Edition of the California Building Standards Codes,
- Update Subsections E, I, J, O and P of Section 18.63.040 by replacing "UBC" or "meet current code



requirements” with “California Building Code adopted in Chapter 18.40” to be consistent with the model code language in the 2010 Edition of the California Building Standards Codes,

- Update Subsection K of Section 18.63.040 by replacing “National Electrical Code” with “California Electrical Code adopted in Chapter 18.42” to be consistent with the model code language in the 2010 Edition of the California Building Standards Codes,
- Update Subsection L of Section 18.63.040 by replacing “meet current code requirements” with “California Mechanical Code adopted in Chapter 18.44” to be consistent with the model code language in the 2010 Edition of the California Building Standards Codes, and
- Update Subsections I and N of Section 18.63.040 by replacing “smoke detector” with “smoke alarm” to be consistent with the model code language in the 2010 Edition of the California Building Standards Codes.

#### **CHAPTER 18.64 SANDBLASTING**

LBDS proposes minor editorial changes to this chapter that include updating section/chapter references for fee in Section 18.64.050 to Chapter 18.06.

#### **CHAPTER 18.65 DEMOLITION OF HISTORIC LANDMARKS**

LBDS propose the creation of this new chapter. This is a result of renumbering Chapter 18.80 to this new Chapter 18.65. LBDS proposes minor editorial changes to this chapter that includes the following:

- Correct the name of the Department from “Planning and Building” to “Development Services”, and
- Correct the name of the Director for the Department from “Director of Planning and Building” to “Director of Development Services.”

#### **CHAPTER 18.67 CONSTRUCTION AND DEMOLITION RECYCLING PROGRAM**

LBDS propose the creation of this new chapter. This is a result of renumbering Chapter 18.97 to this new Chapter 18.67. LBDS proposes minor editorial and administrative changes to this chapter that includes the following:

- Correct the name of the Director for the Department from “Director of Planning and Building” to “Director of Development Services”,
- Correct the name of the Department from “Planning and Building” to “Development Services”,
- Replace all reference to fees and direct users to the schedule of fees and charges established by city council resolution, and
- Update the name of the “Building Bureau” to “Building and Safety Bureau.”

#### **CHAPTER 18.68 EARTHQUAKE HAZARD REGULATIONS**

LBDS proposes minor editorial changes to this chapter that includes the following:

- Update the name of the “Building Bureau” to “Building and Safety Bureau”, and
- Update the name of the “Department of Building and Safety” to “Building and Safety Bureau”,

#### **CHAPTER 18.69 VOLUNTARY EARTHQUAKE HAZARD REDUCTION IN EXISTING WOOD FRAME RESIDENTIAL BUILDINGS WITH WEAK CRIPPLE WALLS AND UNBOLTED SILL PLATES**

LBDS proposes minor editorial changes to this chapter that includes the following:

- Update the reference “ASCE 7” with “ASCE 7-05” to reflect the most current adopted standard,
- Clarify that the California Building Code is as adopted in Chapter 18.40, and
- Update section references from the California Building Code adopted in Chapter 18.40,

#### **CHAPTER 18.70 VOLUNTARY EARTHQUAKE HAZARD REDUCTION IN EXISTING WOOD FRAME RESIDENTIAL BUILDINGS WITH SOFT, WEAK OR OPEN FRONT WALLS**

LBDS proposes minor editorial changes to this chapter that includes the following:

- Clarify that the California Building Code is as adopted in Chapter 18.40,

- Clarify that the California Residential Code is as adopted in Chapter 18.41, and
- Update section references from the California Building Code or California Residential Code.

**CHAPTER 18.71 VOLUNTARY EARTHQUAKE HAZARD REDUCTION IN EXISTING REINFORCED CONCRETE BUILDINGS AND CONCRETE FRAME BUILDINGS WITH MASONRY INFILLS**

LBDS proposes minor editorial changes to this chapter that includes the following:

- Clarify that the California Building Code is as adopted in Chapter 18.40, and
- Update section references from the California Building Code.

**CHAPTER 18.72 VOLUNTARY EARTHQUAKE HAZARD REDUCTION IN EXISTING REINFORCED CONCRETE AND REINFORCED MASONRY WALL BUILDINGS WITH FLEXIBLE DIAPHRAGMS**

LBDS proposes minor editorial changes to this chapter that includes the following:

- Clarify that the California Building Code is as adopted in Chapter 18.40, and
- Update section references from the California Building Code.

**CHAPTER 18.73 FLOOD RESISTANT DESIGN AND CONSTRUCTION**

LBDS propose the creation of this new chapter. This is a result of renumbering Chapter 21.62 to this new Chapter 18.73. LBDS proposes minor editorial changes to this chapter that includes the following:

- Change the title of this Chapter from "Flood Damage Prevention" to "Flood Resistant Design and Construction",
- Change the name of the designer from "architect or engineer" or "surveyor or civil engineer" to "register design professional licensed in the State of California to practice as such",
- Correct the name of the Department from "Planning and Building" to "Development Services", and
- Correct the name of the Director for the Department from "Director of Planning and Building" to "Director of Development Services."

**CHAPTER 18.74 LOW IMPACT DEVELOPMENT STANDARDS**

LBDS propose the creation of this new chapter. The purpose of this chapter is to require the use of low impact development (LID) standards in the planning and construction of development projects. LID standards promote the goal of environmental sustainability by helping improve the quality of receiving waters, protecting the Los Angeles and San Gabriel River watersheds, maintaining natural drainage paths, and protecting potable water supplies within the City. The LID objective of controlling and maintaining flow rate is addressed through land development and stormwater management techniques that imitate the natural hydrology (or movement of water) found on the site. Using site design and best management practices that allow for storage and retention, infiltration, filtering, and flowrate adjustments achieve the goals of LID, advances sustainability and reduces the overall cost of stormwater management. The use of engineered systems, structural devices, and vegetated natural designs distributes stormwater and urban runoff across a development site maximizing the effectiveness of LID.

**CHAPTER 18.99 FINDINGS**

LBDS proposes minor editorial changes to this chapter to reflect changes, deletions, modifications and additions to the 2010 Edition of the California Building Standards Code to be adopted by the City.



**City of Long Beach Memorandum**  
*Working Together to Serve*

## REQUEST TO ADD AGENDA ITEM

**Date:** 11/2/2010  
**To:** Larry Herrera, City Clerk  
**From:** Patrick H. West, City Manager  
**Subject:** Request to Add Agenda Item to Council Agenda of November 9, 2010

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Pursuant to Municipal Code Section 2.03.070 [B], the City Councilmembers signing below request that the attached agenda item (due in the City Clerk Department by Friday, 12:00 Noon) be placed on the City Council agenda under New Business via the supplemental agenda.

The agenda title/recommendation for this item reads as follows:

**Receive the supporting documentation into the record, conclude the public hearing, and declare the Ordinance adopting and amending the 2010 Edition of the California Building Standards Codes and the 1997 Edition of the Uniform Housing Code by amending and restating Title 18 of the Long Beach Municipal Code; and by repealing Chapter 21.62, read for the first time and laid over to the next regular meeting of the City Council for final reading; and**

**Adopt a Resolution making findings and determinations relating to the adoption of more restrictive Code provisions, where appropriate. (Citywide)**

Council District	Authorizing Councilmember	Signed by
2	S. LOWENTHAL	<i>Susan Lowenthal</i>
4	P. O'Donnell	<i>P. O'Donnell</i>
3	Gary DeLong	<i>Gary DeLong</i>

Attachment: Staff Report dated November 9, 2010

CC: Office of the Mayor