



# CITY OF LONG BEACH

# H-2

DEPARTMENT OF DEVELOPMENT SERVICES

333 West Ocean Blvd., 3<sup>rd</sup> Floor • Long Beach, CA 90802 • (562) 570-5237

November 15, 2016

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 2016 Edition of the California Building Standards Code and the 1997 Edition of the Uniform Housing Code by amending and restating Title 18 of the Long Beach Municipal Code in its entirety, read for the first time and laid over to the next regular meeting of the City Council for final reading;

Declare the Ordinance amending and restating Title 12, related to Long Beach Oil Code, of the Long Beach Municipal Code in its entirety, read for the first time and laid over to the next regular meeting of the City Council for final reading;

Declare the Ordinance amending Sections 3.90.020.A, 8.76.010.N, 8.76.210.E, 10.46.100, 21.15.330, 21.15.740, 21.15.750, 21.15.2250, 21.21.406.A, 21.31.220.B.4, and amending and restating Chapter 21.42; and adding Sections 21.15.025 and 21.41.232 of the Long Beach Municipal Code, read for the first time and laid over to the next regular meeting of the City Council for final reading;

Adopt a Resolution making express findings and determinations relating to the adoption of more restrictive code provisions where appropriate;

Adopt a Resolution authorizing the Director of Development Services to submit a Zoning Code Amendment and Local Coastal Program Amendment (Application 1608-24) to the California Coastal Commission for approval; and,

Accept Categorical Exemptions CE-16-211 and CE-16-224. (Citywide)

## DISCUSSION

Every three years, the State of California ("State") adopts the latest edition of the California Building Standards Code and Uniform Housing Code (herein referred to collectively as the "Code") to establish uniform standards for the construction and maintenance of buildings,

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electrical systems, plumbing systems, mechanical systems, and fire and life safety systems. The 2016 Edition of the California Building Standards Code was adopted by the California Building Standards Commission and published on July 1, 2016. The 1997 Edition of the Uniform Housing Code, which is the last edition, 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. The California Health and Safety Code (HSC) Sections 17958, 18938(b) and 18941.5(a) require that the latest edition of the Code apply to local construction 180 days after publication. Therefore, State law requires that the Code become effective at the local level on January 1, 2017.

Prior to the adoption and enforcement of the Code at the local level, State law permits local governments to amend the Code in certain circumstances. Pursuant to HSC Sections 13143.5(a) and (b), 17958.5, 17958.7 and 18941.5(b), such amendments can only be enacted when an express finding and determination is made that such amendments are reasonably necessary because of local climatic, geological, or topographical conditions that affect the local government. Local amendments, ordinances and regulations necessary to implement civil, administrative, or criminal procedures and remedies to enforce the Code, that do not establish Building Standards as defined in the HSC Section 18909(c), can be enacted without the required express finding and determination.

Staff from the Building and Safety Bureau, Fire Prevention Bureau, Code Enforcement Bureau, Planning Bureau and the Office of Sustainability have reviewed the Code and are recommending a number of local amendments in order to address concerns of a local nature. The proposed amendments consist of structural, fire and life safety, green building and sustainability, and administrative provisions or procedures. The majority of the proposed amendments are a continuation of previously adopted amendments from prior code adoption cycles. Furthermore, many of these proposed amendments are consistent with those adopted by other local governments in the Southern California area as part of the Los Angeles Regional Uniform Code Program. It is the intent and purpose of the proposed amendments to (1) minimize, prevent and protect the community from natural hazards (e.g., earthquakes, floods, fires, etc.); and (2) improve the health and welfare of the community through green and sustainable construction practices that support the Sustainable City Action Plan.

Title 18 of the Long Beach Municipal Code (LBMC) is the City's code that regulates the construction of buildings and structures. Title 18 is currently based upon the 2013 Edition of the Code. As required by State law, Title 18 will be amended to update all references from the 2013 Edition to the 2016 Edition of the Code. Additionally, two new chapters will be added and one existing chapter will be replaced in its entirety in Title 18. Chapter 18.49 (Existing Building Code) will be added to the Code that will regulate construction work in existing buildings and structures. Chapter 18.50 (Historical Building Code) will be added to the Code that will regulate construction in qualified historical buildings or structures. Chapter 18.76 (Water Submeters), enacted during the 2013 triennial code update, will be deleted to avoid conflict with State Senate Bill 7 in the 2015-2016 Regular Session and the

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California Health and Safety Code Section 17922.14 relating to the installation of water meters or submeters. The deleted chapter will be replaced with Chapter 18.76 (Expedited and Streamlined Permitting Process for Electric Vehicle Charging Stations) to comply with State Assembly Bill 1236 in the 2015-2016 Regular Session and the California Government Code Section 65850.7 relating to local ordinances for electric vehicle charging stations.

Title 21 of the LBMC is the City's zoning code that regulates land use development within the City. Title 21 contains regulations applied in concert with the Code as part of the development review process. Staff has reviewed those portions of Title 21 that require updating or clarification to maintain consistency with the Code. The proposed changes to Title 21 clarify and update definitions (e.g., decks, balconies, rebuild and demolition), refine the height limit exception for solar collectors, extend entitlement expiration dates, and add a reference to Title 18 regarding electric vehicle charging. In addition, Chapter 21.42 (Landscaping Standards) will be updated to comply with the State's Model Water Efficient Landscape Ordinance approved by the California Water Commission on July 15, 2015. The proposed changes to Title 21 were approved by the Planning Commission on October 6, 2016.

Title 12 of the LBMC is the City's code that regulates the drilling and redrilling for, and the production of, petroleum so that these activities may be conducted in conformance with State statutes, in harmony with other uses of land within the City, and to minimize the economic effect of lessening land values in areas wherein drilling and redrilling for the production of petroleum constitutes an activity which is at variance with the then predominate land use. Title 12 will be amended to update all references to the appropriate State regulations, clarify administrative provisions and procedures necessary to carry out and enforce this title, and establish other land use requirements.

Title 10 of the LBMC is the City's code that regulates vehicles and traffic. Chapter 10.46 (Abandoned Vehicles) will be amended to improve the existing process that City staff utilizes in reducing blight within neighborhoods.

Title 8 of the LBMC is the City's code that regulates the various uses and activities throughout the City to safeguard and protect the health and safety of the community. Chapter 8.76 (Property Maintenance) will be amended to (1) address unapproved materials used on walls, fences or hedges that create blight within neighborhoods; and (2) clarify the City department responsible for ensuring compliance.

Title 3 of the LBMC is the City's code that regulates revenue and finance. Chapter 3.90 (Development Services Center Surcharge) will be amended to delete an obsolete reference to Chapter 18.19 that no longer exists.

The proposed amendments, express findings and determinations, and statement of reasons detailed were presented and discussed at the May 16, 2016, June 20, 2016, July 18, 2016, August 15, 2016, August 29, 2016 and September 19, 2016, meetings of the

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Board of Examiners, Appeals and Condemnation ("Board"). Input was received from the public and members of the Board. The Board approved the recommendations of the Building Official, Fire Marshal, Planning Manager, Code Enforcement Manager and Sustainability Coordinator at their September 19, 2016 meeting and has forwarded this approval to the City Council for their consideration. Additionally, as previously stated, the Planning Commission approved the recommended revisions to Title 21 on October 6, 2016.

Public notice to increase awareness of the Code included posting information on the Department's website and newsletter, distributing flyers at the Development Permit Center's public counter, multiple press releases, posting information on the City's social networking sites (Facebook, Twitter, etc.), sending the news via E-Blasts using various email distribution lists, and posting in local newspapers. Also, public hearing notices were distributed on November 1, 2016 and November 8, 2016, and no responses were received as of the date of preparation of this report.

The proposed amendments are exempt from the provisions of the California Environmental Quality Act (CEQA). The purpose of the State-mandated Code is to provide minimum standards to safeguard health, safety and public welfare for all types of development. The amendments to Title 21 qualify as a Categorical Exemption (Exhibit A - CE-16-211) in that they clarify provisions that govern existing facilities, constitute minor alternations in land use limitations, and are considered actions by a regulatory agency to protect the environment and natural resources. The amendments to Titles 3, 8, 10, 12, and 18 qualify as a Categorical Exemption (Exhibit B - CE-16-224) in that they are considered an action by a regulatory agency to protect the environment.

This matter was reviewed by Assistant City Attorney Michael J. Mais on October 31, 2016 and by Budget Analysis Officer Julissa Jose-Murray on October 25, 2016.

### SUSTAINABILITY

State law requires the adoption of the 2016 Edition of the California Green Building Standards Code (CALGreen Code), which will require residential and nonresidential buildings to be designed and constructed utilizing sustainable construction practices. Coupled with the City's existing or updated Model Landscaping Ordinance, Construction and Demolition Debris Recycling Ordinance, Green Building Ordinance, Low Impact Development Standards, and Expedited and Streamlined Permitting Process for Solar PV Systems, the CALGreen Code will help to preserve and protect the community to realize a healthier, cleaner and more viable environment for the City.

On April 1, 2015, Governor Jerry Brown issued Executive Order B-29-15 (EO). The EO directed the California Department of Water Resources to update the Model Water Efficient Landscape Ordinance (MWELo) in response to the continued drought conditions California is facing. The City is required to adopt, implement and report on the MWELo. Chapter 21.42 Landscaping Standards will be updated to comply with the MWELo. The

Planning Bureau will be responsible for the enforcement of the MWELO, including but not limited to, approval of a permit and plan check or design review of a project, and the Building and Safety Bureau will be responsible for the necessary inspections for the compliance with the MWELO.

To address the impact of imminent water supply shortage as the result of a Statewide, multi-year drought, critically low levels in key State reservoirs and significant pumping restrictions on imported water supplies from the State Water Project, it is necessary to increase water conservation efforts to ensure sufficient water resources are available for current and future residents of the City. In coordination with the Long Beach Water Department, proposed amendments to Chapter 18.47 will encourage water conservation in mixed-use buildings by requiring the installation of water meters for residential and nonresidential occupancies to help building owners or tenants to allocate water costs based upon water consumption and create a financial incentive to conserve water.

On November 3, 2015, the City Council requested that the Sustainable City Commission prepare recommendations on approaches to expand electric vehicle (EV) charging infrastructure in Long Beach. On March 24, 2016, the Sustainable City Commission submitted to the City Council EV charging policy recommendations, including building code revisions, developed from policy research of best practices within other California municipalities completed by the Office of Sustainability. On May 3, 2016, the City Council received the EV recommendations and directed that they be incorporated into the triennial code update to Title 18 of the LBMC.

#### TIMING CONSIDERATIONS

State law requires that the Code become effective on January 1, 2017. City Council action is requested on November 15, 2016, in order to comply with this State-mandated deadline.

#### FISCAL IMPACT

A total of four positions will be needed to implement the MWELO and expanded EV charging infrastructure programs. Therefore, the following positions were added in the Development Services Fund (EF 337) in the Development Services Department (DV) as part of the Fiscal Year 2017 Adopted Budget: a Planning Aide in the Planning Bureau, and a Combination Building Inspector Aide, a Combination Building Inspector, and an Electrical Plan Checker in the Building and Safety Bureau. The cost of these positions will be offset by fees charged for the services they will provide. The local job impact is unknown at this time.

#### SUGGESTED ACTION:

Approve recommendation.

RESOLUTION NO.

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF LONG BEACH ADOPTING AND MAKING EXPRESS FINDINGS AND DETERMINATIONS RELATING TO THE ENACTMENT OF ADMINISTRATIVE AMENDMENTS, AND, WHERE APPROPRIATE, MORE RESTRICTIVE BUILDING STANDARDS CODE PROVISIONS THAN THOSE OF THE CALIFORNIA BUILDING CODE, CALIFORNIA RESIDENTIAL CODE, CALIFORNIA ELECTRICAL CODE, CALIFORNIA PLUMBING CODE, CALIFORNIA MECHANICAL CODE, UNIFORM HOUSING CODE, CALIFORNIA GREEN BUILDING STANDARDS CODE, CALIFORNIA FIRE CODE, CALIFORNIA EXISTING BUILDING CODE, AND CALIFORNIA HISTORICAL BUILDING CODE; FINDING THAT SAID AMENDMENTS AND MODIFICATIONS TO THE CODES ARE REASONABLY NECESSARY BECAUSE OF THE LOCAL CLIMATIC, GEOLOGICAL OR TOPOGRAPHICAL CONDITIONS EXISTING IN LONG BEACH; AND INSTRUCTING THE DIRECTOR OF DEVELOPMENT SERVICES AND THE FIRE CHIEF TO TRANSMIT SAID FINDINGS AND DETERMINATIONS TO THE CALIFORNIA BUILDING STANDARDS COMMISSIONS, THE CALIFORNIA HOUSING AND COMMUNITY DEVELOPMENT DEPARTMENT, AND THE STATE HISTORICAL BUILDING SAFETY BOARD IN ACCORDANCE WITH SECTIONS 17958.7, 18941.5 AND 18959 OF THE CALIFORNIA HEALTH AND SAFETY CODE

OFFICE OF THE CITY ATTORNEY  
CHARLES PARKIN, City Attorney  
333 West Ocean Boulevard, 11th Floor  
Long Beach, CA 90802-4664

1                   WHEREAS, Sections 17922, 17950, 17958, and 18938(b) of the California  
2 Health and Safety Code requires the City of Long Beach to adopt the California Building  
3 Standards Code adopted pursuant to the provisions of Chapter 4 of Part 2.5 of Division  
4 13 of the California Health and Safety Code and the 1997 Edition of the Uniform Housing  
5 Code adopted pursuant to the California Code of Regulations, Title 25, Division 1,  
6 Chapter 1, Subchapter 1, Article 5, Section 32, as the City of Long Beach Building  
7 Standards Code; and

8                   WHEREAS, Section 13143.5(a) of the California Health and Safety Code  
9 provides, in pertinent part, as follows:

10                   “...any city, county, or city and county may, by ordinance, make changes or  
11 modifications that are more stringent than the requirements published in the California  
12 Building Standards Code relating to fire and panic safety and the other regulations  
13 adopted pursuant to this part. Any changes or modifications that are more stringent than  
14 the requirements published in the California Building Standards Code relating to fire and  
15 panic safety shall be subject to subdivision (b) of Section 18941.5.”

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

18                   “...a city or county may make those changes or modifications in the  
19 requirements contained in the provisions published in the California Building Standards  
20 Code and the other regulations adopted pursuant to Section 17922, including, but not  
21 limited to, green building standards, as it determines, pursuant to the provisions of  
22 Section 17958.7, are reasonably necessary...”; and

23                   WHEREAS, Section 17958.7 of the California Health and Safety Code  
24 provides, in pertinent part, as follows:

25                   “...before making any modifications or changes pursuant to Section  
26 17958.5, shall make an express finding that such modifications or changes are  
27 reasonably necessary because of local climatic, geologic or topographic conditions...”;  
28 and

1                   WHEREAS, Section 18941.5(b) of the California Health and Safety Code  
2 provides, in pertinent part, as follows:

3                   “Neither the State Building Standards Law contained in this part, nor the  
4 application of building standards contained in this section, shall limit the authority of a  
5 city, county, or city and county to establish more restrictive building standards, including,  
6 but not limited to, green building standards, reasonably necessary because of local  
7 climatic, geological, or topographical conditions.”

8                   WHEREAS, Section 18959(f) of the California Health and Safety Code  
9 provides, in pertinent part, as follows:

10                  “When administering and enforcing this part, each local agency may make  
11 changes or modifications in the requirements contained in the California Historical  
12 Building Code, as described in Section 18944.7, as it determines are reasonably  
13 necessary because of local climatic, geological, seismic, and topographical conditions.”

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

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

22                  WHEREAS, the City is located by the International Building Code in  
23 Seismic Design Category D, E or F, and the International Residential Code in Seismic  
24 Design Category D<sub>2</sub> or E, which is considered by experts to be one of the most active  
25 seismic regions in the world; and

26                  WHEREAS, the Northridge Earthquake that occurred on January 17, 1994,  
27 was only a moderate Richter Magnitude 6.8 earthquake, yet caused damage in the Los  
28 Angeles Basin area to more than 115,000 buildings and the vacation of 21,000 residential



1 units including 2,000 homes; and

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

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

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

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

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

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

23 WHEREAS, the California Building Code, California Residential Code,  
24 California Fire Code, California Existing Building Code, and California Historical Building  
25 Code has not yet fully addressed the lessons learned from the Northridge Earthquake;  
26 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, the City is located within a Mediterranean, semi-arid climate  
5 system that produces warm dry summers and cool wet winters and thus receives  
6 approximately 13 inches of rain water per year on average; and

7 WHEREAS, the City is impacted by impermeable layer of clay that lies  
8 between the City's surface and the groundwater basin underneath the City, preventing  
9 precipitations that falls locally from replenishing the basin; and

10 WHEREAS, the City's groundwater pumping activities meets only half of the  
11 water demand of five hundred thousand Long Beach residents; and

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

17 NOW, THEREFORE, in order to provide adequate protection under the  
18 unique local climatic, geologic and topographic conditions set forth above, the City of  
19 Long Beach makes the following findings and determinations relative to the adoption of  
20 administrative amendments, and where appropriate, the adoption of more restrictive  
21 building standards code provisions than those of the California Building Code, California  
22 Residential Code, California Electrical Code, California Plumbing Code, California  
23 Mechanical Code, Uniform Housing Code, California Green Building Standards Code,  
24 California Fire Code, California Existing Building Code and California Historical Building  
25 Code:

26 Section 1. Findings and determinations relative to the adoption of  
27 administrative amendments to the California Building Standards Code, Title 24 of the  
28 California Code of Regulations:

1 Chapters 18.01 thru 18.30, 18.60 thru 18.99 – Amendment is necessary for local  
2 administrative clarification, does not modify a Building Standards as defined in Section  
3 18909(c) of the California Health and Safety Code, and does not require the express  
4 findings and determination required by Sections 17958, 17958.5 and 17958.7 of the  
5 California Health and Safety Code.

6 Section 2. Findings and determinations relative to the adoption of  
7 administrative amendments, and where appropriate, the adoption of more restrictive  
8 building standards code provisions amendments to the California Building Code, Part 2,  
9 Title 24 of the California Code of Regulations:

10 Sections 18.40.010 – 18.40.060 – Amendment is necessary for local  
11 administrative clarification, does not modify a Building Standards as defined in Section  
12 18909(c) of the California Health and Safety Code, and does not require the express  
13 findings and determination required by Sections 17958, 17958.5 and 17958.7 of the  
14 California Health and Safety Code.

15 Section 18.40.070 – Amendment is necessary on the basis of a local geological  
16 condition. The modification to omit the importance factor from Equation 12.12-1 will  
17 ensure that a safe seismic separation distance is maintained for important facilities from  
18 adjoining structures. The amendment makes modification and changes to better limit  
19 personal injury and property damage as a result of seismic activity and to establish  
20 criteria for repair of damaged property following a local emergency.

21 Section 18.40.080 – Amendment is necessary on the basis of a local geological  
22 condition. Observed damages to one and two family dwellings of light frame construction  
23 after the Northridge Earthquake may have been partially attributed to vertical irregularities  
24 common to this type of occupancy and construction. The proposed modification to limit  
25 mixed structural system to two stories is intended to improve quality of construction by  
26 reducing potential damages that may result from vertical irregularities of the structural  
27 system in buildings subject to high seismic load. The amendment makes modification and  
28 changes to better limit personal injury and property damage as a result of seismic activity

1 and to establish criteria for repair of damaged property following a local emergency.

2 Section 18.40.090 – Amendment is necessary on the basis of a local geological  
3 condition. The proposed amendment to require special anchorage of the diaphragm to  
4 the wall and limit the allowable shear will address special needs for concrete and  
5 masonry construction with flexible wood diaphragm The amendment makes modification  
6 and changes to better limit personal injury and property damage as a result of seismic  
7 activity and to establish criteria for repair of damaged property following a local  
8 emergency.

9 Section 18.40.100 – Amendment is necessary on the basis of a local geological  
10 condition. The proposed amendment requiring safe design and construction requirements  
11 for ceiling suspension systems to resist seismic loads is intended to minimize the amount  
12 of damage within a building and along the path of the means of egress. The amendment  
13 makes modification and changes to better limit personal injury and property damage as a  
14 result of seismic activity and to establish criteria for repair of damaged property following  
15 a local emergency.

16 Section 18.40.110 – Amendment is necessary on the basis of a local geological  
17 condition. The proposed amendment to require the registered design professional in  
18 responsible charge for the structural design to observe the construction will help ensure  
19 acceptable standards of workmanship is provided and to improve the quality of the  
20 observation. The amendment makes modification and changes to better limit personal  
21 injury and property damage as a result of seismic activity and to establish criteria for  
22 repair of damaged property following a local emergency.

23 Section 18.40.120 – Amendment is necessary on the basis of a local geological  
24 condition. The proposed modification ensures better performance of buildings or  
25 structures by requiring special inspection for concrete with a compressive strength  
26 greater than 2,500 pounds per square inch. The amendment makes modification and  
27 changes to better limit personal injury and property damage as a result of seismic activity  
28 and to establish criteria for repair of damaged property following a local emergency.

1 Section 18.40.130 – Amendment is necessary on the basis of a local geological  
2 condition. The proposed modification to exclude structures assigned to Seismic Design  
3 Category D, E or F from being exempt from requiring special inspections will improve  
4 quality assurance and ensures better performance of buildings or structures. The  
5 amendment makes modification and changes to better limit personal injury and property  
6 damage as a result of seismic activity and to establish criteria for repair of damaged  
7 property following a local emergency.

8 Section 18.40.140 – Amendment is necessary for local administrative clarification,  
9 does not modify a Building Standard as defined in Section 18909(c) of the California  
10 Health and Safety Code, and does not require the express findings and determination  
11 required by Sections 17958, 17958.5 and 17958.7 of the California Health and Safety  
12 Code.

13 Section 18.40.150 – Amendment is necessary on the basis of a local geological  
14 and climatic condition. No substantiating data has been provided to show that wood  
15 foundation is effective in supporting buildings and structures during a seismic event while  
16 being subject to deterioration caused by the combined detrimental effect of constant  
17 moisture in the soil and wood-destroying organisms. Wood foundation systems when  
18 they are not properly treated and protected against deterioration have performed very  
19 poorly and have led to slope failures. Most contractors are typically accustomed to  
20 construction in dry and temperate weather in the Southern California region and are not  
21 generally familiar with the necessary precautions and treatment of wood that makes it  
22 suitable for both seismic event and wet applications. The proposed amendment takes the  
23 precautionary steps to reduce or eliminate potential problems that may result in using  
24 wood foundation systems that experience relatively rapid decay due to the fact that the  
25 region does not experience temperatures cold enough to destroy or retard the growth and  
26 proliferation of wood-destroying organisms. The amendment makes modification and  
27 changes to better limit personal injury and property damage as a result of seismic or  
28 climatic activity and to establish criteria for repair of damaged property following a local

1 emergency.

2 Section 18.40.160 – Amendment is necessary on the basis of a local geological  
3 condition. With the higher seismic demand placed on buildings and structures in this  
4 region, it is deemed necessary to take precautionary steps to reduce or eliminate  
5 potential problems that may result by following prescriptive design provisions that does  
6 not take into consideration the surrounding environment. Plain concrete performs poorly  
7 in withstanding the cyclic forces resulting from seismic events. In addition, no  
8 substantiating data has been provided to show that under-reinforced foundation walls are  
9 effective in resisting seismic loads and may potentially lead to a higher risk of failure. It is  
10 important that the benefit and expertise of a registered design professional be obtained to  
11 properly analyze the structure and take these issues into consideration. The amendment  
12 makes modification and changes to better limit personal injury and property damage as a  
13 result of seismic activity and to establish criteria for repair of damaged property following  
14 a local emergency.

15 Section 18.40.170 – Amendment is necessary on the basis of a local geological  
16 condition. With the higher seismic demand placed on buildings and structures in this  
17 region, precautionary steps are proposed to reduce or eliminate potential problems that  
18 may result for under reinforced footings located on sloped surfaces. Requiring minimum  
19 reinforcement for stepped footings is intended to address the problem of poor  
20 performance of plain or under-reinforced footings during a seismic event. The  
21 amendment makes modification and changes to better limit personal injury and property  
22 damage as a result of seismic activity and to establish criteria for repair of damaged  
23 property following a local emergency.

24 Section 18.40.180 – Amendment is necessary on the basis of a local geological  
25 condition. No substantiating data has been provided to show that under-reinforced  
26 footings are effective in resisting seismic loads and may potentially lead to a higher risk of  
27 failure. Therefore, the amendment requires minimum reinforcement in continuous  
28 footings to address the problem of poor performance of plain or under-reinforced footings

1 during a seismic event. With the higher seismic demand placed on buildings and  
2 structures in this region, precautionary steps are proposed to reduce or eliminate  
3 potential problems that may result by following prescriptive design provisions for footing  
4 that do not take into consideration the surrounding environment. It was important that the  
5 benefit and expertise of a registered design professional be obtained to properly analyze  
6 the structure and take these issues into consideration. This amendment reflects the  
7 recommendations by the Structural Engineers Association of Southern California  
8 (SEAOSC) and the Los Angeles City Task Force that investigated the poor performance  
9 observed in 1994 Northridge Earthquake. The amendment makes modification and  
10 changes to better limit personal injury and property damage as a result of seismic activity  
11 and to establish criteria for repair of damaged property following a local emergency.

12           Section 18.40.190 – Amendment is necessary on the basis of a local geological  
13 and climatic condition. No substantiating data has been provided to show that timber  
14 footings are effective in supporting buildings and structures during a seismic event while  
15 being subject to deterioration caused by the combined detrimental effect of constant  
16 moisture in the soil and wood-destroying organisms. Timber footings, when they are not  
17 properly treated and protected against deterioration, have performed very poorly. Most  
18 contractors are typically accustomed to construction in dry and temperate weather in the  
19 Southern California region and are not generally familiar with the necessary precautions  
20 and treatment of wood that makes it suitable for both seismic event and wet applications.  
21 The proposed amendment takes the precautionary steps to reduce or eliminate potential  
22 problems that may result by using timber footings that experience relatively rapid decay  
23 due to the fact that the region does not experience temperatures cold enough to destroy  
24 or retard the growth and proliferation of wood-destroying organisms. The amendment  
25 makes modification and changes to better limit personal injury and property damage as a  
26 result of seismic or climatic activity and to establish criteria for repair of damaged  
27 property following a local emergency.

28           Section 18.40.200 – Amendment is necessary on the basis of a local geological

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

16 Section 18.40.210 – Amendment is necessary on the basis of a local geological  
17 and climatic condition. No substantiating data has been provided to show that wood used  
18 in retaining or crib walls are effective in supporting buildings and structures during a  
19 seismic event while being subject to deterioration caused by the combined detrimental  
20 effect of constant moisture in the soil and wood-destroying organisms. Wood used in  
21 retaining or crib walls, when they are not properly treated and protected against  
22 deterioration, have performed very poorly. Most contractors are typically accustomed to  
23 construction in dry and temperate weather in the Southern California region and are not  
24 generally familiar with the necessary precautions and treatment of wood that makes it  
25 suitable for both seismic event and wet applications. The proposed amendment takes the  
26 precautionary steps to reduce or eliminate potential problems that may result by using  
27 wood in retaining or crib walls that experience relatively rapid decay due to the fact that  
28 the region does not experience temperatures cold enough to destroy or retard the growth



1 and proliferation of wood-destroying organisms. The amendment makes modification and  
2 changes to better limit personal injury and property damage as a result of seismic or  
3 climatic activity and to establish criteria for repair of damaged property following a local  
4 emergency.

5 Section 18.40.220 – Amendment is necessary on the basis of a local geological  
6 condition. The overdriving of nails into the structural wood panels still remains a concern  
7 when pneumatic nail guns are used for wood structural panel shear wall nailing. Box nails  
8 were observed to cause massive and multiple failures of the typical 3/8-inch thick  
9 plywood during the 1994 Northridge Earthquake. The use of clipped head nails continues  
10 to be restricted from being used in wood structural panel shear walls where the minimum  
11 nail head size must be maintained in order to minimize nails from pulling through  
12 sheathing materials. Clipped or mechanically driven nails used in wood structural panel  
13 shear wall construction were found to perform much less in previous wood structural  
14 panel shear wall testing done at the University of California Irvine. The existing test  
15 results indicated that, under cyclic loading, the wood structural panel shear walls were  
16 less energy absorbent and less ductile. The panels reached ultimate load capacity and  
17 failed at substantially less lateral deflection than those using same size hand-driven nails.  
18 This amendment reflects the recommendations by the Structural Engineers Association  
19 of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that  
20 investigated the poor performance observed in 1994 Northridge Earthquake. The  
21 amendment makes modification and changes to better limit personal injury and property  
22 damage as a result of seismic activity and to establish criteria for repair of damaged  
23 property following a local emergency.

24 Section 18.40.230 – Amendment is necessary on the basis of a local geological  
25 condition. ICC-ES AC 155 Acceptance Criteria for Hold-downs (Tie-Downs) Attached to  
26 Wood Members is widely used to establish allowable values for hold-down connectors in  
27 evaluation reports. AC 155 uses monotonic loading to establish allowable values. Yet,  
28 cyclic and dynamic forces imparted on buildings and structures by seismic activity cause

1 more damage than equivalent forces that are applied in a monotonic manner. However,  
2 the engineering, regulatory and manufacturing industries have not reached consensus on  
3 the appropriate cyclic or dynamic testing protocols. This condition is expected to continue  
4 for some time. This amendment continues to limit the allowable capacity to 75% of the  
5 acceptance report value to provide an additional factor of safety for statically tested  
6 anchorage devices. Steel plate washers will reduce the additional damage that can result  
7 when hold-down connectors are fastened to wood framing members. This amendment  
8 reflects the recommendations by the Structural Engineers Association of Southern  
9 California (SEAOSC) and the Los Angeles City Joint Task Force that investigated the  
10 poor performance observed in 1994 Northridge Earthquake. The amendment makes  
11 modification and changes to better limit personal injury and property damage as a result  
12 of seismic activity and to establish criteria for repair of damaged property following a local  
13 emergency.

14 Section 18.40.240 – Amendment is necessary on the basis of a local geological  
15 condition. The Structural Engineers Association of Southern California (SEAOSC) and  
16 the Los Angeles City Joint Task Force that investigated the damage to buildings and  
17 structures during the 1994 Northridge Earthquake recommended reducing allowable  
18 shear values in wood structural panel shear walls or diaphragms that were not  
19 substantiated by cyclic testing. That recommendation was consistent with a report to the  
20 Governor from the Seismic Safety Commission of the State of California recommending  
21 that code requirements be "more thoroughly substantiated with testing." The allowable  
22 shear values for wood structural panel shear walls or diaphragms fastened with staples  
23 are based on monotonic testing and does not take into consideration that earthquake  
24 forces load shear wall or diaphragm in a repeating and fully reversible manner. In  
25 September 2007, limited cyclic testing was conducted by a private engineering firm to  
26 determine if wood structural panels fastened with staples would exhibit the same  
27 behavior as the wood structural panels fastened with common nails. The test result  
28 revealed that wood structural panels fastened with staples appeared to be much lower in

1 strength and stiffness than wood structural panels fastened with common nails. It was  
2 recommended that the use of staples as fasteners for wood structural panel shear walls  
3 or diaphragms not be permitted to resist seismic forces in structures assigned to Seismic  
4 Design Category D, E and F unless it can be substantiated by cyclic testing. Furthermore,  
5 the cities and county within the Los Angeles region has taken extra measures to maintain  
6 the structural integrity of the framing of shear walls and diaphragms designed for high  
7 levels of seismic forces by requiring wood sheathing be applied directly over the framing  
8 members and prohibiting the use of panels placed over gypsum sheathing. This  
9 amendment is intended to prevent the undesirable performance of nails when gypsum  
10 board softens due to cyclic earthquake displacements and the nail ultimately does not  
11 have any engagement in a solid material within the thickness of the gypsum board. The  
12 amendment makes modification and changes to better limit personal injury and property  
13 damage as a result of seismic activity and to establish criteria for repair of damaged  
14 property following a local emergency.

15 Section 18.40.250 – Amendment is necessary on the basis of a local geological  
16 condition. The Structural Engineers Association of Southern California (SEAOSC) and  
17 the Los Angeles City Joint Task Force that investigated the damages to buildings and  
18 structures during the 1994 Northridge Earthquake recommended reducing allowable  
19 shear values in wood structural panel shear walls or diaphragms that were not  
20 substantiated by cyclic testing. That recommendation was consistent with a report to the  
21 Governor from the Seismic Safety Commission of the State of California recommending  
22 that code requirements be "more thoroughly substantiated with testing." The allowable  
23 shear values for wood structural panel shear walls or diaphragms fastened with stapled  
24 nails are based on monotonic testing and does not take into consideration that  
25 earthquake forces load shear wall or diaphragm in a repeating and fully reversible  
26 manner. In September 2007, limited cyclic testing was conducted by a private  
27 engineering firm to determine if wood structural panels fastened with stapled nails would  
28 exhibit the same behavior as the wood structural panels fastened with common nails. The

1 test result revealed that wood structural panel fastened with stapled nails appeared to be  
2 much lower in strength and stiffness than wood structural panels fastened with common  
3 nails. It was recommended that the use of stapled nails as fasteners for wood structural  
4 panel shear walls or diaphragms not be permitted to resist seismic forces in structures  
5 assigned to Seismic Design Category D, E and F unless it can be substantiated by cyclic  
6 testing. Furthermore, the cities and county within the Los Angeles region have taken  
7 extra measures to maintain the structural integrity of the framing of shear walls and  
8 diaphragms designed for high levels of seismic forces by requiring wood sheathing be  
9 applied directly over the framing members and prohibiting the use of panels placed over  
10 gypsum sheathing. This amendment is intended to prevent the undesirable performance  
11 of nails when gypsum board softens due to cyclic earthquake displacements and the nail  
12 ultimately does not have any engagement in a solid material within the thickness of the  
13 gypsum board. The amendment makes modification and changes to better limit personal  
14 injury and property damage as a result of seismic activity and to establish criteria for  
15 repair of damaged property following a local emergency.

16 Section 18.40.260 – Amendment is necessary on the basis of a local geological  
17 condition. The Structural Engineers Association of Southern California (SEAOSC) and  
18 the Los Angeles City Joint Task Force that investigated the damages to buildings and  
19 structures during the 1994 Northridge Earthquake recommended reducing allowable  
20 shear values in wood structural panel shear walls or diaphragms that were not  
21 substantiated by cyclic testing. That recommendation was consistent with a report to the  
22 Governor from the Seismic Safety Commission of the State of California recommending  
23 that code requirements be "more thoroughly substantiated with testing." The allowable  
24 shear values for wood structural panel shear walls or diaphragms fastened with stapled  
25 nails are based on monotonic testing and does not take into consideration that  
26 earthquake forces load shear wall or diaphragm in a repeating and fully reversible  
27 manner. In September 2007, limited cyclic testing was conducted by a private  
28 engineering firm to determine if wood structural panels fastened with stapled nails would

1 exhibit the same behavior as the wood structural panels fastened with common nails. The  
2 test result revealed that wood structural panel fastened with stapled nails appeared to be  
3 much lower in strength and stiffness than wood structural panels fastened with common  
4 nails. It was recommended that the use of stapled nail as fasteners for wood structural  
5 panel shear walls or diaphragms not be permitted to resist seismic forces in structures  
6 assigned to Seismic Design Category D, E and F unless it can be substantiated by cyclic  
7 testing. Furthermore, the cities and county within the Los Angeles region have taken  
8 extra measures to maintain the structural integrity of the framing of shear walls and  
9 diaphragms designed for high levels of seismic forces by requiring wood sheathing be  
10 applied directly over the framing members and prohibiting the use of panels placed over  
11 gypsum sheathing. This amendment is intended to prevent the undesirable performance  
12 of nails when gypsum board softens due to cyclic earthquake displacements and the nail  
13 ultimately does not have any engagement in a solid material within the thickness of the  
14 gypsum board. The amendment makes modification and changes to better limit personal  
15 injury and property damage as a result of seismic activity and to establish criteria for  
16 repair of damaged property following a local emergency.

17 Section 18.40.270 – Amendment is necessary on the basis of a local geological  
18 condition. This amendment specifies minimum sheathing thickness and nail size and  
19 spacing so as to provide a uniform standard of construction for designers and buildings to  
20 follow. This is intended to improve the performance level of buildings and structures that  
21 are subject to the higher seismic demands placed on buildings or structure in this region.  
22 This amendment reflects the recommendations by the Structural Engineers Association  
23 of Southern California (SEAOSC) and the Los Angeles City Joint Task Force that  
24 investigated the poor performance observed in 1994 Northridge Earthquake. The  
25 amendment makes modification and changes to better limit personal injury and property  
26 damage as a result of seismic activity and to establish criteria for repair of damaged  
27 property following a local emergency.

28 Section 18.40.280 – Amendment is necessary on the basis of a local geological

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

11 Section 18.40.290 – Amendment is necessary on the basis of a local geological  
12 condition. This amendment specifies minimum sheathing thickness and nail size and  
13 spacing so as to provide a uniform standard of construction for designers and buildings to  
14 follow. This is intended to improve the performance level of buildings and structures that  
15 are subject to the higher seismic demands placed on buildings or structures in this  
16 region. This amendment reflects the recommendations by the Structural Engineers  
17 Association of Southern California (SEAOSC) and the Los Angeles City Joint Task Force  
18 that investigated the poor performance observed in 1994 Northridge Earthquake. The  
19 amendment makes modification and changes to better limit personal injury and property  
20 damage as a result of seismic activity and to establish criteria for repair of damaged  
21 property following a local emergency.

22 Section 18.40.300 – Amendment is necessary on the basis of a local geological  
23 condition. With the higher seismic demand placed on buildings and structures in this  
24 region, interior walls can easily be called upon to resist over half of the seismic loading  
25 imposed on simple buildings or structures. Without a continuous foundation to support  
26 the braced wall line, seismic loads would be transferred through other elements such as  
27 non-structural concrete slab floors, wood floors, etc. The change is to limit the use of the  
28 exception to structures assigned to Seismic Design Category A, B or C where lower

1 seismic demands are expected. Requiring interior braced walls be supported by  
2 continuous foundations is intended to reduce or eliminate the poor performance of  
3 buildings or structures. The amendment makes modification and changes to better limit  
4 personal injury and property damage as a result of seismic activity and to establish  
5 criteria for repair of damaged property following a local emergency.

6 Section 18.40.310 – Amendment is necessary on the basis of a local geological  
7 condition. Due to the high geologic activities in the Southern California area and the  
8 expected higher level of performance on buildings and structures, this amendment limits  
9 the use of staple fasteners in resisting or transferring seismic forces. In September 2007,  
10 limited cyclic testing data was provided to the ICC Los Angeles Chapter Structural Code  
11 Committee showing that stapled wood structural shear panels do not exhibit the same  
12 behavior as the nailed wood structural shear panels. The test results of the stapled wood  
13 structural shear panels appeared much lower in strength and drift than the nailed wood  
14 structural shear panel test results. Therefore, the use of staples as fasteners to resist or  
15 transfer seismic forces shall not be permitted without being substantiated by cyclic  
16 testing. The amendment makes modification and changes to better limit personal injury  
17 and property damage as a result of seismic activity and to establish criteria for repair of  
18 damaged property following a local emergency.

19 Section 18.40.320 – Amendment is necessary on the basis of a local geological  
20 condition. Due to the high geologic activities in the Southern California area and the  
21 expected higher level of performance on buildings and structures, this amendment limit  
22 the use of staple fasteners in resisting or transferring seismic forces. In September 2007,  
23 limited cyclic testing data was provided to the ICC Los Angeles Chapter Structural Code  
24 Committee showing that stapled wood structural shear panels do not exhibit the same  
25 behavior as the nailed wood structural shear panels. The test results of the stapled wood  
26 structural shear panels appeared much lower in strength and drift than the nailed wood  
27 structural shear panel test results. Therefore, the use of staples as fasteners to resist or  
28 transfer seismic forces shall not be permitted without being substantiated by cyclic

1 testing. The amendment makes modification and changes to better limit personal injury  
2 and property damage as a result of seismic activity and to establish criteria for repair of  
3 damaged property following a local emergency.

4 Sections 18.40.330 – 18.40.350 – Amendment is necessary for local  
5 administrative clarification, does not modify a Building Standard as defined in Section  
6 18909(c) of the California Health and Safety Code, and does not require the express  
7 findings and determination required by Sections 17958, 17958.5 and 17958.7 of the  
8 California Health and Safety Code.

9 Section 18.40.360 – Amendment is necessary on the basis of local geological  
10 conditions. The City of Long Beach is located by the International Building Code in  
11 Seismic Design Category D, E or F, and by the International Residential Code in Seismic  
12 Design Category D2 or E, which is considered by experts to be one of the most active  
13 seismic regions in the world, and therefore requires these extra margins of safety due to  
14 the necessity of providing on site fire protection in a seismic emergency when fire  
15 department resources could be greatly delayed and overwhelmed. The amendment  
16 makes modification and changes to better limit personal injury and property damage as a  
17 result of seismic activity and to establish criteria for repair of damaged property following  
18 a local emergency.

19 Section 18.40.370 – Amendment is necessary on the basis of a local geological  
20 condition. The City of Long Beach is located in Seismic Design Category D, E or F as  
21 determined by the International Building Code, and in Seismic Design Category D<sub>2</sub> or E  
22 as determined by the International Residential Code, which is considered by experts to  
23 be one of the most active seismic regions in the world, and therefore the proposed  
24 amendment is required to ensure that a reasonable margin of safety is provided due to  
25 the necessity of providing on site fire protection in a seismic emergency when fire  
26 department resources could be greatly delayed and overwhelmed.

27 Section 18.40.380 – Amendment is necessary on the basis of a local geological  
28 condition. The City of Long Beach is located in Seismic Design Category D, E or F as



1 determined by the International Building Code, and in Seismic Design Category D<sub>2</sub> or E  
2 as determined by the International Residential Code, which is considered by experts to  
3 be one of the most active seismic regions in the world, and therefore the proposed  
4 amendment is required to ensure that a reasonable margin of safety is provided due to  
5 the necessity of providing on site fire protection in a seismic emergency when fire  
6 department resources could be greatly delayed and overwhelmed.

7       Sections 18.40.390 – 18.40.430 – Amendment is necessary for local  
8 administrative clarification, does not modify a Building Standard as defined in Section  
9 18909(c) of the California Health and Safety Code, and does not require the express  
10 findings and determination required by Sections 13143.5, 17958.7 and 18941.5(b) of the  
11 California Health and Safety Code.

12       Section 18.40.440 – Amendment is necessary on the basis of a local geological  
13 condition. The City of Long Beach is located in Seismic Design Category D, E or F as  
14 determined by the International Building Code, and in Seismic Design Category D<sub>2</sub> or E  
15 as determined by the International Residential Code, which is considered by experts to  
16 be one of the most active seismic regions in the world, and therefore the proposed  
17 amendment is required to ensure that a reasonable margin of safety is provided due to  
18 the necessity of providing on site fire protection in a seismic emergency when fire  
19 department resources could be greatly delayed and overwhelmed.

20       Sections 18.40.450 – 18.40.480 – Amendment is necessary for local  
21 administrative clarification, does not modify a Building Standard as defined in Section  
22 18909(c) of the California Health and Safety Code, and does not require the express  
23 findings and determination required by Sections 13143.5, 17958.7 and 18941.5(b) of the  
24 California Health and Safety Code.

25       Section 18.40.490 – Amendment is necessary on the basis of a local geological  
26 condition. The City of Long Beach is located in Seismic Design Category D, E or F as  
27 determined by the International Building Code, and in Seismic Design Category D<sub>2</sub> or E  
28 as determined by the International Residential Code, which is considered by experts to

1 be one of the most active seismic regions in the world, and therefore the proposed  
2 amendment is required to ensure that a reasonable margin of safety is provided due to  
3 the necessity of providing on site fire protection in a seismic emergency when fire  
4 department resources could be greatly delayed and overwhelmed.

5 Section 18.40.500 – Amendment is necessary on the basis of a local geological  
6 condition. The City of Long Beach is located in Seismic Design Category D, E or F as  
7 determined by the International Building Code, and in Seismic Design Category D<sub>2</sub> or E  
8 as determined by the International Residential Code, which is considered by experts to  
9 be one of the most active seismic regions in the world, and therefore the proposed  
10 amendment is required to ensure that a reasonable margin of safety is provided due to  
11 the necessity of providing on site fire protection in a seismic emergency when fire  
12 department resources could be greatly delayed and overwhelmed.

13 Sections 18.40.510 – 18.40.520 – Amendment is necessary for local  
14 administrative clarification, does not modify a Building Standard as defined in Section  
15 18909(c) of the California Health and Safety Code, and does not require the express  
16 findings and determination required by Sections 13143.5, 17958.7 and 18941.5(b) of the  
17 California Health and Safety Code.

18 Section 18.40.530 – Amendment is necessary on the basis of a local geological  
19 condition. The City of Long Beach is located in Seismic Design Category D, E or F as  
20 determined by the International Building Code, and in Seismic Design Category D<sub>2</sub> or E  
21 as determined by the International Residential Code, which is considered by experts to  
22 be one of the most active seismic regions in the world, and therefore the proposed  
23 amendment is required to ensure that a reasonable margin of safety is provided due to  
24 the necessity of providing on site fire protection in a seismic emergency when fire  
25 department resources could be greatly delayed and overwhelmed.

26 Sections 18.40.540 – 18.40.5780 – Amendment is necessary for local  
27 administrative clarification, does not modify a Building Standard as defined in Section  
28 18909(c) of the California Health and Safety Code, and does not require the express

1 findings and determination required by Sections 13143.5, 17958.7 and 18941.5(b) of the  
2 California Health and Safety Code.

3 Section 3. Findings and determinations relative to the adoption of  
4 administrative amendments, and where appropriate, the adoption of more restrictive  
5 building standards code provisions amendments to the California Residential Code, Part  
6 2.5, Title 24 of the California Code of Regulations:

7 Sections 18.41.010 – 18.41.030 – Amendment is necessary for local  
8 administrative clarification, does not modify a Building Standard as defined in Section  
9 18909(c) of the California Health and Safety Code, and does not require the express  
10 findings and determination required by Sections 17958, 17958.5 and 17958.7 of the  
11 California Health and Safety Code.

12 Section 18.41.040 – Amendment is necessary on the basis of a local geological  
13 condition. After the 1994 Northridge Earthquake, the Wood Frame Construction Joint  
14 Task Force recommended that the quality of wood frame construction needed to be  
15 greatly improved. One such recommendation identified by the Task Force is to improve  
16 the quality and organization of structural plans prepared by the engineer or architect so  
17 that plan examiners, building inspectors, contractors and special inspectors may logically  
18 follow and construct the presentation of the seismic force-resisting systems in the  
19 construction documents. For buildings or structures located in Seismic Design Category  
20 D0, D1, D2 or E that are subject to a greater level of seismic forces, the requirement to  
21 have a California licensed architect or engineer prepare the construction documents is  
22 intended to minimize or reduce structural deficiencies that may cause excessive damage  
23 or injuries in wood frame buildings. Structural deficiencies such as plan and vertical  
24 irregularities, improper shear transfer of the seismic force-resisting system, missed  
25 details or connections important to the structural system, and the improper application of  
26 the prescriptive requirements of the California Residential Code can be readily addressed  
27 by a registered design professional. The amendment makes modification and changes to  
28 better limit personal injury and property damage as a result of seismic activity and to

1 establish criteria for repair of damaged property following a local emergency.

2 Section 18.41.050 – Amendment is necessary for local administrative clarification,  
3 does not modify a Building Standard as defined in Section 18909(c) of the California  
4 Health and Safety Code, and does not require the express findings and determination  
5 required by Sections 17958, 17958.5 and 17958.7 of the California Health and Safety  
6 Code.

7 Section 18.41.060 – Amendment is necessary on the basis of a local geological  
8 condition. With the higher seismic demand placed on buildings and structures in this  
9 region, precautionary steps are proposed to reduce or eliminate potential problems that  
10 may result by limiting the type of irregular conditions specified in the International  
11 Residential Code. Such limitations are intended to reduce the potential structural damage  
12 expected in the event of an earthquake. The cities and county of the Los Angeles region  
13 have taken extra measures to maintain the structural integrity of the framing of the shear  
14 walls and all associated elements when designed for high levels of seismic loads. The  
15 amendment makes modification and changes to better limit personal injury and property  
16 damage as a result of seismic activity and to establish criteria for repair of damaged  
17 property following a local emergency.

18 Section 18.41.070 – Amendment is necessary on the basis of a local geological  
19 and climatic condition. No substantiating data has been provided to show that wood  
20 foundation is effective in supporting buildings and structures during a seismic event while  
21 being subject to deterioration caused by the combined detrimental effect of constant  
22 moisture in the soil and wood-destroying organisms. Wood foundations, not properly  
23 treated and protected against deterioration, have performed very poorly and have led to  
24 slope failures. Most contractors are typically accustomed to construction in dry and  
25 temperate weather in the Southern California region and are not generally familiar with  
26 the necessary precautions and treatment of wood that makes it suitable for both seismic  
27 event and wet applications. The proposed amendment takes the precautionary steps to  
28 reduce or eliminate potential problems that may result in using wood foundation that

1 experience relatively rapid decay due to the fact that the region does not experience  
2 temperatures cold enough to destroy or retard the growth and proliferation of wood-  
3 destroying organisms. However, an exception is made for non-occupied, single-story  
4 storage structures that pose significantly less risk to human safety and may utilize the  
5 wood foundation guidelines specified in this Chapter. The amendment makes  
6 modification and changes to better limit personal injury and property damage as a result  
7 of seismic and climatic activity and to establish criteria for repair of damaged property  
8 following a local emergency.

9 Section 18.41.080 – Amendment is necessary on the basis of a local geological  
10 condition. With the higher seismic demand placed on buildings and structures in this  
11 region, precautionary steps are proposed to reduce or eliminate potential problems that  
12 may result for under-reinforced footings located on sloped surfaces. The amendment  
13 makes modification and changes to better limit personal injury and property damage as a  
14 result of seismic activity and to establish criteria for repair of damaged property following  
15 a local emergency.

16 Section 18.41.090 – Amendment is necessary on the basis of a local geological  
17 condition. The amendment limit the use of the exception to structures assigned to  
18 Seismic Design Category A, B or C where lower seismic demands are expected.  
19 Requiring interior braced walls be supported by continuous foundations is intended to  
20 reduce or eliminate the poor performance of buildings or structures. The amendment  
21 makes modification and changes to better limit personal injury and property damage as a  
22 result of seismic activity and to establish criteria for repair of damaged property following  
23 a local emergency.

24 Section 18.41.100 – Amendment is necessary on the basis of a local geological  
25 condition. Requiring minimum reinforcement for stepped footings is intended to address  
26 the problem of poor performance of plain or under-reinforced footings during a seismic  
27 event. The amendment makes modification and changes to better limit personal injury  
28 and property damage as a result of seismic activity and to establish criteria for repair of

1 damaged property following a local emergency.

2 Section 18.41.110 – Amendment is necessary on the basis of a local geological  
3 and climatic condition. No substantiating data has been provided to show that wood  
4 foundation walls are effective in supporting buildings and structures during a seismic  
5 event while being subject to deterioration caused by the combined detrimental effect of  
6 constant moisture in the soil and wood-destroying organisms. Wood foundation walls,  
7 when they are not properly treated and protected against deterioration, have performed  
8 very poorly and have led to slope failures. Most contractors are typically accustomed to  
9 construction in dry and temperate weather in the Southern California region and are not  
10 generally familiar with the necessary precautions and treatment of wood that makes it  
11 suitable for both seismic event and wet applications. The proposed amendment takes the  
12 precautionary steps to reduce or eliminate potential problems that may result in using  
13 wood foundation walls that experience relatively rapid decay due to the fact that the  
14 region does not experience temperatures cold enough to destroy or retard the growth and  
15 proliferation of wood-destroying organisms. The amendment makes modification and  
16 changes to better limit personal injury and property damage as a result of seismic and  
17 climatic activity and to establish criteria for repair of damaged property following a local  
18 emergency.

19 Section 18.41.120 – Amendment is necessary on the basis of a local geological  
20 condition. Section R502.10 of the Code does not provide any prescriptive criteria to limit  
21 the maximum floor opening size nor does Section R503 provide any details to address  
22 the issue of shear transfer near larger floor openings. With the higher seismic demand  
23 placed on buildings and structures in this region, it is important to ensure that a complete  
24 load path is provided to reduce or eliminate potential damages caused by seismic forces.  
25 Requiring blocking with metal ties around larger floor openings and limiting opening size  
26 is consistent with the requirements of Section R301.2.2.2.5. The amendment makes  
27 modification and changes to better limit personal injury and property damage as a result  
28 of seismic activity and to establish criteria for repair of damaged property following a local

1 emergency.

2 Section 18.41.130 – Amendment is necessary on the basis of a local geological  
3 condition. The Structural Engineers Association of Southern California (SEAOSC) and  
4 the Los Angeles City Joint Task Force that investigated the damages to buildings and  
5 structures during the 1994 Northridge Earthquake recommended reducing allowable  
6 shear values in wood structural panel shear walls or diaphragms that were not  
7 substantiated by cyclic testing. That recommendation was consistent with a report to the  
8 Governor from the Seismic Safety Commission of the State of California recommending  
9 that code requirements be "more thoroughly substantiated with testing." The allowable  
10 shear values for wood structural panel shear walls or diaphragms fastened with staples  
11 are based on monotonic testing and does not take into consideration that earthquake  
12 forces load shear wall or diaphragm in a repeating and fully reversible manner. In  
13 September 2007, limited cyclic testing was conducted by a private engineering firm to  
14 determine if wood structural panels fastened with staples would exhibit the same  
15 behavior as the wood structural panels fastened with common nails. The test result  
16 revealed that wood structural panel fastened with staples appeared to be much lower in  
17 strength and stiffness than wood structural panels fastened with common nails. It was  
18 recommended that the use of staples as fasteners for wood structural panel shear walls  
19 or diaphragms not be permitted to resist seismic forces in structures assigned to Seismic  
20 Design Category D0, D1 and D2 unless it can be substantiated by cyclic testing. The  
21 amendment makes modification and changes to better limit personal injury and property  
22 damage as a result of seismic activity and to establish criteria for repair of damaged  
23 property following a local emergency.

24 Section 18.41.140 – Amendment is necessary on the basis of a local geological  
25 condition. The cities and county of the Los Angeles region have taken extra measures to  
26 maintain the structural integrity of the framing of the shear wall system for buildings and  
27 structures subject to high seismic loads by eliminating single top plate construction. The  
28 performance of modern day braced wall panel construction is directly related to an

1 adequate load path extending from the roof diaphragm to the foundation system. A single  
2 top plate is likely to be over nailed due to the nailing requirements at a rafter, stud, top  
3 plate splice, and braced wall panel edge in a single location. In addition, notching on a  
4 single top plate for plumbing, ventilation and electrical wiring may reduce the load  
5 transfer capacity of the plate without proper detailing. A majority of buildings and  
6 structures designed and built per the California Residential Code with a single top plate  
7 may not need structural observation and special inspections. The potential construction  
8 mistakes mentioned above could not be caught and corrected by knowledgeable  
9 engineers and inspectors, and could jeopardize structural performance of buildings and  
10 structures located in high seismic areas. The amendment makes modification and  
11 changes to better limit personal injury and property damage as a result of seismic activity  
12 and to establish criteria for repair of damaged property following a local emergency.

13           Section 18.41.150 – Amendment is necessary on the basis of a local geological  
14 condition. The Structural Engineers Association of Southern California (SEAOSC) and  
15 the Los Angeles City Joint Task Force that investigated the damages to buildings and  
16 structures during the 1994 Northridge Earthquake recommended reducing allowable  
17 shear values in wood structural panel shear walls or diaphragms that were not  
18 substantiated by cyclic testing. That recommendation was consistent with a report to the  
19 Governor from the Seismic Safety Commission of the State of California recommending  
20 that code requirements be "more thoroughly substantiated with testing." The allowable  
21 shear values for wood structural panel shear walls or diaphragms fastened with staples  
22 are based on monotonic testing and does not take into consideration that earthquake  
23 forces load shear wall or diaphragm in a repeating and fully reversible manner. In  
24 September 2007, limited cyclic testing was conducted by a private engineering firm to  
25 determine if wood structural panels fastened with staples would exhibit the same  
26 behavior as the wood structural panels fastened with common nails. The test result  
27 revealed that wood structural panel fastened with staples appeared to be much lower in  
28 strength and stiffness than wood structural panels fastened with common nails. It was



1 recommended that the use of staples as fasteners for wood structural panel shear walls  
2 or diaphragms not be permitted to resist seismic forces in structures assigned to Seismic  
3 Design Category D0, D1 and D2 unless it can be substantiated by cyclic testing. The  
4 amendment makes modification and changes to better limit personal injury and property  
5 damage as a result of seismic activity and to establish criteria for repair of damaged  
6 property following a local emergency.

7 Section 18.41.160 – Amendment is necessary on the basis of a local geological  
8 condition. The greater Los Angeles region is a densely populated area having buildings  
9 and structures constructed over and near a vast array of fault systems capable of  
10 producing major earthquakes, including but not limited to the recent 1994 Northridge  
11 Earthquake. The proposed modification reduces the aspect ratio help to maintain  
12 minimum quality of construction and performance standards of structures. The  
13 amendment makes modification and changes to better limit personal injury and property  
14 damage as a result of seismic activity and to establish criteria for repair of damaged  
15 property following a local emergency.

16 Section 18.41.170 – Amendment is necessary on the basis of a local geological  
17 condition. Due to the high geologic activities in the Southern California area and the  
18 expected higher level of performance on buildings and structures, this proposed local  
19 amendment increases the length and limits the location where shear walls sheathed with  
20 lath, plaster or gypsum board are used in multi-level buildings. In addition, shear walls  
21 sheathed with other materials are prohibited in Seismic Design Category D0, D1 and D2  
22 to be consistent with the design limitation for similar shear walls found in the California  
23 Building Code. The poor performance of such shear walls in the 1994 Northridge  
24 Earthquake was investigated by the Structural Engineers Association of Southern  
25 California (SEAOSC) and the Los Angeles City Task Force and formed the basis for this  
26 amendment. Considering that shear walls sheathed with lath, plaster or gypsum board  
27 are less ductile than steel moment frames or wood structural panel shear walls, the cities  
28 and county of the Los Angeles region has taken the necessary measures to limit the

1 potential structural damage that may be caused by the use of such walls at the lower  
2 level of multi-level building that are subject to higher levels of seismic loads. The  
3 amendment makes modification and changes to better limit personal injury and property  
4 damage as a result of seismic activity and to establish criteria for repair of damaged  
5 property following a local emergency.

6 Section 18.41.180 – Amendment is necessary on the basis of a local geological  
7 condition. 3/8” thick 3-ply plywood shear walls experienced many failures during the  
8 Northridge Earthquake. Box nails were observed to cause massive and multiple failures  
9 of the typical 3/8” thick 3-ply plywood during the Northridge Earthquake. This amendment  
10 specifies minimum sheathing thickness, nail size and spacing so as to provide a uniform  
11 standard of construction for designers and buildings to follow. This is intended to improve  
12 the performance level of buildings and structures that are subject to the higher seismic  
13 demands and reduce and limit potential damages to property. This amendment reflects  
14 the recommendations by the Structural Engineers Association of Southern California  
15 (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor  
16 performance observed in 1994 Northridge Earthquake. In September 2007, limited cyclic  
17 testing was conducted by a private engineering firm to determine if wood structural  
18 panels fastened with staples would exhibit the same behavior as the wood structural  
19 panels fastened with common nails. The test result revealed that wood structural panel  
20 fastened with staples appeared to be much lower in strength and stiffness than wood  
21 structural panels fastened with common nails. It was recommended that the use of  
22 staples as fasteners for wood structural panel shear walls or diaphragms not be permitted  
23 to resist seismic forces in structures assigned to Seismic Design Category D0, D1 and  
24 D2 unless it can be substantiated by cyclic testing. The amendment makes modification  
25 and changes to better limit personal injury and property damage as a result of seismic  
26 activity and to establish criteria for repair of damaged property following a local  
27 emergency.

28 Section 18.41.190 – Amendment is necessary on the basis of a local geological

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

14 Section 18.41.200 – Amendment is necessary on the basis of a local geological  
15 condition. 3/8" thick 3-ply plywood shear walls experienced many failures during the  
16 Northridge Earthquake. Box nails were observed to cause massive and multiple failures  
17 of the typical 3/8" thick 3-ply plywood during the Northridge Earthquake. This amendment  
18 specifies minimum sheathing thickness, nail size and spacing so as to provide a uniform  
19 standard of construction for designers and buildings to follow. This is intended to improve  
20 the performance level of buildings and structures that are subject to the higher seismic  
21 demands and reduce and limit potential damages to property. This amendment reflects  
22 the recommendations by the Structural Engineers Association of Southern California  
23 (SEAOSC) and the Los Angeles City Joint Task Force that investigated the poor  
24 performance observed in 1994 Northridge Earthquake. The amendment makes  
25 modification and changes to better limit personal injury and property damage as a result  
26 of seismic activity and to establish criteria for repair of damaged property following a local  
27 emergency.

28 Section 18.41.210 – Amendment is necessary on the basis of a local geological

1 condition. It was observed by the Structural Engineer Association of Southern California  
2 (SEAOSC) and the Los Angeles City Task Force that high aspect ratio shear walls  
3 experienced many failures during the 1994 Northridge Earthquake. This proposed  
4 amendment provides a uniform standard of construction for buildings to ensure that the  
5 structural integrity with respect to maximum shear wall aspect ratios is maintained. The  
6 amendment makes modification and changes to better limit personal injury and property  
7 damage as a result of seismic activity and to establish criteria for repair of damaged  
8 property following a local emergency.

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

23 Section 18.41.230 – Amendment is necessary on the basis of a local geological  
24 condition. Reinforcement using longitudinal wires for buildings and structures located in  
25 high seismic areas are deficient and not as ductile as deformed rebar. Having vertical  
26 reinforcement closer to the ends of masonry walls will helps to improve the seismic  
27 performance of masonry buildings and structures. The amendment makes modification  
28 and changes to better limit personal injury and property damage as a result of seismic

1 activity and to establish criteria for repair of damaged property following a local  
2 emergency.

3 Section 18.41.240 – Amendment is necessary on the basis of a local geological  
4 condition. Section R802 of the Code does not provide any prescriptive criteria to limit the  
5 maximum roof opening size nor does Section R803 provide any details to address the  
6 issue of shear transfer near larger roof openings. With the higher seismic demand placed  
7 on buildings and structures in this region, it is important to ensure that a complete load  
8 path is provided to reduce or eliminate potential damages caused by seismic forces.  
9 Requiring blocking with metal ties around larger roof openings and limiting opening size  
10 is consistent with the requirements of Section R301.2.2.2.5. The amendment makes  
11 modification and changes to better limit personal injury and property damage as a result  
12 of seismic activity and to establish criteria for repair of damaged property following a local  
13 emergency.

14 Section 18.41.250 – Amendment is necessary on the basis of a local geological  
15 condition. The performance of fireplace/chimney without anchorage to the foundation has  
16 been observed to be inadequate during major earthquakes. The lack of anchorage to the  
17 foundation can result in the overturning or displacement of the fireplace/chimney. The  
18 amendment makes modification and changes to better limit personal injury and property  
19 damage as a result of seismic activity and to establish criteria for repair of damaged  
20 property following a local emergency.

21 Section 4. Findings and determinations relative to the adoption of  
22 administrative amendments to the California Electrical Code, Part 3, Title 24 of the  
23 California Code of Regulations:

24 Chapter 18.42 – Amendment is necessary for local administrative clarification,  
25 does not modify a Building Standard as defined in Section 18909(c) of the California  
26 Health and Safety Code, and does not require the express findings and determination  
27 required by Sections 17958, 17958.5 and 17958.7 of the California Health and Safety  
28 Code.

1 Section 5. Findings and determinations relative to the adoption of  
2 administrative amendments to the California Plumbing Code, Part 4, Title 24 of the  
3 California Code of Regulations:

4 Chapter 18.43 – Amendment is necessary for local administrative clarification,  
5 does not modify a Building Standard as defined in Section 18909(c) of the California  
6 Health and Safety Code, and does not require the express findings and determination  
7 required by Sections 17958, 17958.5 and 17958.7 of the California Health and Safety  
8 Code.

9 Section 6. Findings and determinations relative to the adoption of  
10 administrative amendments to the California Mechanical Code, Part 5, Title 24 of the  
11 California Code of Regulations:

12 Chapter 18.44 – Amendment is necessary for local administrative clarification,  
13 does not modify a Building Standard as defined in Section 18909(c) of the California  
14 Health and Safety Code, and does not require the express findings and determination  
15 required by Sections 17958, 17958.5 and 17958.7 of the California Health and Safety  
16 Code.

17 Section 7. Findings and determinations relative to the adoption of  
18 administrative amendments to the Uniform Housing Code, Section 32, Article 5,  
19 Subchapter 1, Division 1, of Title 25 of the California Code of Regulations:

20 Chapter 18.45 – Amendment is necessary for local administrative clarification,  
21 does not modify a Building Standard as defined in Section 18909(c) of the California  
22 Health and Safety Code, and does not require the express findings and determination  
23 required by Sections 17958, 17958.5 and 17958.7 of the California Health and Safety  
24 Code.

25 Section 8. Findings and determinations relative to the adoption of  
26 administrative amendments to the California Energy Code, Part 6, Title 24 of the  
27 California Code of Regulations:

28 Chapter 18.46 – Amendment is necessary for local administrative clarification,

1 does not modify a Building Standard as defined in Section 18909(c) of the California  
2 Health and Safety Code, and does not require the express findings and determination  
3 required by Sections 17958, 17958.5 and 17958.7 of the California Health and Safety  
4 Code.

5 Section 9. Findings and determinations relative to the adoption of  
6 administrative amendments, and where appropriate, the adoption of more restrictive  
7 building standards code provisions amendments to the California Green Building  
8 Standards Code, Part 11, Title 24 of the California Code of Regulations:

9 Sections 18.47.010 – 18.47.020 – Amendment is necessary for local  
10 administrative clarification, does not modify a Building Standard as defined in Section  
11 18909(c) of the California Health and Safety Code, and does not require the express  
12 findings and determination required by Sections 17958, 17958.5 and 17958.7 of the  
13 California Health and Safety Code.

14 Section 18.47.030 – Amendment is necessary on the basis of a local climatic  
15 condition. The City of Long Beach is a densely populated area having buildings and  
16 structures constructed within heavily traveled traffic corridors and highways, near and  
17 within the proximity of the Long Beach airport and port, and near the ocean and within  
18 flood prone area. This impacts the quality of the air, causes higher decibel noise levels,  
19 and increases the risk of rising sea or flood levels. The proposed modification to increase  
20 the number of EV charging spaces and stations will help to address and significantly  
21 reduce local air and noise pollution and greenhouse gas emissions will improve the  
22 health and welfare of the city's residents, businesses and visitors and reduce the rise in  
23 sea or flood levels, including in San Pedro Bay, that could put at risk the city's homes and  
24 businesses, public facilities, airport and port. Therefore, this amendment needs to be  
25 incorporated into the code to assure that new buildings and structures and additions or  
26 alterations to existing buildings or structures are designed and constructed in accordance  
27 with the scope and objectives of the California Green Building Standards Code.

28 Section 18.47.040 – Amendment is necessary on the basis of a local climatic

1 condition. The City of Long Beach is a densely populated area having buildings and  
2 structures constructed within heavily traveled traffic corridors and highways, near and  
3 within the proximity of the Long Beach airport and port, and near the ocean and within  
4 flood prone area. This impacts the quality of the air, causes higher decibel noise level,  
5 and increases the risk of rising sea or flood levels. The proposed modification to increase  
6 the number of EV charging space and station will help to address and significantly reduce  
7 local air and noise pollutions and greenhouse gas emissions will improve the health and  
8 welfare of the city's residents, businesses and visitors and reduce the rise in sea or flood  
9 levels, including in San Pedro Bay, that could put at risk the city's homes and businesses,  
10 public facilities, airport and port. Therefore this amendment needs to be incorporated into  
11 the code to assure that new buildings and structures and additions or alterations to  
12 existing buildings or structures are designed and constructed in accordance with the  
13 scope and objectives of the California Green Building Standards Code.

14 Section 18.47.050 – Amendment is necessary on the basis of a local climatic  
15 condition. The City of Long Beach is a densely populated area having buildings and  
16 structures constructed within heavily traveled traffic corridors and highways, near and  
17 within the proximity of the Long Beach airport and port, and near the ocean and within  
18 flood prone area. This impacts the quality of the air, causes higher decibel noise levels,  
19 and increases the risk of rising sea or flood levels. The proposed modification to increase  
20 the number of EV charging spaces and stations will help to address and significantly  
21 reduce local air and noise pollution and greenhouse gas emissions will improve the  
22 health and welfare of the city's residents, businesses and visitors and reduce the rise in  
23 sea or flood levels, including in San Pedro Bay, that could put at risk the city's homes and  
24 businesses, public facilities, airport and port. Therefore this amendment needs to be  
25 incorporated into the code to assure that new buildings and structures and additions or  
26 alterations to existing buildings or structures are designed and constructed in accordance  
27 with the scope and objectives of the California Green Building Standards Code.

28 Section 18.47.060 – Amendment is necessary on the basis of a local climatic



1 condition. The proposed amendment makes modification and changes to better preserve  
2 and protect the community where environmental resources are scarce and to realize a  
3 healthier, cleaner and more viable environment for the City's residents, its workforce and  
4 visitors.

5 Section 18.47.070 – Amendment is necessary on the basis of a local climatic  
6 condition. The proposed amendment makes modification and changes to better preserve  
7 and protect the community where environmental resources are scarce and to realize a  
8 healthier, cleaner and more viable environment for the City's residents, its workforce and  
9 visitors.

10 Section 18.47.080 – Amendment is necessary on the basis of a local climatic  
11 condition. The City is reliant on imported water, importing as much as 40% from the  
12 Metropolitan Water District. To address the impact of imminent water supply shortages as  
13 the result of a statewide, multi-year droughts, critically low levels in key state reservoirs  
14 and significant pumping restrictions on imported water supplies from the State Water  
15 Project, it is necessary to increase water conservation efforts to ensure sufficient water  
16 resources is available for current and future residents of the City. Nearly 36% of water  
17 usage in the City can be attributed to multifamily residential or mixed-use buildings where  
18 water consumption in each individual dwelling unit is not measured. Therefore this  
19 amendment needs to be incorporated into the code to assure that new buildings and  
20 structures and additions or alterations to existing buildings or structures are designed and  
21 constructed in accordance with the scope and objectives of the California Green Building  
22 Standards Code.

23 Section 18.47.090 – Amendment is necessary on the basis of a local climatic  
24 condition. The City is reliant on imported water, importing as much as 40% from the  
25 Metropolitan Water District. To address the impact of imminent water supply shortage as  
26 the result of a statewide, multi-year droughts, critically low levels in key state reservoirs  
27 and significant pumping restrictions on imported water supplies from the State Water  
28 Project, it is necessary to increase water conservation efforts to ensure sufficient water

1 resources is available for current and future residents of the City. Nearly 36% of water  
2 usage in the City can be attributed to multifamily residential or mixed-use buildings where  
3 water consumption in each individual dwelling unit is not measured. Therefore this  
4 amendment needs to be incorporated into the code to assure that new buildings and  
5 structures and additions or alterations to existing buildings or structures are designed and  
6 constructed in accordance with the scope and objectives of the California Green Building  
7 Standards Code.

8 Section 10. Findings and determinations relative to the adoption of  
9 administrative amendments, and where appropriate, the adoption of more restrictive  
10 building standards code provisions amendments to the California Fire Code, Part 9, Title  
11 24 of the California Code of Regulations:

12 Section 18.48.010 – Amendment is necessary for local administrative clarification,  
13 does not modify a Building Standard as defined in Section 18909(c) of the California  
14 Health and Safety Code, and does not require the express findings and determination  
15 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
16 Safety Code. This amendment adopts the latest edition of the California Fire Code and  
17 makes minor editorial changes to reflect adopted or deleted chapters and sections.

18 Section 18.48.020 – Amendment is necessary for local administrative clarification,  
19 does not modify a Building Standard as defined in Section 18909(c) of the California  
20 Health and Safety Code, and does not require the express findings and determination  
21 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
22 Safety Code. This amendment reference the various amendments proposed to the  
23 California Fire Code.

24 Section 18.48.030 – Amendment is necessary for local administrative clarification,  
25 does not modify a Building Standard as defined in Section 18909(c) of the California  
26 Health and Safety Code, and does not require the express findings and determination  
27 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
28 Safety Code. This amendment names this code as the Fire Code for the City of Long

1 Beach.

2 Section 18.48.040 – Amendment is necessary on the basis of local topographical  
3 conditions. This amendment adds vessels on ocean waters under Long Beach  
4 jurisdiction to the Fire Code.

5 Section 18.48.050 – Amendment is necessary for local administrative clarification,  
6 does not modify a Building Standard as defined in Section 18909(c) of the California  
7 Health and Safety Code, and does not require the express findings and determination  
8 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
9 Safety Code. This amendment adds supplemental rules and regulations to carry out the  
10 intent of the code.

11 Section 18.48.060 – Amendment is necessary for local administrative clarification,  
12 does not modify a Building Standard as defined in Section 18909(c) of the California  
13 Health and Safety Code, and does not require the express findings and determination  
14 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
15 Safety Code. This amendment clarifies the appointment of the fire code official.

16 Section 18.48.070 – Amendment is necessary for local administrative clarification,  
17 does not modify a Building Standard as defined in Section 18909(c) of the California  
18 Health and Safety Code, and does not require the express findings and determination  
19 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
20 Safety Code. This amendment provides special requirements for ocean areas and the  
21 vessels that operate there.

22 Section 18.48.080 – Amendment is necessary for local administrative clarification,  
23 does not modify a Building Standard as defined in Section 18909(c) of the California  
24 Health and Safety Code, and does not require the express findings and determination  
25 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
26 Safety Code. This amendment clarifies length of time records shall be retained.

27 Section 18.48.090 – Amendment is necessary for local administrative clarification,  
28 does not modify a Building Standard as defined in Section 18909(c) of the California

1 Health and Safety Code, and does not require the express findings and determination  
2 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
3 Safety Code. This amendment expands language to provide for three types of permits.

4 Section 18.48.100 – Amendment is necessary for local administrative clarification,  
5 does not modify a Building Standard as defined in Section 18909(c) of the California  
6 Health and Safety Code, and does not require the express findings and determination  
7 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
8 Safety Code. This amendment expands language to include inspections permits.

9 Section 18.48.110 – Amendment is necessary for local administrative clarification,  
10 does not modify a Building Standard as defined in Section 18909(c) of the California  
11 Health and Safety Code, and does not require the express findings and determination  
12 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
13 Safety Code. This amendment provides for a declaration of intended use.

14 Section 18.48.120 – Amendment is necessary for local administrative clarification,  
15 does not modify a Building Standard as defined in Section 18909(c) of the California  
16 Health and Safety Code, and does not require the express findings and determination  
17 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
18 Safety Code. This amendment clarifies the expiration of permits.

19 Section 18.48.130 – Amendment is necessary for local administrative clarification,  
20 does not modify a Building Standard as defined in Section 18909(c) of the California  
21 Health and Safety Code, and does not require the express findings and determination  
22 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
23 Safety Code. This amendment expands language to include additional operational  
24 permits.

25 Section 18.48.140 – Amendment is necessary for local administrative clarification,  
26 does not modify a Building Standard as defined in Section 18909(c) of the California  
27 Health and Safety Code, and does not require the express findings and determination  
28 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and

1 Safety Code. This amendment expands language to include additional operational  
2 permits.

3 Section 18.48.150 – Amendment is necessary for local administrative clarification,  
4 does not modify a Building Standard as defined in Section 18909(c) of the California  
5 Health and Safety Code, and does not require the express findings and determination  
6 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
7 Safety Code. This amendment clarifies quantity of combustible liquid allowed.

8 Section 18.48.160 – Amendment is necessary for local administrative clarification,  
9 does not modify a Building Standard as defined in Section 18909(c) of the California  
10 Health and Safety Code, and does not require the express findings and determination  
11 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
12 Safety Code. This amendment expands language to include inspection permits.

13 Section 18.48.170 – Amendment is necessary for local administrative clarification,  
14 does not modify a Building Standard as defined in Section 18909(c) of the California  
15 Health and Safety Code, and does not require the express findings and determination  
16 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
17 Safety Code. This amendment expands language to include additional construction and  
18 inspection permits.

19 Section 18.48.180 – Amendment is necessary for local administrative clarification,  
20 does not modify a Building Standard as defined in Section 18909(c) of the California  
21 Health and Safety Code, and does not require the express findings and determination  
22 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
23 Safety Code. This amendment requires electronic submission of records.

24 Section 18.48.190 – Amendment is necessary for local administrative clarification,  
25 does not modify a Building Standard as defined in Section 18909(c) of the California  
26 Health and Safety Code, and does not require the express findings and determination  
27 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
28 Safety Code. This amendment expands language for the responsibility of keeping an

1 accurate count of building occupants.

2 Section 18.48.200 – Amendment is necessary for local administrative clarification,  
3 does not modify a Building Standard as defined in Section 18909(c) of the California  
4 Health and Safety Code, and does not require the express findings and determination  
5 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
6 Safety Code. This amendment clarifies language for violation penalties.

7 Section 18.48.210 – Amendment is necessary for local administrative clarification,  
8 does not modify a Building Standard as defined in Section 18909(c) of the California  
9 Health and Safety Code, and does not require the express findings and determination  
10 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
11 Safety Code. This amendment clarifies language for stop work orders.

12 Section 18.48.220 – Amendment is necessary for local administrative clarification,  
13 does not modify a Building Standard as defined in Section 18909(c) of the California  
14 Health and Safety Code, and does not require the express findings and determination  
15 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
16 Safety Code. This amendment clarifies language for permit fees.

17 Section 18.48.230 – Amendment is necessary for local administrative clarification,  
18 does not modify a Building Standard as defined in Section 18909(c) of the California  
19 Health and Safety Code, and does not require the express findings and determination  
20 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
21 Safety Code. This amendment expands language for cost recovery and reporting  
22 requirements.

23 Section 18.48.240 – Amendment is necessary for local administrative clarification,  
24 does not modify a Building Standard as defined in Section 18909(c) of the California  
25 Health and Safety Code, and does not require the express findings and determination  
26 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
27 Safety Code. This amendment provides additional definitions.

28 Section 18.48.250 – Amendment is necessary for local administrative clarification,

1 does not modify a Building Standard as defined in Section 18909(c) of the California  
2 Health and Safety Code, and does not require the express findings and determination  
3 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
4 Safety Code. This amendment establishes conditions for open burning.

5 Section 18.48.260 – Amendment is necessary for local administrative clarification,  
6 does not modify a Building Standard as defined in Section 18909(c) of the California  
7 Health and Safety Code, and does not require the express findings and determination  
8 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
9 Safety Code. This amendment establishes conditions for recreational burning.

10 Section 18.48.270 – Amendment is necessary for local administrative clarification,  
11 does not modify a Building Standard as defined in Section 18909(c) of the California  
12 Health and Safety Code, and does not require the express findings and determination  
13 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
14 Safety Code. This amendment clarifies language for sky lanterns.

15 Section 18.48.280 – Amendment is necessary for local administrative clarification,  
16 does not modify a Building Standard as defined in Section 18909(c) of the California  
17 Health and Safety Code, and does not require the express findings and determination  
18 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
19 Safety Code. This amendment expands language for installation of guard posts.

20 Section 18.48.290 – Amendment is necessary for local administrative clarification,  
21 does not modify a Building Standard as defined in Section 18909(c) of the California  
22 Health and Safety Code, and does not require the express findings and determination  
23 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
24 Safety Code. This amendment establishes conditions for fire safety officer.

25 Section 18.48.300 – Amendment is necessary for local administrative clarification,  
26 does not modify a Building Standard as defined in Section 18909(c) of the California  
27 Health and Safety Code, and does not require the express findings and determination  
28 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and

1 Safety Code. This amendment expands language for fire access roads.

2 Section 18.48.310 – Amendment is necessary for local administrative clarification,  
3 does not modify a Building Standard as defined in Section 18909(c) of the California  
4 Health and Safety Code, and does not require the express findings and determination  
5 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
6 Safety Code. This amendment clarifies surface conditions of fire access roads

7 Section 18.48.320 – Amendment is necessary for local administrative clarification,  
8 does not modify a Building Standard as defined in Section 18909(c) of the California  
9 Health and Safety Code, and does not require the express findings and determination  
10 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
11 Safety Code. This amendment expands language for fire access roads.

12 Section 18.48.330 – Amendment is necessary for local administrative clarification,  
13 does not modify a Building Standard as defined in Section 18909(c) of the California  
14 Health and Safety Code, and does not require the express findings and determination  
15 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
16 Safety Code. This amendment expands language for size of address numbers.

17 Section 18.48.340 – Amendment is necessary for local administrative clarification,  
18 does not modify a Building Standard as defined in Section 18909(c) of the California  
19 Health and Safety Code, and does not require the express findings and determination  
20 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
21 Safety Code. This amendment expands language to clarify location and illumination of  
22 address numbers.

23 Section 18.48.350 – Amendment is necessary for local administrative clarification,  
24 does not modify a Building Standard as defined in Section 18909(c) of the California  
25 Health and Safety Code, and does not require the express findings and determination  
26 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
27 Safety Code. This amendment expands language for key box maintenance.

28 Section 18.48.360 – Amendment is necessary for local administrative clarification,



1 does not modify a Building Standard as defined in Section 18909(c) of the California  
2 Health and Safety Code, and does not require the express findings and determination  
3 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
4 Safety Code. This amendment expands language for private fire service mains.

5 Section 18.48.370 – Amendment is necessary for local administrative clarification,  
6 does not modify a Building Standard as defined in Section 18909(c) of the California  
7 Health and Safety Code, and does not require the express findings and determination  
8 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
9 Safety Code. This amendment expands code references for fire hydrant systems.

10 Section 18.48.380 – Amendment is necessary for local administrative clarification,  
11 does not modify a Building Standard as defined in Section 18909(c) of the California  
12 Health and Safety Code, and does not require the express findings and determination  
13 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
14 Safety Code. This amendment expands language for fire hydrant systems.

15 Section 18.48.390 – Amendment is necessary for local administrative clarification,  
16 does not modify a Building Standard as defined in Section 18909(c) of the California  
17 Health and Safety Code, and does not require the express findings and determination  
18 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
19 Safety Code. This amendment expands language for acceptance testing.

20 Section 18.48.400 – Amendment is necessary on the basis of local geological  
21 conditions. The City of Long Beach is located by the International Building Code in  
22 Seismic Design Category D, E or F, and by the International Residential Code in Seismic  
23 Design Category D<sub>2</sub> or E, which is considered by experts to be one of the most active  
24 seismic regions in the world, and therefore requires these densely populated  
25 occupancies have this added means of escape.

26 Section 18.48.410 – Amendment is necessary on the basis of local geological  
27 conditions. The City of Long Beach is located by the International Building Code in  
28 Seismic Design Category D, E or F, and by the International Residential Code in Seismic

1 Design Category D<sub>2</sub> or E, which is considered by experts to be one of the most active  
2 seismic regions in the world, and therefore requires these extra margins of safety due to  
3 the necessity of providing on site fire protection in a seismic emergency when fire  
4 department resources could be greatly delayed and overwhelmed. This amendment  
5 provides clarifications for fire sprinkler systems.

6 Section 18.48.420 – Amendment is necessary for local administrative clarification,  
7 does not modify a Building Standard as defined in Section 18909(c) of the California  
8 Health and Safety Code, and does not require the express findings and determination  
9 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
10 Safety Code. This amendment directs the code user to the proper section for protection  
11 of vehicular damage.

12 Section 18.48.430 – Amendment is necessary on the basis of local geological  
13 conditions. The City of Long Beach is located by the International Building Code in  
14 Seismic Design Category D, E or F, and by the International Residential Code in Seismic  
15 Design Category D<sub>2</sub> or E, which is considered by experts to be one of the most active  
16 seismic regions in the world, and therefore requires these extra margins of safety due to  
17 the necessity of providing on site fire protection in a seismic emergency when fire  
18 department resources could be greatly delayed and overwhelmed. This amendment  
19 provides clarifications for fire sprinkler systems.

20 Section 18.48.440 – Amendment is necessary on the basis of local geological  
21 conditions. The City of Long Beach is located by the International Building Code in  
22 Seismic Design Category D, E or F, and by the International Residential Code in Seismic  
23 Design Category D<sub>2</sub> or E, which is considered by experts to be one of the most active  
24 seismic regions in the world, and therefore requires these extra margins of safety due to  
25 the necessity of providing on site fire protection in a seismic emergency when fire  
26 department resources could be greatly delayed and overwhelmed. This amendment  
27 provides fire sprinkler requirements for non-residential buildings.

28 Section 18.48.450 – Amendment is necessary on the basis of local geological

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

8 Section 18.48.460 – Amendment is necessary for local administrative clarification,  
9 does not modify a Building Standard as defined in Section 18909(c) of the California  
10 Health and Safety Code, and does not require the express findings and determination  
11 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
12 Safety Code. This amendment provides for a safety margin when performing hydraulic  
13 calculations.

14 Section 18.48.470 – Amendment is necessary for local administrative clarification,  
15 does not modify a Building Standard as defined in Section 18909(c) of the California  
16 Health and Safety Code, and does not require the express findings and determination  
17 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
18 Safety Code. This amendment clarifies location of control valves.

19 Section 18.48.480 – Amendment is necessary for local administrative clarification,  
20 does not modify a Building Standard as defined in Section 18909(c) of the California  
21 Health and Safety Code, and does not require the express findings and determination  
22 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
23 Safety Code. This amendment expands language to clarify fire alarm signal reporting.

24 Section 18.48.490 – Amendment is necessary for local administrative clarification,  
25 does not modify a Building Standard as defined in Section 18909(c) of the California  
26 Health and Safety Code, and does not require the express findings and determination  
27 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
28 Safety Code. This amendment clarifies remote annunciators in sprinkler monitoring

1 systems.

2 Section 18.48.500 – Amendment is necessary for local administrative clarification,  
3 does not modify a Building Standard as defined in Section 18909(c) of the California  
4 Health and Safety Code, and does not require the express findings and determination  
5 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
6 Safety Code. This amendment expands language for exterior alarm device.

7 Section 18.48.510 – Amendment is necessary on the basis of local geological  
8 conditions. The City of Long Beach is located by the International Building Code in  
9 Seismic Design Category D, E or F, and by the International Residential Code in Seismic  
10 Design Category D<sub>2</sub> or E, which is considered by experts to be one of the most active  
11 seismic regions in the world, and therefore requires these extra margins of safety due to  
12 the necessity of providing on site fire protection in a seismic emergency when fire  
13 department resources could be greatly delayed and overwhelmed. This amendment adds  
14 language for alarm devices.

15 Section 18.48.520 – Amendment is necessary for local administrative clarification,  
16 does not modify a Building Standard as defined in Section 18909(c) of the California  
17 Health and Safety Code, and does not require the express findings and determination  
18 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
19 Safety Code. This amendment adds language to clarify minimum pressure requirements.

20 Section 18.48.530 – Amendment is necessary for local administrative clarification,  
21 does not modify a Building Standard as defined in Section 18909(c) of the California  
22 Health and Safety Code, and does not require the express findings and determination  
23 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
24 Safety Code. This amendment clarifies location of hose valves in stairways.

25 Section 18.48.540 – Amendment is necessary for local administrative clarification,  
26 does not modify a Building Standard as defined in Section 18909(c) of the California  
27 Health and Safety Code, and does not require the express findings and determination  
28 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and

1 Safety Code. This amendment adds language to clarify building evacuation and fire alarm  
2 systems.

3 Section 18.48.550 – Amendment is necessary for local administrative clarification,  
4 does not modify a Building Standard as defined in Section 18909(c) of the California  
5 Health and Safety Code, and does not require the express findings and determination  
6 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
7 Safety Code. This amendment clarifies duct smoke detectors.

8 Section 18.48.560 – Amendment is necessary for local administrative clarification,  
9 does not modify a Building Standard as defined in Section 18909(c) of the California  
10 Health and Safety Code, and does not require the express findings and determination  
11 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
12 Safety Code. This amendment clarifies duct smoke detectors.

13 Section 18.48.570 – Amendment is necessary on the basis of local geological  
14 conditions. The City of Long Beach is located by the International Building Code in  
15 Seismic Design Category D, E or F, and by the International Residential Code in Seismic  
16 Design Category D<sub>2</sub> or E, which is considered by experts to be one of the most active  
17 seismic regions in the world, and therefore requires these extra margins of safety due to  
18 the necessity of providing on site life safety systems in a seismic emergency when fire  
19 department resources could be greatly delayed and overwhelmed. This amendment adds  
20 language for fire alarm and smoke removal systems.

21 Section 18.48.580 – Amendment is necessary for local administrative clarification,  
22 does not modify a Building Standard as defined in Section 18909(c) of the California  
23 Health and Safety Code, and does not require the express findings and determination  
24 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
25 Safety Code. This amendment expands code references for smoke and heat vents.

26 Section 18.48.590 – Amendment is necessary for local administrative clarification,  
27 does not modify a Building Standard as defined in Section 18909(c) of the California  
28 Health and Safety Code, and does not require the express findings and determination

1 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
2 Safety Code. This amendment expands language to clarify temperature ratings of smoke  
3 and heat vents.

4 Section 18.48.600 – Amendment is necessary on the basis of local geological  
5 conditions. The City of Long Beach is located by the International Building Code in  
6 Seismic Design Category D, E or F, and by the International Residential Code in Seismic  
7 Design Category D<sub>2</sub> or E, which is considered by experts to be one of the most active  
8 seismic regions in the world, and therefore requires this extra margin of safety due to the  
9 probability of damage to water supplies. This amendment provides requirements for fire  
10 department connections.

11 Section 18.48.610 – Amendment is necessary for local administrative clarification,  
12 does not modify a Building Standard as defined in Section 18909(c) of the California  
13 Health and Safety Code, and does not require the express findings and determination  
14 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
15 Safety Code. This amendment expands language to clarify location of fire department  
16 connections.

17 Section 18.48.620 – Amendment is necessary for local administrative clarification,  
18 does not modify a Building Standard as defined in Section 18909(c) of the California  
19 Health and Safety Code, and does not require the express findings and determination  
20 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
21 Safety Code. This amendment expands language to clarify access to fire department  
22 connections.

23 Section 18.48.630 – Amendment is necessary for local administrative clarification,  
24 does not modify a Building Standard as defined in Section 18909(c) of the California  
25 Health and Safety Code, and does not require the express findings and determination  
26 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
27 Safety Code. This amendment expands language to clarify protection of exit ways from  
28 vehicular damage.

1 Section 18.48.640 – Amendment is necessary for local administrative clarification,  
2 does not modify a Building Standard as defined in Section 18909(c) of the California  
3 Health and Safety Code, and does not require the express findings and determination  
4 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
5 Safety Code. This amendment adds language to clarify access to roof hatch or trap  
6 doors.

7 Section 18.48.650 – Amendment is necessary for local administrative clarification,  
8 does not modify a Building Standard as defined in Section 18909(c) of the California  
9 Health and Safety Code, and does not require the express findings and determination  
10 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
11 Safety Code. This amendment expands language to clarify the protection against  
12 physical damage from vehicles.

13 Section 18.48.660 – Amendment is necessary for local administrative clarification,  
14 does not modify a Building Standard as defined in Section 18909(c) of the California  
15 Health and Safety Code, and does not require the express findings and determination  
16 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
17 Safety Code. This amendment expands code references for vapor-processing systems.

18 Section 18.48.670 – Amendment is necessary for local administrative clarification,  
19 does not modify a Building Standard as defined in Section 18909(c) of the California  
20 Health and Safety Code, and does not require the express findings and determination  
21 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
22 Safety Code. This amendment expands language for the installation and maintenance of  
23 vapor processing systems.

24 Section 18.48.680 – Amendment is necessary for local administrative clarification,  
25 does not modify a Building Standard as defined in Section 18909(c) of the California  
26 Health and Safety Code, and does not require the express findings and determination  
27 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
28 Safety Code. This amendment adds language for welding and cutting aboard vessels.

1 Section 18.48.690 – Amendment is necessary for local administrative clarification,  
2 does not modify a Building Standard as defined in Section 18909(c) of the California  
3 Health and Safety Code, and does not require the express findings and determination  
4 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
5 Safety Code. This amendment clarifies hose cabinet requirements.

6 Section 18.48.700 – Amendment is necessary for local administrative clarification,  
7 does not modify a Building Standard as defined in Section 18909(c) of the California  
8 Health and Safety Code, and does not require the express findings and determination  
9 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
10 Safety Code. This amendment clarifies requirement for fire safety officers.

11 Section 18.48.710 – Amendment is necessary for local administrative clarification,  
12 does not modify a Building Standard as defined in Section 18909(c) of the California  
13 Health and Safety Code, and does not require the express findings and determination  
14 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
15 Safety Code. This amendment expands language to clarify qualifications of those  
16 handling or firing explosives.

17 Section 18.48.720 – Amendment is necessary for local administrative clarification,  
18 does not modify a Building Standard as defined in Section 18909(c) of the California  
19 Health and Safety Code, and does not require the express findings and determination  
20 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
21 Safety Code. This amendment expands language to clarify the City of Long Beach  
22 insurance requirements.

23 Section 18.48.730 – Amendment is necessary for local administrative clarification,  
24 does not modify a Building Standard as defined in Section 18909(c) of the California  
25 Health and Safety Code, and does not require the express findings and determination  
26 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
27 Safety Code. This amendment expands language to clarify the City of Long Beach  
28 prohibition of fireworks and associated insurance requirements.



1 Section 18.48.740 – Amendment is necessary for local administrative clarification,  
2 does not modify a Building Standard as defined in Section 18909(c) of the California  
3 Health and Safety Code, and does not require the express findings and determination  
4 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
5 Safety Code. This amendment expands language to clarify the amounts of flammable or  
6 combustible liquids in residential occupancies.

7 Section 18.48.750 – Amendment is necessary for local administrative clarification,  
8 does not modify a Building Standard as defined in Section 18909(c) of the California  
9 Health and Safety Code, and does not require the express findings and determination  
10 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
11 Safety Code. This amendment clarifies requirement for construction documents.

12 Section 18.48.760 – Amendment is necessary for local administrative clarification,  
13 does not modify a Building Standard as defined in Section 18909(c) of the California  
14 Health and Safety Code, and does not require the express findings and determination  
15 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
16 Safety Code. This amendment expands language for the storage of liquefied petroleum  
17 gas in buildings.

18 Section 18.48.770 – Amendment is necessary for local administrative clarification,  
19 does not modify a Building Standard as defined in Section 18909(c) of the California  
20 Health and Safety Code, and does not require the express findings and determination  
21 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
22 Safety Code. This amendment expands language for the use of liquefied petroleum gas.

23 Section 18.48.780 – Amendment is necessary for local administrative clarification,  
24 does not modify a Building Standard as defined in Section 18909(c) of the California  
25 Health and Safety Code, and does not require the express findings and determination  
26 required by Sections 13143.5, 17958.7 and 18941.5(b) of the California Health and  
27 Safety Code. This amendment expands language for the installation of liquefied  
28 petroleum gas in tanks.

1 Section 18.48.790 – Amendment is necessary on the basis of local geological  
2 conditions. The City of Long Beach is located by the International Building Code in  
3 Seismic Design Category D, E or F, and by the International Residential Code in Seismic  
4 Design Category D<sub>2</sub> or E, which is considered by experts to be one of the most active  
5 seismic regions in the world, and therefore requires these extra margins of safety due to  
6 the necessity of providing on site fire protection in a seismic emergency when fire  
7 department resources could be greatly delayed and overwhelmed. This amendment  
8 provides language to clarify reduction of fire flow requirements in one- and two-family  
9 dwellings, Group R-3 and R-4 buildings and townhomes.

10 Section 18.48.800 – Amendment is necessary on the basis of local geological  
11 conditions. The City of Long Beach is located by the International Building Code in  
12 Seismic Design Category D, E or F, and by the International Residential Code in Seismic  
13 Design Category D<sub>2</sub> or E, which is considered by experts to be one of the most active  
14 seismic regions in the world, and therefore requires these extra margins of safety due to  
15 the necessity of providing on site fire protection in a seismic emergency when fire  
16 department resources could be greatly delayed and overwhelmed. This amendment  
17 provides language to clarify reduction of fire flow requirements Buildings other than one-  
18 and two-family dwellings, Group R-3 and R-4 buildings and townhomes.

19 Section 11. Findings and determinations relative to the adoption of  
20 administrative amendments, and where appropriate, the adoption of more restrictive  
21 building standards code provisions amendments to the California Existing Building Code,  
22 Part 10, Title 24 of the California Code of Regulations:

23 Sections 18.49.010 – 18.49.030 – Amendment is necessary for local  
24 administrative clarification, and does not modify a Building Standard as defined in Section  
25 18909(c) of the California Health and Safety Code pursuant to Sections 17958, 17958.5  
26 and 17958.7 of the California Health and Safety Code.

27 Section 18.49.040 – 18.49.060 – Amendment is necessary on the basis of a local  
28 geological condition. Due to the high geologic activities in the Southern California area

1 and the expected higher level of performance on buildings and structures, this  
2 amendment ensures that new occupancies with a high occupant load are properly  
3 evaluated to reduce or mitigate any potential hazards to future occupants in existing URM  
4 buildings or structures. The amendment makes modification and changes to better limit  
5 personal injury and property damage as a result of seismic activity and to establish  
6 criteria for repair of damaged property following a local emergency.

7 Section 18.49.070 – Amendment is necessary for local administrative clarification,  
8 does not modify a Building Standard as defined in Section 18909(c) of the California  
9 Health and Safety Code, and does not require the express findings and determination  
10 required by Sections 17958, 17958.5 and 17958.7 of the California Health and Safety  
11 Code.

12 Section 12. Findings and determinations relative to the adoption of  
13 administrative amendments to the California Historical Building Code, Part 8, Title 24 of  
14 the California Code of Regulations:

15 Chapter 18.50 – Amendment is necessary for local administrative clarification,  
16 does not modify a Building Standard as defined in Section 18909(c) of the California  
17 Health and Safety Code, and does not require the express findings and determination  
18 required by Sections 17958, 17958.5 and 17958.7 of the California Health and Safety  
19 Code.

20 Section 13. The Director of Development Services and the Fire Chief are  
21 instructed to, and shall, transmit a copy of this resolution together with any appropriate  
22 supporting documentation, to the California Building Standards Commission, the  
23 California Housing and Community Development Department, and the State Historical  
24 Building Safety Board in accordance with Sections 17858.7, 18941.5 and 18959 of the  
25 California Health and Safety Code.

26 Section 14. This resolution shall take effect on January 1, 2017, upon its  
27 adoption by the City Council, and the City Clerk shall certify to the vote adopting this  
28 resolution.

OFFICE OF THE CITY ATTORNEY  
CHARLES PARKIN, City Attorney  
333 West Ocean Boulevard, 11th Floor  
Long Beach, CA 90802-4664

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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 \_\_\_\_\_, 20\_\_\_\_, by the following vote:

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

Absent: Councilmembers:

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