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RESOLUTION NUMBER_____ (CCS)

(City Council Series)

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SANTA MONICA MAKING FINDINGS REGARDING LOCAL CLIMATIC, GEOLOGICAL AND TOPOGRAPHIC CONDITIONS PURSUANT TO HEALTH AND SAFETY CODE SECTIONS 17958.5, 17958.7 and 18941.5

WHEREAS, the State Building Standards Commission has approved and published the 2016 edition of the California Building Standards Code on July 1, 2016; and such code will be effective 180 days thereafter, which is January 1, 2017; and

WHEREAS, Health and Safety Code Sections 17958.7 and 18941.5 provide that the City may make changes or modifications to the building standards contained in the California Building Standards Code based upon express findings that such changes or modifications are reasonably necessary because of local climatic, geological or topographical conditions; and

WHEREAS, on August 25, 2016, the Building and Fire Life Safety Commission met to consider recommendations to the City Council regarding adopting the 2016 California Building Standards Code, local amendments to that Code, and local climatic, geological and topographical conditions; and

WHEREAS, at the August 25, 2016 meeting, the Building and Safety Commission unanimously recommended that the City Council adopt a resolution making necessary local findings and adopt the 2016 California Building Standards Code with local amendments, as modified by the Commission; and

WHEREAS, the majority of the local amendments were recommended from a collaborative group of Building Officials from the Los Angeles County region; and

WHEREAS, the City Council finds each of the amendments necessary and applicable to Santa Monica; and

WHEREAS, the City Council has considered the 2016 editions of the California Building Standards Code, including but not limited to the California Building Code, California Existing Building Code, California Residential Code, California Electrical Code, California Mechanical Code, California Plumbing Code, California Energy Code, California Fire Code, California Green Building Standards Code, the reference standards, appendixes and the matrix adoption tables contained therein and any applicable errata issued subsequent to the publication of above codes and standards; and

WHEREAS, based upon the findings contained in this Resolution, the City Council will be adopting an ordinance containing certain modifications and additions to the building standards contained in the California Building Standard Code, which are reasonably necessary based upon local climatic, topographical and geological conditions.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SANTA MONICA DOES RESOLVE AS FOLLOWS:

SECTION 1. The City Council makes the following findings regarding local climatic, geological and topographic conditions related to the local amendments to the California Building Standards Code found in Section 2 below:

General Findings

(a) The Master Environmental Assessment (MEA) adopted in April 1996, shows that Santa Monica's climate is primarily influenced by the Pacific Ocean and is characterized by infrequent rainfall and winds. The winds originate from the west during the day and from the north and northeast during the night. Further, intermittent Santa Ana winds conditions occur from September to March allowing conditions that create the potential for high velocity winds with high temperatures. In addition, the region is within a climate system capable of producing major winds, fire and rain related disasters, including but not limited to those caused by the Santa Ana winds and El Nino (or La Nina) subtropical-like weather (Climatic).

(b) Santa Monica is situated in Southern California which has extreme arid conditions and periods of severe drought. As outlined in the MEA, the City relies upon water from outside the region which is purchased from the Metropolitan Water District, and local groundwater for the City's water supply (Climatic).

(c) The Safety Element of the General Plan adopted in January 1995, shows high risk of seismic activity in the City due to the close proximity of the Santa Monica-Malibu Coast fault, the Newport-Inglewood fault and the San Andreas Fault. The close proximity of these faults increases the likelihood of seismic disturbances of substantial magnitude. The Safety Element further discusses the damaging effect local seismic activity would have on potentially hazardous buildings and the related potential demands on emergency service needs (Geological).

(d) The Los Angeles region has a vast and complex network of faults. Some of these faults, like the previously unknown Northridge Fault, are blind thrust faults that earth

scientists believe are capable of intense ground shaking similar or greater in size than the January 17, 1994 Northridge Earthquake. The random possible location of these blind thrust faults increases the local seismic risk and poses an increasing threat to public safety (Geological).

(e) The Safety Element also identifies shallow ground water within 50 feet of the ground surface along the beach, near the Industrial corridor and Marine Park areas of the City. This ground water condition, coupled with unconsolidated youthful sedimentary soils, makes these areas susceptible to possible liquefaction during strong or moderately strong earthquakes. Liquefaction is a very destructive secondary effect of strong seismic shaking where a loss of bearing strength occurs along with ground oscillations in the supporting soils (Geological).

(f) Existing lots in the City of Santa Monica may be located on hilly terrain with slopes that create grading, drainage, foundation, infrastructure, utility and emergency access challenges (Topographical).

Specific Findings

(g) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the 1994 Northridge Earthquake, the 1987 Whittier Narrows Earthquake, the 1971 San Fernando Earthquake and the 1933 Long Beach Earthquake. This amendment will reduce the failure of concrete and clay tile roofs during a significant earthquake and is in accordance with the scope and objectives of the International Building Code (Geological).

(h) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to limit mixed structural system to two stories is intended to improve quality of construction and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code (Geological).

(i) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the 1994 Northridge Earthquake. The proposed modification to require special anchorage of the diaphragm to the wall and limit the allowable shear will address and clarify special needs for concrete and masonry construction with flexible wood diaphragm and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code (Geological).

(j) The greater Los Angeles/Long Beach region is a densely populated area having buildings constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the 1994 Northridge Earthquake. The proposed modification requiring design requirements for ceiling suspension systems to resist seismic loads to minimize the amount of damage within a building and therefore need to be incorporated into the code to assure that new buildings and additions to

existing buildings are designed and constructed in accordance with the scope and objectives of the International Building Code (Geological).

(k) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the 1994 Northridge Earthquake. The proposed modification to require the registered design professional in responsible charge for the structural design to observe the construction will help ensure acceptable standards of workmanship is provided and to improve the quality of the observation and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings and structures are designed and constructed in accordance with the scope and objectives of the International Building Code (Geological).

(l) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the 1994 Northridge Earthquake. The proposed modification to limit certain types of exemption from special inspection for concrete to improve quality of control during construction and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code (Geological).

(m) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of

producing major earthquakes, including but not limited to the 1994 Northridge Earthquake. The proposed modification to require special inspections for detached one- or two-family dwellings not exceeding two stories above grade plane assigned to Seismic Design category D, E and F will help ensure that acceptable standards of workmanship and quality of construction are provided. Therefore it should be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code (Geological).

(n) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. Additionally, the topography within the Los Angeles region includes significant hillsides with narrow and winding access that makes timely response by fire suppression vehicles challenging and difficult. The proposed modification establishes design parameters to better mitigate and limit property damage that are the results of increased seismic forces which are imparted upon hillside buildings and structures and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code (Geological and Topographical).

(o) This amendment is necessary for administrative clarification. It does not modify a Building Standards pursuant to Sections 17958 and 18941.5 of the California Health and Safety Code and does not require an express finding to be made pursuant to Sections

17958.5 and 17958.7 of the California Health and Safety Code. This amendment established administrative standards for the effective enforcement of building standards and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code (Administrative).

(p) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the 1994 Northridge Earthquake. In addition, the region is within a climate system capable of producing major winds, fire and rain related disasters, including but not limited to those caused by the Santa Ana winds and El Nino (or La Nina) subtropical-like weather. This region is especially susceptible to more active termite and wood attacking insects and microorganisms. The proposed modification to prohibit the use of wood for foundation support or retaining earth lateral pressure as well as limit prescriptive design provisions in an effort to mitigate potential problems or deficiencies due to the surrounding environment and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code (Climatic and Geological).

(q) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the 1994 Northridge

Earthquake. The proposed modification to prohibit prescriptive design provisions for foundation walls is intended to ensure that the proper analysis of the structure takes into account the surrounding condition and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code (Geological).

(r) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to require minimum reinforcement in stepped footings is intended to improve performance of buildings and structures and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code (Geological).

(s) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the 1994 Northridge Earthquake. The proposed modification to limit the use of the prescriptive design provisions and under-reinforced or plain concrete is to ensure that the proper analysis of the structure takes into account the surrounding condition and therefore need to be incorporated into the code to assure that new buildings and structures and additions or

alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code (Geological).

(t) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the 1994 Northridge Earthquake. In addition, the region is within a climate system capable of producing major winds, fire and rain related disasters, including but not limited to those caused by the Santa Ana winds and El Nino (or La Nina) subtropical-like weather. This region is especially susceptible to more active termite and wood attacking insects and microorganisms. The proposed modification to prohibit the use of timber footings in an effort to mitigate potential problems or deficiencies due to the surrounding environment and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code (Climatic and Geological).

(u) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the 1994 Northridge Earthquake. In addition, the region is within a climate system capable of producing major winds, fire and rain related disasters, including but not limited to those caused by the Santa Ana winds and El Nino (or La Nina) subtropical-like weather. This region is especially susceptible to more active termite and wood attacking insects and microorganisms. The proposed modification to prohibit the use of timber in an effort to

mitigate potential problems or deficiencies due to the surrounding environment and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code (Climatic and Geological).

(v) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the 1994 Northridge Earthquake. The proposed modification to require minimum reinforcement to address the problem of poor performance of plain or under-reinforced footings during a seismic event and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code (Geological).

(w) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the 1994 Northridge Earthquake. The proposed modification to increase confinement in critical columns, limiting the use of highly gravity loaded walls, and increase concrete coverage in thin slabs will have to prevent failure of the structure and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code (Geological).

(x) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the 1994 Northridge Earthquake. The proposed modification to limit the use of staple fasteners to resist or transfer seismic load improve the performance of buildings and structures during a seismic event and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code (Geological).

(y) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the 1994 Northridge Earthquake. In addition, the region is within a climate system capable of producing major winds, fire and rain related disasters, including but not limited to those caused by the Santa Ana winds and El Nino (or La Nina) subtropical-like weather. This region is especially susceptible to more active termite and wood attacking insects and microorganisms. The proposed modification to prohibit the use of wood is intended to mitigate potential problems or deficiencies due to the surrounding environment and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code (Climatic and Geological).

(z) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the 1994 Northridge Earthquake. The proposed modification to require mechanically driven nails to have the same dimensions as hand-driven nail will result in improved quality of construction and performance of wood structural panel shear walls and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code (Geological).

(aa) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the 1994 Northridge Earthquake. The proposed modification to establish minimum performance requirements for hold-down connectors will reduce failure of wood structural panel shear walls due to excessive deflection and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code (Geological).

(bb) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to place design and construction limits on staples as fasteners used in wood structural panel or diaphragms not substantiated with cyclic

testing will help to maintain minimum quality of construction and performance standards of structures and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code (Geological).

(cc) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to place design and construction limits on stapled nail fasteners used in wood structural panel shear walls or diaphragms not substantiated with cyclic testing will help to maintain minimum quality of construction and performance standards of structures and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code (Geological).

(dd) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the 1994 Northridge Earthquake. Conventional framing does not address the need for a continuous load path, critical shear transfer mechanisms, connection-ties, irregular and flexible portions of complex shaped structures. The proposed modification to require continuous footings under braced wall lines will improve performance of buildings or structure during a seismic event and therefore need to be incorporated into the code to assure that new buildings

and additions to existing buildings are designed and constructed in accordance with the scope and objectives of the International Building Code (Geological).

(ee) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification requiring minimum sheathing thickness and nailing type and size will help to maintain minimum quality of construction and performance standards of structures and therefore needs to be incorporated into the code to assure that new buildings and additions to existing buildings are designed and constructed in accordance with the scope and objectives of the International Building Code (Geological).

(ff) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to limit the use of staple fasteners to resist or transfer seismic load improve the performance of buildings and structures during a seismic event and therefore need to be incorporated into the code to assure that new buildings and structure and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code (Geological).

(gg) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the 1994 Northridge

Earthquake. The proposed modification to require construction documents for wood frame construction greater than one story in height to be approved and stamped by a California licensed architect or engineer is intended to assure that the both the structural design and prescriptive requirement of the code are properly utilized and presented and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Residential Code (Geological).

(hh) The greater Los Angeles region is a densely populated area having buildings constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the 1994 Northridge Earthquake. The proposed modification addresses special design criteria for hillside buildings that are not addressed in the International Residential Code and therefore need to be incorporated into the code to assure that new buildings and additions to existing buildings are designed and constructed in accordance with the scope and objectives of the International Residential Code (Geological).

(ii) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the 1994 Northridge Earthquake, the 1987 Whittier Narrows Earthquake, the 1971 San Fernando Earthquake and the 1933 Long Beach Earthquake. This amendment will improve the performance of buildings that otherwise may be designed and constructed in accordance with the CRC

during a significant earthquake. This amendment is in accordance with the scope and objectives of the International Residential Code (Geological).

(jj) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the 1994 Northridge Earthquake. The proposed amendments need to be incorporated into the Code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code and consistent with the recent requirements in the ASCE 7-10 (Geological).

(kk) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the 1994 Northridge Earthquake. The proposed modification to limit the equipment weight is intended to reduce injuries, save lives, and minimize structural damages and therefore needs to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Residential Code (Geological).

(ll) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the 1994 Northridge Earthquake. The proposed modification to require specific detailing at large floor openings is intended to address the poor performance of floor diaphragms with openings

and limit or reduce property damages during a seismic event and therefore needs to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Residential Code (Geological).

(mm) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the 1994 Northridge Earthquake. The proposed modification to increase the length and limit the location where shear walls sheathed with lath, plaster or gypsum board are used will help to ensure that multi-level building will reach its performance objective in resisting higher levels of seismic loads and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alternations to existing buildings or structures are designed or constructed in accordance with the scope and objectives of the International Residential Code (Geological).

(nn) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the 1994 Northridge Earthquake. The proposed modification to place design and construction limits on stapled nail fasteners used in wood structural panel shear walls or diaphragms not substantiated with cyclic testing will help to maintain minimum quality of construction and performance standards of structures and therefore need to be incorporated into the code to assure that new buildings and additions to existing buildings are designed and constructed in

accordance with the scope and objectives of the International Residential Code (Geological).

(oo) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the 1994 Northridge Earthquake. The proposed modification requiring minimum sheathing thickness and nailing type and size will help to maintain minimum quality of construction and performance standards of structures and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Residential Code (Geological).

(pp) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification ensures that the structural integrity with respect to "maximum shear wall aspect ratios" is maintained, therefore need to be incorporated into the code to assure that new buildings and additions to existing buildings are designed and constructed in accordance with the scope and objectives of the International Residential Code (Geological).

(qq) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification reduces the aspect ratio help to maintain

minimum quality of construction and performance standards of structures and therefore need to be incorporated into the code to assure that new buildings and additions to existing buildings are designed and constructed in accordance with the scope and objectives of the International Residential Code (Geological).

(rr) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the 1994 Northridge Earthquake. The proposed modification to require all exterior walls and interior braced wall panels in buildings be supported on continuous footings for a complete load path and therefore, need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Residential Code (Geological).

(ss) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the 1994 Northridge Earthquake. The proposed modification to require specific detailing at large roof openings is intended to address the poor performance of roof diaphragms with openings and limit or reduce property damages during a seismic event and therefore needs to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Residential Code (Geological).

(tt) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to not allow the use of unreinforced masonry is intended to prevent non-ductile failures and sudden structural collapses and therefore needs to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Residential Code (Geological).

(uu) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to increase reinforcements will ensure that the ductility requirements for buildings in high seismic region meet the intent of the code and limit potential property damages and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Residential Code (Geological).

(vv) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including, but not limited to, the 1994 Northridge Earthquake. In addition, the region is within a climate system capable of producing major winds, fire and rain related disasters, including but not limited to those caused by the

Santa Ana winds and El Nino (or La Nina) subtropical-like weather. The proposed modification to prohibit the use of wood foundation systems as well as limit prescriptive design provisions in an effort to mitigate potential problems or deficiencies to ensure that new buildings and structures and additions or alternations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Residential Code (Climatic and Geological).

(ww) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the recent 1994 Northridge Earthquake. The proposed modification to require continuous footings under braced wall lines, require reinforcement in one- and two-family dwelling, and minimum reinforcement in stepped footings will improve performance of buildings or structure during a seismic event and minimize potential problems or deficiencies and therefore need to be incorporated into the code to assure that new buildings and additions to existing buildings are designed and constructed in accordance with the scope and objectives of the International Residential Code (Geological).

(xx) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the 1994 Northridge Earthquake. In addition, the region is within a climate system capable of producing major winds, fire and rain related disasters, including but not limited to those caused by the Santa Ana winds and El Nino (or La Nina) subtropical-like weather. This region is especially susceptible to more active termite and wood attacking insects and

microorganisms. The proposed modification to prohibit the use of wood foundation walls in an effort to mitigate potential problems or deficiencies due to the proliferation of wood-destroying organisms and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Residential Code (Climatic and Geological).

(yy) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the 1994 Northridge Earthquake. The proposed modification to anchor masonry chimneys into concrete foundation will reduce injuries, save lives, and minimize structural damages. Therefore, this amendment needs to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Residential Code (Geological).

(zz) The greater Los Angeles region is a densely populated area having buildings constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the 1994 Northridge Earthquake. The proposed modification to place design and construction limits on staples as fasteners used in wood structural panel or diaphragms not substantiated with cyclic testing will help to maintain minimum quality of construction and performance of structures and therefore need to be incorporated into the code to assure that new buildings and additions to existing buildings

are designed and constructed in accordance with the scope and objectives of the International Residential Code (Geological).

(aaa) Due to fog, salt laden air, and possible splashing of seawater, metallic enclosures are subject to severe corrosive conditions that affect protection of live wires and components. Metallic enclosures that are located within 402.4 meters (0.25 miles) of the mean shoreline are especially subject to corrosive conditions (Climatic).

(bbb) Where climatic conditions in Santa Monica create demands for higher usage of energy and natural resources, measures that allow conservation and efficiencies in construction will promote practices to achieve these goals and will be better realized with a definition of Sustainability as applied to concepts in the California Green Building Standards Code (Climatic).

(ccc) The greater Los Angeles region is a densely populated area having residential buildings constructed within a region where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions. This local condition also challenges the demand and need for energy resources upon the local utilities. The proposed modification to include the green building requirements of Chapter 4 for any scope of residential work will assure that existing residential buildings will be constructed in accordance with the scope and objectives of the California Green Building Standards Code (Climatic).

(ddd) Some areas of the Los Angeles County region subject residential structures to water and moisture intrusion due to varying temperatures and/or humid conditions not allowing evaporation of introduced water and moisture (Climatic).

(eee) The greater Los Angeles region is a densely populated area where

environmental resources are scarce due to varying and occasional immoderate temperature and weather conditions. The proposed amendment to require greater access for environmentally friendly vehicles will promote a lower contribution to greenhouse gases and less effect to the local environment and reduced demands for local energy and resources. (Climatic).

(fff) The greater Los Angeles region is a densely populated area having buildings and structures constructed over and near a vast array of fault systems capable of producing major earthquakes, including but not limited to the 1994 Northridge Earthquake, the 1987 Whittier Narrows Earthquake, the 1971 San Fernando Earthquake and the 1933 Long Beach Earthquake. The proposed modification to omit the importance factor in the equation ensures that a safe seismic separation distance is maintained for important facilities from adjoining structures and therefore need to be incorporated into the code to assure that new buildings and structures and additions or alterations to existing buildings or structures are designed and constructed in accordance with the scope and objectives of the International Building Code (Geological).

(ggg) Existing concrete and masonry chimneys and fireplaces may be unreinforced and lack the proper resiliency to lateral forces. The Seismic Design Categories of the City of Santa Monica and the potential effects of seismic activity on existing chimneys and fireplaces necessitate the repair, strengthening or demolition when construction of the associated building is undertaken. (Geological)

(hhh) The greater Los Angeles region is a densely populated area having residential buildings constructed within a region where environmental resources are scarce due to varying and occasional immoderate temperatures and weather conditions.

The proposed modification to require higher efficiencies of energy usage and greater beneficial use of environmental material will be achieved with the proposed expansion applicable to High-Rise Residential and Non-Residential Buildings. (Climatic)

(iii) Intermittent, immoderate climatic conditions due to wind, fog, rain, heatwave and humidity cause a higher demand for energy resources and a greater need for energy conservation through the construction of building systems and equipment usage. (Climatic)

(jjj) Intermittent, immoderate climatic conditions due to wind, fog, rain, heatwave and humidity cause a higher demand for energy resources and a greater need to supplement a buildings electrical system with a renewable energy source. (Climatic)

(kkk) Some areas of the Los Angeles County region subject residential structures to waste and moisture intrusion due to temperate or humid conditions not allowing evaporation of introduced water and moisture. (Climatic)

SECTION 2. The City Council expressly findings that the following modifications and changes to the California Building Standards Code are reasonably necessary because of the local climatic, geological or topographical conditions and that each and every one of the local conditions detailed in Section 1 above apply to the following modifications and changes to the California Building Standards Code, as follows:

No.	Municipal Code Section	Amendment Summary	Justification from Section 1 of this Resolution	Local Condition
1	8.12.050	Supplemental Land Hazard Zone Requirements. Continuation from previous code cycle	Sections (c), (d), (e)	Geological
2	8.12.070	Fire Retardant Roofing. Continuation from previous code cycle	Sections (a), (b)	Climatic
3	8.12.074	Alternate Materials and Methods exemption for High-Rise Building requirements of Section 403 (Coordinated with Section 8.44.090)	Section (o)	Administrative
4	8.12.080(a)	Roof deck requirements – where concrete and clay tile is installed. Continuation from previous code cycle	Sections (c), (d), (e), (g)	Geological

		(Amendment from the collaborative LA County group)		
5	8.12.080(b)	Building separations - omit the importance factor from Equation 12.12-1 to ensure that a safe seismic separation distance is provided. (Amendment from the collaborative LA County group)	Sections (c), (d), (e), (fff)	Geological
6	8.12.080(c)	Continuation from the previous code amendment to limit the height of light frame construction with vertical irregularities to two stories for one-and-two family dwellings. Continuation from previous code cycle (Amendment from the collaborative LA County group)	Section (h)	Geological
7	8.12.080(d)	Provide more stringent requirements for the structural elements for Wood Roof Diaphragms where they support concrete or masonry walls and to limit the allowable shear loads. Continuation from previous code cycle (Amendment from the collaborative LA County group)	Section (i)	Geological

8	8.12.080(e)	Analysis and Design of Special Provisions for Hillside Buildings Continuation from previous code cycle (Amendment from the collaborative LA County group)	Section (n)	Geological and Topographical
9	8.12.080(f)	Amendment to provide structural safety standards for Suspended Ceilings where none currently exist in the California Building Code. Continuation from previous code cycle (Amendment from the collaborative LA County group)	Section (j)	Geological
10	8.12.090(a)	Define specific requirements of the registered design professional for general structural observation and require more comprehensive job-site reporting. Continuation from previous code cycle (Amendment from the collaborative LA County group)	Section (k)	Geological
11	8.12.090(b)	Provide for more stringent requirements for seismic structural observation including	Section (k)	Geological

		lateral design with an exception for simple structures Continuation from previous code cycle (Amendment from the collaborative LA County group)		
12	8.12.090(c)	Requirements for special inspection for concrete construction with exceptions. Continuation from previous code cycle (Amendment from the collaborative LA County group)	Section (l)	Geological
13	8.12.090(d)	Provide more stringent requirement by requiring special inspection for seismic resistance for irregular structures of one-and-two family dwellings. Continuation from previous code cycle (Amendment from the collaborative LA County group)	Section (m)	Geological
14	8.12.090(e)	Provide additional requirement of special inspection for connecting grade beams and tie beams. Continuation from previous code cycle	Section (n)	Geological and Topographical

		(Amendment from the collaborative LA County group)		
15	8.12.100(a)	Restrict permanent wood foundations in Seismic Design Categories D, E, F due to unknown performance in a seismic event and its ability to withstand surrounding elements. Continuation from previous code cycle (Amendment from the collaborative LA County group)	Section (p)	Climatic and Geological
16	8.12.100(b)	Restrict the prescriptive design of foundation walls in Seismic Design Categories D, E, F. Continuation from previous code cycle (Amendment from the collaborative LA County group)	Section (q)	Climatic and Geological
17	8.12.100(c)	Foundations – Stepped Footings. Continuation from previous code cycle (Amendment from the collaborative LA County group)	Section (r)	Geological
18	8.12.100(d)	Provide limitations for the prescriptive design method of footings for light-frame	Section (s)	Climatic and Geological

		construction in Seismic Design Categories D, E, F. Continuation from previous code cycle (Amendment from the collaborative LA County group)		
19	8.12.100(e)	Restrict allowance of timber footings in Seismic Design Categories D, E, F due to unknown performance in a seismic event and its ability to withstand surrounding elements. Continuation from previous code cycle (Amendment from the collaborative LA County group)	Section (t)	Climatic and Geological
20	8.12.100(f)	Restrict allowance of timber deep foundation elements in Seismic Design Category D, E, or F. Continuation from previous code cycle (Amendment from the collaborative LA County group)	Section (u)	Climatic and Geological
21	8.12.110(a)	Restrict uses of plain structural concrete and require minimum reinforcement to address poor performance of plain concrete.	Section (v)	Geological

		Continuation from previous code cycle (Amendment from the collaborative LA County group)		
22	8.12.110(b)	Provide for critical design criteria of concrete columns and concrete shear walls. Continuation from previous code cycle (Amendment from the collaborative LA County group)	Section (w)	Geological
23	8.12.120(a)	Repair/strengthening, alteration or removal of existing unreinforced concrete or masonry chimneys/fireplaces	Section (ggg)	Geological
24	8.12.140(a)	Restrict use of staples to resist or transfer seismic forces in Seismic Design Categories D, E, F. Continuation from previous code cycle (Amendment from the collaborative LA County group)	Section (x)	Geological
25	8.12.140(b)	Restrict use of wood in retaining and crib walls in Seismic Design Categories D, E, F Continuation from previous code cycle (Amendment from the collaborative LA County group)	Section (y)	Climatic and Geological

26	8.12.140(c)	Require nails installed with a mechanical driver to meet same dimensions as hand-driven nails in Seismic Design Categories D, E, F Continuation from previous code cycle (Amendment from the collaborative LA County group)	Section (z)	Geological
27	8.12.140(d)	Specific component and install methods for Seismic Design Categories D, E, F. Continuation from previous code cycle (Amendment from the collaborative LA County group)	Section (aa)	Geological
28	8.12.140(e)	Standards requirement for wood-frame diaphragms with restrictions for Seismic Design Categories D, E, F. (Amendment from the collaborative LA County group)	Section (bb)	Geological
29	8.12.140(f)	Standards requirement for wood-frame shear walls with restrictions for Seismic Design Categories D, E, F. (Amendment from the collaborative LA County group)	Section (cc)	Geological

30	8.12.140(g)	More stringent requirements for braced wall line support. Continuation from previous code cycle (Amendment from the collaborative LA County group)	Section (dd)	Geological
31	8.12.140(h)	Alternative bracing standards for panels for various methods and increased requirements for panel thickness and nailing. (Amendment from the collaborative LA County group)	Section (ee)	Geological
32	8.12.140(i)	Provide for more stringent requirements for braced wall sheathing based Seismic Design Category. Continuation from previous code cycle (Amendment from the collaborative LA County group)	Section (ff)	Geological
33	8.12.140(j)	More stringent requirements for sheathing attachment in Seismic Design Categories D, E, F. Staples fasteners are prohibited. Continuation from previous code cycle (Amendment from the collaborative LA County group)	Section (ff)	Geological

34	8.18.010	Adoption of the California Existing Building Code	Section (o)	Administrative
35	8.22.030(a)	Requirement that construction drawings for woodframe structures more than one-story shall be stamped by a licensed architect or engineer. Continuation from previous code cycle (Amendment from the collaborative LA County group)	Section (gg)	Geological
36	8.22.030(b)	Requirement that slopes steeper than 33-1/3 percent are to comply with the structural requirements of Chapter 16 of the California Building Code. Continuation from previous code cycle (Amendment from the collaborative LA County group)	Section (hh)	Topographical and Geological
37	8.22.030(c)	Determination of parameters for Seismic Design Categories. (Amendment from the collaborative LA County group)	Section (ii)	Geological
38	8.22.030(d)	Provide more stringent requirements for irregular structures by not allowing exceptions in Chapter 3 of the California Residential Code	Section (jj)	Geological

		(Amendment from the collaborative LA County group)		
39	8.22.030(e)	Require attachment of mechanical or plumbing fixtures and equipment to the structure. Continuation from previous code cycle (Amendment from the collaborative LA County group)	Section (kk)	Geological
40	8.22.030(f)	Limit the weight and height of mechanical and plumbing equipment for attic floor systems to less than 400 pounds, and a maximum height of four feet. (Amendment from the collaborative LA County group)	Section (kk)	Geological
41	8.22.030(g)	Establish criteria for openings in horizontal diaphragms to limit the maximum floor opening. Continuation from previous code cycle (Amendment from the collaborative LA County group)	Section (ll)	Geological
42	8.22.030(h)	Bracing requirements based on seismic design category. Restriction of shear walls sheathed with other materials in Seismic Design Category D.	Section (mm)	Geological

		(Amendment from the collaborative LA County group)		
43	8.22.030(i)	Provide more stringent requirements for allowed material types for bracing requirements and restrict material types with unknown performance in Seismic Category D. Continuation from previous code cycle (Amendment from the collaborative LA County group)	Section (nn)	Geological
44	8.22.030(j)	Provide more stringent requirements for alternate braced wall panels. Continuation from previous code cycle (Amendment from the collaborative LA County group)	Section (oo)	Geological
45	8.22.030(k)	Provide more stringent requirements for portal frame with hold-downs at detached garage door openings. Continuation from previous code cycle (Amendment from the collaborative LA County group)	Section (oo)	Geological

46	8.22.030(l)	Minimum length of braced wall panels based on wall height for Method PFH and CS-PF. (Amendment from the collaborative LA County group)	Section (pp)	Geological
47	8.22.030(m)	Minimum number of braced wall panels based on length in Seismic Design Category D. (Amendment from the collaborative LA County group)	Section (qq)	Geological
48	8.22.030(n)	Require more stringent requirements for Method CS-PF by increasing minimum size of panel sheathing and anchoring methods. Continuation from previous code cycle (Amendment from the collaborative LA County group)	Section (oo)	Geological
49	8.22.030(o)	Delete California Residential Code Section which allows intervals of continuous foundations for braced wall panel support in Seismic Category D.	Section (rr)	Geological
50	8.22.030(p)	Roof openings in horizontal diaphragms to comply with added Section R803.2.4 to limit the	Section (ss)	Geological

		maximum roof opening and shear transfer. Continuation from previous code cycle (Amendment from the collaborative LA County group)		
51	8.22.030(q)	Design requirement for parapet walls in Seismic Design Category D. Continuation from previous code cycle (Amendment from the collaborative LA County group)	Section (tt)	Geological
52	8.22.030(r)	Stricter requirement for masonry element reinforcing. Continuation from previous code cycle (Amendment from the collaborative LA County group)	Section (uu)	Geological
53	8.22.050(a)	Restrict the use of wood foundations in Seismic Category D Continuation from previous code cycle (Amendment from the collaborative LA County group)	Section (vv)	Climatic and Geological
54	8.22.050(b)	Requirement for higher structural design in continuous footings in Seismic Design Category D.	Section (ww)	Geological

		(Amendment from the collaborative LA County group)		
55	8.22.050(c)	Restrict the use of wood foundations walls Seismic Design Category D Continuation from previous code cycle (Amendment from the collaborative LA County group)	Section (xx)	Climatic and Geological
56	8.22.060(a)	Requirement for chimneys to anchor four No. 4 reinforcing bars into the concrete foundation for seismic support. Continuation from previous code cycle (Amendment from the collaborative LA County group)	Section (yy)	Geological
57	8.22.080(a)	Restrict the use of staples for wood fastening methods. Continuation from previous code cycle (Amendment from the collaborative LA County group)	Section (zz)	Geological
58	8.22.080(b)	Restrict the use of staples in the alternate attachment method. Continuation from previous code cycle	Section (zz)	Geological

		(Amendment from the collaborative LA County group)		
59	8.24.090	Require metallic enclosures installed within the proximity of the mean shoreline to have a higher degree of corrosion protection. Continuation from previous code cycle	Section (aaa)	Climatic
60	8.32.040	Require protection of ground water by prohibiting water softener discharge to dry wells meeting standards of the Regional Water Quality Control Board. Continuation from previous code cycle	Sections (a), (b)	Climatic
61	8.32.070	Seismic Gas Shutoff Devices. Continuation from previous code cycle	Sections (c), (d), (e)	Geological
62	8.36.020	All new low-rise residential buildings shall be designed to use fifteen percent (15%) less energy than the allowed energy budget	Section (hhh)	Climatic
63	8.36.030	All new high-rise residential buildings, non-residential buildings, hotels and motels shall be designed to use ten percent	Section (hhh)	Climatic

		(10%) less energy than the allowed energy budget		
64	8.40.020(a)	Temporary sales lots	Sections (a), (b)	Climatic
65	8.40.020(b)	Submission of records - electronically submit all compliant and non-compliant reports to the Santa Monica Fire Department via a method approved by the fire code official.	Sections (a), (b)	Climatic
66	8.40.020(c)	Building addresses shall be displayed so as to be visible from the street and alley Continuation from previous code cycle	Sections (a), (b)	Climatic
67	8.40.020(d)	Problematic Systems and Systems Out-of-Service. Continuation from previous code cycle	Sections (a), (b)	Climatic
68	8.40.020(e)	Firewatch. Continuation from previous code cycle	Sections (a), (b)	Climatic
69	8.40.020(f)	Automatic Wet Standpipes Continuation from previous code cycle	Sections (a), (b)	Climatic
70	8.40.020(g)	Portable Fire Extinguishers Continuation from previous code cycle	Sections (a), (b)	Climatic

71	8.40.020(h)	Seizure of Fireworks Continuation from previous code cycle	Sections (a), (b)	Climatic
72	8.44.050(a)	Provide clarifying language to meet the intent of sprinkler retrofit requirements in alterations. Continuation from previous code cycle	Sections (a), (b)	Climatic
73	8.44.050(b)	Exceptions to Sprinkler Systems. Continuation from previous code cycle	Sections (a), (b)	Climatic
74	8.44.050(c)	Minimum Requirements – Non-Occupied Buildings. Continuation from previous code cycle	Sections (a), (b)	Climatic
75	8.44.090	High/Mid-Rise Building Requirements with allowances for alternate materials and methods Continuation from previous code cycle with new provisions for exemptions by alternate methods	Sections (a), (b), (c), (d)	Climatic, Geologic
76	8.44.110	Standards for Fire Protection Add requirement for a fire protection system notification device for one-and-two family dwellings.	Sections (a), (b)	Climatic

		Continuation from previous code cycle		
77	8.106.050	Add a definition of Sustainability as the term is used in the CALGreen Code but not defined with specific applicability to green standards. Continuation from previous code cycle (Amendment from the collaborative LA County group)	Section (bbb)	Climatic
78	8.106.053	Mandatory provisions of Chapter 4 of the CALGreen Code shall apply to and/or within the specific area of the addition or alteration. Continuation from previous code cycle (Amendment from the collaborative LA County group)	Section (ccc)	Climatic
79	8.106.055	Solar Pool Heating - Low-Rise Residential	Section (iii)	Climatic
80	8.106.055	Solar Requirement – Residential, One-And-Two Family Dwellings, Low-Rise	Section (a), (c), (d), (iii), (jjj)	Climatic
81	8.106.070	Require details of how flashing is to be executed in certain locations to ensure moisture protection of building elements and occupants.	Section (kkk)	Climatic

		Continuation from previous code cycle (Amendment from the collaborative LA County group)		
82	8.106.080	Solar Pool Heating - Non-residential, High-Rise Residential, Hotels, Motels	Section (iii)	Climatic
83	8.106.080	Solar Requirement – Non-Residential, Hi-Rise Residential, Hotels, Motels	Section (a), (c), (d), (iii), (jjj)	Climatic
84	8.106.100(a)	New Multi-Family Residential Buildings – Electrical system capacity and electrical meter requirements Continuation from previous code cycle	Section (eee)	Climatic
85	8.106.100(b)	New Mixed-Use Occupancy Buildings - Electrical system capacity and electrical meter requirements Continuation from previous code cycle	Section (eee)	Climatic
86	8.106.100(c)	New Commercial, Non-Residential Buildings - Electrical system capacity, circuits provisions, and parking and raceway requirements	Section (eee)	Climatic

SECTION 3. The City Clerk shall certify to the adoption of this Resolution and thenceforth and thereafter the same shall be in full force and effect.

APPROVED AS TO FORM

MARSHA JONES MOUTRIE
City Attorney