BUILDING STANDARDS COMMISSION
2525 Natomas Park Drive, Suite 130
Sacramento, California 95833-2936
(916) 263-0916 FAX (916) 263-0959

April 18, 2012

Ron Takiguchi, P.E., Building Official
Building and Safety Department
City of Santa Monica
1685 Main Street
Santa Monica, CA 90407-2200

Dear Mr. Takiguchi:

This letter is to acknowledge receipt on December 23, 2011 of the City of Santa Monica submittal pertaining to Ordinance No. 2390 with findings and is acceptable for filing. Your filing attests to your understanding that according to Health and Safety Code Section 17958.7 no modification or change to the California Building Standards Code shall become effective or operative for any purpose until the findings and the modifications or changes have been filed with the California Building Standards Commission (the Commission).

This letter attests only to the filing of these local modifications with the Commission, which is not authorized by law to determine the merit of the filing.

As a reminder, local modifications are specific to a particular edition of the Code. They must be readopted and filed with the Commission in order to remain in effect when the next triennial edition of the Code is published. In addition, should you receive Fire Protection District ordinances for ratification, it is required to submit the ratified ordinances to the Department of Housing and Community Development [H&SC Section 13869.7(c)], attention State Housing Law Program Manager, rather than the Commission.

If you have any questions or need any further information, you may contact me at (916) 263-0916.

Sincerely,

Enrique M. Rodriguez
Associate Construction Analyst

cc: Chron
Local Filings

City of
Santa Monica®

Building and Safety
1685 Main Street
PO Box 2200
Santa Monica, California 90407-2200

December 14, 2011

Mr. Jim McGowan
Executive Director
California Building Standards Commission
2525 Natomas Park Drive, Suite 130
Sacramento, CA 94833

LOCAL AMENDMENTS TO THE CALIFORNIA GREEN BUILDING STANDARDS CODE

Dear Mr. McGowan:

This letter is to file notice of local amendments to the 2010 Edition of the California Building Code. A resolution making local findings in support of these local amendments is attached. The Santa Monica City Council heard and approved the attached resolution and introduced for first reading the attached ordinance during an open public hearing at their November 22, 2011 regularly scheduled business meeting. The ordinance making the local amendments is also attached.

If you have any questions regarding this application, please contact Brenden McEneaney, Green Building Program Advisor, at (310) 458-8549 (brenden.mceneaney@smgov.net).

Sincerely,

Ron Takiguchi, P.E.
Building Official

cc: City of Santa Monica (McEneaney, Shen)

tel: 310 458-8355

Council Meeting: 2-28-2012 Santa Monica, California

ORDINANCE NUMBER 2390 (CCS)

(City Council Series)

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SANTA MONICA AMENDING CHAPTERS 8.106 AND 8.108 OF THE SANTA MONICA MUNICIPAL CODE RELATED TO GREEN BUILDING DESIGN AND CONSTRUCTION AND DEMOLITION WASTE HANDLING REQUIREMENTS

WHEREAS, the City of Santa Monica is committed to maintaining a land use and building permit process that is reasonable and efficient; and

WHEREAS, in recent years there has been both worldwide and local concerns raised about escalating energy costs and the effects of global warming; and

WHEREAS, buildings consume approximately 70% of the electricity in the United States and building construction and demolition practices consume large quantities of valuable resources; and

WHEREAS, the City of Santa Monica has a long standing commitment to leadership in green building standards, sustainable design and construction practices, water and other resource conservation and the reduction of greenhouse gas emissions; and

WHEREAS, precious resources can be saved and harmful environmental emissions can be reduced by the inclusion of sustainable construction and demolition

practices and by incorporating green building standards, practices and principles into building and landscape design, maintenance, construction and demolition; and

WHEREAS, the standards and requirements set forth in this ordinance are consistent in principle with the goals, objectives, policies, land uses and programs specified in the City's adopted General Plan; and

WHEREAS, Health and Safety Code Section 18938 provides that the triennial edition of the California Building Standards Code establishes building standards for all occupancies throughout the State and requires that these standards incorporate the latest editions of the Technical Codes with necessary California amendments; and

WHEREAS, Health and Safety Code Section 18941.5 provides that the City may establish more restrictive building standards if they are reasonably necessary due to local climatic, geological or topographical conditions; and

WHEREAS, Public Resource Code Section 25402.1(h)(2) provides that a local enforcement agency may adopt more restrictive energy standards when they are cost-effective and approved by the Energy Commission; and

WHEREAS, at its October 26, 2010 meeting, the City Council considered the 2010 edition of the California Building Standards Codes, which incorporates by reference the various editions of the Technical Codes, and all of the referenced standards, tables, matrices and appendices of each of these Codes therein; and

WHEREAS, on November 9, 2010, the City Council adopted Ordinance Number 2328 (CCS), which adopted by reference the 2010 edition of the California Building Standards Codes and the Santa Monica local amendments to these Technical Codes; and

WHEREAS, the State Energy Commission approved these recommended changes on February 8, 2012; and

WHEREAS, based upon the findings contained in the Resolution adopted concurrently with this Ordinance, the City Council has found that certain additional modifications and additions to the California Building Standards Code are reasonably necessary based upon local climatic, topographical and geological conditions.

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

Section 1. Section 8.106.030 of the Santa Monica Municipal Code is hereby amended as follows:

8.106.030 Mandatory and voluntary measures.

Amend Section 101.10 of the 2010 California Green Building Standards Code to read as follows:

101.10 Mandatory and Voluntary Measures. This code contains both mandatory and voluntary green building measures. Mandatory and voluntary measures are identified in the appropriate application checklist contained in this code. The mandatory measures of Chapter 4 and voluntary measures of Appendix A4 are

applicable to new low-rise residential buildings. The mandatory measures of Chapter 5 and voluntary measures of Appendix A5 are applicable to all new buildings which are not low-rise residential buildings.

Section 2. Section 8.106.050 of the Santa Monica Municipal Code is hereby amended as follows:

8.106.050 Additional Definitions.

Amend Section 202 of the 2010 California Green Building Standards Code to include the following:

Sustainability. Consideration of present development and construction impacts on the community, the economy, and the environment without compromising the needs of the future.

Unshaded. A roof area is considered unshaded if it is unshaded by fixed objects during the majority of the daylight hours between March 21st and September 21st.

Section 3. Section 8.106.055 of the Santa Monica Municipal Code is hereby added as follows:

8.106.055 Low-Rise Residential Energy Efficiency

Amend Section 4.201 of the 2010 California Green Building Standards Code to read as follows:

4.201.1 Energy Efficiency

All new buildings shall be designed to use fifteen percent (15%) less energy than the allowed energy budget established by the California Energy Code.

4.201.3 Solar Pool Heating

a) For new pool construction, if the pool is to be heated, renewable energy shall be used for such heating provided that:

1) the surface area of the solar collectors used to generate such renewable energy is equal to or greater than seventy-percent (70%) of the surface area of the pool; or

2) renewable energy provides at least sixty-percent (60%) of the total energy necessary for heating purpose.

b) Electrical resistance heaters that are not powered directly by renewable energy sources shall not be used to heat pool water.

c) The requirements of this Section shall be waived or reduced, by the minimum extent necessary, in situations where installation of solar water heating is technically infeasible due to lack of unshaded area to install solar collectors, lack of adequate roof space, water pumping energy use exceeding half of the energy derivable from the renewable energy system, or other similar conditions.

4.201.4 Pipe Insulation

When a water heater is installed in any new or existing building, all exposed and accessible domestic hot water distribution and recirculation system piping connected to such water heater shall be thermally insulated from the water heater to the end-use fixtures. Insulation thickness shall meet the requirements of the California Energy Code.

4.201.5 Solar Ready Requirements

All new buildings shall provide solar-ready roof area to facilitate the installation of future solar energy equipment.

a) Such solar-ready roof area shall be:

i) Either flat, or south-facing with a thirty-three percent (33%) roof slope (four units vertical in twelve units horizontal) or less;

ii) Unshaded;

iii) Free from obstructions;

iv) In contiguous areas of no less than 100 square feet; and

v) Not otherwise required to be left open and unobstructed in order to ensure adequate fire or life-safety protection, including but not limited to required clearances for firefighting access.

b) Minimum solar-ready roof space required:

i) Single Family Dwellings: 250 square feet

ii) All other buildings: thirty percent (30%) of the total roof area

c) Exceptions:

The requirements of this Section shall be waived if:

i) The building is designed and constructed with a solar energy system that is tied to the electrical grid and is capable of generating electricity;

ii) The roof of the building is designed and approved to be used for vehicular traffic or parking; or

iii) Compliance is technically infeasible due to lack of sufficient unshaded area based on surrounding conditions, lack of sufficient roof space or other similar conditions.

Section 4. Section 8.106.057 of the Santa Monica Municipal Code is hereby added as follows:

8.106.057 Low-Rise Residential Plumbing Fixture Requirements

Add Section 4.303.1.1 to the 2010 California Green Building Standards Code to read as follows:

4.303.1.1 Applicability. New plumbing fixtures installed in any new or existing building, including additions, alterations, and repairs, shall meet the water use specifications established in Section 4.303.1.

The requirements of Section 4.303.1.1 shall be waived if the applicant can demonstrate that compliance is technically infeasible due to insufficient waste line carry or other similar conditions.

Section 5. Section 8.106.180 of the Santa Monica Municipal Code is hereby added as follows:

8.106.180 Non-Residential and High-Rise Residential Energy Efficiency

Amend Section 5.201 to the 2010 California Green Building Standards Code to read as follows:

5.201.1 Energy Efficiency

All new buildings shall be designed to use fifteen (15%) less energy than the allowed energy budget established by the California Energy Code.

5.201.3 Solar Pool Heating

a) For new pool construction, if the pool is to be heated, renewable energy shall be used for such heating provided that:

1) the surface area of the solar collectors used to generate such renewable energy is equal to or greater than seventy-percent (70%) of the surface area of the pool; or

2) renewable energy provides at least sixty-percent (60%) of the total energy necessary for heating purpose.

b) Electrical resistance heaters that are not powered directly by renewable energy sources shall not be used to heat pool water.

c) The requirements of this Section shall be waived or reduced, by the minimum extent necessary, in situations where installation of solar water heating is technically infeasible due to lack of unshaded area to install solar collectors, lack of adequate roof space, water pumping energy use exceeding half of the energy derivable from the renewable energy system, or other similar conditions.

5.201.4 Pipe Insulation

When a water heater is installed in any new or existing building, all exposed and accessible domestic hot water distribution and recirculation system piping connected to such water heater shall be thermally insulated from the water heater to the end-use fixtures. Insulation thickness shall meet the requirements of the California Energy Code.

5.201.5 Solar Ready Requirements

All new buildings shall provide roof area to facilitate the installation of future solar energy equipment.

a) Such roof area shall be:

i) Either flat, or south-facing with a thirty-three percent (33%) roof slope (four units vertical in 12 units horizontal) or less;

ii) Unshaded;

iii) Free from obstructions;

iv) In contiguous areas of no less than 100 square feet; and

v) Not otherwise required to be left open and unobstructed in order to ensure adequate fire or life-safety protection, including but not limited to required clearances for firefighting access.

b) Minimum solar-ready roof space required:

i) All buildings: thirty percent (30%) of the total roof area

c) Exceptions:

The requirements of this Section shall be waived if:

i) The building is designed and constructed with a solar energy system that is tied to the electrical grid and is capable of generating electricity; or

ii) The roof of the building is designed and approved to be used for vehicular traffic or parking; or

iii) Compliance is technically infeasible due to lack of sufficient unshaded area based on surrounding conditions, lack of sufficient roof space or other similar conditions.

Section 6. Section 8.106.190 of the Santa Monica Municipal Code is hereby added as follows:

8.106.190 Non-Residential and High-Rise Residential Plumbing Fixture Requirements

Add Section 5.303.1.1 to the 2010 California Green Building Standards Code to read as follows:

5.303.3 Applicability. New plumbing fixtures installed in any new or existing building, including additions, alterations, and repairs, shall meet the water use specifications established in Section 5.303.2.

The requirements of Section 5.303.3 shall be waived if the applicant can demonstrate that compliance is technically infeasible due to insufficient waste line carry or other similar conditions.

Section 7. Section 8.108.110 of the Santa Monica Municipal Code is hereby amended as follows:

8.108.110 Definitions.

For the purposes of Subpart C of this Chapter, the following definitions shall apply:

(a) "Class III landfill" means a landfill that accepts non-hazardous resources such as household, commercial, and industrial waste, resulting from construction, remodeling, repair, and demolition operations. A Class III landfill must have a solid waste facilities permit from the State of California and be regulated by an Enforcement Agency.

(b) "Construction and demolition material" (C&D Material) means building materials and solid waste resulting from construction, remodeling, repair, cleanup, or demolition operations that are not hazardous as defined in California Code of Regulations, Title 22 Section 66261.3 et seq. This term includes, but is not limited to, asphalt, concrete, Portland cement concrete, brick, lumber, gypsum wallboard, cardboard, and other associated packaging, roofing material, ceramic tile, carpeting; plastic pipe and steel. The material may be commingled with rock, soil, tree stumps; and other vegetative matter resulting from land clearing and landscaping for construction or land development projects.

(c) "C&D recycling center" means a facility that receives only C&D material that has been separated for reuse prior to receipt, in which the residual (disposed) amount of waste in the material is less than ten percent of the average weight of material separated for reuse received by the facility over a one month period.

(d) "City-sponsored project" means a project constructed by the City or a project receiving fifty percent or more of its financing from the City.

(e) "Conversion rate" means the rate set forth in the standardized conversion rate table approved by the City pursuant to this Chapter for use in estimating the volume or weight of materials identified in the waste management plan.

(f) "Covered project" shall have the meaning set forth in Section 8.108.120.

(g) "Divert" means to use material for any purpose other than disposal in a landfill or transformation facility.

(h) "Diversion requirement" means the diversion of at least seventy percent of the total construction and demolition material generated by a project via reuse or recycling, unless the applicant has been granted an exemption pursuant to Section 8.108.170, in which case the diversion requirement shall be the maximum feasible diversion rate established by the waste management plan Compliance Official in relation to the project.

(i) "Project" means any activity which requires an application for a building or demolition permit or any similar permit from the City.

(j) "Recycling" means the process of collecting, sorting, cleansing, treating, and reconstituting materials for the purpose of using the altered form in the manufacture

of a new product. Recycling does not include burning, incinerating, or thermally destroying solid waste.

(k) "Reuse" means the use, in the same or similar form as it was produced, of a material which might otherwise be discarded.

(l) "Separated for reuse" means materials, including commingled recyclables, that have been separated or kept separate from the solid waste stream for the purpose of additional sorting or processing of those materials for reuse or recycling in order to return them to the economic mainstream in the form of raw material for new, reused; or reconstituted products which meet the quality standards necessary to be used in the marketplace, and includes source separated materials.

(m) "Solid waste" as per Public Resources Code Section 40191 means all putrescible and non-putrescible solid, semisolid, and liquid wastes, including garbage, trash, refuse; paper, rubbish, ashes, industrial wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, dewatered, treated, or chemically fixed sewage sludge which is not hazardous waste, manure, vegetable or animal solid and semisolid wastes, and other discarded solid and semisolid wastes. "Solid waste" does not include any of the following wastes:

(1) Hazardous waste, as defined in PRC Section 40141;

(2) Radioactive waste regulated pursuant to the Radiation Control Law (Chapter 8 (commencing with Section 114960) of Part 9 of Division 104 of the Health and Safety Code);

(3) Medical waste regulated pursuant to the Medical Waste Management Act (Part 14 (commencing with Section 117600) of Division 104 of the Health and Safety Code).

(n) "Source separated materials" means materials that are sorted at the site of generation by individual material type including commingled recyclable materials for the purpose of recycling; i.e., loads of concrete that are source-separated for delivery to a recycling facility.

(o) "Waste hauler" means a company that possesses a valid permit from the City of Santa Monica to collect and transport solid wastes from individuals or businesses for the purpose of recycling or disposal under the City of Santa Monica's name.

(p) "Waste management plan" (WMP) means a completed waste management plan form, approved by the City for the purpose of compliance with this Chapter, submitted by the applicant for any covered or non-covered project.

(q) "Waste management plan compliance official" means the City staff tasked with enforcement of this Subpart.

Section 8. Section 8.108.120 of the Santa Monica Municipal Code is hereby amended as follows:

8.108.120 Threshold for covered projects.

(a) Private Projects. All construction and demolition projects the total costs of which are, or are projected to be, fifty thousand dollars or greater, or are one thousand square feet or greater, and all demolition-only projects shall be considered covered projects..

(b) City-Sponsored Projects. All City-sponsored construction, demolition and renovation projects shall be subject to this Chapter, and consequently, shall be considered covered projects.

Section 9. Section 8.108.130 of the Santa Monica Municipal Code is hereby amended as follows:

8.108.130 Submission of a waste management plan.

(a) WMP Forms. Applicants for construction or demolition permits involving a covered project shall complete and submit a waste management plan (WMP), on a WMP form approved by the City for this purpose, as part of the application packet for the construction or demolition permit. The completed WMP shall indicate all of the following:

(1) The estimated volume or weight of the project C&D material, by material type, to be generated;

(2) The maximum volume or weight of such materials that can feasibly be diverted via reuse or recycling;

(3) The vendor or facility where the applicant proposes to use to collect or receive that material;

(4) The estimated volume or weight of C&D materials that will be landfilled in Class III landfills and inert disposal facilities; and

(5) A commitment that only City permitted waste haulers would be used.

(b) Calculating Volume and Weight of Material. In estimating the volume or weight of materials identified in the WMP, the applicant shall use the conversion rates approved by the City for this purpose.

Section 10. Section 8.108.140 of the Santa Monica Municipal Code is hereby amended as follows:

8.108.140 Performance security.

The project applicant shall submit a performance security with the WMP. For construction and demolition projects, the amount of the performance security shall be calculated as the lesser of three percent of total project cost or thirty thousand dollars ($30,000). For demolition-only projects, the amount of the performance security shall be calculated at the rate of one dollar per square foot with a one thousand dollar ($1,000) minimum and thirty-thousand dollar ($30,000) maximum performance security required.

Section 11. Section 8.108.150 of the Santa Monica Municipal Code is hereby amended as follows:

8.108.150 Review of WMP.

Approval. Notwithstanding any other provisions of this Code, no building or demolition permit shall be issued for any covered project unless and until the WMP Compliance Official has reviewed and approved the WMP. Approval shall not be required, however, where an emergency demolition is required to protect public health or safety. The WMP Compliance Official shall only approve a WMP if he or she first determines that all of the following conditions have been met:

(1) The WMP provides all of the information set forth in Section 8.108.130.

(2) The WMP indicates that at least seventy percent of all C&D material generated by the project will be diverted or an exemption has been approved pursuant to Section 8.108.170.

(3) The applicant has submitted an appropriate performance security in compliance with Section 8.108.140.

Section 12. Section 8.108.160 of the Santa Monica Municipal Code is hereby amended as follows:

8.108.160 Compliance with WMP.

(a) Documentation. Within thirty days after the completion of any covered project, the applicant shall submit to the WMP Compliance Official documentation that it has met the diversion requirement for the project. Applicant shall provide a summary of efforts used to meet the diversion requirement and also provide the following documentation:

(1) Receipts from the vendor or facility which collected or received each material showing the actual weight or volume of that material;

(2) Weight slips/count of material salvaged or reused in current project;

(3) A copy of the previously approved WMP for the project adding the actual volume or weight of each material diverted and landfilled;

(4) Any additional information the applicant believes is relevant to determining its efforts to comply in good faith with this Chapter.

(b) Weighing of Wastes. Applicants shall ensure that all C&D material diverted or landfilled are measured and recorded using the most accurate method of measurement available. To the extent practical, all C&D material shall be weighted by measurement on scales. Such scales shall be in compliance with all State and County regulatory requirements for accuracy and maintenance. For C&D material for which weighing is not practical due to small size or other considerations, a volumetric

measurement shall be used. For conversion of volumetric measurements by weight, the applicant shall use the standardized conversion rates approved by the City for this purpose.

(c) Determination of Compliance and Release of Performance Security. The WMP Compliance Official shall review the information submitted under subsection (a) of this Section to determine whether the applicant has complied with the diversion requirement as follows:

(1) Full Compliance. If the WMP Compliance Official determines that the applicant has fully complied with the diversion requirement applicable to the project, he or she shall cause the full performance security to be released to the applicant.

(2) Failure to Comply. If the WMP Compliance Official determines that the diversion requirement has not been met, he or she shall return only that portion of the performance security equivalent to the portion of C&D material actually diverted compared to the portion that should have been diverted according to the WMP. Any portion of the performance security not released to the applicant shall be forfeited to the City, and shall be used to recover costs associated with sorting mixed C&D loads at the City recycling center. If the WMP Compliance Official determines that the applicant has fully failed to comply with the diversion requirement or if the applicant fails to submit the documentation required by subsection (a) of this Section within the required time period, then the entire performance security shall be forfeited to the City. All forfeited performance securities shall be used to recover costs associated with sorting mixed C&D loads at the City recycling center.

Section 13. Section 8.108.170 of the Santa Monica Municipal Code is hereby amended as follows:

8.108.170 Exemption.

(a) Application. If an applicant believes it is infeasible to comply with the diversion requirements of this Chapter due to the circumstances delineated in this Section, the applicant may apply for an exemption at the time that he or she submits the required WMP. Exemptions may be granted based on the following considerations:

(1) Lack of storage space onsite;

(2) Contamination by hazardous substances;

(3) Low recyclability of specific materials.

The applicant shall indicate on the WMP the maximum rate of diversion he or she believes is feasible for each material and the specific circumstances that he or she believes make it infeasible to comply with the diversion requirement.

(b) Granting of Exemption. If the WMP Compliance Official determines that it is infeasible for the applicant to meet the diversion requirement due to unique circumstances, he or she shall determine the maximum feasible diversion rate for each material and shall indicate this rate on the WMP submitted by the applicant.

(c) Denial of Exemption. Upon a denial by the WMP Compliance official, the applicant shall have thirty days to resubmit a WMP form in full compliance with Section 8.108.130. If the applicant fails to resubmit the WMP, or if the resubmitted WMP does not comply with Section 8.108.130, the WMP Compliance Official shall deny the WMP.

Section 14. Section 8.108.180 of the Santa Monica Municipal Code is hereby amended as follows:

8.108.180 Appeal.

The applicant or any interested person may appeal to a Hearing Examiner from any ruling of the WMP Compliance Official made pursuant to this Chapter in accordance with Section 6.16.030. Notice of any appeal from the ruling of the WMP Compliance Official must be filed within ten days of the date that such ruling is made.

Section 15. Section 8.108.190 of the Santa Monica Municipal Code is hereby amended as follows:

8.108.190 Enforcement.

(a) The City Attorney may enforce the provisions of this Subpart by means of a civil action.

(b) Any person who violates any provision of this Subpart shall be subject to administrative fines and administrative penalties pursuant to Chapters 1.09 and 1.10 of this Code.

(c) Nonexclusive Remedies and Penalties. The remedies provided in this Subpart are not exclusive, and nothing in this Subpart shall preclude any person from seeking any other remedies, penalties or procedures provided by law.

(d) It shall not be a defense to the assessment of any penalty or to any other civil or administrative enforcement action provided for under this Section for a person to assert that any violation of this Subpart was caused by the actions of a person other than the person assessed except if the violation was caused by the criminal or negligent action of a person who was not an agent, servant, employee or family member of the person.

(e) Any penalty collected hereunder shall be deposited in the Refuse Fund to be used as reimbursement for the Public Works Department's costs and expenses of administration and enforcement of this Chapter.

Section 16. Section 8.108.020 of the Santa Monica Municipal Code is hereby repealed.

Section 17. Section 8.108.030 of the Santa Monica Municipal Code is hereby repealed.

Section 18. Section 8.108.040 of the Santa Monica Municipal Code is hereby repealed.

Section 19. Section 8.108.050 of the Santa Monica Municipal Code is hereby repealed.

Section 20. Section 8.108.060 of the Santa Monica Municipal Code is hereby repealed.

Section 21. Any provision of the Santa Monica Municipal Code or appendices thereto inconsistent with the provisions of this Ordinance, to the extent of such inconsistencies and no further, is hereby repealed or modified to that extent necessary to effect the provisions of this Ordinance.

Section 22. If any section, subsection, sentence, clause, or phrase of this Ordinance is for any reason held to be invalid or unconstitutional by a decision of any court of competent jurisdiction, such decision shall not affect the validity of the

remaining portions of this Ordinance. The City Council hereby declares that it would have passed this Ordinance and each and every section, subsection, sentence, clause, or phrase not declared invalid or unconstitutional without regard to whether any portion of the ordinance would be subsequently declared invalid or unconstitutional.

Section 23. The Mayor shall sign and the City Clerk shall attest to the passage of this Ordinance. The City Clerk shall cause the same to be published once in the official newspaper within 15 days after its adoption. This Ordinance shall become effective 30 days from its adoption.

APPROVED AS TO FORM:

MARSHA JONES MOUTRIE
City Attorney

Approved and adopted this 28th day of February, 2012.

Richard Bloom, Mayor

State of California)
County of Los Angeles) ss.
City of Santa Monica)

I, Denise Anderson-Warren, Assistant City Clerk of the City of Santa Monica, do hereby certify that the foregoing Ordinance No. 2390 (CCS) had its introduction on November 22, 2011, and was adopted at the Santa Monica City Council meeting held on February 28, 2012, by the following vote:

Ayes:	Council members:	Holbrook, McKeown, O'Connor, O'Day, Shriver Mayor Pro Tem Davis, Mayor Bloom
Noes:	Council members:	None
Absent:	Council members:	None

A summary of Ordinance No. 2390 (CCS) was duly published pursuant to California Government Code Section 40806.

ATTEST:

Denise Anderson-Warren, Assistant City Clerk

City Council Meeting 11-22-2011 Santa Monica, California

RESOLUTION NUMBER 10634 (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 2010 edition of the California Building Standards Code on July 1, 2010; and such code became effective on January 1, 2011; 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 Section 101.7.1 of the California Green Building Standards Code further provides that for the purposes of changes or modifications to the California Green Building Standards Code, local climatic, geological or topographical conditions include local environmental conditions as established by the City; and

WHEREAS, at its October 26, 2010 meeting, the City Council considered the 2010 edition of the California Building Standards Codes, which incorporates by reference the various editions of the Technical Codes, and all of the referenced standards, tables, matrices and appendices of each of these Codes therein; and

WHEREAS, on November 9, 2010, the City Council adopted Ordinance Number 2328 (CCS), which adopted by reference the 2010 edition of the California Building Standards Codes and the Santa Monica local amendments to these Technical Codes; and

WHEREAS, on October 13, 2011, the Building and Safety Commission met to consider recommendations to the City Council regarding additional proposed local amendments to the 2010 California Green Building Standards Code, and local climatic, geological, and topographical conditions; and

WHEREAS, at the October 13, 2011 meeting, the Building and Safety Commission unanimously recommended that the City Council adopt a resolution making necessary local findings and adopting local amendments to the 2010 California Green Building Standards Code;

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 in support of 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 services 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) Intermittent, immoderate climatic conditions due to wind, fog, rain, heat wave 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).

(h) Intermittent, immoderate climatic conditions due to wind, fog, rain, heat wave and humidity cause a higher demand for energy resources and a greater need to supplement a building's electrical system with a renewable energy source (Climatic).

(i) Santa Monica is in a semi-arid climate where potable water resources are limited. Climate change is expected to result in more frequent, severe, and extended droughts in the Santa Monica. The proposed modifications for greater water conservation efficiency protect public health and safety by reducing potable water usage within the City (Climatic).

(j) 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 modifications requiring greater energy efficiencies and greater beneficial use / reuse of materials will be achieved with the proposed expansion of the Green Building Code's Mandatory and Voluntary measures (Climatic).

SECTION 2. The City Council makes the express finding that the following modifications and changes to the California Building Standards Code are reasonably necessary because of the local climatic, geological or topographical conditions as specifically detailed below:

No.	Municipal Code Section	Amendment Summary	Justification from Section 1 of this Resolution	Local Condition
1	8.106.030	Clarify application of the mandatory and voluntary provisions in the CALGreen Code to include all new residential buildings (Amendment from the collaborative LA County group)	Sections (a)-(f), (j)	Climatic
2	8.106.055	Additional Energy Efficiency, Pipe Insulation, Solar Pool Heating	Sections (a)-(f), (g)	Climatic
3	8.106.055	Solar-Ready requirements	Sections (a)-(f), (h)	Climatic
4	8.106.057	Plumbing Fixture Requirements	Sections (a)-(f), (i)	Climatic
5	8.106.180	Additional Energy Efficiency, Pipe Insulation, Solar Pool Heating	Sections (a)-(f), (g)	Climatic
6	8.106.180	Solar-Ready requirements	Sections (a)-(f), (h)	Climatic
7	8.106.190	Plumbing Fixture Requirements	Sections (a)-(f), (i)	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

Adopted and approved this 22nd day of November, 2011.

Richard Bloom, Mayor

I, Maria M. Stewart, City Clerk of the City of Santa Monica, do hereby certify that the foregoing Resolution No. 10634 (CCS) was duly adopted at a meeting of the Santa Monica City Council held on the 22nd day of November, 2011, by the following vote:

Ayes:	Councilmembers:	Holbrook, McKeown, O'Connor, O'Day, Mayor Pro Tem Davis, Mayor Bloom
Noes:	Councilmembers:	None
Absent:	Councilmembers:	Shriver

ATTEST:

Maria M. Stewart, City Clerk

BUILDING STANDARDS COMMISSION
2525 Natomas Park Drive, Suite 130
Sacramento, California 95833-2936
(916) 263-0916 FAX (916) 263-0959

March 25, 2011

Ron Takiguchi, Building Official
City of Santa Monica
1685 Main Street
Santa Monica, CA 90407-2200

Dear Mr. Takiguchi:

This is to acknowledge receipt of the City of Santa Monica submittal pertaining to Ordinance No. 2328 with findings on December 28, 2010. As the law states, no local modification or change to the California Building Standards Code (Code) shall become effective or operative for any purpose until the finding and the modification or change have been filed with the California Building Standards Commission.

It appears that your submittal includes amendments to energy efficiency standards. Local amendments exceeding energy efficiency standards are not enforceable until a finding is made by the California Energy Commission pursuant to Public Resources Code Section 25402.1(h)(2) and Title 24, Part 1, Section 10-106. A copy of this letter is being sent to the Energy Commission for their information. The remainder of your submittal has been filed in our office as of the date noted above.

As a reminder, local modifications are specific to a particular edition of the Code. They must be readopted and filed with the Building Standards Commission in order to become effective when the next triennial edition of the Code is published. In addition, should you receive Fire Protection District ordinances for ratification, it is required to submit the ratified ordinances to the Department of Housing and Community Development [H&SC Section 13869.7(c)], attention State Housing Law Program Manager, rather than the Building Standards Commission.

This letter attests only to the filing of these local modifications with the Building Standards Commission, which is not authorized by law to determine the merit of the filing. The filing of the energy efficiency standards portion of this ordinance will not be complete without the approval of the California Energy Commission. If you have any questions or need any further information, you may contact me at (916) 263-0916.

Sincerely,

Enrique M. Rodriguez
Associate Construction Analyst

cc: Joe Loyer, California Energy Commission
Chron
Local Filings

City of
Santa Monica®

Building and Safety
1685 Main Street
PO Box 2200
Santa Monica, California 90407-2200

December 21, 2010

David Walls, Executive Director
California Building Standards Commission
2525 Natomas Park Drive, Suite 130
Sacramento, CA 95833

CITY OF SANTA MONICA
ADOPTION OF THE 2010 CALIFORNIA BUILDING STANDARDS CODE
FILING OF LOCAL AMENDMENTS AND FINDINGS

Dear Mr. Walls:

Pursuant to California Health and Safety Code Section 17958.7 enclosed are the City of Santa Monica's ordinance and accompanying resolution adopting the 2010 California Building Standards Code, local Santa Monica amendments and findings. The established amendments are provided as more restrictive building standards and are found to be reasonably necessary because of local climatic, geographical, or topographical conditions, pursuant to California Health and Safety Code Section 18941.5.

The City Council of Santa Monica approved the adoption of the 2010 California Building Standards Codes, local amendments and findings by first reading on October 26, 2010 and by second reading on November 9, 2010. The City of Santa Monica's adoption included the following Parts from Title-24 of the California Code of Regulations:

- Title 24, Part 2: 2010 California Building Code
- Title 24, Part 2.5: 2010 California Residential Code
- Title 24, Part 3: 2010 California Electrical Code
- Title 24, Part 4: 2010 California Mechanical Code
- Title 24, Part 5: 2010 California Plumbing Code
- Title 24, Part 6: 2010 California Energy Code
- Title 24, Part 9: 2010 California Fire Code
- Title 24, Part 11: 2010 California Green Building Standards Code

All codes have been codified into the City of Santa Monica's Municipal Code with an effective date of January 1, 2011. The City's Municipal Code, containing the above adoption and local amendments, may be found on the City's website at http://www.qcode.us/codes/santamonica.

tel: 310 458-8355

If you or your staff has any questions, please feel free to contact me.

Very Truly Yours,

Ron Takiguchi, P.E.
Building Official
City of Santa Monica

cc: Nancy Johnson, Acting Fire Marshall
Yibin Shen, Deputy City Attorney

City Council Meeting 10-26-2010 Santa Monica, CA

RESOLUTION NUMBER 10538 (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 2010 edition of the California Building Standards Code on July 1, 2010; and such code will be effective 180 days thereafter, which is January 1, 2011; 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 September 1, 2010, September 8, 2010 and September 13, 2010, the Building and Safety Commission met to consider recommendations to the City Council regarding adopting the 2010 California Building Standards Code, local amendments to that Code, and local climatic, geological and topographical conditions; and

WHEREAS, at the September 13, 2010 meeting, the Building and Safety Commission unanimously recommended that the City Council adopt a resolution

making necessary local findings and adopt the 2010 California Building Standards Code with local amendments, as modified by the Commission; and

WHEREAS, the majority of the local amendments were recommended by a collaborative group of building officials from the Los Angeles County region, and the City Council finds each of the amendments persuasive and applicable to Santa Monica; and

WHEREAS, the City Council has considered the 2010 editions of the California Building Standards Code, including but not limited to the California 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 services 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) An analysis of damage patterns to structures in the City from the January 17, 1994 Northridge earthquake and its aftershocks showed that unreinforced masonry structures, wood frame structures, tilt-up and masonry structures with flexible diaphragms, non-ductile concrete buildings, and steel frame structures, were more

susceptible to damage than other types of structures. Unless supplemental seismic and fire life safety prevention requirements are adopted, these buildings will perform poorly during intense ground shaking and will pose an ongoing threat to public safety (Geological).

(h) An analysis of damage patterns to nonstructural elements in the City from the January 17, 1994 Northridge earthquake and its aftershocks also showed that concrete and masonry chimneys, veneer, clay and concrete tile roofing and fire sprinklers were more susceptible to damage than other types of nonstructural elements. Unless supplemental seismic and fire life safety provisions are adopted, these nonstructural elements will perform poorly during intense ground shaking and pose an ongoing threat to public safety (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 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 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).

(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 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).

(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 amendment provides clarification on the design parameters for BRBF members 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 Building Code and ASCE 7-05 (Geological).

(m) 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).

(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 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).

(o) 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 inspection of connecting grade beams to ensure adequate performance of the foundation system 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).

(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. 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).

(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 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 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 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 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. 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).

(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. 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).

(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. 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).

(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. 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).

(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. 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).

(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 prohibit the reduced edge thickness of footings supporting 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).

(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. 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).

(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 intermediate structural wall system is intended to assure that ductility requirements for high seismic region is provided 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 Building Code and ACI 318 (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 recent 1994 Northridge Earthquake. The proposed modification to wall pier detailing is intended to assure that ductility requirements for high seismic region is provided 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 Building Code and ACI 318 (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 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).

(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 1994 Northridge Earthquake. The proposed amendment is consistent with requirements in AISC 341-10 for improving quality of critical welds 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 Building Code and ASCE 7-05 (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. 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).

(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 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).

(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 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).

(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 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).

(hh) 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 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).

(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 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).

(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 modification to place design and construction limits on shear walls sheathed with lath, plaster or gypsum board not substantiated with cyclic testing, including the use of stapled nail fasteners, 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).

(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. 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).

(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. 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. Unless designed by a registered design professional, such buildings built by conventional framing requirements will be prone to serious damage in future large earthquakes. The proposed modification 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).

(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. 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 provide specific detailing requirements will improve the performance of buildings and 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).

(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 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).

(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 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).

(pp) 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).

(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 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 7-05 (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 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).

(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 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).

(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 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).

(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 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).

(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. 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).

(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 1994 Northridge Earthquake. The proposed modification to increase the lap splice requirement is consistent ACI 318 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 and ACI 318 (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. 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).

(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 provide lateral bracing at the ends of members will prevent rotation and stabilize the members 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 Residential Code (Geological).

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

(aaa) 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).

(bbb) 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).

(ccc) 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).

(ddd) 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, or soils conditions that may cause liquefaction conditions. The proposed modification to clarify that the steel sheets need to be thicker than 33mils to qualify for the reduction factors, 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 Code (Geological).

(eee) 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).

(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 proposed modification to require connecting members to be of sufficient size will help to prevent splitting 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).

(ggg) 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 provide clarification that a registered design professional is required to ensure proper design of wood trusses 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).

(hhh) Potential high seismic activity in the Los Angeles County region may cause structural failures and subsequent exposure of live wires of photovoltaic systems. With no means to remove the source of current (the sun), some means of disconnecting power to the larger amperage conductors is required. The larger amperage conductors from a combiner box will require a disconnecting means for a higher order of safety and prevention of shock and fire hazards (Geological).

(iii) Due to fog, wind spray, 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 804.7 meters (0.5 miles) of the mean shoreline are especially subject to corrosive conditions (Climatic).

(jjj) 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 of the Mandatory and Voluntary requirements and therefore need to be

incorporated into the code to assure that new residential buildings are designed and constructed in accordance with the scope and objectives of the California Green Building Standards Code (Climatic).

(kkk) 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 of Low Rise Residential Building and therefore need to be incorporated into the code to assure that new residential buildings are designed and constructed in accordance with the scope and objectives of the California Green Building Standards Code (Climatic).

(lll) Where climatic conditions in Santa Monica exist that demand a 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).

(mmm) The greater Los Angeles region is a densely populated area having residential buildings constructed within a region where water resource is scarce. The proposed modification to install weather-based or soil moisture-based irrigation controllers for any new residential building subject to Chapter 4, regardless of which entity provides landscaping, will allow greater efficiencies of outdoor water-use and therefore need to be incorporated into the code to assure that new residential buildings

are designed and constructed in accordance with the scope and objectives of the California Green Building Standards Code (Climatic).

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

SECTION 2. The City Council makes the express finding 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:

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	8.12.060	Guardrails for Openable Windows Continuation from previous code cycle	Sections (c), (d), (e)	Geological
3	8.12.070	Fire Retardant Roofing Continuation from previous code cycle	Sections (a), (b)	Climatic
4	8.16.020(a)	Tilt-Up Systems Continuation from previous code cycle	Sections (c), (d), (e)	Geological
5	8.16.020(b)	Re-entrant Corners Continuation from previous code cycle	Sections (c), (d), (e)	Geological
6	8.16.020(c)	Minimum Base Shear	Sections (c), (d),	Geological

		Continuation from previous code cycle	(e)	
7	8.16.020(d)	P-Delta Effects Continuation from previous code cycle	Sections (c), (d), (e)	Geological
8	8.16.020(e)	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 (Amendment from the collaborative LA County group)	Section (i)	Geological
9	8.16.020(f)	Provide a higher order of Seismic Separation Distances between buildings by modifying the given equation (Amendment from the collaborative LA County group)	Section (j)	Geological
10	8.16.020(g)	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 (Amendment from the collaborative LA County group)	Section (k)	Geological
11	8.16.020(h)	Continuation from the previous code amendment to correct the design parameter factors related to Buckling Restrained Braced Frame systems (Amendment from the collaborative LA	Section (l)	Geological

		County group)		
12	8.16.020(i)	Assumption of Flexible Diaphragm Continuation from previous code cycle	Sections (c), (d), (e)	Geological
13	8.16.020(j)	New amendment to provide structural safety standards for Suspended Ceilings where none currently exist in the California Building Code (Amendment from the collaborative LA County group)	Section (m)	Geological
14	8.16.020(k)	Clarify requirements for special inspection for concrete construction and eliminate the exception for no special inspection for concrete foundation walls (Amendment from the collaborative LA County group)	Section (n)	Geological
15	8.16.020(l)	Amend requirement to require special inspection for connection grade beams for driven deep foundations in Seismic Category D (Amendment from the collaborative LA County group)	Section (o)	Geological
16	8.16.020(m)	Amend requirement to require special inspection for connection grade beams for cast-in place foundations in Seismic Category D (Amendment from the collaborative LA County group)	Section (o)	Geological

17	8.16.020(n)	Provide more stringent requirement by requiring special inspection for seismic resistance for non "box-type" structures of one-and-two family dwellings (Amendment from the collaborative LA County group)	Section (p)	Geological
18	8.16.020(o)	Define specific requirements of the registered design professional for general structural observation and require more comprehensive job-site reporting (Amendment from the collaborative LA County group)	Section (q)	Geological
19	8.16.020(p)	Provide for more stringent requirements for seismic structural observation including lateral design with an exception for simple structures (Amendment from the collaborative LA County group)	Section (r)	Geological
20	8.16.030(a)	Foundations – General Continuation from previous code cycle	Sections (c), (d), (e)	Geological
21	8.16.030(b)	Footing for Interior Bearing Walls Continuation from previous code cycle	Sections (c), (d), (e)	Geological
22	8.16.030(c)	Wood and Timber Footing Continuation from previous code cycle	Sections (c), (d), (e)	Geological
23	8.16.030(d)	Foundation Walls; Foundation Wall Drainage Continuation from previous code cycle	Sections (c), (d), (e)	Geological

24	8.16.030(e)	Restrict permanent wood foundations in Seismic Category D due to unknown performance in a seismic event and its ability to withstand surrounding elements (Amendment from the collaborative LA County group)	Section (s)	Climatic and Geological
25	8.16.030(f)	Restrict the prescriptive design of foundation walls in Seismic Category D (Amendment from the collaborative LA County group)	Section (t)	Climatic and Geological
26	8.16.030(g)	Provide limitations for the prescriptive design method of footings for light-frame construction in Seismic Category D (Amendment from the collaborative LA County group)	Section (u)	Climatic and Geological
27	8.16.030(h)	Restrict allowance of timber footings in Seismic Category D due to unknown performance in a seismic event and its ability to withstand surrounding elements (Amendment from the collaborative LA County group)	Section (v)	Geological
28	8.16.030(i)	Restrict allowance of timber deep foundations designed as poles or piles in Seismic Category D due to unknown performance in a seismic event and its	Section (w)	Climatic and Geological

		ability to withstand surrounding elements (Amendment from the collaborative LA County group)		
29	8.16.040(a)	Continue restricted use of plain structural concrete for walls, footings and pedestals in Seismic Category D (Amendment from the collaborative LA County group)	Section (x)	Geological
30	8.16.040(b)	Concrete Special Moment Frame Column Confinement Continuation from previous code cycle	Sections (c), (d), (e)	Geological
31	8.16.040(c)	Special Reinforced Concrete Wall Capacity Continuation from previous code cycle	Sections (c), (d), (e)	Geological
32	8.16.040(d)	Reinforced Concrete Diaphragms Continuation from previous code cycle	Sections (c), (d), (e)	Geological
33	8.16.040(e)	Tilt-Up Buildings Continuation from previous code cycle	Sections (c), (d), (e)	Geological
34	8.16.040(f)	Deflection of Slender Walls Continuation from previous code cycle	Sections (c), (d), (e)	Geological
35	8.16.040(g)	Provide for critical design criteria of concrete columns and concrete shear walls (Amendment from the collaborative LA County group)	Section (y)	Geological
36	8.16.040(h)	Require intermediate structural walls to	Section (z)	Geological

		meet additional standards in Seismic Category D (Amendment from the collaborative LA County group)		
37	8.16.040(i)	Structural wall piers in Seismic Category D to comply with additional standards (Amendment from the collaborative LA County group)	Section (aa)	Geological
38	8.16.040(j)	Restrict uses of plain structural concrete as minimum reinforcement and provide for additional reinforcing methods (Amendment from the collaborative LA County group)	Section (bb)	Geological
39	8.16.050(a)	Concrete and Masonry Chimneys – Alteration and Repair Standards Continuation from previous code cycle	Section (h)	Geological
40	8.16.050(b)	Reinforcing and Seismic Anchorage Continuation from previous code cycle	Section (g)	Geological
41	8.16.060(a)	Continue amendment requirement for Specially Concentric Braced Frames (Amendment from the collaborative LA County group)	Sections (c), (d), (e)	Geological
42	8.16.060(b)	Provide for more stringent requirements for structural welds to be consistent with welding institute standards	Section (cc)	Geological

		(Amendment from the collaborative LA County group)		
43	8.16.070(a)	Restrict use of staples to resist or transfer seismic forces in Seismic Category D (Amendment from the collaborative LA County group)	Section (dd)	Geological
44	8.16.070(b)	Retaining Walls Continuation from previous code cycle	Sections (c), (d), (e)	Geological
45	8.16.070(c)	Require more stringent specifications for hold-down connectors for seismic design protection. Specific component and install methods for Seismic Category D (Amendment from the collaborative LA County group)	Section (ee)	Climatic and Geological
46	8.16.070(d)	Restrict use of staples for shear walls and diaphragms (Amendment from the collaborative LA County group)	Section (dd)	Geological
47	8.16.070(e)	Conventional Light Frame Construction Continuation from previous code cycle	Sections (c), (d), (e)	Geological
48	8.16.070(f)	Restrict use of wood in retaining and crib walls in Seismic Category D due to unknown performance in a seismic event and its ability to withstand surrounding elements (Amendment from the collaborative LA	Section (ff)	Climatic and Geological

		County group)		
49	8.16.070(g)	Require nails installed with a nail-gun to meet same dimensions as hand-driven nails in Seismic Category D (Amendment from the collaborative LA County group)	Section (gg)	Geological
50	8.16.070(h)	Restrict use of staples for wood structural panel diaphragms in Seismic Category D (Amendment from the collaborative LA County group)	Section (hh)	Geological
51	8.16.070(i)	Modified requirements for wood shear walls used to resist seismic forces in Seismic Category D (Amendment from the collaborative LA County group)	Section (ii)	Geological
52	8.16.070(j)	Restriction of material type for sheathed shear walls at the top-level of multi-story buildings in Seismic Category D (Amendment from the collaborative LA County group)	Section (jj)	Geological
53	8.16.070(k)	More stringent requirements for braced wall line support in Seismic Category D (Amendment from the collaborative LA County group)	Section (kk)	Geological
54	8.16.070(l)	Additional requirements for masonry and stone wall veneer installed in the	Section (ll)	Geological

		first story above the grade plane, in Seismic Category D (Amendment from the collaborative LA County group)		
55	8.16.070(m)	Provide for more stringent requirements for braced wall sheathing (Amendment from the collaborative LA County group)	Section (kk)	Geological
56	8.16.070(n)	More stringent requirements for sheathing attachment in Seismic Category D. Staples fasteners are not allowed (Amendment from the collaborative LA County group)	Section (nn)	Geological
57	8.20.050	Analysis and Design of Special Provisions for Hillside Buildings Continuation from previous code cycle	Sections (c), (d), (e), (f)	Geological and Topographical
58	8.22.030(a)	Requirement that construction drawings for woodframe structures more than one-story shall be stamped by a licensed architect or engineer (Amendment from the collaborative LA County group)	Section (oo)	Geological
59	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 (Amendment from the collaborative LA	Section (pp)	Topographical and Geological

		County group)		
60	8.22.030(c)	Provide more stringent requirements for irregular or "box" shaped structures by not allowing exceptions in Chapter 3 of the California Residential Code (Amendment from the collaborative LA County group)	Section (qq)	Geological
61	8.22.030(d)	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 (rr)	Geological
62	8.22.030(e)	Establish criteria for openings in horizontal diaphragms to limit the maximum floor opening (Amendment from the collaborative LA County group)	Section (ss)	Geological
63	8.22.030(f)	Provide more stringent requirements for allowed material types for bracing requirements and restrict material types with unknown performance in Seismic Category D (Amendment from the collaborative LA County group)	Section (tt)	Geological
64	8.22.030(g)	Provide more stringent requirements for allowed material types for	Section (uu)	Geological

		intermittent bracing methods and restrict material types with unknown performance in Seismic Category D (Amendment from the collaborative LA County group)		
65	8.22.030(h)	Provide more stringent requirements for alternate braced wall panels by increasing minimum size of panel sheathing, type of nail fasteners and reinforcing lap (Amendment from the collaborative LA County group)	Section (vv)	Geological
66	8.22.030(i)	Provide more stringent requirements for portal frame construction by increasing minimum size of panel sheathing and type of nail fasteners (Amendment from the collaborative LA County group)	Section (vv)	Geological
67	8.22.030(j)	Require a minimum lap splice for PFH methods of construction	Section (ww)	Geological
68	8.22.030(k)	Require more stringent requirements for continuous sheathing by increasing minimum size of panel sheathing and type of nail fasteners (Amendment from the collaborative LA County group)	Section (vv)	Geological
69	8.22.030(l)	Require more stringent requirements for Method CS-PF by increasing	Section (vv)	Geological

		minimum size of panel sheathing and anchoring methods (Amendment from the collaborative LA County group)		
70	8.22.030(m)	Delete California Residential Code Section which allows intervals of continuous foundations for braced wall panel support in Seismic Category D_2 (Amendment from the collaborative LA County group)	Section (xx)	Geological
71	8.22.030(n)	Require a higher depth-to-thickness ratio for lateral support of roof framing members and ceiling joists (Amendment from the collaborative LA County group)	Section (yy)	Geological
72	8.22.030(o)	Roof openings in horizontal diaphragms to comply with added Section R503.2.4 to limit the maximum roof opening and shear transfer (Amendment from the collaborative LA County group)	Section (zz)	Geological
73	8.22.050(a)	Restrict the use of wood foundations in Seismic Category D due to unknown performance in a seismic event and its resistance to the elements (Amendment from the collaborative LA County group)	Section (aaa)	Climatic and Geological
74	8.22.050(b)	Restrict the use of wood foundations	Section (bbb)	Climatic and

		walls Seismic Category D due to unknown performance in a seismic event and its resistance to the elements (Amendment from the collaborative LA County group)		Geological
75	8.22.060(a)	Requirement for chimneys to anchor four No. 4 reinforcing bars into the concrete foundation for seismic support (Amendment from the collaborative LA County group)	Section (ccc)	Geological
76	8.22.070(a)	Modification of conflicting language in an applicable reference standard that allows less stringent fastening of steel sheets for cold formed steel reinforcing (Amendment from the collaborative LA County group)	Section (ddd)	Geological
77	8.22.080(a)	Restrict the use of staples for wood fastening methods (Amendment from the collaborative LA County group)	Section (eee)	Geological
78	8.22.080(b)	Restrict the use of staples in the alternate attachment method (Amendment from the collaborative LA County group)	Section (eee)	Geological
79	8.22.080(c)	Provide for methods to protect wood in joist heel joint connections that may be damaged during nailing	Section (fff)	Geological

		(Amendment from the collaborative LA County group)		
80	8.22.080(d)	Require that design of wood trusses to be performed by a registered professional (Amendment from the collaborative LA County group)	Section (ggg)	Geological
81	8.24.060	Change wording to clarify requirements for temporary power poles (Amendment from the collaborative LA County group)	Sections (e), (f)	Geological
82	8.24.070	Underground Concrete Vaults and Handholes Continuation from previous code cycle	Sections (c), (d), (e)	Geological
83	8.24.080	Add two exceptions to the requirement for the disconnecting means for solar photovoltaic systems (Amendment from the collaborative LA County group)	Section (hhh)	Geological
84	8.24.090	Require metallic enclosures installed within the proximity of the mean shoreline to have a higher degree of corrosion protection	Section (iii)	Climatic
85	8.32.060	Non-Water-Using Urinals as Plumbing Fixtures Continuation from previous code cycle	Sections (a), (b)	Climatic
86	8.32.070	Seismic Gas Shutoff Devices	Sections (c), (d),	Geological

		Continuation from previous code cycle	(e)	
87	8.40.020(a)	Additional Requirements – Building Addresses Continuation from previous code cycle	Sections (a), (b)	Climatic
88	8.40.020(b)	Problematic Systems and Systems Out-of-Service Continuation from previous code cycle	Sections (a), (b)	Climatic
89	8.40.020(c)	Firewatch Continuation from previous code cycle	Sections (a), (b)	Climatic
90	8.40.020(d)	Seizure of Fireworks Continuation from previous code cycle	Sections (a), (b)	Climatic
91	8.44.050(a)	Update the Degree of Occupancy Hazard Table 8.44-A to coordinate with occupancy classes in the California Building Code	Sections (a), (b)	Climatic
92	8.44.050(b)	Exceptions to Sprinkler Systems Continuation from previous code cycle	Sections (a), (b)	Climatic
93	8.44.050(c)	Minimum Requirements – Non-Occupied Buildings Continuation from previous code cycle	Sections (a), (b)	Climatic
94	8.44.090	High-Rise Building Requirements Continuation from previous code cycle	Sections (a), (b)	Climatic
95	8.44.100	Smoke Detectors – Existing Residential Occupancies Continuation from previous code cycle	Sections (a), (b)	Climatic
96	8.44.110	Standards for Fire Protection Add requirement for a fire protection	Sections (a), (b)	Climatic

		system notification device for one-and-two family dwellings		
97	8.44.120	Seismic Protection of Fire Sprinkler Systems Continuation from previous code cycle	Sections (a), (b)	Climatic
98	8.44.140	Fire Alarm Requirements Continuation from previous code cycle	Sections (a), (b)	Climatic
99	8.64.080	Seismic Strengthening Provisions for Existing Concrete and Reinforced Masonry Wall Buildings with Flexible Diaphragms – Analysis and Design Continuation from previous code cycle	Sections (c), (d), (e)	Geological
100	8.72.080	Seismic Strengthening Provisions for Soft, Weak or Open Front Walls in Light, Wood-Framed Building – Analysis and Design Continuation from previous code cycle	Sections (c), (d), (e)	Geological
101	8.72.090	Seismic Strengthening Provisions for Soft, Weak or Open Front Walls in Light, Wood-Framed Building – Materials of Construction Continuation from previous code cycle	Sections (c), (d), (e)	Geological
102	8.72.110	Seismic Strengthening Provisions for Soft, Weak or Open Front Walls in Light, Wood-Framed Building – Quality Assurance Continuation from previous code cycle	Sections (c), (d), (e)	Geological

103	8.106.030	Clarify application of the mandatory and voluntary provisions in the CALGreen Code to include all new residential buildings (Amendment from the collaborative LA County group)	Section (jjj)	Climatic
104	8.106.040	Modify the definition of low-rise residential building to include buildings that are six stories and less (Amendment from the collaborative LA County group)	Section (kkk)	Climatic
105	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 (Amendment from the collaborative LA County group)	Section (lll)	Climatic
106	8.106.060	Eliminate specificity of the required installer for weather-based irrigation controllers (Amendment from the collaborative LA County group)	Section (mmm)	Climatic
107	8.106.070	Require details of how flashing is to be executed in certain locations to ensure moisture protection of building elements and occupants (Amendment from the collaborative LA County group)	Section (nnn)	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

Adopted and approved this 26th day of October, 2010.

Bobby Shriver, Mayor

I, Maria M. Stewart, City Clerk of the City of Santa Monica, do hereby certify that the foregoing Resolution No. 10538 (CCS) was duly adopted at a meeting of the Santa Monica City Council held on the 26th day of October, 2010, by the following vote:

Ayes:	Councilmembers:	Bloom, Davis, Holbrook, O'Day, McKeown Mayor Shriver,
Noes:	Councilmembers:	None
Abstain:	Councilmembers:	None
Absent:	Councilmembers:	Mayor Pro Tem O'Connor

ATTEST:

Maria M. Stewart, City Clerk

City Council Meeting 11-09-2010 Santa Monica, California

ORDINANCE NUMBER 2328 (CCS)
(City Council Series)

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SANTA MONICA ADOPTING THE CALIFORNIA BUILDING STANDARDS CODE AND THE SANTA MONICA LOCAL AMENDMENTS TO THE CALIFORNIA BUILDING STANDARDS CODE

WHEREAS, on November 13, 2007, the City Council adopted Ordinance Number 2244 (CCS), which adopted by reference certain Technical Codes, the Santa Monica local amendments to these Technical Codes and the California Building Standards Code; and

WHEREAS, Health and Safety Code Section 18938 provides that the triennial edition of the California Building Standards Code establishes building standards for all occupancies throughout the State and requires that these standards incorporate the latest editions of the Technical Codes with necessary California amendments; and

WHEREAS, on July 1, 2010, the State Building Standards Commission approved and published the 2010 edition of the California Building Standards Code, which incorporated the various editions of the Technical Codes by reference with necessary California amendments; and

WHEREAS, Health and Safety Code Sections 18938 and 17958 make the California Building Standards Code applicable to all cities and counties throughout California, including the City of Santa Monica, 180 days after publication by the State Building Standards Commission, which is January 1, 2011; and

WHEREAS, Health and Safety Code Section 18941.5 provides that the City may

establish more restrictive building standards if they are reasonably necessary due to local climatic, geological or topographical conditions; and

WHEREAS, the City Council has considered the 2010 edition of the California Building Standards Code, which incorporates by reference the various editions of the Technical Codes, and all of the referenced standards, tables, matrices and appendices of each of these codes therein; and

WHEREAS, based upon the findings contained in the Resolution adopted concurrently with this Ordinance, the City Council has found that certain modifications and additions to the California Building Standards Code are reasonably necessary based upon local climatic, geological and topographical conditions;

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

SECTION 1. Section 8.08.010 of the Santa Monica Municipal Code is hereby amended to read as follows:

8.08.010 Purpose, scope and conflicting provisions.

(a) **Purpose.** The purpose of this Chapter is to provide for the administration and enforcement of the Technical Codes adopted by this jurisdiction and codified in Article VIII of the Municipal Code and to safeguard the public health, safety and general welfare.

(b) **Scope.** The provisions of this Chapter shall serve as the administrative, organizational and enforcement rules and regulations for the Technical Codes to

regulate site preparation and construction, alteration, moving, demolition, repair, use and occupancy of buildings, structures and building service equipment within this jurisdiction.

(c) **Conflicting Provisions.** When conflicting provisions or requirements occur between this Chapter, the Technical Codes and other codes or laws, the most restrictive provisions shall govern. When there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable. When conflicts occur between specific provisions of this Chapter and administrative provisions in a Technical Code, the specific provisions of this Chapter shall prevail.

SECTION 2. Section 8.08.020 of the Santa Monica Municipal Code is hereby amended to read as follows:

8.08.020 Definitions.

For the purpose of this Chapter, certain terms, phrases, words and their derivatives shall be construed as specified in this Section. Where terms are not defined, they shall have their ordinarily accepted meanings within the context with which they are used.

Addition is an extension or increase in floor area or height of a building or structure.

Alter or **Alteration** is a change or modification in construction or building service equipment.

Approved, as to materials, types of construction, equipment and systems, refers to approval by the Building Officer as the result of investigation and tests conducted by the Building Officer, or by reason of accepted principles or tests by recognized authorities, technical or scientific organizations.

Approved Agency is an established and recognized agency regularly engaged in conducting tests or furnishing inspection services, when the agency has been approved by the Building Officer.

Building is a structure used or intended for supporting or sheltering a use or occupancy.

Building Code is the Building Code of the City of Santa Monica.

Building, Existing is a building for which a legal building permit has been issued.

Building Officer is the Building Officer of the City of Santa Monica appointed pursuant to Article VII of the City Charter, or his or her regularly authorized deputy.

Building Service Equipment is the plumbing, mechanical, electrical and elevator equipment including piping, wiring, fixtures and other accessories which provide sanitation, lighting, heating, ventilation, cooling, refrigeration, fire-fighting and transportation facilities essential to the occupancy of the building or structure for its designated use.

Code and **This Code** is the Santa Monica Municipal Code, unless otherwise noted.

Electrical Code is the Electrical Code of the City of Santa Monica.

Energy Code is the Energy Code of the City of Santa Monica.

Green Building Code is the Green Building Standards Code of the City of

Santa Monica.

Jurisdiction, as used in this Code, is the City of Santa Monica.

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

Mechanical Code is the Mechanical Code of the City of Santa Monica.

Occupancy is the purpose for which a building, or part thereof, is used or intended to be used.

Owner is any person, agent, firm or corporation having a legal or equitable interest in the property.

Permit is an official document or certificate issued by the Building Officer authorizing performance of a specified activity.

Person is a natural person, heirs, executors, administrators or assigns, and also includes a firm, partnership or corporation, its or their successors or assigns, or the agent of any of the aforesaid.

Plumbing Code is the Plumbing Code of the City of Santa Monica.

Repair is the reconstruction or renewal of any part of an existing building, structure or building service equipment for the purpose of its maintenance.

Residential Code is the Residential Code of the City of Santa Monica.

Shall, as used in this Code, is mandatory.

Structural Observation means the visual observation of the structural system, for general conformance to the approved plans and specifications, at significant construction stages and at completion of the structural system.

Structure is that which is built or constructed, an edifice or building of any kind, or any piece of work artificially built up or composed of parts joined together in some definite manner.

Technical Codes refer to those codes adopted by this jurisdiction containing the provisions for design, construction, alteration, addition, repair, removal, demolition, use, location, occupancy and maintenance of buildings and structures and building service equipment as herein defined.

Valuation is the estimated fair market value of the cost of all construction work for which the permit is issued as determined by the Building Officer. To determine the valuation, the Building Officer may use the most current building valuation table published by the International Conference of Building Officials or its successors, the mean of three responsible bids from properly licensed contractors or any other commonly accepted method to estimate construction costs.

SECTION 3. Section 8.08.030 of the Santa Monica Municipal Code is hereby amended to read as follows:

8.08.030 Powers and duties of the Building Officer.

(a) **General.** The Building Officer is hereby authorized and directed to enforce all the provisions of Article VIII of this Code and the referenced Technical Codes. For such purposes, the Building Officer and his/her authorized deputies shall have the

powers of a law enforcement officer.

The Building Officer shall have charge of the supervision and inspection of the construction of all buildings and structures within the City and shall have power and be required to:

(1) Examine building plans in order to determine conformity with State laws and ordinances and issue building permits in connection therewith; and

(2) Enforce the laws and ordinances regulating the construction and maintenance of buildings and other structures.

(b) **Mobile home Parks.** The Building Officer is hereby authorized and directed to enforce the provisions of the Mobile home Parks Act, Division 2.1, Part 13 of the Health and Safety Code and Title 25 California Code of Regulations and shall have authority to promulgate and or adopt administrative regulations governing the appeal of orders, decisions and determinations of the Building Officer for matters related to such enforcement.

(c) **Deputies.** The Building Officer may appoint such number of technical officers and inspectors and other employees as shall be authorized from time to time. The Building Officer may deputize such inspectors or employees as may be necessary to carry out the functions of this Chapter.

(d) **Rules and Interpretations.** The Building Officer shall have the power to render interpretations, and to adopt and enforce supplemental rules and regulations as may be deemed necessary to clarify the application of the provisions of this Chapter and the referenced Technical Codes. Such interpretations, rules and regulations shall be in conformity with the intent and purpose of this Chapter and the referenced Technical Codes.

(e) **Right of Entry.** When necessary to make an inspection to enforce any of the provisions of this Chapter and the Technical Codes, or when the Building Officer has reasonable cause to believe that there exists in any building or upon a premises a condition which is contrary to or in violation of this Code, which makes the building or premises unsafe, dangerous or hazardous, the Building Officer may enter the building or premises at all reasonable times to inspect or to perform the duties imposed by this Code. The Building Officer shall have recourse to all remedies provided by law to secure entry.

(f) **Orders to Stop Construction Work.** When work is being done contrary to any permit, to the provisions of the Technical Codes or ordinance implemented through the enforcement of this Code, or other pertinent Federal, State or local ordinances and regulations, the Building Officer, or any subordinate authorized to act on behalf of the Building Officer, may order the work stopped by notice in writing on persons engaged in the doing or causing such work to be done. Any person in receipt of such notice shall immediately comply with the stop work order.

(g) **Suspension or Revocation of Permits or Certificate of Occupancy.** The Building Officer may, in writing, suspend or revoke a permit or Certificate of Occupancy issued under the provisions of this Chapter whenever the permit or Certificate of Occupancy has been issued in error, on the basis of incorrect information supplied, without the payment of the required fees, or in violation of any Federal, State or local ordinances or regulations.

Local ordinances and regulations include but shall not be limited to:

(1) Any provision of the approved plans, Technical Codes or any other provision of the City' s Municipal Code, which is applicable to the work, including but not

limited to exterior noise standards and permitted hours of operation pursuant to Sections 4.12.130 and 4.12.140 of the Municipal Code.

(2) Any condition of City permit approval, including but not limited to, planning and zoning requirements, required construction mitigation measures for occupied buildings and adjacent properties and tenant protection during construction.

(3) Safety standards for onsite use or occupancy, adjacent properties or the public way, as determined by the Building Officer.

(4) Any administrative citations and compliance orders including the payment of any fines or penalties.

(5) Any air or water quality standards, including but not limited to asbestos contamination.

(6) Any required license, security or insurance related to the work.

(h) **Discontinue Use.** When a building or structure or building service equipment therein regulated by this Code and the Technical Codes is being used contrary to the provisions of such codes, the Building Officer may order such use discontinued by written notice served on any person causing such use to be continued. Such person shall discontinue the use within the time prescribed by the Building Officer after receipt of such notice to make the structure, or portion thereof, comply with the requirements of such codes.

(i) **Authority to Disconnect Utilities.** The Building Officer or the Building Officer' s authorized representative shall have the authority to disconnect a utility service or energy supplied to the building, structure or building service equipment therein regulated by this Code or the Technical Codes in case of emergency where necessary to eliminate an immediate hazard to life or property.

The Building Officer shall whenever possible notify the serving utility, the owner and occupant of the building, structure or building service equipment of the decision to disconnect prior to taking such action, and shall notify such serving utility, owner and occupant of the building, structure or building service equipment, in writing, of such disconnection immediately thereafter.

(j) **Authority to Condemn Building Service Equipment.** When the Building Officer ascertains that building service equipment regulated in the Technical Codes has become hazardous to life, health or property, or has become unsanitary, the Building Officer shall order in writing that such equipment either be removed or restored to a safe or sanitary condition, as appropriate. The written notice itself shall fix a time limit for compliance with such order. Defective building service equipment shall not be maintained after receiving such notice.

When such equipment or installation is to be disconnected, the Building Officer shall give a written notice of such disconnection and causes therefore to the serving utility within twenty-four hours, the owner and occupant of such building structure or premises.

When any building service equipment is maintained in violation of the Technical Codes and in violation of a notice issued pursuant to the provisions of this Section, the Building Officer shall institute appropriate action to prevent, restrain, correct or abate the violation.

(k) **Approval of Alternate Materials, Methods of Design and Methods of Construction.** The Building Officer may approve an alternate material, method of design or method of construction not specifically prescribed by the Technical Codes, provided the Building Officer finds that the proposed design is satisfactory and complies

with the provisions of the Technical Codes and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in the Technical Codes in suitability, strength, effectiveness, fire resistance, durability, safety and sanitation. The Building Officer shall require that sufficient evidence or proof be submitted to substantiate claims that may be made regarding its use.

(l) **Granting of Modifications to the Technical Codes.** Whenever there are practical difficulties involved in carrying out the provisions of the Technical Codes, the Building Officer may grant modifications for individual cases based on the following findings:

(1) A special individual reason makes the strict letter of the Technical Code impractical; and

(2) The modification is in conformity with the intent and purpose of the Technical Code; and

(3) The modification provides equivalent suitability, strength, effectiveness, fire resistance, durability, safety and sanitation; and

(4) The modification does not lessen health, life safety and fire-safety requirements or any degree of structural integrity.

The jurisdiction shall maintain records for granting modifications for the period required for the retention of public records.

(m) **Requiring of Tests.** Whenever there is insufficient evidence of compliance with the provisions of the Technical Codes or evidence that materials or construction do not conform to the requirements of the Technical Codes, the Building Officer may require tests as evidence of compliance to be made at no expense to the jurisdiction.

Test methods shall be as specified by the Technical Codes or by other recognized test standards. In the absence of recognized and accepted test methods, the Building Officer shall determine test procedures. Tests shall be made by an approved agency. The Building Officer shall retain reports of such tests for the period required for the retention of public records.

(n) **License Special Inspectors and Approved Fabricators.**

(o) **Maintaining Records.** The Building Officer shall maintain sufficient records to show the approved use, occupancy and type of construction for all structures requiring permits and the applicable code standards applicable to any existing building. Such records shall include any special administrative approvals including alternate materials, methods of design and construction, modifications and tests.

The Building Officer shall also maintain an official copy of the plans of every building issued a building permit during the life of the building except for:

(1) Single family dwelling not more than two stories and basement in height and their accessory structures.

(2) Any one-story building where the span between bearing walls does not exceed twenty-five feet except for steel frame or concrete buildings.

(3) Any building containing a bank, other financial institution, or public utility.

These exceptions shall not apply to a community apartment project, condominium project, planned development, or a stock cooperative as defined in Section 1351 of the Civil Code.

(p) **Cooperation of Other Officials and Officers.** The Building Officer may request, and shall receive, the assistance and cooperation of other officials of this jurisdiction so far as is required in the discharge of the duties required by this Code or

other pertinent laws or ordinances.

(q) **Liability.** The Building Officer charged with the enforcement of this Code and the Technical Codes, acting in good faith and without malice in the discharge of duties, shall not thereby be rendered personally liable for damage that may accrue to persons or property as a result of an act or omission in the discharge of the assigned duties. A suit brought against the Building Officer or employee because of such act or omission performed by the Building Officer or employee in the enforcement of the provisions of such codes or other pertinent laws or ordinances implemented through the enforcement of this Code or enforced by the code enforcement agency shall be defended by this jurisdiction until final termination of such proceedings, and any judgment resulting therefrom, shall be assumed by this jurisdiction.

This Section shall not be construed to relieve from or lessen the responsibility of any person owning, operating or controlling a building, structure or building service equipment therein for damages to persons or property caused by defects, nor shall the code enforcement agency or its parent jurisdiction be held as assuming such liability by reason of the inspections authorized by this Code or permits or certificates issued under this Code.

SECTION 4. Section 8.08.050 of the Santa Monica Municipal Code is hereby amended to read as follows:

8.08.050 Permits required.

(a) **General.** No person shall erect, construct, enlarge, alter, repair, move, improve, remove, convert or demolish any building, structure or building service

equipment regulated by this Chapter and the Technical Codes without first obtaining an appropriate permit for each building, structure or building service equipment from the Building Officer except as specified in this Section.

No person shall do any exterior sandblasting within the City without first obtaining an appropriate permit for each separate work location or contractor.

No person shall perform any excavation or grading work without first obtaining an appropriate permit from the Building Officer except as specified in this Section.

No person shall erect any temporary structures within the City without first obtaining an appropriate permit from the Building Officer except as specified in this Section.

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

(b) **Temporary Structures.** Temporary structures such as reviewing stands, platforms, displays and other miscellaneous structures, sheds, canopies or fences used for the protection of the public around and in conjunction with construction work may be erected by special permit from the Building Officer for a limited period of time. Buildings or structures erected under a special permit need not comply with the type of construction or fire-resistive time periods required by the Building Code. Temporary buildings or structures shall be completely removed upon the expiration of the time limit stated in the permit.

(c) **Work Exempt from Building Permit.** A building permit shall not be required for the following:

(1) One-story detached accessory buildings not more than fourteen feet in height when used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed one hundred twenty square feet, the structure does not contain electrical, mechanical or plumbing work and the structure conforms to the applicable zoning regulations of Chapter 9.04 of the Municipal Code.

(2) Exterior freestanding walls and fences not over six feet high.

(3) Oil derricks.

(4) Movable cases, counters and partitions not over five feet nine inches high.

(5) Retaining walls that are not over four feet in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge or impounding flammable liquids.

(6) Water tanks supported directly upon grade if the capacity does not exceed five thousand gallons and the ratio of height to diameter or width does not exceed 2:1.

(7) Platforms, walks and driveways not more than thirty inches above grade and not over or surcharging any basement or story below.

(8) Painting, papering and similar finish work, including color or texture coating of exterior plaster.

(9) Flooring when installed on a concrete floor slab or when weighing not more that four pounds per square foot or replacing the same weight per square foot.

(10) Temporary motion picture, television and theater stage sets and scenery.

(11) Window awnings supported by an exterior wall when projecting not more than fifty-four inches for one and two family dwellings and their accessory structures.

(12) Prefabricated swimming pools accessory to one and two family dwellings in which the pool walls are entirely above the adjacent grade and the capacity does not exceed five thousand gallons.

(d) **Work Exempt from a Grading Permit.** A grading permit is not required for the following:

(1) Any grading work authorized by a valid combination-building permit.

(2) An excavation below finished grade for basements and footings of a building, retaining wall or other structure authorized by a valid building permit.

(3) Cemetery graves.

(4) Refuse disposal sites controlled by other regulations.

(5) Excavations for wells or tunnels or utilities.

(6) Mining, quarrying, excavating, processing or stockpiling of rock, sand, gravel, aggregate or clay where established and provided for by law, provided such operations do not affect the lateral support or increase the stresses in or pressure upon any adjacent or contiguous property.

(7) Exploratory excavations under the direction geotechnical engineers or engineering geologists.

(8) An excavation that is less than two feet in depth or does not create a cut slope greater than five feet in height and steeper than one unit vertical in one and one-half units horizontal (sixty-six and seven-tenths percent slope).

(9) A fill less than one foot in depth and placed on natural terrain with a slope flatter than one unit vertical in five units horizontal (twenty percent slope), or less than three feet in depth, not intended to support structures, that does not exceed fifty cubic yards on any one lot and does not obstruct a drainage course.

(e) **Work Exempt from Plumbing Permit.** A plumbing permit shall not be required for the following:

(1) Any plumbing work authorized by a valid combination-building permit.

(2) The stopping of leaks in drains, soil, waste or vent pipe, provided, however, that should any concealed trap, drain pipe, soil, waste or vent pipe become defective and it becomes necessary to remove and replace the same with new material, the same shall be considered as new work and a permit shall be procured and inspection made as provided in this Code.

(3) The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures, nor for the removal and reinstallation of water closets, provided such repairs do not involve or require the replacement or rearrangement of valves, pipes or fixtures.

(f) **Work Exempt from Electrical Permit.** An electrical permit shall not be required for the following:

(1) Any electrical work authorized by a valid combination-building permit.

(2) Portable motors or other portable appliances energized by means of a cord or cable having an attachment plug end to be connected to an approved receptacle when the Electrical Code permits that cord or cable.

(3) Repair or replacement of fixed motors, transformers or fixed approved appliances of the same type and rating in the same location.

(4) Temporary decorative lighting.

(5) Repair or replacement of current-carrying parts of any switch, contactor or control device.

(6) Reinstallation of attachment plug receptacles, but not the outlets therefor.

(7) Repair or replacement of any over-current device of the required capacity in the same location.

(8) Repair or replacement of electrodes or transformers of the same size and capacity for signs or gas tube systems.

(9) Taping joints.

(10) Removal of electrical wiring.

(11) Temporary wiring for experimental purposes in suitable experimental laboratories.

(12) The wiring for temporary theater, motion picture or television stage sets.

(13) Electrical wiring, devices, appliances, apparatus or equipment operating at less than twenty-five volts and not capable of supplying more than fifty watts of energy.

(14) Low-energy power, control and signal circuits of Class II and Class III as defined in the Electrical Code.

(15) Installation, alteration or repair of electrical wiring, apparatus or equipment or the generation, transmission, distribution or metering of electrical energy or in the operation of signals or the transmission of intelligence by a public or private utility in the exercise of its function as a serving utility.

(g) **Work Exempt from Mechanical Permit.** A mechanical permit shall not be required for the following:

(1) Any mechanical work authorized by a valid combination-building permit.

(2) Portable heating appliance, ventilating equipment, cooling unit or evaporative cooler.

(3) Closed system of steam, hot or chilled water piping within heating or cooling equipment regulated by the Mechanical Code.

(4) Replacement of any component part of assembly of an appliance that does not alter its original approval and complies with other applicable requirements of the technical codes.

(5) Refrigerating equipment that is part of the equipment for which a permit has been issued pursuant to the requirements of the technical codes.

(6) A unit refrigerating system as defined in the Mechanical Code.

SECTION 5. Section 8.12.010 of the Santa Monica Municipal Code is hereby amended to read as follows:

8.12.010 Adoption.

That certain document entitled "California Building Code, 2010 Edition, which adopts by reference the International Building Code, 2009 Edition, as published by the California Building Standards Commission and the International Code Council including "Seismic Hazard Maps," as published by the United States Geological Survey (excluding Chapter 1, Division II, 16A, 17A, 18A, 19A, 21A, 22A), including Chapter 1, Division I, Appendices I, J, are hereby adopted with the local amendments and provisions of this Chapter, and with Chapters 8.16, 8.20 and 8.48 through 8.84 of the Santa Monica Municipal Code, as the Building Code of the City of Santa Monica.

SECTION 6. Section 8.12.030 of the Santa Monica Municipal Code is hereby repealed.

SECTION 7. Section 8.12.040 of the Santa Monica Municipal Code is hereby

amended to read as follows:

8.12.040 Essential facilities.

The following facilities are designated as essential facilities, which are necessary for emergency operations subsequent to a natural or man-made disaster: police stations, fire stations and City Hall.

SECTION 8. Section 8.16.020 of the Santa Monica Municipal Code is hereby amended to read as follows:

8.16.020 General structural design provisions.

(a) **Tilt up Systems.** Modify Section 12.2.1 of ASCE 7 by adding the following:

12.2.1.1 Determination of Seismic Force-Resisting Systems for Tilt-up Building. Tilt-up buildings bearing wall system and building frame system shall be classified as reinforced concrete structural wall system. Only special reinforced concrete structural walls shall be permitted in Seismic Design Categories D, E and F.

(b) **Re-entrant Corners.** Modify Section 12.12.4 of ASCE 7 by adding the following:

12.12.4.1 Re-entrant Corners. For buildings with re-entrant corners the return walls shall be considered for deformation compatibility with the diaphragm and shall be either seismically isolated from the diaphragm or attached by a connection of sufficient capacity to integrate their load into the diaphragm.

(c) **Minimum Base Shear.** Revise equation 12.8-5 of ASCE 7 as follows:

$C_S = 0.044S_{DS}I \geq 0.01$

(d) **P-Delta Effects.** Revise equation 12.8-16 of ASCE 7 as follows:

$$\theta = \frac{P_x \Delta I}{V_x h_{sx} C_d}$$

(e) **Subdiaphragm Design. 1613.13 ASCE 7, Section 12.11.2.2.3.** Modify ASCE 7, Section 12.12.4 to read as follows:

12.11.2.2.3 Wood Diaphragms. In wood diaphragms, the continuous ties shall be in addition to the diaphragm sheathing. Anchorage shall not be accomplished by use of toe nails or nails subject to withdrawal nor shall wood ledgers or framing be used in cross-grain bending or cross-grain tension. The diaphragm sheathing shall not be considered effective as providing ties or struts required by this section.

For structures assigned to Seismic Design Category D, E or F, wood diaphragms supporting concrete or masonry walls shall comply with the following:

1. The spacing of continuous ties shall not exceed 40 feet. Added chords of diaphragms may be used to form subdiaphragms to transmit the anchorage forces to the main continuous crossties.

2. The maximum diaphragm shear used to determine the depth of the subdiaphragm shall not exceed 75% of the maximum diaphragm shear.

(f) **Building Separations.** Delete Section 12.12.3 of ASCE 7 and amend Equation 16-44 of Section 1613.6.7 of the 2010 California Building Code to read as follows:

1613.6.7 Minimum distance for building separation. All buildings and structures shall be separated from adjoining structures. Separation shall allow for the maximum inelastic response displacement (δ_M). δ_M shall be determined at the critical locations

with consideration for both translational and torsional displacements of the structure using Equation 16-44.

$$\delta_M = \frac{C_d \delta_{max}}{I} \qquad \textbf{(Equation 16-44)}$$

where:

C_d = Deflection amplification factor in Table 12.2-1 of ASCE 7.

δ_{max} = Maximum displacement defined in Section 12.8.4.3 of ASCE 7.

Adjacent buildings on the same property shall be separated by a distance not less than δ_{MT}, determined by Equation 16-45.

$$\delta_{MT} = \sqrt{(\delta_{M1})^2 + (\delta_{M2})^2} \qquad \textit{(Equation 16-45)}$$

Where:

δ_{M1} and δ_{M2} = The maximum inelastic response displacements of the adjacent buildings in accordance with Equation 16-44.

Where a structure adjoins a property line not common to a public way, the structure shall also be set back from the property line by not less than the maximum inelastic response displacement, δ_M of that structure.

(g) **Vertical Combination of Lateral Force Resisting Systems.** Modify ASCE 7 Section 12.2.3.1 Exception 3 to read as follows:

3. Detached one- and two-family dwellings up to two stories in height of light frame construction.

(h) **Buckling Restrained Braced Frame System.** Correct values per ASCE 7 Table 12.8-2 as follows:

Structure Type	C_r C_t	X

Eccentrically braced steel frames and buckling-restrained braced frames	0.03	0.75

(i) **Assumption of Flexible Diaphragm.**

Exception: For buildings two stories or less in height with diaphragm constructed of wood structural panels, the cantilevered portion is permitted to be idealized as flexible, provided the length of the overhang does not exceed fifteen percent of the dimension between the lateral force resisting lines of resistance adjacent to the cantilevered portion in the direction considered. Nor shall the overhang dimension exceed twenty-five percent of the width of the diaphragm, where the width is the dimension perpendicular to the direction of applied lateral force.

(j) Suspended ceilings. Add Section 1613.16 to Chapter 16 of the 2010 California Building Code to read as follows:

1613.16 Suspended Ceilings. Minimum design and installation standards for suspended ceilings shall be determined in accordance with the requirements of Section 2506.2.1 of this Code and this subsection.

1613.16.1 Scope. This part contains special requirements for suspended ceilings and lighting systems. Provisions of Section 13.5.6 of ASCE 7 shall apply except as modified herein.

1613.16.2 General. The suspended ceilings and lighting systems shall be limited to 6 feet (1828 mm) below the structural deck unless the lateral bracing is designed by a licensed engineer or architect.

1613.16.3 Design and Installation Requirements.

1613.16.3.1 Bracing at Discontinuity. Bracing to the structure shall be provided at changes in the ceiling plane elevation or at discontinuities in the ceiling grid system.

1613.16.3.2 Support for Appendages. Cable trays, electrical conduits and piping shall be independently supported and independently braced from the structure.

1613.16.3.3 Sprinkler Heads. All sprinkler heads (drops) except fire-resistance-rated floor/ceiling or roof/ceiling assemblies, shall be designed to allow for free movement of the sprinkler pipes with oversize rings, sleeves or adaptors through the ceiling tile, in accordance with Section 13.5.6.2.2 (e) of ASCE 7.

Sprinkler heads penetrating fire-resistance-rated floor/ceiling or roof/ceiling assemblies shall comply with Section 713 of this Code.

1613.16.3.4 Perimeter Members. A minimum wall angle size of at least a two inch (51 mm) horizontal leg shall be used at perimeter walls and interior full height partitions. The first ceiling tile shall maintain 3/4 inch (19 mm) clear from the finish wall surface. An equivalent alternative detail that will provide sufficient movement due to anticipated lateral building displacement may be used in lieu of the long leg angle subject to the approval of the Building Officer.

1613.16.4 Special Requirements for Means of Egress. Suspended ceiling assemblies located along means of egress serving an occupant load of 30 or more shall comply with the following provisions.

1613.16.4.1 General. Ceiling suspension systems shall be connected and braced with vertical hangers attached directly to the structural deck along the means of egress serving an occupant load of 30 or more and at lobbies accessory to Group A Occupancies. Spacing of vertical hangers shall not exceed 2 feet (610 mm) on center along the entire length of the suspended ceiling assembly located along the means of egress or at the lobby.

1613.16.4.2 Assembly Device. All lay-in panels shall be secured to the

suspension ceiling assembly with two hold-down clips minimum for each tile within a 4-foot (1219 mm) radius of the exit lights and exit signs.

1613.16.4.3 Emergency Systems. Independent supports and braces shall be provided for light fixtures required for exit illumination. Power supply for exit illumination shall comply with the requirements of Section 1006.3 of this Code.

1613.16.4.4 Supports for Appendage. Separate support from the structural deck shall be provided for all appendages such as light fixtures, air diffusers, exit signs, and similar elements.

(k) Special Inspection for Concrete Construction. Amend Section 1704.4 of the 2010 California Building Code to read as follows:

1704.4 Concrete Construction. The special inspections and verifications for concrete construction shall be as required by this section and Table 1704.4.

Exceptions: Special inspection shall not be required for:

1. Isolated spread concrete footings of buildings three stories or less above grade plane that are fully supported on earth or rock, where the structural design of the footing is based on a specified compressive strength, f'_c, no greater than 2,500 pounds per square inch (psi) (17.2 Mpa).

2. Continuous concrete footings supporting walls of buildings three stories or less in height that are fully supported on earth or rock where:

2.1. The footings support walls of light-frame construction;

2.2. The footings are designed in accordance with Table 1805.4.2; or

2.3. The structural design of the footing is based on a specified compressive strength, f'_c, no greater than 2,500 pounds per square inch (psi) (17.2 Mpa), regardless of the compressive strength specified in the construction documents or used in the

footing construction.

3. Nonstructural concrete slabs supported directly on the ground, including prestressed slabs on grade, where the effective prestress in the concrete is less than 150 psi (1.03 Mpa).

4. Concrete patios, driveways and sidewalks, on grade.

(l) Driven Deep Foundations. Amend Section 1704.8 of the 2010 California Building Code to read as follows:

1704.8 Driven deep foundations and connection grade beams. Special inspections shall be performed during installation and testing of driven deep foundation elements as required by Table 1704.8. Special inspections shall be performed for connection grade beams in accordance with Section 1704.4 for structures assigned to Seismic Design Category D, E or F. The approved geotechnical report, and the construction documents prepared by the registered design professionals, shall be used to determine compliance.

(m) Cast-In Place Deep Foundations. Amend Section 1704.9 of the 2010 California Building Code to read as follows:

1704.9 Cast-in-place deep foundations and connection grade beams. Special inspections shall be performed during installation and testing of cast-in-place deep foundation elements as required by Table 1704.9. Special inspections shall be performed for connection grade beams in accordance with Section 1704.4 for structures assigned to Seismic Design Category D, E or F. The approved geotechnical report, and the construction documents prepared by the registered design professionals, shall be used to determine compliance.

(n) Seismic Resistance Inspection. Amend Section 1705.3 of the 2010

California Building Code to read as follows:

1705.3 Seismic resistance. The statement of special inspections shall include seismic requirements for cases covered in Sections 1705.3.1 through 1705.3.5.

Exception: Seismic requirements are permitted to be excluded from the statement of special inspections for structures designed and constructed in accordance with the following:

1. The structure consists of light-frame construction; the design spectral response acceleration at short periods, S_{DS}, as determined in Section 1613.5.4, does not exceed 0.5g; and the height of the structure does not exceed 35 feet (10 668 mm) above grade plane; or

2. The structure is constructed using a reinforced masonry structural system or reinforced concrete structural system; the design spectral response acceleration at short periods, S_{DS}, as determined in Section 1613.5.4, does not exceed 0.5g, and the height of the structure does not exceed 25 feet (7620 mm) above grade plane; or

3. Detached one- or two-family dwellings not exceeding two stories above grade plane, provided the structure is not assigned to Seismic Design Category D, E or F and does not have any of the following plan or vertical irregularities in accordance with Section 12.3.2 of ASCE 7:

3.1 Torsional irregularity.

3.2 Nonparallel systems.

3.3 Stiffness irregularity—extreme soft story and soft story.

3.4 Discontinuity in capacity—weak story.

(o) Structural Observation - General. Amend Section 1710.1 of the 2010 California Building Code to read as follows:

1710.1 General. Where required by the provisions of Section 1710.2 or 1710.3, the owner shall employ structural observer to perform structural observations as defined in Section 1702. The structural observer shall be one of the following individuals:

1. The registered design professional responsible for the structural design, or

2. A registered design professional designated by the registered design professional responsible for the structural design.

Prior to the commencement of observations, the structural observer shall submit to the building official a written statement identifying the frequency and extent of structural observations.

The owner or owner's representative shall coordinate and call a preconstruction meeting between the structural observer, contractors, affected subcontractors and special inspectors. The structural observer shall preside over the meeting. The purpose of the meeting shall be to identify the major structural elements and connections that affect the vertical and lateral load resisting systems of the structure and to review scheduling of the required observations. A record of the meeting shall be included in the report submitted to the building officer.

Observed deficiencies shall be reported in writing to the owner or owner's representative, special inspector, contractor and the building official. Upon the form prescribed by the building official, the structural observer shall submit to the building official a written statement at each significant construction stage stating that the site visits have been made and identifying any reported deficiencies which, to the best of the structural observer's knowledge, have not been resolved. A final report by the structural observer which states that all observed deficiencies have been resolved is required before acceptance of the work by the building official.

(p) Structural Observation – Seismic. Amend Section 1710.2 of the 2010 Edition of the California Building Code are amended to read as follows:

1710.2 Structural observation for seismic resistance. Structural observations shall be provided for those structures assigned to Seismic Design Category D, E or F, as determined in Section 1613, where one or more of the following conditions exist:

1. The structure is classified as Occupancy Category III or IV in accordance with Table 1604.5.

2. The height of the structure is greater than 75 feet (22860 mm) above the base.

3. The structure is classified as Occupancy Category I or II in accordance with Table 1604.5, and a lateral design system is required to be designed by a registered designed professional.

Exception: One-story wood framed Group R-3 and Group U Occupancies less than 2000 square feet in area, provided the adjacent grade is not steeper than 1 unit vertical in 10 units horizontal (10% sloped), assigned to Seismic Design Category D.

4. When so designated by the registered design professional responsible for the structural design.

5. When such observation is specifically required by the building official.

SECTION 9. Section 8.16.030 of the Santa Monica Municipal Code is hereby amended to read as follows:

8.16.030 Foundations.

(a) **General.** Modify Section 1805.1 of the California Building Code as follows:

1805.1 General. The top surface of footings shall be level. The bottom surface of footings is permitted to have a slope not exceeding one unit vertical in ten units horizontal (ten percent slope). Footings shall be stepped where it is necessary to change the elevation of the top surface of the footing or where the surface of the ground slopes more than one unit vertical in ten units horizontal (ten percent slope). This stepping requirement shall also apply to the top surface of grade beams supporting walls. Footings shall be reinforced with minimum of four one-half-inch diameter (12.7 mm) deformed reinforcing bars. Two bars shall be place at the top and bottom of the footings as shown in Figure 1805.1 of this code.

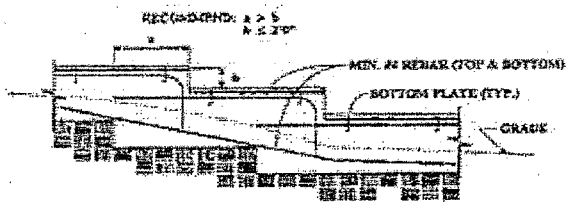


Figure 1805.1

(b) **Footing for Interior Bearing Walls.** Modify Table 1805.4.2 of the California Building Code by deleting Footnote c.

(c) **Wood and Timber Footing.** Delete Sections 1805.4.5 and 1805.4.6 of the California Building Code in their entirety.

(d) Delete Section 1805.5 of the California Building Code in its entirety and replace with the following:

1805.5 Foundation Walls. Concrete and masonry foundation walls exceeding eighteen inches in height shall be designed in accordance with Chapter 19 or 21 of the California Building Code, respectively.

1805.5.1 Foundation Wall Drainage. Foundation walls shall be designed to support the weight of the full hydrostatic pressure of unretained backfill unless a drainage system in accordance with Sections 1807.4.2 and 1807.4.3 is installed.

(e) Permanent wood foundation systems. Amend Section 1807.1.4 of the 2010 California Building Code to read as follows:

1807.1.4 Permanent wood foundations systems. Permanent wood foundation systems shall be designed and installed in accordance with AF&PA PWF. Lumber and plywood shall be treated in accordance with AWPA U1 (Commodity Specification A, Use Category 4B and Section 5.2) and shall be identified in accordance with Section 2303.1.8.1. Permanent wood foundation systems shall not be used for structures assigned to Seismic Design Category D, E or F.

(f) Prescriptive design of foundation walls. Amend Section 1807.1.6 of the 2010 California Building Code to read as follows:

1807.1.6 Prescriptive design of concrete and masonry foundation walls. Concrete and masonry foundation walls that are laterally supported at the top and bottom shall be permitted to be designed and constructed in accordance with this section. Prescriptive design of foundation walls shall not be used for structures assigned to Seismic Design Category D, E or F

(g) Prescriptive footings. Amend Section 1809.7 and Table 1809.7 of the 2010 Edition of the California Building Code are amended to read as follows:

1809.7 Prescriptive footings for light-frame construction. Where a specific design is not provided, concrete or masonry-unit footings supporting walls of light-frame construction shall be permitted to be designed in accordance with Table 1809.7. Prescriptive footings in Table 1809.7 shall not exceed one story above grade plane for

structures assigned to Seismic Design Category D, E or F.

TABLE 1809.7

PRESCRIPTIVE FOOTINGS SUPPORTING WALLS OF LIGHT-FRAME CONSTRUCTION [a, b, c, d, e]

NUMBER OF FLOORS SUPPORTED BY THE FOOTING [f]	WIDTH OF FOOTING (inches)	THICKNESS OF FOOTING (inches)
1	12	6
2	15	6
3	18	8

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm

a. Depth of footings shall be in accordance with Section 1809.4.

b. The ground under the floor shall be permitted to be excavated to the elevation of the top of the footing.

c. See Section 1908 for additional requirements for concrete footings of structures assigned to Seismic Design Category C, D, E or F.

d. For thickness of foundation walls, see Section 1807.1.6.

e. Footings shall be permitted to support a roof addition to the stipulated number of floors. Footings supporting roof only shall be as required for supporting one floor.

(h) Timber footings. Amend Section 1809.12 of the 2010 California Building Code

to read as follows:

1809.12 Timber footings. Timber footings shall be permitted for buildings of Type V construction and as otherwise approved by the building official. Such footings shall be treated in accordance with AWPA U1 (Commodity Specification A, Use Category 4B). Treated timbers are not required where placed entirely below permanent water level, or where used as capping for wood piles that project above the water level over submerged or marsh lands. The compressive stresses perpendicular to grain in untreated timber footing supported upon treated piles shall not exceed 70 percent of the allowable stresses for the species and grade of timber as specified in the AF&PA NDS. Timber footings shall not be used in structures assigned to Seismic Design Category D, E or F.

(i) Timber. Amend Section 18010.3.2.4 of the 2010 Edition of the California Building Code to read as follows:

1810.3.2.4 Timber. Timber deep foundation elements shall be designed as piles or poles in accordance with AF&PA NDS. Round timber elements shall conform to ASTM D 25. Sawn timber elements shall conform to DOC PS-20. Timber deep foundations shall not be used in structures assigned to Seismic Design Category D, E or F.

SECTION 10. Section 8.16.040 of the Santa Monica Municipal Code is hereby amended to read as follows:

8.16.040 Concrete.

(a) **Structural Plain (Unreinforced) Concrete.** Delete Sections 1908.1.8, 1909 of the California Building Code in their entirety and replace with following:

1909.1 Scope. Plain concrete shall not be used other than as fill. The minimum specified compression strength of concrete used as fill shall be one thousand five hundred psi (10.3 MPa) at twenty-eight days.

(b) **Concrete Special Moment Frame Column Confinement.**

(1) Modify ACI 318 Section 21.4.4.1 by adding a new item as follows:

21.4.4.1(f). Where the calculated point of contraflexure is not within the middle half of the member clear height, provide transverse reinforcement as specified in AC 1318 Sections 21.4.4.1, Items (a) through (c), over the full height of the member.

(2) Modify ACI 318 by adding Section 21.4.4.7 as follows:

21.4.4.7. At any section where the design strength, φPn, of the column is less than the sum of the shears Ve computed in accordance with ACI 318 Sections 21.3.4.1 and 21.4.5.1 for all the beams framing into the column above the level under consideration, transverse reinforcement as specified in ACI 318 Sections 21.4.4.1 through 21.4.4.3 shall be provided. For beams framing into opposite sides of the column, the moment components may be assumed to be of opposite sign. For the determination of the design strength, φPn, of the column, these moments may be assumed to result from the deformation of the frame in any one principal axis.

(c) **Special Reinforced Concrete Wall Capacity.**

(1) Modify ACI 318 by adding Section 21.7.4.6 as follows:

21.7.4.6. Walls and portions of walls with Pu > 0.35Po shall not be considered to contribute to the calculated strength of the structure for resisting earthquake-induced forces. Such walls shall conform to the requirements of ACI 318 Section 21.11.

(d) **Reinforced Concrete Diaphragms.**

(4) Modify ACI 318 Section 21.9.4 by adding the following:

21.9.4.1. Collector and boundary elements in topping slabs placed over precast floor and roof elements shall not be less than three inches (76 mm) or six d_b thick, where d_b is the diameter of the largest reinforcement in the topping slab.

(e) **Tilt Up Buildings.**

Modify Section 1908.1.4 of the California Building Code as follows:

21.2.1.4. For structures assigned to Seismic Design Category D, E or F, special moment frames, special reinforced concrete structural walls, diaphragms and trusses and foundations complying with Sections 21.2 through Sections 21.10 shall be used to resist forces induced by earthquake motions. Members not proportioned to resist earthquake forces shall comply with Section 21.11.

(f) **Deflection of Slender Walls.**

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

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

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

and the value E_S/E_c shall not be taken less than six.

(2) Modify ACI 318 Section 14.8.4 as follows:

14.8.4. Maximum out-of-plane deflection, Δs, due to service loads, including $P\Delta$ effects, shall not exceed $l_c/150$.

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

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

where:

$$\Delta_{cr} = \frac{5M_{cr}l_c^2}{48E_cI_g} \quad \text{and} \quad \Delta_a = \frac{5M_al_c^2}{48E_cI_{cr}}$$

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

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

(g) Reinforcement. Amend Section 1908.1 to read as shown below and add Sections 1908.1.11 through 1908.1.14 to Chapter 19 of the 2010 California Building Code to read as follows:

1908.1 General. The text of ACI 318 shall be modified as indicated in Sections 1908.1.1 through 1908.1.14.

1908.1.11 ACI 318, Section 21.6.4.1. Modify ACI 318, Section 21.6.4.1, to read as follows:

Where the calculated point of contraflexure is not within the middle half of the member clear height, provide transverse reinforcement as specified in ACI 318 Sections 21.6.4.1, Items (a) through (c), over the full height of the member.

1908.1.12 ACI 318, Section 21.6.4. Modify ACI 318, Section 21.6.4, by adding Section 21.6.4.8 to read as follows:

21.6.4.8 – At any section where the design strength, φP_n, of the column is less than the sum of the shears V_e computed in accordance with ACI 318 Sections 21.5.4.1

and 21.6.5.1 for all the beams framing into the column above the level under consideration, transverse reinforcement as specified in ACI 318 Sections 21.6.4.1 through 21.6.4.3 shall be provided. For beams framing into opposite sides of the column, the moment components may be assumed to be of opposite sign. For the determination of the design strength, φP_n, of the column, these moments may be assumed to result from the deformation of the frame in any one principal axis.

1908.1.13 ACI 318, Section 21.9.4. Modify ACI 318, Section 21.9.4, by adding Section 21.9.4.6 to read as follows:

21.9.4.6 – Walls and portions of walls with $P_u > 0.35P_o$ shall not be considered to contribute to the calculated strength of the structure for resisting earthquake-induced forces. Such walls shall conform to the requirements of ACI 318 Section 21.13.

1908.1.14 ACI 318, Section 21.11.6. Modify ACI 318, Section 21.11.6, by adding the following:

Collector and boundary elements in topping slabs placed over precast floor and roof elements shall not be less than 3 inches (76 mm) or 6 d_b thick, where d_b is the diameter of the largest reinforcement in the topping slab.

(h) Intermediate structural wall. Amend Section 1908.1.2 of the 2010 California Building Code to read as follows:

1908.1.2 ACI 318, Section 21.1.1. Modify ACI 318, Sections 21.1.1.3 and 21.1.1.7 as follows:

21.1.1.3 – Structures assigned to Seismic Design Category A shall satisfy requirements of Chapters 1 to 19 and 22; Chapter 21 does not apply. Structures assigned to Seismic Design Category B, C, D, E or F also shall satisfy 21.1.1.4 through 21.1.1.8, as applicable. Except for structural elements of plain concrete complying with

Section 1908.1.8 of the International Building Code, structural elements of plain concrete are prohibited in structures assigned to Seismic Design Category C, D, E or F.

21.1.1.7 – Structural systems designated as part of the seismic-force-resisting system shall be restricted to those permitted by ASCE 7. Except for Seismic Design Category A, for which Chapter 21 does not apply, the following provisions shall be satisfied for each structural system designated as part of the seismic-force-resisting system, regardless of the Seismic Design Category:

(a) Ordinary moment frames shall satisfy 21.2.

(b) Ordinary reinforced concrete structural walls and ordinary precast structural walls need not satisfy any provisions in Chapter 21.

(c) Intermediate moment frames shall satisfy 21.3.

(d) Intermediate precast structural walls shall satisfy 21.4.

(e) Special moment frames shall satisfy 21.5 through 21.8.

(f) Special structural walls shall satisfy 21.9.

(g) Special structural walls constructed using precast concrete shall satisfy 21.10.

All special moment frames and special structural walls shall also satisfy 21.1.3 through 21.1.7. Concrete tilt-up wall panels classified as intermediate precast structural wall system shall satisfy 21.9 in addition to 21.4.2 and 21.4.3 for structures assigned to Seismic Design Category D, E or F.

(i) Wall pier. Amend Section 1908.1.3 of the 2010 California Building Code to read as follows:

1908.1.3 ACI 318, Section 21.4. Modify ACI 318, Section 21.4, by renumbering Section 21.4.3 to become 21.4.4 and adding new Sections 21.4.3, 21.4.5, 21.4.6 and

21.4.7 to read as follows:

21.4.3 – Connections that are designed to yield shall be capable of maintaining 80 percent of their design strength at the deformation induced by the design displacement or shall use Type 2 mechanical splices.

21.4.4 – Elements of the connection that are not designed to yield shall develop at least 1.5 S_y.

21.4.5 – Wall piers in Seismic Design Category D, E or F shall comply with Section 1908.1.4 of this Code.

21.4.6 – Wall piers not designed as part of a moment frame in buildings assigned to Seismic Design Category C shall have transverse reinforcement designed to resist the shear forces determined from 21.3.3. Spacing of transverse reinforcement shall not exceed 8 inches (203 mm). Transverse reinforcement shall be extended beyond the pier clear height for at least 12 inches (305 mm).

Exceptions:

1. Wall piers that satisfy 21.13.
2. Wall piers along a wall line within a story where other shear wall segments provide lateral support to the wall piers and such segments have a total stiffness of at least six times the sum of the stiffnesses of all the wall piers.

21.4.7 – Wall segments with a horizontal length-to-thickness ratio less than 2.5 shall be designed as columns.

(j) Minimum reinforcement. Amend Section 1908.1.8 of the 2010 California Building Code to read as follows:

1908.1.8 ACI 318, Section 22.10. Delete ACI 318, Section 22.10, and replace with the following:

22.10 – Plain concrete in structures assigned to Seismic Design Category C, D, E or F.

22.10.1 – Structures assigned to Seismic Design Category C, D, E or F shall not have elements of structural plain concrete, except as follows:

(a) Concrete used for fill shall comply with the requirement of Section 1909 of the California Building Code.

(b) Isolated footings of plain concrete supporting pedestals or columns are permitted, provided the projection of the footing beyond the face of the supported member does not exceed the footing thickness.

(c) Plain concrete footings supporting walls are permitted provided the footings have at least two continuous longitudinal reinforcing bars. Bars shall not be smaller than No. 4 and shall have a total area of not less than 0.002 times the gross cross-sectional area of the footing. A minimum of one bar shall be provided at the top and bottom of the footing. Continuity of reinforcement shall be provided at corners and intersections.

In detached one- and two-family dwellings three stories or less in height and constructed with stud-bearing walls, plain concrete footings with at least two continuous longitudinal reinforcing bars not smaller than No. 4 are permitted to have a total area of less than 0.002 times the gross cross-sectional area of the footing.

SECTION 11. Section 8.16.060 of the Santa Monica Municipal Code is hereby amended to read as follows:

8.16.060 Steel construction.

(a) Special Concentrically Braced Frames (SCBF). Modify AISC 341 Part I,

Section 13.2 by adding the following:

13.2f. Member Types. The use of rectangular HSS are not permitted for bracing members, unless filled solid with cement grout having a minimum compressive strength of two thousand five hundred psi at twenty-eight days. The effects of composite action in the filled composite brace shall be considered in the sectional properties of the system where it results in the more severe loading condition or detailing.

(b) Consumables for welding. Add Section 2204.1.1 to Chapter 22 of the 2010 California Building Code to read as follows:

2204.1.1 Consumables for welding.

2204.1.1.1 Seismic Force Resisting System (SFRS) welds. All welds used in members and connections in the SFRS shall be made with filler metals meeting the requirements specified in AWS D1.8 Clause 6.3. AWS D1.8 Clauses 6.3.5, 6.3.6, 6.3.7 and 6.3.8 shall apply only to demand critical welds.

2204.1.1.2 Demand critical welds. Where welds are designated as demand critical, they shall be made with filler metals meeting the requirements specified in AWS D1.8 Clause 6.3.

SECTION 12. Section 8.16.070 of the Santa Monica Municipal Code is hereby amended to read as follows:

8.16.070 Wood construction.

(a) General fastener requirement. Amend Section 2304.9.1 and Table 2304.9.1 of the 2010 California Building Code to read as follows:

2304.9.1 General fastener requirements. Connections for wood members shall

be designed in accordance with the appropriate methodology in Section 2301.2. The number and size of fasteners connecting wood members shall not be less than that set forth in Table 2304.9.1. Staple fasteners in Table 2304.9.1 shall not be used to resist or transfer seismic forces in structures assigned to Seismic Design Category D, E or F.

(b) **Retaining Walls.** Section 2304.11.7 of the California Building Code is deleted in its entirety.

(c) **Hold-down Connectors.**

2305.5 Hold-down connectors. In Seismic Design Category D, E or F, hold-down connectors shall be designed to resist shear wall overturning moments using approved cyclic load values or 75 percent of the allowable seismic load values that do not consider cyclic loading of the product. Connector bolts into wood framing shall require steel plate washers on the post on the opposite side of the anchorage device. Plate size shall be a minimum of 0.229 inch by 3 inches by 3 inches (5.82 mm by 76 mm by 76 mm) in size. Hold-down connectors shall be tightened to finger tight plus one half (1/2) wrench turn just prior to covering the wall framing.

(d) **Shear Walls and Diaphragms.**

(1) **Plaster and Gypsum Shear Walls.** Shear capacities for walls sheathed with lath, plaster or gypsum board shall be in accordance with Table 2306.4.5 and shear walls sheathed with lath, plaster or gypsum board shall be constructed in accordance with Section 2306.4.5.1 of the building code. Walls resisting seismic loads shall be subject to the limitations in Section 12.2.1 of ASCE 7. The allowable shear values shown in Table 2306.4.5 for materials in category 1 are limited to ninety pounds per foot (1.31 kN/m); material in category 2 through 4 are limited to thirty pounds per foot (438 N/m).

(2) **Shear Wall Capacity.** Modify Section 2306.4.1 of the California Building Code as follows:

2306.4.1. Wood Structural Panel Shear Walls. The allowable shear capacities for wood structural panel shear walls shall be in accordance with Table 2306.4.1. These capacities are permitted to be increased forty percent for wind design. No increase for sixteen inch on center stud spacing shall be allowed as indicated in Footnote d of Table 2306.4.1.

For shear walls constructed with wood structural panels of three-ply construction, the maximum allowable shear shall be limited to two hundred pounds per foot. No value shall be given for wood structural sheathing applied over gypsum or plaster sheathing.

(3) **Construction.** Section 2305.3.3 of the California Building Code is modified as follows:

2305.3.3 Construction. Wood shearwalls shall be constructed of wood structural panels manufactured with exterior glue and not less than four feet by eight feet (1,219 mm by 2,438 mm), except at boundaries and at changes in framing. All edges of all panels shall be supported by and fastened to framing members or blocking. Wood structural panel thickness for shear walls shall not be less than three eighths inch thick and studs shall not be spaced at more than sixteen inches on center.

(4) **Fasteners.** Fasteners for wood structural panel sheathing on shear walls and diaphragms shall be common nails with full heads unless otherwise approved. Mechanically driven common nails may be used when the fastener meets the same tolerances for head, shank and length allowed in ASTM 1667 for hand-driven nails. Staple fasteners shall not be used.

Nails shall be placed a minimum of one-half inch from the panel edges and a

minimum of one-half inch from the edge of the connecting members for shear greater than three hundred pounds per foot.

(5) **Limits on Rotation of Diaphragms.** Except as permitted below, lumber and wood structural panel diaphragms shall not be considered as transmitting lateral forces by rotation.

Transfer of lateral forces by rotation will be permitted for one-story, detached residential garages or similar Group U, Division 1 wood-framed structures with a maximum depth normal to the open side of twenty-five feet and a maximum width of twenty-five feet provided the diaphragm is not constructed of straight sheathing.

(e) **Conventional Light Frame Construction.**

(1) **Number of stories.** Modify Section 2308 of the California Building Code as follows:

2308.12.1 Number of stories. Structures of conventional light-frame construction shall not exceed one story in height in Seismic Design Category D or E.

(2) **Braced Wall Line Support.** Modify Section 2308.3.4 of the California Building Code as follows:

2308.3.4 Braced wall line support. Braced wall lines shall be supported by continuous foundations.

(3) **Braced Wall Line Sheathing.** Modify Footnotes b and c of Table 2308.12.4 of the California Building Code as follows:

(b) G-P = gypsum board, lath and plaster or gypsum sheathing boards attached to studs at maximum sixteen inches on center; S-W = wood structural panels of minimum 15/32 inch thickness attached to studs at maximum sixteen inches on center.

(c) Nailing as specified below shall occur at all panel edges at studs, at top

and bottom plates and, where occurring, at blocking:

For one-half-inch gypsum board, 5d (0.113 inch diameter) cooler nails at seven inches on center;

For 5/8-inch gypsum board, No. 11 gage (0.120 inch diameter) at seven inches on center;

For gypsum sheathing board, one and three-quarter inches long by 7/16-inch head, diamond point galvanized nails at four inches on center;

For gypsum lath, No. 13 gage (0.092 inch) by one and one-eighth inches long, 19/64-inch head, plasterboard at five inches on center;

For Portland cement plaster, No. 11 gage (0.120 inch) by one and one-half inches long, 7/16-inch head at six inches on center;

For S-W sheathing shall be nailed with 10d common nails, at 6:6:12.

(4) **Braced Wall Line Attachment.** Modify Section 2308.12.5 of the California Building Code as follows:

2308.12.5 Attachment of sheathing. Fastening of braced wall panel sheathing shall not be less than that prescribed in Table 2308.12.4 or 2304.9.1. Wall sheathing shall not be attached to framing members by adhesives.

All braced wall panels shall extend to the roof sheathing and shall be attached to parallel roof rafters or blocking above with framing clips (18 gauge minimum) spaced at maximum twenty-four inches (6,096 mm) on center with four 8d common nails per leg (total eight 8d common nails per clip). Braced wall panels shall be laterally braced at each top corner and at maximum twenty-four inch (6,096 mm) intervals along the top plate of discontinuous vertical framing.

(f) Wood used in retaining wall. Amend Section 2304.11.7 of the 2010

California Building Code to read as follows:

2304.11.7 Wood used in retaining walls and cribs. Wood installed in retaining or crib walls shall be preservative treated in accordance with AWPA U1 (Commodity Specifications A or F) for soil and fresh water use. Wood shall not be used in retaining or crib walls for structures assigned to Seismic Design Category D, E or F.

(g) Quality of nails. Add Section 2305.4 to Chapter 23 of the 2010 California Building Code to read as follows:

2305.4 Quality of Nails. In Seismic Design Category D, E or F, mechanically driven nails used in wood structural panel shear walls shall meet the same dimensions as that required for hand-driven nails, including diameter, minimum length and minimum head diameter. Clipped head or box nails are not permitted in new construction. The allowable design value for clipped head nails in existing construction may be taken at no more than the nail-head-area ratio of that of the same size hand-driven nails.

(h) Wood diaphragms. Add Tables 2306.2.1(3) and 2306.2.1(4) to Chapter 23 of the 2010 California Building Code and amend Section 2306.2.1 of the 2010 California Building Code to read as follows:

2306.2.1 Wood structural panel diaphragms. Wood structural panel diaphragms shall be designed and constructed in accordance with AF&PA SDPWS. Wood structural panel diaphragms are permitted to resist horizontal forces using the allowable shear capacities set forth in Table 2306.2.1(1) or 2306.2.1(2). For structures assigned to Seismic Design Category D, E or F, the allowable shear capacities shall be set forth in Table 2306.2.1(3) or 2306.2.1(4). The allowable shear capacities in Table 2306.2.1(1) or 2306.2.1(2) are permitted to be increased 40 percent for wind design. Wood structural panel diaphragms fastened with staples shall not used to resist seismic

forces in structures assigned to Seismic Design Category D, E or F.

Exception: Staples may be used for wood structural panel diaphragms when the allowable shear values are substantiated by cyclic testing and approved by the building official.

Wood structural panel diaphragms used to resist seismic forces in structures assigned to Seismic Design Category D, E or F shall be applied directly to the framing members.

Exception: Wood structural panel diaphragm is permitted to be fastened over solid lumber planking or laminated decking, provided the panel joints and lumber planking or laminated decking joints do not coincide.

TABLE 2306.2.1(3)

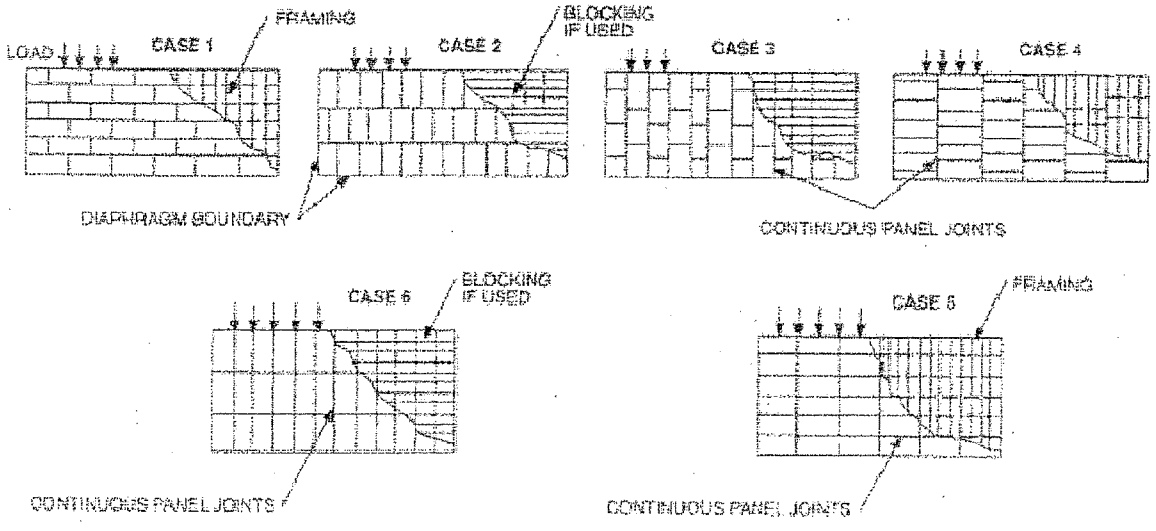
ALLOWABLE SHEAR (POUNDS PER FOOT) FOR WOOD STRUCTURAL PANEL DIAPHRAGMS WITH FRAMING OF DOUGLAS FIR-LARCH OR SOUTHERN PINE[a] FOR SEISMIC LOADING[f]

FOR STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY D, E OR F

PANEL GRADE	COMMON NAIL SIZE	MINIMUM FASTENER PENETRATION IN FRAMING (inches)	MINIMUM NOMINAL PANEL THICKNESS (inch)	MINIMUM NOMINAL WIDTH OF FRAMING MEMBERS AT ADJOINING PANEL EDGES AND BOUNDARIES[c] (inches)	BLOCKED DIAPHRAGMS				UNBLOCKED DIAPHRAGMS	
					Fastener spacing (inches) at diaphragm boundaries (all cases) at continuous panel edges parallel to load (Cases 3,4), and at all panel edges (Cases 5, 6)[b]				Fastener spaced 6" max. at supported edges[b]	
					6	4	2½[d]	2[d]	Case 1 (No unblocked edges or continuous joints parallel to load)	All other configurations (Cases 2, 3, 4, 5 and 6)
					Fastener spacing (inches) at other panel edges (Cases 1,2,3 and 4)[b]					
					6	6	4	3		
Structural I Grades	8d (2 ½" x 0.131")	1 3/8	3/8	2	270	360	530	600	240	180
				3	300	400	600	675	265	200
	10d[e] (3" x 0.148")	1 1/2	15/32	2	320	425	640	730	285	215
				3	360	480	720	820	320	240
Sheathing, single floor and other grades covered in DOC PS1 and PS2	8d (2 ½" x 0.113")	1 1/4	3/8	2	185	250	375	420	165	125
				3	210	280	420	475	185	140
	8d (2 ½" x 0.131")	1 3/8		2	240	320	480	545	215	160
				3	270	360	540	610	240	180
	8d (2 ½" x 0.131")	1 3/8	7/16	2	255	340	505	575	230	170
				3	285	380	570	645	255	190
	8d (2 ½" x 0.131")	1 3/8	15/32	2	270	360	530	600	240	180
				3	300	400	600	675	265	200
	10d[e] (3" x 0.148")	1 1/2		2	280	385	575	655	255	190
				3	324	430	650	735	290	215
	10d[e] (3" x 0.148")	1 1/2	19/32	2	320	425	640	730	285	215
				3	360	480	720	820	320	240

ALLOWABLE SHEAR (POUNDS PER FOOT) FOR WOOD STRUCTURAL PANEL DIAPHRAGMS WITH FRAMING OF DOUGLAS FIR-LARCH, OR SOUTHERN PINE[a] FOR SEISMIC LOADING[f]

FOR STRUCTURES ASSIGNED TO SEISMIC DESIGN CATERGORY D, E OR F



For SI: 1 inch = 25.4 mm, 1 pound per foot = 14.5939 N/m.

a. For framing of other species: (1) Find specific gravity for species of lumber in AF&PA NDS. (2) For nails find shear value from table above for nail size for actual grade and multiply value by the following adjustment factor: Specific Gravity Adjustment Factor = [1-(0.5-SG)], where SG = Specific Gravity of the framing lumber. This adjustment factor shall not be greater than 1.

b. Space fasteners maximum 12 inches o.c. along intermediate framing members (6 inches o.c. where supports are spaced 48 inches o.c.).

c. Framing at adjoining panel edges shall be 3 inches nominal or thicker, and nails at all panel edges shall be staggered where panel edge nailing is specified at 2 ½ inches o.c. or less.

d. Framing at adjoining panel edges shall be 3 inches nominal or thicker, and nails at all panel edges shall be staggered where both of the following conditions are met: (1) 10d nails having penetration into framing of more than 1 ½ inches and (2) panel edge nailing is specified at 3 inches o.c. or less.

e. The minimum nominal width of framing members not located at boundaries or adjoining panel edges shall be 2 inches.

f. For shear loads of normal or permanent load duration as defined by the AF&PA NDS, the values in the table above shall be multiplied by 0.63 or 0.56, respectively.

TABLE 2306.2.1(4)

ALLOWABLE SHEAR (POUNDS PER FOOT) FOR WOOD STRUCTURAL PANEL BLOCKED DIAPHRAGMS UTILIZING MULTIPLE ROWS OF FASTENERS (HIGH LOAD DIAPHRAGMS) WITH FRAMING OF DOUGLAS FIR-LARCH OR SOUTHERN PINE[a] FOR SEISMIC LOADING[b,f,g]

FOR STRUCTURES ASSIGNED TO SEISMIC DESIGN CATERGORY D, E OR F

PANEL GRADE[c]	COMMON NAIL SIZE	MINIMUM FASTENER PENETRATION IN FRAMING (inches)	MINIMUM NOMINAL PANEL THICKNESS (inch)	MINIMUM NOMINAL WIDTH OF FRAMING MEMBERS AT ADJOINING PANEL EDGES AND BOUNDARIES[d] (inches)	LINES OF FASTENERS	BLOCKED DIAPHRAGMS			
						Cases 1 and 2[e]			
						Fastener Spacing Per Line at Boundaries (inches)			
						6		4	2 1/2
						Fastener Spacing Per Line at Other Panel Edges (inches)			
						6	4	4	3
Structural I grades	10d common nails	1 1/2	15/32	3	2	605	815	875	1,150
				4	2	700	915	1,005	1,290
				4	3	875	1,220	1,285	1,395
			19/32	3	2	670	880	965	1,255
				4	2	780	990	1,110	1,440
				4	3	965	1,320	1,405	1,790
			23/32	3	2	730	955	1,050	1,365
				4	2	855	1,070	1,210	1,565
				4	3	1,050	1,430	1,525	1,800
Sheathing, single floor and other grades covered in DOC PS1 and PS2	10d common nails	1 1/2	15/32	3	2	525	725	765	1,010
				4	2	605	815	875	1,105
				4	3	765	1,085	1,130	1,195
			19/32	3	2	650	860	935	1,225
				4	2	755	965	1,080	1,370
				4	3	935	1,290	1,365	1,485
			23/32	3	2	710	935	1,020	1,335
				4	2	825	1,050	1,175	1,445
				4	3	1,020	1,400	1,480	1,565

For SI: 1 inch = 25.4 mm, 1 pound per foot = 14.5939 N/m.

a. For framing of other species: (1) Find specific gravity for species of lumber in AF&PA NDS. (2) For nails find shear value from table above for nail size for actual grade and multiply value by the following adjustment factor: Specific Gravity Adjustment Factor = [1-(0.5-SG)], where SG = Specific Gravity of the framing lumber. This adjustment factor shall not be greater than 1.

b. Fastening along intermediate framing members: Space fasteners a maximum of 12 inches on center, except 6 inches on center for spans greater than 32 inches.

c. Panels conforming to PS1 or PS 2.

d. This table gives shear values for Cases 1 and 2 as shown in Table 2306.2.1(3). The values shown are applicable to Cases 3, 4, 5 and 6 as shown in Table 2306.2.1(3), providing fasteners at all continuous panels edges are spaced in accordance with the boundary fastener spacing.

e. The minimum nominal depth of framing members shall be 3 inches nominal. The minimum nominal width of framing members not located at boundaries or adjoining panel edges shall be 2 inches.

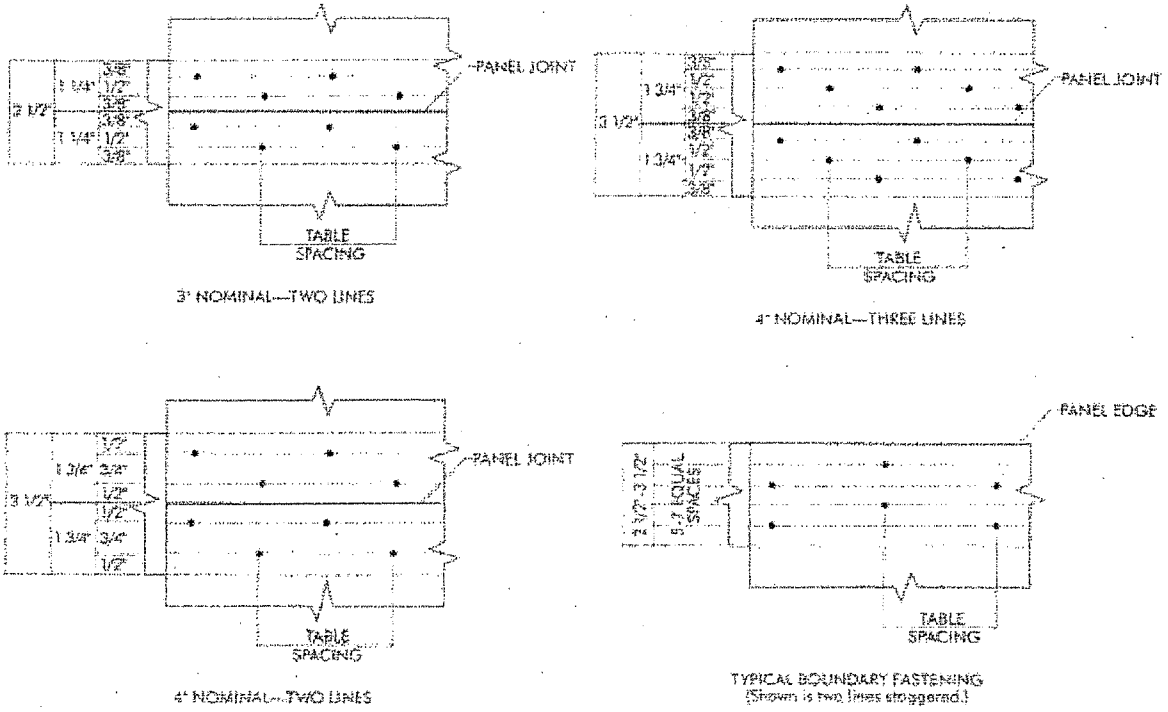
f. High load diaphragms shall be subject to special inspection in accordance with Section 1704.6.1.

g. For shear loads of normal or permanent load duration as defined by the AF&PA NDS, the values in the table above shall be multiplied by 0.63 or 0.56, respectively.

TABLE 2306.2.1(4)–continued

ALLOWABLE SHEAR (POUNDS PER FOOT) FOR WOOD STRUCTURAL PANEL BLOCKED DIAPHRAGMS UTILIZING MULTIPLE ROWS OF FASTENERS (HIGH LOAD DIAPHRAGMS) WITH FRAMING OF DOUGLAS FIR-LARCH OR SOUTHERN PINE[a] FOR SEISMIC LOADING[b,f,g]

FOR STRUCTURES ASSIGNED TO SEISMIC DESIGN CATERGORY D, E OR F



(i) **Wood shear walls.** Add Table 2306.3(2) to Chapter 23 of the 2010 California Building Code and amend Section 2306.3 and Table 2306.3 of the 2010 California Building Code to read as follows:

2306.3 Wood structural panel shear walls. Wood structural panel shear walls shall be designed and constructed in accordance with AF&PA SDPWS. Wood structural panel shear walls are permitted to resist horizontal forces using the allowable shear capacities set forth in Table 2306.3(1). For structures assigned to Seismic Design Category D, E or F, the allowable shear capacities shall be set forth in Table 2306.3(2). The allowable shear capacities in Table 2306.3(1) are permitted to be increased 40 percent for wind design.

Wood structural panel shear walls used to resist seismic forces in structures assigned to Seismic Design Category D, E or F shall not be less than 4 feet by 8 feet (1219 mm by 2438 mm), except at boundaries and at changes in framing. Wood structural panel thickness for shear walls shall not be less than 3/8 inch thick and studs shall not be spaced at more than 16 inches on center.

The maximum allowable shear value for three-ply plywood resisting seismic forces in structures assigned to Seismic Design Category D, E or F is 200 pounds per foot (2.92 kn/m). Nails shall be placed not less than 1/2 inch (12.7 mm) in from the panel edges and not less than 3/8 inch (9.5mm) from the edge of the connecting members for shear greater than 350 pounds per foot (5.11kN/m). Nails shall be placed not less than 3/8 inch (9.5 mm) from panel edges and not less than 1/4 inch (6.4 mm) from the edge of the connecting members for shears of 350 pounds per foot (5.11kN/m) or less.

Wood structural panel shear walls used to resist seismic forces in structures assigned to Seismic Design Category D, E or F shall be applied directly to the framing members.

TABLE 2306.3(1)

ALLOWABLE SHEAR (POUNDS PER FOOT) FOR WOOD STRUCTURAL PANEL SHEAR WALLS WITH FRAMING OF DOUGLAS FIR-LARCH OR SOUTHERN PINE[a] FOR WIND OR SEISMIC LOADING[b, h, i, j, l, m, n]

TABLE 2306.3(2)

ALLOWABLE SHEAR (POUNDS PER FOOT) FOR WOOD STRUCTURAL PANEL SHEAR WALLS WITH FRAMING OF DOUGLAS FIR-LARCH OR SOUTHERN PINE[a] FOR SEISMIC LOADING[b, h, j, k, l] FOR STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY D, E OR F

PANEL GRADE	MINIMUM NOMINAL PANEL THICKNESS (inch)	MINIMUM FASTENER PENETRATION IN FRAMING (inches)	ALLOWABLE SHEAR VALUE FOR SEISMIC FORCES PANELS APPLIED DIRECTLY TO FRAMING				
			COMMON NAIL SIZE	Fastener spacing at panel edges (inches)			
				6	4	3	2[e]
Structural I sheathing	3/8	1 3/8	8d (2½"x0.131" common)	200	200	200	200
	7/16	1 3/8	8d (2½"x0.131" common)	255	395	505	670
	15/32	1 3/8	8d (2½"x0.131" common)	280	430	550	730
		1 1/2	10d (3"x0.148" common)	340	510	665[f]	870
Sheathing, plywood siding[g] except Group 5 Species	3/8[c]	1 3/8	8d (2½"x0.113")	160	200	200	200

For SI: 1 inch = 25.4 mm, 1 foot = 25.4 mm, 1 pound per foot = 14.5939 N/m.

a. For framing of other species: (1) Find specific gravity for species of lumber in AF&PA NDS. (2) For nails find shear value from table above for nail size for actual grade and multiply value by the following adjustment factor: Specific Gravity Adjustment Factor = [1-(0.5-SG)], where SG = Specific Gravity of the framing lumber. This adjustment factor shall not be greater than 1.

b. Panel edges backed with 2-inch nominal or thicker framing. Install panels either horizontally or vertically. Space fasteners maximum 6 inches on center along intermediate framing members for 3/8-inch and 7/16-inch panels installed on studs spaced 24 inches on center. For other conditions and panel thickness, space fasteners maximum 12 inches on center on intermediate supports.

c. 3/8-inch panel thickness or siding with a span rating of 16 inches on center is the minimum recommended where applied direct to framing as exterior siding. For grooved panel siding, the nominal panel thickness is the thickness of the panel measured at the point of nailing.

d. Allowable shear values are permitted to be increased to values shown for 15/32-inch sheathing with same nailing provided (a) studs are spaced a maximum of 16 inches on center, or (b) panels are applied with long dimension across studs.

e. Framing at adjoining panel edges shall be 3 inches nominal or thicker, and nails shall be staggered where nails are spaced 2 inches on center or less.

f. Framing at adjoining panel edges shall be 3 inches nominal or thicker, and nails shall be staggered where both of the following conditions are met: (1) 10d (3"x0.148") nails having penetration into framing of more than 1-1/2 inches and (2) nails are spaced 3 inches on center or less.

g. Values apply to all-veneer plywood. Thickness at point of fastening on panel edges governs shear values.

h. Where panels applied on both faces of a wall and nail spacing is less than 6 inches o.c. on either side, panel joints shall be offset to fall on different framing members. Or framing shall be 3-inch nominal or thicker at adjoining panel edges and nails at all panel edges shall be staggered.

i. Where shear design values exceed 350 pounds per linear foot, all framing members receiving edge nailing from abutting panels shall not be less than a single 3-inch nominal member, or two 2-inch nominal members fastened together in accordance with Section 2306.1 to transfer the design shear value between framing members. Wood structural panel joint and sill plate nailing shall be staggered at all panel edges. See Section 4.3.6.1 and 4.3.6.4.3 of AF&PA SDPWS for sill plate size and anchorage requirements.

j. Galvanized nails shall be hot dipped or tumbled.

k. For shear loads of normal or permanent load duration as defined by the AF&PA NDS, the values in the table above shall be multiplied by 0.63 or 0.56, respectively.

l. The maximum allowable shear value for three-ply plywood resisting seismic forces is 200 pounds per foot (2.92 kn/m).

(j) Other shear walls. Amend Section 2306.7 of the 2010 California Building Code to read as follows:

2306.7 Shear walls sheathed with other materials. Shear walls sheathed with portland cement plaster, gypsum lath, gypsum sheathing or gypsum board shall be designed and constructed in accordance with AF&PA SDPWS. Shear walls sheathed

with these materials are permitted to resist horizontal forces using the allowable shear capacities set forth in Table 2306.7. Shear walls sheathed with portland cement plaster, gypsum lath, gypsum sheathing or gypsum board shall not be used to resist seismic forces in structures assigned to Seismic Design Category E or F.

Shear walls sheathed with lath, plaster or gypsum board shall not be used below the top level in a multi-level building for structures assigned to Seismic Design Category D.

(k) Brace wall line support. Amend Section 2308.3.4 of Chapter 23 of the 2010 California Building Code to read as follows:

2308.3.4 Braced wall line support. Braced wall lines shall be supported by continuous foundations.

Exception: For structures with a maximum plan dimension not over 50 feet (15240 mm), continuous foundations are required at exterior walls only for structures not assigned to Seismic Design Category D, E or F.

(l) Concrete or masonry. Amend Section 2308.12.2 of Chapter 23 of the 2010 California Building Code to read as follows:

2308.12.2 Concrete or masonry. Concrete or masonry walls and stone or masonry veneer shall not extend above the basement.

Exception: Stone and masonry veneer is permitted to be used in the first story above grade plane in Seismic Design Category D, provided the following criteria are met:

1. Type of brace in accordance with Section 2308.9.3 shall be Method 3 and the allowable shear capacity in accordance with Table 2306.4.1 shall be a minimum of 350 plf (5108 N/m).

2. The bracing of the first story shall be located at each end and at least every 25 feet (7620 mm) o.c. but not less than 45 percent of the braced wall line.

3. Hold-down connectors shall be provided at the ends of braced walls for the first floor to foundation with an allowable design of 2,100 pounds (9341 N).

4. Cripple walls shall not be permitted.

5. Anchored masonry and stone wall veneer shall not exceed 5 inches (127 mm) in thickness, shall conform to the requirements of Chapter 14 and shall not extend more than 5 feet (1524 mm) above the first story finished floor. The height extending above the first story finished floor may be greater than 5 feet (1524mm) provided it is designed by a registered design professional and approved by the Building Officer.

(m) Braced wall sheathing. Amend Section 2308.12.4 and Table 2308.12.4 of the 2010 California Building Code to read as follows:

2308.12.4 Braced wall line sheathing. Braced wall lines shall be braced by one of the types of sheathing prescribed by Table 2308.12.4 as shown in Figure 2308.9.3. The sum of lengths of braced wall panels at each braced wall line shall conform to Table 2308.12.4. Braced wall panels shall be distributed along the length of the braced wall line and start at not more than 8 feet (2438 mm) from each end of the braced wall line. Panel sheathing joints shall occur over studs or blocking. Sheathing shall be

fastened to studs, top and bottom plates and at panel edges occurring over blocking. Wall framing to which sheathing used for bracing is applied shall be nominal 2 inch wide [actual $1^1/_2$ inch (38 mm)] or larger members and spaced a maximum of 16 inches on center.

Exception: Braced wall panels required by Section 2308.12.4 may be eliminated when all of the following requirements are met:

1. One story detached Group U occupancies not more than 25 feet in depth or length.

2. The roof and three enclosing walls are solid sheathed with 15/32 inch nominal thickness wood structural panels with 8d common nails placed 3/8 inches from panel edges and spaced not more than 6 inches on center along all panel edges and 12 inches on center along intermediate framing members. Wall openings for doors or windows are permitted provided a minimum 4 foot wide wood structural braced panel with minimum height to length ratio of 2 to 1 is provided at each end of the wall line and that the wall line be sheathed for 50% of its length.

Wood structural panel sheathing shall be a minimum of 15/32 inch thick nailed with 8d common placed 3/8 inches from panel edges and spaced not more than 6 inches on center and 12 inches on center along intermediate framing members.

Braced wall panel construction types shall not be mixed within a braced wall line.

TABLE 2308.12.4

WALL BRACING IN SEISMIC DESIGN CATEGORIES D AND E

(Minimum Length of Wall Bracing per each 25 Linear Feet of Braced Wall Line [a])

CONDITION	SHEATHING TYPE[b]	$S_{DS} < 0.50$	$0.50 \leq S_{DS} < 0.75$	$0.75 \leq S_{DS} \leq 1.00$	$S_{DS} > 1.00$
One Story	G-P[c]	10 feet 8 inches	14 feet 8 inches	18 feet 8 inches	25 feet 0 inches
	S-W[d]	5 feet 4 inches	8 feet 0 inches	9 feet 4 inches	12 feet 0 inches

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

a. Minimum length of panel bracing of one face of the wall for S-W sheathing shall be at least 4'-0" long or both faces of the wall for G-P sheathing shall be at least 8'-0" long; h/w ratio shall not exceed 2:1. For S-W panel bracing of the same material on two faces of the wall, the minimum length is permitted to be one-half the tabulated value but the h/w ratio shall not exceed 2:1 and design for uplift is required.

b. G-P = gypsum board, portland cement plaster or gypsum sheathing boards; S-W = wood structural panels.

c. Nailing as specified below shall occur at all panel edges at studs, at top and bottom plates and, where occurring, at blocking:

For 1/2-inch gypsum board, 5d (0.113 inch diameter) cooler nails at 7 inches on center;

For 5/8-inch gypsum board, No 11 gage (0.120 inch diameter) cooler nails at 7 inches on center;

For gypsum sheathing board, 1-3/4 inches long by 7/16-inch head, diamond point galvanized nails at 4 inches on center;

For gypsum lath, No. 13 gage (0.092 inch) by 1-1/8 inches long, 19/64-inch head, plasterboard at 5 inches on center;

For Portland cement plaster, No. 11 gage (0.120 inch) by $1^1/_2$ inches long, $^7/_{16}$- inch head at 6 inches on center;

d. S-W sheathing shall be a minimum of 15/32" thick nailed with 8d common placed 3/8 inches from panel edges and spaced not more than 6 inches on center and 12 inches on center along intermediate framing members.

(n) Attachment of sheathing. Amend Section 2308.12.5 of the 2010 California Building Code to read as follows:

2308.12.5 Attachment of sheathing. Fastening of braced wall panel sheathing shall not be less than that prescribed in Table 2308.12.4 or 2304.9.1. Wall sheathing shall not be attached to framing members by adhesives. Staple fasteners in Table 2304.9.1 shall not be used to resist or transfer seismic forces in structures assigned to Seismic Design Category D, E or F.

All braced wall panels shall extend to the roof sheathing and shall be attached to parallel roof rafters or blocking above with framing clips (18 gauge minimum) spaced at maximum 24 inches (6096 mm) on center with four 8d nails per leg (total eight 8d nails per clip). Braced wall panels shall be laterally braced at each top corner and at maximum 24 inch (6096 mm) intervals along the top plate of discontinuous vertical

framing.

SECTION 13. Chapter 8.22 is hereby added to the Santa Monica Municipal Code to read as follows:

Chapter 8.22 Residential Code.

8.22.010 Adoption.

That certain document entitled "California Residential Code 2010 Edition, which adopts by reference the International Residential Code, 2009 Edition, as published by the California Building Standards Commission and the International Code Council (excluding Sections R102 through R114, R313), including Chapter 1, Division I, Section R101, are hereby adopted with local amendments and provisions of this Chapter of the Santa Monica Municipal Code, as the Residential Code of the City of Santa Monica.

8.22.020 Local amendments to the California Residential Code.

Notwithstanding any provisions of the California Residential Code, California Building Standards Code, State Housing Law or other codes adopted by any Chapter in Article VIII of the Municipal Code to the contrary, the following local amendments shall apply.

8.22.030 General residential structural provisions.

(a) Woodframe structures. Amend Section R301.1.3.2 of the 2010 California Residential Code to read as follows:

R301.1.3.2 Woodframe structures. The building official shall require construction documents to be approved and stamped by a California licensed architect or engineer for all dwellings of woodframe construction more than two stories and basement in height located in Seismic Design Category A, B or C. Notwithstanding other sections the law, the law establishing these provisions is found in Business and Professions Code Section 5537 and 6737.1.

The building official shall require construction documents to be approved and stamped by a California licensed architect or engineer for all dwellings of woodframe construction more than one story in height located in Seismic Design Category D_0, D_1, D_2 or E.

(b) Slopes steeper than 33-1/3 percent. Add Section R301.1.4 to the 2010 California Residential Code to read as follows:

R301.1.4 Seismic Design Provisions for Buildings Constructed On Or Into Slopes Steeper Than One Unit Vertical In Three Units Horizontal (33.3 Percent Slope).

The design and construction of new buildings and additions to existing buildings when constructed on or into slopes steeper than one unit vertical in three units horizontal (33.3 percent slope) shall comply with Section 1613 of the 2010 California

Building Code.

(c) Irregular buildings. Amend Section R301.2.2.2.5 to the 2010 California Residential Code to read as follows:

R301.2.2.2.5 1. When exterior shear wall lines or braced wall panels are not in one plane vertically from the foundation to the uppermost story in which they are required.

2. When a section of floor or roof is not laterally supported by shear walls or braced wall lines on all edges.

3. When the end of a braced wall panel occurs over an opening in the wall below.

4. When an opening in a floor or roof exceeds the lesser of 12 feet (3658 mm) or 50 percent of the least floor or roof dimension.

5. When portions of a floor level are vertically offset.

6. When shear walls and braced wall lines do not occur in two perpendicular directions.

7. When stories above-grade partially or completely braced by wood wall framing in accordance with Section R602 or steel wall framing in accordance with Section R603 include masonry or concrete construction.

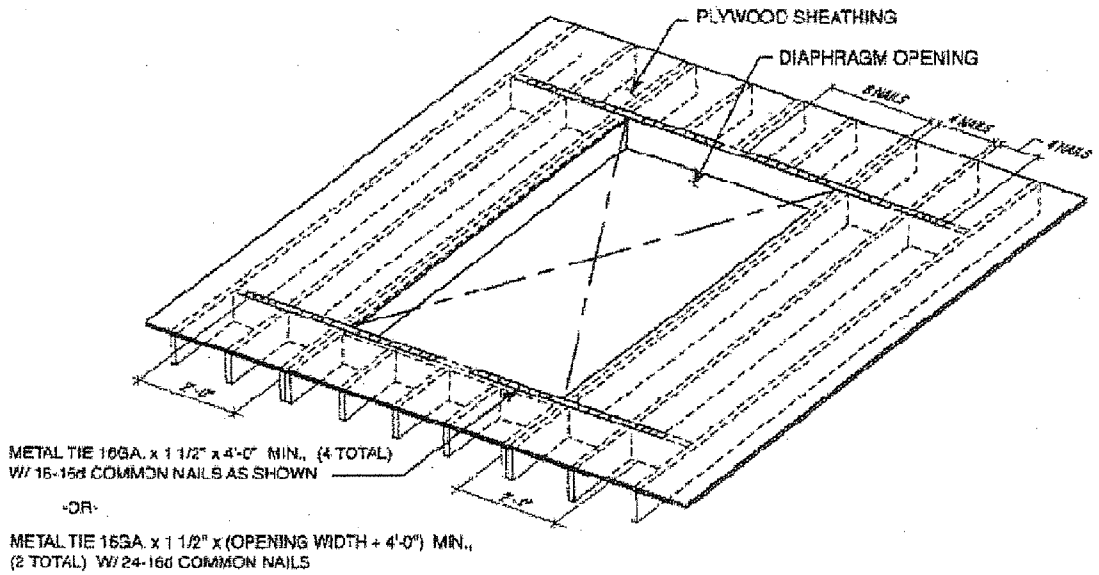
(d) Application. Amend Section R501.1 of the 2010 California Residential Code to read as follows:

R501.1 Application. The provision of this chapter shall control the design and

construction of the floors for all buildings including the floors of attic spaces used to house mechanical or plumbing fixtures and equipment weighing less than 400 lbs and maximum height of 4 feet above the floor or attic level.

(e) Openings in horizontal diaphragms. Add Section R503.2.4 to Chapter 5 of the 2010 California Residential Code to read as follows:

R503.2.4 Openings in horizontal diaphragms. Openings in horizontal diaphragms with a dimension perpendicular to the joist that is greater than 4 feet (1.2 m) shall be constructed in accordance with Figure R503.2.4.



For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

a. Blockings shall be provided beyond headers.

b. Metal ties not less than 0.058 inch [1.47 mm (16 galvanized gage)] by 1.5 inches (38 mm) wide with eight 16d common nails on each side of the header-joist intersection. The metal ties shall have a minimum yield of 33,000 psi (227 MPa).

c. Openings in diaphragms shall be further limited in accordance with Section R301.2.2.2.5.

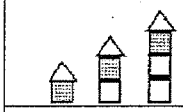
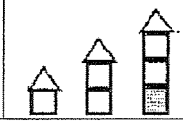
Figure R503.2.4

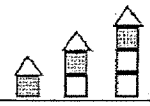
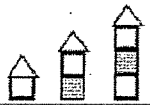
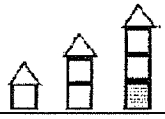
(f) Bracing requirement. Amend Table R602.10.1.2(2) of the 2010 California Residential Code to read as follows:

TABLE R602.10.1.2(2)[a,b,c]

BRACING REQUIREMENTS BASED ON SEISMIC DESIGN CATEGORY

(AS A FUNCTION OF BRACED WALL LINE LENGTH)

SOIL CLASS D[a] WALL HEIGHT = 10 FT 10 PSF FLOOR DEAD LOAD 15 PSF ROOF/CEILING DEAD LOAD BRACED WALL LINE SPACING ≤ 25FT			MINIMUM TOTAL LENGTH (feet) OF BRACED WALL PANELS REQUIRED ALONG EACH BRACED WALL LINE			
Seismic Design Category (SDC)	Story Location	Braced Wall Line Length	Method LIB	METHODS DWB, SFB,GB, PBS, PCP, HPS	Method WSP	Continuous Sheathing
SDC Do or D_1		10	NP	6.0	2.0	1.7
		20	NP	12.0	4.0	3.4
		30	NP	18.0	6.0	5.1
		40	NP	24.0	8.0	6.8
		50	NP	30.0	10.0	8.5
		10	NP	NP	4.5	3.8
		20	NP	NP	9.0	7.7
		30	NP	NP	13.5	11.5
		40	NP	NP	18.0	15.3
		50	NP	NP	22.5	19.1
		10	NP	NP	6.0	5.1
		20	NP	NP	12.0	10.2
		30	NP	NP	18.0	15.3
		40	NP	NP	24.0	20.4
		50	NP	NP	30.0	25.5

SOIL CLASS D[a] WALL HEIGHT = 10 FT 10 PSF FLOOR DEAD LOAD 15 PSF ROOF/CEILING DEAD LOAD BRACED WALL LINE SPACING ≤ 25FT			MINIMUM TOTAL LENGTH (feet) OF BRACED WALL PANELS REQUIRED ALONG EACH BRACED WALL LINE			
Seismic Design Category (SDC)	Story Location	Braced Wall Line Length	Method LIB	METHODS DWB, SFB,GB, PBS, PCP, HPS	Method WSP	Continuous Sheathing
SDC D_2		10	NP	8.0	2.5	2.1
		20	NP	16.0	5.0	4.3
		30	NP	24.0	7.5	6.4
		40	NP	32.0	10.0	8.5
		50	NP	40.0	12.5	10.6
		10	NP	NP	5.5	4.7
		20	NP	NP	11.0	9.4
		30	NP	NP	16.5	14.0
		40	NP	NP	22.0	18.7
		50	NP	NP	27.5	23.1
		10	NP	NP	NP	NP
		20	NP	NP	NP	NP
		30	NP	NP	NP	NP
		40	NP	NP	NP	NP
		50	NP	NP	NP	NP

For SI: 1 foot = 304.8 mm, 1 pound per square foot = 47.89 Pa.

a) Wall bracing lengths are based on a soil site class "D." Interpolation of bracing length between the S_{ds} values associated with the seismic design categories shall be permitted when a site-specific S_{ds} value is determined in accordance with Section 1613.5 of the California Building Code.

b) Foundation cripple wall panels shall be braced in accordance with Section R602.10.9.

c) Methods of bracing shall be as described in Sections R602.10.2, R602.10.4 and R602.10.5.

d) Methods GB and PCP braced wall panel h/w ratio shall not exceed 1:1 in SDC D_0, D_1, and D_2. Methods DWB, SFB, PBS, and HPS are not permitted in SDC D_0, D_1, and D_2.

(g) Intermittent Bracing Methods. Amend Table R602.10.2 of the 2010 California Residential Code to read as follows:

TABLE R602.10.2

INTERMITTENT BRACING METHODS[a]

8d common (2 ½" x 0.131) nails at 6" spacing (panel edge) at 12" spacing (intermediate supports), 3/8" edge distance to panel edge

WSP	Wood structural panel (see Section R604)	15/32"		8d common (2 ½" x 0.131) nails at 6" spacing (panel edge) at 12" spacing (intermediate supports), 3/8" edge distance to panel edge
SFB	Structural fiberboard sheathing	½" or 25/32" for maximum 16" stud spacing		1½" galvanized roofing nails or 8d common (2½" x 0.131) nails at 3" spacing (panel edges) at 6" spacing (intermediate supports)
GB	Gypsum board	½"		Nails or screws at 7" spacing at panel edges including top and bottom plates; for all braced wall panel locations for exterior sheathing nail or screw size, see Table R602.3(3); for interior gypsum board nail or screw size, see Table R702.3.5
PBS	Particleboard sheathing (see Section R605)	3/8" or ½" for maximum 16" stud spacing		1½" galvanized roofing nails or 8d common (2½" x 0.131) nails at 3" spacing (panel edges) at 6" spacing (intermediate supports)
PCP	Portland cement plaster	See Section R703.6 For maximum 16" stud spacing		1½", 11 gage, 7/16" head nails at 6" spacing

a. Methods GB and PCP braced wall panel h/w ratio shall not exceed 1:1 in SDC D_0, D_1, and D_2. Methods LIB, DWB, SFB, PBS, HPS, and PFG are not permitted in SDC D_0, D_1, and D_2.

(h) Alternate braced wall panel. Amend Figure R602.10.3.2 of the 2010 California Residential Code to read as follows:

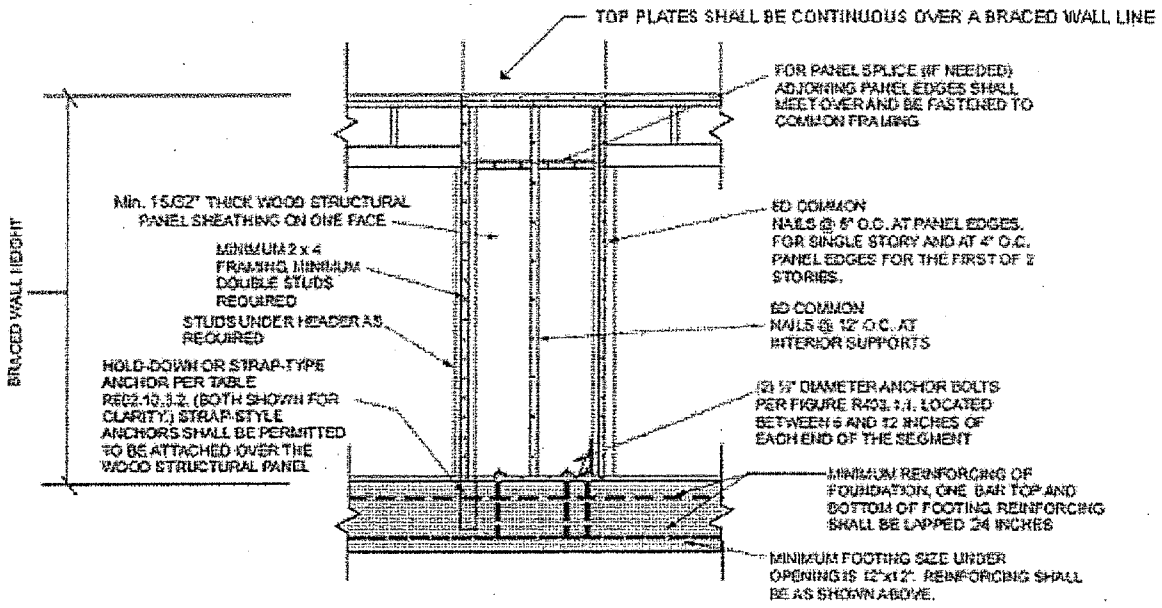


FIGURE R602.10.3.2
ALTERNATE BRACED WALL PANEL

(i) **Portal frame.** Amend Figure R602.10.3.3 of the 2010 California Residential Code to read as follows:

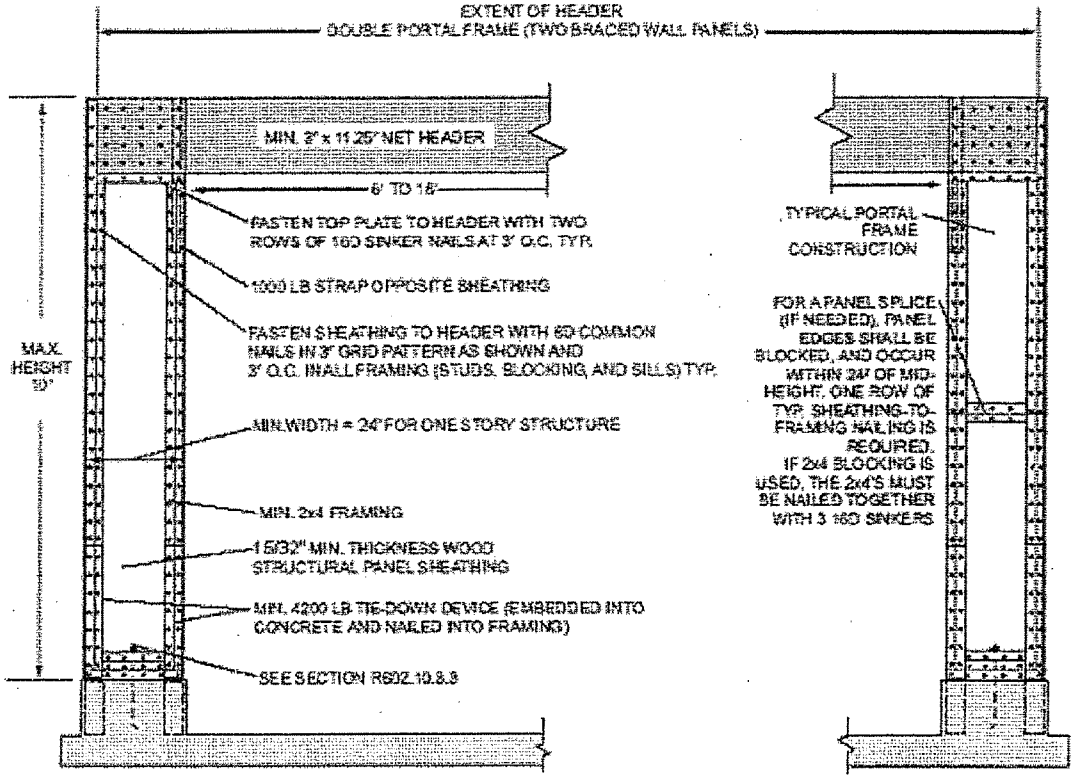


FIGURE R602.10.3.3

METHOD PFH: PORTAL FRAME WITH HOLD-DOWNS AT DETACHED GARAGE DOOR OPENINGS

(j) Method PFH. Amend Section R602.10.3.3 Item 1 of the 2010 California Residential Code to read as follows:

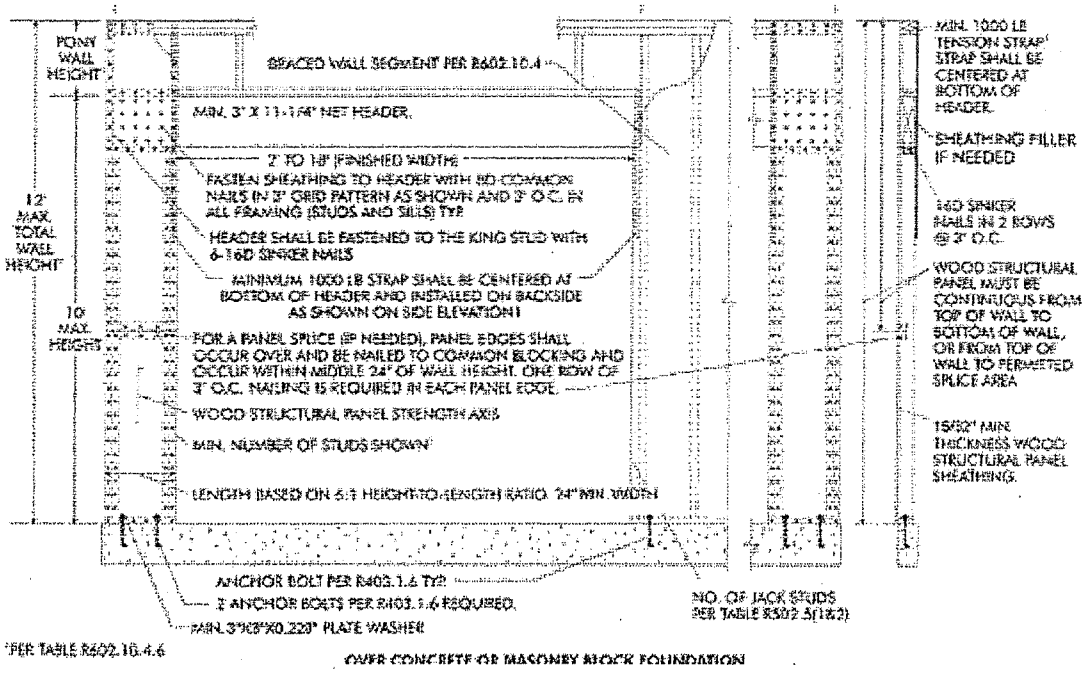
1. Each panel shall be fabricated in accordance with Figure R602.10.3.3. The wood structural panel sheathing shall extend up over the solid sawn or glued-laminated header and shall be nailed in accordance with Figure R602.10.3.3. A spacer, if used with a built-up header, shall be placed on the side of the built-up beam opposite the wood structural panel sheathing. The header shall extend between the inside faces of the first full-length outer studs of each panel. One anchor bolt not less than 5/8-inch-diameter (16 mm) and installed in accordance with Section R403.1.6 shall be provided in the center of each sill plate. The hold-down devices shall be an embedded-strap type, installed in accordance with the manufacturer's recommendations. The panels shall be supported directly on a foundation that is continuous across the entire length of the braced wall line. The foundation shall be reinforced as shown on Figure R602.10.3.2. This reinforcement shall be lapped not less than 24 inches (610 mm) with the reinforcement required in the continuous foundation located directly under the braced wall line.

(k) Continuous sheathing. Amend Table R602.10.4.1 of the 2010 California Residential Code to read as follows:

TABLE R602.10.4.1
CONTINUOUS SHEATHING METHODS

METHOD	MATERIAL	MINIMUM THICKNESS	FIGURE	CONNECTION CRITERIA
CS-WSP	Wood structural panel	15/32"		8d common (2" × 0.113") nails at 6" spacing (panel edges) and at 12" spacing (intermediate supports)
CS-G	Wood structural panel adjacent to garage openings and supporting roof load only[a,b]	15/32"		See Method CS-WSP
CS-PF	Continuous portal frame	See Section R602.10.4.1.1		See Section R602.10.4.1.1

(l) Method CS-PF. Amend Figure R602.10.4.1.1 of the 2010 California Residential Code to read as follows:



(m) Braced wall panel. Delete Section R602.10.7.1 of the 2010 California Residential Code

(n) Lateral support. Amend Section R802.8 of the 2010 California Residential Code to read as follows:

R802.8 Lateral support. Roof framing members and ceiling joists having a depth-to-thickness ratio exceeding 2 to 1 based on nominal dimensions shall be provided with lateral support at points of bearing to prevent rotation. For roof rafters with ceiling joists attached per Table R602.3(1), the depth-thickness ratio for the total assembly shall be determined using the combined thickness of the rafter plus the

attached ceiling joist.

(o) Additional requirements. Add Section R803.2.4 to Chapter 8 of the 2010 California Residential Code to read as follows:

R803.2.4 Openings in horizontal diaphragms. Openings in horizontal diaphragms shall conform with Section R503.2.4.

8.22.050 Residential foundations.

(a) Foundation application. Amend Section R401.1 of the 2010 California Residential Code to read as follows:

R401.1 Application The provisions of this chapter shall control the design and construction of the foundation and foundation spaces for all buildings. In addition to the provisions of this chapter, the design and construction of foundations in areas prone to flooding as established by Table R301.2(1) shall meet the provisions of Section R322. Wood foundations shall be designed and installed in accordance with AF&PA PWF.

Exception: The provisions of this chapter shall be permitted to be used for wood foundations only in the following situations:

1. In buildings that have no more than two floors and a roof.
2. When interior basement and foundation walls are constructed at intervals not exceeding 50 feet (15 240 mm).

Wood foundations in Seismic Design Category D_0, D_1 or D_2 shall not be permitted.

Exception: In non-occupied, single-story, detached storage sheds and similar uses other than carport or garage, provided the gross floor area does not exceed 200 square feet, the plate height does not exceed 12 feet in height above the grade plane at any point, and the maximum roof projection does not exceed 24 inches.

(b) Wood foundation walls. Amend Section R404.2 of the 2010 California Residential Code to read as follows:

R404.2 Wood foundation walls. Wood foundation walls shall be constructed in accordance with the provisions of Sections R404.2.1 through R404.2.6 and with the details shown in Figures R403.1(2) and R403.2(3). Wood foundation walls shall not be used for structures located in Seismic Design Category D_0, D_1, or D_2.

8.22.060 Residential concrete and masonry chimneys.

(a) Vertical reinforcing. Amend Section R1001.3.1 of the 2010 California Residential Code to read as follows:

R1001.3.1 Vertical reinforcing. For chimneys up to 40 inches (1016 mm) wide, four No. 4 continuous vertical bars adequately anchored into the concrete foundation shall be placed between wythes of solid masonry or within the cells of hollow unit masonry and grouted in accordance with Section R609. Grout shall be prevented from bonding with the flue liner so that the flue liner is free to move with thermal expansion. For chimneys more than 40 inches (1016 mm) wide, two additional No. 4 vertical bars adequately anchored into the concrete foundation shall be provided for each additional

flue incorporated into the chimney or for each additional 40 inches (1016 mm) in width or fraction thereof.

8.22.070 Residential steel construction.

(a) Cold formed steel framing. Add Section R301.2.2.3.5.1 to Section 301.2.2.3.5 of the 2010 California Residential Code to read as follows:

R301.1.2.2.3.5.1 AISI S230, Section B1. Modify AISI S230, Section B1 to read as follows:

Where No. 8 screws are specified, the required number of screws in a steel-to-steel connection shall be permitted to be reduced in accordance with the reduction factors in Table B1-1 when larger screws are used or when the sheets of steel being connected is thicker than 33 mils (0.84mm). When applying the reduction factor, the resulting number of screws shall be rounded up.

8.22.080 Residential wood construction.

(a) Fastener schedule. Amend Lines 34 thru 37 of Table R602.3(1) of the 2010 California Residential Code to read as follows:

Other wall sheathing[h]				
34	1/2" structural cellulosic fiberboard sheathing	1/2" galvanized roofing nail	3	6
35	25/32" structural cellulosic fiberboard sheathing	1 3/4" galvanized roofing nail	3	6
36	1/2" gypsum sheathing[g]	1 1/2" galvanized roofing nail, 1 1/4" screws, Type W or S	7	7
37	5/8" gypsum sheathing[g]	1 3/4" galvanized roofing nail, 1 5/8" screws, Type W or S	7	7

(b) Alternate attachment. Amend Table R602.3(2) of the 2010 California Residential Code to read as follows:

Wood structural panels subfloor, roof and wall sheathing to framing and particleboard wall sheathing to framing[f]			
up to 1/2	0.097 - 0.099 Nail 2 1/4	3	6
19/32 and 5/8	0.113 Nail 2	3	6
	0.097 - 0.099 Nail 2 1/4	4	8
23/32 and 3/4	0.097 - 0.099 Nail 2 1/4	4	8
1	0.113 Nail 2 1/4	3	6

Floor underlayment: plywood-hardboard-particleboard[f]			
Plywood			
1/4 and 5/16	1 1/4 ring or screw shank nail-minimum 12 1/2 ga. (0.099") shank diameter	3	6
11/32, 3/8, 15/32, and 1/2	1 1/4 ring or screw shank nail-minimum 12 1/2 ga. (0.099") shank diameter	5	8[g]
19/32, 5/8, 23/32, and 3/4	1 1/2 ring or screw shank nail-minimum 12 1/2 ga. (0.099") shank diameter	6	8

(c) Joist heel joint connection. Add Footnote "i" to Table R802.5.1(9) of the 2010 California Residential Code to read as follows:

i. Edge distances, end distances and spacings for nails shall be sufficient to prevent splitting of the wood.

(d) Design of wood trusses. Amend Section R802.10.2 of the 2010 California Residential Code to read as follows:

R802.10.2 Design. Wood trusses shall be designed in accordance with accepted engineering practice. The design and manufacture of metal-plate-connected wood trusses shall comply with ANSI/TPI 1. The truss design drawings shall be prepared by a registered professional.

SECTION 14. Chapter 8.24 of the Santa Monica Municipal Code is hereby amended to read as follows:

Chapter 8.24 Electrical Code.

8.24.010 Adoption

That certain document entitled "California Electrical Code, 2010 Edition," which adopts by reference the National Electrical Code, 2008 Edition, as published by the California Building Standards Commission and the National Fire Protection Association including Article 89, Annex C, are hereby adopted with the local amendments and provisions of this Chapter, as the Electrical Code of the City of Santa Monica.

8.24.020 Local amendments to the California Electrical Code.

Notwithstanding any provisions of the California Electrical Code, California Building Standards Code, or other codes adopted by any Chapter in Article VIII of the Municipal Code to the contrary, the following local amendments shall apply.

8.24.040 Electrical appliances, devices, materials and equipment regulations.

(a) **Use of Approved Materials.** No person, firm or corporation shall use any electrical material, device, appliance or equipment, designed or intended for attachment, directly or indirectly, to any electrical system, circuit or electrical service for light, heat or power in the City unless such electrical material, device, appliance or equipment complies with the provisions of this Chapter. The Building Officer is hereby empowered to enforce the provisions of this Chapter.

(b) **Rating.** All electrical materials, devices, appliances, or equipment

designed or intended for attachment, directly or indirectly, to any electrical system, circuit or electrical service for light, heat or power, shall be only those that conform with the requirements of this Chapter. Each such article shall bear or contain the makers name, trademark or identification symbol, together with such rating by the manufacturer as may be necessary to determine the intended use. The correct operating voltage, amperage and total watts shall be stated and no person shall remove, alter, deface or obliterate any such marking.

(c) **Approvals.** All electrical materials, devices, appliances, or equipment covered by and intended to be regulated by this Chapter shall conform to the published National Safety Standards for such materials, devices, appliances or equipment on file in the office of the United States Bureau of Standards. Copies of these standards are on file in the office of the Building Officer and shall be open to inspection by the public. Listing or labeling by the Underwriters Laboratories, Inc., or other recognized testing laboratory whose standards are on file with the United States Bureau of Standards shall be prima facie evidence of conformity with these required standards. Where no such standards exist for any material, device, appliance or equipment, the Building Officer may designate a standard for each article submitted, which shall specify the tests necessary to provide the degree of safety to life and property as is generally required by the National Standards for approved materials, devices, appliances and equipment of similar or related character or nature.

(d) **Revocation.** Any approval granted by the Building Officer may be revoked

if the electrical material, device, appliance, or equipment is found to be hazardous, unsuitable for the purpose used or intended, or does not conform with the standards under which it was approved for use.

(e) **Exceptions.** The provisions of this Chapter shall not be deemed to apply to:

(1) Safe, substantial, used or second-hand devices or appliances, provided that all parts or equipments used in rebuilding or reconstruction shall conform in all particulars with the National Standards for such article, and provided further, that such articles shall have the same degree of safety to life and property as may then be required in a new article of the same type.

(2) Electrical materials, devices, appliances and equipment which are safe and suitable for the purpose used or intended, provided such materials, devices, appliances and equipment are already fully covered and regulated by existing laws and ordinances now in effect.

(3) Vehicles or motor vehicle equipment.

(4) Industrial or commercial appliances which are to be used in a specific location, and which have been submitted to a recognized laboratory for approval as conforming to the standards required hereof but on which final approval is still pending; provided, however, that exemption from the provisions of this Code shall be granted separately for each appliance only when satisfactory written evidence has been filed that laboratory approval has been applied for, and shall continue in force only during

such time as the Building Officer has reason to believe that the testing laboratory will grant final approval certifying compliance to the prescribed standards.

8.24.050 Used materials.

Previously used materials shall not be re-used in any work without the advance approval of the Building Officer.

8.24.060 Temporary service poles and associated feeder poles.

(a) The minimum size of a wood pole used to support service equipment, distribution equipment and/or conductors shall be six inches by six inches (nominal) if square, or have a top diameter of at least five inches if round, and be of sufficient length to maintain all required overhead clearances as specified in the California Electrical Code, but in any case, shall not be less than twenty feet long. The pole shall meet structural requirements and shall be embedded a minimum of four feet in the ground. **Exception:** A four-inch by four-inch (nominal) wood pole, or equivalent, embedded a minimum of four feet in the ground, shall be permitted for distribution poles used to support temporary wiring for other than construction power in conformance with the California Electrical Code and located in areas accessible to pedestrians only.

(b) **Provisions for Temporary Services.**

Wiring Methods. Raceways on temporary service poles shall be rigid metal conduit, intermediate metal conduit, electrical metallic tubing or schedule 80 rigid nonmetallic conduit.

If a driven rod or pipe is used for grounding of a temporary service on an erected pole, it shall be driven at least eighteen inches from the pole.

8.24.070 Underground concrete vaults and handholes.

(a) **Scope.** The following requirements apply to the use of specially constructed underground concrete vaults and to handholes.

(b) **Definitions.**

(1) **Vault.** A chamber in an underground conduit distribution system containing sufficient working space and an entrance for personnel.

(2) **Handhole.** A chamber smaller than a vault in an underground conduit distribution system having a removable cover and used in lieu of a listed pull box.

(c) **Concrete Vault Provisions.**

(1) The inside dimensions of an underground concrete vault shall be not less than four feet in width and four feet in length.

(2) The inside height shall be not less than five feet between the floor and the top or ceiling.

(3) Circular access openings shall be not less than twenty-six inches in diameter and rectangular access openings shall be not less than twenty-four inches by twenty-six inches.

(4) Vaults shall be installed only in permanently accessible locations outside of buildings.

(5) Where exposed to vehicular traffic, the enclosures and their related covers shall be designed for that purpose.

(6) Where subject to inundation or exposure to the elements, covers shall be suitably sealed.

(7) Conduits shall enter the vault in a manner consistent with the type of wiring method used in accordance with the following:

(A) Conduits shall enter the enclosure through the walls and be terminated in a manner that provides suitable protection for the type of wiring method used.

(B) Conduits entering the enclosure walls shall terminate not less than two inches from the bottom or one foot from the top.

(C) Direct burial conductors shall enter the enclosure by means of conduit nipples which shall be suitably sealed.

(8) Suitable wall supports or racks shall be provided to secure open conductors in a fixed position two inches or more above the floor.

(9) Walls and floors shall be made of concrete having a minimum thickness of six inches. Ceilings shall be made of concrete having a minimum thickness of eight inches.

(10) Exposed noncurrent-carrying metal parts of equipment, conductor supports or racks, conduits and other metal appurtenances, including any metal cover and its supporting ring, shall be bonded together and connected to a common ground. The size of the grounding means shall be as prescribed in

the California Electrical Code. Where the grounding means is exposed, the grounding conductor shall be not smaller than # 8 AWG copper.

(d) **Handholes Provisions.** Except as modified by this subsection, the provisions of subsections (c)(4) through (c)(10) for vaults shall apply to handholes.

(1) The handhole shall be so designed that the conductors may be pulled, spliced or otherwise handled without requiring a person to enter the enclosure.

(2) The minimum depth of handholes shall be eighteen inches and the width shall not be less than half the depth. Handholes shall not exceed three foot in depth from finish grade to the bottom of the handhole.

(e) Prefabricated concrete boxes and their covers that are designed for the purpose of handholes, having dimensions less than set forth in subsections (c) and (d) of this Section, may be used as vaults and handholes where specifically approved by the Building Officer.

8.24.080 Solar photovoltaic systems—Disconnecting means for multiple arrays.

Where the conductors of more than one array are combined to form a single output conductor, a disconnecting means rated for the voltage and ampere rating of the output conductor shall be installed immediately adjacent to the combiner box on the output side.

Exception 1: The required disconnecting means in this Section shall not be

required if the combiner box is located adjacent to the inverter.

Exception 2: The required disconnecting means in this Section shall be not required for one-and-two family dwellings where the rating of the solar photovoltaic system is not more than 10KW.

8.24.090 Protection of metallic enclosures in a marine environment.

Where a metallic enclosure is installed outdoors within 804.7 meters (0.5 miles) from the mean shoreline, the enclosure shall have adequate protection against severe corrosive influences.

SECTION 15. Chapter 8.28 of Santa Monica Municipal Code is amended to read as follows:

Chapter 8.28 Mechanical Code.

8.28.010 Adoption.

That certain document entitled "California Mechanical Code, 2010 Edition," which adopts by reference the Uniform Mechanical Code, 2009 Edition, as published by the California Building Standards Commission and the International Association of Plumbing and Mechanical Officials, (excluding Sections 104 through 117), including Chapter 1, Division I, Sections 101, 102, 103, Appendixes B, C, D, are hereby adopted as the Mechanical Code of the City

of Santa Monica.

SECTION 16. Section 8.32.010 of the Santa Monica Municipal Code is hereby amended to read as follows:

8.32.010 Adoption.

That certain document entitled "California Plumbing Code, 2010 Edition," which adopts by reference the Uniform Plumbing Code, 2009 Edition, as published by the California Building Standards Commission and the International Association of Plumbing and Mechanical Officials (excluding Sections 102, 103, Appendix L), including Chapter 1, Division I, Appendices A, B, D, G, I, K, are hereby adopted with the local amendments and provisions of this Chapter, as the Plumbing Code of the City of Santa Monica.

SECTION 17. Section 8.32.020 of the Santa Monica Municipal Code is hereby amended to read as follows:

8.32.020 Local amendments to the California Plumbing Code.

Notwithstanding any provisions of the California Plumbing Code, California Building Standards Code, or other codes adopted by any Chapter in Article VIII of the Municipal Code to the contrary, the following local amendments shall apply.

SECTION 18. Section 8.36.010 of the Santa Monica Municipal Code is amended

to read as follows:

8.36.010 Adoption.

That certain document entitled "2010 Building Energy Efficiency Standards-Standards for Residential and Nonresidential Buildings" which adopts Part 6 of Title 24 and Article 1 of Part 1 of the California Code of Regulations, as published by the California Building Standards Commission and the California Energy Commission is hereby adopted as the Energy Code of the City of Santa Monica, subject to the provisions of Chapter 8.108 Green Building Design and Construction Standards.

SECTION 19. Section 8.40.010 of the Santa Monica Municipal Code is hereby amended to read as follows:

8.40.010 Adoption.

That certain document entitled "California Fire Code, 2010 Edition," which adopts by reference the International Fire Code, 2009 Edition, as published by the California Building Standards Commission and the International Code Council (excluding Sections 105.3.2, 108, Appendix A), including Chapter 1, Division I, Chapter 1, Division II, Appendices Chapter 4, B, BB, C, CC, H, and the most recent referenced version, adopted by the State of California, of the

National Fire Codes as published by the National Fire Protection Association, are hereby adopted with the local amendments and provisions of this Chapter, and with Chapter 8.44 of the Santa Monica Municipal Code, as the Fire Code of the City of Santa Monica.

SECTION 20. Section 8.40.020 of the Santa Monica Municipal Code is hereby amended to read as follows:

8.40.020 Local amendments to the California Fire Code.

Notwithstanding any provisions of the California Fire Code, California Building Standards Code, State Housing Law or other codes adopted by any Chapter in Article VIII of the Municipal Code to the contrary, the following local amendments shall apply.

(a) Chapter 5, Section 505.1.1 of the California Fire Code is added to read as follows:

505.1.1 Additional Requirements Numbers shall be a minimum of 6 inches high for commercial structures and 4 inches high for interior suites, offices, rooms etc. and one and two family dwellings with a minimum stroke width of 0.5 inch. All buildings shall display the assigned address number so as to be visible from the street and alley upon which the address is based. Numbers shall be in contrast to their background.

(b) Chapter 9, Section 901.10 of the California Fire Code is added to read as follows:

901.10 Problematic systems and systems out of service. In the event of a failure of a fire-protection system or an excessive number of accidental activations, the Fire Chief is authorized to require the building owner or occupant to provide fire watch personnel until the system is repaired. The chief is authorized to require the building owner or occupant to provide a fire watch.

(c) Chapter 9, Section 901.11 of the California Fire Code is added to read as follows:

901.11 Firewatch. The chief is authorized to require the building owner or occupant to provide a fire watch with personnel acceptable to the Fire Chief until documentation is provided that the system is repaired and is operational. Such individuals shall be provided with at least one approved means for notification of the fire department and their only duty shall be to perform constant patrols of the protected premises and keep watch for fires.

(d) Chapter 33, Section 3309 of the California Fire Code is added to read as follows:

3309 Seizure of Fireworks. All fireworks shall be illegal in the City of Santa Monica including California State Fire Marshal Safe and Sane. The fire code official shall have the authority to seize, take and remove fireworks and/or safe and sane fireworks stored, sold, offered for sale, used or handled in violation

of the provisions of Title 19 CCR, Chapter 6 and Health and Safety Code, Chapter 9. Exception: When permits are issued for such use.

SECTION 21. Section 8.44.010 of the Santa Monica Municipal Code is hereby amended to read as follows:

Chapter 8.44 Fire and Life Safety Prevention Requirements.

8.44.010 Application.

Notwithstanding any provisions of the California Building Code, California Residential Code, California Fire Code, California Building Standards Code, State Housing Law or other codes adopted by any Chapter in Article VIII of the Municipal Code to the contrary, the following local amendments shall apply.

SECTION 22. Section 8.44.050 of the Santa Monica Municipal Code is hereby amended to read as follows:

8.44.050 Requirements for automatic fire extinguishing and protection sprinkler systems.

(a) **When Required.** An approved automatic fire sprinkler system shall be installed as set forth in this Chapter under the following conditions:

(1) In all newly constructed buildings, without regard to floor area or area separation walls except detached one-story two-car residential garages (including minor accessory uses such as laundry areas or bathrooms under one hundred square feet) provided that the new garage is located a minimum of six feet away from any other building on the same lot.

(2) Throughout any existing building, when there is a change in occupancy classification to a more hazardous division, as shown in Table 8.44-A or as determined by the Fire Chief.

TABLE 8.44-A[1]

DEGREE OF OCCUPANCY HAZARD

Rank	OCCUPANCY CLASS
1.	Groups E and I
2.	Groups A, Divisions 1, 2, 4 and 5
3.	Group R, Division 1 and 2 and Group A, Division 3

4.	Group H, Divisions 1, 2 and 5
5.	Group H, Division 3, 4,
6.	Groups B, F, and M; Group S, Divisions 1 and 2
7.	Group R, Division 3
8.	Group U

[1]To use the table — Step 1. Find the existing occupancy classification or division in the occupancy class column. Step 2. If the new occupancy classification or division is ranked above the existing class, then the entire building requires a full automatic fire sprinkler system.

(3) Throughout any existing building greater than one thousand square feet, whenever more than fifty percent cumulative, of the existing floor area, including mezzanines, is added to within three calendar years.

(4) Throughout any existing building one thousand square feet or less, whenever more than seventy-five percent cumulative, of the existing floor area, including mezzanines, is added within three calendar years.

(5) Throughout any existing building greater than one thousand square feet, whenever more than fifty percent of the interior and exterior walls and ceilings are exposed.

(6) Throughout any existing building one thousand square feet or less, whenever more than seventy-five percent of the interior and exterior walls and

ceilings are exposed.

(7) Throughout any existing building other than a single-family dwelling, whenever an additional story is added.

(8) Throughout any single-family dwelling greater than one thousand square feet, whenever an additional story is added and the new floor area for the additional story increases the existing floor area by more than thirty-three and one-third percent.

(9) Throughout any single-family dwelling one thousand square feet or less, whenever an additional story is added and the new floor area for the additional story increases the existing floor area by more than fifty percent.

(10) Throughout any existing building or structure determined to be used primarily for public assembly more than five thousand square feet in total floor area. This subsection shall not apply to buildings or structures with an approved full automatic fire sprinkler system or to churches and theaters with fixed seating.

(11) Throughout the entire floor of any existing non-residential building equipped with a partial fire sprinkler system whenever more than fifty percent of the floor space is altered or reconfigured.

(b) Exceptions. The requirements of subsection (a) of this Section shall not apply to:

(1) Hospitals as defined in Health and Safety Code Section 1250;

(2) Buildings such as power plants, lookout towers, steeples, grain

houses, and similar structures with noncontinuous human occupancy only when so determined by the Fire Chief;

(c) When a fire sprinkler system is required in any building that does not have a designated occupant and use at the time fire sprinkler plans are submitted for approval, the system shall be designed and installed to deliver a minimum density of not less than that required for Ordinary Hazard, Group 2, with a minimum design area of not less than three thousand square feet.

When a subsequent change in occupancy classification requires the fire sprinkler system to deliver a higher minimum density, it shall be the responsibility of the building owner to upgrade the system to the required density for the new use.

SECTION 23. Sections 8.44.060 and 8.44.070. of the Santa Monica Municipal Code are hereby repealed.

SECTION 24. Section 8.44.110 of the Santa Monica Municipal Code is hereby amended to read as follows:

8.44.110 Standards for fire protection systems.

(a) **General.** Fire protection systems shall conform to the standards adopted by Chapter 8.40 of the Municipal Code and to supplemental requirements of the Fire Chief.

(b) **System Monitoring.** Alarm systems, required by Chapter 8.40 of the Municipal Code shall be monitored by an approved and listed central station. Exception: Fire sprinkler systems containing less than one hundred heads may be provided with a local alarm.

(c) **Annunciation and Control.** Extinguishing systems shall include control valves and signaling devices to control and indicate system operation by floors or other approved subdivisions. An approved annunciator panel shall be provided in an approved location near the principal entrance.

(d) **Fire Department Connections and System Zones.** Systems shall be provided with listed Fire Department connections at approved locations on public street frontages. Multiple exterior connections and system zones shall be interconnected.

(e) **Design, Approval, Acceptance, Testing and Maintenance.** Fire alarm systems shall be maintained in an operable condition at all times. When required by the Fire Chief, an approved fire watch shall be provided and maintained while a fire and life safety system is inoperative or impaired. The fire watch shall be maintained until the inoperative or impaired system is restored a fully operational condition and a test is approved by the Fire Department.

(f) **Approval, Acceptance, Testing of New Fire Alarm Systems.** New fire alarm systems shall be designed, installed, tested and maintained in accordance with the provisions of the National Fire Alarm Code published by the National Fire Protection Association.

(g) **Existing Fire Alarm Systems.** Existing fire alarm systems shall be tested and maintained in accordance with the provisions of the National Fire Alarm Code.

(h) **Notification Devices.** All one and two family dwellings having a fire sprinkler system installed in compliance with NFPA 13-D shall have an approved alarm bell installed on or near the address side of the building. NFPA 13 systems shall have a horn/strobe installed on the address side of the building.

SECTION 25. Section 8.48.100 of the Santa Monica Municipal Code is hereby amended to read as follows:

8.48.100 Windows/sliding glass doors.

The following requirements must be met for windows and sliding glass doors:

(1) Except as otherwise specified in Municipal Code Sections 8.48.120 (Special residential building provisions) and 8.48.130 (Special commercial building provisions), all openable exterior windows and sliding glass doors shall comply with the tests as set forth in Section 8.48.140 (Tests).

(2) Window assemblies which are designed to be openable and which are regulated by this Chapter shall comply with California Building Code, unless such windows are protected by approved metal bars, screens or grilles.

(3) Sliding door assemblies regulated by this Chapter shall comply with California Building Code.

(4) Louvered windows shall not be used when any portion of the window is less than twelve feet vertically or six feet horizontally from an accessible surface or any adjoining roof, balcony, landing, stair tread, platform, or similar structure.

SECTION 26. Section 8.48.120 of the Santa Monica Municipal Code is hereby amended to read as follows:

8.48.120 Special residential building provisions.

(a) Except for vehicular access doors, all exterior swinging doors of any residential building and attached garages, including the door leading from the garage area into the dwelling unit shall be equipped as follows:

(1) All wood doors shall be of solid core construction with a minimum thickness of one and three-fourths inches, or with panels not less than nine-sixteenths of an inch thick. Swinging doors shall comply with California Building Code. Doors in pairs shall be tested in pairs.

(2) A single or double door shall be equipped with a single cylinder deadbolt lock. This deadbolt lock must be actuated by a key from the exterior and a knob or thumb turn from the interior and when projected becomes locked against return by end pressure. The bolt shall have a minimum projection of one inch and be constructed so as to repel cutting tool attack. The deadbolt shall have an embedment of at least three-fourths of an inch into the strike receiving the projected bolt. The cylinder shall have a

cylinder guard, a minimum of five pin tumblers, and shall be connected to the inner portion of the lock by connecting screws of at least one-fourth of an inch in diameter. All installation shall be done so that the performance of the locking device will meet the intended anti-burglary requirements. A dual locking mechanism constructed so that both deadbolt and latch can be retracted by a single action of the inside door knob, or lever, may be substituted provided it meets all other specifications for locking devices.

(3) The inactive leaf of double door(s) shall be equipped with metal flush bolts having a minimum embedment of five-eighths of an inch into the head and threshold of the door frame.

Single-swinging doors and the active leaf of doors in pairs shall be equipped with an approved exterior key-operating deadbolt which has been tested in accordance with California Building Code. See Chapter 10 of the California Building Code for requirements on door operation for exiting.

(4) Glazing in exterior doors or within forty inches of any locking mechanism shall be of fully tempered glass or rated burglary-resistant glazing, except when double cylinder deadbolt locks with a key retaining feature are installed.

(5) Except where clear vision panels are installed, all front exterior doors shall be equipped with a wide angle (one hundred eighty degrees) door viewer.

(b) Street numbers and other identifying data shall be displayed as follows:

(1) All residential dwellings shall display a street number in a prominent location on both the street side of the residence and on the alley side of the property in such a

position that the numbers are easily visible to approaching emergency vehicles. The numerals shall be no less than four inches in height and shall be of a contrasting color to the background to which they are attached.

(2) There shall be positioned at each entrance of a multiple-family dwelling complex an illuminated diagrammatic representation of the complex which shows the location of the viewer and the unit designations within the complex. In addition, each individual unit within the complex shall display a prominent identification number, not less than four inches in height, which is easily visible to approaching vehicular and/or pedestrian traffic.

(c) Lighting in multiple-family dwellings shall be as follows:

(1) Aisles, passageways and recesses related to and within the building complex shall be illuminated with an intensity of at least one footcandle at the ground level during the hours of darkness. Lighting devices shall be protected by weather and vandalism resistant covers.

(2) Open parking lots, garages and carports shall be provided with a maintained minimum of one footcandle of light on the parking surface during the hours of darkness. Lighting devices shall be protected by weather and vandalism-resistant covers.

SECTION 27. Section 8.52.010 of the Santa Monica Municipal Code is hereby amended to read as follows:

8.52.010 Fencing regulations.

(a) **Standards for New Enclosures.** Every person, firm or corporation owning land on which there is situated a swimming pool, pond or other body of water which contains water eighteen inches or more in depth at any point shall completely surround such body of water or property with a fence, wall or other structure not less than five feet above the adjacent grade at all places and with no opening therein more than four inches in maximum dimensions. Any gate in such fence shall have a latch at least five feet above the underlying ground and such gate shall be self-closing and secured when adults are not present.

(b) **Existing Enclosures.** Every person, firm or corporation owning land on which there is situated a swimming pool, pond or other body of water which contains water eighteen inches or more in depth at any point shall completely surround such body of water or property with a fence, wall or other structure not less than four and one-half feet above the adjacent grade at all places and with no opening therein more than four inches in maximum dimensions. Any gate in such fence shall have a latch at least four and one-half feet above the underlying ground and such gate shall be self-closing and secured when adults are not present.

For the purposes of this Section, existing enclosures are those enclosures that were constructed under valid permit issued prior to July 1, 1999.

(c) **Requirements for Nonconforming Enclosures.** When an existing pool enclosure is replaced or repaired in excess of fifty percent of its length, the enclosure

shall be made to conform to all of the requirements for a new enclosure under prevailing law.

(d) **Applicability of Other Codes and Laws.** The provisions of this Section are in addition to the pool enclosure requirements for public or private pools as required in Chapter 31 B of the California Building Code.

When conflicting provisions or requirements occur between the provisions of this Section, the Technical Codes, and other codes or laws, the most restrictive provisions or requirements shall govern.

SECTION 28. Section 8.84.040 of the Santa Monica Municipal Code is hereby amended to read as follows:

8.84.040 Alterations, repairs or rehabilitation.

Notwithstanding any requirements in the Technical Codes, California Building Standards Code, or State Housing Law to the contrary, the following shall apply:
Alterations, repairs or rehabilitation to an existing building may be of the same type of construction as the existing building or structure, provided the aggregate value of such work in any one year does not exceed ten percent of the replacement cost of the building, and provided further, that no hazardous conditions or substandard residential buildings are continued or created. These provisions shall be retroactive when specifically required by this Code.

Alterations, repairs or rehabilitation in excess of ten percent of the replacement cost of the building or structure may be made provided all of the work conforms to this Code for a new building of like area, height and occupancy in the same location and that no hazardous conditions or substandard residential buildings are continued or created in the remainder of the building as a result of such work.

Whenever an existing building or structure has been damaged, or is in need of repairs, or the owner desires to make repairs, alterations or rehabilitation in an amount exceeding fifty percent of the replacement cost of the building or structure, the entire building or structure shall be made to conform to all of the requirements of the Technical Codes or shall be demolished.

For purposes of this Section, the Building Officer shall determine the replacement cost of the building or structure and may use the most current building valuation table published by the International Code Council. The Building Officer shall also determine the fair market value of any necessary repairs and may calculate the fair market value of repairs as the mean of three responsible bids from properly licensed contractors.

SECTION 29. Section 8.88.010 of the Santa Monica Municipal Code is hereby amended to read as follows:

8.88.010 Adoption.

That certain document entitled "Uniform Code for the Abatement of Dangerous

Buildings, 1997 Edition" as published by the International Conference of Building Officials, as amended by this Chapter, is hereby adopted as the Dangerous Buildings Code of the City of Santa Monica.

SECTION 30. Chapter 8.106 of the Santa Monica Municipal Code is hereby added to read as follows:

Chapter 8.106 Green Building Code

8.106.010 Adoption.

That certain document entitled "California Green Building Standards Code, 2010 Edition", as published by the California Building Standards Commission, is hereby adopted as the Green Building Code of the City of Santa Monica.

8.106.020 Local amendments to the California Green Building Standards Code.

Notwithstanding any provisions of the California Green Building Standards Code, California Building Code, California Residential Code, California Building Standards Code, or other codes adopted by any Chapter in Article VIII of the Municipal Code to the contrary, the following local amendments shall apply.

8.106.030 Mandatory and voluntary requirements. Amend Section 101.10 of the 2010 California Green Building Standards Code to read as follows:

101.10 Mandatory and voluntary requirements. This code contains both mandatory and voluntary green building measures. Mandatory and voluntary measures are identified in the appropriate application checklist contained in this code. The mandatory measures of Chapter 4 and voluntary measures of Appendix A4 are applicable to new residential buildings. The mandatory measures of Chapter 5 and voluntary measures of Appendix A5 are applicable to all buildings which are not low-rise residential buildings.

8.106.040 Low-rise residential building. Amend Section 202 of the 2010 California Green Building Standards Code's definition of **LOW-RISE RESIDENTIAL BUILDING** to read as follows:

LOW-RISE RESIDENTIAL BUILDING. A building that is of Occupancy Group R and is six stories or less, or that is a one- or two-family dwelling or townhouse.

8.106.050 Sustainability. Amend Section 202 of the 2010 California Green Building Standards Code to include the following:

SUSTAINABILITY. Consideration of present development and construction impacts on the community, the economy, and the environment without compromising the needs of the future.

8.106.060 Irrigation controllers. Amend Section 4.304.1 of the 2010

California Green Building Standards Code to read as follows:

4.403.1 Irrigation controllers. Automatic irrigation system controllers for landscaping provided and installed at the time of final inspection and shall comply with the following:

1. Controllers shall be weather- or soil moisture-based controllers that automatically adjust irrigation in response to changes in plants' needs as weather conditions change.

2. Weather-based controllers without integral rain sensors or communication systems that account for local rainfall shall have a separate wired or wireless rain sensor which connects or communicates with the controller(s). Soil moisture-based controllers are not required to have rain sensor input.

8.106.070 Flashing Details. Amend Section 4.407 of the 2010 California Green Building Standards Code to read as follows:

4.407.1 Flashing details. Provide flashing details on the building plans which comply with accepted industry standards or manufacturers instructions. Details are shown on the house plans at all of the following locations:

1. Around windows and doors.
2. Roof valleys.
3. Deck connections to the structure.
4. Roof-to-wall intersections.

5. Chimneys to roof intersections.

6. Drip caps above windows and doors with architectural projections.

7. Other locations as identified by the Building Officer.

SECTION 31. This The Council finds that the adoption of this Ordinance is exempt from the provisions of the California Environmental Quality Act pursuant to CEQA Guidelines Section 15061(b)(3).

SECTION 32. Any provision of the Santa Monica Municipal Code or appendices thereto, inconsistent with the provisions of this Ordinance, to the extent of such inconsistencies and no further, are hereby repealed or modified to that extent necessary to effect the provisions of this Ordinance.

SECTION 33. If any section, subsection, sentence, clause, or phrase of this Ordinance is for any reason held to be invalid or unconstitutional by a decision of any court of any competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Ordinance. The City Council hereby declares that it would have passed this Ordinance, and each and every Section, subsection, sentence, clause, or phrase not declared invalid or unconstitutional without regard to whether any portion of the Ordinance would be subsequently declared invalid or unconstitutional.

SECTION 34. The Mayor shall sign and the City Clerk shall attest to the passage

of this Ordinance. The City Clerk shall cause this ordinance, or a summary thereof to be published once in the official newspaper within 15 days after its adoption. This Ordinance shall become effective on January 1, 2011.

APPROVED AS TO FORM:

MARSHA JONES MOUTRIE
City Attorney

Approved and adopted this 9th day of November, 2010.

Bobby Shriver, Mayor

State of California)
County of Los Angeles) ss.
City of Santa Monica)

I, Maria M. Stewart, City Clerk of the City of Santa Monica, do hereby certify that the foregoing Ordinance No. 2328 (CCS) had its introduction on October 26th, 2010, and was adopted at the Santa Monica City Council meeting held on November 9th, 2010, by the following vote:

Ayes:	Council members:	Bloom, Davis, Holbrook, McKeown, O'Day Mayor Pro Tem O'Connor, Mayor Shriver
Noes:	Council members:	None
Abstain:	Council members:	None
Absent:	Council members:	None

A summary of Ordinance No. 2328 (CCS) was duly published pursuant to California Government Code Section 40806.

ATTEST:

Maria M. Stewart, City Clerk