ORDINANCE NO. 02-12

AN ORDINANCE ESTABLISHING A BUILDING CODE FOR THE CITY OF HAYWARD; REGULATING THE CONSTRUCTION, ALTERATION, REPAIR, AND MAINTENANCE OF STRUCTURES; PROVIDING FOR THE ISSUANCE OF PERMITS AND COLLECTION OF FEES; AND REPEALING ORDINANCE NO, 99-05 AND ALL AMENDMENTS THERETO

THE CITY COUNCIL OF THE CITY OF HAYWARD DOES ORDAIN AS FOLLOWS:

Section 1. Ordinance No. 99-05, and all amendments thereto, is hereby repealed and in substitution thereof a new Building Code for the City of Hayward is hereby enacted to read as follows:

BUILDING CODE
OF THE CITY OF HAYWARD

SEC. 1.00 UNIFORM BUILDING CODE, ADOPTION BY REFERENCE. The 2001 California Building Code, based on the Uniform Building Code, 1997 Edition, including volumes 1, 2, & 3, and Appendix thereto, published by the International Conference of Building Officials, as amended by the State of California pursuant to Health and Safety Code section 17922, and as further modified by the amendments, additions, and deletions as set forth hereinafter, is hereby adopted by reference as the Building Code of the City of Hayward.

A printed copy of such Uniform Building Code which is in three volumes, together with the State and local amendments thereto, is on file in the office of the City Clerk, to which reference is hereby made for further particulars.

Reference is also made to the States' Matrix Adoption Tables which identify local Building Official's responsibility to enforce certain amendments.

SEC. 2.00 AMENDMENTS, ADDITIONS, AND DELETIONS TO THE UNIFORM BUILDING CODE. Set forth below are the local amendments, additions and deletions to the California Building Code, 2001 Edition. Chapter and section numbers used herein are those of said California Building Code.

VOLUME I

CHAPTER I
ADMINISTRATIVE

SEC. 101 TITLE, PURPOSE AND SCOPE.

SEC. 101.1 TITLE. (Amendment) This ordinance may be cited and shall be known as the "Building Code of the City of Hayward."

SEC. 103 VIOLATIONS. (Amendment) It shall be unlawful for any person, firm, or corporation, whether as owner, lessee, sublessee, or occupant, to erect, construct, enlarge, alter, repair, move, improve, remove, demolish, equip, use, occupy, or maintain any building or premises, or cause or permit the same to be done, contrary to or in violation of the provisions of this code or any order issued by the Building Official hereunder.

Any person, firm, or corporation violating any of the provisions of this code shall be guilty of a criminal offense and subject to the penalties set forth in Chapter 1, Article 3, section 1-3.00 et seq. of the Hayward Municipal Code.

SEC. 104 ORGANIZATION AND ENFORCEMENT.

SEC. 104.2 POWERS AND DUTIES OF BUILDING OFFICIAL.

SEC.104.2.3 RIGHT OF ENTRY. (Amendment) Upon presentation of proper credentials, the Building Official or his or her duly authorized representative, after having obtained the consent of the owner or occupant, may enter at reasonable times during daylight hours and for probable cause, any structure, building, or premises in the City to perform any duty imposed upon him or her by this code. Except in emergency situations, the Building Official or his or her duly authorized representative shall not enter any building, structure, or premises without the consent of the owner or occupant thereof, unless the Building Official possesses an inspection warrant obtained and issued in the manner provided by section 1822.50 et. seq. of the Code of Civil Procedure of the State of California or any amendments to or replacements thereof.

Except as hereinabove permitted, no person shall hinder or prevent the Building Official or his or her duly authorized representative, while in the performance of the duties described above, from entering upon and into any building, structure, or premises under this jurisdiction, at all reasonable hours, during daylight hours and for probable cause, for the purpose of inspecting the same to determine whether or not the provisions of this code are observed therein.

SEC. 105 BOARD OF APPEALS.

SEC. 105.1 GENERAL. (Amendment) In order to review the determinations made by the Building Official relative to the suitability of alternate materials and methods of construction and to make recommendations to the City Council concerning amendments to this or any other applicable code, a Building Advisory Committee consisting of five members qualified by experience and training to pass upon matters pertaining to building construction shall be appointed by the City Manager as the occasion arises. The Building Advisory Committee shall have no jurisdiction over third party appeals.

The Building Official shall be an ex-officio member of the Building Advisory Committee and shall act as Secretary. The Building Advisory Committee shall adopt reasonable rules and regulations for conducting its hearings and investigations.

Any person directly affected by a determination of the Building Official relative to the suitability of alternate materials and methods of construction may request a review of the determination by the Building Advisory Committee. The appeal shall be in writing and filed at the office of the Building Official within 30 days of the Building Official's determination. The appellant shall agree to bear the expense of any tests required by the Committee in connection with the appeal. The Committee shall render its findings and decisions to the Building Official with a copy to the appellant. The Committee's decision shall be final. Any reference in this

code to "Board of Appeals" shall mean the Building Advisory Committee and its decision shall be final.

SEC. 106 PERMITS.

SEC. 106.3.3.5 PROPERTY SURVEY. (Addition) Any person, firm or corporation applying for a permit for the erection or construction of a building or structure, or moving an existing building to a new location, and required by the provisions of this section to file with his application for such permit a complete set of plans and specifications of the proposed building or structure, shall file with said set of plans and specifications, a duplicate polyester plastic tracing of the plat or a survey, and two prints thereof, of the property proposed to be improved by said building or structure, on which plat shall be delineated the accurate location of said proposed improvement and the grades at which it is to be constructed, the location of the proposed house sewer from the building or structure to the main sewer, or septic tank where permitted, the location of every existing building on the lot, the location of existing curbs, sidewalks and main sewers and the location of waterways and culverts affecting the lot. Said plat shall be not larger than 18 x 26 inches and shall show contours of not more than five-foot intervals, which contours shall extend to the center of the street when said street is unimproved. All grades and contours shall be based on United States Coast and Geodetic Survey datum except when authorized by the Building Official. The said survey shall have been made by a licensed land surveyor or registered civil engineer of the State of California and shall be signed by him or her and endorsed with his or her license or certificate number and shall clearly outline by appropriate stakes or marks with elevations thereon, the exterior lines of said property to be improved and location by map or deed distance to the nearest street intersection.

Details of Plat Survey: The plat survey shall show in permanent markings the following information:

1. The exterior lines of said property to be improved defined by appropriate stakes or marks.

2. The elevation of such stakes or marks.

3. The location of said exterior lines by map or deed distance to the nearest intersecting street.

4. Ties to existing permanent monuments.

5. Contours of not more than five-foot intervals, which contours shall extend to the center of the street when said street is unimproved. On relatively flat lots where the existing ground slope is less than 5percent, spot elevations may be shown

with horizontal controls in lieu of contours or else closer contours shall be shown.

6. The location of every building on the property.

7. The location of existing curbs, sidewalks, reserves, main sewers, waterways, drains, and culverts affecting the property.

8. Additional information shall be added to the plat survey in permanent markings prior to submission to the Building Inspection Division as follows:

   (a) The location, dimensions, and finished floor elevations of the proposed improvements.

   (b) The location of the proposed house sewer from the building or structure to the main sewer.

SEC. 106.4.1.1. TO WHOM PERMIT MAY BE ISSUED.

"(Addition) Permit may be issued only to a person holding a valid State of California General Contractors license, owner of the property as Owner-Builder, agent of owner with certified letter for authorization or leasee with proof allowing construction.

SEC. 107 FEES AND PLAN REVIEW.

SEC. 107.2 PERMIT FEES. (Addition)

EXCEPTION: The Building Official is hereby authorized to waive building permit fees for minor repairs or rehabilitation to single family dwellings where the applicant's total verified household income is no more than:

$28,150 per year - 1 person family
$32,150 per year - 2 person family
$36,200 per year - 3 person family
$40,200 per year - 4 person family
$43,400 per year - 5 person family
$46,650 per year - 6 person family
$49,850 per year - 7 person family
$53,000 per year - 8 person family

Where work for which a permit is required by this code is started prior to obtaining said permit, the fees specified shall be double, with a minimum fee of $86.00 or such other minimum established from time to time by City Council resolution. The payment of such

double fee shall not relieve any persons from fully complying with the requirements of this code in the execution of the work nor from any other penalties prescribed herein.

SEC. 107.3 PLAN REVIEW FEES. (Addition) When submittal documents are required by section 106.3.2, a plan review fee shall be paid at the time the application and documents are submitted . The plan review fee shall be set by the Master Fee Schedule adopted by the City Council from time to time .

SEC. 109 CERTIFICATE OF OCCUPANCY.

SEC. 109.1 USE OR OCCUPANCY. (Amendment) No building or structure in Groups A, B, E, F, H, I, M, R, S and U shall be used or occupied, and no change in the existing occupancy classification of a building or structure or portion thereof, shall be made until the Building Official has issued a Certificate of Occupancy therefor as provided herein. (Delete exception for Group R-3.)

SEC. 109.5 POSTING. (Delete)

TABLE 1-A BUILDING PERMIT FEES:(Delete)

Delete the entire table and notes 1 through 5 beneath "Other Inspections and Fees", and the footnotes 1 and 2. Add the following note:

NOTE: Fees for Building Permits and inspections are as established from time to time by a City Council Master Fee Resolution.

CHAPTER 2
DEFINITIONS AND ABBREVIATIONS

SEC. 228 ADDITIONAL WORDS AND PHRASES. (Addition)

"CITY OF" or "THE CITY" shall mean the City of Hayward, as the text may require.

"CITY COUNCIL" shall mean the City Council of the City of Hayward. "MAYOR" shall mean the Mayor of the City of Hayward.

"BOARD OF APPEALS" shall mean the "Building Advisory Committee" of the City of Hayward.

"BUILDING DEPARTMENT" or "ADMINISTRATIVE AUTHORITY" shall mean the Building Official.

"HAZARDOUS FIRE AREA" is land which is covered with grass, grain brush, or forest, whether privately or publicly owned, which is so situated or is of such inaccessible location that a fire originating upon such land would present an abnormally difficult job of suppression or would result in great and unusual damage through fire or resulting erosion. Such areas are designated by the Fire Chief on a map are maintained in the office of the Fire Marshal. The "Hazardous Fire Area" has been generally defined as:

> The areas East of Mission Blvd. from the South side of D Street to the city limits South to Union City.

(Refer to Resolution No. 93-037, City of Hayward hillside design and urban/wildland interface guidelines)

"Security" shall mean the Building Security.

(Refer to Ordinance No. 90-26 C.S.)

CHAPTER 4
SPECIAL USE AND OCCUPANCY

SEC. 402 ATRIA.

SEC. 402.3 ENCLOSURE OF ATRIA. (Amend first exception, number 2) Open exit balconies may be permitted within the atrium, provided sprinkler protection and smoke removal requirements are established to be effective and reliable as determined by the Fire Chief.

CHAPTER 5
GENERAL BUILDING LIMITATIONS

SEC. 502.1 PREMISES IDENTIFICATION (Addition - Existing Buildings) When the valuation of any building construction, addition, alteration, or repair exceeds $1,000.00 and a permit is required, approved numbers or addresses shall be provided unless already existing in such a manner as to be plainly visible and legible from the street or road fronting the property. Such numbers or addresses shall comply with the requirements of the Fire Code.

CHAPTER 9
FIRE PROTECTION SYSTEMS

SEC. 904 FIRE EXTINGUISHING SYSTEMS.

SEC. 904.2.1 Where required. Amend section to read: An automatic fire-extinguishing system shall be installed in the occupancies and locations as set forth in this section.

For provision on special hazards, hazardous materials, and hazardous fire areas (as designated by the Fire Marshal), see UBC Section 228 and UFC Section 1001.9, Articles 79, 80, and 81.

SEC. 904.2.1.1 NEW CONSTRUCTION. (Addition) An automatic fire extinguishing system shall be installed in all new construction, regardless of occupancy classification, where the total floor area is 5,000 square feet (465 m^2) or more. (Area Separation Walls may not be used in lieu of a sprinkler system except when buildings are separated by continuous area separation walls of at least four-hour fire-resistive construction without openings), building height exceeds two stories, or floor heights exceed 15 feet (4572 mm) from the lowest level of Fire Department access, or as provided in section 904.2.2. In cases where multiple requirements may apply, the most restrictive requirement shall prevail. Floor areas of mezzanines shall be included in calculating the total floor area to be used in determining automatic fire-extinguishing requirements.

SEC. 904.2.1.2 EXISTING BUILDINGS. (Addition) An automatic fire extinguishing system shall be installed in an existing building when cumulative additions, repairs, or alterations are made to the building and such additions, repairs, or alterations meet any of the following conditions:

1. Additions, repairs, or alterations are valued at 50 percent or more of the current assessed value of the building. (Value is based only on the structure involved. If owner disputes valuation, an appraisal can be performed at the owner's expense, by an appraiser acceptable to the Fire Chief.)

2. Any addition or additions to the original building which will add 10 percent or more to the total floor area of the existing building and the resulting floor area is 5,000 square feet (465 m^2) or more, except where the occupancy classification for the building is Group H, Division 4, in which case, the resulting total floor area required is 3,000 square feet (279m^2) or more.

3. Additions where items 1 or 2 do not apply that will result in a total floor area that exceeds the maximum floor area allowed by the Building Code under which the building was originally constructed.

4. Additions, repairs, or alterations that will result in a change in occupancy or use shall comply with section 3405, UBC 1997 Edition.

SEC. 904.5 STANDPIPES.

TABLE 9-A STANDPIPE REQUIREMENTS. Amend to substitute a reference to "3 Stories" rather than "4 Stories" in the second item in the occupancy column.

SEC. 904.5.5 LOCATION OF CLASS III STANDPIPE AND HOSE CONNECTIONS. Add new subsection 904.5.5.1 to read:

DUAL OUTLETS. All Class III standpipe outlets located as required in section 904.5.5 shall have added outlets located in enclosed corridors adjacent to enclosed stairway access doors at each level of every required stairway.

SEC. 904.6 BUILDINGS UNDER CONSTRUCTION.

SEC 904.6.2 WHERE REQUIRED: Amend subsection 904.6.2 to read as follows:

Every building three stories or more in height shall be provided with not less than one standpipe for use during construction. Such standpipe shall be provided with Fire Department hose connections at accessible locations adjacent to usable stairs and the standpipe outlets shall be located adjacent to such usable stairs. Such standpipe systems shall be extended as construction progresses to within one floor of the highest point of construction having secured decking or flooring.

In each floor there shall be provided a 2 ½-inch valve outlet for Fire Department use. Where construction height requires installation of a Class III standpipe, fire pumps and water main connections shall be provided to serve the standpipe.

CHAPTER 15
ROOFS AND ROOF STRUCTURES

SEC. 1503 ROOFING REQUIREMENTS.

SEC. 1503.3.1 MINIMUM ROOF COVERING REQUIREMENTS (Addition) Roof covering shall be a minimum Class "C" classification or better. All wood shake and shingle roof covering shall be fire retardant treated wood with a minimum class "C" classification. In areas designated by the Fire Chief as "Hazardous Fire Areas" roof covering shall be a minimum Class "B" classification or better.

SEC. 1506.5 OVER PUBLIC PROPERTY

(Delete) The exception for Group R-3 and Group U occupancies.

(Add) The Building Official may grant an exception for minor damage or special circumstances.

(Add) SEC. 1506.5.1 When roof gutters are installed, the down spouts shall be properly terminated with a splash block and shall carry water away from the foundations.

Table 15-A MINIMUM ROOF CLASSES. (Amendment)

Delete all references to non-rated (NR) roof classes and replace with a class "C" roof classification.

(Reference is made to Plumbing Code of the City of Hayward Chapter 11)

CHAPTER 18
FOUNDATIONS AND RETAINING WALLS

SEC. 1801 SCOPE.

SEC. 1801.1 GENERAL. (Amendment) This chapter sets forth requirements for excavation and fills for any buildings or structure and for foundations and retaining structures.

Reference is also made to the City of Hayward grading ordinance, Hayward Municipal Code, Chapter 10, Article 8, for requirements governing excavation, grading, and earth-work construction including fills and embankments. When retaining walls are required due to grading or drainage conditions, a separate Building Permit shall be required for each retaining wall.

CHAPTER 30
ELEVATORS, DUMBWAITERS, ESCALATORS, AND MOVING WALKS

SEC. 3001 SCOPE. (Addition) Where rules and regulations of Title 24 of the California Code of Regulations, Part 2 - the California Building Code, Chapter 51 of Part 7 - the California Elevator Safety Regulations Code, apply, such rules and regulations shall be considered to pre-empt provisions of this chapter.

CHAPTER 31
SPECIAL CONSTRUCTION

SEC. 3102 CHIMNEYS, FIREPLACES AND BARBECUES.

SEC. 3102.3.8 SPARK ARRESTER. Delete the exception.

CHAPTER 34
EXISTING STRUCTURES

SEC. 3403.1 ADDITIONS, ALTERATIONS, OR REPAIRS. (Amendment) Amend first sentence of the first paragraph to read:

> Except as otherwise required in this code, additions, alterations, or repairs may be made to any building or structure without requiring the existing building or structure to comply with all the requirements of
> this code, provided the addition, alteration, or repair conform to that required for a new building or structure. The Building Official may require correction of existing violation and/or upgrades of certain aspects, if in their judgment such is warranted.

APPENDIX CHAPTER 3
USE OR OCCUPANCY
DIVISION III - REQUIREMENTS FOR GROUP R, DIVISION 3 OCCUPANCIES

Delete Division 3 - R-3 Occupancies
Delete Sec. 332 - One and two family dwelling code adopted.

APPENDIX CHAPTER 10 (Delete)

Delete entire Chapter 10

(Refer to Hayward Municipal Ordinance 90-26 Building Security Standards)

APPENDIX CHAPTER 13
ENERGY CONSERVATION IN NEW BUILDING CONSTRUCTION

(ADD) NOTE: Energy conservation shall be as provided in Title 24 of the California Code of Regulations, Part 6.

APPENDIX CHAPTER 15

SEC. 1514 GENERAL. (Amendment) All re-roofing shall conform to the applicable provisions of Chapter 15 of this code.

Roofing materials and methods of application shall comply with the U.B.C. standards or shall follow manufacturers installation requirements and Section 1503 of the U.B.C.

Add new subsection (a) to section 1515.

SEC. 1515 (a) PERMITS. A building permit shall be required for re-roofing all structures.

Re-roofing requiring a permit shall mean replacement of 25 percent or more of the existing roof covering within any 12 month period.

SEC. 1515.2.2.

(Add) When a building is re-roofed and there are existing fire places, spark arresters shall be installed prior to permit final for residential buildings.

APPENDIX CHAPTER 16 (Delete)

Delete entire Chapter 16

APPENDIX CHAPTER 18 (Delete)

Delete entire Chapter 18

APPENDIX CHAPTER 19 (Delete)

Delete entire Chapter 19

APPENDIX CHAPTER 21 (Delete)

Delete entire Chapter 21

APPENDIX CHAPTER 23 (Delete)

Delete entire Chapter 23

APPENDIX CHAPTER 30 (Delete)

Delete entire Chapter 30

APPENDIX CHAPTER 33 (Amended)

(Refer to Hayward Municipal Code Chapter 9, Article 4)

EXCAVATION AND GRADING

Delete entire Appendix Chapter and add the following note.

NOTE: For regulations covering excavation and grading, see Article 8, Chapter 10 of the Hayward Municipal Code.

(Add) Maximum grade of private driveways shall not exceed 12.5% or the limits imposed by Chapter 10 and 11 of the Building Code.

VOLUME II

CHAPTER 16
STRUCTURAL ENGINEERING DESIGN PROVISIONS

SEC. 1612.2.1 BASIC LOAD COMBINATIONS: Section 1612.2.1 of the Code is deleted and replaced with the following:

Where Load and Resistance Factor Design (Strength Design) is used, structures and all portions thereof shall resist the most critical effects from the following combinations of factored loads:

$1.4D$	(12-1)
$1.2D + 1.6L + 0.5\ (L_r \text{ or } S)$	(12-2)
$1.2D + 1.6\ (L_r \text{ or } S) + (f_1 L \text{ or } 0.8\ W)$	(12-3)
$1.2D + 1.3W + (f_1 L + 0.5\ (L_r \text{ or } S)$	(12-4)
$1.2D + 1.0E + (f_1 L + f_2 S)$	(12-5)
$0.9D \quad (1.0\rho E_h \text{ or } 1.3\ W)$	(12-6)

WHERE:

f_1 = 1.0 for floors in places of public assembly, for live loads in excess of 100 psf (4.9 kN/m^2), and for garage live load.
= 0.5 for other live loads.
f_2 = 0.7 for roof configurations (such as saw tooth) that do not shed snow off the structure.
= 0.2 for other roof configurations.

EXCEPTIONS:

1. Factored load combinations for concrete per Section 1909.2 where load combinations do not include seismic forces.
2. Where other factored load combinations are specifically required by the provisions of this code.

SEC. 1629.4.2 SEISMIC ZONE 4 NEAR-SOURCE FACTOR. Section 1629.4.2 of the Code is deleted and replaced with the following:

In Seismic Zone 4, each site shall be assigned a near-source factor in accordance with Table 16-S and the Seismic Source Type set forth in Table 16-U. The value of N_a used in determining C_a need not exceed 1.1 for structures complying with all the following conditions:

1. The soil profile type is S_A, S_B, S_C or S_D.
2. $\rho = 1.0$.
3. Except in single-story structures, Group R, Division 3 and Group U, Division 1 Occupancies, moment frame systems designated as part of the lateral-force-resisting system shall be special moment-resisting frames.
4. The Provisions In Sections 9.6a And 9.6b Of AISC - Seismic Part 1 Shall Not Apply, Except For Columns In One-Story Buildings Or Columns At The Top Story Of Multistory Buildings.

5. None of the following structural irregularities is present: Type 1, 4 or 5 of Table 16-L, and Type 1 or 4 of Table 16-M.

SEC. 1630.8.2.2 DETAILING REQUIREMENTS IN SEISMIC ZONES 3 AND 4. Section. 1630.8.2.2 of the Code is deleted and replaced with the following:

In Seismic Zones 3 and 4, elements supporting discontinuous systems shall meet the following detailing or member limitations:

1. Reinforced concrete or reinforced masonry elements designed primarily as axial-load members shall comply with Section 1921.4.4.5.
2. Reinforced concrete elements designed primarily as flexural members and supporting other than light-frame wood shear wall systems or light-frame steel and wood structural panel shear wall systems shall comply with Sections 1921.3.2 and 1921.3.3. Strength computations for portions of slabs designed as supporting elements shall include only those portions of the slab that comply with the requirements of these Sections.
3. Masonry elements designed primarily as axial-load-carrying members shall comply with Sections 2106.1.12.4, Item 1, and 2108.2.6.2.6.
4. Masonry elements designed primarily as flexural members shall comply with Section 2108.2.6.2.5.
5. Steel elements designed primarily as flexural members or trusses shall have bracing for both top and bottom beam flanges or chords at the location of the support of the discontinuous system and shall comply with the requirements of AISC-Seismic Part I, Section 9.4b.

Wood elements designed primarily as flexural members shall be provided with lateral bracing or solid blocking at each end of the element and at the connection location(s) of the discontinuous system.

SEC: 1630.10.2 STORY DRIFT CALCULATION. Section 1630.10.2 of the Code is deleted and replaced with the following:
Calculated story drift using Δ_M shall not exceed 0.025 times the story height for structures having a fundamental period of less than 0.5 second. For structures having a fundamental period of 0.5 second or greater, the calculated story drift shall not exceed $0.020/T^{1/3}$ times the story height.

EXCEPTIONS:

1. These drift limits may be exceeded when it is demonstrated that greater drift can be tolerated by both structural elements and nonstructural elements that could affect life

safety. The drift used in this assessment shall be based upon the Maximum Inelastic Response Displacement, .

2. There shall be no drift limit in single-story steel-framed structures classified as Groups B, F and S Occupancies or Group H, Division 4 or 5 Occupancies. In Groups B, F and S Occupancies, the primary use shall be limited to storage, factories or workshops. Minor accessory uses shall be allowed in accordance with the provisions of Section 302. Structures on which this exception is used shall not have equipment attached to the structural frame or shall have such equipment detailed to accommodate the additional drift. Walls that are laterally supported by the steel frame shall be designed to accommodate the drift in accordance with Section 1633.2.4.

SEC. 1630.10.3 STORY DRIFT LIMITATION. Section 1630.10.3 of the Code is deleted and replaced with the following:

The design lateral forces used to determine the calculated drift may disregard the limitations of Formula (30-6) and (30-7) and may be based on the period determined from Formula (30-10) neglecting the 30 or 40 percent limitations of Section 1630.2.2, Item 2

Table 16-N Table 16-N of the California Building Code is deleted and replaced with the following:

TABLE 16-N – STRUCTURAL SYSTEMS [1]

BASIC STRUCTURAL SYSTEM[2]	LATERAL-FORCE-RESISTING SYSTEM DESCRIPTION	*R*	Ω	*HEIGHT LIMIT FOR SEISMIC ZONES 3 AND 4 (feet)*
				x 304.8 for mm
1. Bearing wall system	*1. Light-framed walls with shear panels*			
	a. Wood structural panel walls for structures three stories or less	*5.5*	*2.8*	*65*
	b. All other light-framed walls	*4.5*	*2.8*	*65*
	2. Shear walls			
	a. Concrete	*4.5*	*2.8*	*160*
	b. Masonry	*4.5*	*2.8*	*160*
	3. Light steel-framed bearing walls with tension-only bracing	*2.8*	*2.2*	*65*
	4. Braced frames where bracing carries gravity load	*4.4*	*2.2*	*160*
	a. Steel	*2.8*	*2.2*	*-* [3]
	b. Concrete[3]	*2.8*	*2.2*	*65*
	c. Heavy timber			
2. Building frame system	*1. Steel eccentrically braced frame (EBF)*	*7.0*	*2.8*	*240*
	2. Light-framed walls with shear panels.			
	a. Wood structural panel walls for structures three stories or less	*6.5*	*2.8*	*65*
	b. All other light-framed walls	*5.0*	*2.8*	*65*
	3. Shear walls			
	a. Concrete	*5.5*	*2.8*	*240*
	b. Masonry	*5.5*	*2.8*	*160*
	4. Ordinary braced frames			
	a. Steel [6]	*5.6*	*2.2*	*35* [6]
	b. Concrete[3]	*5.6*	*2.2*	*-*
	c. Heavy timber	*5.6*	*2.2*	*65*
	5. Special concentrically braced frames			
	a. Steel	*6.4*	*2.2*	*240*

3. Moment-resisting frame system	*1. Special moment-resisting frame (SMRF)*			
	a. Steel	*8.5*	*2.8*	*N.L.*
	b. Concrete[4]	*8.5*	*2.8*	*N.L.*
	2. Masonry moment-resisting wall frame (MMRWF)	*6.5*	*2.8*	*160*
	3. Intermediate moment-resisting frame (IMRF)			
	a. Steel[6]	*4.5*	*2.8*	*35*[6]
	b. Concrete[5]	*5.5*	*2.8*	*-*[3]
	4. Ordinary moment-resisting frame (OMRF)			
	a. Steel[6]	*3.5*	*2.8*	*-*[6]
	b. Concrete[8]	*3.5*	*2.8*	*-*[3]
	5. Special truss moment frames of steel (STMF)	*6.5*	*2.8*	*240*
4. Dual systems	*1. Shear walls*			
	a. Concrete with SMRF	8.5	2.8	N.L.
	b. Concrete with steel OMRF (Not Permitted)	-	-	-
	c. Concrete with concrete IMRF [5]	6.5	2.8	-[5]
	d. Masonry with SMRF	5.5	2.8	160
	e. Masonry with steel OMRF *(Not Permitted)*	-	-	-
	f. Masonry with concrete IMRF [3]	4.2	2.8	-[3]
	g. Masonry with masonry MMRWF	6.0	2.8	160
	2. Steel EBF			
	a. With steel SMRF	8.5	2.8	N.L.
	b. With steel OMRF *(Not Permitted)*	-	-	-
	3. Ordinary braced frames *(Not Permitted)*			
	4. Special concentrically braced frames			
	a. Steel with steel SMRF	7.5	2.8	N.L.
	b. Steel with steel OMRF *(Not Permitted)*	-	-	-
	5. Steel IMRF *(Not permitted)*			
5. Cantilevered column building systems	1. Cantilevered column elements	2.2	2.0	35[7]
6. Shear wall-frame interaction systems	1. Concrete[8]	5.5	2.8	160
7. Undefined systems	See Section 1629.6.7 and 1629.9.2	-	-	-

N.L.– no limit

[1] See Section 1630.4 for combination of structural systems.

[2] Basic structural systems are defined in Section 1629.6.

[3] Prohibited in Seismic Zones 3 and 4.

[4] Includes precast concrete conforming to Section 1921.2.7.

[5] Prohibited in Seismic Zones 3 and 4, except as permitted in Section 1634.2.

[6] In Seismic Zone 4 **Steel IMRF, OMRF and Ordinary Braced Frames** are permitted as follows:

a) **Steel IMRF** are permitted for structural systems 35 feet or less in height and the dead load of the roof, walls or floors not exceeding 35 psf each; or for single-story buildings 60 feet or less in height with the dead load of the roof or walls not exceeding 15 psf each where the moment joints of field connections are constructed of bolted end plates; or single-family dwellings using light frame construction with R = 3.0 and $\Omega_o = 2.2$.

b) **Steel OMRF** are permitted for buildings 35 ft or less in height with the dead load of the roof, walls or floors not exceeding 15 psf each; or single-story buildings 60 ft or less in height with the dead load of the roof or walls not exceeding 15 psf each and where the moment joints of field connections are constructed of bolted end plates.

c) **Steel Ordinary Braced Frames** are permitted for structural systems 35 ft or less in height; or penthouse structures; or single-story buildings 60 ft or less in height with the dead load of the roof or walls not exceeding 15 psf each.

[7] Total height of the building including cantilevered columns.
[8] Prohibited in Seismic Zones 2A, 2B, 3 and 4. See Section 1633.2.7.

CHAPTER 22
STEEL

SEC. 2204.1 LOAD AND RESISTANCE FACTOR DESIGN. Section 2204.1 of the Code is deleted and replaced with the following:

Steel design based on load and resistance factor design method shall resist the factored load combinations of section 1612.2 in accordance with the applicable requirements of section 2205.

SEC. 2204.2 ALLOWABLE STRESS DESIGN. Section 2204.2 of the Code is deleted and replaced with the following:

Steel design based on allowable stress design methods shall resist the factored load combinations of section 1612.3 in accordance with the applicable requirements of section 2205.

The current 97 edition is based on the outdated 1992 AISC Seismic provisions. The proposal makes the CBC provisions consistent with the current practice, which is based on the 1997 AISC Seismic with the two subsequent Supplements printed afterward.

SEC. 2205.3 SEISMIC DESIGN PROVISIONS FOR STRUCTURAL STEEL. Section 2205.3 of the Code is deleted and replaced with following:

Steel structural elements that resist seismic forces shall, in addition to the requirements of Section 2205.2 be designed in accordance with Division IV.

Division IV – SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS. Division IV of Chapter 22 of the California Building Code is deleted and replaced with the following:

Based on Seismic Provisions for Structural Steel Buildings, of the American Institute of Steel Construction. Parts I and III, dated April 15, 1997 and Supplement No. 2, dated November 10, 2000.

SEC. 2210 AMENDMENT. Section. 2210 of the Code is deleted and replaced with the following:

> Except for the modifications as set forth in Sections 2211 and 2212 of this division and the requirements of the Building Code, the seismic design, fabrication, and erection of structural steel shall be in accordance with the *Seismic Provisions for Structural Steel Buildings*, April 15, 1997 published by the American Institute of Steel Construction, 1 East Wacker Drive, Suite 3100, Chicago, IL 60601, as if set out at length herein. The adoption

of *Seismic Provisions for Structural Steel Buildings* in this Division, hereinafter referred to as AISC-Seismic, shall include Parts I (LRFD), and III (ASD). and Supplement No. 2, dated November 10, 2000.

Where other codes, standards, or specifications are referred to in this specification, they are to be considered as only an indication of an acceptable method or material that can be used with the approval of the Building Official.

SEC. 2211 ADOPTION. SEC. 2211 of the Code is deleted and replaced to read as follows:

When the load combinations from Section 1612.2 for LRFD are used, structural steel buildings shall be designed in accordance with Chapter 22 Division II (AISC-LRFD) and Part I of AISC-Seismic as modified by this Division.

When the load combinations from Section 1612.3 for ASD are used, structural steel buildings shall be designed in accordance with Chapter 22 Division III (AISC-ASD) and Part III of AISC-Seismic as modified by this Division.

SEC. 2212 GENERAL. SEC. 2212 of the Code is deleted and replaced to read as follows:

The AISC-Seismic adopted by this Division apply to the seismic design of structural steel members except as modified by this Section.

a) The following terms that appear in AISC-Seismic shall be taken as indicated in the 1997 Uniform Building Code.

AISC-Seismic	1997 Uniform Building Code
Seismic Force Resisting System	Lateral Force Resisting System
Design Earthquake	Design Basis Ground Motion
Load Combinations Eqs. (4-1) and (4-2)	Chapter 16 Eqs. (12-17) and (12-18) respectively
LRFD Specification Section Eqs. (A4-1) through (A4-6)	Chapter 16 Eqs. (12-1) through (12-6) respectively
V_oQ_E	E_m

ASIC SEISMIC PROVISIONS. The text of part 1, section 1 of the AISC Seismic Provisions is deleted and replaced with the following:

1. Scope

These provisions are intended for the design and construction of structural steel members and connections in the Seismic Force Resisting Systems in buildings for which the design forces resulting from earthquake motions have been determined on the basis of various levels of energy dissipation in the inelastic range of response. These provisions shall apply to buildings in Seismic Zone 2 with an importance factor I greater than one, in Seismic Zone 3 and 4 or when required by the Engineer of Record.

These provisions shall be applied in conjunction with, Chapter 22, Division II, hereinafter referred to as the LRFD Specification. All members and connections in the Lateral Force Resisting System shall have a design strength as provided in the LRFD Specification to resist load combinations 12-1 through 12-6 (in Chapter 16) and shall meet the requirements in these provisions.

Part I includes a Glossary, which is specifically applicable to this Part, and Appendix S.

LOAD COMBINATIONS. Part I, Section 4.1, first paragraph of the AISC Seismic Provisions is deleted and replaced as follows:

The loads and load combinations shall be those in Section 1612.2 except as modified throughout these provisions.

E_h is the horizontal component of earthquake load E required in Chapter 16. Where required in these provisions, an amplified horizontal earthquake load $\Omega_o E_h$ shall be used in lieu of E_h as given in the load combinations below. The term Ω_o is the system overstrength factor as defined in chapter 16. The additional load combinations using amplified horizontal earthquake load are:

$1.2\,D + 0.5\,L + 0.2S + \Omega_o E_h$ (4-1)

$0.9\,D + \Omega_o E_h$ (4-2)

Exception: the load factor on L in load combination 4-1 shall be equal to 1.0 for garages, areas occupied ass places of public assembly and all areas where the live load is greater than 100 psf.

Orthogonal earthquake effects shall be included in the analysis as required in section 1633.1, except that, when consideration of the load $\Omega_o E_h$ is required, orthogonal earthquake effects need not be considered.

Division V - SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS FOR USE WITH ALLOWABLE STEEL DESIGN. Division V of Chapter 22 of the California Building Code is deleted.

CHAPTER 23
WOOD

SEC 2316 - DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION

SEC. 2316.1 DESIGN SPECIFICATIONS. Section 2316.1 of the Code is deleted and replaced with the following:

The National Design Specifications for Wood Construction, revised 1997 Edition (NDS), which is hereby adopted as a part of this code, shall apply to the design and construction of wood structures using visually graded lumber, mechanically graded lumber, structural glued laminated timber, and timber piles., National Design Specification Appendix Section F, Design for Creep and Critical Deflection Applications, Appendix Section G, Effective Column Length, and Appendix Section J, Solution of Hankinson Formula are specifically adopted and made a part of this standard. The Supplement to the 1997 Edition National Design Specifications, Tables 2A, 4A, 4B, 4C, 4D, 5A, 5B and 5C are specifically adopted and made a part of this standard.

Other codes, standards or specifications referred to in this standard are to be considered as only an indication of an acceptable method or material that can be used with the approval of the Building Official, except where such other codes, standards or specifications are specifically adopted by this code as primary standards.

SEC. 2316.2 AMENDMENTS. Section 2316.2 of the Code is amended as follows:

a) Section 3.2.3.2 as referenced in Section 12 of Section 2316.2 is amended to read as Section 3.2.3.3

b) Section 12 is amended by adding the following on to the end of the paragraph:

Cantilevered portions of beams less than 4 inches (102 mm) in nominal thickness shall not be notched unless the reduced section properties and lumber defects are considered in the design. For effects of notch on shear strength, see Section 3.4.4

c) Section 14 of Section 2316.2 is deleted.

d) Section 26 of Section 2316.2 is deleted.

e) Section 27 of Section 2316.2 is deleted.

INTRODUCED at a regular meeting of the City Council of the City of Hayward, held the 1st day of October, 2002, by Council Member Hilson.

ADOPTED at a regular meeting of the City Council of the City of Hayward held the 8th day of October, 2002, by the following votes of members of said City Council.

AYES: COUNCIL MEMBERS: Jimenez, Hilson, Rodriquez, Ward, Dowling, Henson
MAYOR: Cooper

NOES: COUNCIL MEMBERS: None

ATTEST: COUNCIL MEMBERS: None

ABSENT: COUNCIL MEMBERS: None

APPROVED: _____
Mayor of the City of Hayward

DATE: October 21, 2002

ATTEST: _____
City Clerk of the City of Hayward

APPROVED AS TO FORM:

_____
City Attorney of the City of Hayward

The Daily Review

c/o ANG Newspapers
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Legal No. **155247**

PUBLIC NOTICES

PUBLIC NOTICE OF AN INTRODUCTION OF AN ORDINANCE BY THE CITY COUNCIL OF THE CITY OF HAYWARD

AN ORDINANCE ESTABLISHING A BUILDING CODE FOR THE CITY OF HAYWARD; REGULATING THE CONSTRUCTION, ALTERATION, REPAIR, AND MAINTENANCE OF STRUCTURES; PROVIDING FOR THE ISSUANCE OF PERMITS AND COLLECTION OF FEES; AND REPEALING ORDINANCE NO, 99-05 AND ALL AMENDMENTS THERETO

THE CITY COUNCIL OF THE CITY OF HAYWARD DOES ORDAIN AS FOLLOWS:

Section 1. Ordinance No. 99-05, and all amendments thereto, is hereby repealed and in substitution thereof a new Building Code for the City of Hayward is hereby enacted to read as follows:

BUILDING CODE
OF THE CITY OF HAYWARD

SEC. 1.00 UNIFORM BUILDING CODE, ADOPTION BY REFERENCE.
SEC. 2.00 MENDMENTS, ADDITIONS, AND DELETIONS TO THE UNIFORM BUILDING CODE.

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10/16/02 11:23 CLK

PROOF OF PUBLICATION

In the matter of:

PUBLIC NOTICE OF AN INTRODUCTION OF AN ORDINANCE BY THE CITY COUNCIL OF THE CITY OF HAYWARD

The undersigned below, deposes and says that he/she was the public Notice Advertising Clerk of the DAILY REVIEW a newspaper of general circulation as defined by Government Code Section 6000 adjucated as such by the Superior Court of the State of California, County of Alameda (Order Nos. 224 933 AND 244 264) which is published and circulated in Eden Township in said county and state seven days a week.

That the

PUBLIC NOTICE

of which the annexed is a printed copy, was published in every issue of the DAILY REVIEW, on the following dates:

OCTOBER 5, 2002

I certify (or declare) under the penalty of perjury that the foregoing is true and correct.

Hamere Seble

Public Notice Advertising Clerk