**ITEM 9.A.**

# MOORPARK CITY COUNCIL
# AGENDA REPORT

**TO:** Honorable City Council

**FROM:** David A. Bobardt, Community Development Director DB
By: Ray Young, Charles Abbott Associates, Building Official

**DATE:** October 10, 2016 (CC Meeting of 10/19/2016)

**SUBJECT:** **Consider an Ordinance Amending Title 15 of the Moorpark Municipal Code by Replacing in Their Entirety Chapters 15.04 (Administrative Provisions), 15.08 (Building Code), 15.10 (California Green Building Standards Code), 15.12 (Electrical Code), 15.14 (Plumbing Code), 15.16 (Mechanical Code), 15.18 (Housing Code), 15.20 (California Energy Code) and 15.22 (California Residential Code); Adopting by Reference and Amending the 2016 Edition of the California Building Code, Volumes 1 and 2, with Appendices C, F, H, I and J, the 2016 Edition of the California Residential Code, with Appendices E and H, the 2016 Edition of the California Referenced Standards Code, the 2016 Edition of the California Electrical Code, the 2016 Edition of the California Plumbing Code, the 2016 Edition of the California Mechanical Code, the 2016 Edition of the California Energy Code, the 2016 Edition of the California Green Building Standards Code, the 2016 Edition of the California Administrative Code, the 2015 Edition of the International Property Maintenance Code and the Twenty-First Edition of the Gypsum Association Fire Resistance Design Manual, and Making Findings that Amendments to the 2016 Editions of the California Building Code and California Residential Code Are Reasonably Necessary due to Local Climatic, Geological and Topographical Conditions, and Making a Determination of Exemption Under CEQA in Connection Therewith**

## BACKGROUND/DISCUSSION

New building standards have been adopted by the State to take effect on January 1, 2017. The State of California Health and Safety Code requires all jurisdictions to enforce the most recent editions of these various building standards. Although the State requires the enforcement of certain standards, it allows the City to amend these standards in order to address local concerns. The State, however, does limit the City's ability to amend the prescribed building standards to amendments that are stricter than

State standards and are reasonably necessary for reasons relating to local climate, geology and topography.

The proposed Ordinance (attached), which would take effect on January 1, 2017 concurrently with the new State standards, includes adoption of the State standards, along with amendments to specific building code sections dealing with administration and fees as well as changes to the building standards to improve public safety with respect especially to earthquakes and fire hazards. The proposed amendments in the Ordinance were developed and recommended by local building officials and engineers in conjunction with the Structural Engineers Association of California (SEAC). SEAC, the City of Los Angeles and the cities of Ventura County as a unified consortium agreed to recommend adoption of these additional amendments (which exceed the 2016 California Building Standards Codes) given unique climatic, geological and topographical conditions that impact our local environment pursuant to Section 17958.5 of the Health and Safety Code. The proposed amendments to the 2016 California Building Code and Residential Code are essentially the same as those made to the 2013 codes by City Ordinance 427, and include stricter standards for foundation design, swimming pools, expansive soil conditions, fire-restive construction including roof materials, unreinforced footings, and engineered truss systems.

Because of the proposed amendments, State law requires that the Council direct staff to advertise a public hearing to be held at least fifteen (15) days prior to consideration of second reading of the ordinance. Additionally, the City is required to send the amendments to the State. The City Attorney has reviewed and approved the form of the Ordinance.

## ENVIRONMENTAL DETERMINATION

This ordinance is exempt from the provisions of the California Environmental Quality Act pursuant to Section 15061(b)(3) of the California Code of Regulations (CEQA Guidelines) by the general rule that CEQA only applies to "projects" that may have a significant effect on the environment. The proposed ordinance would amend the Municipal Code related to building standards necessary to protect health and safety. In this case, it can be seen with certainty that there is no possibility that the proposed Ordinance may have a significant impact on the environment.

## FISCAL IMPACT

None.

## STAFF RECOMMENDATION

Introduce Ordinance No. ___ for first reading, waive full reading, and direct staff to schedule a public hearing for November 16, 2016, for purposes of providing second reading and adoption of the ordinance.

Attachment: Ordinance No. ___

ORDINANCE NO. ____

AN ORDINANCE OF THE CITY OF MOORPARK CALIFORNIA, AMENDING TITLE 15 OF THE MOORPARK MUNICIPAL CODE BY REPLACING IN THEIR ENTIRETY CHAPTERS 15.04 (ADMINISTRATIVE PROVISIONS), 15.08 (BUILDING CODE), 15.10 (CALIFORNIA GREEN BUILDING STANDARDS CODE), 15.12 (ELECTRICAL CODE), 15.14 (PLUMBING CODE), 15.16 (MECHANICAL CODE), 15.18 (HOUSING CODE), 15.20 (CALIFORNIA ENERGY CODE), AND 15.22 (CALIFORNIA RESIDENTIAL CODE); ADOPTING BY REFERENCE AND AMENDING THE 2016 EDITION OF THE CALIFORNIA BUILDING CODE, VOLUMES 1 and 2, WITH APPENDICES C, F, H, I AND J, THE 2016 EDITION OF THE CALIFORNIA RESIDENTIAL CODE, WITH APPENDICES E AND H, THE 2016 EDITION OF THE CALIFORNIA REFERENCED STANDARDS CODE, THE 2016 EDITION OF THE CALIFORNIA ELECTRICAL CODE, THE 2016 EDITION OF THE CALIFORNIA PLUMBING CODE, THE 2016 EDITION OF THE CALIFORNIA MECHANICAL CODE, THE 2016 EDITION OF THE CALIFORNIA ENERGY CODE, THE 2016 EDITION OF THE CALIFORNIA GREEN BUILDING STANDARDS CODE, THE 2016 EDITION OF THE CALIFORNIA ADMINISTRATIVE CODE, THE 2015 EDITION OF THE INTERNATIONAL PROPERTY MAINTENANCE CODE AND THE TWENTY-FIRST EDITION OF THE GYPSUM ASSOCIATION FIRE RESISTANCE DESIGN MANUAL, AND MAKING FINDINGS THAT AMENDMENTS TO THE 2016 EDITIONS OF THE CALIFORNIA BUILDING CODE AND CALIFORNIA RESIDENTIAL CODE ARE REASONABLY NECESSARY DUE TO LOCAL CLIMATIC, GEOLOGICAL AND TOPOGRAPHICAL CONDITIONS, AND MAKING A DETERMINATION OF EXEMPTION UNDER CEQA IN CONNECTION THEREWITH

WHEREAS, the City of Moorpark ("City") has adopted the 2013 Editions of the California Building Code, the California Green Building Standards Code, the California Electrical Code, the California Plumbing Code, the California Mechanical Code, the California Energy Code and the California Residential Code (collectively referred to as the "California Building Standards Code") with certain modifications and changes; and

WHEREAS, the City has adopted the 2012 Edition of the International Property Maintenance Code with certain modifications and changes; and

WHEREAS, the City has adopted the Twentieth Edition of the Fire Resistive Manual; and

WHEREAS, Health and Safety Code Section 18938(b) generally provides that the most recent edition of the California Building Standards Code shall apply to all occupancies in the state and shall become effective 180 days after publication by the California Building Standards Commission; and

WHEREAS, the 2016 Edition of the California Building Standards Code has been published by the California Building Standards Commission, incorporated into the California Code of Regulations Title 24 and will become effective on January 1, 2017; and

WHEREAS, the 2015 Edition of the International Property Maintenance Code has been published by the International Code Council; and

WHEREAS, the Twenty-First Edition of the Fire Resistance Design Manual has been published by the Gypsum Association; and

WHEREAS, California Health and Safety Code Sections 17958, 17958.5, 17958.7 and 18941.5 allow amendments to building standards contained in the California Building Standards Code to be made by a local government provided findings of necessity based on local climatic, geological, and/or topographical conditions are made; and

WHEREAS, Government Code Section 50022.1 et seq. provides that local agencies may adopt by reference any federal and California statute or any published compilations of rules, regulations or standards adopted by the federal government or the State of California, or by any agency of either of them, provided that prior to such adoption by reference a noticed public hearing has been held; and

WHEREAS, in accordance with Government Code Sections 50022.3 and 6066, first reading of this Ordinance was held by the City Council on October 19, 2016 and a noticed public hearing has been held by the City Council on November 16, 2016, at which time all interested persons had the opportunity to appear and be heard on the matter of adopting by reference the following codes adopted by the State of California: California Building Code, 2016 Edition, Volumes 1 and 2, with Appendices C, F, H, I and J; California Residential Code, 2016 Edition; with Appendices E and H, California Referenced Standards Code, 2016 Edition; California Electrical Code, 2016 Edition; California Plumbing Code, 2016 Edition; California Mechanical Code, 2016 Edition; California Energy Code, 2016 Edition; California Green Building Standards Code, 2016 Edition; California Administrative Code, 2016 Edition; International Property Maintenance Code, 2015 Edition; and the Fire Resistance Design Manual, Twenty-First Edition, together with amendments thereto; and

WHEREAS, the Community Development Director determined that this Ordinance with proposed amendments to Title 15 of the Moorpark Municipal Code is exempt from the provisions of the California Environmental Quality Act pursuant to Section 15061(b)(3) of the California Code of Regulations (CEQA Guidelines) based on the general rule that CEQA only applies to "projects" that may have a significant effect on the environment. This Ordinance would amend the Municipal Code related to building standards necessary to protect health and safety. In this case, it can be seen with certainty that there is no possibility that this Ordinance may have a significant impact on the environment.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF MOORPARK, CALIFORNIA, DOES ORDAIN AS FOLLOWS:

SECTION 1. ENVIRONMENTAL DETERMINATION: The City Council has reviewed the Community Development Director's determination that this Ordinance with proposed amendments to Title 15 of the Moorpark Municipal Code is exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to Section 15061(b)(3) of the California Code of Regulations (CEQA Guidelines) based on the general rule that CEQA only applies to "projects" that may have a significant effect on the environment. This Ordinance would amend the Municipal Code related to building standards necessary to protect health and safety. In this case, it can be seen with certainty that there is no possibility that this Ordinance may have a significant impact on the environment. Based on the foregoing, the City Council, based on its own independent judgment, finds that the adoption of this Ordinance is exempt from CEQA.

SECTION 2. AMENDMENTS NECESSARY. Pursuant to Section 17958.7 of the Health and Safety Code of the State of California, the City Council of the City of Moorpark hereby finds that each amendment to building standards contained in the 2016 Editions of the California Building Code and California Residential Code made by this Ordinance is reasonably necessary due to local climatic, geological and topographical conditions as follows:

Local Climatic Conditions – The local climate is characterized by periods of high temperatures accompanied by low humidity and high winds each year. These conditions could create an environment in which the fire department may have great difficulty in controlling fires occurring in hillside brush areas as well as structures not having built-in fire protection. The City also experiences periods of intense rainfall, which create the need for special drainage precautions.

Local Geological Conditions – The Moorpark/Ventura County region is a populated area having buildings constructed over and near fault systems capable of producing major earthquakes. The City is located in an area with expansive soils and areas subject to flood hazards including hillsides that are subject to mud flows and unstable soils. These conditions require that special foundation considerations and soils analysis requirements must be in place to provide a reasonable degree of structural integrity for buildings to prevent injury to building occupants, neighbors, and persons using public property.

Local Topographical Conditions – The City contains and is located near hillside brush areas, so special fire resistive requirements are required in order to reduce fire damage and fire spread during periods of high temperatures and low humidity. This requires special construction elements for structures in the City to reduce the threat of fire damage and fire spread during periods of high temperatures and low humidity.

These local climatic, geological and topographical conditions require specific and greater protection than is afforded by the 2016 Editions of the California Building Code

and California Residential Code. Specific findings for each of these amendments are included in Exhibit A attached hereto and incorporated by reference herein.

SECTION 3. Chapters 15.04 (Administrative Provisions), 15.08 (Building Code), 15.10 (California Green Building Standards Code), 15.12 (Electrical Code), 15.14 (Plumbing Code), 15.16 (Mechanical Code), 15.18 (Housing Code), 15.20 (California Energy Code), and 15.22 (California Residential Code) of Title 15 (Buildings and Construction) of the Moorpark Municipal Code are repealed and replaced in their entirety as shown in Exhibit B attached hereto and incorporated by reference herein.

SECTION 4. If any section, subsection, sentence, clause, phrase, part or portion of this Ordinance or any of the Codes adopted herein is for any reason held to be invalid or unconstitutional by any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Ordinance or such Codes. The City Council declares that it would have adopted this Ordinance and such Codes, and each section, subsection, sentence, clause, phrase, part or portion thereof, irrespective of the fact that any one or more section, subsections, sentences, clauses, phrases, parts or portions be declared invalid or unconstitutional.

SECTION 5. This Ordinance shall become effective on January 1, 2017.

SECTION 6. The City Clerk shall certify to the passage and adoption of this ordinance; shall enter the same in the book of original ordinances of said City; shall make a minute of the passage and adoption thereof in the records of the proceedings of the City Council at which the same is passed and adopted; and shall publish notice of adoption in the manner required by law.

PASSED AND ADOPTED this 16th day of November, 2016.

_____
Janice S. Parvin, Mayor

ATTEST:

_____
Maureen Benson, City Clerk

Exhibit A: Findings per Section 17958.7 of the Health and Safety Code

Exhibit B: Chapters 15.04, 15.08, 15.10, 15.12, 15.14, 15.16, 15.18, 15.20, and 15.22

## EXHIBIT A

**Reasons for Amendments to California Building Code and California Residential Code and Findings pursuant to Section 17958.7 of the Health and Safety Code**

Pursuant to Section 17958.7 of the Health and Safety Code of the State of California, the City Council of the City of Moorpark hereby finds that each amendment to the 2016 Editions of the California Building Code and California Residential Code made by this Ordinance is reasonably necessary due to local climatic, geological and topographical conditions. These local climatic, geological and topographical conditions require specific and greater protection than is afforded by the 2016 Editions of the California Building Code and California Residential Code as follows:

**15.08.030 Foundation design.**

***Reason for Amendment:***

Section 15.08.030 of the Moorpark Municipal Code adds language to Section 1808.6.5 of the 2016 California Building Code to provide specific requirements to reduce expansive soil, shrink swell effects on structures constructed on grade in those areas of the City with these unique soils.

***Findings:***

Local Geological Conditions – The Moorpark/Ventura County region is a populated area having buildings constructed over and near fault systems capable of producing major earthquakes. The City is located in an area with expansive soils and areas subject to flood hazards including hillsides that are subject to mud flows and unstable soils. These conditions require that special foundation considerations and soils analysis requirements must be in place to provide a reasonable degree of structural integrity for buildings to prevent injury to building occupants, neighbors, and persons using public property. These factors require specific and greater protection than is afforded by California Building Codes.

**15.08.040 Table 1809.7 amended.**

***Reason for Amendment:***

Section 15.08.040 of the Moorpark Municipal Code replaces Table 1807.9 of the 2016 California Building Code in its entirety Code to provide specific requirements to reduce expansive soil, shrink swell effects on structures constructed on grade in those areas of the City with these unique soils.

***Findings:***

Local Geological Conditions – The Moorpark/Ventura County region is a populated area having buildings constructed over and near fault systems capable of producing major earthquakes. The City is located in an area with expansive soils and areas subject to flood hazards including hillsides that are subject to mud flows and unstable soils. These conditions require that special foundation considerations and soils analysis requirements must be in place to provide a reasonable degree of structural integrity for buildings to prevent injury to building occupants, neighbors, and persons using public property. These factors require specific and greater protection than is afforded by California Building Codes.

**15.08.050 Swimming pools.**
***Reason for Amendment:***
Section 15.08.050 of the Moorpark Municipal Code adds Section 3109.7 to the 2016 California Building Code to provide specific requirements to reduce expansive soil, shrink swell effects on swimming pools in those areas of the City with these unique soils.
***Findings:***
Local Geological Conditions – The Moorpark/Ventura County region is a populated area having buildings constructed over and near fault systems capable of producing major earthquakes. The City is located in an area with expansive soils and areas subject to flood hazards including hillsides that are subject to mud flows and unstable soils. These conditions require that special foundation considerations and soils analysis requirements must be in place to provide a reasonable degree of structural integrity for buildings to prevent injury to building occupants, neighbors, and persons using public property. These factors require specific and greater protection than is afforded by California Building Codes.

**15.08.060 Fire hazard zone requirements.**
***Reason for Amendment:***
Section 15.08.060 of the Moorpark Municipal Code adds Chapter 36 to the 2016 California Building Code for the following reasons:

1. Section 3601 establishes boundaries within the City for structures near hillside brush areas, so special fire resistive requirements may be required in order to reduce fire damage and fire spread during periods of high temperatures and low humidity.

2. Section 3602, including 3602.1 through 3602.4, requires special construction elements for structures near hillside brush areas to reduce the threat of fire damage and fire spread during periods of high temperatures and low humidity.

***Findings:***
Climatic. The local climate is characterized by periods of high temperatures accompanied by low humidity and high winds each year. These conditions could create an environment in which the fire department may have great difficulty in controlling fires occurring in hillside brush areas as well as structures not having built-in fire protection. The City also experiences periods of intense rainfall, which create the need for special drainage precautions. These factors require specific and greater protection than is afforded by California Building Codes.

**15.22.030 Footings.**
***Reason for Amendment:***
Section 15.22.030 of the Moorpark Municipal Code amends Sections R403.1.2, R403.1.3, and R403.1.5 of the 2016 California Residential Code to reduce potential problems that can result from under-reinforced footings and addresses the under-performance of plain concrete or under-reinforced concrete during a seismic event.
***Findings:***
Local Geological Conditions – The Moorpark/Ventura County region is a populated area having buildings constructed over and near fault systems capable of producing

major earthquakes. The City is located in an area with expansive soils and areas subject to flood hazards including hillsides that are subject to mud flows and unstable soils. These conditions require that special foundation considerations and soils analysis requirements must be in place to provide a reasonable degree of structural integrity for buildings to prevent injury to building occupants, neighbors, and persons using public property. These factors require specific and greater protection than is afforded by California Building Codes.

**15.22.040 TABLE R403.1 Amended.**
***Reason for Amendment:***
Section 15.22.040 of the Moorpark Municipal Code amends Table R403.1 of the 2016 California Residential Code to reduce potential problems that can result from under-reinforced footings and addresses the under-performance of plain concrete or under-reinforced concrete during a seismic event.
***Findings:***
Local Geological Conditions – The Moorpark/Ventura County region is a populated area having buildings constructed over and near fault systems capable of producing major earthquakes. The City is located in an area with expansive soils and areas subject to flood hazards including hillsides that are subject to mud flows and unstable soils. These conditions require that special foundation considerations and soils analysis requirements must be in place to provide a reasonable degree of structural integrity for buildings to prevent injury to building occupants, neighbors, and persons using public property. These factors require specific and greater protection than is afforded by California Building Codes.

**15.22.050 Foundation Design.**
***Reason for Amendment:***
Section 15.22.050 of the Moorpark Municipal Code adds Section R403.1.8.2 to the 2016 California Residential Code to provide specific requirements to reduce expansive soil, shrink swell effects on structures constructed on grade in those areas of the City with these unique soils. This section also provides special criteria for storm water drainage on lots to mitigate the effects of runoff associated with intense rainfall, for structures located in flat land developments as well as hillside areas.
***Findings:***
Local Geological Conditions – The Moorpark/Ventura County region is a populated area having buildings constructed over and near fault systems capable of producing major earthquakes. The City is located in an area with expansive soils and areas subject to flood hazards including hillsides that are subject to mud flows and unstable soils. These conditions require that special foundation considerations and soils analysis requirements must be in place to provide a reasonable degree of structural integrity for buildings to prevent injury to building occupants, neighbors, and persons using public property. These factors require specific and greater protection than is afforded by California Building Codes.

**15.22.060 Lateral Support.**
***Reason for Amendment:***
Section 15.22.060 of the Moorpark Municipal Code amends Section R802.8 of the 2016 California Residential Code to reduce potential problems that can result from poorly designed truss systems and connections.
***Findings:***
Local Geological Conditions – The Moorpark/Ventura County region is a populated area having buildings constructed over and near fault systems capable of producing major earthquakes. The City is located in an area with expansive soils and areas subject to flood hazards including hillsides that are subject to mud flows and unstable soils. These factors require specific and greater protection than is afforded by California Building Codes.

**15.22.070 Wood Truss Design.**
***Reason for Amendment:***
Section 15.22.070 of the Moorpark Municipal Code amends Section R802.10.2 of the 2016 California Residential Code to reduce potential problems that can result from poorly designed truss systems and connections.
***Findings:***
Local Geological Conditions – The Moorpark/Ventura County region is a populated area having buildings constructed over and near fault systems capable of producing major earthquakes. The City is located in an area with expansive soils and areas subject to flood hazards including hillsides that are subject to mud flows and unstable soils. These factors require specific and greater protection than is afforded by California Building Codes.

**15.22.080 Roofing**
***Reason for Amendment:***
Section 15.22.080 of the Moorpark Municipal Code amends Section R902.1 of the 2016 California Residential Code to not permit wooden shake or shingle roofs, treated or untreated. The City is located near hillside brush areas, so special fire resistive requirements are required in order to reduce fire damage and fire spread during periods of high temperatures and low humidity. This amendment requires special construction elements for structures near in the City to reduce the threat of fire damage and fire spread during periods of high temperatures and low humidity.
***Findings:***
Climatic. The local climate is characterized by periods of high temperatures accompanied by low humidity and high winds each year. These conditions could create an environment in which the fire department may have great difficulty in controlling fires occurring in hillside brush areas as well as structures not having built-in fire protection.

**EXHIBIT B**
**Chapters 15.04, 15.08, 15.10, 15.12, 15.14, 15.16, 15.18, 15.20, and 15.22 of Title 15 of the Moorpark Municipal Code are hereby repealed and replaced in their entirety to read as follows:**

**"CHAPTER 15.04**
**ADMINISTRATIVE PROVISIONS**

**Sections:**

**15.04.010 Administrative Code adopted.**
**15.04.020 Gas Code.**
**15.04.030 Mechanical Code.**
**15.04.040 Plumbing Code.**
**15.04.050 Fire prevention.**
**15.04.060 Liability.**
**15.04.070 Expiration.**
**15.04.080 Permit fees.**
**15.04.090 Plan review fees.**
**15.04.100 Disaster response.**
**15.04.110 Violations and penalties.**
**15.04.120 Safety assessment placards.**

**15.04.010 Administrative Code adopted.**

Except as hereinafter provided, Chapter 1 of the California Building Code, 2016 Edition published by the International Code Council, is hereby adopted by reference as the Administrative Code of the city of Moorpark. A copy of the California Building Code, 2016 Edition, Chapter 1 shall be maintained in the office of the building official of the city of Moorpark and shall be made available for public inspection while this code is in force.

**15.04.020 Gas Code.**

Section 101.4.1 of the California Building Code is replaced in its entirety to read:

101.4.1 Gas. The provisions of the California Plumbing Code shall apply to the installation of gas piping from the point of delivery, gas appliances, and related accessories as covered by this code. These requirements apply to gas piping systems extending from the point of delivery to the inlet connections of appliances and the installation and operation of residential and commercial gas appliances and related accessories.

**15.04.030 Mechanical Code.**

Section 101.4.2 of the California Building Code is replaced in its entirety to read:

101.4.2 Mechanical. The provisions of the California Mechanical Code shall apply to the installation, alterations, repairs, and replacement of mechanical

systems, including equipment, appliances, fixtures, fittings, and/or appurtenances, including ventilation, heating, cooling, air-conditioning and refrigeration systems, incinerators and other energy related systems.

**15.04.040 Plumbing Code.**

Section 101.4.3 of the California Building Code is replaced in its entirety to read:

101.4.3 Plumbing. The provisions on the California Plumbing Code shall apply to the installation, alteration, repair and replacement of plumbing systems, including equipment, appliances, fixtures, fittings and appurtenances, and where connected to a water or sewage system and all aspects of a medical gas system.

**15.04.050 Fire prevention.**

Section 101.4.5 of the California Building Code is replaced in its entirety to read:

101.4.5 Fire Prevention. The provisions of the Ventura County Fire Code shall apply to matters affecting or relating to structures, processes and premises from the hazard of fire and explosion arising from the storage, handling or use of structures, materials or devices; from conditions hazardous to life, property or public welfare in the occupancy of structures or premises; and from the construction, extension, repair, alteration or removal of fire suppression and alarm systems or fire hazards in the structure or on the premises from occupancy or operation.

**15.04.060 Liability.**

Section 104.8 of the California Building Code is replaced in its entirety to read:

104.8 Liability. Except as otherwise provided in any contract with the city, the building official, or the authorized representative of the building official charged with the enforcement of this code and the technical codes, acting in good faith and without malice in the discharge of his duties, shall not thereby be rendered personally liable for any damage that may accrue to persons or property as a result of any act or by reason of any act or omission in the discharge of these duties. Any suit brought against the building official, agent or employee because of such act or omission performed by the building official, agent or employee in the enforcement of any provision 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 there from shall be assumed by this jurisdiction.

The provisions of this section shall apply if the building official or his authorized representatives are employees of this jurisdiction and shall also apply if the building official or his authorized representatives are acting under contract as agents of the jurisdiction.

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

**15.04.070 Expiration.**

Section 105.5 of the California Building Code is replaced in its entirety to read:

105.5 Expiration. Every permit issued shall become invalid unless work on the site authorized by such permit is commenced within 180 days after its issuance, or if the work authorized on the site by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced. Before such work can be recommenced, a new permit shall be first obtained to do so, and the fee therefore shall be one-half the amount required for a new permit for such work, provided no changes have been made or will be made in the original plans and specifications for such work, and provided further that such suspension or abandonment has not exceeded one year. In order to renew action on a permit after expiration, a new full permit fee shall be paid.

The building official is authorized to grant, in writing, an extension of time for a period of not more than 180 days. The extension shall be requested in writing and justifiable cause shall be demonstrated.

**15.04.080 Permit fees.**

Section 109.2 of the California Building Code is replaced in its entirety to read:

109.2 Permit Fees. The fee for each permit shall be as set forth in the latest resolution of the city council of the city of Moorpark relating to permit fees.

**15.04.090 Plan review fees.**

The following language is added to the city's adoption of the California Building Code at the location indicated by the section number below.

109.7 Plan Review Fees. When a plan or other data is required to be submitted by Section 107 of the California Building Code, a plan review fee shall be paid at the time of submitting plans and specifications for review. The plan review fee shall be as set forth in the latest resolution of the City Council of the City of Moorpark relating to plan review fees.

The plan review fees specified in this subsection are separate fees from the permit fees specified in Section 109.2 of the California Building Code and are in addition to the permit fees. Where plans are incomplete or changed so as to require additional plan review, an additional plan review fee shall be charged at the same rate as charged upon submittal of plans and specifications.

**15.04.100 Disaster response.**

The city manager may enter into mutual aid agreements for emergency building and safety services for the purpose of assuring adequate and effective response in the event of earthquake or other unforeseen emergencies.

**15.04.110 Violations and penalties.**

A. It shall be unlawful for any person, firm, or corporation to erect, construct, enlarge, alter, repair, move, improve, remove, convert or demolish, equip, use, occupy, or maintain any land, building or structure, building service equipment, machine or equipment; or cause or permit the same to be done in violation of this code or the technical codes. Each such person shall be deemed guilty of a separate offense for each and every day or portion thereof during which any violation of any of the provisions of this code or the technical codes is committed, continued, or permitted.

B. It shall be unlawful for any person to remove, deface, alter, or obstruct from view a posted notice of the building official or duly appointed representative when such notice constitutes a stop work order or a warning of substandard or hazardous conditions or prohibits or restricts the occupancy or use of a building, structure, or building service equipment regulated by this code or the technical codes.

C. Every violation of this code or the technical codes shall be deemed a misdemeanor.

D. Any person convicted of a misdemeanor shall be punishable by a fine of not more than one thousand dollars ($1,000.00) or by imprisonment for not more than six (6) months or by both such fine and imprisonment.

**15.04.120 Safety assessment placards.**

A. This section establishes standard placards to be used to indicate the condition of a structure for continued occupancy. This section further authorizes the building official and his or her authorized representatives to post the appropriate placard at each entry point to a building or structure upon completion of a safety assessment.

B. The provisions of this section are applicable to all buildings and structures of all occupancies regulated by the city of Moorpark. The city council may extend the provisions as necessary.

C. Safety assessment is a visual, non-destructive examination of a building or structure for the purpose of determining the condition for continued occupancy.

D. The following are verbal descriptions of the official jurisdiction placards to be used to designate the condition for continued occupancy of buildings or structures.

1. **INSPECTED-Lawful Occupancy Permitted** is to be posted on any building or structure wherein no apparent structural hazard has been found. This placard is not intended to mean that there is no damage to the building or structure.

2. **RESTRICTED USE** is to be posted on each building or structure that has been damaged wherein the damage has resulted in some form of restriction to the continued occupancy. The individual who posts this placard will note in general terms the type of damage encountered and will clearly and concisely note the restriction on continued occupancy.

3. **UNSAFE-Do Not Enter or Occupy** is to be posted on each building or structure that has been damaged such that continued occupancy poses a threat to life safety. Building or structures posted with this placard shall not be entered under any circumstances except as authorized in writing by the building official, or his or her authorized representative. Safety assessment teams shall be authorized to enter these buildings at any time. This placard is not to be used or considered as a demolition order. The individual who posts this placard will note in general terms the type of damage encountered.

E. The ordinance number of the ordinance codifying this chapter, the name of the jurisdiction, its address, and telephone number shall be permanently affixed to each placard.

F. Once it has been attached to a building or structure, a placard is not to be removed, altered or covered until done so by the building official or an authorized representative of the building official. It shall be unlawful for any person, firm, or corporation to alter, remove, cover or deface a placard unless authorized pursuant to this section.

## CHAPTER 15.08
## BUILDING CODE

**Sections:**

**15.08.010 Building Code adopted.**
**15.08.020 Grading enforcement by city engineer.**
**15.08.030 Foundation design.**
**15.08.040 Table 1809.7 amended.**
**15.08.050 Swimming pools.**
**15.08.060 Fire hazard zone requirements.**

### 15.08.010 Building Code adopted.

Except as hereinafter provided, the California Building Code, 2016 Edition, Volumes 1 and 2, with Appendices C, F, H, I and J; California Residential Code, 2016 Edition, with Appendices E and H; California Referenced Standards Code, 2016 Edition; California Electrical Code, 2016 Edition; California Plumbing Code, 2016 Edition; California Mechanical Code, 2016 Edition; California Energy Code, 2016 Edition; California Green Building Standards Code, 2016 Edition; California Administrative Code, 2016 Edition; International Property Maintenance Code, 2015 Edition and the Gypsum Association Fire Resistance Design Manual, Twenty-First Edition, together with amendments thereto, are hereby collectively adopted by reference as the Building Code of the city of Moorpark. Copies of the 2016 Editions of the California Building, Residential, Referenced Standards, Electrical, Plumbing, Mechanical, Energy, Green Building Standards and Administrative Codes, the 2015 Edition of the International Property Maintenance Code and the Twenty-First Edition of the Fire Resistance Design Manual shall be maintained in the office of the building official of the city of Moorpark, and shall be made available for public inspection while this code is in force.

**THIS PAGE LEFT BLANK IN ERROR AND WILL NOT APPEAR IN THE FINAL ORDINANCE**

**15.08.020 Grading enforcement by city engineer.**

The definition of building official contained in Section 202 of the California Building Code is replaced in its entirety to read:

> 202 Building Official. The officer or other designated authority, or a duly authorized representative charged with the administration and enforcement of this Code, except Appendix J. The authority designated to enforce Appendix J shall be the City Engineer.

**15.08.030 Foundation design.**

The following language is added to the city's adoption of the California Building Code at the location indicated by the section number below:

> 1808.6.5. When buildings are located on expansive soil having an expansion index greater than 50, gutters, downspouts, piping, and/or other non-erosive devices shall be provided to collect and conduct rain water to pervious areas such as yards, open channels, or vegetated areas. Routing rooftop runoff through yard drains to the roadway or the storm water conveyance system shall not be permitted.

**15.08.040 Table 1809.7 amended.**

Table 1809.7 of the California Building Code is hereby replaced in its entirety to read:

**Table 1809.7—Foundations for stud bearing walls—minimum requirements[1, 10,11,12]**

| Weighted expansion index | Foundation for slab and raised floor systems[2 5 7] | | | | | | | Concrete slabs | | Pre-moistening of soils under footings, piers and slabs[5 6] | Restrictions on piers under raised floors |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | No of stories | Stem thickness[8] | Footing width[9] | Footing thickness | All perimeter footings[8] | Interior footings for slab and raised floors[8] | Reinforcement for continuous foundations[3 8] | 3-1/2" minimum thickness 4" with E I over 51 | | | |
| | | | | | Depth below natural surface of ground and finish grade | | | Reinforcement[4] | Total thickness of sand | | |
| | | Inches | | | | | | | | | |
| 0-20 Very low non expansive | 1 | 6 | 12 | 6 | 12 | 12 | 1-#4 Top and bottom | #4 @ 48" o/c each way or #3 @ 36" o/c each-way | 2" | Moistening of ground prior to placing concrete is recommended | Piers allowed for single floor loads only |
| | 2 | 6 | 15 | 7 | 18 | 18 | | | | | |
| | 3 | 10 | 18 | 8 | 24 | 24 | | | | | |
| 21-50 Low | 1 | 6 | 12 | 8 | 15 | 12 | 1-#4 Top and bottom | | 4" | 3% over optimum moisture required to a depth of 18" below lowest adjacent grade Testing required. | Piers allowed for single floor loads only |
| | 2 | 8 | 15 | 7 | 18 | 18 | | | | | |
| | 3 | 10 | 18 | 8 | 24 | 24 | | | | | |
| 51-90 Medium | 1 | 6 | 12 | 8 | 21 | 12 | 1-#4 top and bottom | #3 @ 24" o c each way | 4" | 3% over optimum moisture required to a depth of 18" below lowest adjacent grade Testing required | Piers not allowed |
| | 2 | 8 | 15 | 8 | 21 | 18 | | | | | |
| | 3 | 10 | 18 | 8 | 24 | 24 | #3 bars @ 24" o c each way 12" into footing, 36" into slab[10] | | | | |
| 91-130 High | 1 | 6 | 12 | 8 | 27 | 12 | 2- #4 Top & bottom | #3 @ 24" o c each way | 4" | 3% over optimum moisture required to a depth of 18" below lowest adjacent grade Testing required | Piers not allowed |
| | 2 | 8 | 15 | 8 | 27 | 18 | | | | | |
| | 3 | 10 | 18 | 8 | 27 | 24 | #3 bars @ 24" o c each way 12" into footing, 36" into slab[10] | | | | |
| Above 130 very high | Special design by a licensed Architect or Engineer required | | | | | | | | | | |

Footnotes to Table 1809.7

1. Pre-moistening is required where specified in Table CBC 1809.7 in order to achieve maximum and uniform expansion of the soil prior to construction and thus limit structural distress caused by uneven expansion and shrinkage. Other systems, which do not include pre-moistening, may be approved by the Building Official, when such alternatives are shown to provide equivalent safeguards against the adverse effects of expansive soil.
2. Under-floor access crawl holes shall be provided with curbs extending not less than six (6) inches above adjacent grade to prevent surface water from entering the foundation area.
3. Reinforcement for continuous foundations shall be placed not less than three (3) inches above the bottom of the footing and not less than three (3) inches below the top of the stem.
4. Slab reinforcement shall be placed at mid-depth and continue to within two (2) inches of the exterior face of the exterior face of the exterior footing walls.
5. Moisture content of soils shall be maintained until foundations and piers are poured and a vapor barrier is installed. Test shall be taken within twenty-four (24) hours of each slab pour.
6. Crawl spaces under raised floors need not be pre-moistened except under interior footings. Interior footings which are not enclosed by a continuous perimeter foundation system or equivalent concrete or masonry moisture barrier shall be designed and constructed as specified for perimeter footings in Table CBC 1809.7.
7. A grade beam not less than twelve (12) inches by twelve (12) inches in cross-sectional area, reinforced as specified for continuous foundations in Table CBC 1809.7, shall be provided at garage door openings.
8. Foundation stem walls which exceed a height of three (3) times the stem thickness above lowest adjacent grade shall be reinforced in accordance with Sections 18 and 19 in the CBC, or as required by engineering design, whichever is more restrictive.
9. Footing widths may be reduced upon submittal of calculations by a registered civil or structural engineer or licensed architect, but shall be a minimum of twelve (12) inches for one and two-story structures and fifteen (15) inches for three-story structures.
10. Bent reinforcing bar between exterior footing and slab shall be omitted when floor is designed as an independent, "floating" slab.
11. Fireplace footings shall be reinforced with a horizontal grid located three (3) inches above the bottom of the footing and consisting of not less than No. 4 bars at twelve (12) inches on center each way. Vertical chimney reinforcing bars shall be hooked under the grid.
12. Underground utility conduits shall be installed prior to foundation inspection and shall extend beyond the foundation.

**15.08.050 Swimming pools.**

A. The following language is added to the City's adoption of the California Building Code at the location indicated by the section numbers below.

3109.7 Pool Design and Construction.

3109.7.1 General. Pool design and construction shall be in accordance with accepted engineering practice, shall be in conformity with applicable provisions of the adopted building, electrical, plumbing, and mechanical codes, and shall be structurally suitable for the soil, topographic, and geologic conditions prevailing at the construction site.

3109.7.2 Expansive Soil Design. Pools constructed at grade shall be designed on the assumption that their construction is to be in an area of moderately expansive soil having an expansion index of 51-90 and an equivalent fluid pressure of not less than 45 pounds per cubic foot (p.c.f.). Exception: Where tests indicate that soils at a pool site are non-expansive or have low expansion characteristics from the ground surface to the full depth of the pool, structural design may be based on an equivalent fluid pressures not less than 30 p.c.f.

In highly expansive soils having an expansion index of 91-130, pools shall be designed for not less than 60 p.c.f. equivalent fluid pressure. In very highly expansive soils having an expansion index over 130, pool design shall be subject to special requirements based on a site investigation, soil testing, and engineering analysis by a registered civil engineer to determine appropriate design parameters for the site.

3109.7.3 Hydrostatic Uplift. In areas of anticipated high water table, an approved hydrostatic relief system or device shall be installed.

3109.7.4 Thermal Protection for Plastic Piping. Between the inlet of pool water heating equipment and any plastic water piping connected thereto, a check valve shall be installed to prevent thermal damage to such piping due to backflow. Exception: When rapid or high-rate filters are employed, a check valve may be omitted.

Between the outlet of pool heating equipment and any plastic water piping connected thereto, not less than 5 feet of approved metal pipe shall be installed for the purpose of dissipating heat.

3109.7.5 Safeguarding Suction Drains. Bottom drains and suction intakes in pools and spas shall be covered with grated or other protective devices which cannot be removed except with tools. The slots or openings in these covers shall be of such area, shape, and arrangement as to prevent bathers from being drawn thereto with such force as to constitute a safety hazard.

3109.7.6 Grab Bars. Wherever egress from a pool by bathers is restricted by the presence of a vertical wall or other barrier which extends more than 12 inches above the water at the pool's edge, permanent handrail, grab bars, or equivalent device(s) shall be installed within 12 inches of the water surface, capable of being securely grasped and adequate to support the weight of a user of the pool.

3109.7.7 Decks

3109.7.7.1 General. A deck shall be provided around below-grade swimming pools except when special engineering design is furnished which indicates that such deck is not necessary for the purpose of maintaining the structural integrity of the pool and/or for controlling surface water and moisture content in the soil adjacent to the pool. Decks shall not be required for spas and hot tubs.

3109.7.7.2 Deck Design and Construction. Required decks shall be constructed of concrete or other approved impervious material and shall be sloped to provide positive drainage away from the perimeter of the pool. Except as provided below, decks shall have a minimum width of 4 feet and shall be at least 3-1/2 inches in thickness. Reinforcement shall be #3 bars spaced not over 24 inches on center each way, or equivalent reinforcing.

Approved joints shall be provided in the deck at corners, at maximum 10-foot intervals, and wherever necessary in order to control cracking, to allow for differential movement and to minimize damage to the deck from such movement should it occur. Joints in decks and coping shall be made watertight with an approved permanent resilient sealant.

3109.7.7.3 Cutoff Walls. At the outer perimeter of pool decks a cutoff wall of approved material shall be installed below-grade to a depth of at least 15 inches so as to form a permanent and effective vertical moisture barrier.

Exception:

1. A cutoff wall may be omitted when a deck at least 6 feet wide is installed.

2. Decks less than 4 feet in width may be installed provided that the required cutoff wall is increased in depth beyond the minimum by an amount directly proportional to the reduction in deck width.

3109.7.7.4 Pre-Saturation, Highly Expansive Soils. When the soil below a deck has an expansion index of 91 or greater it shall be saturated with water to a depth of at least 18 inches prior to installation of the deck.

3109.7.7.5 Surface Water. Surface water from pool decks shall be collected and conducted through non-erosive devices to a street, storm drain, or other approved watercourse or disposal area.

3109.7.7.6 Wastewater. Pool waste shall be disposed of in accordance with the requirements of the Health Officer.

3109.7.7.7 Drywells. Drywells shall not be employed for pool wastewater disposal except when specifically approved for the purpose and when it has been determined that such installation is not likely to have adverse effects on the structural stability of the pool or other structures on the site. The Building Official may require a percolation test, soils report, and/or geological report to make such a determination.

3109.7.7.8 Special Inspection. Special inspection as required by Section 1701 in the UBC shall be provided for pneumatically placed concrete (gunite) in swimming pools.

**15.08.060 Fire hazard zone requirements.**

The following language is added to the City's adoption of the California Building Code at the location indicated by the chapter and section numbers below.

Chapter 36
Fire Hazard Zone Requirements

3601. High Fire Hazard Area Defined. For the purpose of this code, certain locations within the incorporated areas of the city of Moorpark shall be classified as High Fire Hazard by the Ventura County Fire Protection District. The High Fire Hazard Area is defined as any area within 500 feet of uncultivated brush, grass, or forest-covered land wherein an authorized representative of said district determines that a potential fire hazard exists due to the presence of such flammable growth.

3602. Construction Requirement in High Fire Hazard Areas. The purpose of this section is to provide a minimum standard for the fire protection of buildings and structures hereafter erected in proximity to areas of the city where concentrations of highly flammable brush, grass, or other combustible growth combined with periods of hot, dry winds create a high fire hazard and where lives and property may thereby be endangered.

Buildings or structures hereafter erected, constructed or moved within or into designated High Fire Hazard Areas shall be one of the Types of Construction as defined in this code and shall meet the requirements of this section. Although their installation is encouraged, neither manual nor automatic fire extinguishing systems or similar water spraying devices may be substituted for the fire protection set forth herein.

3602.1 Roofs. Roof coverings shall be class A, or B as specified in Section 1505 of the California Building Code, except that no wooden shakes or shingles, treated or untreated, shall be permitted.

3602.2 Exterior Walls. Fire-resistive protection of exterior walls and openings, as determined by location and property, shall be as required by Section 704 in the California Building Code. Exception: No exterior wall covering of a building shall provide less fire resistance than that afforded by: 7/8-inch exterior cement plaster; 1-inch nominal thickness solid wood siding; 1/2-inch textured plywood siding having a groove depth of 1/8-inch or less; 7/16-inch hardwood siding 5/8-inch particle board, exterior type 2-M; or 5/8-inch exterior plywood, Texture III, having a groove depth of 1/4-inch or less. Fire-retardant treated or untreated wood shingle or shake siding shall not be permitted.

3602.3 Underfloor Areas. Where under floor areas are not enclosed by fire-resistive construction conforming to the requirements of Section 3602.2 above, the underside of the floor system shall be fire-protected as set forth in Section 3602.4.

3602.4 Projections and Other Building Elements Exposed to Fire. Architectural projections such as roof overhangs and offsets, balconies and decks, and other elements of buildings which have combustible structural elements in the horizontal plane, shall be protected with materials approved for 1-hour fire-resistive construction on the lower, fire-exposed side and shall have 1-hour fire-resistive supporting columns unless the details of construction conform to those for heavy timber as described in Section 602.4 in the California Building Code.

Exceptions:

1. Combustible structural members in horizontal projections may be unprotected timbers of size four 4 x 6 inch or larger when used as rafters or as stair, balcony, or deck supports or for similar purposes.

2. Heavy timber roof decking at eaves and rakes may be unprotected provided a fascia of not less than 2-inch nominal thickness and not less in depth than the cut end of the rafter is installed at the roof's edge.

3. Patios, carports, arbors and open latticework sunshades may be constructed of any materials allowed by this code.

4. Balconies and decks 30 inches or more above grade may have flooring of not less than 2-inch nominal thickness lumber or material of equivalent fire resistance. Such flooring may be spaced not more than 1/4 inch apart and need not be fire protected on the underside.

5. Balconies and decks less than 30 inches above grade shall be solidly floored without gaps and shall be fire-protected on the underside as required by this section. In lieu of fire protection, such balconies and decks may be enclosed

from floor surface to grade in the manner prescribed for exterior walls in Section 3602.2.

6. Combustible exterior columns directly supporting roofs, stairs, balconies, and decks may be size 4 x 4 inch or larger. Columns and beams supporting interior floor loads may be size 6 x 6 inch or larger.

3602.5 Ventilation Openings. Attic or foundation ventilation openings or louvers shall not be located at or immediately below, eaves, or rakes, offsets or balconies, or similar exterior overhangs which may be directly exposed to a fire in adjacent hazardous grass or brush areas.

3603. Waiver of Requirements. The building official may waive the requirements of California Building Code Sections 3601 through 3602.5 above, in whole or in part, for specific construction projects within the High Fire Hazard Area when such waiver is approved by an authorized representative of the Ventura County Fire Protection District, based upon site conditions which justify a reduction in fire resistance.

## CHAPTER 15.10
## CALIFORNIA GREEN BUILDING STANDARDS CODE

**Sections:**

**15.10.010 California Green Building Standards Code adopted.**
**15.10.020 Permit fees.**
**15.10.030 Plan review fees.**
**15.10.040 Construction demolition material management.**

### 15.10.010 California Green Building Standards Code adopted.

Except as hereihafter provided, the California Green Building Standards Code, 2016 Edition, published by the International Code Council, is hereby adopted by reference as the Green Building Code of the city of Moorpark. A copy of the California Green Building Standards Code, 2016 Edition, shall be maintained in the office of the building official of the city of Moorpark and shall be made available for public inspection while this code is in force.

### 15.10.020 Permit fees.

The following language is added to the city's adoption of the California Green Building Standards Code at the location indicated by the section number below.

101.12. A fee as set forth in the latest resolution of the city council of the city of Moorpark relating to compliance with this chapter shall be assessed to verify compliance with the mandatory measures of the California Green Building Standards Code.

**15.10.030 Plan review fees.**

The following language is added to the city's adoption of the California Green Building Standards Code at the location indicated by the section number below.

> 101.13. Plan Review Fee. When a plan or other data is required to be submitted by Section 102, a plan review fee shall be paid at the time of submitting plans and specifications for review. The plan review fee shall be as set forth in the latest resolution of the city council of the city of Moorpark relating to plan review fees.

**15.10.040 Construction demolition material management.**

The provisions of Chapter 8.36 of Title 8 of the Moorpark Municipal Code shall apply to the construction waste reduction, disposal and recycling of residential and non-residential construction material.

## CHAPTER 15.12
## ELECTRICAL CODE

**Sections:**

**15.12.010 Electrical Code adopted.**

**15.12.010 Electrical Code adopted.**

Except as hereinafter provided, the California Electrical Code, 2016 Edition, published by the International Code Council, is hereby adopted by reference as the Electrical Code of the city of Moorpark. A copy of the California Electrical Code, 2016 Edition, shall be maintained in the office of the building official of the city of Moorpark and shall be made available for public inspection while this code is in force.

## CHAPTER 15.14
## PLUMBING CODE

**Sections:**

**15.14.010 Plumbing Code adopted.**

**15.14.010 Plumbing Code adopted.**

Except as hereinafter provided, the California Plumbing Code, 2016 Edition, published by the International Code Council, is hereby adopted by reference as the Plumbing Code of the city of Moorpark. A copy of the California Plumbing Code, 2016 Edition, shall be maintained in the office of the building official of the city of Moorpark and shall be made available for public inspection while this code is in force.

## CHAPTER 15.16
## MECHANICAL CODE

**Sections:**

**15.16.010 Mechanical Code adopted.**

**15.16.010 Mechanical Code adopted.**

Except as hereinafter provided, the California Mechanical Code, 2016 Edition, published by the International Code Council, is hereby adopted by reference as the Mechanical Code of the city of Moorpark. A copy of the California Mechanical Code, 2016 Edition, shall be maintained in the office of the building official of the city of Moorpark and shall be made available for public inspection while this code is in force.

## CHAPTER 15.18
## HOUSING CODE

**Sections:**

**15.18.010 Housing Code.**
**15.18.020 Substandard buildings.**

**15.18.010 Housing Code.**

Except as hereinafter provided the International Property Maintenance Code, 2015 Edition, published by the International Code Council, is hereby adopted by reference as the Housing Code of the city of Moorpark. A copy of the International Property Maintenance Code, 2015 Edition, shall be maintained in the office of the building official of the city of Moorpark and shall be made available for public inspection while this code is in force.

**15.18.020 Substandard buildings.**

Section 108.1 of the International Property Maintenance Code is amended to read as set forth in Section 17920.3 of the Health and Safety Code of the State of California. A copy of Section 17920.3 of the Health and Safety Code of the State of California shall be maintained in the office of the Building Official of the City of Moorpark and shall be made available for public inspection while this Code is in force.

## CHAPTER 15.20
## CALIFORNIA ENERGY CODE

**Sections:**

**15.20.010 Energy Code adopted.**

**15.20.010 Energy Code adopted.**

Except as hereinafter provided the California Energy Code, 2016 Edition, published by the International Code Council, is hereby adopted by reference as the Energy Code of the city of Moorpark. A copy of the California Energy Code, 2016 Edition, shall be maintained in the office of the building official of the city of Moorpark and shall be made available for public inspection while this code is in force.

## CHAPTER 15.22
## CALIFORNIA RESIDENTIAL CODE

**Sections:**

**15.22.010 Residential Code adopted.**
**15.22.020 General.**

**15.22.030 Footings.**
**15.22.040 Table R430.1 amended.**
**15.22.050 Foundation design.**
**15.22.060 Lateral support.**
**15.22.070 Wood truss design.**
**15.22.080 Roofing.**

**15.22.010 Residential Code adopted.**

Except as hereinafter provided, the California Residential Code, 2016 Edition, with Appendices E and H, published by the International Code Council, is hereby adopted by reference as the Residential Code of the city of Moorpark. A copy of the California Residential Code, 2016 Edition, shall be maintained in the office of the building official of the city of Moorpark and shall be made available for public inspection while this code is in force.

**15.22.020 General.**

Section R401.1 of the California Residential Code is replaced in its entirety to read:

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 American Forest and Paper Association Permanent Wood Foundation (AF&PA PWF) standards.

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 2 floors and a roof.

2. When interior basement and foundation walls are constructed at intervals not exceeding 50 feet.

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

**15.22.030 Footings.**

Sections R403.1.2, R403.1.3, R403.1.5 of the California Residential Code are replaced in their entirety to read:

R403.1.2 Continuous footing in Seismic Design Categories $D_0$, $D_1$, $D_2$ and E. The braced wall panels at exterior walls of buildings located in Seismic Design Categories $D_0$, $D_1$, $D_2$ and E shall be supported by continuous footings. All required braced wall panels in buildings shall be supported by continuous footings.

R403.1.3 Seismic reinforcing. Concrete footings located in Seismic Design Categories $D_0$, $D_1$, $D_2$ and E as established in Table R301.2(1), shall have minimum reinforcement. Bottom reinforcement shall be located a minimum of three (3) inches clear from the bottom of the footing.

In Seismic Design Categories $D_0$, $D_1$, $D_2$ and E where construction joint is created between a concrete footing and a stem wall, a minimum of one (1) No. 4 bar shall be installed at not more than 4 feet on center. The vertical bar shall extend 3 inches clear of the bottom of the footing, have a standard hook and extend a minimum of 14 inches into the stem wall.

In Seismic Design Categories $D_0$, $D_1$, $D_2$ and E where a grouted masonry stem wall is supported on a concrete footing and stem wall, a minimum of one (1) No. 4 bar shall be installed at not more than 4 feet on center. The vertical bar shall extend to 3 inches clear of the bottom of the footing and have a standard hook.

In Seismic Design Categories $D_0$, $D_1$, $D_2$ and E, masonry stem walls without solid grout and vertical reinforcing are not permitted.

Exception: In detached one- and two-family dwellings located in Seismic Design Categories A, B or C which are 3 stories or less in height and constructed with stud bearing walls, plain concrete footings without longitudinal reinforcement supporting wall and isolated plain concrete footings supporting columns or pedestals are permitted.

R403.1.5 Slope. The top surface of footings shall be level. The bottom surface of footings shall be permitted to have a slope not exceeding one (1) vertical unit in ten (10) units horizontal (10-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 (1) unit vertical in ten (10) units horizontal (10-percent slope). For structures located in Seismic Design Categories $D_0$, $D_1$, $D_2$, and E, stepped footings shall be reinforced with four (4) ½-inch diameter deformed reinforcing bars. Two (2) bars shall be placed at the top and bottom of the footings.

**15.22.040 TABLE R403.1 amended.**

Table R403.1 of the California Residential Code is hereby amended to read:

**Table R403.1—Foundations for stud bearing walls—minimum requirements[1, 10,11,12]**

| Weighted expansion index | Foundation for slab and raised floor systems[2,5,7] | | | | | | | Concrete slabs | | Pre-moistening of soils under footings, piers and slabs[5 6] | Restrictions on piers under raised floors |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | No of stories | Stem thickness[8] | Footing width[9] | Footing thickness | All perimeter footings[6] | Interior footings for slab and raised floors[6] | Reinforcement for continuous foundations[3 8] | 3-1/2" minimum thickness 4" with E I over 51 | | | |
| | | | | | Depth below natural surface of ground and finish grade | | | Reinforcement[4] | Total thickness of sand | | |
| | | Inches | | | | | | | | | |
| 0-20 Very low non expansive | 1 | 6 | 12 | 6 | 12 | 12 | 1-#4 Top and bottom | #4 @ 48" o/c each way or #3 @ 36" o/c each way | 2" | Moistening of ground prior to placing concrete is recommended | Piers allowed for single floor loads only |
| | 2 | 6 | 15 | 7 | 18 | 18 | | | | | |
| | 3 | 10 | 18 | 8 | 24 | 24 | | | | | |
| 21-50 Low | 1 | 6 | 12 | 6 | 15 | 12 | 1-#4 Top and bottom | | 4" | 3% over optimum moisture required to a depth of 18" below lowest adjacent grade Testing required | Piers allowed for single floor loads only |
| | 2 | 8 | 15 | 7 | 18 | 18 | | | | | |
| | 3 | 10 | 18 | 8 | 24 | 24 | | | | | |
| 51-90 Medium | 1 | 6 | 12 | 8 | 21 | 12 | 1-#4 top and bottom | #3 @ 24" o c each way | 4" | 3% over optimum moisture required to a depth of 18" below lowest adjacent grade Testing required | Piers not allowed |
| | 2 | 8 | 15 | 8 | 21 | 18 | | | | | |
| | 3 | 10 | 18 | 8 | 24 | 24 | #3 bars @ 24" o c each way 12" into footing, 36" into slab[10] | | | | |
| 91-130 High | 1 | 6 | 12 | 8 | 27 | 12 | 2- #4 Top & bottom | #3 @ 24" o c each way | 4" | 3% over optimum moisture required to a depth of 18" below lowest adjacent grade Testing required | Piers not allowed |
| | 2 | 8 | 15 | 8 | 27 | 18 | | | | | |
| | 3 | 10 | 18 | 8 | 27 | 24 | #3 bars @ 24" o c each way 12" into footing, 36" into slab[10] | | | | |
| Above 130 very high | Special design by a licensed Architect or Engineer required | | | | | | | | | | |

Footnotes to Table R403.1

1. Pre-moistening is required where specified in Table R403.1 in order to achieve maximum and uniform expansion of the soil prior to construction and thus limit structural distress caused by uneven expansion and shrinkage. Other systems, which do not include pre-moistening, may be approved by the building official, when such alternatives are shown to provide equivalent safeguards against the adverse effects of expansive soil.
2. Under-floor access crawl holes shall be provided with curbs extending not less than 6 inches above adjacent grade to prevent surface water from entering the foundation area.
3. Reinforcement for continuous foundations shall be placed not less than 3 inches above the bottom of the footing and not less than 3 inches below the top of the stem.
4. Slab reinforcement shall be placed at mid-depth and continue to within 2 inches of the exterior face of the exterior face of the exterior footing walls.
5. Moisture content of soils shall be maintained until foundations and piers are poured and a vapor barrier is installed. Test shall be taken within 24 hours of each slab pour.
6. Crawl spaces under raised floors need not be pre-moistened except under interior footings. Interior footings which are not enclosed by a continuous perimeter foundation system or equivalent concrete or masonry moisture barrier shall be designed and constructed as specified for perimeter footings in Table R403.1.
7. A grade beam not less than 12 inches by 12 inches in cross-sectional area, reinforced as specified for continuous foundations in Table R403.1, shall be provided at garage door openings.
8. Foundation stem walls which exceed a height of three (3) times the stem thickness above lowest adjacent grade shall be reinforced in accordance with Sections 18 and 19 in the California Building Code, or as required by engineering design, whichever is more restrictive.
9. Footing widths may be reduced upon submittal of calculations by a registered civil or structural engineer or licensed architect, but shall be a minimum of 12 inches for one- and two-story structures and 15 inches for three-story structures.
10. Bent reinforcing bar between exterior footing and slab shall be omitted when floor is designed as an independent, "floating" slab.
11. Fireplace footings shall be reinforced with a horizontal grid located 3 inches above the bottom of the footing and consisting of not less than No. 4 bars at 12 inches on center each way. Vertical chimney reinforcing bars shall be hooked under the grid.
12. Underground utility conduits shall be installed prior to foundation inspection and shall extend beyond the foundation.

**15.22.050 Foundation design.**

The following language is added to the city's adoption of the California Residential Code at the location indicated by the section number below:

R403.1.8 When buildings are located on expansive soil having an expansion index greater than 50, gutters, downspouts, piping and/or other non-erosive devices shall be provided to collect and conduct rain water to pervious areas such as yards, open channels or vegetated areas. Routing rooftop runoff via yard drains to the roadway or the storm water conveyance system shall not be permitted. **[NOTE: SECTION R403.1.8 ALREADY EXISTS]**

**15.22.060 Lateral support.**

Section R802.8 of the California Residential Code is replaced in its entirety to read:

R802.8 Lateral Support. Roof framing members and ceiling joists having a depth-to-thickness ratio exceeding two (2) to one (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.

**15.22.070 Wood truss design.**

Section R802.10.2 of the California Residential Code is replaced in its entirety to read:

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 American National Standards Institute/Truss Plate Institute (ANSI/TPI) 1. The truss design drawings shall be prepared by a registered professional.

**15.22.080 Roofing.**

Section R902.1 of the California Residential Code is replaced in its entirety to read:

R902.1 Roofing Covering Materials. Roof coverings shall be class A or B, except that no wooden shakes or shingles, treated or untreated, shall be permitted.

- End -