





# City of Arcadia

## Development Services Department

Jason Kruckeberg  
*Director of  
Development Services*

December 30, 2010

California Building Standards Commission  
2525 Natomas Park Drive, Suite 130  
Sacramento, CA. 95833-2936

Re: City of Arcadia, Building Ordinance

Mr. Dave Walls:

The City of Arcadia has adopted the current Fire, Building, Residential, Green, Plumbing, Mechanical and Electrical Codes of the State of California.

The City of Arcadia has recommended changes and modifications to the Codes and have advised that certain said changes and modifications to the 2010 Editions of the California Fire, Building, Residential and Electrical Codes are reasonably necessary due to local conditions of the City of Arcadia and have further advised that the remainder of said changes and modifications are of an administrative or procedural nature, or concern themselves with subjects not covered by the Code or are reasonably necessary to safeguard life and property within the City of Arcadia.

The enclosed City Ordinance is for your files.

If additional information is required please contact this office at (626)574-5420

Sincerely,

Don Stockham  
Building Official

Mark Krikorian  
Fire Marshal

2011 JAN 10 P 1:15  
CALIFORNIA BUILDING  
STANDARDS COMMISSION

ORDINANCE NO. 2280

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF ARCADIA, CALIFORNIA, AMENDING ARTICLE III OF THE ARCADIA MUNICIPAL CODE RELATING TO FIRE REGULATIONS AND ADOPTING BY REFERENCE THE 2010 EDITION OF THE CALIFORNIA FIRE CODE IN ITS ENTIRETY, INCLUDING CHAPTER 1 AND APPENDICES CHAPTER 4, B, C, D, E, F, G, I AND J BASED ON THE 2009 EDITION OF THE INTERNATIONAL FIRE CODE PUBLISHED BY THE INTERNATIONAL CODE COUNCIL

THE CITY COUNCIL OF THE CITY OF ARCADIA, CALIFORNIA, DOES ORDAIN AS FOLLOWS:

SECTION 1. The City Council finds that the amendments and additions to the California Fire Code herein are supported by Findings of Fact which are attached as Exhibit "A" and incorporated as part of this Ordinance.

SECTION 2. Section 3121 of Article III, Chapter 1, Part 2, Division 1 of the Arcadia Municipal Code is hereby amended to read as follows:

**3121. CALIFORNIA FIRE CODE ADOPTION.**

Subject to the exception of the deletions or additions hereinafter set forth, and further subject to the amendments hereinafter specified, there is adopted by reference for the City of Arcadia the 2010 Edition of the California Fire Code, including Chapter 1 and Appendices Chapter 4, B, C, D, E, F, G, I, and J based on the 2009 Edition of the International Fire Code published by the International Code Council, and the foregoing shall constitute the Fire Code of the City of Arcadia.

One (1) copy of said codes are on file in the office of the City Clerk for use and examination by the public.

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SECTION 3. Section 3123 of Article III, Chapter 1, Part 2, Division 3 of the Arcadia Municipal Code is hereby amended to read as follows:

**3123. VIOLATIONS.**

1. Any person who shall violate any of the provisions of Sections 104, or 105 of Chapter 1 of the Fire Code or who shall build in violation of any detailed statement of specifications or plans submitted and approved under the provisions of this Code or Standards adopted, or any certificate or permit issued thereunder, and from which no appeal has been taken, or who shall fail to comply with such an order as affirmed or modified by the City Council or by a court of competent jurisdiction, with the time fixed herein, shall severally for each and every such violation, be guilty of a misdemeanor or an infraction, punishable pursuant to Section 1200 of the Arcadia Municipal Code.

2. Any person who shall violate any other section of the Fire Code shall be guilty of an infraction, punishable by fine as adopted by City Council Resolution.

3. The imposition of one penalty for any violation shall not excuse the violation or permit it to continue; and all such persons shall be required to correct or remedy such violations or defect in a timely manner as specified by the Fire Chief or his authorized representative.

4. The application of the above penalties shall not be held to prevent the enforced removal of prohibited conditions.

SECTION 4. Article III, Chapter 1, Part 2, Division 4 is hereby amended in its entirety to read as follows:

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**3124. AMENDMENTS AND ADDITIONS.**

The California Fire Code is hereby amended to read as follows:

**3124.1. AMENDMENT.**

Section 510.3 of the California Fire Code is amended to read as follows due to local climatic, geographical, and topographical conditions:

510.3 Emergency responder radio coverage in existing buildings. Existing buildings that do not have approved radio coverage for emergency responders within the building shall be equipped with such coverage according to one of the following:

1. Wherever an existing wired communication system cannot be repaired or is being replaced, or where not approved in accordance with Section 510.1, Exception 1.
2. Whenever total additions result in an increase of more than 5000 square feet in the total floor area, including mezzanines or additional stories, regardless of ownership. Additions shall be cumulative with each application for building permit from January 1, 2011.
3. Whenever the value of alterations requiring permits exceed \$500,000 in valuation. Alteration values shall be cumulative with each application for a building permit from January 1, 2011.

**3124.2. AMENDMENT.**

Section 903.2 of the California Fire Code is amended to read as follows due to local climatic, geographical, and topographical conditions:

903.2. Where required. Approved automatic extinguishing systems shall be installed:

1. In all new buildings regardless of the type of construction or occupancy.

**EXCEPTIONS:**

A) Detached Group U occupancies, providing the floor area does not exceed 1000 square feet.

B) Pool houses, recreation rooms, and similar accessory R-3 occupancies providing no portion of the exterior wall of the building is more than 150 feet from a public street.

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- C) Other minor buildings and/or occupancies as approved by the Fire Chief.
2. In existing buildings with new occupancies as required by other sections of the Fire Code.

**3124.3. AMENDMENT.**

Section 903.3.1.2 of the California Fire Code is amended to read as follows due to local climatic, geographical, and topographical conditions:

903.3.1.2. NFPA 13R SPRINKLER SYSTEMS. Where allowed in buildings of Group R, up to and including buildings four stories in height, automatic sprinkler systems shall be installed throughout in accordance with NFPA 13R with the following additions:

- A) Attics shall be fully sprinklered with quick-response intermediate temperature heads.
- B) Private garages shall be sprinklered and shall have a design density of an Ordinary Hazard Group 1 occupancy with a design area of two (2) heads. Quick-response intermediate temperature commercial type heads shall be used for the garage area.

**3124. 4. AMENDMENT.**

Section 903.3.1.3 of the California Fire Code is amended to read as follows due to local climatic, geographical, and topographical conditions:

903.3.1.3. NFPA 13D SPRINKLER SYSTEMS. Where allowed, automatic sprinkler systems installed in one-and two-family dwellings shall be installed throughout in accordance with NFPA 13D with the following additions:

- A) Attics containing forced air units shall have one or more quick-response intermediate temperature sprinkler heads adjacent to each unit.
- B) Attached private garages shall be sprinklered and shall have a design density of an Ordinary Hazard Group 1 occupancy with a design area of two (2) heads. Quick-response intermediate temperature commercial type heads shall be used for the garage area.

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C) Detached private garages over 1000 square feet in total area shall be sprinklered and shall have a design density of an Ordinary Hazard Group 1 occupancy with a design area of 2 heads. Quick-response intermediate temperature commercial type heads shall be used for the garage area.

D) Residential structures under 5000 square feet in total area shall be designed for two (2) heads flowing in the residential area. Residential structures over 5000 square feet in total area shall be designed for four (4) heads flowing in the residential area.

**3124.5. AMENDMENT.**

Section 903.6 of the California Fire Code is amended to read as follows due to local climatic, geographical, and topographic conditions:

903.6. EXISTING BUILDINGS. An approved automatic fire sprinkler system shall be installed in existing buildings, including any additions thereto, in the occupancies and buildings as set forth in this section.

1. In all commercial and industrial buildings greater than 5000 square feet in area when enlarged by an addition to the existing structure or as required by the Fire Chief.
2. In all commercial and industrial buildings equal to or less than 5000 square feet in area, when enlarged by an addition to the existing structure, exceeds 5000 square feet or as required by the Fire Chief.
3. In all Group R-1 or R-2 Occupancies when an addition results in additional guestrooms or dwelling units.
4. In all Group R-3 Occupancies greater than 2500 square feet in living area when enlarged by an addition to the living area of the existing structure.

**EXCEPTIONS:**

- A) Additions of areas that would not require sprinklers such as closets or bathrooms.
5. In all Group R-3 Occupancies equal to or less than 2500 square feet in living area, when enlarged by an addition to the living area of the existing structure, exceeds 2500 square feet in residential area.

EXCEPTIONS:

A) Additions of areas that would not require sprinklers such as closets or bathrooms.

6. In existing buildings for new occupancies as required by other sections of the Fire Code.

**3124.6. AMENDMENT.**

Section 903.4.2 of the California Fire Code is amended to read as follows due to local topographic conditions:

903.4.2. ALARMS. Approved audible devices shall be connected to every automatic sprinkler system. Such sprinkler water-flow alarm devices shall be activated by water flow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. Alarm devices shall be provided on the exterior of the building in an approved location. Where a fire alarm system is installed, actuation of the automatic fire sprinkler system shall actuate the building fire alarm system. Approved audible notification appliances shall be provided in the interior of the building at locations required by the Fire Chief.

**3124.7. ADDITION.**

Sections 504.4, 504.4.1 and 504.4.2 are hereby added to Chapter 5 of the California Fire Code to read as follows due to local climatic conditions:

504.4. Photovoltaic system installation requirements.

504.4.1. Signage. Approved signage shall be provided at the following locations:

1. Direct Current Conduit, Raceways, Enclosures, Cable Assemblies, and Junction Boxes

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a. Marking should be placed on all interior and exterior DC conduit, raceways, enclosures, and cable assemblies, every 10 feet, at turns and above and/or below penetrations and at all DC combiner and junction boxes.

b. Marking should read - "CAUTION: SOLAR CIRCUIT"

2. DC Disconnect

a. Signage should read – "PV SYSTEM - DC DISCONNECT"

3. INVERTER:

a. Signage should read – "PV SYSTEM – INVERTER – WARNING:  
ELECTRICAL SHOCKHAZARD"

4. AC DISCONNECT:

a. Signage should read – "PV SYSTEM – AC DISCONNECT"

5. Permanent directory or plaque providing location of service disconnecting means and photovoltaic system disconnecting means, if not located at the same location.

504.4.2. Emergency access pathways. Emergency access pathways shall be provided for photovoltaic system installations as follows:

1. Residential Systems:

EXCEPTIONS: Photovoltaic systems on detached garages and/or pool houses.

a. Residential Buildings with hip roof layouts: Modules should be located in a manner that provides 3' wide clear access pathway from the eave to the ridge on each roof slope where modules are located. The access pathway should be located at a structurally strong location on the building (such as a bearing wall).

b. Residential Buildings with a single ridge: Modules should be located in a manner that provides 3' wide access pathways from the eave to the ridge on each roof slope where modules are located.

c. Hips and valleys: Modules should be located no closer than 1.5' to a hip or a valley if modules are to be placed on both sides of a hip or valley. If the modules are to be located on only one side of a hip or valley that is of equal length then the modules may be placed directly adjacent to the hip or valley.

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d. The modules should be located no higher than 3' below the ridge.

2. Commercial Systems:

a. Should be over structural members.

b. Centerline axis pathways should be provided in both axes of the roof. Centerline axis pathways should run on structural members or over the next closest structural member nearest to the center lines of the roof.

c. Should be straight line not less than 4' clear to skylights and/or ventilation hatches.

d. Should be straight line not less than 3' clear to roof standpipes.

e. Should provide not less than 3' clear around roof access hatch with a single minimum 4' clear pathway to parapet or roof edge.

f. Arrays should be no greater than 150 feet by 150 feet in size measured in either axis.

g. Pathway width options between array sections should be either:

1) 8' or greater in width.

2) 4' or greater in width and bordering on existing roof skylights or ventilation hatches.

3) 4' or greater in width and bordering 4' x 8' "venting cutouts" every 20' on alternating sides of the pathway.

3. Ground Mounted Arrays:

a. A clear brush area of 10' is required for ground mounted photovoltaic arrays.

**3124.8. ADDITION.**

Section 3308.2 is added to Chapter 33 of the California Fire Code to read as follows due to local climatic conditions:

3308.2. FIREWORKS PROHIBITED. No person shall sell, display for sale, possess, store, or manufacture, use, light, fire, discharge, explode or set off any fire-

works, including "Safe and Sane" fireworks anywhere within the City, except as allowed by the Fire Chief.

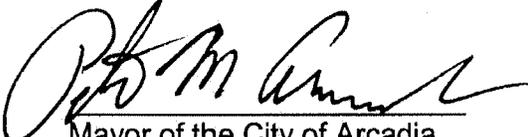
**3124.9. ADDITION [ADMINISTRATIVE].**

Section 105.1.4 is added to the California Fire Code to read as follows:

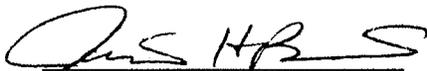
When the application for a permit under this section is filed, a non-refundable fee as adopted by City Council Resolution shall be paid for the purpose of recovering the cost of services provided.

SECTION 5. The City Clerk shall certify to the adoption of the Ordinance and shall cause a copy of same to be published in the official newspaper of said City within fifteen (15) days after its adoption..

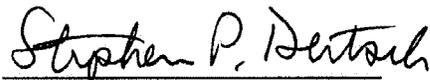
Passed, approved and adopted this 7th day of December, 2010.

  
Mayor of the City of Arcadia

ATTEST:

  
City Clerk

APPROVED AS TO FORM:

  
Stephen P. Deitsch  
City Attorney

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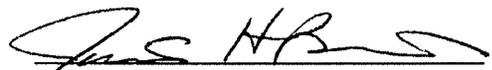
STATE OF CALIFORNIA       )  
COUNTY OF LOS ANGELES ) SS:  
CITY OF ARCADIA            )

I, JAMES H. BARROWS, City Clerk of the City of Arcadia, hereby certifies that the foregoing Ordinance No. 2280 was passed and adopted by the City Council of the City of Arcadia, signed by the Mayor and attested to by the City Clerk at a regular meeting of said Council held on the 7th day of December, 2010 and that said Ordinance was adopted by the following vote, to wit:

AYES:       Council Member Chandler, Harbicht, Kovacic, Segal and Amundson

NOES:       None

ABSENT:    None

  
City Clerk of the City of Arcadia



# City of Arcadia

## Fire Department

Tony L. Trabbie  
*Fire Chief*

### ATTACHMENT A

#### FINDINGS OF FACT

Pursuant to the 2010 Edition of the California Fire Code Preface, the report contained herein shall be submitted as the Findings of Fact document with regard to Article III of the City of Arcadia Municipal Code, Ordinance No. 2280, as adopted by the City of Arcadia. Under this adopting Ordinance specific amendments have been established, which are more restrictive in nature than those sections adopted by the California Building Standards Code.

The amendments to the California Fire Code, 2010 Edition have been recognized by the City of Arcadia to address the fire problem(s), concern(s) and future direction(s) by which this City can establish and maintain an environment, which will afford a level of fire and life safety to its citizens and guests.

Under the provisions of California Fire Code Preface, local amendments shall be based on climatic, geographical or topographical conditions. The Findings of Facts contained herein shall address each of these situations and shall present the local situation, which singularly or in combination cause the established amendments to be adopted.

**Climatic:** The City of Arcadia is located in the County of Los Angeles, and is subject to long periods of dry, hot and windy climates, which increase the chance of a fire occurring and predispose the City to large destructive fires. These dry climatic conditions and winds contribute to the rapid spread of even small fires originating in moderate density housing or vegetation. These fires spread very quickly and create a need for increased levels for fire prevention and protection.

**Geographical:** The geographic layout and contours of the City of Arcadia create barriers for accessibility for fire suppression forces. Due to the City's close proximity to major fault lines, there is a significant possibility for multiple fires spreading out of control due to ruptured gas lines and multiple structural collapses. Because of the major earthquake hazard, and due to some older nonconforming buildings, it is necessary during the new construction or building renovation to use the City ordinance to control and minimize conditions hazardous to life and property, which may result from fire, hazardous materials or an explosion.

**Topographical:** The water supply (domestic and fire flow) system within the City is directly affected by the topographical layout of Arcadia. The distribution system consists of high-low pressure and gravity systems zones, which carry the water from various reservoirs and storage tanks to different zones via water pipes. These street mains consist of high-pressure lines and low pressure lines

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where the pressure and flows are adequate in most of the areas of the city. There are certain areas in the southern portion of the City with static pressures of 40 psi., and in the northern portion as low as 20 psi. This variation of pressure causes major problems to development, as well as fire suppression forces.

As a result of the Findings of Fact, which identified the various climatic, geographical, and topographical elements, the requirements established by the City of Arcadia Fire Department within the adopted Ordinance No. 2280 are considered reasonable and necessary modifications to the California Fire Code based upon local conditions.

While it is clearly understood that the adoption of such regulations may not prevent the incidents of fire, it is further noted that with the implementation of these various regulations and/or requirements it may serve to reduce the severity and potential loss of life and property.

The City of Arcadia Fire Department submits these Findings of Fact and request acceptance of these as defined in the California Fire Code Preface.

Prepared and submitted by: Mark Krikorian, Fire Marshal

ORDINANCE NO. 2279

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF ARCADIA, CALIFORNIA, AMENDING ARTICLE VIII OF THE ARCADIA MUNICIPAL CODE RELATING TO BUILDING REGULATIONS AND ADOPTING BY REFERENCE THE 2010 EDITIONS OF THE CALIFORNIA BUILDING CODE, VOLUMES 1 AND 2, INCLUDING STATE OF CALIFORNIA AMENDMENTS APPLICABLE TO LOCAL JURISDICTIONS AND FURTHER ADOPTING BY REFERENCE INCLUDING AMENDMENTS, THE 2010 CALIFORNIA RESIDENTIAL CODE, THE 2010 CALIFORNIA PLUMBING CODE, THE 2010 CALIFORNIA ELECTRICAL CODE, AND THE 2010 CALIFORNIA MECHANICAL CODE AND THE UNIFORM CODE FOR THE ABATEMENT OF DANGEROUS BUILDINGS, 1997 EDITION, AS PUBLISHED BY THE INTERNATIONAL CODE COUNCIL

THE CITY COUNCIL OF THE CITY OF ARCADIA, CALIFORNIA, DOES ORDAIN  
AS FOLLOWS:

SECTION 1. The City Council finds that the amendments to the California Building Standards Code herein are supported by Findings of Fact which are attached as Exhibit "A" and incorporated as part of this Ordinance.

SECTION 2. Section 8110 of Chapter 1, Part 1 of Article VIII of the Arcadia Municipal Code is hereby amended to read as follows:

**8110. ADOPTION.** Subject to certain changes and amendments as hereinafter set forth in this Part, the City Council adopts as the building regulations for the City, the 2010 Edition of the California Building Standards Code (California Code of Regulations, Title 24); including the 2010 California Building Code and Chapters 1 and 7A and Appendix J based on the 2009 International Building Code. The Code shall govern, regulate and control all of the activities therein referenced to and the same is made a part of this Chapter as though set forth in this Chapter in full.

One (1) copy of said Code is on file in the office of the City Clerk for use and examination by the public.

SECTION 3. Chapter 1, Part 3 of Article VIII of the Arcadia Municipal Code is hereby repealed in its entirety and a new Chapter 1, Part 3 of Article VIII is hereby added in place thereof to read as follows:

**PART 3**

**ADDITIONS, DELETIONS AND  
AMENDMENTS**

**8130. AMENDMENTS, ADDITIONS AND DELETIONS.**

The 2010 California Building Code is amended to read as follows:

**8130.1. ADDITION [ADMINISTRATIVE].**

Chapter 1, Section 116.6 is added to Volume 1, Chapter 1 of said 2010 California Building Code is amended to read as follows:

**116.6. Attractive Nuisance.** Attractive nuisances (those objects which, by their nature, may attract children or other curious individuals) including, but not limited to, unprotected and hazardous ponds, pools or excavations and buildings or structures undergoing demolition, repair, rehabilitation or construction shall be fenced or otherwise secured when required by the Building Official.

**8130.2. AMENDMENT [ADMINISTRATIVE].**

Chapter 1, Section 113.1 in Chapter 1, Volume 1 of the 2010 California Building Code is amended to read as follows:

**113.1. General.** In order to hear and decide appeals of orders, decisions or determinations made by the Building Official or the Fire Chief relative to the application and interpretation of the City's Building and Fire codes, the Planning Commission shall act as the Arcadia Building and Fire Code Board of Appeals. The Planning Commission shall not

consider an appeal until the Building Official or the Fire Chief has rendered a decision in writing. An appeal shall be filed with the City within 30 days from the date of his or her written decision; in addition, an appeals fee shall be paid to the City in an amount established by City Council Resolution. The appeal shall be in writing and shall clearly set forth the order, decision or determination being appealed. A hearing shall be scheduled before the Planning Commission as soon as practicable from the date of receipt of the appeal. The Building Official or the Fire chief, as applicable, shall prepare a written report for the Planning Commission. The decision of the Planning Commission shall be final unless appealed to the City Council. The appeal to the City Council shall be in writing and shall be filed with the City within five (5) working days from the date of the Planning Commission's decision; in addition, an appeals fee shall be paid to the City in an amount established by City Council Resolution. A hearing shall be scheduled before the City Council as soon as practicable from the date of the receipt of the written appeal. The Building Official or the Fire Chief, as applicable, shall prepare a written report for the City Council. The decision of the City Council shall be final.

**8130.3. AMENDMENT [ADMINISTRATIVE].**

Chapter 1, Section 105.2, item number 1 of Chapter 1 of the 2010 California Building Code is amended to read as follows:

1. One-story detached accessory buildings used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed 120 square feet and the highest point of the roof does not exceed 8 feet, 6 inches above adjacent grade.

**8130.4. AMENDMENT [ADMINISTRATIVE].**

Chapter 1, Section 109.2 in Chapter 1 of the 2010 California Building Code is amended to read as follows:

**109.2 General.** Fees shall be assessed in accordance with the fee schedule set forth by resolution of the City Council.

**8130.5. ADDITION [ADMINISTRATIVE].**

Chapter 2, Section 202 of the 2010 California Building Code is hereby amended by adding the following definitions to read as follows:

**REBUILD** as applied to an existing building, is where more than fifty percent (50%) of the existing foundation/floor assembly and more than fifty percent (50%) of the exterior walls of a building are removed. Existing buildings that are classified as a rebuild shall comply with all current City zoning, building and fire regulations and pay building permit fees for a new structure.

**REMODEL** is an alteration to an existing building where not more than fifty percent (50%) of the exterior walls of a building are removed, repaired or altered, excluding the interior finish wall coverings.

**8130.6. AMENDMENT.**

Section 903.2 of the 2010 California Building Code is amended to read as follows due to local climatic, geographical, and topographical conditions:

Approved automatic sprinkler systems shall be provided in:

1. In all new buildings regardless of the type of construction or occupancy.

**EXCEPTIONS:**

- A) Detached Group U occupancies, providing the floor area does not exceed 1000 square feet.
  - B) Pool houses, recreation rooms and similar accessory R-3 occupancies providing no portion of the exterior wall of the building is more than 150 feet from a public street.
  - C) Other minor buildings and/or occupancies as approved by the Fire Chief.
2. In existing buildings with new occupancies as required by other sections of the Fire Code.

**8130.7. AMENDMENT.**

Section 903.3.1.2 of the 2010 California Building Code is amended to read as follows due to local climatic, geographical, and topographical conditions:

**903.3.1.2. NFPA 13R SPRINKLER SYSTEMS.** Where allowed in buildings of Group R, up to and including buildings four stories in height, automatic sprinkler systems shall be installed throughout in accordance with NFPA 13R with the following additions:

- A) Attics shall be fully sprinklered with quick-response intermediate temperature heads.
- B) Private garages shall be sprinklered and shall have a design density of an Ordinary Hazard Group 1 occupancy with a design area of two (2) heads. Quick-response intermediate temperature commercial type heads shall be used for the garage area.

**8130.8. AMENDMENT.**

Section 903.3.1.3 of the 2010 California Building Code is amended to read as follows due to local climatic, geographical, and topographical conditions:

**903.3.1.3. NFPA 13D SPRINKLER SYSTEMS.** Where allowed, automatic sprinkler systems installed in one-and two-family dwellings shall be installed throughout in accordance with NFPA 13D with the following additions:

- A) Attics containing forced air units shall have one or more quick-response intermediate temperature sprinkler heads adjacent to each unit.
- B) Attached private garages shall be sprinklered and shall have a design density of an Ordinary Hazard Group 1 occupancy with a design area of two (2) heads. Quick-response intermediate temperature commercial type heads shall be used for the garage area.
- C) Detached private garages over 1000 square feet in total area shall be sprinklered and shall have a design density of an Ordinary Hazard Group 1 occupancy with a design area of 2 heads. Quick-response intermediate temperature commercial type heads shall be used for the garage area.
- D) Residential structures under 5000 square feet in total area shall be designed for two (2) heads flowing in the residential area. Residential structures over 5000 square feet in total area shall be designed for four (4) heads flowing in the residential area.

**8130.9. ADDITION.**

Section 903.6 of the 2010 California Building Code is added to read as follows due to local climatic, geographical, and topographic conditions:

**903.6. EXISTING BUILDINGS.** An approved automatic fire sprinkler system shall be installed in existing buildings, including any additions thereto, in the occupancies and buildings as set forth in this section.

- 1. In all commercial and industrial buildings greater than 5000 square feet in area when enlarged by an addition to the existing structure or as required by the Fire Chief.
- 2. In all commercial and industrial buildings equal to or less than 5000 square feet in area, when enlarged by an addition to the existing structure, exceeds 5000 square feet or as required by the Fire Chief.

3. In all Group R-1 or R-2 Occupancies when an addition results in additional guestrooms or dwelling units.
4. In all Group R-3 Occupancies greater than 2500 square feet in living area when enlarged by an addition to the living area of the existing structure.

EXCEPTIONS:

A) Additions of areas that would not require sprinklers such as closets or bathrooms.

5. In all Group R-3 Occupancies equal to or less than 2500 square feet in living area, when enlarged by an addition to the living area of the existing structure, exceeds 2500 square feet in residential area.

EXCEPTIONS:

A) Additions of areas that would not require sprinklers such as closets or bathrooms.

6. In existing buildings for new occupancies as required by other sections of the Fire Code.

**8130.10. AMENDMENT.**

Section 903.4.2 of the 2010 California Building Code is amended to read as follows due to local topographical conditions:

**903.4.2. ALARMS.** Approved audible devices shall be connected to every automatic sprinkler system. Such sprinkler water-flow alarm devices shall be activated by water flow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. Alarm devices shall be provided on the exterior of the building in an approved location. Where a fire alarm system is installed, actuation of the automatic fire sprinkler system shall actuate the building fire alarm system. Approved audible notification appliances shall be provided in the interior of the building at locations required by the Chief.

## **8130.11. AMENDMENT**

Volume 1, Chapter 12, Section 1207.7 of the 2010 California Building Code is amended to read as follows due to local topographical conditions:

**1207.7. Airborne Sound Insulation.** All such acoustically rated separating wall and floor-ceiling assemblies shall provide airborne sound insulation equal to that required to meet a sound transmission class (STC) rating of 58 based on laboratory tests as defined in ASTM E 90 and E 413. Field-tested assemblies shall meet a noise isolation class (NIC) rating of 53 for occupied units and a normalized noise isolation class (NNIC) rating of 53 for unoccupied units as defined in ASTM Standards E 336 and E 413.

**EXCEPTION:** Group R-1 hotel and motel occupancies shall be permitted to meet a minimum sound transmission class (STC) of 52, a noise isolation class (NIC) of 47, or a normalized noise isolation class (NNIC) of 47, as applicable.

ASTM E 597 may be used as a simplified procedure for field tests of the airborne sound isolation between rooms in unoccupied buildings. In such tests, the minimum value of  $D_n$  is 53 db for multiple family dwelling units and 47db for hotel and motel occupancies for compliance.

Entrance doors from interior corridors together with their perimeter seals shall have STC ratings not less than 30. Such tested doors shall operate normally with commercially available seals. Solid-core wood slab doors 1 3/8 inches thick minimum or 18 gage insulated steel slab doors with compression seals all around, including the threshold, may be considered adequate without other substantiating information. Field test of corridor walls should not include segments with doors. If such test is impractical, however, the NIC

or NNIC rating for composite wall-door assembly shall not be less than 30.

Penetrations or openings for construction assemblies for piping, electrical devices, recessed cabinets, bathtubs, soffits or heating, ventilating or exhaust ducts shall be sealed, lined, insulated or otherwise treated to maintain the required ratings.

#### **8130.12 AMENDMENT**

Volume 1, Chapter 12, Section 1207.8 of the 2010 California Building Code is amended to read as follows due to local topographical conditions:

**1207.8. Impact Sound Insulation.** All acoustically rated separating floor-ceiling assemblies shall provide impact sound insulation equal to that required to meet an impact insulation class (IIC) rating of 58 based on laboratory tests as defined in ASTM E 492 and E 989. Field-tested assemblies shall meet a field impact insulation class (FIIC) rating of 53 for both occupied and unoccupied units as defined in ASTM E 1007 and E 989, with the exception that the measured impact sound pressure levels shall not be normalized to a standard amount of absorption in the receiving room.

**EXCEPTION:** Group R-1 hotel and motel occupancies shall be permitted to meet a minimum impact insulation class (IIC) rating of 52 or a field impact insulation class (FIIC) rating of 47, as applicable. Floor coverings may be included in the assembly to obtain the required ratings. These coverings must be retained as a permanent part of the assembly and may only be replaced by other floor coverings that provide the required impact sound insulation.

### **8130.13 AMENDMENT**

Volume 1, Chapter 15, Section 1505 of the 2010 California Building Code is amended to read as follows due to climatic and topographical conditions:

#### **SECTION 1505 – ROOFING REQUIREMENTS**

The roof covering on any structure regulated by this code shall have a minimum Class A rating in the Wildland Interface Fire Area Boundaries and a class A or B rating in all other areas outside the Wildland Interface Fire Area Boundaries of the City. Pressure treated or untreated wood shakes and wood shingles shall not be installed on any building or structure located in the Wildland Interface Fire Area Boundaries.

### **8130.14. AMENDMENT**

Volume 1, Chapter 15, Section 1505.1 of the 2010 California Building Code is amended to read as follows due to climatic and topographical conditions:

#### **1505.1. Roof Coverings for Additions within the Wildland Interface Fire Area Boundaries.**

The roof covering on any addition made to an existing building or structure located within the Wildland Interface Fire Area Boundaries shall comply with Section 1505.1. The roof covering of an existing building or structure located in said zone shall be made to comply with Section 1505.1 when the cumulative roof area of the addition along with any alteration, replacement, repair or reroof made during the previous 12 months to the existing roof is 25 percent or more of the original roof area.

**1505.3.1 Roof Coverings for Additions Outside the Wildland Interface Fire Area Boundaries.**

The roof covering requirements for additions made to existing buildings or structures located outside the Wildland Interface Fire Area Boundaries shall comply with the following, as applicable:

- 1. 25% or Less.** The roof covering of an addition made to an existing structure or building may match the existing roof covering on the structure or building being added to providing the cumulative roof area of the addition along with any alteration, replacement, repair, or reroof made during the previous 12 months to the existing roof is 25 percent or less of the original roof area.
- 2. Over 25% But Less than 50%.** The roof covering of an addition made to an existing structure or building shall comply with Section 1505. The roof covering of the existing structure or building being added to may be left in place providing the cumulative roof area of the addition along with any alteration, replacement, repair or reroof made during the previous 12 months to the existing roof is over 25 percent but less than 50 percent of the original roof area.
- 3. 50% or More.** The roof covering of an addition made to an existing structure or building shall comply with Section 1505. The roof covering of the existing structure or building being added to shall be made to comply with Section 1505 when the cumulative roof area of the addition along with any alteration, replacement, repair, or reroof made during the previous 12 months to the existing roof is 50 percent or more of the original roof area.

**8130.15. ADDITION.**

Section 1510 is added to Volume 1, Chapter 15 of the 2010 California Building Code to read as follows due to local climatic and topographical conditions:

**1510Reroofing.** All reroofing shall comply with Chapter 15 of this Code, as amended by the City of Arcadia.

**8130.16. AMENDMENT**

Table 1505.1 in Chapter 15 of Volume 1 of the 2010 California Building Code is amended to read as follows due to local climatic conditions:

**TABLE 1505.1  
MINIMUM ROOF COVERING CLASSIFICATIONS  
TYPES OF CONSTRUCTION**

IA	IB	IIA	IIB	IIIA	IIIB	IV	VA	VB
B	B	B	B	B	B	B	B	B

**8130.17. AMENDMENT**

Volume 1, Chapter 15, Section 1510.1 in the 2010 California Building Code is amended to read as follows due to local climatic conditions:

**1510.1 General.** All reroofing shall conform to the applicable provisions of Chapter 15 of this Code and as otherwise required in this Chapter.

Roofing materials and methods of application shall comply with the Building Code standards or shall follow manufacturer's installation requirements when approved by the Building Official.

Roof coverings installed on existing buildings or structures shall require the submission of design calculations and plans prepared by an engineer or architect licensed by the State of California when the total installed weight of the finish roof covering material above the wood structural panels and underlayment is equal to or exceeds 6 pound per square foot. The design calculations shall demonstrate that the entire building or structure is adequate to support the vertical forces imposed by the new roofing.

**Reroofs in the Wildland Interface Fire Area Boundaries.** All reroofing in Wildland Interface Fire Area Boundaries of the City shall comply with Section 1505. The entire roof covering of an existing building or structure located in said zone shall be made to comply with Section 1505 when the cumulative roof area of any addition, alteration, replacement, repair, or reroof made during the previous 12 months to the existing roof is 25 percent or more of the original roof area.

**Reroofs in areas outside the Wildland Interface Fire Area Boundaries.** All reroofing in areas outside the Wildland Interface Fire Area Boundaries of the City shall comply with the following, as applicable:

1. **25% Or Less.** Up to 25 percent of an existing structure or building may be reroofed with a roof covering that matches the existing, providing the cumulative roof area of any addition, alteration, replacement, repair, or reroof made during the previous 12 months to the existing roof does not exceed 25% of the original roof area.

2. **Over 25% But Less Than 50%.** The roof covering of the area being reroofed shall comply with Section 1505. The roof covering of the existing structure or building being reroofed may be left in place providing the cumulative roof area of any addition, alteration, replacement, repair or reroof made during the previous 12 months to the existing roof is over 25 percent but less than 50 percent of the original roof area.
3. **50% Or More.** An existing building or structure shall be completely reroofed with a roof covering complying with Section 1505 when the cumulative roof area of any addition, alteration, replacement, repair, or reroof made during the previous 12 months to the existing roof is 50 percent or more of the original roof area.

#### **8130.18. AMENDMENT**

Section 1008.1.4.5 of Chapter 10 of the 2010 California Building Code is hereby amended to read as follows:

**1008.1.4.5. Security Grilles.** The use of security bars, panels, sliding metal grates, or other similar security devices is prohibited on the exterior of any building openings of all structures in commercial or industrial zones of the City. Subject to obtaining a permit pursuant to California Building Code Section 105.1 and compliance with design review requirements pursuant to Arcadia Municipal Code Sections 9295 et seq. as a prerequisite to the granting of any such permit, security bars, panels, gates, metal grates, or other similar security devices may be installed, in compliance with applicable Building Code requirements, on the interior of a commercial or industrial structure provided that the entire

building is equipped with an automatic fire sprinkler system, which has been installed under a permit from the Building Division and inspected pursuant thereto for compliance with the approved plans.

**8130.19. ADDITION [ADMINISTRATIVE]**

Chapter 35A is added to Volume 2 of the 2010 California Building Code to read as follows:

**CHAPTER 35A**

**MULTIPLE FAMILY CONSTRUCTION STANDARDS**

**SECTION 3501 - MULTIPLE FAMILY DEFINED**

A multiple family building shall be defined as one or more dwelling units located on any property in the City except the R-O, R-1 or the R-M zoned areas.

**3501.1 Application.** Except where a more restrictive requirement in the California Building Code, State Law or City Ordinance is applicable, each provision of this Chapter shall apply to each multiple family building as defined herein.

**SECTION 3502- NOISE REDUCTION STANDARDS**

**3502.1 General.** Attached multiple family dwelling units shall meet the sound transmission control standards specified in Appendix Chapter 12 of the Building Code and this Section.

**3502.2 Packing of Voids.** All voids surrounding water, drainage, and vent piping shall be packed with rock wool or equivalent approved sound deadening material, and all water, drainage, and vent piping shall be wrapped with an approved material at all points of contact with wood or steel framing members and strap hangers. Plumbing walls shall be a

minimum of 2 inch by 6-inch construction.

**3502.3 Plans.** All required 2 inch by 6-inch plumbing walls shall be clearly identified on the building plans.

**3502.4 Mechanical Equipment.** All mechanical equipment shall be installed so as to reduce sound transmission to a minimum.

**3502.5 Separation of Facilities.** Electrical, plumbing and mechanical equipment or systems serving one dwelling unit shall not serve other dwellings units, nor shall such equipment or systems be located within another dwelling unit. Recessed wall fixtures, such as medicine cabinets or electrical, telephone, television and intercom outlets, shall not be located back-to-back or in the same wall cavity.

**3502.6 Location of Plumbing and Ducts.** Water, drainage, and vent piping and heating and air conditioning ductwork shall not be located within any wall or floor-ceiling sound assembly.

### **SECTION 3503- COMFORT COOLING SYSTEM**

A comfort cooling system shall be provided for each multiple family dwelling unit. The comfort cooling system shall be capable of maintaining a temperature of 78 degrees Fahrenheit three feet above the floor throughout the conditioned space of the building. Water evaporative cooling systems or individual window or wall-mounted units shall not be used to meet the requirements of this Section. The location of the comfort cooling system shall be shown on the building plans.

## **SECTION 3504 – ILLUMINATION**

**3504.1 Illumination.** Public spaces of multiple family buildings including all stairs, ramps, driveways, walkways, corridors and parking areas shall be illuminated with automatic lighting capable of maintaining an intensity of one (1) foot-candle of light at ground level.

## **SECTION 3505- EXTERIOR REQUIREMENTS**

**3505.1 Underground Utilities.** All utility conductors, cables, conduits and wiring supplying electrical, cable and telephone service to a multiple family building shall be installed underground except risers which are adjacent to and attached to a building or as otherwise approved the City Council.

**3505.2 Conductors, Conduit and Piping.** All conductors, cables, wires, conduit and piping located outside of a building or structure and within the exterior property lines shall be installed underground except risers which are adjacent to and attached to a building or structure.

## **SECTION 3506 - PARKING AND ACCESS AREAS**

**3506.1 Paving.** All parking, walkway, and driveway areas shall be paved with an approved material, such as concrete, asphalt, brick, or pavers. Paving materials and methods of installation shall be shown on the building plans.

### **3506.2 Driveway Ramps**

**3506.2.1 Grade.** Driveway ramps shall not exceed a maximum grade of twenty percent (20%). A 20 feet transition area shall be provided at the top of such ramp, as follows: the upper 10 feet of the transition area shall have a maximum grade of four

percent (4%) and the lower 10 foot portion of the transition area shall have a maximum grade of ten percent (10%). A 15 feet transition area with a maximum grade of ten percent (10%) shall also be provided at the bottom of such ramp.

### **SECTION 3507- OPEN PARKING REQUIREMENTS**

**3507.1 Marking.** Open parking spaces, driving aisles, one-way traffic lanes, and turning area shall be identified by approved painted striping.

**3507.2 Barriers.** Bump rails, curbs or other approved protective barriers shall be installed where necessary to protect buildings, walls, or fences from damage by automobiles.

### **SECTION 3508 - GARAGE AND CARPORT REQUIREMENTS**

**3508.1 Walls.** Where concrete masonry units are used to construct Group U-1 or S-3 Occupancies, the cells shall be grouted solid to height of four (4) feet above the floor level.

**3508.2 Frame.** Group U-1 or S-3 Occupancies of wood frame construction shall have approved protective barriers located so as to protect the finished wall coverings from damage by automobiles.

**3508.3 Concrete Floors.** The floor of every covered parking space shall be paved with cement concrete.

### **8130.20. ADDITION**

Chapter 36 is added to Volume 2 of the 2010 California Building Code to read as follows due to local climatic conditions:

## CHAPTER 36

### WILDLAND-URBAN INTERFACE FIRE AREA

**3601. CREATION.** The City shall designate areas within the City boundaries that are at a significant risk from wildland fires. Such areas shall be designated Wildland-Urban Interface Areas.

**3601.1. WILDLAND-URBAN INTERFACE FIRE AREA BOUNDARIES.** The boundary of the Wildland-Urban Interface Area shall constitute all properties in the areas north of Sycamore Avenue and east of Santa Anita Avenue.

#### **8130.21 AMENDMENT**

Section 701A.3, Chapter 7A of the 2010 California Building Code is amended to read as follows due to local climatic and topographical conditions:

**701.A.3. Additions, Remodels, Repairs or Alterations.** Additions, remodels, repairs or alterations 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, remodel, repair or alteration conforms to that required for a new building or structure.

#### **EXCEPTIONS:**

1. Provisions of this code that specifically apply to existing conditions are retroactive.
2. The Urban-Wildland Interface Code shall apply to any remodel, alteration, addition or repair based on the following:

- 0% - 10% - Not Applicable.
- 11% - 50% - Applicable to addition/alteration only.
- 51% - 100% - Applicable to the entire structure.

All percentages are based on habitable area and pertain to remodel/additions completed within the most recent thirty-six (36) month period.

3. Roof coverings shall comply with Chapter 15 of the Building Code, as amended by the City of Arcadia.

Additions, repairs, remodels or alteration shall not be made to an existing building or structure that will cause the existing building or structure to be in violation of any of the provisions of this code nor shall such additions or alterations cause the existing building or structure to become unsafe. An unsafe condition shall be deemed to have been created if an addition or alteration will cause the existing building or structure to become structurally unsafe or overloaded; will not provide adequate access in compliance with the provisions of this code or will obstruct existing exits or access; will create a fire hazard; will reduce required fire resistance or will otherwise create conditions dangerous to human life.

**8130.22. ADDITION [ADMINISTRATIVE].**

Section 701A.6, Chapter 7A of the 2010 California Building Code is added to read as follows:

**701A.6 Administration.** In order to hear and decide appeals of orders, decisions or determinations made by the Building Official or the Fire Chief relative to the application and interpretation of the City's Building and Fire codes, the Planning Commission shall act as the Arcadia Building and Fire Code Board of Appeals. The Planning Commission shall

not consider an appeal until the Building Official or the Fire Chief has rendered a decision in writing. An appeal shall be filed with the City within 30 days from the date of his or her written decision; in addition, an appeals fee shall be paid to the City in an amount established by City Council Resolution. The appeal shall be in writing and shall clearly set forth the order, decision or determination being appealed. A hearing shall be scheduled before the Planning Commission as soon as practicable from the date of receipt of the appeal. The Building Official or the Fire chief, as applicable, shall prepare a written report for the Planning Commission. The decision of the Planning Commission shall be final unless appealed to the City Council. The appeal to the City Council shall be in writing and shall be filed with the City within five (5) working days from the date of the Planning Commission's decision; in addition, an appeals fee shall be paid to the City in an amount established by City Council Resolution. A hearing shall be scheduled before the City Council as soon as practicable from the date of the receipt of the written appeal. The Building Official or the Fire Chief, as applicable, shall prepare a written report for the City Council. The decision of the City Council shall be final.

**8130.23. AMENDMENT**

Subsection 2 and 3 of Section 704A.3 of Chapter 7A of the 2010 California Building Code is hereby deleted and a new subsection 2 is hereby replaced to read as follows:

2. Heavy timber construction per Chapter 6 of the 2010 California Building Code.

**8130.24. ADDITION**

Section 705A.5 of Chapter 7A of the 2010 California Building Code is hereby added to read as follows:

**705A.5. Solar Panels.** Solar panel assemblies shall be Class "A".

**8130.25. AMENDMENT**

Item 1 of Section 708A.2.1 of Chapter 7A of the 2010 California Building Code is hereby amended to read as follows:

1. Be constructed of multipane glazing with both panes meeting the requirements of Section 2406 Safety Glazing.

**8130.26. AMENDMENT**

Item 1 of Section 708A.2.1 of Chapter 7A of the 2010 California Building Code is hereby amended to read as follows:

1. Be constructed of multipane glazing with both panes meeting the requirements of Section 2406 Safety Glazing.

**8130.27. AMENDMENT**

Section 709A.2 of Chapter 7A the 2010 California Building Code is hereby amended to read as follows:

**709A.2. Where Required.** The walking surface material of decks, porches, balconies and stairs shall comply with the requirements of this Section when any portion of such surface is within fifty (50) feet of the building.

### **8130.28. AMENDMENT**

Item 3 of Section 402.11 of Chapter 4 of the 2010 California Building Code is hereby amended due to local climatic, geographical, and topographical conditions:

#### **402.11. Kiosks.**

3. The minimum horizontal separation between kiosks or groupings thereof and other structures within the mall shall be twenty (20) feet (6096 mm).

EXCEPTION: Horizontal separation between kiosks or groupings thereof and other structures within the mall may be reduced to fifteen (15) feet in area protected by smoke detection and quick response type sprinkler heads.

**8130.29. Construction Site Fencing.** A six (6) foot tall construction fence with approved privacy screening shall be installed on all construction sites as required by the Building Official. All required construction fencing shall be located on private property and shall be maintained for the duration of the project.

### **8.130.30. AMENDMENT**

Appendix J of the 2010 California Building Code is hereby amended to read as follows:

#### **SECTION J101 GENERAL**

**J101.1 Scope.** The provisions of this Chapter apply to grading, excavation and earthwork construction, including fills and embankments. Where conflicts occur between the technical requirements of this chapter and the geotechnical report, the geotechnical report shall govern and the control of stormwater runoff from graded sites, including erosion sediments and construction-related pollutants.

The purpose of this chapter is to safeguard life, limb, property, and the public welfare by regulating grading on private property.

**J101.2 Flood hazard areas.** The provisions of this Chapter shall not apply to grading, excavation and earthwork construction, including fills and embankments or in flood hazard areas where design flood elevations are specified but floodways have not been designated, unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed work will not result in any increase in the level of the base flood.

**J101.3 General Hazards.** Whenever the Building Official determines that any existing excavation, embankment or fill on private property has become a hazard to life and limb, or endangers property, or adversely affects the safety, use or stability of a public way or drainage channel, the Building Official may give written notice thereof to the owner of the property upon which the excavation, embankment or fill is located, or other person or agent in control of said property. Upon receipt of said notice, the owner or other person or agent in control of the property shall repair or eliminate such excavation, embankment or fill so as to eliminate the hazard, in conformance with the requirements of this code, within the period specified in said notice.

**J101.4 Safety Precautions.** If at any stage of the work the Building Official determines by inspection that further grading as authorized is likely to endanger any public or private property or result in the deposition of debris on any public way or interfere with any existing drainage course, the Building Official may order the work stopped by notice in writing served on any persons engaged in doing or causing such work to be done, and any

such person shall immediately stop such work. The Building Official may authorize the work to proceed if the Building Official finds adequate safety precautions can be taken or corrective measures incorporated in the work to avoid likelihood of such danger, deposition or interference.

If the grading work as done has created or resulted in a hazardous condition, the Building Official shall give written notice requiring correction thereof as specified in section J101 of this Code.

**J101.5 Protection of Utilities.** Both the permittee and the owner of the property on which the grading is performed shall be responsible for the prevention of damage to any public utilities or services.

**J101.6 Protection of Adjacent Property.** Both the permittee and owner of the property on which the grading is performed shall be responsible for the prevention of damage to adjacent property. No person shall excavate on land sufficiently close to the property line to endanger any adjoining public street, sidewalk, alley, or other public or private property without taking adequate measures to support and protect such property from settling, cracking or other damage that might result from the proposed work. Any person performing any grading that involves imported or exported materials shall take special precautions, as approved by the Building Official, to prevent such materials from being deposited on adjacent properties, any public way and/or any drainage course.

**J101.7 Storm Water Control Measures.** The permittee and the owner of the property on which the grading is performed shall put into effect and maintain all precautionary measures necessary to protect adjacent water courses and public or private

property from damage by erosion, flooding, and deposition of mud, debris, and construction-related pollutants originating from the site during grading and related construction activities.

**J101.8 Maintenance of Protective Devices and Rodent Control.** All drainage structures and other protective devices and all burrowing rodent control measures, as shown on the grading plans approved by the building official, shall be maintained in a good condition and, when necessary, promptly repaired by the permittee or the owner of the property on which grading has been performed or by any other person or agent in control of such property.

**J101.9 Correlation with Other Sections.** The provisions of this chapter are independent of the other provisions of this code.

**J101.10 Conditions of Approval.** In granting any permit under this code, the Building Official may include such conditions as may be reasonably necessary to prevent creation of a nuisance or hazard to public or private property. Such conditions may include, but shall not be limited to:

1. Improvement of any existing grading to comply with the standards of this code.
2. Requirements for fencing of excavations or fills which would otherwise be hazardous.

## **SECTION J102 DEFINITIONS**

**J102.1 Definitions.** For the purposes of this appendix chapter, the terms, phrases and words listed in this section and their derivatives shall have the indicated meanings.

**APPROVAL.** When the proposed work or completed work conforms to this chapter, as determined by and to the satisfaction of the Building Official.

**AS-BUILT.** See Section J105.12.

**BEDROCK.** The relatively solid, undisturbed rock in place either at the ground surface or beneath superficial deposits of alluvium, colluvium and/or soil.

**BENCH.** A relatively level step excavated into earth material on which fill is to be placed.

**BEST MANAGEMENT PRACTICE (BMP).** A stormwater pollution mitigation measure that is required to be employed in order to comply with the requirements of any applicable NPDES permit and the Green Building Standards Code.

**BORROW.** Earth material acquired from an off-site location for use in grading on a site.

**CIVIL ENGINEER.** A professional engineer registered in the state of California to practice in the field of civil works.

**CIVIL ENGINEERING.** The application of the knowledge of the forces of nature, principles of mechanics and the properties of materials to the evaluation, design, and construction of civil works.

**COMPACTION.** The densification of a fill by mechanical means.

**CUT.** See "Excavation".

**DESILTING BASINS.** Physical structures, constructed for the removal of sediments from surface water runoff.

**DESIGN ENGINEER.** The Civil Engineer responsible for the preparation of the grading plans for the site grading work.

**DOWN DRAIN.** A device for collecting water from a swale or ditch located on or above a slope, and safely delivering it to an approved drainage facility.

**EARTH MATERIAL.** Any rock, natural soil or fill or any combination thereof.

**ENGINEERING GEOLOGIST.** A geologist experienced and knowledgeable in engineering geology. Shall mean a person holding a valid certificate of registration as a geologist in the specialty of engineering geology issued by the state of California under the applicable provisions of the Geologist and Geophysicist Act of the Business and Professions Code.

**ENGINEERING GEOLOGY.** The application of geologic knowledge and principles in the investigation and evaluation of naturally occurring rock and soil for use in the design of civil works.

**EROSION.** The wearing away of the ground surface as a result of the movement of wind, water, or ice.

**EXCAVATION.** The removal of earth material by artificial means, also referred to as a cut.

**FIELD ENGINEER.** The Civil Engineer responsible for performing the functions as set forth in Section J105.3.

**FILL.** Deposition of earth materials by artificial means.

**GEOTECHNICAL ENGINEER.** See 'Soils Engineer.'

**GEOTECHNICAL HAZARD.** An adverse condition due to landslide, settlement, and/or slippage. These hazards include but are not limited to loose debris, slopewash, and mud flows from natural or graded slopes.

**GRADE.** The vertical location of the ground surface.

**GRADE, EXISTING.** The grade prior to grading.

**GRADE, FINAL.** See Section J105.7.

**GRADE, FINISHED.** The grade of the site at the conclusion of all grading efforts.

**GRADE, INITIAL.** See Section J105.7.

**GRADE, ROUGH.** See Section J105.7.

**GRADING.** An excavation or fill or combination thereof.

**KEY.** A compacted fill placed in a trench excavated in earth material beneath generally constructed at the toe of a slope.

**LANDSCAPE ARCHITECT.** A person who holds a certificate to practice landscape architecture in the state of California under the applicable landscape architecture provisions of Division 3, Chapter 3.5 of the Business and Professions Code.

**LINE.** The horizontal location of the ground surface.

**PERMITTEE.** See Section J105.6.

**PRIVATE SEWAGE DISPOSAL SYSTEM.** A septic tank with effluent discharging into a subsurface disposal field, into one or more seepage pits or into a combination of subsurface disposal field and seepage pit or of such other facilities.

**PROJECT CONSULTANTS.** The professional consultants required by this code which may consist of the design engineer, field engineer, geotechnical engineer,

engineering geologist, and landscape architect as applicable to this chapter.

**PROFESSIONAL INSPECTION.** The inspection required by this code to be performed by the Project Consultants. Such inspections shall be sufficient to form an opinion relating to the conduct of the work.

**SITE.** A lot or parcel of land or contiguous combination thereof, under the same ownership, where grading is performed or permitted.

**SLOPE.** An inclined ground surface the inclination of which is expressed as a ratio of horizontal distance to vertical distance.

**SOIL.** Naturally occurring superficial deposits overlying parent bedrock.

**SOILS ENGINEER (GEOTECHNICAL ENGINEER).** A civil engineer experienced and knowledgeable in the practice of soils engineering.

**SOILS ENGINEERING (GEOTECHNICAL ENGINEERING).** The application of the principals of soils mechanics in the investigation, evaluation, and design of civil works involving the use if earth materials and the inspection or testing of construction thereof.

**STORM DRAIN SYSTEM.** A conveyance or system of conveyances, including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, and man-made channels, designed or used for collecting and conveying stormwater.

**STORM WATER POLLUTION PREVENTION PLAN.** A site drawing with details, notes, and related documents that identify the measures proposed by the permittee to (1) control erosion and prevent sediment and construction-related pollutants from being carried offsite by stormwater, and (2) prevent non-stormwater discharges from entering the storm drain system.

**SURFACE DRAINAGE.** Flows over the ground surface.

**SOIL TESTING AGENCY.** An agency regularly engaged in the testing of soils and rock under the direction of a civil engineer experienced in soil testing.

### **SECTION J103. PERMITS REQUIRED**

**J103.1 Permits required.** Except as exempted in Section J103.2, no grading shall be performed without first having obtained a permit therefore from the Building Official. A grading permit does not include the construction of retaining walls or other structures. A separate permit shall be obtained for each site and may cover both excavations and fills. Any Engineered Grading as described in Section J104 shall be performed by a contractor licensed by the State of California to perform the work described hereon. Regular Grading less than 5,000 cubic yards may require a licensed contractor if the Building Official determines that special conditions or hazards exist.

**J103.2 Exemptions.** A grading permit shall not be required for the following:

1. When approved by the Building Official, grading in an isolated, self-contained area, provided there is no danger to the public, and that such grading will not adversely affect adjoining properties.

7. Exploratory excavations performed under the direction of a registered design professional Geotechnical Engineer or Engineering Geologist. This shall not exempt grading of access roads or pads created for exploratory excavations. Exploratory excavations must not create a hazardous condition to adjacent properties or the public in accordance with Section J101.3. Exploratory excavations must be restored to existing conditions, unless otherwise approved by the Building Official.

8. An excavation that does not exceed 50 cubic yards (38.3 m<sup>3</sup>) and complies with one of the following conditions:

(a) Is less than 2 feet (0.6 m) in depth.

(b) Does not create a cut slope greater than 5 feet (1.5 m) measured vertically upward from the cut surface to the surface of the natural grade and is not steeper than 2 units horizontal to 1 unit vertical (50 percent slope).

9. A fill not intended to support a structure, that does not obstruct a drainage course and complies with one of the following conditions:

(a) Is less than 1 foot (0.3 m) in depth and is placed on natural terrain with a slope flatter than 5 units horizontal to 1 unit vertical (20 percent slope).

**J103.3 Unpermitted Grading.** A person shall not own, use, occupy or maintain any site containing unpermitted grading. For the purposes of this Code, unpermitted grading shall be defined as either of the following: (1) Grading that was performed, at any point in time, without the required permit(s) having first been obtained from the Building Official, pursuant to Section J103.1; or (2) Grading for which a permit was obtained pursuant to this Section, but which was not completed, pursuant to Section J105, prior to the expiration of the permit, pursuant to Section 106.5.4.

**J103.4 Availability of Permit at Site.** No person shall perform any grading that requires a permit under this chapter unless a copy of the grading permit and approved grading plans are in the possession of a responsible person and available at the site for the Building Official's reference.

**J103.5 Grading Fees.** Fees shall be assessed in accordance with the provisions of this section. The amount of the fees shall be as specified in Section 107 of this code.

1. **Plan Review Fees.** When a plan or other data are required to be submitted, a plan review fee shall be paid at the time of submitting plans and specifications for review. Separate plan review fees shall apply to retaining walls or major drainage structures as required elsewhere in this code. For excavation and fill on the same site, the fee shall be based on the volume of excavation or fill, whichever is greater.

2. **Permit Fees.** A fee for each grading permit shall be paid to the Building Official at the time of issuance of the permit. Separate permits and fees shall apply to retaining walls or major drainage structures as required elsewhere in this code.

3. **Site Inspection Fee.** When the Building Official finds that a visual inspection of the site is necessary to establish drainage requirements for the protection of property, existing buildings or the proposed construction, a site inspection shall be made during plan check of grading plans. A fee for such inspection shall be paid to the Building Official at the time of submitting plans and specifications for review.

**J103.6 Compliance with Zoning Code.** The Building Official may refuse to issue a grading permit for work on a site if either the proposed grading or the proposed land use for the site shown on the grading plan application does not comply with the provisions of Article IX of the Arcadia Municipal Code.

**J103.7 Grading Security.**

**J103.7.1 Scope and Purpose.** The Building Official may require a permittee or the owner(s) of the property on which the grading is proposed to occur to provide security, as

a condition of the issuance of a grading permit for any grading involving more than 1,000 cubic yards (764.6 m<sup>3</sup>). Where unusual conditions or special hazards exist, the Building Official may require security for grading involving less than 1,000 cubic yards (764.6 m<sup>3</sup>). The purpose of the security shall be to guarantee the permittee's obligation to mitigate any hazardous conditions, including flood and geotechnical hazards, that may be created if the grading is not completed in accordance with the approved plans and specifications, and to complete any work that the Building Official determines is necessary to bring the property into compliance with this Chapter.

Security required by this Section may include incidental off-site grading on property contiguous with the site to be developed, provided written consent of the owner of such contiguous property is filed with the Building Official.

The Building Official may waive the requirements for a security for the following:

1. Grading being done by or for a governmental agency.
2. Grading necessary to remove a geotechnical hazard, where such work is covered by an agreement and security as may be permitted pursuant to applicable provisions of the Arcadia Municipal Code.
3. Grading on a site, not exceeding a slope of three horizontal to one vertical provided such grading as determined by the Building Official will not affect drainage from or to adjacent properties.
4. Filling of holes or depressions, provided such grading will not affect the drainage from or to adjacent properties.

**J103.7.2 Form of Security.** The security referred to in Section J103.7.1 shall be in one of the following forms:

1. A bond furnished by a corporate surety authorized to do business in this state.
2. Cash.
3. An instrument of credit from a financial institution subject to regulation by the state or federal government and pledging that funds in the amount required by the Building Official are on deposit and guaranteed for payment, or a letter of credit issued by such a financial institution.

**J103.7.3 Amount of Security.** The amount of security shall be based on the number of cubic yards of material in either excavation or fill, whichever is greater, and the cost of all drainage or other protective devices or work necessary to eliminate potential geotechnical hazards. That portion of the security valuation based on the volume of material in either excavation or fill shall be computed as follows:

100,000 cubic yards or less - 50 percent of the estimated cost of grading work.

Over 100,000 cubic yards - 50 percent of the cost of the first 100,000 cubic yards plus 25 percent of the estimated cost of that portion in excess of 100,000 cubic yards.

When the rough grading has been completed in conformance with the requirements of this code, the Building Official may, at his or her discretion, consent to a proportionate reduction of the security to an amount estimated to be adequate to ensure completion of the grading work, site development or planting remaining to be performed. The costs referred to in this section shall be as estimated by the Building Official.

**J103.7.4 Conditions.** All security shall include the conditions that the principal

1. Comply with all of the provisions of this code, applicable laws, and ordinances;

2. Comply with all of the terms and conditions of the grading permit;
3. Complete all of the work authorized by the permit.

**J103.7.5 Term of Security.** The term of each security shall begin upon the filing with the Building Official and the security shall remain in effect until the work authorized by the grading permit is completed and approved by the Building Official.

**J103.7.6 Default Procedures.** In the event that a permittee fails to comply with any provision of this code or any grading for which a permit has been issued is not completed in accordance with the approved plans and specifications for said work or with all terms and conditions of the grading permit, the Building Official may declare that a default has occurred. The Building Official shall give notice thereof to the principal and surety or financial institution executing the security, or to the owner in the case of a cash bond or assignment.

The Building Official may thereafter determine the work that is necessary to mitigate any hazardous or unsafe conditions on the site and cause such work to be performed.

Where the security consists of a bond or instrument of credit, the surety or financial institution executing the security shall be responsible for the payment of all costs and expenses incurred by the Building Official in causing such work to be performed, up to the full amount of the security. In the case of cash security or assignment, the Building Official may pay all costs and expenses incurred in causing such work to be performed from the funds deposited, and return any unused portion of such deposit or funds to the person making said deposit or assignment.

**J103.7.7 Right of Entry.** The Building Official or the authorized representative of any surety company or financial institution furnishing a security shall have access to the premises described in the permit for the purpose of inspecting the work.

In the event of default, as described in Section J103.7.6, the surety or financial institution furnishing the security or the Building Official, or any person employed or engaged on the behalf of any of these parties, shall have the right to go upon the premises to perform the mitigation work, as described in Section J103.7.6.

Neither the permittee, owner or any other person shall interfere with or obstruct the ingress into or egress from any such premises, of any authorized representative of the surety or financial institution executing the security or the Building Official engaged to perform the mitigation work, as described in Section J103.7.6.

## **SECTION J104 PERMIT APPLICATION AND SUBMITTALS**

**J104.1 Submittal requirements.** In addition to the applicable provisions of Chapter 1, the applicant shall state the following:

1. The estimated quantities of excavation and fill.
2. The proposed land use for the site on which the grading is to be performed.

**J104.2 Site plan requirements.** In addition to the applicable provisions of Chapter 1, a grading plan shall show the existing grade and finished grade in contour intervals of sufficient clarity to indicate the nature and extent of the work and show in detail that it complies with the requirements of this code. The plans shall show the existing grade on adjoining properties in sufficient detail to identify how grade changes will conform to the requirements of this code.

**J104.2.1 Grading Designation.** Grading in excess of 5,000 cubic yards (3825 m<sup>3</sup>) or that is proposed to support any structure shall be designated as 'engineered grading."All engineered grading shall be performed in accordance with an approved grading plan and specifications prepared by a civil engineer, unless otherwise required by the Building Official.

Grading involving less than 5,000 cubic yards (3825 m<sup>3</sup>) and that will not support any structure shall be designated 'regular grading"unless the permittee chooses to have the grading be designated as engineered grading, or the Building Official determines that, due to the existence of special conditions or unusual hazards, the grading should be designated as engineered grading.

**J104.2.2 Regular Grading Requirements.** In addition to the provisions of Section 106, and Section J104.2, an application for a regular grading permit shall be accompanied by two sets of plans in sufficient clarity to indicate the nature and extent of the work. The plans shall give the location of the work, the name of the owner, and the name of the person who prepared the plan. The plan shall include the following information:

1. General vicinity of the proposed site.
2. Limits and depths of cut and fill.
3. Location of any buildings or structures where work is to be performed, and the location of any buildings or structures within 15 feet (4.6 m) of the proposed grading.
4. Contours, flow areas, elevations, or slopes which define existing and proposed drainage patterns.

5. Storm water provisions in accordance with the requirements of Section 106.4.3 of this code. See Section J111 for specific requirements.
6. Location of existing and proposed utilities, drainage facilities, and recorded public and private easements and restricted use areas.
7. Location of all Special Flood Hazard Areas as designated and defined in Title 44, Code of Federal Regulations.

**J104.2.3 Engineered Grading Requirements.** In addition to the provisions of Section 106, and Section J104.2, an application for a permit for engineered grading shall be accompanied by four sets of plans and specifications, and supporting data consisting of a soils engineering report and engineering geology report.

Specifications shall contain information covering construction and material requirements. Plans shall be drawn to scale upon substantial paper or cloth and shall be of sufficient clarity to indicate the nature and extent of the work proposed and shall show in detail that the proposed work will conform to the provisions of this code and all relevant laws, ordinances, rules, and regulations. The first sheet of each set of plans shall depict the location of the proposed work, the name and address of the owner, and the person by whom they were prepared.

The plans shall include or be accompanied by the following information:

1. General vicinity of the proposed site.
2. Property limits and accurate contours of existing ground and details of terrain and area drainage.
3. Limiting dimensions, elevations, or finish contours to be achieved by the grading, proposed drainage channels, and related construction.

4. Detailed plans of all surface and subsurface drainage devices, walls, cribbing, dams and other protective devices to be constructed with, or as a part of, the proposed work. A map showing the drainage area and the estimated runoff of the area served by any drains shall also be provided.
5. Location of any existing or proposed buildings or structures located on the property on which the work is to be performed and the location of any buildings or structures on adjacent properties that are within 15 feet (4.6 m) of the property or that may be affected by the proposed grading operations.
6. Recommendations in the geotechnical report and the engineering geology report shall be incorporated into the grading plans or specifications. When approved by the Building Official, specific recommendations contained in the soils engineering report and the engineering geology report, that are applicable to grading, may be included by reference.
7. The dates of the geotechnical and engineering geology reports together with the names, addresses, and phone numbers of the firms or individuals who prepared the reports.
8. A statement of the quantities of material to be excavated and/or filled. Earth work quantities shall include quantities for geotechnical and geological remediation. In addition, a statement of the quantities of material to be imported or exported from the site.
9. A statement of the estimated starting and completion dates for proposed work.
10. A statement signed by the owner, acknowledging that a field engineer, geotechnical engineer and engineering geologist, when appropriate, will be

employed to perform the services required by this code, when the Building Official requires that such professional persons be so employed. These acknowledgments shall be on a form furnished by the Building Official.

11. Storm water provisions are required to be shown on the grading plan in accordance with the requirement of Section 106.4.3 of the code. See Section J111 for specific requirements.
12. A drainage plan for those portions of property proposed to be utilized as a building site (building pad), including elevations of floors with respect to finish site grade and locations of proposed stoops, slabs and fences that may affect drainage.
13. Location and type of any proposed private sewage disposal system, including the location of the expansion area.
14. Location of existing and proposed utilities, drainage facilities, and recorded public and private easements and restricted use areas.
15. Location of all Special Flood Hazard Areas as designated and defined in Title 44, Code of Federal Regulations.

**J104.3 Geotechnical and Engineering Geology Reports.** A geotechnical report prepared by registered design professionals shall be provided. The report shall contain at least the following:

1. The nature and distribution of existing soils;
2. Conclusions and recommendations for grading procedures;
3. Soil design criteria for any structures or embankments required to accomplish the proposed grading; and

4. Where necessary, slope stability studies, and recommendations and conclusions regarding site geology.

The geotechnical report required by Section J104.2.3 shall include data regarding the nature, distribution and strength of existing soils, conclusions and recommendations for grading procedures and design criteria for corrective measures, including buttress fills, when necessary, and an opinion on the adequacy for the intended use of sites to be developed by the proposed grading as affected by soils engineering factors, including the stability of slopes. All reports shall conform with the requirements of Section 111 and shall be subject to review by the Building Official. Supplemental reports and data may be required as the Building Official may deem necessary. Recommendations included in the reports and approved by the Building Official shall be incorporated in the grading plan or specifications.

The engineering geology report required by Section J104.2.3 shall include an adequate description of the geology of the site, conclusions and recommendations regarding the effect of geologic conditions on the proposed development, and an opinion on the adequacy for the intended use of sites to be developed by the proposed grading, as affected by geologic factors. The engineering geology report shall include a geologic map and cross sections utilizing the most recent grading plan as a base. All reports shall conform with the requirements of Section 111 and shall be subject to review by the Building Official. Supplemental reports and data may be required as the Building Official may deem necessary. Recommendations included in the reports and approved by the Building Official shall be incorporated in the grading plan or specifications.

**EXCEPTION:** A geotechnical or engineering geology report is not required where the Building Official determines that the nature of the work applied for is such that a report is not necessary.

**J104.4 Liquefaction study.** For sites with mapped maximum considered earthquake spectral response accelerations at short periods ( $S_s$ ) greater than 0.5g as determined by Section 1613, a study of the liquefaction potential of the site shall be provided, and the recommendations incorporated in the plans. A geotechnical investigation will be required when the proposed work is a "Project" as defined in California Public Resources Code Section 2693, and is located in an area designated as a "Seismic Hazard Zone" as defined in Title 14 of the California Code of Regulations

Section 3722 on Seismic Hazard Zone Maps issued by the State Geologist under Public Resources Code Section 2696.

**EXCEPTION:** A liquefaction study is not required where the Building Official determines from established local data that the liquefaction potential is low.

## **SECTION J105 INSPECTION**

**J105.1 General.** Grading inspections shall be governed by Chapter 1 and as indicated herein. Grading operations for which a permit is required shall be subject to inspection by the Building Official. In addition, professional inspection of grading operations shall be performed by the Field Engineer, Geotechnical Engineer and the Engineering Geologist retained to provide such services in accordance with this Section for engineered grading and as required by the Building Official for regular grading.

**J105.2 Special and Supplemental inspections.** The special inspection requirements of Section 1704.7 shall apply to work performed under a grading permit where required by the Building Official. In addition to the called inspections specified in Section J105.7, the Building Official may make such other inspections as may be deemed necessary to determine that the work is being performed in conformance with the requirements of this code. The Building Official may require investigations and reports by an approved soil testing agency, Geotechnical Engineer and/or Engineering Geologist, and Field Engineer. Inspection reports shall be provided when requested in writing by the Building Official.

The Building Official may require continuous inspection of drainage devices by the Field Engineer in accordance with this section when the Building Official determines that the drainage devices are necessary for the protection of the structures in accordance with Section 110.

**J105.3 Field Engineer.** The Field Engineer shall provide professional inspection of those parts of the grading project within such engineer's area of technical specialty, oversee and coordinate all field surveys, set grade stakes, and provide site inspections during grading operations to ensure the site is graded in accordance with the approved grading plan and the appropriate requirements of this code. During site grading, and at the completion of both rough grading and final grading, the Field Engineer shall submit statements and reports as required by Sections J105.11 and J105.12. If revised grading plans are required during the course of the work they shall be prepared by a Civil Engineer and approved by the Building Official.

**J105.4 Geotechnical Engineer.** The Geotechnical Engineer shall provide professional inspection of those parts of the grading project within such engineer's area of technical specialty, which shall include observation during grading and testing for required compaction. The Geotechnical Engineer shall provide sufficient observation during the preparation of the natural ground and placement and compaction of the fill to verify that such work is being performed in accordance with the conditions of the approved plan and the appropriate requirements of this chapter. If conditions differing from the approved geotechnical engineering and engineering geology reports are encountered during grading, the Geotechnical Engineer shall provide revised recommendations to the permittee, the Building Official and the Field Engineer.

**J105.5 Engineering Geologist.** The Engineering Geologist shall provide professional inspection of those parts of the grading project within such engineer's area of technical specialty, which shall include professional inspection of the bedrock excavation to determine if conditions encountered are in conformance with the approved report. If conditions differing from the approved engineering geology report are encountered, the Engineering Geologist shall provide revised recommendations to the geotechnical engineer.

**J105.6 Permittee.** The permittee shall be responsible for ensuring that the grading is performed in accordance with the approved plans and specifications and in conformance with the provisions of this code. The permittee shall engage project consultants, if required under the provisions of this code, to provide professional inspections on a timely basis. The permittee shall act as a coordinator between the project consultants, the contractor and the

Building Official. In the event of changed conditions, the permittee shall be responsible for informing the Building Official of such change and shall provide revised plans for approval.

**J105.7 Required Inspections.** The permittee shall call for an inspection by the Building Official at the following various stages of work and shall obtain the approval of the Building Official prior to proceeding to the next stage of work:

Pre-grade. Before any construction or grading activities occur at the site. Permittee shall schedule a pregrade inspection with the Building Official. The permittee shall ensure that all project consultants are present at the pre-grade inspection.

Initial. When the site has been cleared of vegetation and unapproved fill and has been scarified, benched or otherwise prepared for fill. No fill shall have been placed prior to this inspection.

Rough. When approximate final elevations have been established; drainage terraces, swales and other drainage devices necessary for the protection of the building sites from flooding have been installed; berms have been installed at the top of the slopes; and the statements required by Section J105.12 have been received.

Final. When grading has been completed; all drainage devices necessary to drain the building pad have been installed; slope planting has been established, irrigation systems have been installed; and the as-built plans and required statements and reports have been submitted.

**J105.8 Notification of Noncompliance.** If, in the course of fulfilling their respective duties under this chapter, the Field Engineer, the Geotechnical Engineer or the Engineering Geologist determines that the work is not being done in conformance with this

chapter or the approved grading plans, the Field Engineer, Geotechnical Engineer or the Engineering Geologist shall immediately report, in writing, the discrepancies and the recommended corrective measures to the permittee and to the Building Official.

**J105.9 Transfer of Responsibility.** If the Field Engineer, the Geotechnical Engineer, or the Engineering Geologist of record is changed at any time after the grading plans required pursuant to Section J104.2.2 or J104.2.3 have been approved by the Building Official, the permittee shall immediately provide written notice of such change to the Building Official. The Building Official may stop the grading from commencing or continuing until the permittee has identified a replacement and the replacement has agreed in writing to assume responsibility for those parts of the grading project that are within the replacement's area of technical competence.

**J105.10 Non-inspected grading.** No person shall own, use, occupy or maintain any non-inspected grading. For the purposes of this code, non-inspected grading shall be defined as any grading for which a grading permit was first obtained, pursuant to Section J103, supra, but which has progressed beyond any point requiring inspection and approval by the Building Official without such inspection and approval having been obtained.

**J105.11 Routine Field Inspections and Reports.** Unless otherwise directed by the Building Official, the Field Engineer for all engineered grading projects shall prepare routine inspection reports and shall file these reports with the Building Official as follows:

1. Bi-weekly during all times when grading of 400 cubic yards or more per week is occurring on the site;
2. Monthly, at all other times; and

3. At any time when requested in writing by the Building Official.

Such reports shall certify to the Building Official that the Field Engineer has inspected the grading site and related activities and has found them in compliance with the approved grading plans and specifications, the building code, all grading permit conditions, and all other applicable ordinances and requirements. The reports shall conform to a standard "Report of Grading Activities" form which shall be provided by the Building Official.

**J105.12 Completion of work.** Upon completion of the rough grading work and at the final completion of the work, the following reports and drawings and supplements thereto are required for engineered grading or when professional inspection is otherwise required by the Building Official:

1. An "As-Built" grading plan prepared by the Field Engineer retained to provide such services in accordance with Section J105.3 showing all plan revisions as approved by the Building Official. This shall include original ground surface elevations, as-built ground surface elevations, lot drainage patterns, and the locations and elevations of surface drainage facilities and the outlets of subsurface drains. As-built locations, elevations and details of subsurface drains shall be shown as reported by the geotechnical engineer.

The As-built grading plan shall be accompanied by a certification by the Field Engineer that to the best of his or her knowledge, the work within the Field Engineer's area of responsibility was done in accordance with the final approved grading plan.

2. A report prepared by the Geotechnical Engineer retained to provide such services in accordance with Section J105.4, including locations and elevations of field density tests, summaries of field and laboratory tests, other substantiating data, and

comments on any changes made during grading and their effect on the recommendations made in the approved soils engineering investigation report. The report shall include a certification by the Geotechnical Engineer that, to the best of his or her knowledge, the work within the Geotechnical Engineer's area of responsibility is in accordance with the approved soils engineering report and applicable provisions of this chapter. The report shall contain a finding regarding the safety of the completed grading and any proposed structures against hazard from landslide, settlement, or slippage.

3. A report prepared by the Engineering Geologist retained to provide such services in accordance with Section J105.5, including a final description of the geology of the site and any new information disclosed during the grading and the effect of such new information, if any, on the recommendations incorporated in the approved grading plan. The report shall contain a certification by the Engineering Geologist that, to the best of his or her knowledge, the work within the Engineering Geologist's area of responsibility is in accordance with the approved engineering geology report and applicable provisions of this Chapter. The report shall contain a finding regarding the safety of the completed grading and any proposed structures against hazard from landslide, settlement, or slippage. The report shall contain a final as-built geologic map and cross-sections depicting all the information collected prior to and during grading.

4. The grading contractor shall certify, on a form prescribed by the Building Official, that the grading conforms to said as-built plan and the approved specifications.

**J105.13 Notification of completion.** The permittee shall notify the Building Official when the grading operation is ready for final inspection. Final approval shall not be given until all work, including installation of all drainage facilities and their protective devices, and

all erosion-control measures have been completed in accordance with the final approved grading plan, and all required reports have been submitted and approved.

**J105.14 Change of Ownership.** Unless otherwise required by the Building Official, when a grading permit has been issued on a site and the owner sells the property prior to final grading approval, the new property owner shall be required to obtain a new grading permit.

## **SECTION J106 EXCAVATIONS**

**J106.1 Maximum cut slope.** The slope of cut surfaces shall be no steeper than is safe for the intended use, and shall be no steeper than 2 units horizontal to 1 unit vertical (50 percent) unless the owner or authorized agent furnishes a geotechnical or an engineering geology report, or both justifying a steeper slope. The reports must contain a statement by the geotechnical engineer or engineering geologist that the site was investigated and an opinion that a steeper slope will be stable and will not create a hazard to public or private property, in conformance with the requirements of Section 111. The Building Official may require the slope of the cut surfaces to be flatter in slope than 2 units horizontal to 1 unit vertical if the Building Official finds it necessary for the stability and safety of the slope.

### **EXCEPTIONS:**

1. A cut surface may be at a slope of 1.5 units horizontal to 1 unit vertical (67 percent) provided that all the following are met:

1.1 It is not intended to support structures or surcharges.

1.2 It is adequately protected against erosion.

1.3 It is no more than 8 feet (2438 mm 2.4 m) in height.

1.4 It is approved by the building code official.

1.5 Ground Water is not encountered.

2. A cut surface in bedrock shall be permitted to be at a slope of 1 horizontal to 1 vertical (100 percent).

**J106.2 Drainage.** Drainage, including drainage terraces and overflow protection, shall be provided as required by Section J109.

### **SECTION J107 FILLS**

**J107.1 General.** Unless otherwise recommended in the geotechnical report, fills shall comply with the provisions of this section.

**EXCEPTION:** The Building Official may permit a deviation from the provisions of this chapter for minor fills not intended to support structures, where no soils engineering report has been prepared.

**J107.2 Surface Preparation of Ground.** Fill slopes shall not be constructed on natural slopes steeper than 2 units horizontal to 1 unit vertical (50 percent slope). The ground surface shall be prepared to receive fill by removing vegetation, topsoil and other unsuitable materials (including any existing fill that does not meet the requirements of this chapter), and scarifying the ground to provide a bond with the fill material.

Subdrains shall be provided under all fills placed in natural drainage courses and in other locations where seepage is evident, except where the Geotechnical Engineer or Engineering Geologist recommends otherwise. Such sub-drainage systems shall be of a material and design approved by the Geotechnical Engineer and acceptable to the

Building Official. The Geotechnical Engineer shall provide continuous inspection during the process of subdrain installations. The location of the subdrains shall be shown on a plan prepared by the Soils Engineer. Excavations for the subdrains shall be inspected by the Engineering Geologist when such subdrains are included in the recommendations of the Engineering Geologist.

**J107.3 Benching.** Where existing grade is at a slope steeper than 5 units horizontal to 1 unit vertical (20 percent) and the depth of the fill exceeds 5 feet (1524 mm 1.5 m) benching shall be provided into sound bedrock or other competent material as determined by the Geotechnical Engineer. The ground preparation shall be in accordance with Figure J1 07.3 or as determined by the Geotechnical Engineer. When fill is to be placed over a cut, Aa key shall be provided which is at least 10 feet (3048 mm 3.0 m) in width and 2 feet (610 mm 0.6 m) in depth. The area beyond the toe of fill shall be sloped for sheet overflow or a paved drain shall be constructed thereon. The Geotechnical Engineer or Engineering Geologist or both shall inspect and approve the cut as being suitable for the foundation and placement of fill material before any fill material is placed on the excavation.

**J107.4 Fill material.** Fill material shall not include organic, frozen or other deleterious materials. Unless approved by the Building Official, No rock or similar irreducible material greater than 12 inches (305mm 0.3 m) in any dimension shall be included in fills.

**EXCEPTION:** The Building Official may permit placement of larger rock when the Geotechnical Engineer properly devises and recommends a method of placement, and continuously inspects the placement and approves the fill stability. The following

requirements shall also apply:

1. Prior to issuance of the grading permit, potential rock disposal areas shall be delineated on the grading plan.
2. Rock sizes greater than 12 inches (0.3 m) in maximum dimension shall be 10 feet (3.0 m) or more below grade, measured vertically.
3. Rocks shall be placed so as to assure filling of all voids with well-graded soil.
4. The reports submitted by the Geotechnical Engineer shall acknowledge the placement of the oversized material and whether the work was performed in accordance with the engineer's recommendations and the approved plans.
5. The location of oversized rock dispersal areas shall be shown on the as-built plan.

**J107.5 Compaction.** All fill material shall be compacted to a minimum of 90 percent of maximum density as determined by ASTM D 1557, Modified Proctor, in lifts not exceeding 12 inches (305mm0.3 m) in depth within 40 feet (12.2 m) below finished grade and 93 percent of maximum dry density deeper than 40 feet (12.2 m) below finished grade, unless a lower relative compaction (not less than 90 percent of maximum dry density) is justified by the Geotechnical Engineer and approved by the Building Official. Where ASTM D 1 557, Modified Proctor is not applicable, a test acceptable to the Building Official shall be used. Field density shall be determined by a method acceptable to the Building Official. However, not less than ten percent of the required density tests, uniformly distributed, shall be obtained by the Sand Cone Method.

Fill slopes steeper than 2 units horizontal to 1 unit vertical (50 percent slope) shall

be constructed by the placement of soil a sufficient distance beyond the proposed finish slope to allow compaction equipment to operate at the outer surface limits of the final slope surface. The excess fill is to be removed prior to completion or rough grading. Other construction procedures may be utilized when it is first shown to the satisfaction of the Building Official that the angle of slope, construction method and other factors will comply with the intent of this Section.

**J107.6 Maximum fill slope.** The slope of fill surfaces shall be no steeper than is safe for the intended use. Fill slopes steeper than 2 units horizontal to 1 unit vertical (50 percent) shall be justified by a geotechnical engineering reports or engineering data conforming with the requirements of Section 111, containing a statement by the soils engineer that the site has been investigated and an opinion that a steeper fill slope will be stable and will not create a hazard to public or private property. Substantiating calculations and supporting data may be required where the Building Official determines that such information is necessary to verify the stability and safety of the proposed slope. The Building Official may require the fill slope to be constructed with a face flatter in slope than 2 units horizontal to 1 unit vertical (50 percent slope) if the Building Official finds it necessary for stability and safety of the slope.

**J107.7 Slopes to Receive Fill.** Where fill is to be placed above the top of an existing slope steeper than 3 units horizontal to 1 unit vertical (33 % slope), the toe of the fill shall be set back from the top edge of the existing slope a minimum distance of 6 feet (1.8 m) measured horizontally or such other distance as may be specifically recommended by a Geotechnical Engineer or Engineering Geologist and approved by the Building

Official.

**J107.8 Inspection of Fill.** For engineered grading, the Geotechnical Engineer shall provide sufficient inspections during the preparation of the natural ground and the placement and compaction of the fill to ensure that the work is performed in accordance with the conditions of plan approval and the appropriate requirements of this chapter. In addition to the above, the Geotechnical Engineer shall provide continuous inspection during the entire fill placement and compaction of fills that will exceed a vertical height or depth of 30 feet (9.1 m) or result in a slope surface steeper than 2 units horizontal to 1 unit vertical (50 percent slope).

**J1 07.9 Testing of Fills.** Sufficient tests of the fill soils shall be made to determine the density and to verify compliance of the soil properties with the design requirements. This includes soil types and shear strengths in accordance with Section J112 Referenced Standards.

## **SECTION J108 SETBACKS**

**J108.1 General.** Cut and fill slopes shall be set back from the property lines in accordance with this section. Setback dimensions shall be horizontal distances measured perpendicular to the property line and shall be as shown in Figure J108.1, unless substantiating data is submitted justifying reduced setbacks and reduced setbacks are recommended in a geotechnical engineering and engineering geology report approved by the Building Official.

**J108.2 Top of slope.** The setback at the top of a cut slope shall not be less than

that shown in Figure J108.1, or than is required to accommodate any required interceptor drains, whichever is greater. For graded slopes the property line between adjacent lots shall be at the apex of the berm at the top of the slope. Property lines between adjacent lots shall not be located on a graded slope steeper than 5 units horizontal to 1 unit vertical (20 percent slope).

**J108.3 Slope protection Toe of Fill Slope.** The setback from the toe of a fill slope shall not be less than that shown by figure J108.1. Where required to protect adjacent properties at the toe of a slope from adverse effects of the grading, additional protection, approved by the Building Official, shall be included. Such protection may include but shall not be limited to:

1. Setbacks greater than those required by Figure J108.1.
2. Provisions for retaining walls or similar construction.
3. Erosion protection of the fill slopes.
4. Provision for the control of surface waters.

**J108.4 Alternate Setbacks.** The Building Official may approve alternate setbacks if he or she determines that no hazard to life or property will be created or increased. The Building Official may require an investigation and recommendation by a qualified engineer or engineering geologist to justify any proposed alternate setback.

## **SECTION J109 DRAINAGE AND TERRACING**

**J109.1 General.** Unless otherwise recommended by a registered design professional Civil Engineer and approved by the Building Official, drainage facilities and terracing shall be provided in accordance with the requirements of this Section J109.2 for

all cut and fill slopes steeper than 3 units horizontal to 1 unit vertical (33 percent slope).

**EXCEPTION:** Drainage facilities and terracing need not be provided where the ground slope is not steeper than 3 horizontal to 1 vertical (33 percent).

For slopes flatter than 3 units horizontal to 1 unit vertical (33 percent slope) and steeper than 5 units horizontal to 1 unit vertical (20 percent slope) a paved swale or ditch shall be installed at 30 foot (9.1 m) vertical intervals to control surface drainage and debris. Swales shall be sized based on contributory area and have adequate capacity to convey intercepted waters to the point of disposal as defined in Section J109.5. Swales must be paved with reinforced concrete not less than 3 inches (0.08 m) in thickness, reinforced with 6-inch (0.2 m) by 6-inch (0.2 m) No. 10 by No. 10 welded wire fabric or equivalent reinforcing centered in the concrete slab or an equivalent approved by the Building Official. Swales must have a minimum flow line depth of 1-foot (0.3 m) and a minimum paved width of 18 inches (0.5 m). Swales shall have a minimum gradient of not less than 5 percent. There shall be no reduction in grade along the direction of flow unless the velocity of flow is such that slope debris will remain in suspension on the reduced grade.

**J109.2 Drainage Terraces.** Terraces at least 6 feet (1829 mm) in width shall be established at not more than 30 foot (9144 mm) vertical intervals on all cut or fill slopes to control surface drainage and debris. Suitable access shall be provided to allow for cleaning and maintenance. Where more than two terraces are required, one terrace, located at approximately mid height, shall be at least 12 feet (3658 mm) in width.

Swales or ditches shall be provided on terraces. They shall have a minimum

gradient of 20 horizontal to 1 vertical (5 percent) and shall be paved with concrete not less than 3 inches (76 mm) in thickness, or with other materials suitable to the application. They shall have a minimum depth of 12 inches (305 mm) and a minimum width of 5 feet (1524 mm). A single run of swale or ditch shall not collect runoff from a tributary area exceeding 13,500 square feet (1256 m<sup>2</sup>) (projected) without discharging into a down drain. Drainage terraces at least 8 feet (2.4 m) in width shall be established at not more than 30-foot (9.1 m) vertical intervals on all cut or fill slopes to control surface drainage and debris. When only one terrace is required, it shall be at midheight. For cut or fill slopes greater than 100 feet (30.5 m) and up to 120 feet (36.6 m) in vertical height, one terrace at approximately midheight shall be 20 feet (6.1 m) in width. Terrace widths and spacing for cut and fill slopes greater than 120 feet (36.6 m) in height shall be designed by the Civil Engineer and approved by the Building Official. Suitable access shall be provided to permit proper cleaning and maintenance.

Drainage swales on terraces shall have a longitudinal grade of not less than 5 percent nor more than 12 percent and a minimum depth of 1-foot (0.3 m) at the flow line. There shall be no reduction in grade along the direction of flow unless the velocity of flow is such that slope debris will remain in suspension on the reduced grade. Drainage swales must be paved with reinforced concrete not less than 3 inches (0.08 m) in thickness, reinforced with 6-inch (0.2 m) by 6-inch (0.2 m) No. 10 by No. 10 welded wire fabric or equivalent reinforcing centered in the concrete slab or an approved equal paving. Drainage swales shall have a minimum depth at the deepest point of 1 foot (0.3 m) and a minimum paved width of 5 feet (1.5 m). Drainage terraces exceeding 8 feet (2.4 m) in width need only be so paved for a width of 8 feet (2.4 m) provided such pavement

provides a paved swale at least 1 foot (0.3 m) in depth. Downdrains or drainage outlets shall be provided at approximately 300-foot (91.4 m) intervals along the drainage terrace or at equivalent locations. Downdrains and drainage outlets shall be of approved materials and of adequate capacity to convey the intercepted waters to the point of disposal as defined in Section J1 09.5.

**J109.3 Interceptor drains and overflow protection.** Berms, interceptor drains, swales or other devices shall be provided at the top of cut or fill slopes to prevent surface waters from overflowing onto and damaging the face of a slope. Berms used for slope protection shall not be less than 12 inches (3.0 m) above the level of the pad and shall slope back at least 4 feet (1.2 m) from the top of the slope.

Interceptor drains shall be installed along the top of cut graded slopes greater than 5 feet in height receiving drainage from a slope with a tributary width greater than 40 feet (12 192 mm), 30 feet (9.1 m) measured horizontally. They shall have a minimum depth of 1 foot (305 mm 0.3 m) and a minimum width of 3 feet (915mm 0.9 m). The slope shall be approved by the Building Official, but shall not be less than 50 units horizontal to 1 unit vertical (2 percent). The drain shall be paved with concrete not less than 3 inches (76mm 0.08 m) in thickness, or by other materials suitable to the application and reinforced as required for drainage terraces. Discharge from the drain shall be accomplished in a manner to prevent erosion and shall be approved by the Building Official.

**J109.4 Drainage across property lines.** Drainage across property lines shall not exceed that which existed prior to grading. Excess or concentrated drainage shall be contained on site or directed to an approved drainage facility. Erosion of the ground in the

area of discharge shall be prevented by installation of nonerosive down drains or other devices.

**J109.5 Disposal.** All drainage facilities shall be designed to convey waters to the nearest practicable street, storm drain, or natural watercourse or drainage way approved by the Building Official or other appropriate governmental agency provided that the discharge of such waters at that location will not create or increase a hazard to life or property. Erosion of the ground in the area of discharge shall be prevented by installation of non-erosive down drains or other devices. Desilting basins, filter barriers or other methods, as approved by the Building Official, shall be utilized to remove sediments from surface waters before such waters are allowed to enter streets, storm drains, or natural watercourses. If the drainage device discharges onto natural ground, riprap or a similar energy dissipator may be required.

Building pads shall have a minimum drainage gradient of 2 percent toward an approved drainage facility or a public street unless otherwise directed by the Building Official. A lesser slope may be approved by the Building Official for sites graded in relatively flat terrain, or where special drainage provisions are made, when the Building Official finds such modification will not result in a hazard to life or property.

## **SECTION J110 SLOPE PLANTING AND EROSION CONTROL**

**J110.1 General.** The faces of cut and fill slopes shall be prepared and maintained to control erosion. This control shall be permitted to consist of effective planting, erosion control blankets, soil stabilizers or other means as approved by the Building Official.

**EXCEPTION:** Erosion control measures need not be provided on cut slopes not

subject to erosion due to the erosion-resistant character of the materials as approved by the Project Consultants, to the satisfaction of the Building Official.

**J110.2 Other devices.** Where necessary, check dams, cribbing, riprap or other devices or methods shall be employed to control erosion and provide safety.

**J110.3 Planting.** The surface of all cut slopes more than 5 feet (1.5 m) in height and fill slopes more than 3 feet (0.9 m) in height shall be protected against damage from erosion by planting with grass or ground cover plants. Slopes exceeding 15 feet (4.6 m) in vertical height shall also be planted with shrubs, spaced at not to exceed 10 feet (3.0 m) on centers; or trees, spaced at not to exceed 20 feet (6.1 m) on centers; or a combination of shrubs and trees at an equivalent spacing, in addition to the grass or ground cover plants. The plants selected and planting methods used shall be suitable for the soil and climatic conditions of the site.

Plant material shall be selected which will produce a coverage of permanent planting to effectively control erosion. Consideration shall be given to deep-rooted plant material needing limited watering, maintenance, high root to shoot ratio, wind susceptibility and fire-retardant characteristics. All plant materials must be approved by the Building Official.

Planting may be modified for the site if specific recommendations are provided by both the Geotechnical Engineer and a Landscape Architect. Specific recommendations must consider soils and climatic conditions, irrigation requirements, planting methods, fire retardant characteristics, water efficiency, maintenance needs, and other regulatory requirements. Recommendations must include a finding that the alternative planting will

provide a permanent and effective method of erosion control. Modifications to planting must be approved by the Building Official prior to installation.

**J110.4 Irrigation.** Slopes required to be planted by Section J110.3 shall be provided with an approved system of irrigation that is designed to cover all portions of the slope. Irrigation system plans shall be submitted to and approved by the Building Official prior to installation. A functional test of the system may be required.

For slopes less than 20 feet (6.1 m) in vertical height, hose bibs to permit hand watering will be acceptable if such hose bibs are installed at conveniently accessible locations where a hose no longer than 50 feet (15.2 m) is necessary for irrigation.

Irrigation requirements may be modified for the site if specific recommendations are provided by both the Geotechnical Engineer and a Landscape Architect. Specific recommendations must consider soils and climatic conditions, plant types, planting methods, fire retardant characteristics, water efficiency, maintenance needs, and other regulatory requirements. Recommendations must include a finding that the alternative irrigation method will sustain the proposed planting and provide a permanent and effective method of erosion control. Modifications for irrigation systems must be approved by the Building Official prior to installation.

**J110.5 Plans and Specifications.** Planting and irrigation plans shall be submitted for slopes required to be planted and irrigated pursuant to Sections J110.3 and J110.4. Except as otherwise required by the Building Official for minor grading, the plans for slopes 20 feet (6.1 m) or more in vertical height shall be prepared and signed by a civil engineer or landscape architect. If requested by the Building Official, planting and irrigation

details shall be included on the grading plan.

**J110.6 Rodent Control.** Fill slopes shall be protected from potential slope damage by a preventative program of rodent control.

**J110.7 Release of Security.** The planting and irrigation systems required by this section shall be installed as soon as practical after rough grading. Prior to final approval of grading and before the release of the grading security, the planting shall be well established and growing on the slopes and there shall be evidence of an effective rodent control program.

**J110.8 National Pollutant Discharge Elimination System (NPDES) Compliance.**

**J110.8.1 General.** All grading plans and permits and the owner of any property on which such grading is performed shall comply with the provisions of this section for NPDES compliance. All best management practices shall be installed before grading begins or as instructed in writing by the Building Official for unpermitted grading as defined by Section J103.3. As grading progresses, all best management practices shall be updated as necessary to prevent erosion and to control construction related pollutants from discharging from the site. All best management practices shall be maintained in good working order to the satisfaction of the Building Official until final grading approval has been granted by the Building Official and all permanent drainage and erosion control systems, if required, are in place. Failure to comply with this Section is subject to "Noncompliance Penalties" pursuant to Section J110.8.5. Payment of a penalty shall not relieve any persons from fully complying with the requirements of this Code in the execution of the work.

**J110.8.2 Storm Water Pollution Prevention Plan (SWPPP).** The Building Official may require a SWPPP. The SWPPP shall contain details of best management practices, including desilting basins or other temporary drainage or control measures, or both, as may be necessary to control construction-related pollutants which originate from the site as a result of construction related activities. When the Building Official requires a SWPPP, no grading permit shall be issued until the SWPPP has been submitted to and approved by the Building Official.

For unpermitted grading as defined by Section J103.3 upon written request a SWPPP in compliance with the provisions of this section and Section 106.4.3 for NPDES compliance shall be submitted to the Building Official. Failure to comply with this Section is subject to Noncompliance Penalties"per Section J110.8.5. Payment of a penalty shall not relieve any persons from fully complying with the requirements of this Code in the execution of the work.

**J110.8.3 Wet Weather Erosion Control Plans (WWECP).** Where a grading permit is issued and the Building Official determines that the grading will not be completed prior to November 1, the owner of the site on which the grading is being performed shall, on or before October 1, file or cause to be filed with the Building Official a WWECP. The WWECP shall include specific best management practices to minimize the transport of sediment and protect public and private property from the effects of erosion, flooding or the deposition of mud, debris or construction related pollutants. The best management practices shown on the WWECP shall be installed on or before October 15. The plans shall be revised annually or as required by the Building Official to reflect the current site

conditions.

The WWECP shall be accompanied by an application for plan checking services and plan-checking fees in an amount determined by the Building Official, up to but not exceeding 10 percent of the original grading permit fee.

Failure to comply with this Section is subject to Noncompliance Penalties" pursuant to Section J110.8.5. Payment of a penalty shall not relieve any persons from fully complying with the requirements of this Code in the execution of the work.

**J110.8.4 Storm Water Pollution Prevention Plan, Effect of Noncompliance.**

Should the owner fail to submit the SWPPP or the WWECP as required by Section J110.8 or fails to install the best management practices, it shall be deemed that a default has occurred under the conditions of the grading permit security. The Building Official may thereafter enter the property for the purpose of installing, by County forces or by other means, the drainage, erosion control and other devices shown on the approved plans, or if there are no approved plans, as the Building Official may deem necessary to protect adjoining property from the effects of erosion, flooding, or the deposition of mud, debris or constructed related pollutants.

The Building Official shall also have the authority to impose and collect the penalties imposed by Section J110.8.5. Payment of a penalty shall not relieve any persons from fully complying with the requirements of this Code in the execution of the work.

**J110.8.5 Noncompliance penalties.** The amount of the penalties shall be as follows:

1. If a SWPPP or a WWECP is not submitted as prescribed in Sections J110.8.2

and J110.8.3:

<u>Grading Permit Volume</u>	<u>Penalty</u>
<u>1-10,000 cubic yards (1-7645.5 m3)</u>	<u>\$ 50.00 per day</u>
<u>1 0,001-100,000 cubic yards (7646.3-76455 m3)</u>	<u>\$250.00 per day</u>
<u>More than 1 00,000 cubic yards (76455 m3)</u>	<u>\$500.00 per day</u>

2. If the best management practices for storm water pollution prevention and wet weather erosion control, as approved by the Building Official, are not installed as prescribed in this Section J110.5.4:

<u>Grading Permit Volume</u>	<u>Penalty</u>
<u>1-10,000 cubic yards (1-7645.5 m3)</u>	<u>\$100.00 per day</u>
<u>1 0,001-100,000 cubic yards (7646.3-76455 m3)</u>	<u>\$250.00 per day</u>
<u>More than 1 00,000 cubic yards (76455 m3)</u>	<u>\$500.00 per day</u>

NOTE: See Section 108 for inspection request requirements.

#### **SECTION J111 REFERENCED STANDARDS**

ASTM D 1 557 e01 Test Method for Laboratory Compaction

Characteristics of Soil Using Modified Effort

[56,000 ft lb/ft<sup>3</sup> (2,700kN m/m<sup>3</sup>)].

These regulations establish minimum standards and are not intended to prevent the

use of alternate materials, methods or means of conforming to such standards, provided such alternate has been approved.

The Building Official shall approve such an alternate provided he or she determines that the alternate is, for the purpose intended, at least the equivalent of that prescribed in this Code in quality, strength, effectiveness, durability and safety.

The Building Official shall require that sufficient evidence or proof be submitted to substantiate any claims regarding the alternate.

The standards listed below are recognized standards. Compliance with these recognized standards shall be prima facie evidence with the standard of duty set forth in Section J107.

<b><u>ASTM D 1557</u></b>	<b><u>Laboratory Characteristics Compaction of Soil Using Modified Effort</u></b>
<b><u>ASTM D 1556</u></b>	<b><u>Density and Unit Weight of Soils in Place by the Sand Cone Method</u></b>
<b><u>ASTM D 2167</u></b>	<b><u>Density and Unit Weight of Soils in Place by the Rubber-Balloon Method</u></b>
<b><u>ASTM D 2937</u></b>	<b><u>Density of Soils in Place by the Drive-Cylinder Method</u></b>
<b><u>ASTM D 2922</u></b>	<b><u>Density of Soil and Soil Aggregate in Place by Nuclear Methods</u></b>
<b><u>ASTM D 3017</u></b>	<b><u>Water Content of Soil and Rock in Place by Nuclear Methods</u></b>

SECTION 4. Section 8210 of Part 1 of Chapter 2 of Article VIII of the Arcadia

Municipal Code is hereby amended to read in full as follows:

**8210. Adoption.**

Subject to certain changes and amendments as hereinafter set forth in this Chapter, the City Council adopts, by reference, as the plumbing regulations for the City the California Plumbing Code, 2010 Edition, with appendices, installation standards and State of California amendments applicable to local jurisdictions, published and adopted by the International Association of Plumbing and Mechanical Officials. The Code shall govern, regulate, and control all of the activities therein referred to and the same is made a part of this Chapter as though set forth in this Chapter in full.

The 2010 Edition of the California Plumbing Code is adopted with no amendments.

One (1) copy of said Code is on file in the office of the City Clerk for use and examination by the public.

SECTION 5. Sections 8310, 8330.1, 8330.2 of Article VIII of the Arcadia Municipal Code are hereby amended to read in full as follows:

**8310. ADOPTION.**

The City Council adopts, by reference, as the electrical regulations for the City the California Electrical Code, 2010 Edition, with appendices, indices, tables, and State of California amendments applicable to local jurisdictions, published and adopted by the National Fire Protection Association. The Code shall govern, regulate, and control all of the activities therein referred to and the same is made a part of this Chapter as though set forth in this Chapter in full.

One (1) copy of said Code is on file in the office of the City Clerk for use and

examination by the public.

**8330.1. AMENDMENT.**

Article 310.2(B) of the 2010 California Electrical Code is amended to read as follows:

310.2(B) Copper wire shall be used for wiring No. 6 and smaller in all installations. Consideration for use of aluminum wiring can be made by the Building Official for feeder lines only on an individual basis where adequate safety measures can be ensured.

**8330.2. ADDITION.**

Article 310.16 of the 2010 California Electrical Code is added to read as follows:

Article 310.16. Continuous inspection of aluminum wiring. Aluminum conductors of No. six (6) or smaller used for branch circuits shall require continuous inspection by an independent testing agency approved by the Building Official for proper torquing of connections at their termination point.

SECTION 6. Section 8330.3.1 of Part 3 of Chapter 3 of Article VIII of the Arcadia Municipal Code is hereby added to read in full as follows:

**8330.3.1 ADDITION**

Article 690.4(e) of the 2010 California Electrical Code is added to read as follows:

(e) All solar electrical components shall be visible from the exterior of the building.

SECTION 7. Section 8410 of Part 1 of Chapter 4 of Article VIII of the Arcadia

Municipal Code is hereby amended to read in full as follows:

**8410. ADOPTION.**

Subject to certain changes and amendments as hereinafter set forth in this Chapter, the City Council adopts, by reference, as the mechanical regulations for the City the California Mechanical Code, 2010 Edition, with appendixes, installation standards and State of California amendments applicable to local jurisdictions, published and adopted by the International Association of Plumbing and Mechanical Officials. The Code shall govern, regulate, and control all of the activities therein referred to and the same is made a part of this Chapter as though set forth in this Chapter in full.

The 2010 Edition of the California Mechanical Code is adopted with no amendments.

One (1) copy of said Code is on file in the office of the City Clerk for use and examination by the public.

SECTION 8. Part 3, Chapter 5, Article VIII of the Arcadia Municipal Code is hereby amended to read as follows:

**PART 3**

**ADDITIONS, DELETIONS AND  
AMENDMENTS**

**8530. AMENDMENTS, ADDITIONS AND DELETIONS.**

Chapter 31, Section 3109 of the 2010 California Building Code is amended to read as follows due to local climatic and topographical conditions:

**8530.1. AMENDMENT.**

The definition of a safety barrier in Section 3109.4.4.3 in Chapter 31 of the 2010 California Building Code is amended to read as follows:

**Safety Barrier.** Every person in possession of land, either as owner, purchaser under contract, lessee, tenant or licensee, upon which is situated a swimming pool, spa, or hot tub shall at all times maintain a safety barrier as hereinafter specified completely surrounding said swimming pool, spa or hot tub.

Exception: Safety barriers for public pools shall comply with Chapter 31B, Division 1 of the California Building Code.

**8530.2. ADDITION.**

Section 3109.5.5 is added to Chapter 31 of said 2010 California Building Code is added to read as follows:

**3109.5.5. Swimming Pool, Spa and Hot Tub Permit Fees.** Every applicant for a permit to install, alter, or repair a swimming pool, spa, hot tub or part thereof, shall state in writing on the application form provided for that purpose, the character of work proposed to be done and the amount and kind in connection therewith, together with such information pertinent thereto as may be required.

A fee for each swimming pool, spa or hot tub, including for plumbing and electrical systems, shall be paid to the City in an amount established by City Council Resolution. Any person who shall commence any swimming pool, spa or hot tub work for which a permit is required by this Code without having obtained a permit therefore shall, if subsequently permitted to obtain a permit, pay double the permit fee fixed by resolution of the City Council for such work, provided, however, that this provision shall not apply to

emergency work when it shall be demonstrated to the satisfaction of the Building Official that such work was urgently necessary and that it was not practical to obtain a permit therefore, before the commencement of the work. In all such cases, a permit must be obtained as soon as practical to do so, and if there be an unreasonable delay in obtaining such permit, a double fee shall be charged.

**3109.5.5.1. Reinspections.** A reinspection fee may be assessed for each inspection or reinspection when such portion of work for which inspection is called is not complete or when required corrections have not been made.

This provision is not to be interpreted as requiring reinspection fees the first time a job is rejected for failure to comply with the requirements of this Code, but as controlling the practice of calling for inspection before the job is ready for reinspection.

Reinspection fees may be assessed when the approved plans are not readily available to the inspector, for failure to provide access on the date for which the inspection is requested, or for deviating from plans requiring approval of the City. To obtain reinspection, the applicant shall file an application therefore in writing upon the form furnished for that purpose and pay the reinspection fee in accordance with the amount set by City Council Resolution. In instances where reinspection fees have been assessed, no additional inspection of the work shall be performed until the required fees have been paid.

**3109.5.5.2. Plan Review Fees.** Whenever plans, calculations or other data are required to be submitted, a plan review fee shall be paid to the City at the time of submitting documents for plan review in an amount set by City Council Resolution. When plans are incomplete or changed so as to require an additional review, a fee shall be paid

to the City in an amount established by City Council Resolution.

**3109.5.5.3. Board of Appeals.** Appeals of orders, decisions or determinations made by the Building Official relative to the application and interpretation of the code shall be as specified in Arcadia Municipal Code Section 8130.2.

**8530.3. AMENDMENT.**

The definition of "Swimming Pool" in Section 3109.4.4.1 of Chapter 31 of the 2010 California Building Code is amended to read as follows:

**Swimming Pool** - A swimming pool may be either: (a) a private swimming pool, or (b) a public swimming pool.

(a) A private swimming pool shall mean any constructed or prefabricated structure that contains water eighteen (18) inches or more in depth, used in connection with a single-family residence and available to only the resident(s) of such residence or their private guests, whether designed, intended or used exclusively or principally for swimming or not. This includes any in-ground, aboveground, or on-ground swimming pools, hot tubs, spas or any open container or artificial body of water permanently or temporarily constructed or maintained upon any property, used in connection with a single-family residence and available to only the resident(s) of such residence or their private guests, whether designed, intended or used exclusively or principally for swimming or not.

(b) A public swimming pool shall include any constructed or prefabricated structure that contains water eighteen (18) inches or more in depth, other than a private swimming pool, that is used exclusively or principally for swimming."

**8530.3.1. ADDITION.**

The definition of a "Wading Pool" in Section 3109.4.4.1 is added to Chapter 31 of the 2010 California Building Code to read as follows:

**Wading Pool** - Any constructed or prefabricated pool used for wading which is less than eighteen (18) inches in depth.

**8530.4. ADDITION.**

Section 3109.6 is added to Chapter 31 of the 2010 California Building Code.

**3109.6 Barrier Required**

**3109.6.1.** The top of the barrier shall be at least sixty (60) inches above finished grade, as measured on the side of the barrier that faces away from the swimming pool, spa or hot tub. The maximum vertical clearance between finish grade and the bottom of the barrier shall be four (4) inches, as measured on the side of the barrier that faces away from the swimming pool, spa, or hot tub. Where the top of the pool structure is above grade, such as an aboveground pool, the barrier may be at ground level or mounted on top of the pool structure. Where the barrier is mounted on top of the pool structure, the maximum vertical clearance between the top of the pool structure and the bottom of the barrier shall be four (4) inches.

**3109.6.2.** Openings in the barrier shall not allow the passage of a four- (4) inch diameter sphere.

**3109.6.3.** Solid barriers that do not have openings, such as masonry or stonewalls, shall not contain indentations or protrusions except for tooled masonry joints.

**3109.6.4.** Where the barrier is composed of horizontal and vertical members and the

distance between each of the horizontal member is less than 45 inches, the horizontal members shall be located on the swimming pool, spa or hot tub side of the fence and the spacing between each vertical member shall not exceed 1- $\frac{3}{4}$  inches.

**3109.6.5.** Where the barrier is composed of horizontal and vertical members and the distance between each of the horizontal members is 45 inches or more, the spacing between each vertical member shall not allow the passage of a four- (4) inch diameter sphere. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed  $\frac{3}{4}$  inches in width.

**3109.6.6.** Where chain link fencing is used, the maximum mesh size shall be 1- $\frac{1}{4}$  inch square unless the fence is provided with slats fastened in place which reduces the openings to no more than 1- $\frac{3}{4}$  inches. The chain link fence fabric shall be not less than 11-gauge material. Solid or dense landscaping shall not be used to meet the requirements of this section.

**3109.6.7.** Where the barrier is composed of diagonal members, such as a lattice fence, the maximum opening formed by the diagonal members shall be not more than 1- $\frac{3}{4}$  inches.

**3109.6.8.** Access gates shall comply with the requirements specified in Section 3109.6.1 ~~3109.6.7~~ above and, in addition, shall be equipped to accommodate a locking device. Pedestrian-access gates shall open outward away from the swimming pool, spa or hot tub and shall be self-closing and self-latching. The release mechanism of the self-latching device shall be located not less than the sixty (60) inches above adjacent finished grade. Access gates shall not be constructed across a driveway, and double gates or

motor operated gates shall not be used. A weather-proof, durable sign of not less than ½ inch high letters stating, "POOL AREA KEEP GATE CLOSED", shall be posted at all times on every access gate.

**3109.6.9.** A building wall that serves as part of the barrier and allows access to the swimming pool, spa or hot tub through door openings shall comply with one of the following requirements:

An alarm installed on all doors with direct access (1) to the swimming pool, spa or hot tub. The alarm shall sound continuously for a minimum of 30 seconds immediately after the door is opened and be loud enough to be heard throughout the house during normal household activities. The alarm shall automatically reset under all conditions. The alarm system shall be equipped with a manual means, such as a touch pad or switch, to temporarily deactivate the alarm for a single opening; such deactivation shall last for no more than 15 seconds. The deactivation switch shall be located at least 54 inches above the floor adjacent to the door opening. An alarm, which is incorporated into a general house alarm system, may be used to meet the requirements of this section providing the alarm is not connected to a central monitoring station and cannot be disabled.

Self-closing and self-latching devices installed on (1) all doors with direct access to the swimming pool, spa or hot tub with the release mechanism located a minimum 54" above adjacent finished grade.

**3109.6.10.** Inspection. The swimming pool, spa or hot tub barrier, including pedestrian access gates and door alarms, shall be installed, inspected and approved prior to plastering or filling the swimming pool, spa, or hot tub with water.

**3109.6.11.** Indoor Swimming Pool, Spa or Hot Tub. An exterior door with direct access to an indoor swimming pool, spa, or hot tub shall comply with section 3109.6.9 above.

**3109.6.12 LEGAL NON-CONFORMING SWIMMING POOLS, SPAS OR HOT TUBS.** Every person in possession of land, either as owner, purchaser under contract, lessee, tenant or licensee, upon which is situated a swimming pool, spa, or hot tub for which a permit was issued prior to June 19, 1992, shall at all times maintain a safety barrier completely surrounding said swimming pool, spa or hot tub, as follows:

A substantial fence or other solid structure not (1) less than four (4) feet in height, as measured from the side of the fence that does not enclose the swimming pool, spa or hot tub area, shall be provided. The openings in the barrier shall not allow the passage of a four- (4) inch diameter sphere and horizontal pickets that act as a latter shall not be used. Pedestrian access gates or door openings through the (2) barrier shall be equipped to accommodate a locking device and be self-closing and self-latching. The release mechanism of the self-latching device shall be located not less than forty-eight (48) inches above the adjacent finished grade. Access gates shall be not less than 48 inches in height and openings in the gate shall not allow the passage of a four- (4) inch diameter sphere. This section shall not apply to any door of the main dwelling unit located on the same legal lot as the swimming pool, spa or hot tub. Access gates shall not be constructed across any driveway and double gates or motor operated gates shall not be used. A weatherproof, durable sign of not less than one-half ( $\frac{1}{2}$ ) inch high letters stating, "POOL AREA KEEP GATE CLOSED", shall be posted at all times on every access gate.

**3109.6.12.1. DRAINAGE.**

A 3”P-trap shall be required on the premises for drainage of the pool.

**3109.6.13. PLAN COMPLIANCE.** All plans submitted to the City for the construction of a new swimming pool, spa or hot tub shall show compliance with the requirements of this Chapter, including the location and height of fencing and gates required by this Chapter.

**3109.6.14. FINAL INSPECTION.** Final approval of all swimming pools, spas, and hot tubs hereinafter constructed shall not be granted until all of the requirements specified in this chapter have been complied with.

**8530.10. ADDITION [ADMINISTRATIVE].**

Section 3109.7 is added to Chapter 31 of said California Building Code to read as follows:

**3109.7. Demolition of a Swimming Pool, Spa or Hot Tub.** A demolition permit shall be obtained from the City prior to the demolition of any swimming pool, spa, or hot tub. The permit applicant shall submit a plot plan indicating the location of the swimming pool, spa or hot tub and it's associated equipment. Upon issuance of the demolition permit, the following requirements shall apply:

1. Gas piping serving the swimming pool, spa or hot tub equipment shall be terminated at the source of supply and removed.
2. Plumbing piping serving the swimming pool, spa, hot tub or equipment shall be terminated at the source of supply and removed.
3. Electrical wiring and conduit serving the swimming pool, spa, hot tub, or

equipment shall be terminated at the source of supply and removed.

4. Electrical, plumbing and mechanical equipment serving the swimming pool, spa or hot tub shall be removed.

5. The sidewalls of the swimming pool, spa or hot tub shall be removed to a minimum depth of 6 inches below adjacent grade.

6. Two (2) 18-inch diameter holes shall be provided at the lowest elevation of the swimming pool, spa or hot tub floor.

7. The swimming pool, spa or hot tub shall be filled with clean soil or other approved material.

SECTION 9. Article VIII of the Arcadia Municipal Code is hereby amended by adding a new Chapter 11 to read as follows:

**CHAPTER 11  
RESIDENTIAL CODE**

**PART 1  
ADOPTION**

**8930. ADOPTION**

Subject to certain changes and amendments as hereinafter set forth in this Chapter, the City Council hereby adopts, by reference, as the residential building regulations for the City, the 2010 Edition of the California Residential Code (California Code of Regulations, Title 24). The Code shall govern, regulate and control all of the activities therein referred to and the same is made a part of this Chapter as though set forth in this Chapter in full.

One (1) copy of said Code is on file in the office of the City Clerk for use and examination by the public.

**PART 2**

## **PURPOSE**

### **8940. PURPOSE**

The purpose of this Code is to provide minimum standards to safeguard life or limb, health, property, and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location and maintenance of all buildings and structures within the City of Arcadia and certain equipment specifically regulated herein.

## **PART 3 ADDITIONS, DELETES AND AMENDMENTS**

### **8950. AMENDMENTS, ADDITIONS AND DELETIONS.**

The 2010 California Residential Code is amended to read as follows:

#### **8950.1. AMENDMENT.**

Section R313.1 of the California Residential Code is amended to read as follows due to local climatic, geographical, and topographical conditions:

R313.1 Where required. Approved automatic extinguishing systems shall be installed:

1. In all new R-2 occupancies.

#### **EXCEPTIONS:**

A) Detached Group U occupancies, providing the floor area does not exceed 1000 square feet.

B) Pool houses, recreation rooms and similar accessory occupancies providing no portion of the exterior wall of the building is more than 150 feet from a public street.

C) Other minor buildings and/or occupancies as approved by the Fire Chief.

2. In all existing Group R-2 Occupancies greater than 2500 square feet in living area when enlarged by an addition to the living area of the existing structure.

EXCEPTIONS:

A) Additions of areas that would not require sprinklers such as closets or bathrooms.

3. In all existing Group R-2 Occupancies equal to or less than 2500 square feet in living area, when enlarged by an addition to the living area of the existing structure, exceeds 2500 square feet in residential area.

EXCEPTIONS:

A) Additions of areas that would not require sprinklers such as closets or bathrooms.

**8950.2. AMENDMENT.**

Section R313.1.1 of the California Residential Code is amended to read as follows due to local climatic, geographical, and topographical conditions:

R313.1.1 Automatic residential sprinkler systems for R-2 occupancies shall be designed and installed in accordance with NFPA 13D or NFPA 13R as amended by the Arcadia Municipal Code.

**8950.3. AMENDMENT.**

Section R313.2 of the California Residential Code is amended to read as follows due to local climatic, geographical, and topographical conditions:

1. In all new R-3 occupancies.

EXCEPTIONS:

A) Detached Group U occupancies, providing the floor area does not exceed 1000 square feet.

B) Pool houses, recreation rooms and similar accessory R-3 occupancies providing no portion of the exterior wall of the building is more than 150 feet from a public street.

C) Other minor buildings and/or occupancies as approved by the Fire Chief.

2. In all existing Group R-3 Occupancies greater than 2500 square feet in living area when enlarged by an addition to the living area of the existing structure.

EXCEPTIONS:

A) Additions of areas that would not require sprinklers such as closets or bathrooms.

3. In all existing Group R-3 Occupancies equal to or less than 2500 square feet in living area, when enlarged by an addition to the living area of the existing structure, exceeds 2500 square feet in residential area.

EXCEPTIONS:

A) Additions of areas that would not require sprinklers such as closets or bathrooms.

**8950.4. AMENDMENT**

Section R313.2.1 of the California Residential Code is amended to read as follows due to local climatic, geographical, and topographical conditions:

**R313.2.1 DESIGN AND INSTALLATION.** Automatic residential fire sprinkler systems shall be designed and installed in accordance with NFPA 13D as amended by the Arcadia Municipal Code.

**8950.5. AMENDMENT**

Section R313.3 of the California Residential Code is deleted in its entirety and amended to read as follows due to local climatic, geographical, and topographical conditions:

**R313.3. DWELLING UNIT FIRE SPRINKLER SYSTEMS.** Dwelling unit fire sprinkler systems shall be designed and installed in accordance with NFPA 13D or NFPA 13R as amended by this section

**R313.3.1 NFPA 13R SPRINKLER SYSTEMS.** Where allowed in buildings of Group R, up to and including buildings four stories in height, automatic sprinkler systems shall be installed throughout in accordance with NFPA 13R with the following additions:

- A) Attics shall be fully sprinklered with quick-response intermediate temperature heads.
- B) Private garages shall be sprinklered and shall have a design density of an Ordinary Hazard Group 1 occupancy with a design area of two (2) heads. Quick-response intermediate temperature commercial type heads shall be used for the garage area.

**R313.3.2 NFPA 13D SPRINKLER SYSTEMS.** Where allowed, automatic sprinkler systems installed in one-and two-family dwellings shall be installed throughout in accordance with NFPA 13D with the following additions:

- A) Attics containing forced air units shall have one or more quick-response intermediate temperature sprinkler heads adjacent to each unit.
- B) Attached private garages shall be sprinklered and shall have a design density of an Ordinary Hazard Group 1 occupancy with a design area of two (2) heads. Quick-response intermediate temperature commercial type heads shall be used for the garage area.
- C) Detached private garages over 1000 square feet in total area shall be sprinklered and shall have a design density of an Ordinary Hazard Group 1 occupancy with a design area of 2 heads. Quick-response intermediate temperature commercial type heads shall be used for the garage area.
- D) Residential structures under 5000 square feet in total area shall be designed for two (2) heads flowing in the residential area. Residential structures over 5000 square feet in total area shall be designed for four (4) heads flowing in the residential area.

**8950.6. AMENDMENT**

Section R403.1.3 of Section R403 of the California Residential Code is amended as follows due to local climatic, geographical, and topographical conditions:

**Section R403.1.3. SEISMIC REINFORCING.**

The EXCEPTION is hereby deleted in its entirety.

**8950.7. AMENDMENT**

Section R405.1 of Section R405 of the California Residential Code is amended as follows due to local climatic, geographical, and topographical conditions:

**Section R405.1. FOUNDATION DRAINAGE.**

The EXCEPTION is hereby deleted in its entirety.

**8950.8. AMENDMENT**

Section R902.1 of Section R902 of the California Residential Code is amended as follows due to local climatic, geographical, and topographical conditions:

**R902.1. ROOFING COVERING MATERIALS.**

Roofs shall be covered with materials as set forth in Section R904 and R905. A minimum Class A or B roofing shall be installed in areas designated by this Section. Classes A or B roofing required by this Section to be listed shall be tested in accordance with UL 790 or ASTM E 108.

**EXCEPTIONS:**

1. Class A roof assemblies include those with coverings of brick, masonry and exposed concrete roof deck.
2. Class A roof assemblies also include ferrous or copper shingles or sheets, metal sheets and shingles, clay or concrete roof tile, or slate installed on noncombustible decks.

**8950.9. AMENDMENT**

Section R902.1.3 of Section R902 of the California Residential Code is amended to read as follows due to local climatic, geographical, and topographical conditions:

**R902.1.3. ROOF COVERINGS WITHIN ALL OTHER AREAS.**

The entire roof covering of every existing structure where more than fifty (50%) percent of the total roof area is replaced within any one-year period, the entire roof covering of

every new structure, and any covering applied in the alteration, repair or replacement of the roof of every existing structure, shall be a fire-retardant roof covering that is at least Class B.

**8950.10. AMENDMENT**

Section R902.2 of Section R902 of the California Residential Code is amended to read as follows due to local climatic, geographical, and topographical conditions:

**R902.2. FIRE-RETARDANT-TREATED SHINGLES AND SHAKES.**

Fire-retardant-treated wood shakes and shingles are wood shakes and shingles complying with UBC Standard 15-3 or 15-4 which are impregnated by the full-cell vacuum-pressure process with fire-retardant chemicals, and which have been qualified by UBC Standard 15-2 for use on Class A or B roofs.

SECTION 10. Chapter 9, Part 3 of Article VIII of the Arcadia Municipal Code is hereby renumbered to Chapter 10.

SECTION 11. Chapter 12 of Article VIII of the Arcadia Municipal Code is hereby added to read as follows:

**DANGEROUS BUILDING**

**PART 1  
ADOPTION**

**8960. ADOPTION**

Subject to certain changes and amendments as hereinafter set forth in this Chapter, the City Council hereby adopts, by reference, the 1997 Edition of the Uniform Code for the Abatement of Dangerous Buildings as published by the International Code Council. The Code shall govern, regulate and control all of the activities therein referred to and the same

is made a part of this Chapter as though set forth in this Chapter in full.

One (1) copy of said Code is on file in the office of the City Clerk for use and examination by the public.

**PART 2  
PURPOSE**

**8970. PURPOSE**

The purpose of this Code is to provide minimum standards to safeguard life or limb, health, property, and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location and maintenance of all buildings and structures within the City of Arcadia and certain equipment specifically regulated herein.

**SECTION 12. CEQA.** The City Council finds that this Ordinance is not subject to the California Environmental Quality Act (CEQA) pursuant to Sections 15060(c)(2) (the activity will not result in a direct or reasonably foreseeable indirect physical change in the environment) and 15060(c)(3) (the activity is not a project as defined in Section 15378) of the CEQA Guidelines, California Code of Regulations, Title 14, Chapter 3, because it has no potential for resulting in physical change to the environment, directly or indirectly.

**SECTION 13. Severability.** If any section, subsection, subdivision, paragraph, sentence, clause or phrase of this ordinance, or any part thereof is for any reason held to be unconstitutional, such decision shall not affect the validity of the remaining portion of this ordinance or any part thereof. The City Council hereby declares that it would have passed each section, subsection, subdivision, paragraph, sentence, clause or phrase thereof, irrespective of the fact that any one or more section, subsection, subdivision, paragraph, sentence, clause or phrase be declared unconstitutional.

SECTION 14. The City Clerk shall certify to the adoption of this Ordinance and shall cause a copy or summary of same to be published in the official newspaper of said City within fifteen (15) days of its adoption. This Ordinance shall take effect thirty one (31) days following its adoption by the City Council.

Passed, approved and adopted this 7th day of December, 2010.

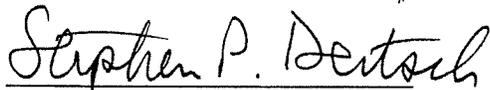
**/S/ PETER AMUNDSON**  
Mayor of the City of Arcadia

ATTEST:

**/S/ JAMES H. BARROWS**

City Clerk

APPROVED AS TO FORM:



Stephen P. Deitsch  
City Attorney

STATE OF CALIFORNIA        )  
COUNTY OF LOS ANGELES ) SS:  
CITY OF ARCADIA            )

I, JAMES H. BARROWS, City Clerk of the City of Arcadia, hereby certifies that the foregoing Ordinance No. 2279 was passed and adopted by the City Council of the City of Arcadia, signed by the Mayor and attested to by the City Clerk at a regular meeting of said Council held on the 7th day of December, 2010 and that said Ordinance was adopted by the following vote, to wit:

AYES:       Council Member Chandler, Harbicht, Kovacic, Segal and Amundson

NOES:       None

ABSENT:    None

**/S/ JAMES H. BARROWS**  
City Clerk of the City of Arcadia



# City of Arcadia

## Development Services Department

Jason Kruckeberg  
*Director of  
Development Services*

### FINDINGS OF FACT

Pursuant to the 2010 Edition of the California Building Code Preface, the repost contained herein shall be submitted as the Findings of Fact document with regard to Article III of the City of Arcadia Municipal Code, Ordinance No. 2279 as adopted by the City of Arcadia. Under this Ordinance specific amendments have been established, which are more restrictive in nature than those sections adopted by the California Building Standards Code.

The amendments to the California Building Code, 2010 Edition have been recognized by the City of Arcadia to address the Building problem (s) and maintain an environment, which will afford a level of fire and life safety to its citizens and guests.

Under provisions of California Building Code Preface, local amendments shall be based on climatic, geographical or topographical conditions. The Findings of Facts contained herein shall address each of these situations and shall present the local situation, which singularly or in combination cause the established amendments to be adopted.

**Climatic:** The City of Arcadia is located in the County of Los Angeles, and is subject to long periods of dry, hot and windy climates, which increase the chance of a fire occurring and predispose the City to large destructive fires. These dry climatic conditions and winds contribute to the rapid spread of even small fires originating in moderate density housing or vegetation. These fires spread very quickly and create a need for increased levels for fire prevention and protection. This added protection will supplement normal fire department response available and provide immediate protection for life and safety of occupants during fire occurrences. The warm, dry climate is conducive to swimming pools which creates a higher probability of child drowning where pools are unprotected.

**Geographical:** The geographic layout and contours of the City of Arcadia create barriers for accessibility for fire suppression forces. Due to the City's close proximity to major fault lines, there is a significant possibility for multiple fires spreading out of control due to ruptured gas lines and multiple structural collapses. Because of the major earthquake hazard, and due to some older nonconforming buildings, it is necessary during the new construction or building renovation to use the City ordinance to control and minimize conditions hazardous to life and property, which may result from fire, hazardous materials or an explosion.

**Topographical:** The water supply (domestic and fire flow) system within the City is directly affected by the topographical layout of Arcadia. The distribution system consists of high-low pressure and gravity systems zones, which carry the water from various reservoirs and storage tanks to different zones via water pipes. These street mains consist of high-pressure lines and low pressure lines where the pressure and flows are adequate in most of the areas of the city. There are certain areas in the southern portion of the City with static pressures of 40 psi., and in the northern portion as low as 20 psi. This variation of pressure causes major problems to development, as well as fire suppression forces.

As a result of the Findings of Fact, which identified the various climatic, geographical, and topographical elements, the requirements established by the City of Arcadia Building Department within the adopted Ordinance No. 2279 are considered reasonable and necessary modifications to the California Building Code based upon local conditions.

While it is clearly understood that the adoption of such regulations may not prevent the incidents of fire, and/or structural failure it is further noted that with the implementation of these various regulations and/or requirements it may serve to reduce the severity and potential loss of life and property.

The City of Arcadia Building Department submits these Findings of Fact and request acceptance of these as defined in the California Building Code Preface.

Prepared and submitted by: Don Stockham, Building Official