ORDINANCE NO. NS-2905


THE CITY COUNCIL OF THE CITY OF SANTA ANA DOES HEREBY ORDAIN AS FOLLOWS:

SECTION 1: Section 8-43 of the Santa Ana Municipal Code is hereby amended such that it reads as follows:

Sec. 8-43. Adoption by reference.

There is adopted by the city that certain code known as the California Building Code, 2016 Edition, based on the 2015 International Building Code as published by the International Code Council, (hereinafter referred to in this article as the "Building Code," "building code," or "California Building Code"), consisting of "Volume 1", "Volume 2" and the 2016 California Existing Building Code (together with subsequent supplements or amendments to any volume, each of which shall become effective, adopted, and incorporated by reference into this Code on the date specified by the state building standards commission, unless otherwise specified), of which not less than one (1) copy of said Code has been and is now on file in the office of the clerk of the council of the city pursuant to Health and Safety Code Section 18942(d)(1) and are made available for public inspection. The building code is adopted and incorporated by reference as though fully set forth at length herein as provided for in section 419 of the Charter of the city, except for the changes to the building code set forth in this chapter that specifically amends the Building Code. Any previously enacted, unrepealed provision of the Santa Ana Municipal Code that amended a pre-2016 edition of the "Building Code" shall also be construed as amending the applicable provision of the 2016 or later edition of the building code. The building code, as thus amended, together with all other provisions of this article, shall be known as the city building code.

Appendices which are adopted pursuant to this section are as follows:

Appendix I, Patio Covers
Appendix J, Grading

SECTION 2: Section 8-95 of the Santa Ana Municipal Code is hereby amended such that it reads as follows:

Sec. 8-95. Certificate of occupancy (Chapter 1, Division II, Section 111).

Chapter 1, Division II, Section 111.1 of the building code is amended to read as follows:

Chapter 1, Division II, Section 111.1--Certificate of Occupancy

(1) Use and occupancy. No building or structure shall be used or occupied, and no change in the existing occupancy classification of a building or structure or portion thereof shall be made, until the building official has issued a certificate of occupancy therefor as provided herein. Issuance of a certificate of occupancy shall not be construed as an approval of a violation of the provisions of this code or other ordinances of the jurisdiction.

Exception: Certificates of occupancy are not required for work exempt from permits under Section 105.2

(2) No alteration to an existing building which changes the floor area of the building or which changes the means of egress from the building shall be made until the building official has issued a certificate of occupancy therefor as provided herein.

(3) No change of occupant within a building or portion thereof shall be made until the building official has issued a certificate of occupancy therefor as provided herein.

EXCEPTION: Group R, Divisions 2 and 3, and Group U Occupancies.

(4) No building or structure shall be connected with utility services, nor shall a building or structure whose electrical service has been disconnected be reconnected with electrical service until an inspection has been made and the building official has determined that the building does not constitute an unsafe building.

SECTION 3: Section 8-183 of the Santa Ana Municipal Code is hereby added such that it reads as follows:
Sec. 8-183 Grading Permit Exemptions (Volume 2, Appendix J, Section J103.2).

Section J103.2 is amended to read as follows:

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

1. Grading of less than 50 cubic yards in an isolated, self-contained area, provided there is no danger to the public, and that such grading will not adversely affect adjoining properties.

2. Excavation for construction of a structure permitted under this code.

3. Cemetery graves.

4. Refuse disposal sites controlled by other regulations.

5. Excavations for wells, or trenches for utilities.

6. Mining, quarrying, excavating, processing or stockpiling rock, sand, gravel, aggregate or clay controlled by other regulations, provided such operations do not affect the lateral support of, or significantly increase stresses in, soil on adjoining properties.

7. Exploratory excavations performed under the direction of a registered design professional.

8. An excavation of less than 50 cubic yards that (1) is less than 2 feet in depth or (2) does not create a cut slope greater than 5 feet in height and steeper than 1 unit vertical in 2 units horizontal (50 percent slope).

9. A fill less than 1 foot in depth and placed on natural terrain with a slope flatter than 1 unit vertical in 5 units horizontal (20% slope), or less than 3 feet in depth, not intended to support structures, that does not exceed 50 cubic yards on any one lot and does not obstruct a drainage course.

Exemption from the permit requirements of this appendix shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction.

SECTION 4: Section 8-290 of the Santa Ana Municipal Code is hereby amended such that it reads as follows:

Sec. 8-290. Adoption by reference.
There is adopted by the city that certain code known as the California Plumbing Code, 2016 Edition, including the following appendices thereto: A, B, D, I and J, (hereinafter referred to in this article as the "Plumbing Code"), together with subsequent supplements or amendments, which shall become effective, adopted and incorporated by reference into this Code on the date specified by the state building standards commission, unless otherwise specified. The plumbing code is adopted and incorporated by reference as fully set forth at length herein as provided for in section 419 of the Charter of the city, except for the changes to the plumbing code set forth in this chapter of this Code that specifically amend the plumbing code. Any previously enacted, unrepealed provision of this Code that amended a pre-2016 edition of the "Plumbing Code" shall also be construed as amending the applicable provision of the 2016 or later edition of the plumbing code. The plumbing code as amended, together with all other provisions of this article, shall be known as the city plumbing code.

SECTION 5: Section 8-340 of the Santa Ana Municipal Code is hereby amended such that it reads as follows:

Sec. 8-340. Underground Installation (California Plumbing Code Section 313.5).

Section 313.5 of the Plumbing Code is amended to read as follows:

313.5. Piping in the ground shall be laid on a firm bed for its entire length. Building drains, sewers and storm drain piping systems in the ground, and designed and approved at less than one (1) percent grade, shall be laid on a continuous firm bed, certified by a registered soils engineer as having a compaction level of not less than ninety (90) percent density. Where support is otherwise provided, it shall be approved per Section 301.2 of this code.

SECTION 6: Section 8-342 of the Santa Ana Municipal Code is hereby amended such that it reads as follows:

Sec. 8-342. Suspended piping support (California Plumbing Code, Table 313).

Table 313.3 of the Plumbing Code is amended by adding footnote 2 to the requirements for horizontal piping of all materials specified in Table 313.3 of the California Plumbing Code.

SECTION 7: Section 8-556 of the Santa Ana Municipal Code is hereby amended such that it reads as follows:

Sec. 8-556. Adoption by reference.

There is adopted by the city that certain code known as the California Mechanical Code, 2016 edition (hereinafter referred to in this article as the "California Mechanical Code" "Mechanical Code" or "mechanical code"), together with subsequent supplements, amendments, or editions, which shall become effective, adopted, and

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incorporated by reference into this Code on the date specified by the state building standards commission, unless otherwise specified. The mechanical code is adopted and incorporated by reference as though fully set forth at length herein as provided for in section 419 of the Charter of the city, except for the changes to the mechanical code set forth in this chapter of this Code that specifically amend the mechanical code. Any previously enacted, unrepealed provision of this Code that amended a pre-2016 edition of the "Mechanical Code" shall also be construed as amending the applicable provision of the 2016 or later edition of the mechanical code. The mechanical code as amended, together with all other provisions of this article, shall be known as the city mechanical code.

SECTION 8: Section 8-667 of the Santa Ana Municipal Code is hereby amended such that it reads as follows:

Sec. 8-667. Adoption by reference.

There is adopted by the city that certain code known as the California Electrical Code 2016 Edition and the administrative provisions set forth herein, (hereinafter referred to in this article as the "Electrical Code") together with subsequent supplements, amendments, or editions, which shall become effective, adopted, and incorporated by reference into this Code on the date specified by the state building standards commission, unless specifically adopted prior to that date, of which not less than one (1) copy of said Code has been and is now on file in the office of the clerk of the council of the city pursuant to Health and Safety Code Section 18942(d)(1) and are made available for public inspection. The electrical code is adopted and incorporated by reference as though fully set forth at length herein as provided for in section 419 of the Charter of the city, except for the changes to the electrical code set forth in this chapter of this code that specifically amend the electrical code. Any previously enacted, unrepealed provision of this Code that amended a pre-2016 edition of the "Electrical Code" shall also be construed as amending the applicable provision of the 2016 or later edition of the electrical code. The electrical code as amended, together with all other provisions of this article, shall be known as the city electrical code.

Annex which are adopted pursuant to this section are as follows:

Informative Annex A, Product Safety Standards

SECTION 9: The City Council of the City of Santa Ana hereby finds, determines and declares that adoption of section 8-942 amending California Electrical Code Section 334.12 is necessary because earthquakes are a common occurrence in the local area; that, unlike wire installed in conduit or raceways, non-metallic sheathed cable does not provide the degree of protection that is needed in the event of an earthquake; that exposed non-metallic sheathed cable is particularly hazardous; and that this amendment is necessary to assure that adequate protection is provided in the workplace and in other places of public gathering.
**SECTION 10:** Section 8-942 of the Santa Ana Municipal Code is hereby amended such that it reads as follows:

**Sec. 8-942. Uses not permitted (Section 334.12).**

Section 334.12 of the California Electrical Code is amended to read as follows:


(A) Types NM, NMC and NMS. Types NM, NMC and NMS cables shall not be permitted as follows:

1. In any multifamily dwelling or other structure not specifically permitted in 334.10(1), (2), and (3).

2. Exposed in dropped or suspended ceilings in other than one- and two-family and multifamily dwellings

3. As service-entrance cable

4. In any nonresidential building or structure

5. In theatres and similar locations

6. In motion picture studios

7. In storage battery rooms

8. In hoist ways or on elevators or escalators

9. Embedded in poured cement, concrete, or aggregate.

10. In hazardous (classified) locations, except where specifically permitted by other articles in this Code.

(B) Types NM and NMS. Types NM and NMS cables shall not be installed in the following:

1. Where exposed to corrosive fumes or vapors

2. Where embedded in masonry, concrete, adobe, fill, or plaster

3. In a shallow chase in masonry, concrete, or adobe and covered with plaster, adobe, or similar finish

4. In wet or damp locations
Sects. 8-868 – 8-911. Reserved.

SECTION 11 Section 8-912 of the Santa Ana Municipal Code is hereby added such that it reads as follows:

Sec. 8-912. Wiring Methods.

Section 230.43 of the California Electrical Code is amended to read as follows:

230.43 Wiring Methods for 1000 Volts, Nominal, or Less. Service entrance conductors shall be installed in accordance with the applicable requirements of this Code covering the type of wiring method used and shall be limited to the following methods:

(1) Open wiring on insulators
(2) Type IGS cable
(3) Rigid metal conduit (RMC)
(4) Intermediate metal conduit (IMC)
(5) Wireways
(6) Busways
(7) Auxiliary gutters
(8) Rigid polyvinyl chloride conduit (PVC)
(9) Cablebus
(10) High density polyethylene conduit (HDPE)
(11) Nonmetallic underground conduit with conductors (NUCC)
(12) Reinforced thermosetting resin conduit (RTRC)

SECTION 12: Section 8-2000 of the Santa Ana Municipal Code is hereby amended such that it reads as follows:

Sec. 8-2000. Adoption by reference.

There is adopted by the city that certain code known as the 2015 International Property Maintenance Code (hereinafter referred to as the "Property Maintenance
Code"), together with subsequent supplements, amendments, or editions, which shall become effective, adopted, and incorporated by reference into this Code on each new official publication date of the International Property Maintenance Code, of which not less than one (1) copy of said Code has been and is now on file in the office of the clerk of the council of the city pursuant to Health and Safety Code Section 18942(d)(1) and are made available for public inspection. The said Code is adopted and incorporated as fully as if set forth at length herein as provided for in section 419 of the Charter of the city, except for the changes to the property maintenance code set forth in this chapter of this Code that specifically amends the property maintenance code. Any previously enacted, unrepealed provision of this Code that amended a pre-2015 edition of the "Property Maintenance Code" shall also be construed as amending the applicable provision of the 2015 or later edition of the property maintenance code. The property maintenance code, as thus amended, together with all other provisions of this article, shall be known as the city property maintenance code.

**SECTIOn 13**  
Section 8-2800 is added to Chapter 8 of the Santa Ana Municipal code to read in full as follows:

**Sec. 8-2800. Adoption by reference.**

There is adopted by the city that certain code known as the California Residential Code, 2016 Edition, based on the 2015 International Residential Code as published by the International Code Council, (hereinafter referred to in this article as the "Residential Code" or "California Residential Code"), (together with subsequent supplements or amendments shall become effective, adopted, and incorporated by reference into this Code on the date specified by the state building standards commission, unless otherwise specified), of which not less than one (1) copy of said Code has been and is now on file in the office of the Clerk of the Council of the city pursuant to Health and Safety Code Section 18942(d)(1) and are made available for public inspection. The Residential code is adopted and incorporated by reference as though fully set forth at length herein as provided for in section 419 of the Charter of the city, except for the changes to the Residential code set forth in this chapter that specifically amends the Residential Code. The Residential code, as thus amended, together with all other provisions of this article, shall be known as the city Residential code.

Appendices which are adopted pursuant to this section, are as follows:

Appendix H, Patio Covers

Appendix J, Existing Buildings and Structures

**SECTIOn 14:**  
Section 8-2810 of the Santa Ana Municipal Code is hereby amended such that it reads as follows:

**Sec. 8-2810. Climatic and Geographic Design Criteria (Table R301.2(1)).**
Table R301.2(1) is revised to read:

<table>
<thead>
<tr>
<th>GROUND SNOW LOAD</th>
<th>WIND DESIGN Speed (mph)</th>
<th>Topographic effects</th>
<th>SEISMIC DESIGN CATEGORY</th>
<th>SUBJECT TO DAMAGE FROM Frost line Depth</th>
<th>Termites</th>
<th>WINTER DESIGN TEMP</th>
<th>ICE BARRIER UNDERLAYMENT REQUIRED</th>
<th>FLOOD HAZARDS</th>
<th>AIR FREEZING INDEX</th>
<th>MEAN ANNUAL TEMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zero</td>
<td>110</td>
<td>No</td>
<td>D₂ or E Negligible</td>
<td>12-24³</td>
<td>Very Heavy</td>
<td>45</td>
<td>No</td>
<td>See Exhibit B</td>
<td>0</td>
<td>60</td>
</tr>
</tbody>
</table>

For SI: 1 pound per square foot = 0.0479 kPa, 1 mile per hour = 0.447 m/s.

a. Weathering may require a higher strength concrete or grade of masonry than necessary to satisfy the structural requirements of this code. The weathering column shall be filled in with the weathering index (i.e., "negligible," "moderate" or "severe") for concrete as determined from the Weathering Probability Map [Figure R301.2(3)]. The grade of masonry units shall be determined from ASTM C 34, C 55, C 62, C 73, C 90, C 129, C 145, C 216 or C 652.

b. The frost line depth may require deeper footings than indicated in Figure R403.1(1). The jurisdiction shall fill in the frost line depth column with the minimum depth of footing below finish grade.

c. The jurisdiction shall fill in this part of the table to indicate the need for protection depending on whether there has been a history of local subterranean termite damage.

d. The jurisdiction shall fill in this part of the table with the wind speed from the basic wind speed map [Figure R301.2(A)]. Wind exposure category shall be determined on a site-specific basis in accordance with Section R301.2.1.4.

e. Temperatures shall be permitted to reflect local climates or local weather experience as determined by the building official.

f. The jurisdiction shall fill in this part of the table with the seismic design category determined from Section R301.2.2.1.

g. The jurisdiction shall fill in this part of the table with (a) the date of the jurisdiction’s entry into the National Flood Insurance Program (date of adoption of the first code or ordinance for management of flood hazard areas), (b) the date(s) of the Flood Insurance Study and (c) the panel numbers and dates of all currently effective FIRMs and FBFMs or other flood hazard map adopted by the authority having jurisdiction, as amended.
h. In accordance with Sections R905.2.7.1, R905.4.3.1, R905.5.3.1, R905.6.3.1, R905.7.3.1 and R905.8.3.1, where there has been a history of local damage from the effects of ice damming, the jurisdiction shall fill in this part of the table with "YES." Otherwise, the jurisdiction shall fill in this part of the table with "NO."

i. The jurisdiction shall fill in this part of the table with the 100-year return period air freezing index (BF-days) from Figure R403.3(2) or from the 100-year (99%) value on the National Climatic Data Center data table "Air Freezing Index USA Method (Base 32°F)" at www.ncdc.noaa.gov/fpsf.html.

j. The jurisdiction shall fill in this part of the table with the mean annual temperature from the National Climatic Data Center data table "Air Freezing Index-USA Method (Base 32°F)" at www.ncdc.noaa.gov/fpsf.html.

k. In accordance with Section R301.2.1.5, where there is local historical data documenting structural damage to buildings due to topographic wind speed-up effects, the jurisdiction shall fill in this part of the table with "YES." Otherwise, the jurisdiction shall indicate "NO" in this part of the table.

SECTION 15  Section 8-2900 of the Santa Ana Municipal Code is hereby amended such that it reads as follows:

Sec. 8-2900. Adoption by reference.

There is adopted by the city that certain code known as the California Green Building Standards Code, 2016 Edition, as published by the International Code Council, (hereinafter referred to in this article as the "California Green Building Standards Code"), (effective, adopted, and incorporated by reference into this Code on the date specified by the state building standards commission, unless otherwise specified), of which not less than one (1) copy of said Code has been and is now on file in the office of the clerk of the council of the city pursuant to Health and Safety Code Section 18942(d)(1) and are made available for public inspection. The Green Building Standards code is adopted and incorporated by reference as though fully set forth at length herein as provided for in section 419 of the Charter of the city. The California Green Building Standards code, as thus amended, together with all other provisions of this article, shall be known as the city Green Building Standards code.

SECTION 16: Section 14-1 of the Santa Ana Municipal Code is hereby amended such that it reads as follows:

Sec. 14-1. Adoption by reference.
There is adopted by the city that certain code known as the California Fire Code 2016 Edition, based on the 2015 International Fire Code as published by the International Code Council, (hereinafter referred to in this article as the "California Fire Code" or "fire code") and the whole thereof including the Appendices therein, errata issued during and after the publishing date, save and except such portions as are hereinafter deleted or amended, of which code not less than one (1) copy has been and is now on file in the office of the clerk of the council of the city pursuant to Health and Safety Code Section 18942(d)(1) and are made available for public inspection. Said code is adopted and incorporated as fully as if set forth at length herein and, subject to all amendments set forth in this article, shall be in effect within the city from the effective date of this article. Any provision of this article amending the above mentioned codes shall be construed as amending the 2015 and 2016 editions thereof including such provisions enacted prior to this adoption of the said 2015 and 2016 editions and not thereafter repealed. The International Fire Code, 2015 edition and the California Fire Code 2016 edition, as thus amended, together with all other provisions of this article, shall be known as the "Fire Code of the City of Santa Ana."

SECTION 17: Section 14-3.1 is hereby amended and revised as follows:

Sec. 14-3.1. - Violation penalties (Section 109.4).

Section 109.4 Violation penalties.

109.4 Violation penalties. Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or shall fail to comply with any issued orders or notices or who shall erect, install, alter, repair or do work in violation of the approved construction documents or directive of the fire code official, or of a permit or certificate used under provisions of this code, shall result in penalties assessed as prescribed in the OCFA Prevention Field Services adopted fee schedule. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

(a) Section 109.4.2 Infraction and misdemeanor is hereby added as follows:

109.4.2 Infraction and misdemeanor. Persons operating or maintaining any occupancy, premises or vehicle subject to this code that shall permit any fire or life safety hazard to exist on premises under their control shall be guilty of an infraction. Persons who fail to take immediate action to abate a fire or life safety hazard when ordered or notified to do so by the chief or a duly authorized representative are guilty of a misdemeanor.

SECTION 18: Sections 14-4 - 14-4.6 are hereby deleted in their entirety:


SECTION 19: Section 14-21 is hereby amended as follows:
Sec. 14-21. - Definitions (Section 202).

Section 202 General Definitions is hereby revised by adding "OCFA," "Sky Lantern," and "Spark Arrester" as follows:

202 General Definitions

OCFA- Orange County Fire Authority, fire authority having jurisdiction.

SKY LANTERN- An airborne lantern typically made of paper, Mylar, or other lightweight material with a wood, plastic, or metal frame containing a candle, fuel cell, or other heat source that provides buoyancy.

SPARK ARRESTER- A listed device constructed of noncombustible material specifically for the purpose of meeting one of the following conditions:

1. Removing and retaining carbon and other flammable particles/debris from the exhaust flow of an internal combustion engine in accordance with California Vehicle Code Section 38366.

2. Fireplaces that burn solid fuel in accordance with California Building Code Chapter 28.

SECTION 20: Sections 14-22 is hereby amended as follows:

Sec. 14-22. - General requirements (Chapter 3).

(a) Section 304.1.2 Vegetation. Type, amount, or arrangement of weeds, grass, vines or other growth that is capable of being ignited and endangering property needing to comply with OCFA Guidelines, shall be cut, thinned, and removed by the owner or occupant of the premises in accordance with OCFA Guideline C-05 "Vegetation Management Guideline—Technical Design for New Construction, Fuel Modification Plans, and Maintenance Program. Vegetation clearance requirement in urban-wildland interface areas shall be in accordance with Chapter 49.

(b) Section 305.6 Hazardous Conditions is hereby added as follows:

305.6 Hazardous conditions. Outdoor fires are not allowed when predicted sustained winds exceed 8 MPH during periods when relative humidity is less than 25%, or a red flag condition has been declared or public announcement is made, when an official sign was caused to be posted by the fire code official, or when such fires present a hazard as determined by the fire code official.

(c) Section 305.7 Disposal of rubbish is hereby added as follows:

305.7 Disposal of rubbish. Rubbish, trash or combustible waste material shall be burned only within an approved incinerator and in accordance with Section 307.2.1.
(d) Section 307 Outdoor Fireplaces, fire Pits, Fire Rings, or similar devices used at Group R Occupancies is hereby added as follows:

307.6 Outdoor Fireplaces, Fire Pits, Fire Rings, or similar devices used at Group R Occupancies. Outdoor fireplaces, fire pits, fire rings, or similar exterior devices used at Group R shall comply with this section.

Exception: Barbeques, grills, and other portable devices intended solely for cooking.

307.6.1 Gas-fueled devices. Outdoor fireplaces, fire pits and similar devices fueled by natural gas or liquefied-petroleum gas are allowed when approved by the Building Department and the device is designed to only burn a gas flame and not wood or other solid fuel. At R-3 occupancies, combustible construction shall not be located within three feet of an atmospheric column that extends vertically from the perimeter of the device. At other R occupancies, the minimum distance shall be ten feet. Where a permanent Building Department approved hood and vent is installed, combustible construction may encroach upon this column between the bottom of the hood and the vent opening. Where chimneys or vents are installed, they shall have a spark arrester as defined in Section 202.

307.6.2 Devices using wood or fuels other than natural gas or liquefied-petroleum gas. Fireplaces burning wood or other solid fuel shall be constructed in accordance with the California Building Code. Fires in a fireplace shall be contained within a firebox with an attached chimney. The opening in the face of the firebox shall have an installed and maintained method of arresting sparks. The burning of wood or other solid fuel in a device is not allowed within 15 feet of combustible structures, unless within a permanent or portable fireplace. Conditions which could cause a fire to spread within 25 feet of a structure or to vegetation shall be eliminated prior to ignition. Fires in devices burning wood or solid fuel shall be in accordance with Sections 305, 307, and 308.

307.6.2.1 Where prohibited. The burning of wood and other solid fuels shall not be conducted within a fuel modification zone. Wood and other solid fuel burning fires in devices other than permanent fireplaces are not allowed within Wildfire Risk Areas (WRA) and Wildland-Urban Interface Areas (WUI) or in locations where conditions could cause the spread of fire to the WRA or WUI unless determined by the Fire Code Official that the location or design of the device should reasonably prevent the start of a wildfire.

(e) Section 309.2.1 Indoor charging of electric carts/cars is hereby added as follows:

309.2.1 Indoor charging of electric carts/cars. Indoor charging of electric carts/cars where the combined volume of all battery electrolyte exceeds 50 gallons shall comply with following:
1. Spill control and neutralization shall be provided and comply with Section 608.5.

2. Room ventilation shall be provided and comply with Section 608.6.1

3. Signage shall be provided and comply with Section 608.7.1

4. Smoke detection shall be provided and comply with Section 608.9.

(f) **Section 320 Fuel Modification Requirements for New Construction** is hereby added as follows:

**320 Fuel Modification Requirements for New Construction.** All new structures and facilities adjoining land containing hazardous combustible vegetation shall be approved and in accordance with the requirements of OCFA Guideline C-05 "Vegetation Management Guideline – Technical Design for New Construction Fuel Modification Plans and Maintenance Program."

(g) **Section 321 Clearance of brush or vegetation growth from roadways** is hereby added as follows:

**321 Clearance of brush or vegetation growth from roadways.** The fire code official is authorized to cause areas within 10 feet (3048 mm) on each side of portions of highways and private streets which are improved, designed or ordinarily used for vehicular traffic, to be cleared of flammable vegetation and other combustible growth. Measurement shall be from the flow-line or the end of the improved edge of the roadway surfaces.

**Exception:** Single specimens of trees, ornamental shrubbery or cultivated ground cover such as green grass, ivy, succulents or similar plants used as ground covers, provided that they do not form a means of readily transmitting fire.

(h) **Section 322 Unusual Circumstances** is hereby added as follows:

**322 Unusual circumstances.** The fire code official may suspend enforcement of the vegetation management requirements and require reasonable alternative measures designed to advance the purpose of this code if determined that in any specific case that any of the following conditions exist:

1. Difficult terrain.
2. Danger of erosion.
3. Presence of plants included in any state and federal resources agencies, California Native Plant Society and county-approved list of wildlife, plants, rare, endangered and/or threatened species.
4. Stands or groves of trees or heritage trees.
5. Other unusual circumstances that make strict compliance with the clearance of vegetation provisions undesirable or impractical.

(i) **Section 323 Use of Equipment** is hereby added as follows:
323 Use of equipment. Except as otherwise provided in this section, no person shall use, operate, or cause to be operated in, upon or adjoining any hazardous fire area any internal combustion engine which uses hydrocarbon fuels, unless the engine is equipped with a spark arrester as defined in Section 202 maintained in effective working order, or the engine is constructed, equipped and maintained for the prevention of fire.

Exception:

1. Engines used to provide motor power for trucks, truck tractors, buses, and passenger vehicles, except motorcycles, are not subject to this section if the exhaust system is equipped with a muffler as defined in the Vehicle Code of the State of California.

2. Turbocharged engines are not subject to this section if all exhausted gases pass through the rotating turbine wheel, there is no exhaust bypass to the atmosphere, and the turbocharger is in good mechanical condition.

(j) Section 323.1 Use of Equipment and Devices Generating Heat, Sparks or Open Flames is hereby added as follows:

323.1 Equipment and devices generating heat, sparks or open flames. During any time of the year within Wildfire Risk Areas, within or immediately adjacent to any forest- or brush-covered land or non-irrigated grass-covered land, no person shall use or operate any welding equipment, cutting torches, tarpots, grinding devices, or other tools or equipment that may produce a spark, fire, or flame that could result in a wildfire without doing the following:

1. First clearing away all flammable material, including snags, from the area around such operation for a distance of 30 feet or other approved method to reduce fire spread into the wildlands. If 30 foot clearing cannot be achieved then an alternate method shall be approved by the AHJ prior to work starting.

2. Maintain one serviceable round point shovel with an overall length of not less than forty-six (46) inches and one backpack pump water-type fire extinguisher fully equipped and ready for use at the immediate area during the operation.

3. Stop work when winds are 8 MPH during periods when relative humidity is less than 25%, or a red flag condition has been declared or public announcement is made, when an official sign was caused to be posted by the fire code official, or when such fires present a hazard as determined by the fire code official.

4. Keep a cell phone nearby and call 911 immediately in case of a fire.

(k) Section 323.2 Spark Arresters is hereby added as follows:

323.2 Spark arresters. Spark arresters shall comply with Section 202, and when affixed to the exhaust system of engines or vehicles subject to Section 323 shall not be placed or mounted in such a manner as to allow flames or heat
from the exhaust system to ignite any flammable material.

(l) **Section 324 Sky Lanterns or similar devices** is hereby added as follows:

324 Sky Lanterns or similar devices. The ignition and/or launching of a Sky Lantern or similar device is prohibited.

**SECTION 21:** Section 14-23 is hereby amended as follows:

**Sec. 14-23. - Emergency planning and preparedness (Chapter 4).**

Chapter 4: Emergency Planning and Preparedness. Adopt only the Sections listed below:

1. 401
2. 401.3.4
3. 401.9
4. 402
5. 403
6. 404.5 – 404.6.6
7. 407

(a) **Section 407.5** is revised to read as follows:

407.5 Hazardous Materials Inventory Statement. Where required by the fire code official, each application for a permit shall include OCFA’s Chemical Classification Packet in accordance with Section 5001.5.2.

**SECTION 22:** Sections 14-24 is hereby amended as follows:

**Sec. 14-24. - Fire service features (Chapter 5).**

Chapter 5 Fire Service Features is adopted in its entirety with the following amendments:

(a) **SECTION 501.1 Scope** is revised to read as follows:

501.1 Scope. Fire service features for buildings, structures and premises shall comply with this chapter and, where required by the fire code official, with OCFA Guideline B-09, “Fire Master Plan for Commercial & Residential Development.” Fire service features for buildings, structures and premises located in State Responsibility Areas shall also comply with OCFA Guideline B-09a, “Fire Safe Development in State Responsibility Areas.”
(b) **Section 505.1 Address Identification** is revised as follows:

505.1 Address identification. New and existing buildings shall have approved address numbers, building numbers or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. Where required by the fire code official, address numbers shall be provided in additional approved locations to facilitate emergency response. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall be a minimum of 4 inches (101.6 mm) high with a minimum stroke width of 0.5 inch (12.7 mm) for R-3 occupancies, for all other occupancies the numbers shall be a minimum of 6 inches high with a minimum stroke width of 1 inch. Where access is by means of a private road and the building cannot be viewed from the public way, a monument, pole or other sign or means shall be used to identify the structure. Address numbers shall be maintained.

(c) **Section 510.1 Emergency responder radio coverage** is revised to read as follows:

510.1 Emergency responder radio coverage in new buildings. All new buildings shall have approved radio coverage for emergency responders within the building based upon the existing coverage levels of the public safety communication systems of the jurisdiction at the exterior of the building. This section shall not require improvement of the existing public safety communication systems. The Emergency Responder Radio Coverage System shall comply with the local authority having jurisdiction’s ordinance and this code.

Exceptions:

1. Where it is determined by the fire code official that the radio coverage system is not needed.

2. In facilities where emergency responder radio coverage is required and such systems, components or equipment required could have a negative impact on the normal operations of that facility, the fire code official shall have the authority to accept an automatically activated emergency radio coverage system.

This section shall not apply to the following:

1. Existing buildings or structures, unless required by the Building Official and OCFA for buildings and structures undergoing extensive remodel and/or expansion.

2. Elevators.

3. Structures that are three stories or less without subterranean storage or parking and that do not exceed 50,000 square feet on any single story.
4. Wood-constructed residential structures four stories or less without subterranean storage or parking that are not built integral to an above ground multi-story parking structure.

5. Should construction that is three stories or less that does not exceed 50,000 square feet on any single story include subterranean storage or parking, then this ordinance shall apply only to the subterranean areas.

(d) **Section 510.2 Emergency responder radio coverage in existing buildings** is deleted without replacement.

(e) **Section 510.4.2.2 Technical Criteria** is revised to read as follows:

**510.4.2.2 Technical criteria.** The fire code official shall maintain a document providing the specific technical information and requirements for the emergency responder radio coverage system. This document shall contain, but not be limited to, the various frequencies required, the location of radio sites, effective radiated power of radio sites, and other supporting technical information.

1. The frequency range supported from the 800 MHz Countywide Communications System shall be 851-869 MHz (base transmitter frequencies).

2. The frequency range supported to the 800 MHz Countywide Communications System shall be 806-824 MHz (radio field transmit frequencies).

3. A public safety radio amplification system shall include filters to reject frequencies below 851 MHz and frequencies above 869 MHz by a minimum of 35dB.

4. All system components must be 100 percent compatible with analog and digital modulations after installation without adjustments or modifications. The systems must be capable of encompassing the frequencies stated herein and capable of future modifications to a frequency range subsequently established by the jurisdiction.

5. Active devices shall have a minimum of -50 dB 3rd order intermodulation protection.

6. All active in-building coverage devices shall be FCC Part 90 Type Certified.

(f) **Section 510.5.1 Approval prior to installation** is revised to read as follows:

**510.5.1 Approval prior to installation.** Amplification systems capable of operating on frequencies licensed to any public safety agency by the FCC shall not be installed without prior plan submittal, coordination and approval from Orange
County Communications and a copy of the approved plan provided to the fire and building code officials.

(g) **Section 510.5.2 Minimum qualification of personnel** is revised to read as follows:

510.5.2 Minimum qualifications of personnel. The minimum qualifications of the system designer and lead installation personnel shall include both of the following:

1. A valid FCC-issued general radio operator’s license.
2. Certification of in-building system training issued by a nationally recognized organization, school or a certificate issued by the manufacturer of the equipment being installed.

(h) **Section 510.5.3 Acceptance test procedure** item 7 is revised to read as follows:

510.5.3 Acceptance test procedure. When an emergency responder radio coverage system is required, and upon completion of installation, the building owner shall have the radio system tested to ensure that two-way coverage on each floor of the building is not less than 90 percent. The test procedure shall be conducted as follows:

7. As part of the installation a spectrum analyzer or other suitable test equipment shall be utilized to ensure spurious oscillations are not being generated by the subject signal booster. This test shall be conducted at the time of installation and subsequent annual inspections by the FCC licensed technician hired by the property owner and an OCSD/Communications Division FCC-certified technician.

(i) **Section 510.6.1 Testing and proof of compliance** is revised to read as follows:

510.6.1 Testing and proof of compliance.

The owner of the building or their representative shall have the emergency responder radio coverage system shall be inspected and tested annually or where structural changes occur including additions or remodels that could materially change the original field performance tests. Testing shall consist of the following:

1. In-building system components shall be tested to determine general functional operability.
2. Signal boosters shall be tested to ensure that the gain is the same as it was upon initial installation and acceptance.
3. Backup batteries and power supplies shall be tested under load of a period of one hour to verify that they will properly operate during an actual power outage. If within the 1-hour test period the battery exhibits symptoms of failure, the test shall be extended for additional 1-hour periods until the integrity of the battery can be determined.
4. Other active components shall be checked to verify operation within the manufacturer's specifications.

5. If noncompliance is found, the FCC licensed technician will assess improvements necessary and provide such information to OCSD Communications and the fire and building code officials.

6. At the conclusion of the testing, a certification report, which shall verify compliance with Section 510.5.3, shall be submitted to OCSD Communications and the fire and building code officials.

**SECTION 23:** Sections 14-29 is hereby deleted in its entirety and Chapter 6 is adopted in its entirety without amendments.

**Sec. 14-29** Reserved.

**SECTION 23:** Sections 14-30 is hereby amended to read as follows:

**Sec. 14-30.** - Fire protection systems (Chapter 9).

(a) **Section 903.2 Where required** is hereby amended as follows:

**903.2 Where required.** Approved automatic sprinkler systems in buildings and structures shall be provided when one of the following conditions exists:

1. New buildings: Notwithstanding any applicable provisions of Sections 903.2.1 through 903.2.19, an automatic fire-extinguishing system shall also be installed in all occupancies when the total building area exceeds 5,000 square feet (465 m²) as defined in Section 202, regardless of fire areas or allowable area, or is more than two stories in height.

2. Existing Buildings: Notwithstanding any applicable provisions of this code, an automatic sprinkler system shall be provided in an existing building when an addition occurs and one of the following conditions exists:

   a. When an addition is 33% or more of the existing building area, and the resulting building area exceeds 5000 square feet (465 m²) as defined in Section 202; or

   b. When an addition exceeds 2000 square feet (186 m²) and the resulting building area exceeds 5000 square feet (465 m²) as defined in Section 202; or

   c. An additional story is added above the second floor regardless of fire areas or allowable area.

   Exception: Group R-3 occupancies shall comply with Section 903.2.8.
(b) Section 903.3.5.3 Hydraulically calculated systems is hereby added as follows:

903.3.5.3 Hydraulically calculated systems. The design of hydraulically calculated fire sprinkler systems shall not exceed 90% of the water supply capacity.

Exception: When static pressure exceeds 100 psi, and required by the Fire Code Official, the fire sprinkler system shall not exceed water supply capacity specified by Table 903.3.5.3

TABLE 903.3.5.3

<table>
<thead>
<tr>
<th>Design%</th>
<th>90</th>
<th>95</th>
<th>85</th>
<th>80</th>
<th>75</th>
</tr>
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<tbody>
<tr>
<td>PSI</td>
<td>100</td>
<td>110</td>
<td>120</td>
<td>130</td>
<td>140</td>
</tr>
</tbody>
</table>
SECTION 24: Sections 14-33 is hereby amended to read as follows:

Sec. 14-33. - Aviation facilities (Chapter 20) is adopted in its entirety without amendments.

SECTION 25: Sections 14-34 is hereby amended to read as follows:

Sec. 14-34. - Lumber yards and woodworking facilities (Chapter 28).

(a) Section 2801.2 Permit is hereby amended by adding the following statement to the last sentence:

2801.2 Permit. Permits shall be required as set forth in Section 105.6. For Miscellaneous Combustible Storage Permit, see Section 105.6.29.

(b) Section 2808.2 Storage site is hereby amended as follows:

2808.2 Storage site. Storage sites shall be level and on solid ground or other all-weather surface. Sites shall be thoroughly cleaned and approval from the fire code official obtained before transferring products to the site.

(c) Section 2808.3 Size of piles is hereby amended as follows:

2808.3 Size of piles. Piles shall not exceed 15 feet (4572 mm) in height, 50 feet (15 240 mm) in width and 100 feet (30 480 mm) in length.

Exception: The fire code official is authorized to allow the pile size to be increased where a fire protection plan is provided for approval that includes, but is not limited to, the following:

1. Storage yard areas and materials-handling equipment selection, design and arrangement shall be based upon sound fire prevention and protection principles.

2. Factor that lead to spontaneous heating shall be identified in the plan, and control of the various factors shall be identified and implemented, including provisions for monitoring the internal condition of the pile.

3. The plan shall include means for early fire detection and reporting to the public fire department; and facilities needed by the fire department for fire extinguishment including a water supply and fire hydrants.

4. Fire apparatus access roads around the piles and access roads to the top of the piles shall be established, identified and maintained.

5. Regular yard inspections by trained personnel shall be included as part of an effective fire prevention maintenance program.
Additional fire protection called for in the plan shall be provided and shall be
installed in accordance with this code. The increase of the pile size shall be based
upon the capabilities of the installed fire protection system and features.

(d) **Section 2808.7 Pile fire protection** is hereby amended by adding the following
statement to the last sentence:

2808.7 Pile fire protection. Automatic sprinkler protection shall be provided in
conveyor tunnels and combustible enclosures that pass under a pile. Combustible
conveyor systems and enclosed conveyor systems shall be equipped with an
approved automatic sprinkler system. Oscillating sprinklers with a sufficient
projectile reach are required to maintain a 40% to 60% moisture content and wet
down burning/smoldering areas.

(e) **Section 2808.9 Material-handling equipment**, is hereby amended by adding the
following sentence at the beginning of the section:

2808.9 Material-handling equipment. All material handling equipment operated by
an internal combustion engine shall be provided and maintained with an approved
spark arrester. Approved material-handling equipment shall be available for moving
wood chips, hogged material, wood fines and raw product during fire-fighting
operations.

(f) **Section 2808.11 Temperature control**, is hereby added as follows:

2808.11 Temperature control. The temperature shall be monitored and maintained
as specified in Sections 2808.11.1 and 2808.11.2.

(g) **Section 2808.11.1 Pile temperature control**, is hereby added as follows:

2808.11.1 Pile temperature control. Piles shall be rotated when the internal
temperature readings are in excess of 165 degrees Fahrenheit.

(h) **Section 2808.11.2 New material temperature control**, is hereby added as follows:

2808.11.2 New material temperature control. New loads delivered to the facility
shall be inspected and tested at the facility entry prior to taking delivery. Material
with temperature exceeding 165 degrees Fahrenheit shall not be accepted on the
site. New loads shall be monitored to verify that the temperature remains stable.

(i) **Section 2808.12 Water availability** is hereby added as follows:

2808.12 Water Availability. Facilities with over 2500 cubic feet shall provide a
water supply. The minimum fire flow shall be no less than 500 GPM @ 20 psi for a
minimum of 1 hour duration for pile heights up to 6 feet and 2 hour duration for pile
heights over 6 feet. If there is no water purveyor, an alternate water supply with
storage tank(s) shall be provided for fire suppression. The water supply tank(s) shall
provide a minimum capacity of 2500 gallons per pile (maximum 30,000 gallons) for
piles not exceeding 6 feet in height and 5000 gallons per pile (maximum 60,000) for
piles exceeding 6 feet in height. Water tank(s) shall not be used for any other
purpose unless the required fire flow is left in reserve within the tank at all times. An
approved method shall be provided to maintain the required amount of water within the tank(s).

(j) **Section 2808.13 Tipping area** is hereby added as follows:

2808.13 Tipping areas shall comply with the following:

1. Tipping areas shall not exceed a maximum area of 50 feet by 50 feet.
2. Material within a tipping area shall not exceed 5 feet in height at any time.
3. Tipping areas shall be separated from all piles by a 20 foot wide fire access lane.
4. A fire hydrant or approved fire water supply outlet shall be located within 150 feet of all points along the perimeter of the tipping area.
5. All material within a tipping area shall be processed within 5 days of receipt.

(k) **Section 2808.14 Emergency Contact** is hereby added as follows:

2808.14 Emergency Contact. The contact information of a responsible person or persons shall be provided to the Fire Department and shall be posted at the entrance to the facility for responding units. The responsible party should be available to respond to the business in emergency situation.

SECTION 26: Section 14-35 is hereby deleted in its entirety:

Sec. 14-35. Reserved.

SECTION 27: Section 14-36 is hereby amended to read as follows:

Sec. 14-36. - Hazardous materials—General provisions (Chapter 50).

(a) **Section 5001.5.2 Hazardous Materials Inventory Statement (HMIS)**, is hereby amended by modifying the starting paragraph as follows:

5001.5.2 Hazardous Materials Inventory Statement (HMIS). Where required by the fire code official, an application for a permit shall include Orange County Fire Authority's Chemical Classification Packet, which shall be completed and approved prior to approval of plans, and/or the storage, use or handling of chemicals on the premises. The Chemical Classification Packet shall include the following information:

1. Product Name
2. Component
3. Chemical Abstract Service (CAS) number
4. Location where stored or used.
5. Container size
6. Hazard classification
7. Amount in storage
8. Amount in use-closed systems
9. Amount in use-open systems.

(b) Table 5003.1.1(1) Maximum Allowable Quantity per Control Area of Hazardous Materials Posing a Physical Hazard is hereby amended by deleting Footnote K without replacement.

(c) Section 5003.1.1.1 Extremely Hazardous Substances is hereby added as follows:

5003.1.1.1 Extremely Hazardous Substances. No person shall use or store any amount of extremely hazardous substances (EHS) in excess of the disclosable amounts (see Health and Safety Code Section 25500 et al) in a residential zoned or any residentially developed property.

SECTION 28: Section 14-37 is hereby deleted in its entirety and Chapter 55 is adopted in its entirety with no amendments.

Sec. 14-37. Reserved.

SECTION 29: Section 14-38 is hereby amended as follows:

Sec. 14-38. - Explosives and fireworks (Chapter 56).

(a) Section 5608.2 Firing is hereby added as follows:

5608.2 Firing. All fireworks displays, regardless of mortar, device, or shell size, shall be electrically fired.

(b) Section 5608.3 Application for Permit is hereby added as follows:

Section 5608.3 Application for Permit. A diagram of the grounds on which the display is to be held showing the point at which the fireworks are to be discharged, the fallout area based on 100 feet per inch of shell size, the location of all buildings, roads, and other means of transportation, the lines behind which the audience will be restrained, the location of all nearby trees, telegraph or telephone line, or other overhead obstructions shall be provided to OCFA.

SECTION 30: Section 14-39 is hereby amended as follows:
Sec. 14-39. - Flammable and combustible liquids (Chapter 57) is adopted in its entirety without amendments.

SECTION 31: Section 14-40 is hereby deleted in its entirety and Chapter 60 is adopted in its entirety without amendments.

SECTION 32: Section 14-41 is hereby amended to read as follows:

Sec. 14-41. - Referenced standards (Chapter 80).

(a) NFPA 13, 2016 Edition, Standard for the Installation of Sprinkler Systems is hereby amended as follows:

(1) Section 6.7.3 is hereby amended as follows:

6.7.3 Fire department connections (FDC) shall be of an approved type. The FDC shall contain a minimum of two 2 1/2" inlets. The location shall be approved and be no more than 150 feet from a public hydrant. The FDC may be located within 150 feet of a private fire hydrant when approved by the fire code official. The size of piping and the number of inlets shall be approved by the fire code official. If acceptable to the water authority, it may be installed on the backflow assembly. Fire department inlet connections shall be painted OSHA safety red. When the fire sprinkler density design requires 500 gpm (including inside hose stream demand) or greater, or a standpipe system is included, four 2 1/2" inlets shall be provided.

(2) Section 8.3.3.1 is hereby amended as follows:

8.3.3.1. When fire sprinkler systems are installed in shell buildings of undetermined use (Spec Buildings) other than warehouses (S occupancies), fire sprinklers of the quick-response type shall be used. Use is considered undetermined if a specific tenant/occupant is not identified at the time the fire sprinkler plan is submitted. Sprinklers in light hazard occupancies shall be one of the following:

1. Quick-response type as defined in 3.6.4.8
2. Residential sprinklers in accordance with the requirements of 8.4.5
3. Quick response CMSA sprinklers
4. ESFR sprinklers
5. Standard-response sprinklers used for modifications or additions to existing light hazard systems equipped with standard-response sprinklers
6. Standard-response sprinklers used where individual standard-response sprinklers are replaced in existing light hazard systems

(3) **Section 11.1.1.1** is hereby added as follows:

11.1.1.1 When fire sprinkler systems are required in buildings of undetermined use other than warehouses, they shall be designed and installed to have a fire sprinkler density of not less than that required for an Ordinary Hazard Group 2 use, with no reduction(s) in density or design area. Warehouse fire sprinkler systems shall be designed to Figure 16.2.1.3.2 (d) curve "G". Use is considered undetermined if a specific tenant/occupant is not identified at the time the sprinkler plan is submitted. Where a subsequent occupancy requires a system with greater capability, it shall be the responsibility of the occupant to upgrade the system to the required density for the new occupancy.

(4) **Section 11.2.3.1.1.1** is hereby added as follows:

11.2.3.1.1.1 The available water supply for fire sprinkler system design shall be determined by one of the following methods, as approved by the Fire Code Official:

1) Subtract the project site elevation from the low water level for the appropriate pressure zone and multiply the result by 0.433;

2) Use a maximum of 40 psi, if available;

3) Utilize the Orange County Fire Authority water-flow test form/directions to document a flow test conducted by the local water agency or an approved third party licensed in the State of California.

(b) **NFPA 14, 2013 Edition, Installation of Standpipe and Hose Systems** is hereby amended as follows:

(1) **Section 7.3.1.1** is hereby deleted in its entirety and replaced as follows:

7.3.1.1 Class I and III Standpipe hose connections shall be unobstructed and shall be located not less than 18 inches or more than 24 inches above the finished floor. Class II Standpipe hose connections shall be unobstructed and shall be located not less than 3 feet or more than 5 feet above the finished floor.

(c) **NFPA 24, 2016 Edition, Standard for the Installation of Private Fire Service Mains and Their Appurtenances** is hereby amended as follows:

(1) **Section 6.2.8.1** is hereby added as follows:

6.2.8.1 All indicating valves controlling fire suppression water supplies shall be painted OSHA red.

Exceptions:
1. Brass or bronze valves on sprinkler risers mounted to the exterior of the building may be left unpainted.

2. Where OS&Y valves on the detector check assembly are the only control valves, at least one OS&Y valve shall be painted red.

(2) **Section 6.2.9** is hereby revised to read as follows:

All connections to private fire service mains for fire protection systems shall be arranged in accordance with one of the following so that they can be isolated:

(1) A post indicator valve installed not less than 40 ft (12 m) from the building

   (a) For buildings less than 40 ft (12 m) in height, a post indicator valve shall be permitted to be installed closer than 40 ft (12 m) but at least as far from the building as the height of the wall facing the post indicator valve.

(2) A wall post indicator valve

(3) An indicating valve in a pit, installed in accordance with Section 6.4

(4) A backflow preventer with at least one indicating valve not less than 40 ft (12 m) from the building

   (a) For buildings less than 40 ft (12 m) in height, a backflow preventer with at least one indicating valve shall be permitted to be installed closer than 40 ft (12 m) but at least as far from the building as the height of the wall facing the backflow preventer.

(5) Control valves installed in a fire-rated room accessible from the exterior

(6) Control valves in a fire-rated stair enclosure accessible from the exterior

(3) **Section 10.1.5** is hereby added as follows:

**10.1.5** All ferrous pipe and joints shall be polyethylene encased per AWWA C150, Method A, B, or C. All fittings shall be protected with a loose 8-mil polyethylene tube or sheet. The ends of the tube or sheet shall extend past the joint by a minimum of 12 inches and be sealed with 2 inch wide tape approved for underground use. Galvanizing does not meet the requirements of this section.

**Exception:** 304 or 316 Stainless Steel pipe and fittings

(4) **Section 10.4.1.1** is hereby revised to read as follows:
10.4.1.1 All bolted joint accessories shall be cleaned and thoroughly coated with asphalt or other corrosion-retarding material after installation.

Exception: Bolted joint accessories made from 304 or 316 stainless steel.

(5) Section 10.4.1.1.1 is hereby added as follows:

10.4.1.1.1 All bolts used in pipe-joint assembly shall be 316 stainless steel.

(6) Section 10.4.3.2 is hereby revised to read as follows:

10.4.3.2 Where fire service mains enter the building adjacent to the foundation, the pipe may run under a building to a maximum of 24 inches, as measured from the interior face of the exterior wall to the center of the vertical pipe. The pipe under the building or building foundation shall be 304 or 316 stainless steel and shall not contain mechanical joints or it shall comply with 10.4.3.2.1 through 10.4.3.2.4.

SECTION 33: Section 14-47 is hereby amended to read as follows:

Sec. 14-47. Appendices. The following appendices are not adopted by the City:

Appendix A is deleted in its entirety without amendments.
Appendix D is deleted in its entirety without amendments.
Appendix E is deleted in its entirety without amendments.
Appendix F is deleted in its entirety without amendments.
Appendix G is deleted in its entirety without amendments.
Appendix I is deleted in its entirety without amendments.
Appendix J is deleted in its entirety without amendments.
Appendix K is deleted in its entirety without amendments.
Appendix L is deleted in its entirety without amendments.
Appendix M is deleted in its entirety without amendments.
Appendix N is deleted in its entirety without amendments.

SECTION 34: If any section, subsection, sentence, clause, phrase, or portion of this ordinance is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining
portions of this ordinance. The City Council of the City of Santa Ana hereby declares that it would have adopted this ordinance and each section, subsection, sentence, clause, phrase or portion thereof irrespective of the fact that any one or more sections, subsections, sentences, clauses, phrases, or portions be declared invalid or unconstitutional.

SECTION 35: Neither the adoption of this ordinance nor the repeal hereby of any ordinance shall in any manner affect the prosecution for violation or ordinances, which violations were committed prior to the effective date hereof, nor be construed as affecting any of the provisions of such ordinance relating to the collection of any such license or penalty or the penal provision applicable to any violation thereof, nor to affect the validity of any bond or cash deposit in lieu thereof, required to be posted, filed or deposited pursuant to any ordinance and all rights and obligations there under appertaining shall continue in full force and effect.

ADOPTED this 8th day of December, 2016.

Vicente Sarmiento
Mayor Pro Tem

APPROVED AS TO FORM:
Sonia R. Carvalho, City Attorney

By: Lisa Storck
Assistant City Attorney

AYES: Councilmembers: Amezcu, Benavides, Reyna, Sarmiento, Tinejero (5)

NOES: Councilmembers: None (0)

ABSTAIN: Councilmembers: None (0)

NOT PRESENT: Councilmembers: Martinez, Pulido (2)
CERTIFICATE OF ATTESTATION AND ORIGINALITY

I, MARIA D. HUIZAR, Clerk of the Council, do hereby attest to and certify that the attached Ordinance No. NS-2905 to be the original ordinance adopted by the City Council of the City of Santa Ana on December 6, 2016 and that said ordinance was published in accordance with the Charter of the City of Santa Ana.

Date: 12/06/2016

[Clerk's signature]

Clerk of the Council
City of Santa Ana