

## BUILDING CODE

Sec. 10-116. - Adopted.

The International Building Code, 2015 edition, as amended by this chapter, is hereby adopted as the building code of the city. A copy of such code will be kept in the city secretary's office and be available for public inspection at all times during regular business hours.

Sec. 10-117. - Amendments.

The following sections, paragraphs, and sentences of the International Building Code, 2015 edition, are hereby amended to read as follows:

Section 101.4; change to read as follows:

*101.4 Referenced codes.* The other codes listed in Sections 101.4.1 through 101.4.8 and referenced elsewhere in this code, when specifically adopted, shall be considered part of the requirements of this code to the prescribed extent of each such reference. Whenever amendments have been adopted to the referenced codes and standards, each reference to said code and standard shall be considered to reference the amendments as well. Any reference to NFPA 70 or the Electrical Code shall mean the Electrical Code as adopted.

Section 101.4.4; change to read as follows:

*101.4.4 Property maintenance.* The provisions of the Rockwall Property Maintenance Code shall apply to existing structures and premises; equipment and facilities; light, ventilation, space heating, sanitation, life and fire safety hazards; responsibilities of owners, operators and occupants; and occupancy of existing premises from occupancy or operation.

Section 101.4.8; add the following:

*101.4.8 Electrical.* The provisions of the Electrical Code shall apply to the installation of electrical systems, including alterations, repairs, replacement, equipment, appliances, fixtures, fittings and appurtenances thereto.

Section 102.6; change to read as follows:

*102.6 Existing structures.* The legal occupancy of any structure existing on the date of adoption of this code shall be permitted to continue without change, except as otherwise specifically provided in this code, the International Existing Building Code, the Rockwall Property Maintenance Code or the International Fire Code.

Section 102.6.2; change to read as follows:

*102.6.2 Buildings previously occupied.* The legal occupancy of any building existing on the date of adoption of this code shall be permitted to continue without change, except as otherwise specifically provided in this code, the International Fire Code or Rockwall Property Maintenance Code, or as is deemed necessary by the building official for the general safety and welfare of the occupants and the public.

Section 103.3; change to read as follows:

*103.3 Deputies.* In accordance with the prescribed procedures of this jurisdiction and with the concurrence of the appointing authority, the building official shall have the authority to appoint a deputy building official, the related technical officers, inspectors, plan examiners and other employees. Such employees shall have powers as delegated by the building official. For the maintenance of existing properties, see the Rockwall Property Maintenance Code.

Section [A] 104.2.1 Determination of substantially improved or substantially damaged existing buildings and structures in flood hazard areas; delete

Section 104.10.1 Flood hazard areas. Delete.

Section 105.2; change "Building" to read as follows:

Building:

7. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
9. Prefabricated swimming pools accessory to a Group R-3 occupancy that are less than 24 inches (610 mm) deep, do not exceed 5,000 gallons (18 925 L) and are installed entirely above ground.
11. Swings and other playground equipment accessory to detached one- and two-family dwellings.
13. Movable fixtures, cases, racks, counters and partitions not over 5 feet 9 inches (1753 mm) in height.

Section 110.3.5 Lath, gypsum board and gypsum panel product inspection. Delete exception.

Section 113; change title to read as follows:

*SECTION 113 - Construction Advisory and Appeals Board*

Section 113.1; change to read as follows:

*113.1 General.* The Construction Advisory and Appeals Board shall be in accordance with Article II, Division 3, Chapter 10 of the Code of Ordinances, City of Rockwall.

Section 202; amend definition of Ambulatory Care Facility as follows:

**AMBULATORY CARE FACILITY.** Buildings or portions thereof used to provide medical, surgical, psychiatric, nursing or similar care on a less than 24-hour basis to individuals who are rendered incapable of self-preservation by the services provided. This group may include but not be limited to the following:

- Dialysis centers
- Sedation dentistry
- Surgery centers
- Colonic centers
- Psychiatric centers

Section 202; add definition of "Repair Garage" as follows:

**REPAIR GARAGE.** A building, structure or portion thereof used for servicing or repairing motor vehicles. This occupancy shall also include garages involved in minor repair, modification and servicing of motor vehicles for items such as lube changes, inspections, windshield repair or replacement, shocks, minor part replacement and other such minor repairs.

Section 202; add definition of "Self Storage Facility" as follows:

**SELF-SERVICE STORAGE FACILITY.** Real property designed and used for the purpose of renting or leasing individual storage spaces to customers for the purpose of storing and removing personal property on a self-service basis.

Section 202; amend definition of SPECIAL INSPECTOR to read as follows:

SPECIAL INSPECTOR. A qualified person employed or retained by an approved agency who shall prove to the satisfaction of the registered design professional in responsible charge and the Building Official as having the competence necessary to inspect a particular type of construction requiring special inspection.

Section 202; amend definition to read as follows:

HIGH-RISE BUILDING. A building with an occupied floor located more than 55 feet (16 764 mm) above the lowest level of fire department vehicle access.

Section 403.1, Exception 3; change to read as follows:

3. The open air portion of a building. [remainder unchanged]

Section 403.3, Exception; delete item 2.

Section 406.3.5 Carports; delete exception:

*406.3.5 Carports.* Carports shall be open on at least two sides. Carport floor surfaces shall be of an approved noncombustible material. Carports not open on at least two sides shall be considered a garage and shall comply with the requirements for private garages...

Section 406.3.5.1 Carport separation; add sentence to read as follows:

A fire separation is not required between a Group R-2 and U carport provided that the carport is entirely open on all sides and that the distance between the two is at least 10 feet (3048 mm).

Section 501.2; delete text:

Section 501.2; add section to read as follows:

*501.2 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 and from all rear alleyways / access. Where required by the fire code official, address numbers shall be provided in additional approved locations to facilitate emergency response. These numbers shall contrast with their background; color selection shall accommodate all lighting conditions. Address numbers shall be Arabic numbers or alphabetical letters. Street address numbers shall be a minimum of 12 inches high with a minimum stroke width of 0.5 inch (12.7 mm). Unit/suite/apartment/rear/alley numbers shall be a minimum of 4 inches high. 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.

Exception:

Structures located within the historic district may utilize numbers a minimum of 6 inches high, as approved by the fire code official.

Section 903.2.9; add Section 903.2.9.3 to read as follows:

*[F] 903.2.9.3 Self-service storage facility.* An automatic sprinkler system shall be installed throughout all self-service storage facilities.

Exception: One-story self-storage facilities that have no interior corridors.

Section 903.2.10; change to read as follows:

*[F] 903.2.10 Group S-2 enclosed parking garages.* An automatic sprinkler system shall be provided throughout buildings classified as enclosed parking garages in accordance with Section 406.4 of the International Building Code or where located beneath other groups.

Section 903.3.1.2.3; add section to read as follows:

[F] *Section 903.3.1.2.3 Attics and Attached Garages.* Sprinkler protection is required in attic spaces of such buildings three or more stories in height, in accordance with NFPA 13 and/or NFPA 13R requirements, and attached garages.

Section 903.3.1.4; add to read as follows:

[F] *903.3.1.4 Freeze protection.* Freeze protection systems for automatic fire sprinkler systems shall be in accordance with the requirements of the applicable referenced NFPA standard and this section.

*903.3.1.4.1 Attics.* Only dry-pipe, preaction, or listed antifreeze automatic fire sprinkler systems shall be allowed to protect attic spaces.

Exception: Wet-pipe fire sprinkler systems shall be allowed to protect non-ventilated attic spaces where:

1. The attic sprinklers are supplied by a separate floor control valve assembly to allow ease of draining the attic system without impairing sprinklers throughout the rest of the building, and
2. Adequate heat shall be provided for freeze protection as per the applicable referenced NFPA standard, and
3. The attic space is a part of the building's thermal, or heat, envelope, such that insulation is provided at the roof deck, rather than at the ceiling level.

Section 903.3.5; add a second paragraph to read as follows:

[F] Water supply as required for such systems shall be provided in conformance with the supply requirements of the respective standards; however, every water-based fire protection system shall be designed with a 5 psi safety factor.

Section 903.4; add a second paragraph after the exceptions to read as follows:

[F] Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of water flow for more than 45 seconds. All control valves in the sprinkler and standpipe systems except for fire department hose connection valves shall be electrically supervised to initiate a supervisory signal at the central station upon tampering.

Section 903.4.2; add second paragraph to read as follows:

[F] The alarm device required on the exterior of the building shall be a weatherproof horn/strobe notification appliance with a minimum 75 candela strobe rating, installed as close as practicable to the fire department connection.

Section 905.2; change to read as follows:

[F] *905.2 Installation standard.* Standpipe systems shall be installed in accordance with this section and NFPA 14. Manual dry standpipe systems shall be supervised with a minimum of 10 psig and a maximum of 40 psig air pressure with a high/low alarm.

Section 905.3; add Section 905.3.9 and exception to read as follows:

[F] *905.3.9 Buildings exceeding 10,000 sq. ft.* In buildings exceeding 10,000 square feet in area per story and where any portion of the building's interior area is more than 200 feet (60960 mm) of travel, vertically and horizontally, from the nearest point of fire department vehicle access, Class I automatic wet or manual wet standpipes shall be provided.

Exceptions:

1. Automatic dry and semi-automatic dry standpipes are allowed as provided for in NFPA 14.
2. R-2 occupancies of four stories or less in height having no interior corridors.

Section 905.4; change Item 1., 3., and 5. and add Item 7. to read as follows:

[F] 1. In every required exit stairway, a hose connection shall be provided for each story above and below grade plane. Hose connections shall be located at an intermediate landing between stories, unless otherwise approved by the fire code official.

2. {No change.}

3. In every exit passageway, at the entrance from the exit passageway to other areas of a building. Exception: Where floor areas adjacent to an exit passageway are reachable from an exit stairway hose connection by a ... {No change to rest.}

4. {No change.}

5. Where the roof has a slope less than four units vertical in 12 units horizontal (33.3- percent slope), each standpipe shall be provided with a two-way hose connection located to serve the roof or at the highest landing of an exit stairway with stair access to the roof provided in accordance with Section 1011.12.

6. {No change.}

7. When required by this Chapter, standpipe connections shall be placed at two hundred feet (200') intervals along major corridors thereafter, or as otherwise approved by the fire code official.

Section 905.9; add a second paragraph after the exceptions to read as follows:

[F] Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of water flow for more than 45 seconds. All control valves in the sprinkler and standpipe systems except for fire department hose connection valves shall be electrically supervised to initiate a supervisory signal at the central station upon tampering.

Section 907.1; add Section 907.1.4 to read as follows:

[F] 907.1.4 *Design standards.* Where a new fire alarm system is installed, the devices shall be addressable. Fire alarm systems utilizing more than 20 smoke detectors shall have analog initiating devices.

Section 907.2.1; change to read as follows:

[F] 907.2.1 *Group A.* A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group A occupancies having an occupant load of 300 or more persons or more than 100 persons above or below the lowest level of exit discharge. Group A occupancies not separated from one another in accordance with Section 707.3. 10 of the International Building Code shall be considered as a single occupancy for the purposes of applying this section. Portions of Group E occupancies occupied for assembly purposes shall be provided with a fire alarm system as required for the Group E occupancy.

Exception: {No change.}

Activation of fire alarm notification appliances shall:

1. Cause illumination of the means of egress with light of not less than 1 foot-candle (11 lux) at the walking surface level, and
2. Stop any conflicting or confusing sounds and visual distractions.

Section 907.2.3; change to read as follows:

[F] 907.2.3 *Group E.* A manual fire alarm system that initiates the occupant notification signal utilizing an emergency voice/alarm communication system meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall be installed in Group E educational occupancies. When automatic sprinkler systems or smoke detectors are installed, such systems or

detectors shall be connected to the building fire alarm system. An approved smoke detection system shall be installed in Group E day care occupancies. Unless separated by a minimum of 100' open space, all buildings, whether portable buildings or the main building, will be considered one building for alarm occupant load consideration and interconnection of alarm systems.

Exceptions:

1. {No change.}
- 1.1. Residential In-Home day care with not more than 12 children may use interconnected single station detectors in all habitable rooms. (For care of more than five children 2½ or less years of age, see Section 907.2.6.)

{No change to remainder of exceptions.}

Section 907.2.13, Exception 3; change to read as follows:

[F] 3. Open air portions of buildings with an occupancy in Group A-5 in accordance with Section 303.1 of the International Building Code; however, this exception does not apply to accessory uses including but not limited to sky boxes, restaurants and similarly enclosed areas.

Section 907.4.2; add Section 907.4.2.7 to read as follows:

[F] 907.4.2.7 *Type*. Manual alarm initiating devices shall be an approved double action type.

Section 907.6.1; add Section 907.6.1.1 to read as follows:

[F] 907.6.1.1 *Wiring Installation*. All fire alarm systems shall be installed in such a manner that a failure of any single initiating device or single open in an initiating circuit conductor will not interfere with the normal operation of other such devices. All signaling line circuits (SLC) shall be installed in such a way that a single open will not interfere with the operation of any addressable devices (Class A). Outgoing and return SLC conductors shall be installed in accordance with NFPA 72 requirements for Class A circuits and shall have a minimum of four feet separation horizontal and one foot vertical between supply and return circuit conductors.

The initiating device circuit (IDC) from a signaling line circuit interface device may be wired Class B, provided the distance from the interface device to the initiating device is ten feet or less.

Section 907.6.3; delete all four Exceptions.

Section 909.22; add to read as follows:

[F] 909.22 *Stairway or ramp pressurization alternative*. Where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 and the stair pressurization alternative is chosen for compliance with Building Code requirements for a smokeproof enclosure, interior exit stairways or ramps shall be pressurized to a minimum of 0.10 inches of water (25 Pa) and a maximum of 0.35 inches of water (87 Pa) in the shaft relative to the building measured with all interior exit stairway and ramp doors closed under maximum anticipated conditions of stack effect and wind effect. Such systems shall comply with Section 909, including the installation of a separate fire-fighter's smoke control panel as per Section 909.16, and a Smoke Control Permit shall be required from the Fire Department as per Section 105.7.

[F] 909.22.1 *Ventilating equipment*. The activation of ventilating equipment for the stair or ramp pressurization system shall be by smoke detectors installed at each floor level at an approved location at the entrance to the smokeproof enclosure. When the closing device for the stairway or ramp shaft and vestibule doors is activated by smoke detection or power failure, mechanical equipment shall activate and operate at the required performance levels. Smoke detectors shall be installed in accordance with Section 907.3.

*[F] 909.22.1.1 Ventilation systems.* Smokeproof enclosure ventilation systems shall be independent of other building ventilation systems. The equipment, control wiring, power wiring and ductwork shall comply with one of the following:

1. Equipment, control wiring, power wiring and ductwork shall be located exterior to the building and directly connected to the smokeproof enclosure or connected to the smokeproof enclosure by ductwork enclosed by not less than 2-hour fire barriers constructed in accordance with Section 707 of the Building Code or horizontal assemblies constructed in accordance with Section 711 of the Building Code, or both.
2. Equipment, control wiring, power wiring and ductwork shall be located within the smokeproof enclosure with intake or exhaust directly from and to the outside or through ductwork enclosed by not less than 2-hour barriers constructed in accordance with Section 707 of the Building Code or horizontal assemblies constructed in accordance with Section 711 of the Building Code, or both.
3. Equipment, control wiring, power wiring and ductwork shall be located within the building if separated from the remainder of the building, including other mechanical equipment, by not less than 2-hour fire barriers constructed in accordance with Section 707 of the Building Code or horizontal assemblies constructed in accordance with Section 711 of the Building Code, or both.

Exceptions:

1. Control wiring and power wiring utilizing a 2-hour rated cable or cable system.
2. Where encased with not less than 2 inches (51 mm) of concrete.
3. Control wiring and power wiring protected by a listed electrical circuit protective systems with a fire-resistance rating of not less than 2 hours.

*[F] 909.22.1.2 Standby power.* Mechanical vestibule and stairway and ramp shaft ventilation systems and automatic fire detection systems shall be provided with standby power in accordance with Section 2702 of the Building Code.

*[F] 909.22.1.3 Acceptance and testing.* Before the mechanical equipment is approved, the system shall be tested in the presence of the fire code official to confirm that the system is operating in compliance with these requirements.

Section 910.2; change Exception 2. and 3. to read as follows:

*[F] 2.* Only manual smoke and heat removal shall be required in areas of buildings equipped with early suppression fast-response (ESFR) sprinklers. Automatic smoke and heat removal is prohibited.

3. Only manual smoke and heat removal shall not be required in areas of buildings equipped with control mode special application sprinklers with a response time index of  $50(m^*S)^{1/2}$  or less that are listed to control a fire in stored commodities with 12 or fewer sprinklers. Automatic smoke and heat removal is prohibited.

Section 910.2; add subsections 910.2.3 with exceptions to read as follows:

*[F] 910.2.3 Group H.* Buildings and portions thereof used as a Group H occupancy as follows:

1. In occupancies classified as Group H-2 or H-3, any of which are more than 15,000 square feet (1394 m<sup>2</sup>) in single floor area.

Exception: Buildings of noncombustible construction containing only noncombustible materials.

2. In areas of buildings in Group H used for storing Class 2, 3, and 4 liquid and solid oxidizers, Class 1 and unclassified detonable organic peroxides, Class 3 and 4 unstable (reactive) materials, or Class 2 or 3 water-reactive materials as required for a high-hazard commodity classification.

Exception: Buildings of noncombustible construction containing only noncombustible materials.

Section 910.3; add section 910.3.4 to read as follows:

*[F] 910.3.4 Vent operation.* Smoke and heat vents shall be capable of being operated by approved automatic and manual means. Automatic operation of smoke and heat vents shall conform to the provisions of Sections 910.3.2.1 through 910.3.2.3.

*[F] 910.3.4.1 Sprinklered buildings.* Where installed in buildings equipped with an approved automatic sprinkler system, smoke and heat vents shall be designed to operate automatically. The automatic operating mechanism of the smoke and heat vents shall operate at a temperature rating at least 100 degrees F (approximately 38 degrees Celsius) greater than the temperature rating of the sprinklers installed.

Exception: Manual only system per 910.2

*[F] 910.3.4.2 Nonsprinklered buildings.* Where installed in buildings not equipped with an approved automatic sprinkler system, smoke and heat vents shall operate automatically by actuation of a heat-responsive device rated at between 100°F (56°C) and 220°F (122°C) above ambient.

Exception: Listed gravity-operated drop out vents.

Section 912.2; add Section 912.2.3 to read as follows:

*[F] 912.2.3 Hydrant distance.* An approved fire hydrant shall be located within 100 feet of the fire department connection as the fire hose lays along an unobstructed path.

Section 913.1; add second paragraph and exception to read as follows:

*[F]* When located on the ground level at an exterior wall, the fire pump room shall be provided with an exterior fire department access door that is not less than 3 ft. in width and 6 ft. 8 in. in height, regardless of any interior doors that are provided. A key box shall be provided at this door, as required by Section 506.1.

Exception: When it is necessary to locate the fire pump room on other levels or not at an exterior wall, the corridor leading to the fire pump room access from the exterior of the building shall be provided with equivalent fire resistance as that required for the pump room, or as approved by the fire code official. Access keys shall be provided in the key box as required by Section 506.1.

Section 1010.1.9.4 Bolt Locks; amend exceptions 3 and 4 as follows:

Exceptions:

3. Where a pair of doors serves an occupant load of less than 50 persons in a Group B, F, M or S occupancy. {Remainder unchanged}
4. Where a pair of doors serves a Group A, B, F, M or S occupancy. {Remainder unchanged}

Section 1015.8 Window Openings; revise text as follows:

1. Operable windows where the top of the sill of the opening is located more than 55 feet (16 764 mm) above the finished grade or other surface below and that are provided with window fall prevention devices that comply with ASTM F 2006.

Section 1101.1 Scope; add exception to Section 1101.1 as follows:

Exception: Components of projects regulated by and registered with Architectural Barriers Division of Texas Department of Licensing and Regulation shall be deemed to be in compliance with the requirements of this chapter.

Section 1203.1; amend to read as follows:



*1203.1 General.* Buildings shall be provided with natural ventilation in accordance with Section 1203.4, or mechanical ventilation in accordance with the International Mechanical Code.

Where air infiltration rate in a dwelling unit is 5 air changes or less per hour when tested with a blower door at a pressure 0.2 inch w.c. (50 Pa) in accordance with Section 402.4.1.2 of the International Energy Conservation Code, the dwelling unit shall be ventilated by mechanical means in accordance with Section 403 of the International Mechanical Code.

Table 1505.1; delete footnote c and replace footnote b with the following:

- b. Non-classified roof coverings shall be permitted on buildings of U occupancies having not more than 120 sq. ft. of protected roof area. When exceeding 120 sq. ft. of protected roof area, buildings of U occupancies may use non-rated non-combustible roof coverings.
- c. [delete]

Section 1511.1; add a sentence to read as follows:

*1511.1 General.* Materials and methods of applications used for recovering or replacing an existing roof covering shall comply with the requirements of Chapter 15. All individual replacement shingles or shakes shall be in compliance with the rating required by Table 1505.1.

{text of exception unchanged}

Section 1704.2, Special inspections and tests; amended to read as follows:

*1704.2 Special inspections and tests.* Where application is made to the Building Official for construction as specified in Section 105, the owner or the owner's authorized agent, or the registered design professional in responsible charge, other than the contractor, shall employ one or more approved agencies to provide special inspections and tests during construction on the types of work listed under Section 1705 and identify the approved agencies to the Building Official. The special inspector shall not be employed by the contractor. These special inspections and tests are in addition to the inspections identified by the Building Official that are identified in Section 110.

Section 1704.2.1, Special inspector qualifications; amended to read as follows:

*1704.2.1 Special inspector qualifications.* Prior to the start of construction and or upon request, the approved agencies shall provide written documentation to the registered design professional in responsible charge and the building official demonstrating the competence and relevant experience or training of the special inspectors who will perform the special inspections and tests during construction. [Remainder unchanged]

Section 1704.2.4, Report requirement; amended to read as follows:

*1704.2.4 Report requirement.* Approved agencies shall keep records of special inspections and tests. The approved agency shall submit reports of special inspections and tests to the Building Official upon request, and to the registered design professional in responsible charge.

Individual inspection reports shall indicate that work inspected or tested was or was not completed in conformance to approved construction documents. [Remainder unchanged]

Section 1704.2.5.1, Fabricator approval; amended to read as follows:

*1704.2.5.1 Fabricator approval.* Special inspections during fabrications required by Section 1704 are not required where the work is done on the premises of a fabricator registered and approved to perform such work without special inspection. Approval shall be based upon review of the fabricator's written procedural and quality control manuals and periodic auditing of fabrication practices by an approved agency, or a fabricator that is enrolled in a nationally accepted inspections program. At completion of fabrication, the acceptable or approved fabricator shall submit a certificate of compliance to the owner or the owner's authorized agent or the registered design professional in responsible charge, stating that the work was performed in accordance with the approved

construction documents. The certificate of compliance shall also be made available to the Building Official upon request.

Section 2902.1; add a second paragraph to read as follows:

In other than E Occupancies, the minimum number of fixtures in Table 2902.1 may be lowered, if requested in writing, by the applicant stating reasons for a reduced number and approved by the Building Official.

Table 2902.1; add footnote f to read as follows:

Table 2902.1

MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES a, f

- f. Drinking fountains are not required in M Occupancies with an occupant load of 100 or less, B Occupancies with an occupant load of 25 or less, and for dining and/or drinking establishments.

Section [P] 2902.6; change to read as follows:

*[P] 2902.6 Small occupancies.* Drinking fountains shall not be required for an occupant load of 25 or fewer.

Section 3002.1 Hoistway Enclosure Protection; add exceptions to read as follows:

Exceptions:

1. Elevators wholly located within atriums complying with Section 404 shall not require hoistway enclosure protection.
2. Elevators in open or enclosed parking garages that serve only the parking garage, and complying with Sections 406.5 and 406.6, respectively, shall not require hoistway enclosure protection.

Section 3005.7; add a Section 3005.7 as follows:

*3005.7 Fire Protection in Machine rooms, control rooms, machinery spaces and control spaces.*

*3005.7.1 Automatic sprinkler system.* The building shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, except as otherwise permitted by Section 903.3.1.1.1 and as prohibited by Section 3005.7.2.1.

*3005.7.2.1 Prohibited locations.* Automatic sprinklers shall not be installed in machine rooms, elevator machinery spaces, control rooms, control spaces and elevator hoist-ways.

*3005.7.2.2 Sprinkler system monitoring.* The sprinkler system shall have a sprinkler control valve supervisory switch and water-flow initiating device provided for each floor that is monitored by the building's fire alarm system.

*3005.7.2.3 Water protection.* An approved method to prevent water from infiltrating into the hoistway enclosure from the operation of the automatic sprinkler system outside the elevator lobby shall be provided.

*3005.7.2.4 Shunt trip.* Means for elevator shutdown in accordance with Section 3005.5 shall not be installed.

Section 3005.8; add Section 3005.8 as follows:

*3005.8 Storage.* Storage shall not be allowed within the elevator machine room, control room, machinery spaces and/or control spaces. Provide approved signage at each entry to the above listed locations stating: "No Storage Allowed."

Section 3006.2, Hoistway opening protection required; revise text as follows:

5. The building is a high rise and the elevator hoistway is more than 55 feet (16 764 mm) in height. The height of the hoistway shall be measured from the lowest floor at or above grade to the highest floors served by the hoistway.

Section 3109.1; change to read as follows:

*3109.1 General.* Swimming pools shall comply with the requirements of sections 3109.2 through 3109.5 and other applicable sections of this code and complying with applicable state laws.

## RESIDENTIAL CODE

Sec. 10-137. - Adopted.

The International Residential Code, 2015 edition, including Appendix Q and P as amended by this chapter, are hereby adopted as the residential code of the city. A copy of such code will be kept in the city secretary's office and be available for public inspection at all times during regular business hours.

Sec. 10-138. - Amendments.

The International Residential Code, 2015 edition, is hereby amended as follows:

Section R101.1; insert jurisdiction name as follows:

*R101.1 Title.* These provisions shall be known as the Residential Code for One- and Two-family Dwellings of the City of Rockwall, and shall be cited as such and will be referred hereinafter referred to as "this code."

Section R102.4; change to read as follows:

*R102.4 Referenced codes and standards.* The codes, when specifically adopted, and standards referenced in this code shall be considered part of the requirements of this code to the prescribed extent of each such reference and as further regulated in Sections R102.4.1 and R102.4.2. Whenever amendments have been adopted to the referenced codes and standards, each reference to said code and standard shall be considered to reference the amendments as well. Any reference made to NFPA 70 or the Electrical Code shall mean the Electrical Code as adopted.

Section R102.7; change to read as follows:

*R102.7 Existing structures.* The legal occupancy of any structure existing on the date of adoption of this code shall be permitted to continue without change, except as is specifically covered in this code, the Rockwall Property Maintenance Code or the International Fire Code, or as is deemed necessary by the building official for the general safety and welfare of the occupants and the public.

Section R104.10.1 Flood Hazard areas; delete this section.

Section R105.2; change "Building" to read as follows: Building:

6. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
7. Prefabricated swimming pools that are less than 24 inches (610 mm) deep.
8. Swings and other playground equipment.

Section R105.2; add text as follows:

11. Shingle replacement up to 25% of a roof area.

Section R105.3.1.1 and R106.1.4; delete these sections.

Section R112; change title to read as follows: R112 - Construction Advisory and Appeals Board

Section R112.1; change to read as follows:

*112.1 General.* The Construction Advisory and Appeals Board shall be in accordance with Chapter 10, Article II, Division 3, Subdivision I, Sections 10-61 to 10-115 of the Code of Ordinances.

Section [A] 112.2, [A] 112.3 and [A] 112.4; Delete

Section R202; change definition of "Townhouse" to read as follows:

**TOWNHOUSE.** A single-family dwelling unit constructed in a group of three or more attached units separated by property lines in which each unit extends from foundation to roof and with a yard or public way on at least two sides.

Table R301.2 (1); fill in as follows:

| GROUND SNOW LOAD | WIND DESIGN                      |                                  |                                  |                                     | SEISMIC DESIGN CATEGORY <sup>f</sup> | SUBJECT TO DAMAGE FROM  |                               |                      | WINTER DESIGN TEMP <sup>e</sup> | ICE BARRIER UNDER-LAYMENT <sup>h</sup> | FLOOD HAZARDS <sup>g</sup> | AIR FREEZING INDEX <sup>i</sup> | MEAN ANNUAL TEMP <sup>j</sup> |
|------------------|----------------------------------|----------------------------------|----------------------------------|-------------------------------------|--------------------------------------|-------------------------|-------------------------------|----------------------|---------------------------------|--|----------------------------|---------------------------------|-------------------------------|
|                  | SPEED <sup>d</sup> (MPH)         | Topographic Effects <sup>k</sup> | Special Wind Region <sup>l</sup> | Windsborne Debris Zone <sup>m</sup> |                                      | Weathering <sup>a</sup> | Frost Line Depth <sup>b</sup> | Termite <sup>c</sup> |                                 |  |                            |                                 |                               |
| 5 lb/ft          | 115 (3 sec-gust)/76 fastest mile | No                               | No                               | No                                  | A                                    | Moderate                | 6"                            | Very Heavy           | 22 <sup>0</sup> F               | No                                     | Local Code                 | 150                             | 64.9 <sup>0</sup> F           |

Section R302.1; delete the following: Exceptions:

1. Walls, projections, openings or penetrations in walls perpendicular to the line used to determine the fire separation distance.
5. Foundation vents installed in compliance with this code are permitted.

Section R302.3; add Exception #3 to read as follows: Exceptions:

1. {existing text unchanged}
2. {existing text unchanged}
3. Two-family dwelling units that are also divided by a property line through the structure shall be separated as required for townhouses.

Section R303.3, Exception; amend to read as follows:

Exception: {existing text unchanged} Exhaust air from the space shall be exhaust out to the outdoors unless the space contains only a water closet, a lavatory, or water closet and a lavatory may be ventilated with an approved mechanical recirculating fan or similar device designed to remove odors from the air.

Section R309.3 Flood hazard areas; delete the section.

Section R309.5 Fire Sprinklers; delete the section.

Section R313.2; change exception to read as follows.

*R313.2 One- and two-family dwellings automatic fire systems.*

Exception: Approved automatic fire sprinkler systems shall not be required in new one and two-family dwellings, structures and additions with a finished floor area of less than 5,000 square feet (464.5 m<sup>2</sup>) or in existing one- and two-family dwelling occupancies that have additions totaling less than 30% of the original finished floor area and not equaling a finished floor area of 5,000 square feet. For the purpose of this provision, fire walls shall not define separate buildings.

Section R315.2.2 Alterations, repairs and additions; amend to read as follows:

Exception:

2. Installation, alteration or repairs of electrical powered {remaining text unchanged}

Section R322 Flood Resistant Construction; deleted section.

Section R326 Swimming Pools, Spas and Hot Tubs; amended to read as follows:

*R326.1 General.* The design and construction of pools and spas shall comply with the 2015 IRC Appendix Q. Swimming Pools, Spas and Hot Tubs.

Section R401.2; amended by adding a new paragraph following the existing paragraph to read as follows:

Section R401.2. Requirements. {existing text unchanged}...

Every foundation and/or footing, or any size addition to an existing foundation, regulated by this code shall be designed and sealed by a Texas-registered engineer.

Section R404.4 Retaining walls; delete the section, add new text as follows:

*Section R404.4 Retaining walls.* All retaining walls require a permit. Retaining walls must be masonry, stone, or reinforced concrete with stone face/form liner. Smooth concrete retaining walls shall not be installed. Retaining walls exceeding 3 feet in height must be designed and sealed by a Texas-licensed engineer.

Add Section R1001.14.

*R1001.14 Fire pits.* Permanently installed fire pits shall not be installed within 10 feet of a structure or combustible material. Fire pits shall conform to all building setback requirements for single family dwellings as found in the City of Rockwall Unified Development Code. The maximum diameter of a fire pit shall be 3 feet.

Chapter 11 [RE] - Energy Efficiency; deleted in its entirety and replaced with the following:

*N1101.1 Scope.* This chapter regulates the energy efficiency for the design and construction of buildings regulated by this code.

*N1101.2 Compliance.* Compliance shall be demonstrated by meeting the requirements of the residential provisions of 2015 International Energy Conservation Code.

Section M1305.1.3; change to read as follows:

*M1305.1.3 Appliances in attics.* Attics containing ... paragraph unchanged ... largest appliance. As a minimum, for access to the attic space, provide one of the following:

1. A permanent stair.
2. An access door from an upper floor level.
3. Access panel may be used in lieu of items 1, 2, and 3 with prior approval of the code official due to building conditions.

M1503.4 Makeup Air Required; amend and add exception as follows:

*M1503.4 Makeup air required.* Exhaust hood systems capable of exhausting in excess of 400 cubic feet per minute (0.19 m<sup>3</sup>/s) shall be provided with makeup air at a rate approximately equal to the difference between the exhaust air rate and 400 cubic feet per minute. Such makeup air systems shall be equipped with a means of closure and shall be automatically controlled to start and operate simultaneously with the exhaust system.

Exception: Where all appliances in the house are of sealed combustion, power-vent, unvented, or electric, the exhaust hood system shall be permitted to exhaust up to 600 cubic feet per minute

(0.28 m<sup>3</sup>/s) without providing makeup air. Exhaust hood systems capable of exhausting in excess of 600 cubic feet per minute (0.28 m<sup>3</sup>/s) shall be provided with a makeup air at a rate approximately equal to the difference between the exhaust air rate and 600 cubic feet per minute.

Section M2005.2; change to read as follows:

*M2005.2 Prohibited locations.* Fuel-fired water heaters shall not be installed in a room used as a storage closet. Water heaters located in a bedroom or bathroom shall be installed in a sealed enclosure so that combustion air will not be taken from the living space. Access to such enclosure may be from the bedroom or bathroom when through a solid door, weather-stripped in accordance with the exterior door air leakage requirements of the International Energy Conservation Code and equipped with an approved self-closing device. Installation of direct-vent water heaters within an enclosure is not required.

Add Section M2006.5:

*M2006.5 Pool and spa heater venting system clearances.* No venting system shall terminate less than four feet below or four feet horizontally from, nor less than one foot above any door, openable window, or gravity air inlet into any building. No venting shall terminate less than three feet above any forced air inlet located within ten feet or less than four feet from any property line or public way.

Section G2408.3 (305.5); delete.

Add Section G2408.7.

*G2408.7 Protection of components of plumbing system.* Components of a plumbing system installed within 2 feet along alleyways, driveways, parking garages or other locations in a manner in which they would be exposed to damage shall be recessed into the wall or otherwise protected in an approved manner.

Section G2415.2.1 (404.2.1); add a second paragraph to read as follows:

Both ends of each section of medium pressure gas piping shall identify its operating gas pressure with an approved tag. The tags are to be composed of aluminum or stainless steel and the following wording shall be stamped into the tag:

"WARNING: ½ to 5 psi gas pressure - Do Not Remove"

Section G2415.12 (404.12); change to read as follows:

*G2415.12 (404.12) Minimum burial depth.* Underground piping systems shall be installed a minimum depth of 18 inches (457 mm) below grade.

Section 2415.12.1 (404.12.1) Individual outside appliances; delete.

Section G2417.4; change to read as follows:

*G2417.4 (406.4) Test pressure measurement.* Test pressure shall be measured with a manometer or with a pressure-measuring device designed and calibrated to read, record, or indicate a pressure loss caused by leakage during the pressure test period. The source of pressure shall be isolated before the pressure tests are made.

Section G2417.4.1; change to read as follows:

*G2417.4.1 (406.4.1) Test pressure.* The test pressure to be used shall be no less than 3 psig (20 kPa gauge), or at the discretion of the Code Official, the piping and valves may be tested at a pressure of at least six (6) inches (152 mm) of mercury, measured with a manometer or slope gauge. For tests requiring a pressure of 3 psig, diaphragm gauges shall utilize a dial with a minimum diameter of three and one half inches (3½"), a set hand, 1/10 pound incrementation and pressure range not to exceed 6 psi for tests requiring a pressure of 3 psig. For tests requiring a pressure of 10

psig, diaphragm gauges shall utilize a dial with a minimum diameter of three and one-half inches (3½"), a set hand, a minimum of 2/10 pound incrementation and a pressure range not to exceed 20 psi. For welded piping, and for piping carrying gas at pressures in excess of fourteen (14) inches water column pressure (3.48 kPa) (1/2 psi) and less than 200 inches of water column pressure (52.2 kPa) (7.5 psi), the test pressure shall not be less than ten (10) pounds per square inch (69.6 kPa). For piping carrying gas at a pressure that exceeds 200 inches of water column (52.2 kPa) (7.5 psi), the test pressure shall be not less than one and one-half times the proposed maximum working pressure. Diaphragm gauges used for testing must display a current calibration and be in good working condition. The appropriate test must be applied to the diaphragm gauge used for testing.

Section G2417.4.2; change to read as follows:

*G2417.4.2 (406.4.2) Test duration.* The test duration shall be held for a length of time satisfactory to the Building Official, but in no case for less than fifteen (15) minutes. For welded piping, and for piping carrying gas at pressures in excess of fourteen (14) inches water column pressure (3.48 kPa), the test duration shall be held for a length of time satisfactory to the Building Official, but in no case for less than thirty (30) minutes.

Section G2420.2 (409.2); change to read as follows:

*G2420.2 Meter valve.* Every meter shall be equipped with a shutoff valve located on the supply side of the meter and an additional shutoff valve shall be provided where the piping system enters the building. A union shall be installed downstream from the shutoff valve at the building.

Section G2421.1 (410.1); add text and exception to read as follows:

*G2421.1 (410.1) Pressure regulators.* A line pressure regulator shall be ... {bulk of paragraph unchanged} ... approved for outdoor installation. Access to regulators shall comply with the requirements for access to appliances as specified in Section M1305.

Exception: A passageway or level service space is not required when the regulator is capable of being serviced and removed through the required attic opening.

Section G2445.2 (621.2); add exception to read as follows:

*G2445.2 (621.2) Prohibited use.* One or more unvented room heaters shall not be used as the sole source of comfort heating in a dwelling unit.

Exception: Existing approved unvented room heaters may continue to be used in dwelling units, in accordance with the code provisions in effect when installed, when approved by the Building Official unless an unsafe condition is determined to exist as described in International Fuel Gas Code Section 108.7 of the Fuel Gas Code.

Section G2454 (636); add text:

*Section G2454 (636) Outdoor Decorative Appliances General.* Permanently fixed-in-place outdoor decorative appliances shall be tested in accordance with ANSI Z21.97 and shall be installed in accordance with the manufacturer's instructions. Outdoor decorative appliances shall be minimum 3 feet from combustibles and property lines or in accordance with manufacturer's clearance requirements, whichever is greatest.

Section P2801.6.1; change to read as follows:

*Section P2801.6.1 Pan size and drain.* The pan shall be not less than 1½ inches (38 mm) in depth and shall be of sufficient size and shape to receive all dripping or condensate from the tank or water heater. The pan shall be drained by an indirect waste pipe having a diameter of not less than ¼ inch (19 mm). Piping for safety pan drains shall be of those materials indicated in Table 605.4.

Section P2801.6.2; change to read as follows:



*P2801.6.2 Pan drain termination.* The pan drain shall extend full-size and terminate over a suitably located indirect waste receptor or floor drain or extend to the exterior of the building and terminate not less than 6 inches (152 mm) and not more than 24 inches (610 mm) above the adjacent ground surface. With approval of the Code official; when technically infeasible to install a pan drain to an approved location, a device must be installed that will automatically shut off the water supply to the water heater when a water leak is detected.

Section P2804.6.1; change to read as follows:

*P2804.6.1 Requirements for discharge piping.* The discharge piping serving a pressure relief valve, temperature relief valve or combination thereof shall:

1. Not be directly connected to the drainage system.
2. Discharge through an air gap.
3. Not be smaller than the diameter of the outlet of the valve served and shall discharge full size to the air gap.
4. Serve a single relief device and shall not connect to piping serving any other relief device or equipment.

Exception: Multiple relief devices may be installed to a single T & P discharge piping system when approved by the administrative authority and permitted by the manufacturer's installation instructions and installed with those instructions. Where previously installed water heaters have been approved with the T&P discharge piping and pan drains combined, the T&P discharge piping and pan drains may remain combined, with the approval of the code official. All check valves must be removed from the piping.

5. Discharge to the pan serving the water heater or storage tank, to an indirect waste receptor or to the outdoors.
6. Discharge in a manner that does not cause personal injury or structural damage.
7. Discharge to a termination point that is readily observable by the building occupants.
8. Not be trapped.
9. Be installed so as to flow by gravity.
10. Not terminate less than 6 inches or more than 24 inches (152 mm) above grade nor more than 6 inches above the waste receptor flood level rim.
11. Not have a threaded connection at the end of such piping.
12. Not have valves or tee fittings.
13. Be constructed of those materials listed in Section 605.4 or materials tested, rated and approved for such use in accordance with ASME A112.4.1.
14. Be one nominal size larger than the size of the relief-valve outlet, where the relief-valve discharge piping is constructed of PEX or PE-RT tubing. The outlet end of such tubing shall be fastened in place.

Section P2902.5.3; Lawn irrigation systems, delete.

Section P3005.2.3; delete the section, add new text as follows:

*P3005.2.7 Building drain and building sewer junction.* There shall be a two-way cleanout near the junction of the building drain and building sewer. The two-way cleanout shall be outside the building wall, and brought up to finish grade or to the lowest floor level. All two-way sewer cleanouts shall be equipped with relief valves on both cleanout openings.

Section P3112.2; delete and replace with the following:

*P3112.2 Installation.* Traps for island sinks and similar equipment shall be roughed in above the floor and may be vented by extending the vent as high as possible, but not less than the drainboard height and then returning it downward and connecting it to the horizontal sink drain immediately downstream from the vertical fixture drain. The return vent shall be connected to the horizontal drain through a wye-branch fitting and shall, in addition, be provided with a foot vent taken off the vertical fixture vent by means of a wye-branch immediately below the floor and extending to the nearest partition and then through the roof to the open air or may be connected to other vents at a point not less than six (6) inches (152 mm) above the flood level rim of the fixtures served. Drainage fittings shall be used on all parts of the vent below the floor level and a minimum slope of one-quarter ( $\frac{1}{4}$ ) inch per foot (20.9 mm/m) back to the drain shall be maintained. The return bend used under the drainboard shall be a one (1) piece fitting or an assembly of a forty-five (45) degree (0.79 radius), a ninety (90) degree (1.6 radius) and a forty-five (45) degree (0.79 radius) elbow in the order named. Pipe sizing shall be as elsewhere required in this Code. The island sink drain, upstream of the return vent, shall serve no other fixtures. An accessible cleanout shall be installed in the vertical portion of the foot vent.

E3901.9 Basements, garages and accessory buildings; delete the following:

Not less than one receptacle outlet, ... {bulk of paragraph unchanged} ... At least one receptacle outlet shall be installed for each motor vehicle space.

Appendix Q Reserved; amended to read as follows:

#### *Appendix Q. Swimming Pools, Spas and Hot Tubs.*

##### *SECTION AQ101 GENERAL*

###### *AQ101.1 General.*

The provisions of this appendix shall control the design and construction of swimming pools, spas and hot tubs installed in or on the lot of a one- or two-family dwelling.

##### *SECTION AQ102 DEFINITIONS*

###### *AQ102.1 General.*

For the purposes of these requirements, the terms used shall be defined as follows and as set forth in Chapter 2.

ABOVE-GROUND/ON-GROUND POOL. See "Swimming pool."

BARRIER. A fence, wall, building wall or combination thereof which completely surrounds the swimming pool and obstructs access to the swimming pool.

HOT TUB. See "Swimming pool."

IN-GROUND POOL. See "Swimming pool."

RESIDENTIAL. That which is situated on the premises of a detached one- or two-family dwelling, or a one-family townhouse not more than three stories in height.

SPA, NONPORTABLE. See "Swimming pool."

SPA, PORTABLE. A nonpermanent structure intended for recreational bathing, in which all controls, water-heating and water-circulating equipment are an integral part of the product.

SWIMMING POOL. Any structure intended for swimming or recreational bathing that contains water more than 24 inches (610 mm) deep. This includes in-ground, above-ground and on-ground swimming pools, hot tubs and spas.

SWIMMING POOL, INDOOR. A swimming pool which is totally contained within a structure and surrounded on all four sides by the walls of the enclosing structure.

SWIMMING POOL, OUTDOOR. Any swimming pool which is not an indoor pool.

#### **SECTION AQ103 SWIMMING POOLS**

##### ***AQ103.1 In-ground pools.***

In-ground pools shall be designed and constructed in compliance with ANSI/NSPI-5.

##### ***AQ103.2 Above-ground and on-ground pools.***

Above-ground and on-ground pools shall be designed and constructed in compliance with ANSI/NSPI-4.

#### **SECTION AQ104 SPAS AND HOT TUBS**

##### ***AQ104.1 Permanently installed spas and hot tubs.***

Permanently installed spas and hot tubs shall be designed and constructed in compliance with ANSI/NSPI-3.

##### ***AQ104.2 Portable spas and hot tubs.***

Portable spas and hot tubs shall be designed and constructed in compliance with ANSI/NSPI-6.

#### **SECTION AQ105 BARRIER REQUIREMENTS**

##### ***AQ105.1 Application.***

The provisions of this appendix shall control the design of barriers for residential swimming pools, spas and hot tubs. These design controls are intended to provide protection against potential drownings and near-drownings by restricting access to swimming pools, spas and hot tubs.

##### ***AQ105.2 Outdoor swimming pool.***

An outdoor swimming pool, including an in-ground, above-ground or on-ground pool, hot tub or spa shall be surrounded by a barrier which shall comply with the following:

1. The top of the barrier shall be at least 48 inches (1219mm) above grade measured on the side of the barrier, which faces away from the swimming pool. The maximum vertical clearance between grade and the bottom of the barrier shall be 2 inches (51mm) measured on the side of the barrier, which faces away from the swimming pool. Where the top of the pool structure is above grade, such as an above-ground pool, the barrier may be at ground level, such as the pool structure, 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 4 inches (102mm).
2. Openings in the barrier shall not allow passage of a 4-inch-diameter (102mm) sphere.
3. Solid barriers which do not have openings, such as a masonry or stone wall, shall not contain indentations or protrusions except for normal construction tolerances and tooled masonry joints.
4. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is less than 45 inches (1143mm), the horizontal members shall be located on the swimming pool side of the fence. Spacing between vertical members shall not exceed 1.75 inches (44mm) in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1.75 inches (44 mm) in width.

Exception: Boards with a minimum 60-degree angle, cut and placed at the top of the horizontal fence members, may be used on existing fences that will become pool barriers. This exception does not apply to fences adjacent to public right of way.

5. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is 45 inches (1143 mm) or more, spacing between vertical members shall not exceed 4 inches (102 mm). Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1.75 inches (44 mm) in width.
6. Maximum mesh size for chain link fences shall be a 2.25-inch (57 mm) square unless the fence is provided with slats fastened at the top or the bottom which reduce the openings to not more than 1.75 inches (44 mm).
7. Where the barrier is composed of diagonal members, such as a lattice fence, the maximum opening formed by the diagonal members shall not be more than 1.75 inches (44 mm).
8. Access gates shall comply with the requirements of Section AQ105.2, Items 1 through 7, and shall be equipped to accommodate a locking device. Pedestrian access gates shall open outward away from the pool and shall be self-closing and have a self-latching device. Gates other than pedestrian access gates shall have a self-latching device. Where the release mechanism of the self-latching device is located less than 54 inches (1372 mm) from the bottom of the gate, the release mechanism and openings shall comply with the following:
  - 8.1. The release mechanism shall be located on the pool side of the gate at least 3 inches (76 mm) below the top of the gate, and
  - 8.2. The gate and barrier shall have not opening greater than 0.5 inch (13 mm) within 18 inches (457 mm) of the release mechanism.
9. Where a wall of a dwelling serves a part of the barrier one of the following conditions shall be met:
  - 9.1. The pool shall be equipped with a powered safety cover in compliance with ASTM F1346; or
  - 9.2. All doors with direct access to the pool through that wall shall be equipped with an alarm which produces an audible warning when the door and/or its screen, if present, are opened. The alarm shall be listed in accordance with UL 2017. The audible alarm shall activate within 7 seconds and sound continuously for a minimum of 30 seconds after the door and/or its screen, if present, are opened and be capable of being 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 touch pad or switch, to temporarily deactivate the alarm for a single opening. Deactivation shall last for not more than 15 seconds. The deactivation switch(es) shall be located at least 54 inches (1372 mm) above the threshold of the door; or
  - 9.3. Other means of protection, such as self-closing doors with self-latching devices, which are approved by the governing body, shall be acceptable so long as the degree of protection afforded is not less than the protection afforded by Item 9.1 or 9.2 described above.
10. Where an above-ground pool structure is used as a barrier or where the barrier is mounted on top of the pool structure and the means of access is a ladder or steps, then:
  - a. The ladder or steps shall be capable of being secured, locked or removed to prevent access, or
  - b. The ladder or steps shall be surrounded by a barrier which meets the requirements of Section AQ105.2, Items 1 through 9. When the ladder or steps are secured, locked or removed, any opening created shall not allow the passage of a 4-inch diameter (102 mm) sphere.

Fence barrier exceptions for spas or hot tubs:

Safety covers for spas and hot tubs must comply with ASTM F 1346-91.

1. There should be a means of fastening the safety cover to the hot tub or spa, such as key locks, combination locks, special tool, or similar devices.
2. The safety cover should have a label that provides a warning and message regarding the risk of drowning.
3. The cover should have been tested to demonstrate that it is capable of supporting the weight of one child (50 pounds) and one adult (225 pounds).
4. There shall be no openings in the cover itself or at any point where the cover joins the surface of the hot tub or spa that would not allow a 4-inch sphere to pass through.
5. Safety covers are to be installed in accordance with the manufacture's instructions.

*AQ105.3 Indoor swimming pool.*

Walls surrounding an indoor swimming pool shall comply with Section AQ105.2, Item 9.

*AQ105.4 Prohibited locations.*

Barriers shall be located so as to prohibit permanent structures, equipment or similar objects from being used to climb them.

*AQ105.5 Barrier exceptions.*

Spas or hot tubs with a safety cover which complies with ASTM F 1346, as listed in Section AQ107, shall be exempt from the provisions of this appendix.

**SECTION AQ106 ENTRAPMENT PROTECTION FOR SWIMMING POOL AND SPA SUCTION OUTLETS**

*AQ106.1 General.*

Suction outlets shall be designed and installed in accordance with ANSI/APSP-7.

**SECTION AQ107 ABBREVIATIONS**

*AQ107.1 General.*

ANSI—American National Standards Institute  
11 West 42nd Street  
New York, NY 10036

APSP—Association of Pool and Spa Professionals NSPI—  
National Spa and Pool Institute  
2111 Eisenhower Avenue  
Alexandria, VA 22314

ASCE—American Society of Civil Engineers  
1801 Alexander Bell Drive  
Reston, VA 98411-0700

ASTM—ASTM International  
100 Barr Harbor Drive  
West Conshohocken, PA 19428

UL—Underwriters Laboratories, Inc.  
333 Pfingsten Road  
Northbrook, IL 60062-2096

**SECTION AQ108 REFERENCED STANDARDS**

*AQ108.1 General.*

| <b>ANSI/NSP</b>          |   |                     |
|--------------------------|---|---------------------|
| ANSI/NSPI-3-99           | Standard for Permanently Installed Residential Spas   | AQ104.1             |
| ANSI/NSPI-4-99           | Standard for Above-ground/On-ground Residential Swimming Pools  | AQ103.2             |
| ANSI/NSPI-5-03           | Standard for Residential In-ground Swimming Pools   | AQ103.1             |
| ANSI/NSPI-6-99           | Standard for Residential Portable Spas  | AQ104.2             |
| <b>ANSI/APSP</b>         |   |                     |
| ANSI/APSP-7-06           | Standard for Suction Entrapment Avoidance in Swimming Pools, Wading Pools, Spas, Hot Tubs and Catch Basins                | AQ106.1             |
| <b>ASCE</b>              |   |                     |
| ASCE/SEI-24-05           | Flood-resistant Design and Construction   | AQ103.3             |
| <b>ASTM</b>              |   |                     |
| ASTM F 1346-91<br>(2003) | Performance Specification for Safety Covers and Labeling Requirements for All Covers for Swimming Pools Spas and Hot Tubs | AQ105.2,<br>AQ105.5 |
| <b>UL</b>                |   |                     |
| UL 2017-2000             | Standard for General-purpose Signaling Devices and Systems with revisions through June 2004                               | AQ105.2             |

Appendix P, Section AP101 (2006 IRC, as amended and codified by city Ord. 11-24), is retained and reads as follows:

*AP101 Fire Sprinklers*

Approved automatic fire sprinkler systems shall be installed in all new R-3 buildings, structures and additions with a finished floor area of 5,000 square feet (464.5 m<sup>2</sup>) or greater and in all existing R-3 occupancies that have additions totaling more than 30% of the original finished floor area and exceeding a finished floor area of 5,000 square feet.

For the purpose of this provision, fire walls shall not define separate buildings.

For the purposes of this provision, finished floor area is defined as an enclosed area in a house (R-3) that is suitable for year-round use, embodying walls, floors, and ceilings that are similar to the rest of the house as defined by ANSI Z765-2003. Garages, porches, balconies, decks and other similar unfinished areas are not included in the finished floor area.

## MECHANICAL CODE

Sec. 10-158. - Adopted.

The International Mechanical Code, 2015 edition, as amended by this chapter, is hereby adopted as the mechanical code of the city. A copy of such code will be kept in the city secretary's office and be available for public inspection at all times during regular business hours.

Sec. 10-159. - Amendments.

The International Mechanical Code, 2015 edition, shall be amended as follows:

Section 102.8; change to read as follows:

*102.8 Referenced Codes and Standards.* The codes and standards referenced herein shall be those that are listed in Chapter 15 and such codes, when specifically adopted, and standards shall be considered part of the requirements of this code to the prescribed extent of each such reference. Where differences occur between provisions of this code and the referenced standards, the provisions of this code shall apply. Whenever amendments have been adopted to the referenced codes and standards, each reference to said code and standard shall be considered to reference the adopted amendments. Any reference to NFPA 70 or the National Electrical Code (NEC) shall mean the Electrical Code as adopted.

Section 106.5.2; change to read as follows:

*106.5.2 Fee schedule.* Permit fees shall be established by resolution of the Rockwall City Council.

Section 109; change title to read as follows: Construction Advisory and Appeals Board

Section 109.1; change to read as follows:

*109.1 General.* The Construction Advisory and Appeals Board shall be in accordance with Article II, Division 3, Chapter 10 of the Code of Ordinances, City of Rockwall.

Sections 109.1.1 to 109.7; delete.

Section 306.3; change to read as follows:

*306.3 Appliances in attics.* Attics containing appliances requiring access shall be provided ... {bulk of paragraph unchanged} ... side of the appliance. The clear access opening dimensions shall be a minimum of 20 inches by 30 inches (508 mm by 762 mm), and large enough to allow removal of the largest appliance. As a minimum, for access to the attic space, provide one of the following:

1. A permanent stair.
2. A pull down stair with a minimum 300 lb. (136 kg) capacity.
3. An access door from an upper floor level.
4. Access panel may be used in lieu of items 1, 2, and 3 with prior approval of the code official due to building conditions.

Exceptions:

1. The passageway and level service space are not required where the appliance is capable of being serviced and removed ... {remainder of section unchanged}

Section 403.2.1; add an item 5 to read as follows:



5. Toilet rooms within private dwellings that contain only a water closet, lavatory, or combination thereof may be ventilated with an approved mechanical recirculating fan or similar device designed to remove odors from the air.

Section 501.3; add an exception to read as follows:

*501.3 Exhaust Discharge.* The air removed by every mechanical exhaust system shall be discharged outdoors at a point where it will not cause a public nuisance and not less than the distances specified in Section 501.3.1. The air shall be discharged to a location from which it cannot again be readily drawn in by a ventilating system. Air shall not be exhausted into an attic, crawl space, or be directed onto walkways.

Exceptions:

4. Toilet room exhaust ducts may terminate in a warehouse or shop area when infiltration of outside air is present.

## PLUMBING CODE

Sec. 10-179. - Adopted.

The International Plumbing Code, 2015 edition, as amended by this chapter, is hereby adopted as the plumbing code of the city. A copy of such code will be kept in the city secretary's office and be available for public inspection at all times during regular business hours.

Sec. 10-180. - Amendments.

The International Plumbing Code, 2015 edition, is hereby amended as follows:

Table of Contents, Chapter 7, Section 714; change to read as follows:

714 Engineered Drainage Design ..... 69

Section 102.8; change to read as follows:

*102.8 Referenced codes and standards.* The codes and standards referenced in this code shall be those that are listed in Chapter 15 and such codes, when specifically adopted, and standards shall be considered as part of the requirements of this code to the prescribed extent of each such reference. Where the differences occur between provisions of this code and the referenced standards, the provisions of this code shall be the minimum requirements. Whenever amendments have been adopted to the referenced codes and standards, each reference to said code and standard shall be considered to reference the adopted amendments. Any reference to NFPA 70 or the National Electrical Code (NEC) shall mean the Electrical Code as adopted.

Sections 106.6.2 and 106.6.3; change to read as follows:

*106.6.2 Fee schedule.* Permit fees shall be established by resolution of the Rockwall City Council.

*106.6.3 Fee Refunds.* The code official shall establish a policy for authorizing the refunding of fees

{Delete balance of section}

Section 109; Delete entire section and insert the following:

Section 109; Change title to read as follows:

*Construction Advisory and Appeals Board*

Section 109.1 Delete existing text, change to read as follows:

*Section 109.1 General.* The Construction Advisory and Appeals Board shall be in accordance with Article II, Division 3, Chapter 10 of the Code of Ordinances, City of Rockwall.

Sections 109.2 to 109.7; delete.

Section 305.4.1; change to read as follows:

*305.4.1 Sewer depth.* Building sewers shall be a minimum of 12 inches (304 mm) below grade.

Section 305.7; change to read as follows:

*305.7 Protection of components of plumbing system.* Components of a plumbing system installed within 2 feet along alleyways, driveways, parking garages or other locations in a manner in which they would be exposed to damage shall be recessed into the wall or otherwise protected in an approved manner.

Sections 312.10.1 and 312.10.2; change to read as follows:

**312.10.1 Inspections.** Annual inspections shall be made of all backflow prevention assemblies and air gaps to determine whether they are operable. In the absence of local provisions, the owner is responsible to ensure that testing is performed. All tests shall be performed by a State of Texas certified backflow tester. All testers shall be registered with the City of Rockwall. All test results shall be recorded on a City of Rockwall Backflow Prevention Assembly Test and Maintenance Report form and submitted to the Rockwall Engineering Department.

**312.10.2 Testing.** Reduced pressure principle backflow preventer assemblies, double check-valve assemblies, pressure vacuum breaker assemblies, reduced pressure detector fire protection backflow prevention assemblies, double check detector fire protection backflow prevention assemblies, hose connection backflow preventers, and spill-proof vacuum breakers shall be tested at the time of installation, immediately after repairs or relocation and at least annually. The testing procedure shall be performed in accordance with applicable local provisions and one of the following standards: {list of standards unchanged}

Section 402.1; add a second paragraph to read as follows:

In other than E Occupancies, the minimum number of fixtures in Table 403.1 may be lowered, if requested in writing, by the applicant stating reasons for a reduced number and approved by the Building Official.

Table 403.1; add footnote f to read as follows:

**Table 403.1 MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES** <sup>a, f</sup>

- f. Drinking fountains are not required in M Occupancies with an occupant load of 100 or less, B Occupancies with an occupant load of 25 or less, and for dining and/or drinking establishments.

Section 410.2; change to read as follows:

**410.2 Small occupancies.** Drinking fountains shall not be required for an occupant load of 25 or fewer.

Section 502.3; change to read as follows:

**502.3 Appliances in attics.** Attics containing ... paragraph unchanged ... largest appliance. As a minimum, for access to the attic space, provide one of the following:

1. A permanent stair.
2. A pull down stair with a minimum 300 lb. (136 kg) capacity.
3. An access door from an upper floor level.
4. Access panel may be used in lieu of items 1, 2, and 3 with prior approval of the code official due to building conditions.

Add Section 502.6 to read as follows:

**502.6 Water heaters above ground or floor.** When the attic, roof, mezzanine or platform in which a water heater is installed is more than eight (8) feet (2438 mm) above the ground or floor level, it shall be made accessible by a stairway or permanent ladder fastened to the building.

Exception: A max 10 gallon water heater (or larger with approval) is capable of being accessed through a lay-in ceiling and a water heater is installed is not more than ten (10) feet (3048 mm) above the ground or floor level and may be reached with a portable ladder.

Section 504.6; change to read as follows:

*504.6 Requirements for discharge piping.* The discharge piping serving a pressure relief valve, temperature relief valve or combination thereof shall:

1. Not be directly connected to the drainage system.
2. Discharge through an air gap.
3. Not be smaller than the diameter of the outlet of the valve served and shall discharge full size to the air gap.
4. Serve a single relief device and shall not connect to piping serving any other relief device or equipment.

Exception: Multiple relief devices may be installed to a single T&P discharge piping system when approved by the administrative authority and permitted by the manufacturer's installation instructions and installed with those instructions. Where previously installed water heaters have been approved with the T&P discharge piping and pan drains combined, the T&P discharge piping and pan drains may remain combined, with the approval of the code official. All check valves must be removed from the piping.

5. Discharge to the pan serving the water heater or storage tank, to an indirect waste receptor or to the outdoors.
6. Discharge in a manner that does not cause personal injury or structural damage.
7. Discharge to a termination point that is readily observable by the building occupants.
8. Not be trapped.
9. Be installed so as to flow by gravity.
10. Not terminate less than 6 inches or more than 24 inches (152 mm) above grade nor more than 6 inches above the waste receptor flood level rim.
11. Not have a threaded connection at the end of such piping.
12. Not have valves or tee fittings.
13. Be constructed of those materials listed in Section 605.4 or materials tested, rated and approved for such use in accordance with ASME A112.4.1.
14. Be one nominal size larger than the size of the relief-valve outlet, where the relief-valve discharge piping is constructed of PEX or PE-RT tubing. The outlet end of such tubing shall be fastened in place.

Section 504.7.2 change to read as follows:

*504.7.2 Pan drain termination.* The pan drain shall extend full-size and terminate over a suitably located indirect waste receptor or floor drain or extend to the exterior of the building and terminate not less than 6 inches (152 mm) and not more than 24 inches (610 mm) above the adjacent ground surface. With approval of the Code official; when technically infeasible to install a pan drain to an approved location, a device must be installed that will automatically shut off the water supply to the water heater when a water leak is detected.

Section 606.1; delete items #4 and #5.

Section 608.1; change to read as follows:

*608.1 General.* A potable water supply system shall be designed, installed and maintained in such a manner so as to prevent contamination from nonpotable liquids, solids or gases being introduced into the potable water supply through cross-connections or any other piping connections to the system. All commercial potable water supply systems shall be protected against backflow by a double-check valve or a reduced pressure principle backflow preventer. Reduced pressure principle backflow preventers shall be installed on all potable water supply systems supplying occupancies of

a health hazard / high hazard nature. Backflow preventer applications shall conform to, Table 608.1, except as specifically stated in Sections 608.2 through 608.16.10.

Section 608.16.5; Connections to lawn irrigation systems; delete.

Section 608.17; change to read as follows:

*608.17 Protection of individual water supplies.* An individual water supply shall be located and constructed so as to be safeguarded against contamination in accordance with applicable local regulations. Installation shall be in accordance with Sections 608.17.1 through 608.17.8.

Section 703.6; delete.

Section 714, 714.1; change to read as follows:

#### **SECTION 714 ENGINEERED DRAINAGE DESIGN**

*714.1 Design of drainage system.* The sizing, design and layout of the drainage system shall be designed by a State of Texas registered engineer using approved design methods.

Section 903.1; change to read as follows:

*903.1 Roof extension.* Open vent pipes that extend through a roof shall terminate not less than six (6) inches (152 mm) above the roof. Where a roof is to be used for assembly or as a promenade, observation deck, sunbathing deck or similar purposes, open vent pipes shall terminate not less than 7 feet (2134 mm) above the roof.

Section 1002.10; delete.

Section 1003.2; change to read as follows:

*1003.2 Approval.* The size, type, and location of each interceptor and of each separator shall be designed and installed in accordance with the manufacturer's instructions, requirements of this section based on the anticipated conditions of use and in accordance with applicable local regulations. All interceptors shall be sized by an engineer. Wastes that do not require treatment or separation shall not be discharged into any interceptor or separator.

Section 1106.1; change to read as follows:

*1106.1 General.* The size of the vertical conductors and leaders, building storm drains, building storm sewers, and any horizontal branches of such drains or sewers shall be based on six (6) inches per hour rainfall rate.

Section 1108.3; change to read as follows:

*1108.3 Sizing of secondary drains.* Secondary (emergency) roof drain systems shall be sized in accordance with Section 1106. Scuppers shall be sized to prevent the depth of ponding water from exceeding that for which the roof was designed as determined by Section 1101.7. Scuppers shall not have an opening dimension of less than 4 inches (102 mm). The flow through the primary system shall not be considered when sizing the secondary roof drain system.

Section 1109; delete this section.

## FUEL GAS CODE

Sec. 10-199. - Adopted.

The International Fuel Gas Code, 2015 edition, as amended by this chapter, is hereby adopted as the fuel gas code of the city. A copy of such code will be kept in the city secretary's office and be available for public inspection at all times during regular business hours.

Sec. 10-200. - Amendments.

The International Fuel Gas Code, 2015 edition, is hereby amended as follows:

Section 101.1; fill in the blank.

*Section 101.1 Title.* These regulations shall be known as the Fuel Gas Code of Rockwall, hereinafter referred to as "this code".

Section 102.8; change to read as follows:

*102.8 Referenced codes and standards.* The codes and standards referenced in this code shall be those that are listed in Chapter 8 and such codes, when specifically adopted, and standards shall be considered part of the requirements of this code to the prescribed extent of each such reference. Where differences occur between provisions of this code and the referenced standards, the provisions of this code shall apply. Whenever amendments have been adopted to the referenced codes and standards, each reference to said code and standard shall be considered to reference the amendments as well.

Section 106.6.2; change to read as follows;

*106.6.2 Fee schedule.* Permit fees shall be established by resolution of the Rockwall City Council.

Section 109; change title to read as follows:

*Construction Advisory and Appeals Board*

Section 109.1; change to read as follows:

*109.1 General.* The Construction Advisory and Appeals Board shall be in accordance with Article II, Division 3, Chapter 10 of the Code of Ordinances, City of Rockwall.

Sections 109.2 to 109.7; delete.

Section 305.13; add to read as follows:

*305.13 Protection of components of plumbing system.* Components of a plumbing system installed within 2 feet along alleyways, driveways, parking garages or other locations in a manner in which they would be exposed to damage shall be recessed into the wall or otherwise protected in an approved manner.

Section 306.3; change to read as follows:

*[M] 306.3 Appliances in attics.* Attics containing appliances requiring access shall be provided ... {bulk of paragraph unchanged} ... side of the appliance. The clear access opening dimensions shall be a minimum of 20 inches by 30 inches (508 mm by 762 mm), and large enough to allow removal of the largest appliance. As a minimum, for access to the attic space, provide one of the following:

1. A permanent stair.
2. A pull down stair with a minimum 300 lb. (136 kg) capacity.

3. An access door from an upper floor level.
4. Access panel may be used in lieu of items 1, 2, and 3 with prior approval of the code official due to building conditions.

Exceptions:

1. The passageway and level service space are not required where the appliance is capable of being serviced and removed through the required opening.
2. Where the passageway is not less than ... {bulk of section to read the same}.

Section 401.5; add a second paragraph to read as follows:

Both ends of each section of medium pressure gas piping shall identify its operating gas pressure with an approved tag. The tags are to be composed of aluminum or stainless steel and the following wording shall be stamped into the tag:

"WARNING ½ to 5 psi gas pressure. Do Not Remove"

Section 404.12; change to read as follows:

*404.12 Minimum burial depth.* Underground piping systems shall be installed a minimum depth of 18 inches (458 mm) top of pipe below grade.

Section 404.12.1; Individual outside appliances; delete.

Section 406.4; change to read as follows:

*406.4 Test pressure measurement.* Test pressure shall be measured with a monometer or with a pressure-measuring device designed and calibrated to read, record, or indicate a pressure loss caused by leakage during the pressure test period. The source of pressure shall be isolated before the pressure tests are made.

Section 406.4.1; change to read as follows:

*406.4.1 Test pressure.* The test pressure to be used shall be no less than 3 psig (20 kPa gauge), or at the discretion of the Code Official, the piping and valves may be tested at a pressure of at least six (6) inches (152 mm) of mercury, measured with a manometer or slope gauge. For tests requiring a pressure of 3 psig, diaphragm gauges shall utilize a dial with a minimum diameter of three and one half inches (3½"), a set hand, 1/10 pound incrementation and pressure range not to exceed 6 psi for tests requiring a pressure of 3 psig. For tests requiring a pressure of 10 psig, diaphragm gauges shall utilize a dial with a minimum diameter of three and one-half inches (3½"), a set hand, a minimum of 2/10 pound incrementation and a pressure range not to exceed 20 psi. For welded piping, and for piping carrying gas at pressures in excess of fourteen (14) inches water column pressure (3.48 kPa) (½ psi) and less than 200 inches of water column pressure (52.2 kPa) (7.5 psi), the test pressure shall not be less than ten (10) pounds per square inch (69.6 kPa). For piping carrying gas at a pressure that exceeds 200 inches of water column (52.2 kPa) (7.5 psi), the test pressure shall be not less than one and one-half times the proposed maximum working pressure. Diaphragm gauges used for testing must display a current calibration and be in good working condition. The appropriate test must be applied to the diaphragm gauge used for testing.

Section 406.4.2; change to read as follows:

*406.4.2 Test duration.* Test duration shall be held for a length of time satisfactory to the Code Official, but in no case for less than fifteen (15) minutes. For welded piping, and for piping carrying gas at pressures in excess of fourteen (14) inches water column pressure (3.48 kPa), the test duration shall be held for a length of time satisfactory to the Code Official, but in no case for less than thirty (30) minutes. (Delete remainder of section.)

Section 409.2; change to read as follows:

*409.2 Meter valve.* Every meter shall be equipped with a shutoff valve located on the supply side of the meter and an additional shutoff valve shall be provided where the piping system enters the building. A union shall be installed downstream from the shutoff valve at the building.

Section 410.1; add a second paragraph and exception to read as follows:

Access to regulators shall comply with the requirements for access to appliances as specified in Section 306.

Exception: A passageway or level service space is not required when the regulator is capable of being serviced and removed through the required attic opening.

Section 621.2; add exception as follows:

*621.2 Prohibited use.* One or more unvented room heaters shall not be used as the sole source of comfort heating in a dwelling unit.

Exception: Existing approved unvented heaters may continue to be used in dwelling units, in accordance with the code provisions in effect when installed, when approved by the Code Official unless an unsafe condition is determined to exist as described in Section 108.7.



## ENERGY CONSERVATION CODE

Sec. 10-223. - Adopted.

The International Energy Conservation Code, 2015 edition, as amended by this chapter, is hereby adopted as the energy conservation code of the city. A copy of such code will be kept in the city secretary's office and be available for public inspection at all times during regular business hours.

Sec. 10-224. - Amendments.

The International Energy Conservation Code, 2015 edition, is hereby amended as follows:

Section C102/R102; add Section C102.1.2 and R102.1.2 to read as follows:

*C102.1.2 Alternative compliance.* A building certified by a national, state, or local accredited energy efficiency program and determined by the Energy Systems Laboratory to be in compliance with the energy efficiency requirements of this section may, at the option of the Code Official, be considered in compliance. The United States Environmental Protection Agency's Energy Star Program certification of energy code equivalency shall be considered in compliance.

*R102.1.2 Alternative compliance.* A building certified by a national, state, or local accredited energy efficiency program and determined by the Energy Systems Laboratory to be in compliance with the energy efficiency requirements of this section may, at the option of the Code Official, be considered in compliance. The United States Environmental Protection Agency's Energy Star Program certification of energy code equivalency shall be considered in compliance. Regardless of the program or the path to compliance, each 1- and 2-family dwelling shall be tested for air and duct leakage as prescribed in Section R402.4 and R403.3.3 respectively.

Section C109; change title to read as follows:

*C109 - Construction Advisory and Appeals Board*

Section R109; change title to read as follows:

*R109 - Construction Advisory and Appeals Board*

Section C109.1; to read as follows:

*C109.1 General.* The Construction Advisory and Appeals Board shall be in accordance with Article II, Division 3, Chapter 10 of the Code of Ordinances, City of Rockwall.

Section R109.1; to read as follows:

*R109.1 General.* The Construction Advisory and Appeals Board shall be in accordance with Article II, Division 3, Chapter 10 of the Code of Ordinances, City of Rockwall.

Section C109.2 and C109.3; delete.

Section R109.2 and R109.3; delete.

Section C202 and R202; add the following definition:

**PROJECTION FACTOR.** The ratio of the horizontal depth of the overhang, eave or permanently attached shading device, divided by the distance measured vertically from the bottom of the fenestration glazing to the underside of the overhang, eave or permanently attached shading device.

Section R202; add the following definition:

DYNAMIC GLAZING. Any fenestration product that has the fully reversible ability to change its performance properties, including U-factor, solar heat gain coefficient (SHGC), or visible transmittance (VT).

Sections C402.2.7 and R402.2.14; added to read as follows:

*Section C402.2.7/R402.2.14 Insulation installed in walls.* To insure that insulation remains in place, insulation installed in walls shall be totally enclosed on all sides consisting of framing lumber, gypsum, sheathing, wood structural panel sheathing, netting or other equivalent material approved by the building official.

Section R402.3.2 Glazed fenestration SHGC; amend by adding a paragraph and table following the exception to read as follows:

Where vertical fenestration is shaded by an overhang, eave, or permanently attached shading device, the SHGC required in Table R402.1.2 shall be reduced by using the multipliers in Table R402.3.2 SHGC Multipliers for Permanent Projections.

*Table R402.3.2 SHGC Multipliers for Permanent Projections<sup>a</sup>*

| Projection Factor | SHGC Multiplier (all Other Orientation) | SHGC Multiplier (North Oriented) |
|-------------------|---|----------------------------------|
| 0—0.10            | 1.00                                    | 1.00                             |
| >0.10—0.20        | 0.91                                    | 0.95                             |
| >0.20—0.30        | 0.82                                    | 0.91                             |
| >0.30—0.40        | 0.74                                    | 0.87                             |
| >0.40—0.50        | 0.67                                    | 0.84                             |
| >0.50—0.60        | 0.61                                    | 0.81                             |
| >0.60—0.70        | 0.56                                    | 0.78                             |
| >0.70—0.80        | 0.51                                    | 0.76                             |
| >0.80—0.90        | 0.47                                    | 0.75                             |
| >0.90—1.00        | 0.44                                    | 0.73                             |

<sup>a</sup> North oriented means within 45 degrees of true north.

R402.4.1.2 Testing; add a last paragraph to read as follows:

Mandatory testing shall only be performed by individuals that are certified to perform air infiltration testing certified by national or state organizations as approved by the building official. The certified individuals must be an independent third-party entity, and may not be employed; or have any financial interest in the company that constructs the structure.

R403.3.3 Duct Testing (Mandatory); add a last paragraph to read as follows:

Mandatory testing shall only be performed by individuals that are certified to perform duct testing leakage testing certified by national or state organizations as approved by the building official. The certified individuals must be an independent third-party entity, and may not be employed; or have any financial interest in the company that constructs the structure.

Section R405.6.2; add the following sentence to the end of paragraph:

Acceptable performance software simulation tools may include, but are not limited to, REM Rate™, Energy Gauge and IC3. Other performance software programs accredited by RESNET BESTEST and having the ability to provide a report as outlined in R405.4.2 may also be deemed acceptable performance simulation programs and may be considered by the building official.

TABLE R406.4 MAXIMUM ENERGY RATING INDEX; amend to read as follows:

*TABLE R406.4<sup>1</sup> MAXIMUM ENERGY RATING INDEX*

| CLIMATE ZONE | ENERGY RATING INDEX |
|--------------|---------------------|
| 3            | 65                  |

<sup>1</sup> This table is effective until August 31, 2019.

*TABLE R406.4<sup>2</sup> MAXIMUM ENERGY RATING INDEX*

| CLIMATE ZONE | ENERGY RATING INDEX |
|--------------|---------------------|
| 3            | 63                  |

<sup>2</sup> The table is effective from September 1, 2019 to August 31, 2022.

*TABLE R406.4<sup>3</sup> MAXIMUM ENERGY RATING INDEX*

| CLIMATE ZONE | ENERGY RATING INDEX |
|--------------|---------------------|
| 3            | 59                  |

<sup>3</sup> This table is effective on or after September 1, 2022.

## ELECTRICAL CODE

Sec. 10-244. - Adopted.

The National Electric Code, 2014 edition, as amended by this chapter, is hereby adopted as the electrical code of the city. A copy of such code will be kept in the city secretary's office and be available for public inspection at all times during regular business hours.

(Ord. No. 16-32, § 7, 5-16-2016)

Sec. 10-245. - Amendments.

The National Electric Code, 2014 edition, is hereby amended as follows:

Section 90.10 Construction Advisory and Appeals Board; add to read as follows:

*Section 90.10 Construction Advisory and Appeals Board*

Section 90.11; add to read as follows:

*90.11 General.* The Construction Advisory and Appeals Board shall be in accordance with Article II, Division 3, Chapter 10 of the Code of Ordinances, City of Rockwall.

Article 100; add the following to definitions:

*Engineering Supervision.* Supervision by a Qualified State of Texas Licensed Professional Engineer engaged primarily in the design or maintenance of electrical installations.

Article 100; amend the following definition:

*Intersystem Bonding Termination.* A device that provides a means for connecting intersystem bonding conductors for communication systems and other systems to the grounding electrode system. Bonding conductors for other systems shall not be larger than 6 AWG.

Article 210.52(G) (1) Garages: delete the following

- (1) Garages. In each attached garage and in each detached garage with electric power, at least one receptacle outlet shall be installed for each car space.

Article 230.71(A); add the following exception:

Exception: Multi-occupant buildings. Individual service disconnecting means is limited to six for each occupant. The number of individual disconnects at one location may exceed six.

Article 300.11; add the following exception:

Exception: Ceiling grid support wires may be used for structural supports when the associated wiring is located in that area, not more than two raceways or cables supported per wire, with a maximum nominal metric designation 16 (trade size 1/2").

Article 310.15(B)(7); change to read as follows:

- (7) This Article shall not be used in conjunction with 220.82.

Article 680.25(A); changed to read as follows:

*680.25 Feeders.* These provisions shall apply to any feeder on the supply side of panelboards supplying branch circuits for pool equipment covered in Part II of this article and on the load side of the service equipment or the source of a separately derived system.

(A) Wiring Methods.

- (1) Feeders. Feeders shall be installed in rigid metal conduit, intermediate metal conduit. The following wiring methods shall be permitted if not subject to physical damage:
  - (1) Liquidtight flexible nonmetallic conduit
  - (2) Rigid polyvinyl chloride conduit
  - (3) Reinforced thermosetting resin conduit
  - (4) Electrical metallic tubing where installed on or in a building
  - (5) Electrical nonmetallic tubing where installed within a building
  - (6) Type MC Cable where installed within a building and if not subject to corrosive environment
  - (7) Nonmetallic-sheathed cable
  - (8) Type SE cable

## EXISTING BUILDING CODE

Sec. 10-381. - Adopted.

The Existing Building Code, 2015 edition, as amended by this chapter, is hereby adopted as the existing building code of the city. A copy of such code will be kept in the city secretary's office and be available for public inspection at all times during regular business hours.

(Ord. No. 16-32, § 8, 5-16-2016)

Sec. 10-382. - Amendments.

The Existing Building Code, 2015 edition, is hereby amended as follows:

Section 101.1; insert jurisdiction name as follows:

*[A] 101.1 Title.* These regulations shall be known as the Existing Building Code of Rockwall, hereinafter referred to as "this code."

Section 101.4.2; change to read as follows:

*[A] 101.4.2 Buildings previously occupied.* The legal occupancy of any building existing on the date of adoption of this code shall be permitted to continue without change, except as is specifically covered in this code, the International Fire Code, or the Rockwall Property Maintenance Code, or as is deemed necessary by the code official for the general safety and welfare of the occupants and the public.

Section [A] 104.2.1; Determination of substantially improved or substantially damaged existing buildings and structures in flood hazard areas; delete.

Section [A] 104.10.1 Flood hazard areas; delete.

Section 105.2; change to read as follows:

*[A] 105.2 Work exempt from permit.* Exemptions from permit requirements of this code 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. Permits shall not be required for the following:

Building:

2. Painting, papering, tiling, carpeting, cabinets, counter tops, and similar finish work.
5. Window awnings supported by an exterior wall of Group R-3 or Group U occupancies.
6. Movable cases, counters, and partitions not over 69 inches (1753 mm) in height.

Section R112; change title to read as follows:

*R112 - Construction Advisory and Appeals Board*

Section [A] R112.1; change to read as follows:

*[A] 112.1 General.* The Construction Advisory and Appeals Board shall be in accordance with Chapter 10, Article II, Division 3, Subdivision I, Sections 10-61 to 10-115 of the Code of Ordinances.

Section [A] 112.2 and [A] 112.3; delete.

Section 202; amend definition of Existing Building as follows:

Existing Building - A building, structure, or space, with an approved final inspection issued under a code edition which is at least 2 published code editions preceding the currently adopted building code; or a change of occupancy.

Section 405.1.2; change to read as follows:

*405.1.2 Existing fire escapes.* Existing fire escapes shall continue to be accepted as a component in the means of egress in existing buildings only. Existing fire escapes shall be permitted to be repaired or replaced.

Section 406.2; change to read as follows:

*406.2 Replacement window opening control devices.* In Group R-2 or R-3 buildings containing dwelling units, window opening control devices complying with ASTM F 2090 shall be installed where an existing window is replaced and where all of the following apply to the replacement window ...

The window opening control device, after operation to release the control device allowing the window to fully open, shall not reduce the minimum net clear opening area of the window unit to less than the area required by Section 1030.2 of the International Building Code.

Remainder unchanged.

Section 408.3; delete.

*408.3 Flood hazard areas.*

Section 410.1 adds an exception to read as follows:

Exception: Components of projects regulated by and registered with Architectural Barriers Division of Texas Department of Licensing and Regulation shall be deemed to be in compliance with the requirements of this chapter.

Section 410.4.2; add number 7 to the list of requirements as follows:

7. At least one accessible family or assisted use toilet room shall be provided in accordance with Chapter 11 of the International Building Code.

Section 601.3; delete:

*601.3 Flood hazard areas.*

Section 602.3; add code reference to read as follows:

602.3 Glazing in hazardous locations. Replacement glazing in hazardous locations shall comply with the safety glazing requirements of the International Building Code, International Energy Conservation Code, or International Residential Code as applicable.

Section 606.2.4; delete:

*606.2.4: Flood hazard areas*

Section 607.1; add a code reference to read as follows:

*607.1 Material.* Existing electrical wiring and equipment undergoing repair shall be allowed to be repaired or replaced with like material, in accordance with the requirements of NFPA 70.

Section 701.3; delete:

*701.3: Flood Hazard areas.*

Section 702.6; add a code reference to read as follows:

*702.6 Materials and methods.* All new work shall comply with the materials and methods requirements in the International Building Code, International Energy Conservation Code, International Mechanical Code, National Electrical Code, and International Plumbing Code, as applicable, that specify material standards, detail of installation and connection, joints, penetrations, and continuity of any element, component, or system in the building.

Section 804.1; add sentence to read as follows:

For the purpose of fire sprinkler protection and fire alarm requirements included in this section, the work area shall be extended to include at least the entire tenant space or spaces bounded by walls capable of resisting the passage of smoke containing the subject work area, and if the work area includes a corridor, hallway, or other exit access, then such corridor, hallway, or other exit access shall be protected in its entirety on that particular floor level.

Section 804.2.5; change Exception to read as follows:

Exception: Supervision is not required where the Fire Code does not require such for new construction.

Section 804.3; change section to read as follows:

*804.3 Standpipes.* Refer to Section 1103.6 of the Fire Code for retroactive standpipe requirements.

{Delete rest of Section 804.3.}

Section 805.2; Remove exception #1.

Section 805.3.1.1; delete #4.

Section 805.3.1.2.3; delete entire section.

Section 806.2; add an exception to read as follows:

Exception: Components of projects regulated by and registered with Architectural Barriers Division of Texas Department of Licensing and Regulation shall be deemed to be in compliance with the requirements of this chapter.

Section 904.1; add sentence to read as follows:

For the purpose of fire sprinkler protection and fire alarm requirements included in this section, the work area shall be extended to include at least the entire tenant space or spaces bounded by walls containing the subject work area, and if the work area includes a corridor, hallway, or other exit access, then such corridor, hallway, or other exit access shall be protected in its entirety on that particular floor level.

Section 904.1; add sentence to read as follows:

*904.1.1 High-rise buildings.* An automatic sprinkler system shall be provided in work areas of high-rise buildings.

Section 1103.5 Flood Hazard areas; delete.

Section 1201.4 Flood hazard areas; delete.

Section 1302.7 Flood hazard areas; delete.

Section 1401.2; change to read as follows:



*1401.2 Applicability.* Structures existing prior to the date of an approved final inspection issued under a code edition which is at least two published code editions preceding the currently adopted building code; or a change of occupancy, {rest of section unchanged}.

Section 1401.3.2; change to read as follows:

*1401.3.2 Compliance with other codes.* Buildings that are evaluated in accordance with this section shall comply with the International Fire Code.

Chapter 16 - Referenced Standards; change to read as follows:

IECC—Edition as adopted by the State of Texas International Energy Conservation Code&reg;,.  
. 301.2, 702.6, 708.1, 811.1, 908.1