FARMERS BRANCH

ORDINANCE NO. 3406

AN ORDINANCE OF THE CITY OF FARMERS BRANCH, TEXAS, AMENDING THE CODE OF ORDINANCES BY AMENDING CHAPTER 22 "BUILDINGS AND BUILDING REGULATIONS" BY AMENDING ARTICLE III.5 "RESIDENTIAL CODE" TO ADOPT THE PROVISIONS OF THE 2015 EDITION OF THE INTERNATIONAL RESIDENTIAL CODE WITH AMENDMENTS AND APPENDICES P "SIZING OF WATER PIPING SYSTEM" AND Q "SWIMMING POOLS, SPAS AND HOT TUBS"; PROVIDING A REPEALING CLAUSE; PROVIDING A SAVINGS CLAUSE; PROVIDING A SEVERABILITY CLAUSE; PROVIDING FOR A PENALTY OF FINE NOT TO EXCEED THE SUM OF TWO THOUSAND DOLLARS ($2,000.00) FOR EACH OFFENSE; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the International Code Council (ICC) has developed a set of comprehensive and coordinated national model construction codes (known generally as the "International Codes"); and

WHEREAS, the City of Farmers Branch has been involved throughout the development process of the International Codes through participation with the North Texas Chapter of the International Code Council and through the regional review process by the Regional Codes Coordinating Committee of the North Central Texas Council of Governments (NCTCOG); and

WHEREAS, the creation of the 2015 editions of the International Codes by the ICC was in conjunction with the International Conference of Building Officials (ICBO), the organization whose codes the City of Farmers Branch has adopted since the 1970s; and

WHEREAS, the International Codes have been reviewed by the NCTCOG and City staff; and

WHEREAS, the City's building and construction codes are intended to be updated periodically, with the 2015 editions of the International Codes being the most current published building and construction codes for which local amendments have been developed; and

WHEREAS, the City Council of the City of Farmers Branch has determined that it is in the best interest of the citizens of the City of Farmers Branch to adopt the 2015 editions of the International Codes, as stated herein, as the minimum standards for the construction, use, occupancy and maintenance of buildings and structures within the City limits, as set forth herein, and to adopt local amendments to said codes in order to account for unique local practices and/or conditions relating to the design and construction of structures within the City;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF FARMERS BRANCH, TEXAS, THAT:

SECTION 1. Chapter 22 "Buildings and Building Regulations" of the Code of Ordinances of the City of Farmers Branch, Texas, is amended by amending Article III.5 "Residential Code" to read as follows:

ARTICLE III.5. RESIDENTIAL CODE

Sec. 22-100. Adoption of International Residential Conservation Code; purpose.

The 2015 Edition of the International Residential Code (inclusive of Appendix P "Sizing of Water Piping System" and Appendix Q "Swimming Pools, Spas and Hot Tubs"), as published by the International Code Council and as amended pursuant to Sec. 22-101, is hereby adopted. Copies of the Residential Code are on file in the office of the city secretary for permanent record and inspection and are incorporated into this section as if fully set forth herein. The chief building official, or his authorized representative, is hereby authorized and directed to enforce all provisions of the Residential Code. For purposes of this Article, the phrase "Residential Code" means collectively (i) the 2015 Edition of the International Residential Code (inclusive of Appendix P "Sizing of Water Piping System" and Appendix Q "Swimming Pools, Spas and Hot Tubs" or set forth herein) and (ii) the local amendments adopted pursuant to Sec. 22-101.

Sec. 22-101. Amendments to International Residential Code.

For purposes of enforcement of the provisions of the Residential Code within the incorporated limits of the City, the following sections, paragraphs, and sentences of the *2015 Edition of the International Residential Code* are hereby amended as follows:

Section R102.4 is amended 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 R105.1.1 is amended to read as follows:

R105.1.1 Foundation repair. Any owner, authorized agent, company or person who intends to repair a foundation shall first obtain the required permit.

Section R105.2 is amended to read as follows:

R105.2 Work exempt from permit. Permits shall not be required for the following. Exemption from the 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.

1. Sidewalks and driveways not more than 12 inches above adjacent grade and not over 100 square feet in area.

2. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.

3. Prefabricated swimming pools that are less than 24 inches (610 mm) deep.

4. Swings and other playground equipment accessory to a one-or two-family dwelling.

5. Fences less than 20 feet in length.

Section R105.3.2 is amended to read as follows:

R105.3.2 Time limitation of application. An application for a permit for any proposed work shall be deemed to have been abandoned 90 days after the date of filing, unless such application has been pursued in good faith or a permit has been issued; except that the building official is authorized to grant one or more extensions of time for additional periods not exceeding 90 days each. The extension shall be requested in writing and justifiable cause demonstrated.

Section R105.5 is amended to read as follows:

R105.5 Expiration. Every permit issued shall become invalid unless the work authorized by such permit is commenced within 90 days after its issuance, or if the work authorized by such permit is suspended or abandoned for a period of 90 days after the time the work is commenced. The building official is authorized to grant, in writing, one or more extensions of time, for periods not more than 90 days each. The extension shall be requested in writing and justifiable cause demonstrated.

All permits for the construction of residential buildings shall expire 365 days after the date of issuance. Prior to expiration of the permit for work on residential property, the permittee shall complete all of the work authorized by said permit; or restore the structure and property to its original condition; or the building official may authorize partial completion of the permitted work that will meet with the intent of this section and minimize the negative impact to adjoining properties. The building official may grant, in writing one or more extensions of time for periods not more than 30 days each. The extension shall be requested in writing and justifiable cause demonstrated.

R105.5.1 Fences and accessory buildings. Every permit issued by the building official under the provisions of this code for the construction of fences and/or accessory buildings, including underground structures, shall expire and become null and void 90 days after the date of issuance.

Changes, alterations or adjustments in the permit after it has been issued shall not extend the original date established upon issuance for the permit. Work shall not continue on fences and/or accessory buildings for which the building permit has expired and has become null and void. A new permit may be requested from the building official by filing an application as required by this code. Prior to issuing a new permit an investigation fee equal to the amount of the permit fee as established in the Fee Schedule of the City of Farmers Branch and shall be in addition to the building permit fee.

Every subsequent building permit issued after the original building permit has expired shall expire and become null and void after the number of days of issuance as follows:

2nd permit	45 days
3rd and all following permits	30 days

The building official may place any additional conditions as necessary upon the permit and authorized construction work to protect and help minimize the negative impact of long term construction activity on adjacent properties and on the City infrastructure.

Portions of fences and/or accessory buildings in residential areas not completed and for which a permit has expired shall be removed and the area immediately restored to its original condition. The site and structure must also be secured and material and trash removed.

R105.5.2 Completion of exterior. All work relating to the exterior of a structure shall be completed within 180 days of the date the permit was issued. This includes, but is not limited to, all exterior facade material, painting, windows, final grading and landscaping. The building official may grant, in writing one or more extensions of time for periods not more than 30 days each. The extension shall be requested in writing and justifiable cause demonstrated.

Section R106.1.1.1 is amended to read as follows:

R106.1.1.1 Foundation repair. Construction documents submitted for a foundation repair shall be prepared by a professional engineer licensed by the State of Texas who shall affix the appropriate seal on the drawings.

1. Inspection of a permitted foundation repair shall be made by the designing professional engineer and the designing professional engineer shall supply the City with a report that states that the inspections were performed and that the installation is in full compliance with the construction documents.

2. Upon completion of the foundation repair, a test on the plumbing system shall be performed. The water supply system shall be tested in accordance with Section P2503.6, and the DWV system shall be tested in accordance with Section P2503.5.1 with the provision that the water test need not exceed height of the finished floor elevation of the first floor.

3. A final inspection of a permitted foundation repair shall be performed to insure all required documentation was submitted, all inspections were performed, and that the disturbed areas were repaired.

Section R110.2 is amended to read as follows:

R110.2 Change in ownership, tenancy or use. Upon change of ownership or tenancy in a building or structure used as a dwelling unit, the owner shall request a Certificate of Occupancy from the building official. Prior to allowing occupancy of the building the building official shall inspect the building for compliance with the requirements of this code, the Property Maintenance Code, the Minimum Housing Code, and the Comprehensive Zoning Ordinance. If deficiencies are found the building official may prohibit occupancy of the structure and shall direct the owner to take such action as is necessary to bring the premises into compliance with the above codes and ordinances. Changes in the character or use of an existing structure shall not be made except as specified in sections 3408 and 3409 of the 2015 *International Building Code.*

Section R111.1 is amended to read as follows:

R111.1 Connection of service utilities. No person shall make connections from a utility, source of energy, fuel or power to any building or system, until inspected for compliance with all applicable City codes and ordinances and approved by the building official. Failure of any utility company to comply with these provisions shall be a separate violation of the code.

Section 112.5 is amended to read as follows:

R112.5 Appointment. The members of the City of Farmers Branch Zoning Board of Adjustment shall act as the board of appeals and be known as the City of Farmers Branch Building Code Board of Appeals. The building official shall be an ex-officio member of the board and shall act as secretary to said board but shall have no vote on any matter before the board.

R202 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[f]	SUBJECT TO DAMAGE FROM			WINTER DESIGN TEMP[e]	ICE BARRIER UNDER[h]	FLOOD HAZARDS[g]	AIR FREEZING	MEAN ANNUAL TEMP[j]
	SPEED[d] (MPH)	Topographic Effects[k]	Special Wind Region[l]	Windborne Debris Zone[m]		Weathering[a]	Frost Line Depth[b]	Termite[c]					
5 lb/ft	115 (3 sec-gust)/ 76 fastest mile	No	No	No	A	Moderate	6"	Very Heavy	22° F	No	Local Code	150	64.9° F

Section R302.1 is amended by adding a new paragraph 6 under "Exceptions" to read as follows:

6. Open non-combustible carport structures may be constructed when also approved within adopted ordinances.

Section R302.3 is amended by amending a new paragraph 3. Under "Exception" to read as follows:

3. Two-family dwelling units that are also divided by a property line through the structure shall be separated as required for townhouses.

Section R302.5.1 is amended to read as follows:

R302.5.1 Opening protection. Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Other openings between the garage and residence shall

be equipped with solid wood doors not less than 13/8 inches (35 mm) in thickness, solid or honeycomb core steel doors not less than 13/8 inches (35 mm) thick, or 20-minute fire-rated doors.

Section R303.3 is amended by amending only the last sentence of the paragraph titled "Exception" to read as follows:

Exception:.... 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 R313 Automatic Fire Sprinkler Systems, inclusive of all subsections, is deleted.

Section R314.2.2 is amended to read as follows:

R314.2.2 Alterations, repairs, additions and certificate of occupancy. When alterations, repairs, or additions requiring a permit occur; or when one or more sleeping rooms are added or created; or a Certificate of Occupancy is issued for an existing dwelling unit, the individual dwelling unit shall be equipped with smoke alarms located as required for new dwellings. {*remainder unchanged*}

Section R314.6.1 is amended to read as follows:

R314.6.1 Replacement of Smoke Alarms. Unless otherwise recommended by the manufacturer, single and multiple station smoke alarms shall be replaced when they fail to respond to operability tests. Smoke alarms shall not be allowed to stay in service longer than 10 years from the date of manufacture.

Section R315.2.2 Alterations, repairs and additions is amended by amending paragraph 2 under "Exceptions" to read as follows:

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

Section R322 Flood Resistant Construction is deleted.

Section R326 Swimming Pools, Spas and Hot Tubs is 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 the following sentence to the existing:

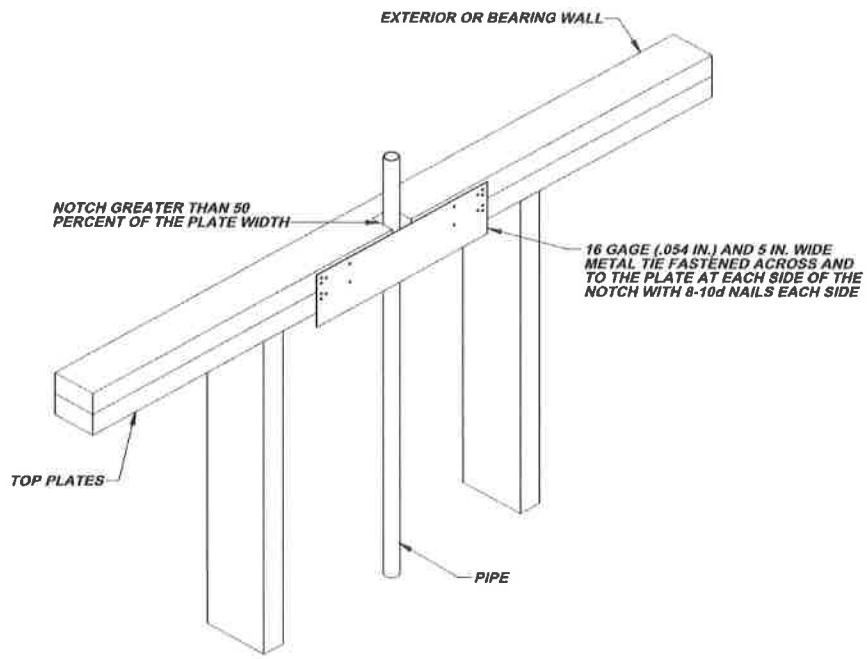
...Every foundation and/or footing, or any size addition to an existing post-tension foundation, regulated by this code shall be designed and sealed by a Texas-registered engineer.

Section 602.6.1 is amended to read as follows:

R602.6.1 Drilling and notching of top plate. When piping or ductwork is placed in or partly in an exterior wall or interior load-bearing wall, necessitating cutting, drilling or notching of the top plate by more than 50 percent of its width, a galvanized metal tie not less than 0.054 inch thick (1.37 mm) (16 Ga) and 5 inches (127 mm) wide shall be fastened across and to the plate at each

side of the opening with not less than eight 10d (0.148 inch diameter) having a minimum length of 1 ½ inches (38 mm) at each side or equivalent. Fasteners will be offset to prevent splitting of the top plate material. The metal tie must extend a minimum of 6 inches past the opening. See figure R602.6.1.

Figure R602.6.1 is amended to appear and read as follows:



Section R703.1 is amended to read as follows:

R703.1 General. Exterior walls shall provide the building with a weather-resistant exterior wall envelope. The exterior wall envelope shall include flashing as described in Section R703.4. Exterior walls shall have the minimum exterior finishes as follows:

1. On existing structures, the exterior material on repairs, remodels and additions and accessory structures over 200 square feet in area shall be consistent and architecturally compatible in scale, materials and character with the exterior finishes on the main building. Plans and specifications submitted shall reflect both existing and proposed exterior finish material.

2. On new structures, a minimum of 75% masonry shall be required on all elevations of the first floor. A minimum of 50% masonry shall be required on the total elevations above the first floor. For this section masonry shall be defined as construction composed of natural stone, kiln fired clay brick, decorative concrete block or other masonry material approved by the building official. Stucco and plaster shall only be considered as meeting the masonry requirement when applied using a 3 step process over diamond metal lath mesh to a 7/8 inch thickness or by other processes producing comparable cement stucco finish with equal or greater strength, durability and fire resistive specifications. All masonry materials except for stucco shall be a minimum of 3 inches in thickness.

3. Fabric or membrane coverings shall not be permitted on structures over 200 square feet in area.

Section R703.8.4.1 is amended by adding the following at the end of the paragraph:

In stud framed exterior walls, all ties shall be anchored to studs as follows:

1. When studs are 16 in (407 mm) o.c., stud ties shall be spaced no further apart than 24 in (737 mm) vertically starting approximately 12 in (381 mm) from the foundation; or

2. When studs are 24 in (610 mm) o.c., stud ties shall be spaced no further apart than 16 in (483 mm) vertically starting approximately 8 in (254 mm) from the foundation.

Section R902.1 is amended by amending the first paragraph and adding a new paragraph 5 under "Exceptions" to read as follows:

R902.1 Roofing covering materials. Roofs shall be covered with materials as set forth in Sections R904 and R905. Class A, B, or C roofing shall be installed. Classes A, B, and C roofing required by this section to be listed shall be tested in accordance with UIL 790 or ASTM E 108.

Exceptions:

5. Non-classified roof coverings shall be permitted on one-story detached *accessory structures* used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed (area defined by jurisdiction).

Chapter 11 [RE] Energy Efficiency is amended in its entirety to read as follows:

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 as amended by Section 24.02.302 of the Code of Ordinances.

Section M1305.1.3 is amended to read as follows:

M1305.1.3 Appliances in attics. *Attics* containing *appliances* requiring access shall be provided . . . *{intervening text unchanged}* . . . sides of the *appliance* where access is required. The clear access opening dimensions shall be a minimum of 20 inches by 30 inches (508 mm by 762 mm), or larger and large enough to allow removal of the largest *appliance*. A walkway to an appliance shall be rated as a floor as approved by the building official. As a minimum, 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.

Exceptions:

1. The passageway and level service space are not required where the *appliance* can be serviced and removed through the required opening.

2. Where the passageway is unobstructed... *{remaining text unchanged}*

Section M1411.3 is amended to read as follows:

M1411.3 Condensate disposal. Condensate from all cooling coils or evaporators shall be conveyed from the drain pan outlet to a sanitary sewer through a trap, by means of a direct or indirect drain. *{remaining text unchanged}*

Section M1411.3.1 is amended by amending Items 3 and 4 to read as follows:

3. An auxiliary drain pan... *{intervening text unchanged}*... with Item 1 of this section. A water level detection device may be installed only with prior approval of the *building official.*

4. A water level detection device... *{intervening text unchanged}*... overflow rim of such pan. A water level detection device may be installed only with prior approval of the *building official.*

Section M1411.3.1.1 is amended to read as follows:

M1411.3.1.1 Water-level monitoring devices. On down-flow units ...*{intervening text unchanged}*... installed in the drain line. A water level detection device may be installed only with prior approval of the *building official.*

Section M1503.4 Makeup Air Required is amend to read as follows:

M1503.4 Makeup air required. Exhaust hood systems capable of exhausting in excess of 400 cubic feet per minute (0.19 m3/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 m3/s) without providing makeup air. Exhaust hood systems capable of exhausting in excess of 600 cubic feet per minute (0.28 m3/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 is amended 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.

Section G2412.5 (401.5) is amended by adding the following to the end of the section:

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: 1/2 to 5 psi gas pressure - Do Not Remove"

Section G2415.2.2 (402.2.2) is amended by adding a paragraph titled "Exception" to read as follows:

Exception: Corrugated stainless steel tubing (CSST) shall be a minimum of 1/2" (18 EDH).

Section G2415.10 (404.10) is amended 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 G2417.1 (406.1) is amended to read as follows:

G2417.1 (406.1) General. Prior to acceptance and initial operation, all *piping* installations shall be inspected and *pressure tested* to determine that the materials, design, fabrication, and installation practices comply with the requirements of this *code*. The *permit* holder shall make the applicable tests prescribed in Sections 2417.1.1 through 2417.1.5 to determine compliance with the provisions of this *code*. The *permit* holder shall give reasonable advance notice to the *building official* when the *piping system* is ready for testing. The *equipment*, material, power and labor necessary for the inspections and test shall be furnished by the *permit* holder and the *permit* holder shall be responsible for determining that the work will withstand the test pressure prescribed in the following tests.

Section G2417.4 is amended 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 is amended to read as follows:

G2417.4.1 (406.4.1) Test pressure. The test pressure to be used shall be not less than 3 psig (20 kPa gauge), or at the discretion of the *Building 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 (3 ½"), 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 (3 ½"), 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.

Section G2417.4.2 is amended 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 G2420.1 (406.1) is amended by adding a new Section G2420.1.4 to read as follows:

G2420.1.4 Valves in CSST installations. Shutoff *valves* installed with corrugated stainless steel (CSST) *piping systems* shall be supported with an approved termination fitting, or equivalent support, suitable for the size of the *valves*, of adequate strength and quality, and located at intervals so as to prevent or damp out excessive vibration but in no case greater than 12-inches from the center of the *valve*. Supports shall be installed so as not to interfere with the free expansion and contraction of the system's *piping*, fittings, and *valves* between anchors. All *valves* and supports shall be designed and installed so they will not be disengaged by movement of the supporting *piping*.

Section G2420.5.1 (409.5.1) is amended to read as follows:

G2420.5.1 (409.5.1) Located within the same room. The shutoff valve ...*{intervening text unchanged}*... in accordance with the appliance manufacturer's instructions. A secondary shutoff valve must be installed within 3 feet (914 mm) of the firebox if appliance shutoff is located in the firebox.

Section G2421.1 (410.1) is amended to read as follows:

G2421.1 (410.1) Pressure regulators. A line *pressure regulator* shall be ... *{intervening text 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 G2422.1.2.3 (411.1.3.3) is amended by deleting paragraphs 1 and 4 under "Exceptions."

Section G2445.2 (621.2) is amended by adding a paragraph titled "Exception" to read as follows:

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 G2448.1.1 (624.1.1) is amended read as follows:

G2448.1.1 (624.1.1) Installation requirements. The requirements for *water heaters* relative to access, sizing, *relief valves*, drain pans and scald protection shall be in accordance with this *code.*

Section P2801.6.1 is amended to read as follows:

Section P2801.6.1 Pan size and drain. The pan shall be not less than 11/2 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 3/4 inch (19 mm). Piping for safety pan drains shall be of those materials listed in Table 605.4. Multiple pan drains may terminate to a single discharge piping system when *approved* by the administrative authority and permitted by the manufactures installation instructions and installed with those instructions.

Section P2801.7 is amended by adding an "Exception" to read as follows:

Exceptions: Electric Water Heater

Section P2804.6.1 is amended to read as follows

Section 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 manufactures installation instructions and installed with those instructions.

5. Discharge, to an indirect waste receptor or to the outdoors.

   [remaining text is unchanged]

Section P2902.5.3 is amended to read as follows:

P2902.5.3 Lawn irrigation systems. The potable water supply to lawn irrigation systems shall be protected against backflow by an atmospheric-type vacuum breaker, a pressure-type vacuum breaker, a double-check assembly or a reduced pressure principle backflow preventer. A valve

shall not be installed downstream from an atmospheric vacuum breaker. Where chemicals are introduced into the system, the potable water supply shall be protected against backflow by a reduced pressure principle backflow preventer.

Section P3009.9 is amended to read as follows:

P3003.9. Solvent cementing. Joint surfaces shall be clean and free from moisture. A purple primer that conforms to ASTM F 656 shall be applied. Solvent cement not purple in color and conforming to ASTM D 2564, CSA B137.3, CSA B181.2 or CSA B182.1 shall be applied to all joint surfaces. The joint shall be made while the cement is wet and shall be in accordance with ASTM D 2855. Solvent cement joints shall be permitted above or below ground.

Exception: A primer is not required where both of the following conditions apply.

Section P3111, including all subsections, is deleted in its entirety.

Section P3112.2 is amended in its entirety to read as follows:

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 drain board 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 (1/4) inch per foot (20.9 mm/m) back to the drain shall be maintained. The return bend used under the drain board 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.

Appendix Q is re-titled Swimming Pools, Spas and Hot Tubs and 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.

AQ101.2 Pools in flood hazard areas. Pools that are located in flood hazard areas established by Table R301.2(1), including above-ground pools, on-ground pools and in-ground pools that involve placement of fill, shall comply with Section AQ101.2.1 or AQ101.2.2.

Exception: Pools located in riverine flood hazard areas which are outside of designated floodways.

AQ101.2.1 Pools located in designated floodways. Where pools are located in designated floodways, documentation shall be submitted to the building official which demonstrates that the construction of the pool will not increase the design flood elevation at any point within the jurisdiction.

AQ101.2.2 Pools located where floodways have not been designated. Where pools are located where design flood elevations are specified but floodways have not been designated, the applicant shall provide a floodway analysis that demonstrates that the proposed pool will not increase the design flood elevation more than 1 foot (305 mm) at any point within the jurisdiction.

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 AG103 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.

AQ103.3 Pools in flood hazard areas. In flood hazard areas established by Table R301.2(1), pools in coastal high-hazard areas shall be designed and constructed in compliance with ASCE 24.

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.

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. 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 and labeled in accordance with UL 2017. 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 as 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:

    10.1. The ladder or steps shall be capable of being secured, locked or removed to prevent access, or

    10.2. 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-inchdiameter (102 mm) sphere.

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.

ANSI/NSP

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

ANSI/APSP

ANSI/APSP-7—06	Standard for Suction Entrapment Avoidance in Swimming Pools, Wading Pools, Spas, Hot Tubs and Catch Basins	AQ106.1

ASCE

ASCE/SEI-24—05	Flood-resistant Design and Construction	AQ103.3

ASTM

ASTM F 1346—91 (2003)	Performance Specification for Safety Covers and Labeling Requirements for All Covers for Swimming Pools Spas and Hot Tubs	AQ105.2, AQ105.5

UL

UL 2017—2000	Standard for General-purpose Signaling Devices and Systems—with revisions through June 2004	AQ105.2

SECTION 2. All provisions of the Ordinances of the City of Farmers Branch, Texas, in conflict with the provisions of this ordinance be, and the same are hereby, repealed, and all other provisions of the Ordinances of the City not in conflict with the provisions of this ordinance shall remain in full force and effect.

SECTION 3. An offense committed before the effective date of this ordinance is governed by prior law and the provisions of the Code of Ordinances, as amended, in effect when the offense was committed and the former law is continued in effect for this purpose.

SECTION 4. That should any word, sentence, paragraph, subdivision, clause, phrase or section of this ordinance, be adjudged or held to be void or unconstitutional, the same shall not affect the validity of the remaining portions of said ordinance, which shall remain in full force and effect.

SECTION 5. That any person violating any of the provisions or terms of this ordinance shall be subject to the same penalty as provided for in the Code of Ordinances of the City of Farmers Branch as heretofore amended and, upon conviction, shall be punished by a fine not to exceed the sum of Two Thousand Dollars ($2,000.00).

SECTION 6. This Ordinance shall take effect immediately from and after its passage and the publication of the caption, as the law and charter in such case provide.

DULY PASSED BY THE CITY COUNCIL OF THE CITY OF FARMERS BRANCH, TEXAS, ON THE 13TH DAY OF DECEMBER, 2016.

ATTEST:

Amy Piukana, City Secretary

APPROVED:

Bob Phelps, Mayor

APPROVED AS TO FORM:

Peter G. Smith, City Attorney
(kbl:11/18/16:81287)