ORDINANCE NO. 3476

AN ORDINANCE OF THE CITY OF MESQUITE, TEXAS, AMENDING CHAPTER 5 OF THE CODE OF THE CITY OF MESQUITE BY ADDING A NEW ARTICLE XIII THEREBY ADOPTING THE INTERNATIONAL RESIDENTIAL CODE, 2000 EDITION, AND PROVIDING CERTAIN ADDITIONS AND DELETIONS THERETO; PROVIDING FOR A REPEALER CLAUSE; PROVIDING FOR A SEVERABILITY CLAUSE; PROVIDING FOR A PENALTY NOT TO EXCEED TWO THOUSAND ($2,000.00) DOLLARS FOR EACH OFFENSE; AND DECLARING AN EFFECTIVE DATE.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MESQUITE, TEXAS:

SECTION 1: That Chapter 5 of the Code of the City of Mesquite, Texas, is hereby amended by adding a new Article XIII to read as follows, in all other respects said Code and Chapter to remain in full force and effect:

ARTICLE XIII. RESIDENTIAL CODE

DIVISION 1. GENERAL

Sec. 5-467. Adopted.

The *International Residential Code*, 2000 Edition, a publication of the International Code Council (I.C.C.), is hereby adopted and designated as the official residential code of the City of Mesquite to the same extent as if such Code were copied verbatim in this Article subject to the amendments prescribed in this Article. The Code shall be applicable to all construction, alterations, movement, enlargement, replacement, repairs, equipment, use and occupancy, location, removal and demolition and maintenance of detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories in height with separate means of egress and their accessory structures. A copy of the *International Residential Code*, 2000 Edition, and amendments thereto shall be maintained in the office of the City Secretary as an original document and ordinance of the city.

DIVISION 2. AMENDMENTS

Sec. 5-468. Amendments to the International Residential Code, 2000 Edition.

The following amendments are made to the *International Residential Code*, 2000 Edition:

(1) *Chapter 1, Administration.*

(a) *Section R102.4.* Amend by deleting the first paragraph in the section in its entirety and adding a new first paragraph to Section R102.4 to read as follows:

> *Referenced codes and standards.* The codes and standards referenced herein shall be those that are listed in Chapter 43 which have been specifically adopted by the City, and such codes 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. Where NFPA 70 or the ICC Electrical Code are referenced herein, it shall mean the corresponding provision of the *National Electrical Code* as adopted.

(b) *Section R105.2.* Amend by deleting Section R105.2 in its entirety.

(c) *Section R109.1.3.* Amend by deleting the section in its entirety and adding a new Section R109.1.3 to read as follows:

> *Floodplain inspections.* For construction permitted in areas prone to flooding as established by Table R301.2(1), upon placement of the lowest floor including basement and prior to further vertical construction, the Code Official shall require submission of a certification prepared by a registered professional engineer or land surveyor of the elevation of the lowest floor including basements required in Section R237 construction.

(d) *Sections R110.2 and R110.3.* Amend by deleting Sections R110.2 and R110.3 in their entirety.

(e) *Section R112.1.* Amend by deleting the section in its entirety and adding a new Section R112.1 to read as follows:

> *General:*
>
> (A) *Created composition.* There is hereby created a board to be known as Building Code Board of Appeal. The Board shall be composed of five (5) members who are qualified through their experience to pass upon matters pertaining to building construction and who are not employees of the City of Mesquite.

(B) *Scope and authority of the Board.* The Board shall hear and decide appeal of orders, decisions or the determinations made by the Code Official relating to the application and interpretation of the building and housing codes of the City of Mesquite.

(C) *Appeal procedures.* An appeal to the Building Code Board of Appeal shall be filed within thirty (30) calendar days after the date the determination or decision of the Code Official is made. If the thirtieth (30^{th}) day falls on a Saturday, Sunday or city holiday, the time for filing the appeal shall be extended to the next day following the thirtieth (30) day which is not a Saturday, Sunday or city holiday. The appeal shall be filed at the office of the City Code Official and such notice of appeal shall specify the grounds of such appeals stating the reasons why appellant feels the Code Official's determination should be overturned.

(D) *Terms.* The Board members are appointed by the City Council to serve without compensation for two-year terms. Three (3) members shall be appointed on or about January 1 of odd-numbered years, and two (2) members shall be appointed on or about January 1 of even-numbered years. The Board shall set its rules and regulations and appoint a chairman from among its members.

(E) *Vacancies.* The City Council shall fill all vacancies by the appointment of a suitable person to serve the unexpired term.

(F) *Meetings.* Board meetings shall be held at the call of the chairman or at such other times as the Board may determine. All meetings are open to the public. The Board shall keep minutes of its meetings and records are open and available upon request to the public.

(G) *Quorum.* Three (3) members shall constitute a quorum. A concurring vote of three (3) members of the Board shall be necessary to render a decision in favor of the Appellant.

(f) *Section R112.2.2.* Amend by deleting Section R112.2.2 in its entirety.

(2) *Chapter 2, Definitions.*

(a) *Section R202.* Amend by deleting the definition of "Townhouse" in the section in its entirety and adding a new definition of "Townhouse" to Section R202 to read as follows:

TOWNHOUSE. A single-family dwelling unit constructed in a group of attached units separated by property lines in which each unit extends from foundation to roof and with open space on at least two sides.

(3) *Chapter 3, Building Planning.*

(a) *Table R301.2(1).* Amend by deleting the chart in the table in its entirety and adding a new chart to Table R301.2(1) to read as follows:

TABLE R301.2(1)
CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA

ROOF SNOW LOAD	WIND Speed[e] (mph)	Seismic Design Category[f,g]	SUBJECT TO DAMAGE FROM				Winter Design Temp[f]	Flood Hazards[h]
			Weathering[a]	Frost Line Depth[b]	Frost Line Termite[c]	Decay[d]		
5lb /ft²	90 (3-sec-gust)/ 75 fastest mile	A	Moderate	6"	very heavy	slight/ moderate	22°F	local code

(b) *Section R302.1.* Amend by adding a second exception to Section R302.1 to read as follows:

2. Open metal carport structures may be constructed within zero feet of the property line without fire-resistive or opening protection when the location of such is approved as required by other applicable ordinances.

(c) *Section R303.3.* Amend by deleting the exception in the section in its entirety and adding new exceptions to Section R303.3 to read as follows:

Exception: The glazed areas shall not be required where artificial light and a mechanical ventilation system complying with one of the following are provided:

1. The minimum ventilation rates shall be 50 cfm (23.6 L/s) for intermittent ventilation or 20 cfm (9.4

L/s) for continuous ventilation. Ventilation air from the space shall be exhausted directly to the outside.

2. Bathrooms 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.

(d) *Section R303.6.* Amend by deleting the section in its entirety and adding a new Section R303.6 to read as follows:

Required heating. Every dwelling unit shall be provided with heating facilities capable of maintaining a minimum room temperature of 68° F (20° C) at a point 3 feet (914 mm) above the floor and 2 feet (610 mm) from exterior walls in all habitable rooms at the winter design temperature.

(e) *Section 309.2.* Amend by deleting the section in its entirety and adding a new Section 309.2 to read as follows:

Separation Required: The garage shall be separated from the residence area by not less than ½ inch (12.7 mm) gypsum board applied to the garage side. Where the separation is a floor-ceiling assembly, the structure supporting the separation shall also be protected by not less than ½ inch (12.7 mm) gypsum board or equivalent.

(f) *Section R309.4.* Amend by deleting the section in its entirety and adding a new Section R309.4 to read as follows:

Carports. Carports shall be open on at least three sides. Carport floor surfaces shall be reinforced concrete designed to specifications as required by City ordinance.

(g) *Section R314.8.* Amend by deleting the section in its entirety and adding a new Section R314.8 to read as follows:

Under stair protection. Enclosed accessible space under stairs shall have walls, under stair surface and any soffits protected on the enclosed side with 5/8-inch (15.8 mm) fire-rated gypsum board or one-hour fire-resistive construction.

(h) *Section R321.1.* Amend by making the existing exception to Section R321.1 number 1 and adding a second exception to Section R321.1, the exceptions to Section R321.1 to read as follows:

Exception:

1. A fire resistance rating of ½ hour shall be permitted in buildings equipped throughout with an automatic sprinkler system installed in accordance with NFPA 13.

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

(i) *Section R322.1.* Amend by deleting the section and exception in its entirety and adding a new Section R322.1 to read as follows:

Moisture control. In all framed walls, floors and roof/ceilings comprising elements of the building thermal envelope, a vapor retarder, when installed, shall be installed in a manner so as not to trap moisture.

(j) *Section R327.1.* Amend by deleting the first paragraph of the section in its entirety and adding a new first paragraph to Section R327.1 to read as follows:

General. All buildings and structures, when permitted to be erected in areas prone to flooding as identified in Table R 301.2 (1) and classified as either flood hazard areas or coastal high hazards (including V-Zones) shall be constructed and elevated as required by the provisions contained in this section or by other local provisions as applicable.

(4) *Chapter 7, Wall Coverings.*

(a) *Section R703.7.4.1.* Amend by adding a second paragraph to Section R703.7.4.1 to read as follows:

For 3 ¼ square feet (0.302 m^2) of wall area, the following dimensions shall be adhered to:

1. When ties are placed on studs 16 inches o.c., they shall be spaced no further apart than 29 inches vertically starting approximately 15 inches from the foundation.

2. When ties are placed on studs 24 inches o.c., they shall be spaced no further apart than 19 inches

vertically starting approximately 10 inches from the foundation.

(b) *Section R703.7.4.2.* Amend by adding a second paragraph to Section R703.7.4.2 to read as follows:

When using ties that will flex when pushed, spot bedding of cement mortar shall be installed on all ties.

(5) *Chapter 9, Roof Assemblies.*

(a) *Section R902.3.* Amend by adding a new Section R903.2 to read as follows:

Minimum roof class. All roof coverings shall be a minimum Class C. All individual replacement shingles or shakes shall be a minimum Class C.

Exception: Non-classified roof coverings shall be permitted on buildings of U-occupancies having not more than 120 square feet of projected roof area. When exceeding 120 square feet of projected roof area, buildings of U-occupancies may use non-rated non-combustible coverings.

(b) *Section R907.1.* Amend by adding a sentence at the end of the first paragraph in Section R907.1 to read as follows:

All individual replacement shingles or shakes shall comply with Section R902.3.

(6) *Chapter 10, Chimneys and Fireplaces.*

(a) *Section R1005.2.* Amend by deleting the section in its entirety and adding a new Section R1005.2 to read as follows:

Exterior air intake. The exterior air intake shall be capable of providing all combustion air from the exterior of the dwelling or from spaces within the dwelling ventilated with outside air such as attic spaces. The exterior air intake shall not be located within the garage or basement of the dwelling nor shall the air intake be located at an elevation higher than the firebox. The exterior air intake shall be covered with a corrosion-resistant screen of ¼-inch (6.4 mm) mesh.

(7) *Chapter 11, Energy Efficiency.*

(a) *Section N1101.2.1.* Amend by deleting the section in its entirety and adding a new Section N1101.2.1. to read as follows:

Residential buildings, Type A-1. Compliance shall be demonstrated by one of the following:

1. Meeting the requirements of this chapter for buildings with a glazing area that does not exceed 15 percent of the gross area of exterior walls; or

2. Meeting the requirements of this chapter for buildings with a glazing area that is greater than 15 percent but not exceeding 20 percent of the gross area of exterior walls and air conditioning equipment rated 12 SEER or higher; or

3. Meeting the requirements of this chapter for buildings with a glazing area that is greater than 20 percent but not exceeding 25 percent of the gross area of exterior walls and air conditioning equipment rated 14 SEER or higher; or

4. Meeting the requirements of the *International Energy Conservation Code* for residential buildings, Type A-1.

(b) *Section N1101.3.4.* Amend by adding a new Section N1101.3.4 to read as follows:

Exterior basement or slab insulation. When susceptibility to termite damage is classified as "very heavy" according to Table R301.2(1), designs employing basement or slab exterior insulation capable of harboring termites shall not be utilized.

(c) *Section N1102.1.* Amend by deleting the section in its entirety and adding a new Section N1102.1 to read as follows:

Thermal performance criteria. The minimum required insulation R-value or maximum required U-factor for each element in the building thermal envelope (fenestration, roof/ceiling, opaque wall, floor, slab edge, crawl space wall and basement wall) shall be in accordance with the criteria in Table N1102.1.

Residential buildings, Type A-1, with greater than 25 percent glazing area; residential buildings, Type A-2, with greater than 25 percent glazing area; and any building in climates with HDD equal

to or greater than 13,000 shall determine compliance using the building envelope requirements of the *International Energy Conservation Code*.

(d) *Table N1102.1.* Amend by deleting the information concerning the .65 maximum glazing U-factor and minimum insulation R-value from the table and adding new information concerning the .65 maximum glazing U-factor and minimum insulation R-value from Table N1102.1 to read as follows:

MAXIMUM GLAZING U-FACTOR (Btu/(hr-ft²*F)	MINIMUM INSULATION R-VALUE						
	Ceiling Open to Attic Spaces	Ceiling Joist/Roof Rafter Assembly	Walls	Floors	Basement Walls	Slab Perimeter	Crawl space walls
0.65	R-38	R-22	R-13	R-19	R-0	R-0	R-0

(e) *Section N1102.2.* Amend by deleting the section in its entirety and adding a new Section N1102.2 to read as follows:

Maximum solar heat gain coefficient for fenestration products. The area-weighted-average solar heat gain coefficient (SHGC) for glazed fenestration installed in climate zones with less than 3,500 HDD shall not exceed 0.40.

(8) *Chapter 13, General Mechanical System Requirements.*

(a) *Section M1304.2.* Amend by adding a new Section M1304.2 to read as follows:

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

(b) *Section M1305.1.3.* Amend by deleting the section in its entirety and adding a new Section M1305.1.3 to read as follows:

Appliances in attics. Attics containing appliances requiring access shall be provided with an opening and a clear and unobstructed passageway large enough to allow removal of the largest appliance, but not less than 30 inches (762 mm) high and 22 inches (559 mm) wide and not more than 20 feet (6096 mm) in length when measured along the centerline of the passageway from the opening to the appliance. The passageway shall have continuous solid flooring in accordance with Chapter 5 not less than 24 inches (610 mm) wide. A level service space at least 30 inches (762 mm) deep and 30 inches (762 mm) wide shall be present along sides of

the appliance where access is required. The clear access opening dimensions shall be a minimum of 20 inches (559 mm) by 30 inches (762 mm) or larger where such dimensions are not large enough to allow removal of the largest appliance. As a minimum, access to the attic space shall be provided by one of the following:

1. A permanent stair.

2. A pull-down stair.

3. An access door from an upper floor level.

Exception: The passageway and level service space are not required where the appliance is capable of being serviced and removed through the required opening.

(c) *Section M1305.1.3.1.* Amend by adding a sentence to the end of the paragraph in Section M1305.1.3.1 to read as follows:

Low voltage wiring of 50 volts or less shall be installed in a manner to prevent physical damage.

(d) *Section M1305.1.4.1.* Amend by deleting the section in its entirety and adding a new Section M1305.1.4.1 to read as follows:

Ground clearance. Appliances supported from the ground shall be level and firmly supported on a concrete slab or other approved material extending above the adjoining grade, a minimum of 3 inches (76 mm). Appliances suspended from the floor shall have a clearance of not less than 6 inches (152 mm) above the ground.

(e) *Section M1305.1.4.3.* Amend by adding a sentence to the end of the paragraph in Section M1305.1.4.3 to read as follows:

Low voltage wiring of 50 volts or less shall be installed in a manner to prevent physical damage.

(f) *Sections M1305.1.5 and M1305.1.5.1.* Amend by adding new Sections M1305.1.5 and M1305.1.5.1 to read as follows:

M1305.1.5 Water heaters aboveground or floor. When the mezzanine or platform in which a water heater is installed is more than 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.

M1305.1.5.1 Accessible lighting to platform. Whenever the mezzanine or platform is not adequately lighted or access to a receptacle outlet is not obtainable from the main level, lighting and a receptacle outlet shall be provided in accordance with Section M1305.1.3.1.

(g) *Section M1307.3.1.* Amend by deleting Section M1307.3.1 in its entirety.

(9) *Chapter 15, Exhaust Systems.*

(a) *Section M1501.2.* Amend by deleting the section in its entirety and adding a new Section M1501.2 to read as follows:

Exhaust duct size. The minimum diameter of the exhaust duct shall be as recommended by the manufacturer and shall be at least the diameter of the appliance outlet and shall be a minimum nominal size of 4 inches (102 mm) in diameter. The size of duct shall not be reduced along its developed length nor at the point of termination.

(b) *Section M1501.3.* Amend by deleting the first paragraph in the section in its entirety and adding a new first paragraph to Section M1501.3 to read as follows:

Length limitation. The maximum length of a clothes dryer exhaust duct shall not exceed 25 feet (7620 mm) from the dryer location to the wall or roof termination with not more than two bends. When extra bends are installed, the maximum length of the duct shall be reduced 2.5 feet (762 mm) for each 45-degree (0.79 rad) bend and 5 feet (1524 mm) for each 90-degree (1.6 rad) bend that occurs after the first two bends, measuring in the direction of airflow. The maximum length of the exhaust duct does not include the transition duct.

(10) *Chapter 16, Duct Systems.*

(a) *Section M1601.3.4.* Amend by deleting the first item in the section in its entirety and adding a new first item to Section M1601.3.4 to read as follows:

1. Duct insulation shall conform to the requirements of Table M1601.3.4 and Section N1101.2. Should there be any conflicts between this section and the energy efficiency provisions, the energy efficiency provisions shall take precedence. A vapor retarder in accordance with Table M1601.3.4 or aluminum foil having a minimum thickness

of 2 mils (0.051 mm) shall be installed on the exterior of insulation on cooling supply ducts that pass through nonconditioned spaces conducive to condensation. Insulations having a permeance of 0.05 perms [2.87 ng/(Pa. s.m^2)] or less shall not be required to be covered.

(b) *Table M1601.3.4.* Amend by adding a new Table M1601.3.4 to read as follows:

TABLE M1601.3.4
INSULATION OF DUCTS

DUCT LOCATION	INSULATION TYPES MECHANICALLY COOLED	HEATING ZONE	INSULATION TYPES HEATING ONLY
On roof and exterior of building	C, V[2] and W	I III III	A and W B and W C and W
Attics, garages and crawl spaces	A and V[2]	I II III	A A B
In walls[3], within floor-ceiling spaces[3]	A and V[2]	I II III	A A B
Within the conditioned space or in Basements; return ducts in air plenums	None Required		None Required
Cement slab or within ground	None Required		None Required

Note: Where ducts are used for both heating and cooling, the minimum insulation shall be as required for the most restrictive condition.

[1] Heating Degree Days:
Zone I below 4,500 D.D.
Zone II 4,501 to 8,000 D.D.
Zone III over 8,000 D.D.

[2] Vapor retarders shall be installed on supply ducts in spaces vented to the outside in geographic areas where the summer dew point temperature based on the 2 ½ percent column of dry-bulb and mean coincident wet-bulb temperature exceeds 60° F. (15.4° C).

[3] Insulation may be omitted on that portion of a duct which is located within a wall- or a floor-ceiling space where:
[3.1] Both sides of the space are exposed to conditioned air.
[3.2] The space is not ventilated.
[3.3] The space is not used as a return plenum.
[3.4] The space is not exposed to unconditioned air.
Ceilings which form plenums need not be insulated.

[4] The examples of materials listed under each type are not meant to limit other available thickness and density combinations with the equivalent installed conductance or resistance based on the insulation only.

INSULATION TYPES [4] :

A -- A material with an installed conductance of 0.48 [2.72 W/(m*K)] or the equivalent thermal resistance of 2.1 [0.367 (m*K)/W].

Examples of materials capable of meeting the above requirements:

1. 1-inch (25 mm), 0.60 lb./cu.ft. (9.6 kg/m^3) mineral fiber, rock, slag or glass blankets.

2. ½-inch (13 mm), 1.5 to 3 lb./cu.ft. (24 to 48 kg/m³) mineral fiber blanket duct liner.
3. ½-inch (13 mm), 3 to 10 lb./cu.ft. (48 to 160 kg/m³) mineral fiber board.

B -- A material with an installed conductance of 0.24 [1.36 W/(m*K)] or the equivalent thermal resistance of 4.2 [0.735 (m*K)/W].

Examples of materials capable of meeting the above requirements:

1. 2-inch (51 mm), 0.60 lb./cu.ft. (9.6 kg/m³) mineral fiber blankets.
2. 1-inch (25 mm), 1.5 to 3 lb./cu.ft. (24 to 48 kg/m³) mineral fiber blanket duct liner.
3. 1-inch (25 mm), 3 to 10 lb./cu.ft. (48 to 160 kg/m³) mineral fiber board.

C -- A material with an installed conductance of 0.16 [0.9 W/(m*K)] or the equivalent thermal resistance of 6.3 [1.1 (m*K)/W].

Examples of materials capable of meeting the above requirements:

1. 3-inch (76 mm), 0.60 lb./cu.ft. (9.6 kg/m³) mineral fiber blankets.
2. 1 ½-inch (38 mm), 1.5 to 3 lb./cu.ft. (24 to 48 kg/m³) mineral fiber blanket duct liner.
3. 1 ½-inch (38 mm), 3 to 10 lb./cu.ft. (48 to 160 kg/m³) mineral fiber board.

V -- Vapor Retarders: Material with a perm rating not exceeding 0.05 perm [29 ng/Pa*s*m³]. All joints to be sealed.

W -- Approved weatherproof barrier.

(11) *Chapter 20, Boilers/Water Heaters.*

(a) *Section M2005.2.* Amend by deleting the section in its entirety and adding a new Section M2005.2 to read as follows:

Prohibited locations. Fuel-fired water heaters shall not be installed in a room used as a storage closet, sleeping room or bathroom. All fuel-fired water heaters installed within a dwelling shall be in a sealed enclosure so that combustion air will not be taken from the living space. Such door shall be self-closing and sealed to prevent air leakage. Direct-vent water heaters are not required to be installed within an enclosure.

(12) *Chapter 24, Fuel Gas.*

(a) *Section G2403.* Amend by adding a new definition for "Unvented Decorative Appliance" to Section G2403 to read as follows:

UNVENTED DECORATIVE APPLIANCE. An unvented decorative appliance designed for stationary installation and utilized to provide comfort heating. Such appliances provide radiant heat or convection heat by gravity or fan circulation directly from the heater and do not utilize ducts.

(b) *Section G2407.15.* Amend by deleting the exception to the first item to the section in its entirety and adding a new exception to the first item of Section G2407.15 to read as follows:

Exception: Unobstructed stud and joist spaces within dwelling units shall not be prohibited from conveying combustion air provided that not more than one required fireblock is removed.

(c) *Section G2408.3.* Amend by deleting Section G2408.3 in its entirety.

(d) *Section G2411.5.* Amend by adding a second paragraph to Section G2411.5 to read as follows:

Both ends of each section of medium pressure corrugated stainless steel tubing (CSST) 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"

(e) *Section G2412.3.* Amend by adding an exception to Section G2412.3 to read as follows:

Exception: Corrugated stainless steel tubing (CSST) shall be a minimum of ½ inch.

(f) *Section G2414.6.* Amend by deleting the section in its entirety and adding a new Section G2414.6 to read as follows:

Piping in solid floors. Piping in solid floors shall be laid in channels in the floor and covered in a manner that will allow access to the piping with a minimum amount of damage to the building. Where such piping is subject to exposure to excessive moisture or corrosive substances, the piping shall be protected in an approved manner. As an alternative to installation in channels, the piping shall be installed in accordance with Section G2414.11 (404.11).

(g) *Section G2414.9.* Amend by deleting the section in its entirety and adding a new Section G2414.9 to read as follows:

Minimum burial depth. Underground piping systems shall be installed a minimum depth of 18 inches (458 mm) below grade, except as provided for in Section G2414.9.1.

(h) *Section G2414.9.1.* Amend by deleting Section G2414.9.1 in its entirety.

(i) *Section G2416.4.* Amend by deleting the section in its entirety and adding a new Section G2416.4 to read as follows:

Test pressure measurements. 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 due to leakage during the pressure test period. The source of pressure shall be isolated before the pressure tests are made. The equipment used shall be of an appropriate scale such that pressure loss can be easily determined.

(j) *Section G2416.4.1.* Amend by deleting the section in its entirety and adding a new Section G2416.4.1 to read as follows:

Test pressure. The test pressure to be used shall be not less than one and one-half times the proposed maximum working pressure, but not less than 10 psig (68.9 kPa gauge) or at the discretion of the Code Official. The piping and valves may be tested at a pressure of at least 6 inches (152 mm) of mercury measured with a manometer or slope gauge. For welded piping and for piping carrying gas at pressures in excess of 14 inches water column pressure (3.48 kPa), the test pressure shall not be less than 60 pounds per square inch (413.4 kPa).

(k) *Section G2416.4.2.* Amend by deleting the section in its entirety and adding a new Section G2416.4.2 to read as follows:

Test duration. Test duration shall be held for a length of time but in no case for less than 15 minutes. For welded piping and for piping carrying gas at pressures in excess of 14 inches water column pressure (3.48 kPa), the test duration shall be held for a length of time but in no case for less than 30 minutes.

(l) *Section G2419.1.4.* Amend by adding a new Section G2419.1.4 to read as follows:

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.

(m) *Section G2420.1.* Amend by adding a second paragraph and exception to Section G2420.1 to read as follows:

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.

(n) *Section G2437.5.* Amend by adding a sentence to the end of the first paragraph to Section G2437.5 to read as follows:

The size of duct shall not be reduced along its developed length nor at the point of termination.

(o) *Section G2437.5.1.* Amend by deleting the first paragraph in the section in its entirety and adding a new first paragraph to Section G2437.5.1 to read as follows:

Maximum length. The maximum length of a clothes dryer exhaust duct shall not exceed 25 feet (7620 mm) from the dryer location to the outlet terminal with not more than two bends. When extra bends are installed, the maximum length of the duct shall be reduced 2 ½ feet (762 mm) for each 45-degree (0.79 rad) bend and 5 feet (1524 mm) for each 90-degree (1.6 rad) bend that occur after the first two bends, measuring in the direction of airflow.

(p) *Section G2443.2.* Amend by deleting the section in its entirety and adding a new Section G2443.2 to read as follows:

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 unless the Code Official determines an unsafe condition exists as described in *International Fuel Gas Code,* Section 108.7.

(q) *Section G2446.1.1.* Amend by deleting the section in its entirety and adding a new Section 2446.1.1 to read as follows:

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.

(13) *Chapter 25, Plumbing Administration.*

(a) *Section P2503.5.1.* Amend by adding a second paragraph at the end of the first item in Section P2503.5.1 to read as follows:

Shower receptors shall be tested for water tightness by filling with water to the level of the rough threshold. The drain shall be plugged in a manner so that both sides of pans shall be subjected to the test at the point where it is clamped to the drain.

(b) *Section P2503.7.2.* Amend by deleting the section in its entirety and adding a new Section P2503.7.2 to read as follows:

Testing. Reduced pressure principle backflow preventers, double check valve assemblies, double-detector check assemblies and pressure vacuum breaker assemblies shall be tested at the time of installation, immediately after repairs or relocation and at regular intervals as required by applicable state or local provisions at least annually.

(14) *Chapter 26, General Plumbing Requirements.*

(a) *Section P2603.6.1.* Amend by adding a new Section P2603.6.1 to read as follows:

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

(15) *Chapter 27, Plumbing Fixtures.*

(a) *Section P2708.1.* Amend by deleting the first paragraph in the section in its entirety and adding a new first paragraph to Section P2708.1 to read as follows:

General. Shower compartments shall have at least 900 square inches (0.581mm) of floor area and be sufficient size to inscribe a circle with a diameter not less than 30 inches (762 mm). Hinged doors shall open outward. The wall area above built-in tubs having installed shower heads and in-shower compartments shall be constructed as per R307.2. Such walls shall form a water tight joint with each other and with either the tub, receptor or shower floor. Thresholds shall be of sufficient width to accommodate a minimum 22-inch (559mm) door.

(b) *Section P2709.1.* Amend by adding an exception to Section P2709.1 to read as follows:

Exception: Showers designed to comply with ICC/ANSI A117.1.

(c) *Section P2710.1.* Amend by deleting the section in its entirety and adding a new Section P2710.1 to read as follows:

Finished. Shower walls shall be finished in accordance with Section R307.2 and R702.4.

(16) *Chapter 28, Water Heaters.*

(a) *Section P2803.6.1.* Amend by deleting the section in its entirety and adding a new Section P2803.6.1 to read as follows:

Requirements for discharge. The outlet of a pressure relief valve, temperature relief valve or combination thereof shall not be directly connected to the drainage system. The discharge from the relief valve shall be piped full size separately to the outside of the building or to an indirect waste receptor located inside the building. In areas subject to freezing, the relief valve shall discharge through an air gap into an indirect waste receptor located within a heated space or by other approved means. The discharge pipe shall not discharge into the pan required in Section P2801.5.

The discharge shall be installed in a manner that does not cause personal injury or property damage and that is readily observable by the building occupants. The discharge from a relief valve shall be trapped. The diameter of the discharge piping shall not be less than the diameter of the relief valve outlet. The discharge pipe shall be installed so as to drain by gravity flow and shall terminate atmospherically. When discharging outside the building, the point of discharge shall be with the end of the pipe not more than 2 feet (610 mm) nor less than 6 inches (152 mm) above the ground or the floor level of the area receiving the discharge and pointing downward. The end of the discharge pipe shall not be threaded.

(17) *Chapter 29, Water Supply and Distribution.*

(a) *Table P2904.4.1.* Amend by deleting all references to the following materials in Table P2904.4.1:

- Polybutylene (PB) plastic pipe and tubing;
- Chlorinated polyvinyl chloride (CPVC) plastic and tubing;
- Cross-link polyethylene (PEX) plastic tubing;

- Cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL-PEX); and
- Polybutylene (PB) plastic pipe and tubing.

(b) *Sections P2904.5, 2904.5.1 and 2904.12.* Amend by deleting all references to the following materials in Sections P2904.5, 2904.5.1 and 2904.12:

- Polybutylene (PB) plastic pipe and tubing;
- Chlorinated polyvinyl chloride (CPVC) plastic and tubing;
- Cross-link polyethylene (PEX) plastic tubing;
- Cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL-PEX); and
- Polybutylene (PB) plastic pipe and tubing.

(18) *Chapter 30, Sanitary Drainage.*

(a) *Section P3005.2.6.* Amend by deleting the section in its entirety and adding a new Section P3005.2.6 to read as follows:

Upper terminal base of stacks. Each horizontal drain shall be provided with a cleanout at its upper terminal.

Exception: Cleanouts may be omitted on a horizontal drain less that 5 feet (1524 mm) in length unless such line is serving sinks or urinals.

(19) *Chapter 31, Vents.*

(a) *Section P3103.1.* Amend by deleting the section in its entirety and adding a new Section P3103.1 to read as follows:

Roof extension. All open vent pipes which extend through a roof shall be terminated at least 6 inches (152 mm) above the roof except that where a roof is to be used for any purpose other than weather protection, the extensions shall be run at least seven feet (2134 mm) above the roof.

(b) *Sections P3105.2, P3105.3 and Figure P3105.3.* Amend by deleting Sections P3105.2, P3105.3 and Figure P3105.3 in their entirety.

(c) *Section P3111.1.* Amend by deleting the section in its entirety and adding a new Section P3111.1 to read as follows:

Type of fixture. A combination waste and vent system shall not serve fixtures other than floor drains, standpipes and indirect waste

receptors. Combination drain and vent systems shall not receive the discharge of a food waste grinder.

(d) *Section P3111.2.* Amend by deleting the section in its entirety and adding a new Section P3111.2 to read as follows:

Installation. The only vertical pipe of a combination drain and vent system shall be the connection between the fixture drain of a standpipe and the horizontal combination waste and vent pipe. The maximum vertical distance shall be eight feet (2438 mm).

(20) *Electrical Chapters 33, 34, 35, 36, 37, 38, 39, 40, 41 and 42.*

(a) Amend by deleting Electrical Chapters 33, 34, 35, 36, 37, 38, 39, 40, 41 and 42 in their entirety and adding a referral notice to Chapters 33, 34, 35, 36, 37, 38, 39, 40, 41 and 42 to read as follows:

Refer to the adopted *National Electrical Code* for all references regarding electrical installations within the *International Residential Code*.

SECTION 2. That all ordinances or portions thereof in conflict with the provisions of this ordinance, to the extent of such conflict, are hereby repealed. To the extent that such ordinances or portions thereof are not in conflict herewith, the same shall remain in full force and effect.

SECTION 3. That should any word, sentence, clause, paragraph or provision of this ordinance be held to be invalid or unconstitutional, the validity of the remaining provisions of this ordinance shall not be affected and shall remain in full force and effect.

SECTION 4. That any person, firm or corporation violating any of the provisions or terms of this ordinance shall be deemed to be guilty of a Class C Misdemeanor and upon conviction in the Municipal Court shall be punished by a fine not to exceed Two Thousand ($2,000.00) Dollars for each offense.

SECTION 5. That this ordinance shall take effect on April 4, 2002.

DULY PASSED AND APPROVED by the City Council of the City of Mesquite, Texas, on the 4th day of February, 2002.

Mike Anderson
Mayor

ATTEST:

Ellen Williams
City Secretary

APPROVED:

B. J. Smith
City Attorney