

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF FRISCO, TEXAS, REPEALING ORDINANCE NO. 19-11-102; AMENDING DIVISION 4 (RESIDENTIAL CODE), ARTICLE IV (TECHNICAL CODES), CHAPTER 18 (BUILDINGS AND BUILDING REGULATIONS), PART II OF THE FRISCO CODE OF ORDINANCES, ORDINANCE NO. 06-03-31, AS AMENDED, ADOPTING THE 2021 EDITION OF THE INTERNATIONAL RESIDENTIAL CODE, INCLUDING APPENDIX AH AND AJ, SAVE AND EXCEPT THE DELETIONS AND ADDITIONS SET FORTH HEREIN; REGULATING THE CONSTRUCTION, ALTERATION, MOVEMENT, ENLARGEMENT, REPLACEMENT, REPAIR, EQUIPMENT, USE AND OCCUPANCY, LOCATION, REMOVAL, AND DEMOLITION OF DETACHED ONE- AND TWO-FAMILY DWELLINGS AND MULTIPLE SINGLE-FAMILY DWELLINGS (TOWNHOUSES) NOT MORE THAN THREE STORIES IN HEIGHT WITH A SEPARATE MEANS OF EGRESS AND RELATED ACCESSORY STRUCTURES IN THE CITY OF FRISCO, TEXAS; PROVIDING A PENALTY CLAUSE, SAVINGS/REPEALING CLAUSE, SEVERABILITY CLAUSE AND AN EFFECTIVE DATE; AND PROVIDING FOR THE PUBLICATION OF THE CAPTION HEREOF.

WHEREAS, the City Council of the City of Frisco, Texas ("City Council") has investigated and determined that it would be advantageous, beneficial and in the best interest of the citizens of the City of Frisco, Texas ("Frisco") to amend Division 4 (Residential Code), Article IV (Technical Codes), Chapter 18 (Buildings and Building Regulations), Part II of the Frisco Code of Ordinances, Ordinance No. 06-03-31, as amended ("Code of Ordinances"), by adopting the 2021 Edition of the International Residential Code, including Appendices AH and AJ, save and except the deletions and additions set forth below; and

WHEREAS, the City Council has investigated and determined that in order to most effectively make the deletions and additions necessary to Division 4 (Residential Code), Article IV (Technical Codes), Chapter 18 (Buildings and Building Regulations), Part II of the Frisco Code of Ordinances, it is in the best interest of the citizens of Frisco to repeal, in their entirety, Ordinance No. 19-11-102, replacing, except as otherwise provided herein, the same with this Ordinance, adopting the 2021 Edition of the International Residential Code, including Appendix AH and AJ, save and except the deletions and additions set forth below.

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

SECTION 1: Findings Incorporated. The findings set forth above are incorporated into the body of this Ordinance as if fully set forth herein.

SECTION 2: Repeal of Ordinance No. 19-11-102. Ordinance No. 19-11-102 is hereby repealed, in their entirety, and replaced by this Ordinance. The effective date of the repeal

discussed in this Section shall not occur until the effective date of this Ordinance at which time Ordinance No. 19-11-102 shall be repealed. Such repeal shall not abate any pending prosecution and/or lawsuit or prevent any prosecution and/or lawsuit from being commenced for any violation of Ordinance No. 19-11-102 occurring before the effective date of this Ordinance.

SECTION 3: Amendment to Division 4 (Residential Code), Article IV (Technical Codes), Chapter 18 (Buildings and Building Regulations), Part II of the Frisco Code of Ordinances. Division 4 (Residential Code), Article IV (Technical Codes), Chapter 18 (Buildings and Building Regulations), Part II of the Frisco Code of Ordinances is hereby amended for the sole purpose of adopting new residential code regulations as set forth in the International Residential Code, copyrighted by the International Code Council, Inc., including Appendix AH and AJ, save and except the deletions and additions set forth in Exhibit A, attached hereto and incorporated herein for all purposes, regulating the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, removal, and demolition of detached one-family and two-family dwellings and multiple single-family dwellings (townhouses) not more than three (3) stories in height with a separate means of egress and related accessory structures within Frisco ("2021 International Residential Code"). The 2021 International Residential Code is made a part of this Ordinance as if fully set forth herein. Three (3) copies of the 2021 International Residential Code are on file in the office of the City Secretary of Frisco being marked and designated as the 2021 International Residential Code. The deletions and additions set forth in Exhibit A are located on Frisco's website under Development Services.

SECTION 4: Savings/Repealing. All provisions of any ordinance in conflict with this Ordinance are hereby repealed to the extent they are in conflict; but such repeal shall not abate any pending prosecution for violation of the repealed ordinance, nor shall the repeal prevent a prosecution from being commenced for any violation if occurring prior to the repeal of the ordinance. Any remaining portion of conflicting ordinances shall remain in full force and effect.

SECTION 5: Penalty Provision. Any person, firm, corporation or business entity violating this Ordinance shall be deemed guilty of a misdemeanor, and upon conviction therefore, shall be fined a sum not exceeding TWO THOUSAND AND NO/100 DOLLARS (\$2,000.00), and each and every day that such violation continues shall be considered a separate offense; provided, however, that such penal provision shall not preclude a suit to enjoin such violation. Frisco retains all legal rights and remedies available to it pursuant to local, state, and federal law.

SECTION 6: Severability. Should any section, subsection, sentence, clause, or phrase of this Ordinance be declared unconstitutional and/or invalid by a court of competent jurisdiction, it is expressly provided that any and all remaining portions of this Ordinance shall remain in full force and effect. Frisco hereby declares that it would have passed this Ordinance, and each section, subsection, clause or phrase thereof, regardless of whether any one or more sections, subsections, sentences, clauses or phrases is declared unconstitutional and/or invalid.

SECTION 7: Effective Date. This Ordinance shall become effective upon its passage and publication as required by the City Charter and by law.

DULY PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF
FRISCO, TEXAS, on this 15th day of November, 2022.



Jeff Cheney
Jeff Cheney, Mayor

ATTESTED AND CORRECTLY
RECORDED:

Kristi Morrow
Kristi Morrow, City Secretary

APPROVED AS TO FORM:

Aliceson Cotton
Abernathy, Roeder, Boyd & Hullett, P.C.
Aliceson Cotton, City Attorneys

Dates of Publication: November 20, 2022 and November 27, 2022 *Frisco Enterprise*

Exhibit A
CITY OF FRISCO AMENDMENTS/DELETIONS
2021 INTERNATIONAL RESIDENTIAL CODE¹

The following deletions and additions to the 2021 International Residential Code are hereby approved and adopted (*i.e.* deletions evidenced by ~~strike through~~ and additions evidenced by underline)²:

Chapter 1. Scope and Administration of the 2021 International Residential Code is amended as follows:

Section R102 Applicability of the 2021 International Residential Code is amended as follows:

R102.4 Referenced codes and standards. The codes and standards referenced in this code shall be considered as 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 by Frisco, as they exist or may be further amended, to the referenced codes and standards, each reference to said codes and standards shall be considered to reference the amendments and any future amendments thereto. *[Remainder unchanged]*

Section R105 Permits of the 2021 International Residential Code is amended as follows:

R105.2 Work exempt from permit. *[Paragraph remains unchanged.]*

Building:

~~1. Other than storm shelters, One-story detached accessory structures, provided the floor area does not exceed 200 square feet (18.58 m²).~~

~~2. Fences not over 7 feet (2134 mm) high.~~

~~3. Retaining walls that are not over 4 feet (1219 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge.~~
Retaining walls not over 24 inches (610mm) in height measured from finish grade to top of the wall.

~~5. Sidewalks and driveways.~~

¹ Unless otherwise expressly provided herein, all phrases, words and/or terms used herein shall have the same meaning ascribed to the same in the 2018 International Residential Code (regardless of whether such phrases, words and/or terms are italicized herein).

² Other italicized and bold notations are provided throughout for informational purposes only. By way of example only, "*[Paragraph remains unchanged.]*".

Plumbing:

3. Water heater replacement is not exempt from the permit requirements and inspections provided herein.

Section R106 Construction Documents of the 2021 International Residential Code is amended as follows:

R106.1 Submittal documents. Submittal documents consisting of construction documents, and other data shall be submitted in two or more sets, or in a digital format where allowed by the building official, with each application for a permit. The construction documents shall be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed. Where special conditions exist, the building official is authorized to require additional construction documents to be prepared by a registered design professional. Foundation and framing plans shall be submitted with each application. These plans shall be designed by an engineer licensed by the State of Texas and shall bear that engineers seal. The engineer must also meet all requirements for registration with the City. All Residential Dwellings shall be designed by a registered Professional Engineer in the State of Texas and all drawings and documentation must be signed and sealed. Design Engineers must be registered with Frisco and provide proof of Professional Liability Insurance with a minimum coverage of one million dollars.

Section R107 Temporary Structures and Uses of the 2021 International Residential Code is amended as follows:

R107.1 General. The building official is authorized to issue a permit for temporary structures and temporary uses. Such permits shall be limited as to time of service, but shall not be permitted for more than 180 days. The building official is authorized to grant extensions for demonstrated cause. Such permits shall comply with the provisions of Frisco's Zoning Ordinance and the International Building Code regulations for temporary structures, as they exist or may be amended.

Section R108 Fees of the 2021 International Residential Code is amended as follows:

R108.2 ~~Schedule of permit fees~~ Permit, Inspection and Miscellaneous Consolidated Fee Schedule. On buildings, structures, electrical, gas, mechanical and plumbing systems or alterations requiring a permit, a fee for each permit shall be paid as required, in accordance with the schedule as established by the applicable governing authority. The following Permit, Inspection and Miscellaneous Consolidated Fee schedule shall apply to the construction, alternation, movement, occupancy, location, removal and demolition of detached one- and two-family dwellings and multiple three stories in height with a separate means of egress and related accessory structures within Frisco:

Permit, Inspection and Miscellaneous Consolidated Fee Schedule

Commercial Building Permit Fees		
Commercial Building Permit	*%60 of Table Value	Table 1-A
TABLE 1-A*		
\$1 to \$500.00	\$23.50	
\$500 .01 to \$2,000.00	\$23.50 for the first \$500 plus \$3.05 for each additional \$100, or fraction thereof, to and including \$2,000.	
\$2,000.01 to \$25,000.00	\$69.25 for the first \$2,000 plus \$14.00 for each additional \$1,000.00, or fraction thereof, to and including \$25,000.	
\$25,000.01 to \$50,000.00	\$391.25 for the first \$25,000 plus \$10.10 for each additional \$1,000, or fraction thereof, to and including \$50,000.	
\$50,000.01 to \$100,000.00	\$643.75 for the first \$50,000 plus \$7.00 for each additional \$1,000, or fraction thereof, to and including \$100,000.	
\$100,000.01 to \$500,000.00	\$999.75 for the first \$100,000 plus \$5.00 for each additional \$1,000, or fraction thereof, to and including \$500,000.	
\$500,000.01 to \$1,000,000.00	\$3,233.75 for the first \$500,000 plus \$4.75 for each additional \$1,000, or fraction thereof, to and including \$1,000,000.	
\$1,000,000.01 and above	\$5,608.75 for the first \$1,000,000 plus \$2.15 for each additional \$1,000 or fraction thereof.	
Inspection outside of normal business hours		\$150.00
Reinspection Fee (Commercial)		\$35.00

Residential Building Permit Fees		
Residential Building Permit	New Construction / Addition / Alteration / Outdoor Improvement Tables	
New Construction and Addition - Square feet are measured as gross.		
1 to 1999 Square Feet	\$150 for the first 300 SQFT plus \$0.50 for each additional 1 SQFT, or fraction thereof, to and including 1999 SQFT.	
2000 to 2499 Square Feet	\$1,000 for the first 2000 SQFT plus \$0.37 for each additional 1 SQFT, or fraction thereof, to and including 2499 SQFT.	
2500 to 2999 Square Feet	\$1,185 for the first 2500 SQFT plus \$0.35 for each additional 1 SQFT, or fraction thereof, to and including 2999 SQFT.	
3000 to 3499 Square Feet	\$1,360 for the first 3000 SQFT plus \$0.34 for each additional 1 SQFT, or fraction thereof, to and including 3499 SQFT.	
3500 to 3999 Square Feet	\$1,530 for the first 3500 SQFT plus \$0.33 for each additional 1 SQFT, or fraction thereof, to and including 3999 SQFT.	
4000 to 4499 Square Feet	\$1,695 for the first 4000 SQFT plus \$0.32 for each additional 1 SQFT, or fraction thereof, to and including 4499 SQFT.	
4500 to 4999 Square Feet	\$1,855 for the first 4500 SQFT plus \$0.31 for each additional 1 SQFT, or fraction thereof, to and including 4999 SQFT.	
5000 to 5499 Square Feet	\$2,010 for the first 5000 SQFT plus \$0.30 for each additional 1 SQFT, or fraction thereof, to and including 5499 SQFT.	
5500 to 5999 Square Feet	\$2,160 for the first 5500 SQFT plus \$0.29 for each additional 1 SQFT, or fraction thereof, to and including 5999 SQFT.	
6000 to 6499 Square Feet	\$2,325 for the first 6000 SQFT plus \$0.29 for each additional 1 SQFT, or fraction thereof, to and including 6499 SQFT.	
6500 to 6999 Square Feet	\$2,450 for the first 6500 SQFT plus \$0.28 for each additional 1 SQFT, or fraction thereof, to and including 6999 SQFT.	
7000 and above	\$2,590 for the first 7000 SQFT plus \$0.26 for each additional 1 SQFT or fraction thereof.	
Inspection outside of normal business hours		\$150.00
Reinspection Fee (Residential)		\$30.00
Alterations		
General Alterations	\$75 plus \$0.45 for each 1 SQFT gross area, or fraction thereof, to a maximum of \$550	
Windows / Doors Replacement	\$75 plus \$25 for each additional element to a maximum of \$150	
Foundation Repair		\$75
Storm Shelter		\$75
Alteration of Structural		\$75
Exterior Veneer		\$150
Outdoor Improvements		
Patio Cover	\$75 plus \$0.59 for each 1 SQFT gross area, or fraction thereof, to a maximum of \$550	
Arbor	\$75 plus \$0.59 for each 1 SQFT gross area, or fraction thereof, to a maximum of \$550	
Deck	\$75 plus \$0.59 for each 1 SQFT gross area, or fraction thereof, to a maximum of \$550	
Conventionally Framed Shed	\$75 plus \$0.59 for each 1 SQFT gross area, or fraction thereof, to a maximum of \$550	
Outdoor Amenity	\$75 plus \$25 for each additional element to a maximum of \$150	
Fireplace, Kitchen, other...		
Concrete Driveway / Pad		\$75
Structural Landscape Features		\$50
Modular Shed		\$50
Solar Installations		\$75

Miscellaneous	
Certificate of Occupancy (Change of business name, ownership or use)	\$100.00
Certificate of Occupancy (Non-Conforming Use)	\$25.00
Demolition Permit	\$50.00
Reroof Permit	\$150.00
Fences, Retaining Walls, Screening Walls	\$20.00
Duplicate Permit Placard and Reports	\$10.00
Structure Move Permit	\$50.00
Temporary Building Permit	\$50.00
Swimming Pool	
Spa Permit	\$75.00
Swimming Pool (Above Ground)	\$100.00
Swimming Pool (Below Ground)	\$200.00
Swimming Pool (Below Ground w/spa)	\$275.00
Building Permit Fees (Elec)	
For issuance of <u>each</u> permit	\$30.00
For issuance of <u>each</u> supplemental permit	\$10.00
All inclusive Residential permit by permit Square Footage	\$0.03/gsf
All inclusive Commercial permit by permit Square Footage	\$0.04/gsf
Building Meter Release (Elec)	\$45.00
<u>Each</u> Residential Appliance	\$4.75
<u>Each</u> Commercial Appliance	\$4.75
<u>Each</u> Temporary Services	\$23.50
<u>Each</u> Misc Apparatus	\$18.20
Motors (Horsepower) ea.	
Up to 1	\$4.75
1, not over 10	\$12.30
10, not over 50	\$24.60
50, not over 100	\$49.50
over 100	\$74.50
Service Installation Replacement (Amps) ea.	
Up to 200	\$65.00
200, up to 1000	\$85.00
Over 1000 amps	\$150.00
Mechanical Permit Fees	
For issuance of <u>each</u> permit	\$30.00
For new finish-out/alterations	\$0.05/gsf
For issuance of <u>each</u> supplemental permit	\$10.00
Furnances	
Installation or relocation of <u>each</u> forced air unit up to and including 100,000 Btu/h	\$13.25
Installation or relocation of <u>each</u> forced air unit over 100,000 Btu/h	\$16.25
Installation or relocation of <u>each</u> floor furnace	\$13.25
Installation or relocation of <u>each</u> suspended heater, recessed wall heater or floor-mounted heater S 1 3.25	\$13.25
Appliance Vents	
Installation, relocation or replacement of <u>each</u> vent	\$7.00
Repairs or Additions	
Repair of, Alteration of or Addition of <u>each</u> heating or cooling appliance	\$12.25
Boiler, Compressor and Absorption Systems	
Installation or relocation of <u>each</u> boiler or compressor to including 3 horsepower or up to and including 100,000 Btu/h	\$13.25
Installation or relocation of <u>each</u> boiler or compressor to including 3 - 15 horsepower or up to and including 100,000 - 500,000 Btu/h	\$24.25

Installation or relocation of <u>each</u> boiler or compressor to including 15 - 30 horsepower or over 500,000 - 1,000,000 Btu/h	\$33.25
Installation or relocation of <u>each</u> boiler or compressor to including 30 - 50 horsepower or over 1,000,000 - 1,750,000 Btu/h	\$49.50
Installation or relocation of <u>each</u> boiler or compressor to over 50 horsepower or over 1,750,000 Btu/h	\$82.75
Air Handlers	
Installation or relocation of <u>each</u> air-handling to and including 10,000 cubic feet	\$9.50
Note: This does not apply to an air handling unit which is a part of a factory assembled appliance	
Installation or relocation of <u>each</u> air-handling over 10,000 cubic feet	\$16.50
Evaporative Coolers	
Installation or relocation of <u>each</u> evaporative cooler other than portable type	\$9.50
Ventilation and Exhaust	
Installation or relocation of <u>each</u> ventilation fan connected to a single duct or hood	\$6.50
Miscellaneous - Installation or relocation of each fuel gas piping systems	
One to Four outlets	\$5.00
Each additional outlet exceeding four	\$1.00
Plumbing Permit Fees	
For issuance of <u>each</u> permit	\$30.00
For new finish-out/alteration	\$0.09/gsf
For issuance of <u>each</u> supplemental permit	\$10.00
For <u>each</u> plumbing fixture on one trap or a set of fixtures on one trap (including water, drainage piping and backflow protection therefore)	\$7.00
For <u>each</u> building sewer and each trailer park sewer	\$15.00
Rainwater systems - per drain (inside building)	\$7.00
For <u>each</u> cesspool (where permitted)	\$25.00
For <u>each</u> private sewage disposal system	\$40.00
For <u>each</u> water heater and / or vent	\$7.00
For <u>each</u> gas-piping of one to five outlets	\$5.00
For <u>each</u> additional gas piping system outlet, per outlet	\$1.00
For <u>each</u> industrial waste pretreatment interceptor including its trap and vent, except kitchen type grease interceptors functioning as fixture traps	\$7.00
For <u>each</u> installation, alteration or repair of water piping and / or water treating equipment	\$7.00
For <u>each</u> repair or alteration of drainage or vent piping, each fixture	\$7.00
For atmospheric-type vacuum breakers	
1 to 5	\$5.00
over 5, <u>each</u>	\$1.00
For <u>each</u> backflow protective device other than atmospheric type vacuum breakers:	
2 inch (51mm) diameter and smaller	\$7.00
over 2 inch (51mm)	\$15.00
For <u>each</u> graywater system	\$40.00
For initial installation and testing for a reclaimed water system	\$30.00
For <u>each</u> medical gas piping system serving one to five inlet(s) / outlet(s) for a specific gas	\$50.00
For <u>each</u> additional medical gas inlet(s) / outlet(s)	\$5.00

R108.2.2 Plan review fees. Plan review fees shall be required when, in the judgment of the building official, submitted documents require special review by a third-party plan review service. The plan review fee shall be sixty-five percent (65%) of the building permit fee. The plan review fees specified in this section are separate and in addition to the required building permit fees.

R108.5 Refunds. The building official ~~is authorized to establish a refund policy.~~ may authorize refunding of any fee paid hereunder, which was erroneously paid or collected.

The building official may authorize a refund not to exceed eighty percent (80%) of the permit fee paid when no work has been done under a permit issued in accordance with this code.

The building official may authorize a refund not to exceed eighty percent (80%) of the plan review fee paid when an application for a permit for which a plan review fee has been paid is withdrawn or canceled before any plan reviewing is done.

The building official shall not authorize refunding of any fee paid except on written application filed by the original permittee not later than 180 days after the date of fee payment.

Section R109 Inspections of the 2021 International Residential Code is amended as follows:

R109.1.4 Frame and masonry inspection. *[Paragraph remains unchanged.]*

Design engineer must perform a structural framing inspection and provide the building official with signed and sealed document stating that the house framing has been inspected and approved. This inspection must take place prior to requesting a framing inspection from the building official. The engineer shall physically verify all structural corrections.

The engineer shall provide to the building official a letter of final acceptance stating that the framing has been constructed in compliance with the design prior to the issuance of a Certificate of Occupancy, as defined in Frisco's Zoning Ordinance, as it exists or may be amended.

Section R112 Board of Appeals of the 2021 International Residential Code is deleted in its entirety and replaced with the following:

R112 Board of Appeal. The Board of Construction Appeals, created by the City of Frisco, as it currently exists or may be amended, will serve as the means of appeal.

Section R115 Site Maintenance of the 2021 International Residential Code is added as follows:

R115 Site maintenance. Provisions for sanitation and construction debris shall be provided for all construction sites.

R115.1 Facilities required. Each permitted construction project in Frisco shall be provided with at least one (1) temporary portable toilet facility for use by employees and subcontractors. Builders or contractors with multiple permits in a subdivision shall provide one portable toilet for a maximum five permits. Portable toilet facilities shall be located in the rear portion of lots where alley access is available. Portable toilet facilities shall not be placed in street or alley right-of- ways. The builder or permit holder shall be responsible for ensuring that toilet facilities are maintained in a sanitary condition. The building official may, at his discretion, require that additional toilet facilities be provided if these requirements prove to be insufficient.

R115.2 Trash receptacles. Each permitted construction project in Frisco shall be provided with receptacles of a sufficient size and number to contain jobsite trash and debris, including, but not limited to, food wrappers and containers from workers lunches. Trash receptacles shall be maintained on site at all times during construction activities and shall be covered at the end of each workday. The builder or permit holder shall be responsible for ensuring that trash receptacles are utilized by all employees and subcontractors, and that all trash is removed at intervals adequate to maintain a clean job site. In addition to the required receptacles, each lot shall be provided with screen fencing to prevent windblown trash and debris from adjacent lots. Other methods of construction debris containment may be approved if compliance can be demonstrated and maintained.

Chapter 2. Definitions of the 2021 International Residential Code is amended as follows:

Section R202 Definitions of the 2021 International Residential Code is amended as follows:

~~ACCESSORY STRUCTURE.~~ ~~A structure that is accessory to and incidental to that of the dwelling(s) and that is located on the same lot.~~

ACCESSORY STRUCTURE or ACCESSORY BUILDING. Any structure, either attached or detached from the main dwelling, the use of which is incidental to that of the main structure and located on the same lot. Accessory structures include, but are not limited to patio covers, arbors, gazebos, cabanas, outdoor kitchens and/or recreational fire enclosures, trellis, and structures/sheds or the like. A permit is required for all accessory structures.

TOWNHOUSE UNIT. A single-family dwelling unit in a townhouse designed for occupancy by one household and constructed in a group of three (3) to eight (8) attached dwelling units separated by property lines that extends from foundation to roof and with a yard or public way on not less than two sides.

Chapter 3. Building Planning of the 2021 International Residential Code is amended as follows:

Section 301 Design Criteria of the 2021 International Residential Code is amended as follows:

R301.2 Climatic and geographic design criteria. *[Paragraph remains unchanged.]*

**TABLE R301.2
CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA**

GROUND SNOW LOAD	WIND DESIGN				SEISMIC DESIGN CATEGORY ^f
	Speed ^d (mph)	Topographic effects ^k	Special wind region ^l	Wind-borne debris zone ^m	
<u>5 lb/ft²</u>	<u>115 (3-sec-gust)/76 fastest mile</u>	<u>NO</u>	<u>NO</u>	<u>NO</u>	<u>A</u>

SUBJECT TO DAMAGE FROM		
Weathering ^a	Frost line depth ^b	Termite ^c
<u>moderate</u>	<u>6"</u>	<u>very heavy</u>

ICE BARRIER UNDERLAYMENT REQUIRED ^h	FLOOD HAZARDS ^g	AIR FREEZING INDEX ⁱ	MEAN ANNUAL TEMP ^j
<u>NO</u>	<u>local code</u>	<u>150</u>	<u>64.9°F</u>

MANUAL J DESIGN CRITERIA

Refer to established regional design from ACCA Manual J.

Section R302 Fire-Resistant Construction of the 2021 International Residential Code is amended as follows:

R302.2 Townhouses. Walls separating townhouse units shall be constructed in accordance with Section R302.2.1 ~~or R302.2.2~~ and shall comply with 302.2.3 through 302.2.5.

R302.2.2 Common walls. *[Deleted in its entirety.]*

R302.2.3 Continuity. The fire-resistance-rated wall or assembly separating townhouse units shall be continuous from the foundation to the underside of the highest roof sheathing, deck or slab. The fire-resistance rating shall extend the full length of the wall or assembly from the front most exterior wall sheathing to the rear most exterior wall sheathing, including wall extensions through and separating attached accessory structures.

R302.2.4 Parapets for Townhouses. *[Paragraph unchanged].*

[Add the following option to parapet compliance]

4. As an alternative to parapets, the roof decking or sheathing shall be of noncombustible materials or approved fire-retardant-treated wood for a distance of 4 feet (1219 mm) on each side of the wall or walls, or one layer of 5/8-inch (15.9 mm) Type X gypsum board installed directly beneath the roof decking or sheathing and supported by a minimum of nominal 2-inch (51 mm) ledgers attached to the sides of the roof framing members, for a minimum distance of 4 feet (1219 mm) on each side of the wall or walls. Openings or penetrations in the roof are not permitted within 4 feet (1219 mm) of the common walls. Each individual townhouse shall be structurally independent in accordance with Section R302.2.6.

R302.2.6 Structural independence. Each townhouse unit shall be structurally independent.

Exceptions:

~~5. Townhouses separated by a common wall as provided in Section R302.2.2, Item 1 or 2.~~

~~6. Townhouse units protected by a fire sprinkler system complying with Section P2904 or NFPA 13D~~

R302.5.4 Drywall penetrations. Drywall penetrations in the separation required by Section R302.6 between the garage and habitable rooms shall have a tight fitting, non-combustible latching cover or separated by solid fire-blocking when in excess of 16 square inches (0.0103 m²) in area.

R302.6 Dwelling-garage fire separation. *[Paragraph remains unchanged.]*

**TABLE R302.6
DWELLING/GARAGE SEPARATION**

SEPARATION	MATERIAL
From the residence and attics	Not less than ½-inch gypsum board or equivalent applied to the garage side <u>at attics and not less than 5/8-inch Type X gypsum board or equivalent applied to the garage side separating the garage from habitable space.</u>

From all habitable rooms above the garage	Not less than 5/8-inch Type X gypsum board or equivalent
Structures(s) supporting floor/ceiling assemblies used for separation required by this section	Not less than 1/2 5/8-inch Type X gypsum board or equivalent
Garages located less than 3 feet from a dwelling unit on the same lot	Not less than 5/8-inch Type X gypsum board or equivalent applied to the interior side of exterior walls that are within this area

R302.7 Under-stair protection. Enclosed space under stairs that is accessed by a door or access panel shall have walls, under-stair surface and any soffits protected on the enclosed side with 5/8 1/2 inch (15.9 12.7-mm) Type X gypsum board or construction equal to a 1 hour fire-resistance-rating.

Section R313 Automatic Fire Sprinkler Systems of the 2021 International Residential Code is amended as follows:

R313.2 One-and two-family dwelling automatic fire systems. As allowed by State law, A-an automatic sprinkler system shall be designed and installed in one- and two-family dwellings in accordance with Section P2904 or NFPA 13D.

~~**Exception:** [Entire exception deleted.]~~

~~**R313.2.1 Design and installation** [Entire subsection deleted.]~~

R313.3 Applicability of Ordinance No. 08-01-12, Exhibit "A", Section R325. Until State law allows Section R313.2 to apply and pursuant to §1301.551, TEX. OCC. CODE, Frisco restates, reaffirms and ratifies the following regulation contained in Exhibit "A" of Ordinance No. 08-01-12:

SECTION R325 AUTOMATIC FIRE PROTECTION

Section R325.1. Automatic fire protection required: Automatic fire protection systems in accordance with NFPA 13D or NFPA 13R shall be provided in all one and two-family dwellings with a gross floor area 6000 square feet (1830 m²) or greater. For the purposes of this section, gross floor area means conditioned space and attached garage areas. Unenclosed covered areas, such as porches and balconies, are not included. Automatic fire protection systems shall be provided in all buildings containing three (3) or more dwelling units. In the event that an addition or alteration increases the gross floor area from less than 6000 square feet to equal to or greater than 6000 square feet the entire dwelling shall be retro fitted with an automatic fire protection system in accordance with NFPA 13D or NFPA 13R.

Where requirements in this section conflict with requirements found in the International Fire Code, adopted by Frisco, the most stringent requirements shall apply.

Exception: This Section R313.3 shall be automatically repealed and deleted if State law allows Section R313.2 to apply.

Section R315 Carbon Monoxide Alarms of the 2021 International Residential Code is amended as follows:

Section R315.2.2 Alterations, repairs and additions. *[Paragraph remains unchanged.]*

Exception:

2. Installation, alteration or repairs of plumbing systems that are not fuel fired.

R315.3 Location. Carbon monoxide alarms in dwelling units shall be installed outside of each separate sleeping area in the immediate vicinity of the bedrooms and in the immediate vicinity of attached garage entrances. *[Remainder unchanged]*

Section R319 Site Address of the 2021 International Residential Code is amended as follows:

R319.1 Address identification. Buildings or structures shall be provided with approved address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property and from alleyway, fire lanes and other vehicular entrances to the rear of the building. Address identification characters shall contrast with their background. All letters or numbers shall be permanently attached to the building. Driveways with gates shall have address identification on both the gate and the building. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall not be spelled out. Each character shall be not less than 4 inches (102 mm) in height with a stroke width of not less than 0.5 inch (12.7 mm). Where required by the fire code official, address identification shall be provided in additional approved locations to facilitate emergency response. Where access is by means of a private road and the building address cannot be viewed from the public way, a monument, pole or other sign or means shall be used to identify the structure. Address identification shall be maintained.

Section R322 Flood-resistant Construction of the 2021 International Residential Code is amended as follows:

R322.1 General. Buildings and structures when permitted to be constructed in whole or in part in flood hazard areas, including A or V Zones and Coastal A Zones, as established in Table R301.2, and substantial improvement and repair of substantial damage of building and structures in flood hazard areas, shall be designed and constructed in accordance with the provisions contained in this

section and by local provisions as applicable. Building and structures that are located in more than one flood hazard area shall comply with the provisions associated with the most restrictive flood hazard area. Buildings and structures located in whole or in part in identified floodways shall be designed and constructed in accordance with ASCE 24.

Chapter 4. Foundations of the 2021 International Residential Code is amended as follows:

Section 401 General of the 2021 International Residential Code is amended as follows:

R401.3 Drainage. Surface drainage shall be diverted to a storm sewer conveyance or other approved point of collection that does not create a hazard. Lots shall be graded to drain surface water away from foundation walls. The grade shall fall not fewer than 6 inches (152 mm) within the first 10 feet (3048 mm). The slope at any spot on any residential lot shall not exceed 1 vertical unit in 3 horizontal units (i.e. 33%).

Exception: Where *lot lines*, walls, slopes or other physical barriers prohibit 6 inches (152 mm) of fall within 10 feet (3048 mm), drains or swales shall be constructed to ensure drainage away from the structure. Drains and swales shall be constructed to eliminate standing surface water within 24 hours of precipitation. Impervious surfaces within 10 feet (3048 mm) of the building foundation shall be sloped a minimum of 2 percent away from the building.

Section R403 Footings of the 2021 International Residential Code is amended as follows:

R403.1.8 Foundations on expansive soils. Foundation and floor slabs for buildings located on expansive soils shall be designed in accordance with Section 1808.6 of the International Building Code, The American Society of Civil Engineers Texas Section Recommended Practice for the Design of Residential Foundations Version 2 as it currently exists or may be amended, or other accepted industry standards that may be acceptable to the building official. All foundations shall be designed by a registered Professional Engineer in the State of Texas and all drawings and documentation must be signed and sealed. Design Engineers must be registered with Frisco and provide proof of Professional Liability Insurance with a minimum coverage of one million dollars. Documentation shall include:

1. Design letter referencing soils report number, date of report, and soils engineer name; specific location including lot, block, and subdivision; specific design criteria including soil bearing capacity, plasticity index, and potential vertical rise. The engineer shall also approve a concrete mix design with performance criteria based on soils and seasonal conditions.

2. Signed and sealed drawings clearly indicating strand and reinforcement placement, pier size, depth, location, and reinforcing beam size and location, and special details. Design calculations must be included. One ledger size copy of plans and calculations will be included in the permanent permit file for each project.
3. Design engineer must perform a pre-pour inspection and provide the building official with signed and sealed document stating that the foundation has been inspected and approved. This inspection must take place prior to requesting a foundation inspection from the building official. The engineer shall verify concrete mix design and seasonal conditions during placement and verify tensioning and elongation of cables.
4. Rough grading of lot after form removal to maintain drainage away from foundation during the construction process.
5. Prior to receiving a Certificate of Occupancy, a final survey indicating final grade elevations and verifying positive drainage away from the foundation.
6. The engineer must provide to the building official a letter of final acceptance stating that the foundation has been placed in compliance with the design prior to the issuance of a Certificate of Occupancy.

Section R404 Foundation and Retaining Walls of the 2021 International Residential Code is amended as follows:

R404.4 Retaining walls. Retaining walls that are not laterally supported at the top and that retain in excess of 4836 inches (915 mm) of unbalanced fill, or retaining walls exceeding 24 inches (610 mm) in height that resist lateral loads in addition to soil, shall be designed in accordance with accepted engineering practice to ensure stability against overturning, sliding, excessive foundation pressure and water uplift. Retaining walls shall be designed for a safety factor of 1.5 against lateral sliding and overturning. This section shall not apply to foundation walls supporting buildings.

Chapter 7. Wall Covering of the 2021 International Residential Code is amended as follows:

Section R703 Exterior Covering of the 2021 International Residential Code is amended as follows:

R703.6 Wood shakes and shingles. ~~Wood shakes and shingles shall conform to CSSB.~~ Wood shakes and shingles are prohibited as exterior wall covering.

Chapter 9. Roof Assemblies of the 2021 International Residential Code is amended as follows:

Section R902 Fire Classification of the 2021 International Residential Code is amended as follows:

R902.2.1 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 (37.5 m²) of projected roof area. When exceeding 120 square feet (37.5 m²) of projected roof area, buildings of U occupancies may use non-rated non-combustible coverings.

R905.8 Wood shakes. The installation of wood shakes shall comply with the provisions of this section. Wood shakes are prohibited for roof coverings.

Section R908 Reroofing of the 2021 International Residential Code is amended as follows:

R908.1 General. Materials and methods of application used for recovering or replacing an existing roof covering shall comply with the requirements of Chapter 9. All individual replacement shingles or shakes shall comply with Section R902.2.

Chapter 11. [RE] Energy Efficiency of the 2021 International Residential Code is deleted in its entirety and replaced with the following:

Section N1101 General of the 2021 International Residential Code is added as follows:

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

N1101.1.1 Compliance. Compliance shall be demonstrated by meeting the requirements of the residential provisions of 2021 International Energy Conservation Code as adopted.

Chapter 13. General Mechanical System Requirements of the 2021 International Residential Code is amended as follows:

Section M1305 Appliance Access of the 2021 International Residential Code is amended as follows:

M1305.1.2 Appliances in attics. Attics containing appliances shall be provided with an opening and a clear and unobstructed passageway large enough to allow removal of the largest appliance, but not be less than 30 inches (762 mm) high and 22 inches (559 mm) wide and not more than 20

feet (6096 mm) long measured along the centerline of the passageway from the opening to the appliance. The passageway shall have continuous unobstructed solid flooring in accordance with Chapter 5 not less than 24 inches (610 mm) wide. A level service space not less than 30 inches (762 mm) deep and 30 inches (762 mm) wide shall be present along all sides of the appliance where access is required. The clear access opening dimensions shall be not less than of 20 inches by 30 inches (508 mm by 762 mm), and large enough to allow removal of the largest appliance. At a minimum, access to the attic space shall be provided by one of the following:

1. Permanent stairs or ladder fastened to the building.
2. A pull down stair with a 300 lb. (136 kg) rating.
3. An access door from an upper floor.

Exceptions: *[Exceptions remain unchanged.]*

Chapter 14. Heating and Cooling Equipment and Appliances of the 2021 International Residential Code is amended as follows:

Section M1411 Heating and Cooling Equipment of the 2021 International Residential Code is amended as follows:

M1411.3.1 Auxiliary and secondary drain systems. In addition to the requirements of Section M1411.3, a secondary drain or auxiliary drain pan shall be required for each cooling or evaporator coil where damage to any building components will occur as a result of overflow from the equipment drain pan or stoppage in the condensate drain piping. Such piping shall maintain a minimum horizontal slope in the direction of discharge of not less than 1/8 unit vertical in 12 units horizontal (1-percent slope). Methods 3 and 4 below may not be used for cooling or evaporator coils located in attics. Drain piping shall be not less than 3/4-inch (19 mm) nominal pipe size. One of the following methods shall be used: *[Remainder unchanged]*

Chapter 15. Exhaust Systems of the 2021 International Residential Code is amended as follows:

Section M1502 Clothes Dryer Exhaust of the 2021 International Residential Code is amended as follows:

M1502.4.4 Dryer exhaust duct power ventilators, is deleted in its entirety]

~~M1502.4.6.3 Dryer exhaust duct power ventilator,~~ is deleted in its entirety]

M1502.4.7 Length identification. Where the exhaust duct equivalent length exceeds 35 feet (10 668 mm) the equivalent length of the exhaust duct shall be identified on a permanent label or tag. The label or tag shall be located ~~within 6 feet (1829 mm) of~~ at the exhaust duct connection.

Section M1503 Domestic Cooking Exhaust Equipment of the 2021 International Residential Code is amended as follows:

M1503.6 Makeup air required. Where one or more gas, liquid or solid fuel-burning appliance that is neither direct-vent nor uses a mechanical draft venting system is located within a dwelling unit's air barrier, each exhaust system capable of exhausting in excess of 400 cubic feet per minute (0.19 m³/s) shall be mechanically or passively provided with makeup air at a rate approximately equal to the difference between exhaust air rate and 400 cubic feet per minute. Such makeup air systems shall be equipped with not fewer than one damper complying with Section M1503.6.2.

Exception: Makeup air is not required for exhaust systems installed for the exclusive purpose of space cooling and intended to be operated only when windows or other air inlets are open. Where all appliances within the building envelope are of sealed combustion, direct power-vented, 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 M1504 Exhaust Ducts and Exhaust Openings of the 2021 International Residential Code is amended as follows:

M1504.1 Duct construction. Where exhaust duct construction is not specified in this chapter, construction shall comply with Chapter 16. All exhaust ducts shall be metallic.

Chapter 24 Fuel Gas of the 2021 International Code is amended as follows:

Section G2411 Electrical Bonding of the 2021 International Residential Code is amended as follows:

G2411.1 (310.1) Pipe and tubing other than CSST. Each above-ground portion of a gas piping system other than corrugated stainless steel tubing (CSST) that is likely to become energized shall be electrically continuous and bonded to an effective ground-fault current path. ~~Gas piping, other than CSST, shall be considered to be bonded where it is connected to appliances that is connected to the~~

~~equipment grounding conductor of the circuit that supplies that appliance. Steel gas piping systems shall be bonded at the point of service entry into the dwelling.~~

Section G2412 General of the 2021 International Residential Code is amended as follows:

G2412.5 (401.5) Identification. *[Paragraph remains unchanged.]*

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

“Warning: ½ to 5psi gas pressure. Do Not Remove!”

Section G2415 Piping System Installation of the 2021 International Residential Code is amended as follows:

G2415.12 (404.12) Minimum burial depth. Underground piping systems shall be installed a minimum depth of ~~12-18 inches (305-458 mm)~~ to the top of pipe below grade, ~~except as provided for in Section G2415.12.1.~~

~~**G2415.12.1 (404.12.1) Individual outside appliances.** *[Entire section deleted.]*~~

G2415.17.2 (404.17.2) Connections. Connections made outdoors and underground between metallic and plastic piping shall be made only with transition fittings conforming to ASTM D2513 Category I or ASTM F 1973. Compression-type mechanical joints are not permitted below ground.

Section G2417 Inspection, Testing and Purging of the 2021 International Residential Code is amended 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. ~~Mechanical gauges used to measure test pressures shall have a range such that the highest end of the scale is not greater than five times the test pressure.~~

G2417.4.1 (406.4.1) Test pressure. The test pressure to be used shall be ~~not less than 1 ½ times the proposed maximum working pressure, but not less than 3 psig (20 kPa gauge), irrespective of design pressure. Where the test pressure exceeds 125 psig (862 kPa gauge), the test pressure shall not exceed a value that produces a hoop stress in the piping greater than 50 percent of the specified minimum yield strength of the pipe, 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 (3 ½”), a set hand, a minimum of 1/10-pound incrementation and a pressure range not to exceed 15psi. 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 50 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 G2427 Venting of Appliances of the 2021 International Residential Code is amended as follows:

G2427.6.10 Support of gas vents. Gas vents shall be supported and spaced in accordance with the manufacturer’s installation instructions. Supports shall be installed at every offset and at the vent pipe where it extends through the roof flashing, roof jack, or roof thimble. Adjustable fittings shall not be used as lateral support for roof penetration.

Section G2439 Clothes Dryer Exhaust of the 2021 International Residential Code is amended as follows:

~~**G2439.4 Dryer exhaust duct power ventilators,** is deleted in its entirety]~~

~~**G2439.7.4.3 Dryer exhaust duct power ventilator length,** is deleted in its entirety]~~

G2439.7.5 Length identification. Where the exhaust duct equivalent length exceeds 35 feet (10 668 mm) the equivalent length of the exhaust duct shall be identified on a permanent label or tag. The label or tag shall be located ~~within 6 feet (1829 mm) of~~ at the exhaust duct connection.

Section G2445 Unvented Room Heaters of the 2021 International Residential Code is amended 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. Unvented room heaters shall not be used interior to dwelling units regulated by this code.~~

Chapter 26. General Plumbing Requirements of the 2021 International Residential Code is amended as follows:

Section P2603 Structural and Piping Protection of the 2021 International Residential Code is amended as follows:

P2603.5.1 Sewer depth. ~~Building sewers that connect to private sewage disposal systems shall be not less than 12 inches (304mm) below finished grade at the point of septic tank connection. Building sewers shall be not less than 12 inches (304 mm) below grade.~~

P2604.4.1 Protection of components of plumbing system. Components of a plumbing system installed within three (3) feet along alleyways, driveways, parking garages or other locations in a manner in which they could be exposed to damage shall be recessed into the wall or otherwise protected in an approved manner.

Section 2713.3 Bathtubs of the 2021 International Residential Code is amended as follows:

P2713.3 Bathtub and whirlpool bathtub valves. *[Paragraph remains unchanged]* Temperature limiting devices shall be located where accessible and without removal of a tub skirt that is permanently affixed.

Chapter 28. Water Heaters of the 2021 International Residential Code is amended as follows:

Section P2801 General of the 2021 International Residential Code is amended as follows:

P2801.9 Water heaters installed in attics or with living space below. Water heaters other than tankless, when located in attic space or a space located above living space, shall be equipped with a WAGS, FLOODSTOP™ or other approved device to automatically shut off the water supply if a water leak is detected.

Exception: Replacement of water heaters that were permitted on or before 12/31/2013, shall not be required to be equipped with an automatic shut off device.

Section P2804 Relief Valves of the 2021 International Residential Code is amended as follows:

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

2. Discharge through an air gap. ~~located in the same room as the water heater.~~
5. Discharge to the floor, ~~to the pan serving the water heater or storage tank,~~ to a an indirect waste receptor or to the outdoors.

Chapter 29. Water Supply and Distribution of the 2021 International Residential Code is amended as follows:

Section P2902 Protection of Potable Water Supply of the 2021 International Residential Code is amended as follows:

P2902.5.3 Lawn irrigation systems. The potable water supply to lawn irrigation systems shall be protected against backflow in accordance with the Irrigation Ordinance as adopted or as may be amended. ~~by an atmospheric vacuum breaker, a pressure vacuum breaker assembly or a reduced pressure principle backflow preventer assembly. Valves 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 prevention assembly.~~

Section P2903 Water-supply System of the 2021 International Residential Code is amended as follows:

P2903.3.2 Maximum pressure. The static water pressure shall be not greater than 80 psi (551 kPa). ~~Where the main pressure exceeds 80 psi (551 kPa), an approved pressure reducing valve conforming to ASSE 1003 or CSA B356 shall be installed on the domestic water branch main or riser at the connection to the water service pipe. An approved water pressure reducing valve conforming to ASSE 1003 or CSA B356 with strainer shall be installed on all water distribution systems to protect the system from excessive pressure in the public water mains. Pressure shall be adjusted to a minimum of 40 psi and a maximum of 80 psi. When the pressure reducing valve is installed indoors, it shall be located in the garage, and installed in an insulated wall separating the garage and living space of the dwelling. Unions shall be provided to allow for service and replacement when located indoors. When installed outdoors it shall be installed in an accessible location in a minimum 12"W x 18"L x 12"D valve box and be provided with minimum 12" of porous rock below it to aid in drainage. A permanent marker identifying the location of the PRV shall be placed on the exterior veneer of the structure.~~

P2903.8.3 Support and Protection. Manifolds shall be installed between parallel rows of studs, or in a chase that allows piping to connect freely to

manifold without creating stresses on the connections. [Remainder unchanged]

P2903.8.4 Valving. Fixture valves, ~~when installed~~ shall be located ~~either~~ at the fixture ~~or~~ and at the manifold. Valves installed at the manifold shall be labeled indicating the fixture served.

Chapter 30. Sanitary Drainage of the 2021 International Residential Code is amended as follows:

Section P3005 Drainage system of the 2021 International Residential Code is amended as follows:

P3005.4 Drain pipe sizing. Drain pipes shall be sized according to drainage fixture unit (d.f.u.) loads. The size of the drainage piping shall not be reduced in size in the direction of flow. No building sewer, including cleanouts, shall be less than 4 inches (102 mm). The following general procedure is permitted to be used: [Remainder unchanged]

Chapter 31. Vents of the 2021 International Residential Code is amended as follows:

Section P3111 Combination Waste and Vent System of the 2021 International Residential Code is deleted in its entirety.

Section P3112 Island fixture Venting of the 2021 International Residential Code is amended as follows:

P3112.3 Vent installation below the fixture flood level rim. ~~The vent located below the flood level rim of the fixture being vented shall be installed as required for drainage piping in accordance with Chapter 30, except for sizing. The vent shall be sized in accordance with Section P3113.1. 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 exterior wall location and then through the roof to the open air or may not 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 (20.9mm/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 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. The lowest point of the island fixture vent shall connect full size to the drainage system. The connection shall be to a vertical drain pipe or to the top half of a horizontal drain pipe. Cleanouts shall be provided in the island fixture vent to permit rodding of all vent piping located below the flood level rim of the fixtures. Rodding in both directions shall be permitted through a cleanout.

Section P3114 Air Admittance Valves of the 2021 International Residential Code is amended as follows:

P3114.3 Where permitted. Individual vents, branch vents, circuit vents and stack vents ~~shall~~ may be permitted to terminate with a connection to an air admittance valve. Individual and branch type air admittance valves shall vent only fixtures that are on the same floor level and connect to a horizontal branch drain. Air admittance valves shall only be installed with the prior approval of the building official.

Chapter 34. General Requirements of the 2021 International Residential Code is amended as follows:

Section E3406 Electrical conductors and Connections of the 2021 International Residential Code is amended as follows:

E3406.2 Conductor material. Conductors used to conduct current shall be of copper, ~~aluminum or copper-aluminum~~ except as ~~otherwise~~ provided in Chapters 34 through 43. Where the conductor material is not specified, the material and the sizes given in these chapters shall apply to copper conductors. Where other materials are used, the conductor sizes shall be changed accordingly.

E3406.3 Minimum size of conductors. The minimum size of conductors for feeders and branch circuits shall be 12 ~~14~~ AWG copper ~~and 12 AWG aluminum or copper-aluminum~~. The minimum size of service conductors shall be as specified in Chapter 36. The minimum size of class 2 remote control, signaling and power-limited circuits conductors shall be as specified in Chapter 43.

Section E3609 Bonding of the 2021 International Residential Code is amended as follows:

E3609.7 Bonding other metal piping. Where installed in or attached to a building or structure, metal piping systems, including gas piping, capable of becoming energized shall be bonded to the service equipment enclosure, the grounded conductor at the service, the grounding electrode conductor where of sufficient size, or to the one or more grounding electrodes used. The bonding conductor(s) or jumper(s) shall be sized in accordance with Table E3908.13 and equipment grounding conductors shall be sized in accordance with Table E3908.13 using the rating of the circuit capable of energizing the piping. The equipment grounding

conductor for the circuit that is capable of energizing the piping shall be permitted to serve as the bonding means. The points of attachment of the bonding jumper(s) shall be accessible. If a steel manifold is used, a bonding clamp shall be attached to the steel manifold. Steel gas piping systems shall be bonded at the point of service entry into the dwelling. The corrugated stainless steel tube portion of a CSST gas piping system shall not be used as the bonding attachment point.

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