

Suite #'s (per assigned suite #)	\$20.00
Permit Reprint Fee (subject to sales tax)	\$5.00
Name, Address or DBA Change on Permit	\$50.00
Notary Public	\$6.00
Open Permit Review Fee	\$3.00/Permit
Rental of Facility Fees: \$125/hr (daily min. fee of \$250; Max fee of \$1000); Security Personnel: \$15/hour/staff (with 1 hour minimum); DSD Staff: \$30/hour/staff (with 1 hour min.); Custodian Service: \$15/hour (with 2 hour min.)	
Commercial	
Occupant load adjustment fee per hour	100.00

Sec. 10-~~323~~—10-35. - Reserved.

ARTICLE IV. - RESIDENTIAL CODE FOR ONE- AND TWO-FAMILY DWELLINGS

Sec. 10-36. - Adoption of *International Residential Code* (~~2018~~2021).

The ~~2018~~2021 edition of the *International Residential Code for One-and-Two-family Dwellings*, promulgated by the International Code Council, Chapters 2 through 10, 12 through 23, Section P2904, Chapter 44 and Appendices J, K and Q is adopted and incorporated in this article by reference as if fully set forth, except as it is amended by the following provisions of section 10-37. Provisions of this article are in addition to the provisions of the *International Residential Code*. The following provisions coinciding with the provisions of the *International Residential Code* supersede, repeal, or delete, when indicated, the corresponding provisions of the *International Residential Code*.

All references within the model codes to any building, electrical, fuel gas, mechanical, plumbing, energy conservation, ~~or existing building,~~ or swimming pool code shall be construed to be a reference to the respective building, electrical, fuel gas, mechanical, plumbing, energy conservation, ~~or existing building,~~ or swimming pool code specifically adopted by reference in articles II through ~~XIII~~IV of this chapter.

Sec. 10-37. - Amendments to the adopted chapters and Appendices J and K of the *International Residential Code* (IRC) (~~2018~~2021).

Additions to the *International Residential Code* (IRC) are shown as underlined text. Deletions of the IRC are shown as bracketed [~~striethroughs~~].

Chapter 2, DEFINITIONS, is amended for AMBULATORY CARE FACILITY and SPECIAL INSPECTOR to read as follows:

~~[RB] ATTIC, HABITABLE. A finished or unfinished habitable space within an attic.~~

TABLE R301.2~~(1)~~ is amended to read as follows:

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

GROUND SNOW LOAD ^o	WIND DESIGN		SEISMIC DESIGN CATEGORY ^f	SUBJECT TO DAMAGE FROM		
	Speed ^d (mph)	Topographic effects ^k		Weathering ^a	Frostline depth ^b	Termite ^c
<u>5</u>	<u>115-108</u>	<u>NO</u>	<u>A</u>	<u>Negligible</u>	<u>0</u>	<u>Moderate To Heavy</u>

WINTER DESIGN TEMP ^e	ICE BARRIER UNDERLAYMENT REQUIRED ^h	FLOOD HAZARDS ^g	AIR FREEZING INDEX ⁱ	MEAN ANNUAL TEMP ^j
<u>30°</u>	<u>NO</u>	<u>Appendix F, UDC</u>	<u>16</u>	<u>68.7°</u>

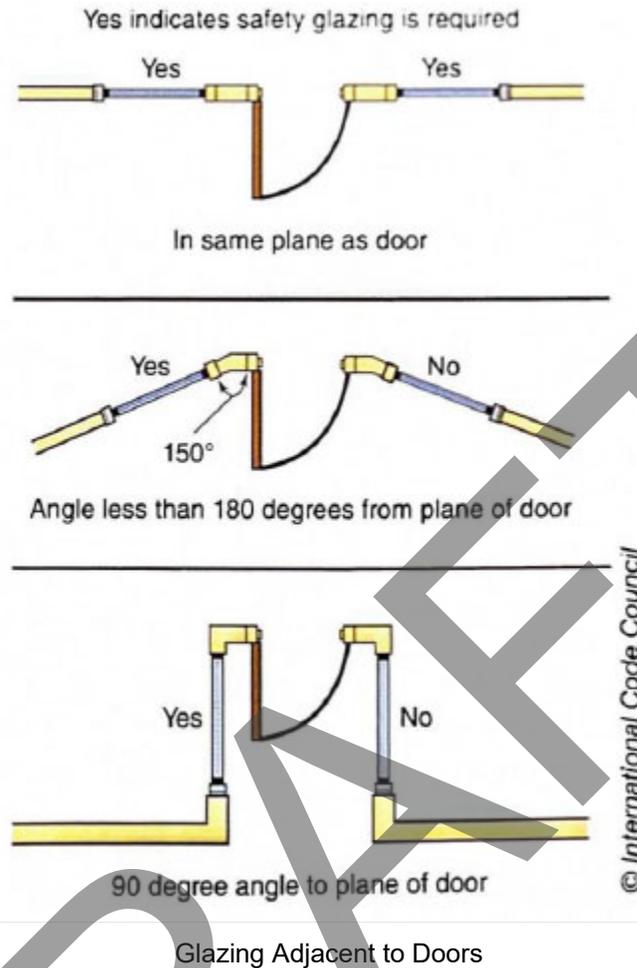
Section R308.4.2, Glazing adjacent to doors, is amended to read as follows:

R308.4.2 Glazing adjacent to doors. Glazing in an individual fixed or operable panel adjacent to a door shall be considered to be a hazardous location where the bottom exposed edge of the glazing is less than 60 inches (1524 mm) above the floor or walking surface and it meets either of the following conditions:

1. Where the glazing is within 24 inches (610 mm) of either side of the door in the plane of the door in a closed position.
2. Where the glazing is on a wall less than 180 degrees (3.14 rad) from the plane of the door in a closed position within 24 inches (610 mm) of the hinge side of an in-swinging door.

Exceptions:

1. Decorative glazing.
2. Where there is an intervening wall or other permanent barrier between the door and the glazing.
3. Where access through the door is to a closet or storage area. ~~[3 feet (914 mm) or less in depth. Glazing in this application shall comply with section R308.4.3.]~~
4. Glazing that is adjacent to the fixed panel of patio doors.



Section R310.1, Emergency escape and rescue opening required, is amended to read as follows with exceptions to remain as written:

R310.1 Emergency escape and rescue opening required. Basements, habitable attics and every sleeping room shall have not less than one operable emergency escape and rescue opening. Where basements contain one or more sleeping rooms, an emergency escape and rescue opening shall be required in each sleeping room. ~~[Emergency escape and rescue openings shall open directly into a public way, or to a yard or court having a minimum width of 36 inches (914 mm) that opens to a public way.]~~

Section R311.7, Stairways, is amended as follows:

R311.7 Stairways. Where required by this code or provided, stairways shall comply with this section.

Exceptions:

1. Stairways not within or not serving a building, porch or deck.
2. Stairways leading to nonhabitable attics.
3. Stairways leading to crawl spaces.

Section R311.8, Ramps, is amended as follows:

R311.8 Ramps. Where required by this code or provided, ramps shall comply with this section.

Exception: Ramps not within or not serving a building, porch, or deck.

Section R313.2, One- and two-family dwellings automatic fire sprinkler systems, and Section R313.2.1, Design and installation, are deleted and replaced with the following:

R313.2 One- and two-family dwellings automatic fire sprinkler systems. Where automatic residential fire sprinkler systems are installed, they shall be designed and installed in accordance with Section P2904 or NFPA 13D.

~~[R313.2 One and two family dwellings automatic fire systems. An automatic residential fire sprinkler system shall be installed in one and two family dwellings.~~

~~Exception: An automatic residential fire sprinkler system shall not be required for additions or alterations to existing buildings that are not already provided with an automatic residential sprinkler system.~~

~~R313.2.1 Design and installation. Automatic residential fire sprinkler systems shall be designed and installed in accordance with Section P2904 or NFPA 13D.]~~

Section R315.2.2, Alterations, repairs and additions, is amended to read as follows:

R315.2.2 Alterations, repairs and additions. Where alterations, repairs or additions requiring a building permit occur~~[,]~~ inside of existing dwellings that have attached garages or inside of existing dwellings within which fuel-fired appliances exist, or where one or more sleeping rooms are added or created in existing dwellings, the individual *dwelling unit* shall be equipped with carbon monoxide alarms located as required for new *dwellings*.

Exceptions:

1. Work involving the exterior surfaces of *dwellings*, such as the replacement of roofing or siding, or the addition or replacement of windows or doors, or the addition of a porch or deck.
2. Installation, alteration or repairs of plumbing or mechanical systems.
3. Installation, alteration or repairs of mechanical systems that are not fuel fired.

Section R317.1.2, Ground contact is amended to read as follows:

R317.1.2 Ground contact. All wood in contact with the ground, embedded in concrete in direct contact with the ground or embedded in concrete exposed to the weather that supports permanent structures intended for human occupancy shall be *approved* pressure-preservative-treated wood suitable for ground contact use, except that untreated wood used entirely below groundwater level or continuously submerged in fresh water shall not be required to be pressure-preservative treated. Creosote-treated railroad ties will not be approved for use in retaining wall construction unless the wall is exempt from the requirement for a permit under Section 10-6(e)(14)(d) of this chapter and the wall is located greater than 4 feet (1.22 m) from the public right-of-way.

SECTION R322, FLOOD-RESISTANT CONSTRUCTION, is hereby repealed and replaced with the City's flood plain ordinance found in Appendix F, Floodplain Areas of Special Flood Hazard, of the Unified Development Code (UDC).

~~Section R326R327, SWIMMING POOLS, SPAS AND HOT TUBS, is repealed and replaced with a new SECTION R326 to read as follows:~~

SECTION R3276
SWIMMING POOLS, SPAS AND HOT TUBS

~~**R326.1 General.** The design and construction of swimming pools and spas shall comply with the following requirements:~~

~~**R326.2 Barrier requirements.** The provisions of this section shall apply to the design of barriers for restricting entry into areas having pools and spas. Where spas or hot tubs are equipped with a lockable safety cover complying with ASTM F1346 and swimming pools are equipped with a powered safety cover that complies with ASTM F1346, the areas where those spas, hot tubs or pools are located shall not be required to comply with Sections R326.3 through R326.5:~~

~~**R326.3 Outdoor swimming pools and spas.** Outdoor pools and spas and indoor swimming pools shall be surrounded by a barrier that complies with Sections R326.3.1 through R326.5:~~

~~**R326.3.1 Barrier height and clearances.** Barrier heights and clearances shall be in accordance with all of the following:~~

- ~~1. The top of the barrier shall be not less than 48 inches (1219 mm) above grade where measured on the side of the barrier that faces away from the pool or spa. Such height shall exist around the entire perimeter of the barrier and for a distance of 3 feet (914 mm) measured horizontally from the outside of the required barrier.~~
- ~~2. The vertical clearance between grade and the bottom of the barrier shall not exceed 2 inches (51 mm) for grade surfaces that are not solid, such as grass or gravel, where measured on the side of the barrier that faces away from the pool or spa.~~
- ~~3. The vertical clearance between a surface below the barrier to a solid surface, such as concrete, and the bottom of the required barrier shall not exceed 4 inches (102 mm) where measured on the side of the required barrier that faces away from the pool or spa.~~
- ~~4. Where the top of the pool or spa structure is above grade, the barrier shall be installed on grade or shall be mounted on top of the pool or spa structure. Where the barrier is mounted on the top of the pool or spa, the vertical clearance between the top of the pool or spa and the bottom of the barrier shall not exceed 4 inches (102 mm).~~

~~**R326.3.2 Openings.** Openings in the barrier shall not allow passage of a 4-inch diameter (102 mm) sphere.~~

~~**R326.3.3 Solid barrier surfaces.** Solid barriers that do not have openings shall not contain indentations or protrusions that form handholds and footholds, except for normal construction tolerances and tooled masonry joints.~~

~~**R326.3.4 Mesh fence as a barrier.** Mesh fences, other than chain link fences in accordance with Section R326.3.7, shall be installed in accordance with the manufacturer's instructions and shall comply with the following:~~

- ~~1. The bottom of the mesh fence shall be not more than 1 inch (25 mm) above the deck or installed surface or grade.~~
- ~~2. The maximum vertical clearance from the bottom of the mesh fence and the solid surface shall not permit the fence to be lifted more than 4 inches (102 mm) from grade or decking.~~
- ~~3. The fence shall be designed and constructed so that it does not allow passage of a 4-inch (102 mm) sphere under any mesh panel. The maximum vertical clearance from the bottom of the mesh fence and the solid surface shall be not greater than 4 inches (102 mm) from grade or decking.~~
- ~~4. An attachment device shall attach each barrier section at a height not lower than 45 inches (1143 mm) above grade. Common attachment devices include, but are not limited to, devices that~~

~~provide the security equal to or greater than that of a hook-and-eye-type latch incorporating a spring-actuated retaining lever such as a safety gate hook.~~

~~5. Where a hinged gate is used with a mesh fence, the gate shall comply with Section R326.4.~~

~~6. Patio deck sleeves such as vertical post receptacles that are placed inside the patio surface shall be of a nonconductive material.~~

~~**R326.3.5 Closely spaced horizontal members.** Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is less than 45 inches (1143 mm), the horizontal members shall be located on the pool or spa side of the fence. Spacing between vertical members shall not exceed 1 3/4 inches (44 mm) in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1 3/4 inches (44 mm) in width.~~

~~**R326.3.6 Widely spaced horizontal members.** Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is 45 inches (1143 mm) or more, spacing between vertical members shall not exceed 4 inches (102 mm). Where there are decorative cutouts within vertical members, the interior width of the cutouts shall not exceed 1 3/4 inches (44 mm).~~

~~**R326.3.7 Chain link dimensions.** The maximum opening formed by a chain link fence shall be not more than 1 3/4 inches (44 mm). Where the fence is provided with slats fastened at the top and bottom that reduce the openings, such openings shall be not greater than 1 3/4 inches (44 mm).~~

~~**R326.3.8 Diagonal members.** Where the barrier is composed of diagonal members, the maximum opening formed by the diagonal members shall be not greater than 13 / 4 inches (44 mm). The angle of diagonal members shall be not greater than 45 degrees (0.79 rad) from vertical.~~

~~**R326.4 Gates.** Access gates shall comply with the requirements of Sections R326.4.1 through R326.4.3 and shall be equipped to accommodate a locking device. Pedestrian access gates shall open outward away from the pool or Spa, shall be self-closing and shall have a self-latching device.~~

~~**R326.4.1 Utility or service gates.** Gates not intended for pedestrian use, such as utility or service gates, shall remain locked when not in use.~~

~~**R326.4.2 Double or multiple gates.** Double gates or multiple gates shall have not fewer than one leaf secured in place and the adjacent leaf shall be secured with a self-latching device. The gate and barrier shall not have openings larger than 1 / 2 inch (12.7 mm) within 18 inches (457 mm) of the latch release mechanism. The self-latching device shall comply with the requirements of Section R326.4.3.~~

~~**R326.4.3 Latches.** Where the release mechanism of the self-latching device is located less than 54 inches (1372 mm) from grade, the release mechanism shall be located on the pool or spa side of the gate not less than 3 inches (76 mm) below the top of the gate, and the gate and barrier shall not have openings greater than 1 / 2 inch (12.7 mm) within 18 inches (457 mm) of the release mechanism.~~

~~**R326.5 Structure wall as a barrier.** Where a wall of a dwelling or structure serves as part of the barrier and where doors provide direct access to the pool or spa through that wall, one of the following shall be required:~~

~~1. Operable doors shall have an alarm that produces an audible warning when the door or their screens are opened. The alarm shall be listed and labeled as a water hazard entrance alarm in~~

~~accordance with UL 2017. In dwellings or structures not required to be Accessible units, Type A units or Type B units, the operable parts of the alarm deactivation switches shall be located 54 inches (1372 mm) or more above the finished floor. In dwellings or structures required to be Accessible units, Type A units or Type 8 units, the operable parts of the alarm deactivation switches shall be located not greater than 54 inches (1372 mm) and not less than 48 inches (1219 mm) above the finished floor.~~

~~2. A safety cover that is listed and labeled in accordance with ASTM F1346 is installed for the pools and spas.~~

~~3. An approved means of protection, such as self-closing doors with self-latching devices, is provided. Such means of protection shall provide a degree of protection that is not less than the protection afforded by Item 1 or 2.~~

Section R403.1.6, *Foundation anchorage*, is amended in the first paragraph only to read as follows:

R403.1.6 Foundation anchorage. Wood sill plates and wood walls that are part of the braced wall provisions of this code and supported directly on continuous foundations shall be anchored to the foundation in accordance with this section.

Section R408, *UNDER-FLOOR SPACE*, is amended by adding Section R408.~~89~~⁹⁸, *Foundation Repair*, to read as follows:

R408.~~89~~⁹⁸ Foundation Repair. A foundation repair permit and assumption of Engineer of Record letter and any construction documents must be submitted at time of application. The engineer shall inspect foundation repairs and submit a letter for the repairs. Any skirting removed, repaired or replaced along with ventilation, sub-floor access and drainage will require a final inspection by the building official or an engineer's letter for those repairs.

Section R903.4, *Roof drainage*, is amended by adding Sections R903.4.2, *Zero lot line development*, and R903.4.3, *Gutters and downspouts*, to read as follows:

R903.4.2 Zero lot line development. On zero lot line development where roof projections are allowed by deed covenant or ingress/egress easements, adequate gutters and downspouts shall be provided to direct roof water away from adjacent property. Roof projections shall not extend beyond a point one third the width of the easement or a maximum of 24 inches (610 mm).

R903.4.3 Gutters and downspouts. Any Group R or Group U occupancy with roof edges less than three feet (914 mm) to any property line shall be provided with gutters and downspouts to direct roof water away from adjacent property.

Section M1305.1.2, *Appliances in attics*, is amended by adding Section M1305.1.2.2, *Access for cooling or heating appliance*, to read as follows:

M1305.1.2.2 Access for cooling or heating appliance. For ~~new~~ one and two family residential occupancies and townhomes with newly installed cooling or heating appliances, in the attic space, ~~in which any cooling or heating appliance is installed shall be provided with~~ a permanent ladder, fold-away ladder or a direct access door opening from the house on the same floor level ~~shall be installed~~.

Section M1411.3.2, *Drain pipe materials and sizes*, is amended as follows:

M1411.3.2 Drain pipe materials and sizes. Components of the condensate disposal system shall be ABS, cast iron, copper, cross-linked polyethylene, CPVC, galvanized steel, PE-RT, polyethylene, polypropylene or PVC pipe or tubing. Components shall be selected for the pressure and temperature rating of the installation. Joints and connections shall be made in accordance with the materials specified in Article IX of this chapter [applicable provisions of Chapter 30]. Condensate waste and drain line size shall be not less than ¾-inch (19 mm) nominal diameter from the drain pan connection

to the place of condensate disposal. Where the drain pipes from more than one unit are manifolded together for condensate drainage, the pipe or tubing shall be sized in accordance with an *approved* method. Primary drain lines located in unconditioned spaces, except for crawl spaces, shall be insulated with foam plastic rubber based insulation or other approved material with a minimum thickness of 3/8 inch.

Section M1411.8, *Locking access port caps*, is amended to ~~add an exception~~read as follows:

M1411.98 Locking Access port caps. Refrigerant circuit access ports located outdoors shall be fitted with locking-type tamper-resistant caps or shall be otherwise secured to prevent unauthorized access.

~~**Exception:** A locking-type tamper-resistant cap is not required when refrigerant circuits are located in a yard fully enclosed with a permanent barrier, fence, or combination thereof no less than 6 feet in height and obstructs unauthorized access.~~

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Section M2005.2, *Prohibited locations*, is amended as follows:

M2005.2 Prohibited locations. Fuel-fired water heaters shall not be installed in a room used as a storage closet. Water heaters located in a bedroom or bathroom shall be installed in a sealed enclosure so that *combustion air* will not be taken from the living space. Installation of direct-vent water heaters within an enclosure is not required. Storage type water heaters shall not be installed in an attic unless accessible from a door opening from the house on the same floor level. Water heaters installed in a garage having an ignition source shall be elevated such that the source of ignition is not less than 18 inches (457 mm) above the garage floor, unless the ignition source is listed as flammable vapor ignition resistant. An electric water heater is the only type of water heater that may be installed under a stairway or landing.

Section G2404 (301), *GENERAL*, is amended by adding Section G2404.12, *Separation from electrical lines in a ditch*, to read as follows:

G2404.12 Separation from electrical lines in a ditch. When outside the footprint of the building, no plumbing, gas, sewer, or water piping shall be installed in the same ditch with electric lines unless a separation of 36 inches (914 mm) horizontally is maintained.

Section G2412.5 (401.5), *Identification*, is amended to include a second paragraph to read as follows:

G2412.5 (401.5) Identification. For other than steel pipe, exposed piping shall be identified by a yellow label marked "Gas" in black letters. The marking shall be spaced at intervals not exceeding 5 feet (1524 mm). The marking shall not be required on pipe located in the same room as the appliance served.

All medium pressure gas piping systems shall identify its operating gas pressure with an approved metallic tag and the following wording shall be stamped into the tag at the meter:

WARNING
1-5 psi gas pressure
Do Not Remove

Section G2414.9 (403.9), Metallic piping joints and fittings, is amended by adding section G2414.9.6, Welded pipe, as follows:

G2414.9.6. Welded pipe. All welded joints in piping system shall be welded by a certified pipe welder as defined in Article II of this chapter.

Section G2415.2 (404.2), CSST, is amended by adding sections G2415.2.1, Meter loop, and G2415.2.2, Exterior walls; as follows:

G2415.2.1 Meter loop. CSST is prohibited in the meter loop.

G2415.2.2 Exterior walls. CSST is prohibited in exterior walls.

Section G2415.6 (404.6), Underground penetrations prohibited, is amended by adding the following exception:

G2415.6 (404.6) Underground penetrations prohibited. Gas piping shall not penetrate building foundation walls at any point below grade. Gas piping shall enter and exit the building at a point above grade and the annular space between the pipe and the wall shall be sealed.

Exception: Gas piping may penetrate a slab-on-grade foundation, above or below grade, where the installation complies with Section G2415.14 (404.14).

Section G2417.4.1 (406.4.1), Test pressure, is deleted and replaced with the following text:

G2417.4.1 (406.4.1) Test pressure. The rough-in piping inspection shall include testing by closing all openings and subjecting the pipes to an air pressure that will support a column of mercury 15 inches (381 mm) in height or a 10 psi air test. For gas systems with pressures in excess of 14 inches of water column, the test pressure shall not be less than 1.5 times the operating pressure for the system and shall hold this pressure for a minimum of 30 minutes.

The final inspection shall include a column of mercury six inches (152 mm) in height or of a five psi air test with appliance shut-off valves attached thereto. For gas systems with pressures in excess of 14 inches of water column, the test pressure shall not be less than 1.5 times the operating pressure for the system and shall hold this pressure for a minimum of 30 minutes. [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.]

Section G2417.4.2 (406.4.2), Test duration, is amended as follows:

G2417.4.2 (406.4.2) Test duration. Test duration shall be held for a length of time satisfactory to the code official, but in no case for less than 15 minutes. For welded piping, and for piping carrying gas at a pressure in excess of 14 inches of water column pressure (3.48 kPa), the test duration shall be held for a length of time satisfactory to the code official, but in no case for less than 30 minutes. [not less than ½ hour for each 500 cubic feet (14 m³) of pipe volume or fraction thereof. When testing a system having a volume less than 10 cubic feet (0.28 m³) or a system in a single family dwelling, the test duration shall be not less than 10 minutes.] The duration of the test shall not be required to exceed 24 hours.

Section G2417.4.3, Test gauges, is added as follows:

G2417.4.3 Test gauges. Tests gauges shall be a grade 1A or better as per ANSI/ASME B40.100-2005.

Section G2420.5 (409.5), Appliance shutoff valve, is amended as follows and by adding the following exception:

G2420.5 (409.5) Appliance shutoff valve. Each appliance shall be provided with a shutoff valve in accordance with Section 409.5.1~~[,]~~ or 409.5.2. ~~[or 409.5.3.]~~

Exception: An outdoor appliance shall have a shutoff valve at the piping connection to the gas piping system.

Section P2501, GENERAL, is amended by adding Section P2501.3, Accessible openings, Section P2501.4, Separation from electrical lines in a ditch, and Section P2501.5, Support, as follows:

P2501.3 Accessible openings. When accessible openings are required by this Code, they shall be a minimum of 12 inches x 12 inches (305 mm x 305 mm) in dimension unless otherwise approved by the code official.

P2501.4 Separation from electrical lines in a ditch. When outside the footprint of the building, no plumbing, gas, sewer, or water piping shall be installed in the same ditch with electric lines unless a separation of 36 inches (914 mm) horizontally is maintained.

P2501.5 Support. Exterior appliances or equipment supported from the ground shall rest on level concrete or other approved base extending not less than three (3) inches (76 mm) above the adjoining ground level.

Section P2503.1, Rough Plumbing, Item 1 is amended as follows. All other code text remains as is:

P2503.5.1 Rough Plumbing.

1. Water test. Each section shall be filled with water to a point not less than 3.5-foot (1067 mm) ~~[40 feet (3048 mm)]~~ above the highest fitting connection in that section, or to the highest fitting connection in that section, or to the highest fitting in the completed system. Water shall be held in the section under test for a period of 15 minutes. The system shall prove leak free by visual inspection. The first floor underground drain, waste and vent piping (Rough-In) systems shall be retested to at least slab height and inspected after all backfill is in place and foundation steel installed but prior to placement of concrete. This inspection may also be obtained by retesting the first floor underground drain, waste and vent piping (Rough-In) system at the Top Out stage to assure there are no broken drains or vent pipes below the concrete slab. The system shall be tested to the overflow level of the Tub, or the next reasonable point on the system as approved by the code official.

Section P2503.4, Building sewer testing, is repealed in its entirety.

Section P2503.7, Water supply system testing, is amended by adding Section P2503.7.1, Water supply pipe test, as follows:

P2503.7.1 Water supply pipe test. Upon exposure of the waterline for repair, replacement or inspection, a plumber, or their employee or agent, performing such work shall perform a test on pipe material and any exposed connectors or solder for the presence of lead. Testing methods shall be approved by the San Antonio Water System (SAWS), consistent with TCEQ or EPA guidelines. Photographs of testing and pipe material must be taken and shall be submitted to SAWS within ten (10) business days of receiving test results. Testing is not required on pipe material that is part of infrastructure, developments or construction that occurred after 2014.

Section P2503.9 312.1.1, Test gauges, is amended as follows:

P2503.9 Test Gauges. Gauges used for testing shall be ~~[as follows:]~~ grade 1A or better as per ANSI/ASME B40.100-2005.

1. Tests requiring a pressure of 10 pounds per square inch (psi) (69 kPa) or less shall utilize a testing gauge having increments of 0.10 psi (0.69 kPa) or less.

2. Tests requiring a pressure of greater than 10 psi (69 kPa) but less than or equal to 100 psi (689 kPa) shall utilize a testing gauge having increments of 1 psi (6.9 kPa) or less.
3. Tests requiring a pressure of greater than 100 psi (689 kPa) shall utilize a testing gauge having increments of 2 psi (14 kPa) or less.

Section P2603.5.1, Sewer depth, is amended as follows:

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

Section P2801.4, Location, is amended as follows:

P2801.4 Location. Water heaters and storage tanks shall be installed in accordance with Section M1305 and shall be located and connected to provide access for observation, maintenance, servicing and replacement. Storage type water heaters shall not be installed in an attic unless accessible from a door opening on the same floor level.

Section P2801.5, Prohibited locations, is amended as follows:

P2801.5 Prohibited locations. Water heaters shall be located in accordance with Chapter 20. An electric water heater is the only type of water heater that may be installed under a stairway or landing.

Section P2804.6.1, Requirements for discharge piping, is amended as follows:

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

1. Not be directly connected to the drainage system.
2. Discharge through an air gap located in the same room as the water heater.
3. Not be smaller than the diameter of the outlet of the valve served and shall discharge full size to the air gap.
4. Serve a single relief device and shall not connect to piping serving any other relief device or equipment.
5. Discharge to [the floor, to the pan serving the water heater or storage tank, to] a waste receptor or to the outdoors. Discharge to the floor of a garage or basement will only be allowed if approved by the *code official*. Terminate to the exterior a minimum of six inches (152 mm) and a maximum of 12 inches (304 mm) above the finish grade.
6. Discharge in a manner that does not cause personal injury or structural damage.
7. Discharge to a termination point that is accessible [readily observable by the building occupants].
8. Not be trapped.
9. To be installed so as to flow by gravity.
10. Terminate not more than 6 inches (152 mm) and not less than two times the discharge pipe diameter above the floor or waste receptor flood level rim.
11. Not have a threaded connection at the end of such piping.
12. Not have valves or tee fittings.
13. Be constructed of those materials listed in Section 605.4 or materials listed, rated and *approved* for such use in accordance with ASME A112.4.1.
14. Be one nominal size larger than the size of the relief valve outlet, where the relief valve discharge piping is installed with insert fittings. The outlet end of such tubing shall be fastened in place.

15. Union or flex connector on temperature pressure relief valve shall be placed within six inches (1522 mm) of the valve for removal and replacement.

Section P2902.5.3, Lawn irrigation systems, is amended as follows:

P2902.5.3 Connections to lawn irrigation systems. The potable water supply to lawn irrigation systems shall be protected against backflow by ~~[an atmospheric-type vacuum breaker,]~~ a pressure vacuum breaker assembly, a double-check valve assembly or a reduced pressure principle backflow prevention assembly. ~~[Valves shall not be installed downstream from an atmospheric vacuum breaker.]~~ Where chemicals are introduced into the system or there is an on-site sewage facility (OSSF) system, the potable water supply shall be protected against backflow by a reduced pressure principle backflow prevention assembly. The irrigation system shall be designed and installed in accordance with City Ordinance #100322 and #2008-08-07-0653.

Section P2903.4, Thermal expansion control, is amended as follows:

P2903.4 Thermal expansion control. A means for controlling increased pressure caused by thermal expansion shall be installed where required in accordance with Sections P2903.4.1 and P2903.4.2. Thermal expansion control is limited to the use of expansion tanks (per water conservation requirements of 1998, Ordinance 89128).

Section P2903.5, Water hammer, is amended as follows:

P2903.5 Water hammer. The flow velocity of the water distribution system shall be controlled to reduce the possibility of water hammer. A water-hammer arrestor shall be installed where quick-closing valves are utilized. Water-hammer arrestors shall be installed in accordance with the manufacturer's specifications. Water-hammer arrestors shall conform to ASSE 1010. Water-hammer arrestors shall be installed to protect all washing machines, kitchen sinks, dishwashers, tubs and shower locations from water hammer. A separate tub and shower set back to back may be served by a single set of water-hammer arrestors, provided that the continuation of the water line from one fixture (where the arrestors are located) to the other fixture does not exceed 8 linear feet as measured along the pipe.

Table P2960.4, WATER SERVICE PIPE, is amended to reflect changes. Unaltered sections of the Table remain in full force:

**TABLE P2906.4
WATER SERVICE PIPE**

MATERIAL	STANDARD
Polyvinyl chloride (PVC) plastic pipe	ASTM D1785; ASTM D2241; ASTM D2672; CSA B137.3 AWWA C900-07

Section P2906.18.3, Plastic pipe or tubing to other piping material, is amended as follows:

P2906.18.3 Plastic pipe or tubing to other piping material. Joints between different types of plastic pipe or between plastic pipe and other piping material shall be made with an approved adapters fitting. Schedule 40 plastic socket molded (female adapter) fittings are prohibited when connecting to pipe threads.

Section P2910.9.5, Makeup water, is amended as follows:

P2910.9.5 Makeup water. Where an uninterrupted nonpotable water supply is required for the intended application, potable or reclaimed water shall be provided as a source of make-up water for the storage tank. The makeup water supply shall be protected against backflow by means of an air gap not less than 4 inches (102 mm) above the overflow or an approved backflow device in accordance with Section P2902. A full-open valve located on the makeup water supply line to the storage tank shall be provided. Inlets to the storage tank shall be controlled by fill valves or other automatic supply valves installed to prevent the tank from overflowing and to prevent the water level from dropping below a predetermined point. Where makeup water is provided, the water level shall not be permitted from dropping below the source water inlet or the intake of any attached pump. Where nonpotable systems are supplied with makeup water from a potable source, the potable makeup shall be protected by both an air gap and a RP backflow device in accordance with Section P2902.

Section P3002.2, Building sewer, is amended as follows:

P3002.2 Building sewer. Building sewer pipes three inch and four inch shall be a minimum of Schedule 40 PVC or SDR26. Sewer lines six inch and larger shall be a minimum of SDR 35 PVC. Cast-iron and Stainless steel 316L may also be used for all sizes. Polyethylene (PE) plastic pipe (SDR-PR) ASTM F 714 may be used for replacement of underground sewers by pipe-bursting methods in Section 717. [Building sewer piping shall be as indicated in Table P3002.2 Forced main sewer piping shall conform to one of the standards for ABS plastic pipe, copper or copper alloy tubing, PVC plastic pipe or pressure-rated pipe indicated in Table P3002.2]

Section P3003.12.2, Mechanical joints, is amended as follows:

P3003.12.2 Mechanical joints. Mechanical joints in drainage piping shall be made with an elastomeric seal conforming to ASTM C1173, ASTM D3212 or CSA B602. Mechanical joints shall be installed in accordance with the manufacturer's instructions. All underground or under slab mechanical joint coupling installations shall be shielded and Wide-Bodied.

Section P3005.2, Cleanouts required, is amended by adding section P3005.2.12, Individual fixture, as follows:

P3005.2.12 Individual fixture. All washing machines and kitchen sinks shall have an accessible clean out.

Section P3011.4, Permitting, is repealed in its entirety.

Section P3011.8, Post-installation recorded video camera survey, is amended as follows.

P3011.8 Post-installation recorded video camera survey. The completed, relined piping system shall be inspected internally by a recorded video camera survey after the system has been flushed and flow-tested with water. The video survey shall be reviewed by a licensed engineer [submitted to the code official] prior to finalization of the permit. The video survey shall be reviewed and evaluated to provide verification that no defects exist. Any defects identified shall be repaired and replaced in accordance with this code.

Section P3011.9, Certification, is amended as follows.

P3011.9 Certification. A certification shall be provided in writing to the code official, from a licensed engineer [the permit holder], that the relining materials have been installed in accordance with the manufacturer's installation instructions, the applicable standards and this code.

Section P3104.4, Vertical rise of vent, is amended as follows:

P3104.4 Vertical rise of vent. A dry vent shall rise vertically to not less than 6 inches (152 mm) above the flood level rim of the highest trap or trapped fixture being vented. When structural conditions require horizontal vents to be installed below the flood level rim of the fixture they serve, they shall have a cleanout installed on the riser in an accessible location.

Sec. 10-38. - Fee schedule.

Residential plan review fees and residential permit fees apply to all separate additions, renovations, and installations to existing residential homes. See section 10-39 for fees for new residential construction.

Building	
Residential Plan Review Fees. See section 10-39 for new residential construction plan review fees.	
Valuation: \$0—\$24,000	\$100.00
Valuation: \$24,001—\$200,000	\$100.00 plus \$1.38/1000, or fraction thereof, over \$24,000
Valuation \$200,001—\$1,000,000	\$342.88+\$0.72/\$1,000, or fraction thereof, over \$200,000
Valuation \$1,000,001+	\$918.88+\$0.17/\$1,000, or fraction thereof, over \$1,000,000
Construction for new homes valued under \$100,000 will receive a 25% discount applied to the building plan review fees.	
Mobile home Installation	\$50.00
Landscape Plan Review	
Base Fee	\$27.50
Plus percent of the Building Plan Review Fee	11%
Residential Swimming Pool Plan Review Fee	Based upon valuation
Residential Plan Retrieval Fee	\$100.00
Residential Permit Fees	
Residential Building Permit Fees. See section 10-39 for new residential construction building permit fees.	
Valuation: \$0—\$1,000	\$100.00
Valuation: \$1,001—\$25,000	\$100.00+\$7.28/\$1,000, or fraction thereof, over \$1000
Valuation: \$25,001—\$75,000	\$274.87+\$5.72/\$1,000, or fraction thereof, over \$25,000
Valuation >\$75,000	\$560.00+\$1.25/\$1,000, or fraction thereof, over \$75,000

*Homes valued under \$100,000 will receive a 25% discount applied to the building permit fees.	
Residential Fence Permit	\$25.00
Residential Swimming Pool Permit Fee	Based upon valuation with \$30,000/minimum value
Residential Re-roof Permit	\$25.00
Special Services Fees—Building Plan Review and Inspection	
Additional Plan Review (i.e. revised)—Per Reviewer per Hour (1 hour minimum)	\$100.00
Administrative Exception/ Code Variance <u>Request</u>	\$350.00
After hours Plan Review—per Reviewer per Hour (1 hour minimum)	\$100.00
After-hours Plan Review—Residential—Building, Tree Preservation, Drainage (Per hour with 1.2 4 <u>5</u> hour minimum)	\$100.00

Inspection for which no fee is specifically indicated (per hour with 1 hour minimum)	\$100.00
After-hour Inspection Review—per Reviewer per Hour (1 hour minimum)	\$100.00
Link child-parent permits to Hansen	\$5.00/residential permit
Inspection Schedule Fee (Free on-line)	\$3.00
Mail-in Building Plan Fee (Processing Fee for Building Plans received in the mail) per Plan	\$500.00
Re-inspection Fee	\$51.50
Residential Building Plan Application Administrative Processing Fee (free on-line)	\$10.00
Permit extension fee	50% of permit
Building-related and Fire Codes Appeals and Advisory Board Fees	
Building-related and Fire Codes Appeal Fee	\$155.00
Certificate of Occupancy	
Residential	
Temporary Residential Certificate of Occupancy	\$150.00
Temporary Residential Certificate of Occupancy Extension	\$75.00
Residential Construction Moving in without Certificate of Occupancy	\$300.00
Registration Fees	
Homebuilders—Registration/2 year registration and renewal	\$170.00
Home Improvement Contractor—Registration/2 year registration and renewal	\$150.00
Home Improvement Contractor—Appeal	\$155.00
Home Improvement Contractor—Duplicate Registration Card (plus tax)	\$5.00
House Mover Contractor Registration	
House Mover – Registration/2 year registration and renewal	\$120.00

Duplicate Registration Card (plus tax)	\$5.00
Moving Buildings	
Moving buildings or structures	\$100.00
Building Plan Review and Permit Fees	
<p>Building plan review and building permit fees are based <u>upon the valuation project's square footage.</u> (building square footage times standard rate for occupancy) of each building or building addition. For fee calculation purposes, building square footage shall be the total area of all floors under roof and enclosed within the outer surface of the outside enclosing walls or columns. The fees for each separate building shall be separately calculated.</p>	
<p>Minimum valuation of the work for residential projects shall be determined by the foregoing table and shall include architectural, structural, electrical, plumbing, mechanical work and contractor's profit.</p>	
<p>Minimum valuation of the work for commercial projects shall be determined by the Building Official based on nationally recognized standards and shall include architectural, structural, electrical, plumbing, mechanical work and contractor's profit.</p>	
Residential Construction	
Residential Building Plan Review Valuation Check	
<p>Development Services established minimum values for the cost of residential construction based upon the following costs per square foot. This value is established at the time the building plans are submitted. Additional valuation checks may be performed by the plans examiners during their review of the plans. For residential projects, determination of minimum value per square foot shall be established as follows:</p>	
Wood Frame	\$65.00
Wood Frame with Masonry	\$70.00
Solid Masonry	\$80.00
Concrete Block on Slab Foundation	\$16.00
Residential Accessory Building	
Finished (percent of valuation/square footage)	100%
Unfinished Interior (including Carport) (percent of valuation/square footage)	50%
Future Construction — Foundation Only (per square foot)	\$3.00
Detached Accessory Building Foundation over 600 square feet (per square foot)	\$3.00

Foundation over 600 square feet (per square foot)	\$3.00
Miscellaneous Building Development Fees	
Permit Refund Fee	\$50.00
Permit Reprint Fee (subject to sales tax)	\$5.00
Permit Refund Fee	\$50.00
Permit Amendment Fee	\$10.00
Name, Address or DBA Change on Permit	\$50.00
Notary Public	\$3.00

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Sec. 10-39. - New residential construction fee schedule.

This fee schedule applies to new residential home construction. See section 10-38 for fees for separate additions, renovations, and installations to existing residential homes.

FY 2013 Fee Schedule for New Residential Construction										
	Basic Permit Fees							Optional Permit Fees		
SF Range	Building Permit	Electrical Permit	Mechanical Permit	General Plumbing Permit	Sewer Permit	Plan Review	Total Basic Permit Fees	TML Permit*	TOPS Permit*	Gas Permit*
0000-0500	\$150	\$100	\$80	\$60	\$64	\$200	\$654	\$57	\$54	\$64
0501-1000	\$425	\$100	\$80	\$119	\$64	\$200	\$988	\$57	\$54	\$64
1001-1250	\$450	\$100	\$80	\$128	\$64	\$200	\$1,022	\$57	\$54	\$64
1251-1500	\$625	\$100	\$80	\$132	\$64	\$200	\$1,201	\$57	\$54	\$64
1501-1750	\$800	\$100	\$85	\$145	\$64	\$200	\$1,394	\$57	\$54	\$64
1751-2000	\$850	\$100	\$85	\$149	\$64	\$200	\$1,448	\$57	\$54	\$64
2001-2250	\$850	\$100	\$85	\$151	\$64	\$200	\$1,450	\$57	\$54	\$64
2251-2500	\$850	\$100	\$85	\$156	\$64	\$200	\$1,455	\$57	\$54	\$64
2501-3000	\$880	\$110	\$85	\$164	\$64	\$200	\$1,503	\$57	\$54	\$64
3001-3500	\$920	\$110	\$90	\$178	\$64	\$400	\$1,762	\$57	\$54	\$64

	Basic Permit Fees							Optional Permit Fees		
SF Range	Building Permit	Electrical Permit	Mechanical Permit	General Plumbing Permit	Sewer Permit	Plan Review	Total Basic Permit Fees	TML Permit*	TOPS Permit*	Gas Permit*
3501-4000	\$930	\$120	\$110	\$190	\$64	\$400	\$1,814	\$57	\$54	\$64
4001-5000	\$1,000	\$125	\$140	\$207	\$64	\$400	\$1,936	\$57	\$54	\$64
5001-6000	\$1,100	\$125	\$165	\$223	\$64	\$400	\$2,077	\$57	\$54	\$64
6001-6500	\$1,200	\$150	\$245	\$283	\$64	\$600	\$2,542	\$57	\$54	\$64
6501-7000	\$1,400	\$150	\$245	\$342	\$64	\$600	\$2,801	\$57	\$54	\$64
7001-7250	\$1,550	\$200	\$245	\$351	\$64	\$600	\$3,010	\$57	\$54	\$64
7251-7500	\$1,725	\$200	\$245	\$355	\$64	\$600	\$3,189	\$57	\$54	\$64
7501-7750	\$1,900	\$200	\$250	\$368	\$64	\$600	\$3,382	\$57	\$54	\$64
7751-9000**	\$2,000	\$200	\$250	\$372	\$64	\$600	\$3,486	\$57	\$54	\$64
*Optional Fees										
**For projects over ninety thousand (90,000) square feet, the fees are determined by combining smaller increments to equal the square footage.										

Secs. 10-40—10-45. - Reserved.