

EXHIBIT "A"

City of Mansfield
Amendments to the
2018 International Plumbing Code
North Central Texas Council of Governments Region

The following sections, paragraphs, and sentences of the *2018 International Plumbing Code (IPC)* are hereby amended as follows: Standard type is text from the *IPC*. Underlined type is text inserted. ~~Strikeouts~~ indicate existing words and phrases to be deleted from the *IPC*. A double asterisk (**) at the beginning of a section identifies an amendment carried over from previous code cycles and a triple asterisk (***) identifies a new or revised amendment with the 2018 code.

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

713 Engineered ~~Computerized~~ Drainage Design 69

(Reason: Editorial change to make compatible with amendment to Section 714.1.)

***Section 101.1; change to read as follows:*

101.1 Title. These regulations shall be known as the *Plumbing Code* of the City of Mansfield hereinafter referred to as "this code."

***Section 102.8; change to read as follows:*

102.8 Referenced codes and standards. The codes and standards referenced in this code shall be those that are listed in Chapter 15 and such codes, when specifically adopted, and standards shall be considered as part of the requirements of this code to the prescribed extent of each such reference and as further regulated in Sections 102.8.1 and 102.8.2. Whenever amendments have been adopted to the referenced codes and standards, each reference to said code and standard shall be considered to reference the adopted amendments. Any reference to NFPA 70 shall mean the *Electrical Code* as adopted.

(Reason: Legal wording to recognize locally adopted codes and amendments adopted with referenced codes.)

***Section 106.6.2; change to read as follows:*

106.6.2 Fee schedule. Fees for all plumbing work shall be in accordance with the City of Mansfield permit fee schedule.

***Section 106.6.3; change #2 and #3 to read as follows:*

106.6.3 Fee refunds. The code official shall authorize the refunding of fees as follows.

1. The full amount of any fee paid hereunder which was erroneously paid or collected.
2. Not more than 80 percent (80%) of the permit fee paid when no work has been done under a permit issued in accordance with this code.

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

(Reason: The need to establish an amount for fee refunds.)

EXHIBIT "A"

***Add Section 106.6.4 to read as follows:*

106.6.4 Reinspection fees. A reinspection fee may be assessed at the inspector's discretion for each inspection when:

1. The inspection called for is not ready when the inspector arrives;
2. No building address or permit card is clearly posted;
3. Such portion of work for which inspection is called is not complete or when corrections called for are not made;
4. City approved plans are not on the job site available to the inspector;
5. Any work concealed without first obtaining the required inspection(s);
6. The building is locked or work otherwise not available for inspection when called;
7. The job site is red-tagged twice for the same item;
8. The original red tag has been removed from the job site.
9. Failure to maintain erosion control, trash control or tree protection.

In instances where reinspection fees have been assessed, no additional inspection of the work will be performed until the required fees have been paid. Reinspection fees shall be in accordance with the City of Mansfield building permit fee schedule.

(Reason: This fee is not a fine or penalty but is designed to compensate for time and trips when inspections are called for when not ready.)

***Section 108.4; change to read as follows:*

108.4 Violation penalties. Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter or repair plumbing work in violation of the approved construction documents or directive of the code official, or of a permit or certificate issued under the provisions of this code, shall be guilty of a misdemeanor, punishable by a fine of not more than two thousand dollars (\$2,000), ~~or by imprisonment not exceeding [number of days], or both such fine and imprisonment.~~ Each day that a violation continues after due notice has been served shall be deemed a separate offense.

(Reason: To specify the type of offense and dollar amount of fine.)

***Section 108.5; change to read as follows:*

108.5 Stop work orders. Upon notice from the code official, work on any plumbing system that is being done contrary to the provisions of this code or in a dangerous or unsafe manner shall immediately cease. Such notice shall be in writing and shall be given to the owner of the property, or to the owner's authorized agent, or to the person performing the work. The notice shall state the conditions under which work is authorized to resume. Where an emergency exists, the code official shall not be required to give a written notice prior to stopping the work. Any person who shall continue any work in or about the structure after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable to a fine of not less than as specified in Section 108.4.

(Reason: To specify the dollar amount of fine.)

EXHIBIT "A"

***Section 109; delete entire section and insert the following:*

SECTION 109

MEANS OF APPEAL

109.1 Application for appeal. Any person shall have the right to appeal a decision of the code official to the board of appeals established by ordinance. The board shall be governed by the enabling ordinance.

(Reason: Most jurisdictions already have an ordinance establishing and governing an appeals board for this code.)

****Section 305.1; change to read as follows:*

305.1 Protection against contact. Metallic piping, except for cast iron, ductile iron and galvanized steel, shall not be placed in direct contact with steel framing members, concrete or cinder walls and floors or other masonry. Metallic piping shall not be placed in direct contact with corrosive soil. Where sheathing is used to prevent direct contact, the sheathing shall have a thickness of not less than 0.008 inch (8 mil) (0.203 mm) and the sheathing shall be made of approved material plastic. Where sheathing protects piping that penetrates concrete or masonry walls or floors, the sheathing shall be installed in a manner that allows movement of the piping within the sheathing.

(Reason: Allows for other materials to be accepted.)

***Section 305.4.1; change to read as follows:*

305.4.1 Sewer depth. ~~Building sewers that connect to private sewage disposal system shall be a minimum of [number] inches (mm) below finished grade at the point of septic tank connection. Building sewers shall be a minimum of 12 inches (304 mm) below grade.~~

(Reason: Provides sewer depth that is common in this region. Deleted reference to private sewage disposal because a private sewage disposal code is not typically adopted in this region.)

***Section 305.7; change to read as follows:*

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

(Reason: Provide a common cutoff point to designate a general separation distance at which plumbing systems should be safe for consistency in enforcement.)

****Section 306.2; add sub-section 306.2.4 to read as follows:*

306.2.4 Plastic sewer and DWV piping installation. Plastic sewer and DWV piping installed underground shall be installed in accordance with the manufacturer's installation instructions. Trench width shall be controlled to not exceed the outside the pipe diameter plus 16 inches or in a trench which has a controlled width equal to the nominal diameter of the diameter of the piping multiplied by 1.25 plus 12 inches. The piping shall be bedded in 4 inches of granular fill and then backfilled compacting the side fill in 6-inch layers on each side of the piping. The compaction shall be to minimum of 85 percent standard proctor density and extend to a minimum of 6 inches above the top of the pipe.

(Reason: To follow manufacturer backfill requirements and to be clear to Inspectors out in the field.)

EXHIBIT "A"

***Section 314.2.1; change to read as follows:*

314.2.1 Condensate disposal. Condensate from all cooling coils and evaporators shall be conveyed from the drain pan outlet to an approved place of disposal. ... {text unchanged} ... Condensate shall not discharge into a street, alley, sidewalk, rooftop, or other areas so as to cause a nuisance.

(Reason: Greater specificity in prohibited locations for condensate discharge. It is the intent of this amendment to send condensate discharge into a sanitary sewer drain. Consistent with regional amendment to IMC 307.2.1.)

***Section 314.2.3; amend item 2 to read as follows:*

2. A separate overflow drain line shall be connected to the drain pan provided with the equipment. Such overflow drain shall discharge to a conspicuous point of disposal to alert occupants in the event of a stoppage of the primary drain. The overflow drain line shall connect to the drain pan at a higher level than the primary drain connection. However, the conspicuous point shall not create a hazard such as dripping over a walking surface or other areas so as to create a nuisance.

(Reason: Greater specificity in prohibited locations for condensate discharge. Consistent with regional amendment to IMC 307.2.3 (2).)

***Section 409.2; change to read as follows:*

409.2 Water connection. The water supply to a commercial dishwashing machine shall be protected against backflow by an air gap that is integral with the machine or a backflow preventer shall be installed in accordance with Section 608. Air gaps shall comply with ASME A112.1.2 or A112.1.3.

(Reason: Domestic dishwashing machines would be difficult to enforce and should already come equipped with backflow preventers. Consistent with regional amendment in IPC Section 608.)

***Section 413.4; change to read as follows:*

413.4 Required location for floor drains ~~Public laundries and central washing facilities.~~ Floor drains shall be installed in the following areas.

1. In public coin-operated laundries and in the central washing facilities of multiple family dwellings, the rooms containing automatic clothes washers shall be provided with floor drains located to readily drain the entire floor area. Such drains shall have a minimum outlet of not less than 3 inches (76 mm) in diameter.
2. Commercial kitchens. In lieu of floor drains in commercial kitchens, the code official may accept floor sinks.
3. Public Restrooms.

(Reason: To make more compatible with local health code practices.)

****Section 502.3; change to read as follows and add the following exceptions:*

502.3 Water heaters installed in attics. Attics containing a water heater shall be provided . . . {bulk of paragraph unchanged} . . . side of the water heater. The clear access opening dimensions shall be not less than 20 inches by 30 inches (508 mm by 762 mm) where such dimensions are large enough to allow removal of the water heater. As a minimum, for access to the attic space, provide one of the following:

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

EXHIBIT "A"

Exceptions:

1. The passageway and level service space are not required where the appliance is capable of being serviced and removed through the required opening.
2. Where the passageway is unobstructed and not less than 6 feet (1829 mm) high and 22 inches wide for its entire length, the passageway shall be not greater than 50 feet (15 250 mm) in length.

(Reason: To provide a safe means of accessibility to appliances in attics and to allow for different types of construction limitations. Consistent with regional amendment to IMC 306.3 and IFGC 306.3)

***Section 502; add Section 502.6 with exception to read as follows:*

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

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

(Reason: To provide safe access to water heaters. Consistent with regional amendments to IMC 306.6 and IFGC 306.7.)

****Section 504.6; change to read as follows and add exception (#4):*

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

1. Not be directly connected to the drainage system.
2. Discharge through an air gap. ~~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.

Exception: Multiple relief devices may be installed to a single T & P discharge piping system when approved by the administrative authority and permitted by the manufacturer's installation instructions and installed with those instructions.

5. Discharge ~~to the floor, to the pan serving the water heater or storage tank, to a waste receptor~~ an approved location or to the outdoors.
6. Discharge in a manner that does not cause personal injury or structural damage.
7. Discharge to a termination point that is readily observable by the building occupants.
8. Not be trapped.
9. Be installed so as to flow by gravity.
10. Terminate not more than 6 inches (152 mm) above and not less than two times the discharge pipe diameter above the floor or *flood level rim* of the waste receptor.
11. Not have a threaded connection at the end of such piping.
12. Not have valves or tee fittings.
13. Be constructed of those materials listed in Section 605.4 or materials tested, rated and *approved* for such use in accordance with ASME A112.4.1.
14. Be one nominal size larger than the size of the relief valve outlet, where the relief valve discharge piping is installed with insert fittings. The outlet end of such tubing shall be fastened in place.

EXHIBIT "A"

(Reason: To provide a higher degree of safety.)

***Section 504.7.1; change to read as follows:*

504.7.1 Pan size and drain. The pan shall be not less than 1 ½ inches (38 mm) in depth and shall be of sufficient size and shape to receive all dripping or condensate from the tank or water heater. The pan shall be drained by an indirect waste pipe having a diameter of not less than ¾ inch (19 mm). Piping for safety pan drains shall be of those materials listed in Table 605.4. Multiple pan drains may terminate to a single discharge piping system when approved by the administrative authority and permitted by the manufacturer's installation instructions and installed with those instructions.

(Reason: Regionally accepted practice.)

***Section 608.1; change to read as follows:*

608.1 General. A potable water supply system shall be designed, installed and maintained in such a manner so as to prevent contamination from non-potable liquids, solids or gases being introduced into the potable water supply through cross-connections or any other piping connections to the system. Backflow preventer applications shall conform to applicable local regulations, Table 608.1, except and as specifically stated in sections 608.2 through 608.16.10.

(Reason: To recognize local requirements.)

****Section 608.15; change to read as follows:*

608.15 Location of backflow preventers. Installation and access of shall be provided to backflow preventers shall be as specified by the manufacturer's instructions and shall not be located below ground or above ceiling.

(Reason: To protect against contamination from non-potable liquids, chemicals, etc. being introduced into the potable water supply. Consistent with amendment to IRC Section P2902.6)

***Section 608.17.1.1; change to read as follows:*

608.17.1.1 Carbonated beverage dispensers. The water supply connection to each carbonated beverage dispenser shall be protected against backflow by a ~~backflow preventer conforming to ASSE 1022 stainless steel reduced pressure zone backflow preventer conforming to ASSE 1013, AWWA C511~~ or by an air gap. The portion of the backflow preventer device downstream from the second check valve of the device and the piping downstream therefrom shall not be affected by carbon dioxide gas.

(Reason: To protect against the possible harmful effects that carbon dioxide gas has on bronze and copper materials which in turn could enter the potable water system.)

***Section 608.17.5; change to read as follows:*

608.17.5 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-type vacuum breaker, a double-check valve assembly or a reduced pressure principle backflow preventer. A valve shall not be installed downstream from an atmospheric vacuum breaker. Where chemicals are introduced into the system, the potable water supply shall be protected against backflow by a reduced pressure principle backflow preventer.

(Reason: To recognize regional practices.)

EXHIBIT "A"

***Section 608.18; change to read as follows:*

608.18 Protection of individual water supplies. An individual water supply shall be located and constructed so as to be safeguarded against contamination in accordance with applicable local regulations. Installation shall be in accordance with Sections 608.18.1 through 608.18.8.

(Reason: To allow local requirements to govern.)

***Section 703.6; delete:*

(Reason: Not a standard practice in this region.)

***Section 704; add Section 704.5 to read as follows:*

704.5 Single stack fittings. Single stack fittings with internal baffle, PVC schedule 40 or cast iron single stack shall be designed by a registered professional engineer and comply to a nationally recognized standard.

(Reason: To allow owners, installers, inspectors, and design professionals to readily identify product makers to determine they meet all required standards.)

***Section 712; add Section 712.5 to read as follows:*

712.5 Dual Pump System. All sumps shall be automatically discharged and, when in any "public use" occupancy where the sump serves more than 10 fixture units, shall be provided with dual pumps or ejectors arranged to function independently in case of overload or mechanical failure. For storm drainage sumps and pumping systems, see Section 1113.

(Reason: To address dual pump systems. To provide reference for storm drainage systems.)

***Section 713, 713.1; change to read as follows:*

SECTION 713

ENGINEERED ~~COMPUTERIZED~~ DRAINAGE DESIGN

713.1 Design of drainage system. The sizing, design and layout of the drainage system shall be ~~permitted to be~~ designed by a registered professional engineer using approved ~~computer~~ design methods.

(Reason: Code was too restrictive.)

***Section 803; add Section 803.3 to read as follows:*

803.3 Special waste pipe, fittings, and components. Pipes, fittings, and components receiving or intended to receive the discharge of any fixture into which acid or corrosive chemicals are placed shall be constructed of CPVC, high silicone iron, PP, PVDF, chemical resistant glass, or glazed ceramic materials.

(Reason: To clarify the allowable materials which are specifically listed for chemical drainage applications.)

***Section 903.1; change to read as follows:*

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

(Reason: To provide regional guideline on standard installation method for this area.)

EXHIBIT "A"

****Section 918.3; change to read as follows:*

918.3 Where permitted. Individual, branch and circuit vents shall be permitted to terminate with a connection to an individual or branch-type air admittance valve in accordance with Section 918.3.1. Stack vents and vent stacks shall be permitted to terminate to stack-type air admittance valves in accordance with Section 918.3.2. Air admittance valves shall only be installed with the prior approval of the building official.

(Reason: Mechanical device that is subject to fail if not installed per manufacturer.)

***Section 1003.2; change to read as follows:*

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

(Reason: To specify who shall size interceptors or separators.)

***Section 1106.1; change to read as follows:*

1106.1 General. The size of the vertical conductors and leaders, building storm drains, building storm sewers, and any horizontal branches of such drains or sewers shall be based on six inches (6") per hour the 100-year hourly rainfall rate indicated in Figure 1106.1 or on other rainfall rates determined from approved local weather data.

(Reason: Specify the roof drain size normally used in the area.)

***Section 1108.3; change to read as follows:*

1108.3 Sizing of secondary drains. Secondary (emergency) roof drain systems shall be sized in accordance with Section 1106 ~~based on the rainfall rate for which the primary system is sized in Figure 1106.1 or on other rainfall rates determined from approved local weather data.~~ Scuppers shall be sized to prevent the depth of ponding water from exceeding that for which the roof was designed as determined by Section 1101.7. Scuppers shall not have an opening dimension of less than 4 inches (102 mm). The flow through the primary system shall not be considered when sizing the secondary roof drain system.

(Reason: Specify that overflow drainage is to be the same size as the normal roof drains.)

***Section 1109; delete this section.*

(Reason: Not in conformance with regional practices.)

****Section 1202.1; delete Exception1 and 2.*

(Reason: State law already specifies that Med Gas systems must comply with NFPA 99.)

END