

CITY OF GRAPEVINE
Chapter 7, Buildings and Construction,
Article I, Building Code

ARTICLE I. - IN GENERAL

Sec 7-1. – BUILDING CODE

The City of Grapevine hereby adopts the 2021 edition of the International Code Family consisting of the International Building Code, NFPA 2020 National Electric Code, International Residential Code, International Mechanical Code, International Plumbing Code, International Fuel Gas Code, and International Swimming Pool and Spa Code as adopted by the State of Texas with regional amendments as published by the International Code Council, Inc., save and except such portions as are deleted or amended by this ordinance, and the same are hereby adopted and incorporated as if fully set out in length herein. One copy of the 2021 edition of the International Code Family and the NFPA 2020 National Electrical Code shall be on file with the city secretary. From the date on which this ordinance shall take effect, the provisions thereof shall be controlling within the limits of the City of Grapevine and its extraterritorial jurisdiction.

Sec 7-2. - Same—Conflict with other regulations.

When any portion of this code conflicts with state law or any other code or ordinance adopted by the city, the most restrictive requirements shall apply.

Sec 7-3. - Same—Amendments.

Section 101.1 Title; change [NAME OF JURISDICTION] to read “City of Grapevine, TX”

Section 101.4; change to read as follows:

101.4 Referenced codes. The other codes listed in Sections 101.4.1 through 101.4.8 and referenced elsewhere in this code, when specifically adopted, shall be considered part of the requirements of this code to the prescribed extent of each such reference. Whenever amendments have been adopted to the referenced codes and standards, each reference to said code and standard shall be considered to reference the amendments as well. Any reference to NFPA 70 or the Electrical Code shall mean the Electrical Code as adopted. Where the enforcement of a provision of this code would violate the conditions of the listing of appliances or equipment, the conditions of the listing and the manufacturer’s installation instructions shall apply.

Section 101.4.6; change to read as follows:

101.4.6 Energy. The provisions of the International Energy Conservation Code as adopted by the State of Texas shall apply to all matters {remainder of text unchanged}.

Section 101.4.7; change to read as follows:

101.4.7 Existing buildings. All matters regarding the repair, alteration, change of occupancy, addition to and relocation of existing buildings shall be governed by the existing building provisions adopted by the City and Zoning Ordinance.

Section 101.4.8; add the following:

101.4.8 Electrical. The provisions of the Electrical Code shall apply to the installation of electrical systems, including alterations, repairs, replacement, equipment, appliances, fixtures, fittings, and appurtenances thereto.

Sections 103 and 103.1; amend to insert the Department Name:

103.1 Creation of enforcement agency. The Grapevine Building Services Department is hereby created and the official in charge thereof shall be known as the Building Official.

Section 104.2.1 Section deleted.

Section 104.10.1; Flood hazard areas. Section deleted.

Note: Sections 104.2.1, 104.10.1, 110.3.12.1, 1612, and 3114 are all interconnected related to flood hazard areas, and amendments or deletions should be considered as a whole.

Section 105.2 Work exempt from permit; under sub-title entitled "Building" add text to items 1, 6, and 11 and delete item 2 as follows:

Building:

1. One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed 120 square feet (11 m²) require permits but are exempt from fees. Such structures must comply with all provisions of the Zoning Ordinance relative to the zoning district.
2. {Deleted}
- 3.-5. {Remain Unchanged}
6. Sidewalks and driveways not more than 30 inches above grade, and not over any basement or story below; however, commercial drives, fire lanes and parking areas require permits.
- 7.-10. {Remain Unchanged}

11. Swings and other playground equipment accessory to detached one-and two-family dwellings; however, such structures must comply with all provisions of the Zoning Ordinance relative to height and setbacks.

12.-13. {Remain Unchanged}

• **Section 109 Fees, is hereby amended as follows:**

EXHIBIT "A"
TABLE NO. 1-A
BUILDING PERMIT FEES

See attached Exhibit "A", Table NO. 1-A

**TABLE NO. 1-A
BUILDING PERMIT FEES**

PERMIT FEES OR ALL BUILDING PERMITS EXCEPT FOR RESIDENTIAL DWELLINGS

TOTAL VALUATION	FEE
\$1.00 to \$500.00	\$50.00
\$501.00 to \$2,000.00	\$50.00 for the first \$500.00 plus \$4.00 for each additional \$100.00, or fraction thereof, to and including \$2,000.00
\$2,001.00 to \$25,000.00	\$75.00 for the first \$2,000.00 plus \$16.00 for each additional \$1,000.00, or fraction thereof, to and including \$25,000.00
\$25,001.00 to \$50,000.00	\$500.00 for the first \$25,000.00 plus \$13.50 for each additional \$1,000.00, or fraction thereof, to and including \$50,000.00
\$50,001.00 to \$100,000.00	\$750.00 for the first \$50,000.00 plus \$8.25 for each additional \$1,000.00, or fraction thereof, to and including \$100,000.00
\$100,001.00 to \$500,000.00	\$1,250.00 for the first \$100,000.00 plus \$6.25 for each additional \$1,000.00, or fraction thereof, to and including \$500,000.00
\$500,001.00 to \$1,000,000.00	\$4,000.00 for the first \$500,000.00 plus \$5.50 for each additional \$1,000.00, or fraction thereof, to and including \$1,000,000.00
\$1,000,001.00 and up	\$7,500.00 for the first \$1,000,000.00 plus \$5.00 for each additional \$1,000.00, or fraction thereof

BUILDING PERMIT FEES FOR RESIDENTIAL DWELLINGS

	NEW CONSTRUCTION	ADDITIONS	ALTERATIONS
<u>R3 RESIDENTIAL DWELLINGS</u> (Detached one and two family dwellings, townhomes not more than 3-stores in height with a separate means of egress)	\$.55 / Square Foot TOTAL AREA UNDER ROOF	\$ 1.00 / Square Foot TOTAL AREA of ADDITION	\$ 1.00 / Square Foot of ALTERATION AREA
<u>R2 RESIDENTIAL DWELLINGS</u>	\$.30 / Square Foot TOTAL AREA UNDER ROOF	\$ 1.00 / Square Foot TOTAL AREA of ADDITION	\$ 1.00 / Square Foot of ALTERATION AREA

(Apartments, condominiums, three and four family dwellings, etc)			
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<p><u>SIMPLE ALTERATION PERMITS</u></p> <p>Projects in which square footage does not apply as determined by the Building Official. (Window replacement, foundation repair, siding replacement, etc)</p>	FLAT FEE \$150.00		
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<u>UNENCLOSED PATIO COVER</u>

OTHER INSPECTIONS AND FEES:

1. Certificate of Occupancy.....\$50.00
2. Inspections outside of normal business hours.....\$50.00 per hour* (minimum charge- two hours)
3. Reinspection fees assessed under provisions of Section 108.5.....\$50.00
4. Inspections for which no fee is specifically indicated....\$50.00 per hour* (minimum charge- one-half hour)
5. Additional plan review required by changes, additions or revisions to plans.....\$50.00 per hour*
6. For use of outside consultants for plan checking and inspections, or both.....actual costs**
7. Foundation only permits or any partial permit.....10% of building permit fee in addition to building permit fee
8. Plan review fee (not applicable to Group R-3 private residences).....65% of building permit fee in addition to building permit fee
9. Building permit fees for the Grapevine- Colleyville Independent School District.....25% of the fees established in Table No. 1-A- *Building Permit Fees*
10. Project valuation to be determined by the regional construction valuation table, adopted by the city, or the contract valuation whichever is greater.

Permit valuations shall include all work required for a completed project, including profit, but need not include the value or cost of the land. Other methods for determining

the project valuations for unique or unusual projects may be approved by the Building Official.

11. Public Works Antenna or Equipment Installation Charge on City Owned Water Towers Only.....\$350.00

*Or the total hourly cost of the jurisdiction, whichever is the greatest. This cost shall include supervision, overhead, equipment, hourly wages and fringe benefits of the employees involved.

** Actual costs include administrative and overhead costs.

LOT DRAINAGE FEES

Single Family & Duplex	\$150.00
Swimming Pools	\$150.00
All remaining classifications	
Full Acre Cost	\$350.00 Per Acre
Portion Other than Full Acre	\$350.00 x Percentage of Full

EXHIBIT "B"
BUILDING VALUATION DATA

The following table, based on the table published in *Building Valuation Data ICCSAFE.org*, shall be used to determine construction costs per square foot. Adjustments may be determined to be necessary by the Building Official for unusual projects.

The unit costs are intended to comply with the description of "valuation" in Section 109.3 of the 2021 *International Building Code* and thus include architectural, structural, electrical, plumbing and mechanical work. The unit costs also include the contractor's profit, which should not be omitted.

If there are differences between the value of the project calculated using this table, and the contract valuation, the greater number shall be used.

This table shall also be used to calculate plan review fees.

Exhibit "B" BUILDING VALUATION TABLE (cost per square foot)

Group (2021 International Building Code)		Type of Construction								
		I A	I B	II A	II B	IIIA	IIIB	I V	VA	VB
A-1	Assembly, theaters, with stage	250.3 9	241.9 1	235.6 3	226.1 0	212.3 2	206.1 8	218.8 3	197. 45	190.3 3
	assembly, theaters, without stage	229.4 2	220.9 4	214.6 6	205.1 2	191.3 5	185.2 1	197.8 6	176. 48	169.3 5
A-2	Assembly, nightclubs	196.1 3	190.2 9	185.6 2	178.0 2	167.8 2	163.2 0	171.7 0	151. 89	146.7 1
A-2	Assembly, restaurants, bars, banquet halls	195.1 3	189.2 9	183.6 2	177.0 2	165.8 2	162.2 0	170.7 0	149. 89	145.7 1
A-3	Assembly, churches	232.0 4	223.5 7	217.2 9	207.7 5	194.3 4	189.1 9	200.4 9	179. 48	172.3 5
A-3	Assembly, general, community halls, libraries, museums	194.1 7	185.6 9	178.4 1	169.8 7	155.0 9	149.9 6	162.6 1	140. 23	134.1 0
A-4	Assembly, arenas	228.4 2	219.9 4	212.6 6	204.1 2	189.3 5	184.2 1	196.8 6	174. 48	168.3 5
B	Business	202.3 0	194.9 2	188.4 4	179.1 8	163.5 5	157.4 2	172.1 3	143. 89	137.4 6
E	Educational	212.0 3	204.7 0	198.8 2	190.2 5	177.2 7	168.2 9	183.7 0	155. 00	150.2 6
F-1	Factory and industrial, moderate hazard	119.5 3	113.9 2	107.3 8	103.4 5	92.64	88.38	99.02	76.3 3	71.73

F-2	Factory and industrial, low hazard	118.5 3	112.9 2	107.3 8	102.4 5	92.64	87.38	98.02	76.3 3	70.73
H-1	High Hazard, explosives	111.7 7	106.1 5	100.6 2	95.69	86.1 1	80.85	91.62	69.8 1	N.P.
H2, 3,4	High Hazard	111.7 7	106.1 5	100.6 2	95.69	86.1 1	80.85	91.62	69.8 1	64.20
H-5	HPM	202.3 0	194.9 2	188.4 4	179.1 8	163. 55	157.4 2	172.1 3	143. 89	137.4 6
I-1	Institutional I-1, supervised environment	199.8 1	192.9 6	186.9 7	179.6 9	164. 91	160.3 9	179.8 4	148. 44	143.7 5
I-2	Institutional I-2, hospitals	338.9 4	331.5 6	325.0 8	315.8 2		N.P.	308.7 7	279. 79	N.P.
I-2	Institutional I-2 nursing homes	235.4 8	228.1 1	221.6 2	212.3 7		N.P.	205.3 2	177. 82	N.P.
I-3	Institutional I-3, restrained	230.0 3	222.6 5	216.1 7	206.9 1	192. 77	185.6 4	199.8 6	173. 11	164.9 9
I-4	Institutional I-4, day care facilities	199.8 1	93.85	91.32	87.62	80.3 9	80.34	84.96	73.8 8	70.96
M	Mercantile	146.2 1	140.3 7	134.7 0	128.1 1	117. 54	113.9 3	121.7 8	101. 61	97.44
R-1	Residential, hotels	201.7 1	194.8 6	188.8 7	181.5 9	166. 56	162.0 4	181.7 4	150. 09	145.4 0
R-2	Residential, multiple family	168.9 4	162.0 9	156.1 0	148.8 2	135. 04	130.5 2	148.9 7	118. 57	113.8 8
R-3	Residential, one and two-family	73.10	73.10	73.10	73.10	73.1 0	73.10	73.10	73.1 0	73.10
R-4	Residential, care/assisted living facilities	199.8 1	192.9 6	186.9 7	179.6 9	164. 91	160.3 9	179.8 4	148. 44	143.7 5
S-1	Storage, moderate hazard	110.7 7	105.1 5	98.62	94.69	84.1 1	79.85	90.26	67.8 1	63.20
S-2	Storage, low hazard	109.7 7	104.1 5	98.62	93.69	84.1 1	78.85	89.26	67.8 1	63.20
U	Utility, miscellaneous	85.53	80.63	75.42	72.03	64.6 7	60.42	68.74	51.5 2	48.79

Add 0.5 percent to total cost for each story over three and deduct 20 percent for shell only buildings.

This table is based on the August 2020 Building Valuation Data published by the International Code Council.

Section 109; add Section 109.7 to read as follows:

109.7 Re-inspection Fee. A fee as established by city council resolution may be charged when:

1. The inspection called for is not ready when the inspector arrives;
2. No building address or permit card is clearly posted;
3. City approved plans are not on the job site available to the inspector;
4. The building is locked or work otherwise not available for inspection when called;
5. The job site is red-tagged twice for the same item;
6. The original red tag has been removed from the job site.
7. Failure to maintain erosion control, trash control or tree protection.

Any re-inspection fees assessed shall be paid before any more inspections are made on that job site.

SECTION 202; amend definition of AMBULATORY CARE FACILITIES as follows:

AMBULATORY CARE FACILITY. Buildings or portions thereof used to provide medical, surgical, psychiatric, nursing or similar care on a less than 24-hour basis to persons who are rendered incapable of self-preservation by the services provided. This group may include but not be limited to the following:

- Dialysis centers
- Sedation dentistry
- Surgery centers
- Colonic centers
- Psychiatric centers

Section 202; add definition of ASSISTED LIVING FACILITIES to read as follows:

ASSISTED LIVING FACILITIES. A building or part thereof housing persons, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment which provides personal care services where the occupants are capable of responding to an emergency situation without physical assistance from staff.

Section 202; amend definition of REPAIR GARAGE as follows:

REPAIR GARAGE. A building, structure or portion thereof used for servicing or repairing motor vehicles. This occupancy shall also include garages involved in minor repair, modification and servicing of motor vehicles for items such as lube changes, inspections, windshield repair or replacement, shocks, minor part replacement and other such minor repairs.

Section 202; amend definition of SPECIAL INSPECTOR to read as follows:

SPECIAL INSPECTOR. A qualified person employed or retained by an approved agency who shall prove to the satisfaction of the registered design professional in responsible charge and the Building Official as having the competence necessary to inspect a particular type of construction requiring special inspection.

Section 202; amend definition of HIGH-RISE BUILDING to read as follows:

Option B

Section 202; amend definition to read as follows:

HIGH-RISE BUILDING. A building with an occupied floor located more than 55 feet (16, 764 mm) above the lowest level of fire department vehicle access.

Section 304.1; add the following to the list of occupancies:

Fire stations

Police stations with detention facilities for 5 or less

Section 307.1.1; add the following sentence to item 4:

4. Cleaning establishments... {Text unchanged} ...with Section 707 or 1-hour horizontal assemblies constructed in accordance with Section 711 or both. See also IFC Chapter 21, Dry Cleaning Plant provisions.

Section 403.1, Exception 3; change to read as follows:

3. The open-air portion of a building [remainder unchanged]

Section 403.3, Automatic Sprinkler System. Delete exception;

Section 403.3.2; change to read as follows:

[F] 403.3.2 Water supply to required fire pumps. In buildings that are more than 120 feet in building height, required fire pumps shall be supplied by connections to no fewer than two water mains located in different streets. Separate supply piping shall be provided between each connection to the water main and the pumps. Each connection and the supply piping between the connection and the pumps shall be sized to supply the flow and pressure required for the pumps to operate.

Exception: {No change to exception.}

Section 404.10; change to read as follows:

Section 404.10 Exit Stairways in an atrium. Where an atrium contains an interior exit access stairway all the following shall be met:

[Remainder Unchanged]

Section 406.2.7.1; section added as follows:

406.2.7.1 Prohibited locations. Electric vehicle charging stations are expressly prohibited indoors and within or on any public or private parking garage.

Exceptions:

1. Group R-3 buildings and their accessory structures on the same lot.
2. Where approved by the Building Official and fire code official.

Section 406.3.3.1 Carport separation; add sentence to read as follows:

A fire separation is not required between a Group R-2 and U carport provided that the carport is entirely open on all sides and that the distance between the two is at least 10 feet (3048 mm).

Section 423.5.1; change to read as follows:

423.5.1 Required occupant capacity. The required occupant capacity of the storm shelter shall include all of the buildings on the site and shall be the total occupant load of the classrooms, vocational rooms and offices in the Group E occupancy.

Exceptions:

1. Where a new building is being added on an existing Group E site, and where the new building is not of sufficient size to accommodate the required occupant capacity of the storm shelter for all of the buildings on the site, the storm shelter shall at a minimum accommodate the required occupant capacity for the new building.
2. Where approved by the Building Official, the required occupant capacity of the shelter shall be permitted to be reduced by the occupant capacity of any existing storm shelters on the site.
3. Where approved by the Building Official, the actual number of occupants for whom each occupied space, floor or building is designed, although less than those determined by occupant load calculation, shall be permitted to be used in the determination of the required design occupant capacity for the storm shelter.

Section 503.1.; add sentence to read as follows:

503.1. General. [Existing Text to remain], add the following text:

Where a building contains more than one distinct type of construction, the building shall comply with the most restrictive area, height, and stories, for the lesser type of construction or be separated by fire walls, except as allowed in Section 510.

Table 506.2; delete footnote (i) from table:

i. {Delete.}

Section 506.3.1; add sentence to read as follows:

506.3.1 Minimum percentage of perimeter. [Existing Text remains], add the following text:

In order to be considered as accessible, if not in direct contact with a street or fire lane, a minimum 10-foot-wide pathway meeting fire department access from the street or approved fire lane shall be provided.

Section 708.4.2; change sentence to read as follows:

708.4.2 Fireblocks and draftstops in combustible construction. [Body of text unchanged]

Exceptions:

1. Buildings equipped with an automatic sprinkler system installed throughout in accordance with Section 903.3.1.1, or in accordance with Section 903.3.1.2 provided that sprinkler protection is provided in the space between the top of the fire partition and the underside of the floor or roof sheathing, deck or slab above as required for systems complying with Section 903.3.1.1. Portions of buildings containing concealed spaces filled with noncombustible insulation as permitted for sprinkler omission shall not apply to this exception for draftstopping.
2. [Unchanged]

Section 718.3; change sentence to read as follows:

718.3 Draftstopping in floors. [Body of text unchanged]

Exception: Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1. and provided that in combustible construction, sprinkler protection is provided in the concealed floor space.

Section 718.4; change sentence to read as follows:

718.4 Draftstopping in attics. [Body of text unchanged]

Exception: Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 and provided that in combustible construction, sprinkler protection is provided in the attic space.

Section 901.6.1; add Section 901.6.1.1 to read as follows:

901.6.1.1 Standpipe Testing. Building owners/managers must maintain and test standpipe systems as per NFPA 25 requirements. The following additional requirements shall be applied to the testing that is required every 5 years:

1. The piping between the Fire Department Connection (FDC) and the standpipe shall be backflushed or inspected by approved camera when foreign material is present or when caps are missing, and also hydrostatically tested for all FDC's on any type of standpipe system. Hydrostatic testing shall also be conducted in accordance with NFPA 25 requirements for the different types of standpipe systems.
2. For any manual (dry or wet) standpipe system not having an automatic water supply capable of flowing water through the standpipe, the tester shall connect hose from a fire hydrant or portable pumping system (as approved by the fire code official) to each FDC, and flow water through the standpipe system to the roof outlet to verify that each inlet connection functions properly. Confirm that there are no open hose valves prior to introducing water into a dry standpipe. There is no required pressure criteria at the outlet. Verify that check valves function properly and that there are no closed control valves on the system.
3. Any pressure relief, reducing, or control valves shall be tested in accordance with the requirements of NFPA 25. All hose valves shall be exercised.
4. If the FDC is not already provided with approved caps, the contractor shall install such caps for all FDC's as required by the fire code official.
5. Upon successful completion of standpipe test, place a blue tag (as per Texas Administrative Code, Fire Sprinkler Rules for Inspection, Test and Maintenance Service (ITM) Tag) at the bottom of each standpipe riser in the building. The tag shall be check-marked as "Fifth Year" for Type of ITM, and the note on the back of the tag shall read "5 Year Standpipe Test" at a minimum.
6. The procedures required by Texas Administrative Code Fire Sprinkler Rules with regard to Yellow Tags and Red Tags or any deficiencies noted during the testing, including the required notification of the local Authority Having Jurisdiction (fire code official) shall be followed.

7. Additionally, records of the testing shall be maintained by the owner and contractor, if applicable, as required by the State Rules mentioned above and NFPA 25.

8. Standpipe system tests where water will be flowed external to the building shall not be conducted during freezing conditions or during the day prior to expected nighttime freezing conditions.

9. Contact the fire code official for requests to remove existing fire hose from Class II and III standpipe systems where employees are not trained in the utilization of this firefighting equipment. All standpipe hose valves must remain in place and be provided with an approved cap and chain when approval is given to remove hose by the fire code official.

Section 903.1.1; change to read as follows:

903.1.1 Alternative Protection. Alternative automatic fire-extinguishing systems complying with Section 904 shall be permitted in addition to automatic sprinkler protection where recognized by the applicable standard, or as approved by the fire code official.

Section 903.2; add paragraph to read as follows and delete the exception for telecommunications buildings:

Automatic Sprinklers shall not be installed in elevator machine rooms, elevator machine spaces, and elevator hoistways, other than pits where such sprinklers would not necessitate shunt trip requirements under any circumstances. Storage shall not be allowed within the elevator machine room. Signage shall be provided at the entry doors to the elevator machine room indicating "ELEVATOR MACHINERY – NO STORAGE ALLOWED."

Sections 903.2.1.1, 903.2.1.3, and 903.2.1.4; change to read as follows:

903.2.1.1 Group A-1. {text unchanged}.....where one of the following conditions exists:

1. The building area exceeds 6,000 square feet.
2. {text unchanged}
3. {text unchanged}
4. {text unchanged}

903.2.1.3 Group A-3. {text unchanged}.....where one of the following conditions exists:

1. The building area exceeds 6,000 square feet.
2. The building area has an occupant load of 300 or more.

3. {text unchanged}

903.2.1.4 Group A-4. {text unchanged}.....where one of the following conditions exists:

1. The building area exceeds 6,000 square feet.
2. {text unchanged}
3. {text unchanged}

Section 903.2.3; change to read as follows:

903.2.3 Group E. {text unchanged}.....where one of the following conditions exists:

1. The building area exceeds 6,000 square feet.
2. {text unchanged}
3. {text unchanged}

Section 903.2.4; change to read as follows:

903.2.4 Group F-1. {text unchanged}.....where one of the following conditions exists:

1. The building area exceeds 6,000 square feet.
2. {text unchanged}
3. {deleted}

Section 903.2.4.2; change to read as follows:

903.2.4.2 Group F-1 distilled spirits. An automatic sprinkler system shall be provided throughout a Group F-1 building used for the manufacture of distilled spirits involving more than 120 gallons of distilled spirits (>16% alcohol) in the fire area at any one time.

Section 903.2.7; change to read as follows:

903.2.7 Group M. {text unchanged}.....where one of the following conditions exists:

1. The building area exceeds 6,000 square feet.
2. {text unchanged}
3. {deleted}

Section 903.2.8; change to read as follows:

903.2.8. Group R. {text unchanged}....With a Group R fire area.

Exception: Group R-3 buildings less than 6,000 square feet in area. For the purpose of this provision, fire walls shall not define separate buildings.

Section 903.2.9.1; change to read as follows:

Section 903.2.9.1 Group S-1 repair garages. {text unchanged}...as shown:

1. Buildings 6,000 square feet or greater in area containing a repair garage.
2. {deleted}
3. {text unchanged}
4. {text unchanged}

Section 903.2.9.3; change to read as follows:

903.2.9.3 Group S-1 distilled spirits or wine. An automatic sprinkler system shall be provided throughout a Group S-1 building used for the bulk storage of distilled spirits or wine involving more than 120 gallons of distilled spirits or wine (>16% alcohol) in the fire area at any one time.

Section 903.2.9.4; change to read as follows:

Section 903.2.9.4 Group S-1 upholstered furniture and mattresses. An automatic sprinkler system shall be provided throughout a Group S-1 building where the area used for the storage of upholstered furniture or mattresses exceeds 2,500 square feet.

Section 903.2.9.5; section added as follows:

903.2.9.5 Self-Service Storage Facility. An automatic sprinkler system shall be installed throughout all self-service storage facilities.

Section 903.2.10; change to read as follows:

Section 903.2.10 Group S-2 parking garages. {text unchanged}...where any of the following conditions exists:

1. Where the building area containing an enclosed parking garage in accordance with Section 406.6 is 6,000 square feet or greater.
2. Where the enclosed parking garage in accordance with Section 406.6 is located beneath other groups.
Exception: Enclosed parking garages located beneath R-3 occupancies
3. Where the building area of an open parking garage in accordance with Section 406.5 is 6,000 square feet or greater and does not meet the requirements of Section 903.2.11.9.

Section 903.2.11; change 903.2.11.3 and add 903.2.11.7, 903.2.11.8, and 903.2.11.9 as follows:

903.2.11.3 Buildings 35 feet or more in height. An automatic sprinkler system shall be installed throughout buildings that have one or more stories, other than penthouses in compliance with Section 1510 of the International Building Code, located 35 feet or more above the lowest level of fire department vehicle access, measured to the finished floor.

903.2.11.7 High-Piled Combustible Storage. For any building with a clear height exceeding 12 feet (4572 mm), see Chapter 32 of the International Fire Code to determine if those provisions apply.

903.2.11.8 Spray Booths and Rooms. New and existing spray booths and spraying rooms shall be protected by an approved automatic fire-extinguishing system.

903.2.11.9 Buildings over 6,000 sq. ft. An automatic sprinkler system shall be installed throughout all buildings with a building area 6,000 sq. ft. or greater and in all existing buildings that are enlarged to be 6,000 sq. ft. or greater. For the purpose of this provision, fire walls shall not define separate buildings.

Exception: Open parking garages in compliance with section 406.5 where all of the following conditions apply:

- a. The structure is freestanding.
- b. The structure does not contain any mixed uses, accessory uses, storage rooms, electrical rooms, elevators or spaces used or occupied for anything other than motor vehicle parking.
- c. The structure does not exceed three stories.
- d. An approved fire apparatus access road is provided around the entire structure.

Section 903.3.1.1.1; change to read as follows:

903.3.1.1.1 Exempt Locations. When approved by the fire code official, automatic sprinklers shall not be required in the following rooms or areas where such .{text unchanged}... because it is damp, of fire-resistance-rated construction or contains electrical equipment.

1. Any room where the application of water, or flame and water, constitutes a serious life or fire hazard.
2. Any room or space where sprinklers are considered undesirable because of the nature of the contents, when approved by the fire code official.
3. Generator and transformer rooms, under the direct control of a public utility, separated from the remainder of the building by walls and floor/ceiling

or roof/ceiling assemblies having a fire-resistance rating of not less than 2 hours.

4. {Delete.}

5. Elevator machine rooms, machinery spaces, and hoistways, other than pits where such sprinklers would not necessitate shunt trip requirements under any circumstances.

6. {Delete.}

Section 903.3.1.2; change to read as follows:

903.3.1.2 NFPA 13R sprinkler systems. Automatic sprinkler systems in Group R occupancies shall be permitted to be installed throughout in accordance with NFPA 13R where the Group R occupancy meets all of the following conditions:

1. Four stories or less above grade plane.
 2. The floor level of the highest story is 35 feet (9144 10668 mm) or less above the lowest level of fire department vehicle access.
 3. The floor level of the lowest story is 35 feet (9144 10668 mm) or less below the lowest level of fire department vehicle access.
- {No change to remainder of section.}

Section 903.3.1.2.2; change to read as follows:

903.3.1.2.2 Corridors and balconies in the means of egress. Sprinkler protection shall be provided in all corridors and for all balconies. {Delete the rest of this section.}

Section 903.3.1.2.3; delete section and replace as follows:

Section 903.3.1.2.3 Attached Garages and Attics. Sprinkler protection is required in attached garages, and in the following attic spaces:

1. Attics that are used or intended for living purposes or storage shall be protected by an automatic sprinkler system.
2. Where fuel-fired equipment is installed in a non-sprinklered attic, not fewer than one quick-response intermediate temperature sprinkler shall be installed above the equipment.
3. Attic spaces of buildings that are two or more stories in height above grade plane or above the lowest level of fire department vehicle access.
4. Group R-4, Condition 2 occupancy attics not required by Item 1 or 3 to have sprinklers shall comply with one of the following:
 - 4.1. Provide automatic sprinkler system protection.
 - 4.2. Provide a heat detection system throughout the attic that is arranged to activate the building fire alarm system.
 - 4.3. Construct the attic using noncombustible materials.

- 4.4. Construct the attic using fire-retardant-treated wood complying with Section 2303.2 of the International Building Code.
- 4.5. Fill the attic with noncombustible insulation.

Section 903.3.1.3; change to read as follows:

903.3.1.3 NFPA 13D Sprinkler Systems. Automatic sprinkler systems installed in one- and two-family dwellings; Group R-3; Group R-4, Condition 1; and townhouses shall be permitted to be installed throughout in accordance with NFPA 13D or in accordance with state law.

Section 903.3.1.4; add to read as follows:

[F] 903.3.1.4 Freeze protection. Freeze protection systems for automatic fire sprinkler systems shall be in accordance with the requirements of the applicable referenced NFPA standard and this section.

903.3.1.4.1 Attics. Only dry pipe, pre-action, or listed antifreeze automatic fire sprinkler systems shall be allowed to protect attic spaces.

Exception: Wet-pipe fire sprinkler systems shall be allowed to protect non-ventilated attic spaces where:

1. The attic sprinklers are supplied by a separate floor control valve assembly to allow ease of draining the attic system without impairing sprinklers throughout the rest of the building, and
2. Adequate heat shall be provided for freeze protection as per the applicable referenced NFPA standard, and
3. The attic space is a part of the building's thermal, or heat, envelope, such that insulation is provided at the roof deck, rather than at the ceiling level.

903.3.1.4.2 Heat trace/insulation. Heat trace/insulation shall only be allowed where approved by the fire code official for small sections of large diameter water-filled pipe.

Section 903.3.5; add a second paragraph to read as follows:

Water supply as required for such systems shall be provided in conformance with the supply requirements of the respective standards; however, every water-based fire protection system shall be designed with a 10-psi safety factor. Reference Section 507.4 for additional design requirements.

Section 903.4; add a second paragraph after the exceptions to read as follows:

Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of water flow for more than 45 seconds. All control valves in the sprinkler and standpipe systems except for fire department hose connection valves shall be electrically supervised to initiate a supervisory signal at the central station upon tampering.

Section 903.4.2; add second paragraph to read as follows:

The alarm device required on the exterior of the building shall be a weatherproof horn/strobe notification appliance with a minimum 75-candela strobe rating, installed as close as practicable to the fire department connection.

Section 905.2; change to read as follows:

905.2 Installation Standard. Standpipe systems shall be installed in accordance with this section and NFPA 14. Manual dry standpipe systems shall be supervised with a minimum of 10 psig and a maximum of 40 psig air pressure with a high/low alarm.

Section 905.3; add Section 905.3.9 and exception to read as follows:

905.3.9 Buildings Exceeding 10,000 sq. ft. In buildings exceeding 10,000 square feet in area per story and where any portion of the building's interior area is more than 200 feet (60960 mm) of travel, vertically and horizontally, from the nearest point of fire department vehicle access, Class I automatic wet or manual wet standpipes shall be provided.

Exceptions:

1. Automatic dry, semi-automatic dry, and manual dry standpipes are allowed as provided for in NFPA 14 where approved by the fire code official.
2. R-2 occupancies of four stories or less in height having no interior corridors.

Section 905.4; change Items 1, 3, and 5, and add Item 7 to read as follows:

1. In every required exit stairway, a hose connection shall be provided for each story above and below grade plane. Hose connections shall be located at an intermediate landing between stories, unless otherwise approved by the fire code official.
Exception: {No change.}
2. {No change.}

3. In every exit passageway, at the entrance from the exit passageway to other areas of a building.

Exception: Where floor areas adjacent to an exit passageway are reachable from an interior exit stairway hose connection by a {remainder of text unchanged}

4. {No change.}

5. Where the roof has a slope less than 4 units vertical in 12 units horizontal (33.3-percent slope), each standpipe shall be provided with a two-way hose connection located to serve the roof or at the highest landing of an exit stairway with stair access to the roof provided in accordance with Section 1011.12.

6. {No change.}

7. When required by this Chapter, standpipe connections shall be placed adjacent to all required exits to the structure and at two hundred feet (200') intervals along major corridors thereafter, or as otherwise approved by the fire code official.

Section 905.8; change to read as follows:

905.8 Dry standpipes. Dry standpipes shall not be installed.

Exception: Where subject to freezing and in accordance with NFPA 14. Additionally, manual dry standpipe systems shall be supervised with a minimum of 10 psig and a maximum of 40 psig air pressure with a high/low Supervisory alarm.

Section 905.9; add a second paragraph after the exceptions to read as follows:

Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of water flow for more than 45 seconds. All control valves in the sprinkler and standpipe systems except for fire department hose connection valves shall be electrically supervised to initiate a supervisory signal at the central station upon tampering.

Section 906.1(1); delete Exception #3:

Section 907.1; add Section 907.1.4 to read as follows:

907.1.4 Design Standards. Where a new fire alarm system is installed, the devices shall be addressable. Fire alarm systems utilizing more than 20 smoke detectors shall have analog initiating devices.

Section 907.2.1; change to read as follows:

907.2.1 Group A. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group A

occupancies having an occupant load of 300 or more persons, or where the occupant load is more than 100 persons above or below the lowest level of exit discharge. Group A occupancies not separated from one another in accordance with Section 707.3.10 of the International Building Code shall be considered as a single occupancy for the purposes of applying this section. Portions of Group E occupancies occupied for assembly purposes shall be provided with a fire alarm system as required for the Group E occupancy.

Exception: {No change.}

Activation of fire alarm notification appliances shall:

1. Cause illumination of the means of egress with light of not less than 1 foot-candle (11 lux) at the walking surface level, and
2. Stop any conflicting or confusing sounds and visual distractions.

Section 907.2.3; change to read as follows:

907.2.3 Group E. A manual fire alarm system that initiates the occupant notification signal utilizing an emergency voice/alarm communication system meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall be installed in Group E educational occupancies. When automatic sprinkler systems or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system. An approved smoke detection system shall be installed in Group E day care occupancies. Unless separated by a minimum of 100' open space, all buildings, whether portable buildings or the main building, will be considered one building for alarm occupant load consideration and interconnection of alarm systems.

Exceptions:

1. {No change.}
- 1.1. Residential In-Home day care with not more than 12 children may use interconnected single station detectors in all habitable rooms. (For care of more than five children 2 1/2 or less years of age, see Section 907.2.6.)
{No change to remainder of exceptions.}

Section 907.2.10; change to read as follows:

907.2.10 Group S. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group S public- and self-storage occupancies for interior corridors and interior common areas. Visible notification appliances are not required within storage units.

Exception: {No change.}

Section 907.2.13, Exception 3; change to read as follows:

3. Open air portions of buildings with an occupancy in Group A-5 in accordance with Section 303.1 of the International Building Code; however, this exception does not apply to accessory uses including but not limited to sky boxes, restaurants, and similarly enclosed areas.

Section 907.2.23, add exception as follows:

Exception: Buildings containing an R-3 occupancy shall comply with applicable provisions of the IRC and are exempt from this section.

Section 907.4.2; add Section 907.4.2.7 to read as follows:

907.4.2.7 Type. Manual alarm initiating devices shall be an approved double action type.

Section 907.6.1; add Section 907.6.1.1 to read as follows:

907.6.1.1 Wiring Installation. All fire alarm systems shall be installed in such a manner that a failure of any single initiating device or single open in an initiating circuit conductor will not interfere with the normal operation of other such devices. All signaling line circuits (SLC) shall be installed in such a way that a single open will not interfere with the operation of any addressable devices (Class A). Outgoing and return SLC conductors shall be installed in accordance with NFPA 72 requirements for Class A circuits and shall have a minimum of four feet separation horizontal and one foot vertical between supply and return circuit conductors. The initiating device circuit (IDC) from a signaling line circuit interface device may be wired Class B, provided the distance from the interface device to the initiating device is ten feet or less.

Section 907.6.3; delete all four Exceptions.

Section 907.6.6; add sentence at end of paragraph to read as follows:

907.6.6 Monitoring. {bulk of text unchanged}...in accordance with NFPA 72. See 907.6.3 for the required information transmitted to the supervising station.

Section 910.2; change Exception 2 and 3 to read as follows:

910.2 Where required. Smoke and heat vents or a mechanical smoke removal system shall be installed as required by Sections 910.2.1, 910.2.2, and 910.2.3.

2. Only manual smoke and heat removal shall not be required in areas of buildings equipped with early suppression fast-response (ESFR) sprinklers. Automatic smoke and heat removal is prohibited.

3. Only manual smoke and heat removal shall not be required in areas of buildings equipped with control mode special application sprinklers with a response time index of $50(m^*S)^{1/2}$ or less that are listed to control a fire in stored commodities with 12 or fewer sprinklers. Automatic smoke and heat removal is prohibited.

Section 910.2.3; add subsection to read as follows:

910.2.3 Group H. Smoke and heat vents installed in accordance with Section 910.3 or a mechanical smoke removal system installed in accordance with Section 910.4 shall be installed in buildings and portions thereof used as a Group H occupancy as follows:

1. In occupancies classified as Group H-2 or H-3, any of which are more than 15,000 square feet (1394 m²) in single floor area.

Exception: Buildings of noncombustible construction containing only noncombustible materials.

2. In areas of buildings in Group H used for storing Class 2, 3, and 4 liquid and solid oxidizers, Class 1 and unclassified detonable organic peroxides, Class 3 and 4 unstable (reactive) materials, or Class 2 or 3 water-reactive materials as required for a high-hazard commodity classification.

Exception: Buildings of noncombustible construction containing only noncombustible materials.

Section 910.4.3.1; change to read as follows:

910.4.3.1 Makeup Air. Makeup air openings shall be provided within 6 feet (1829 mm) of the floor level. Operation of makeup air openings shall be manual or automatic. The minimum gross area of makeup air inlets shall be 8 square feet per 1,000 cubic feet per minute (0.74 m² per 0.4719 m³/s) of smoke exhaust.

Section 913.2.1; add Section 913.2.1.1 and exception to read as follows:

913.2.1.1 Fire Pump Room Access. When located on the ground level at an exterior wall, the fire pump room shall be provided with an exterior fire department access door that is not less than 3 ft. in width and 6 ft. – 8 in. in height, regardless of any interior doors that are provided. A key box shall be provided at this door, as required by IFC Section 506.1.

Exception: When it is necessary to locate the fire pump room on other levels or not at an exterior wall, the corridor leading to the fire pump room access from the exterior of the building shall be provided with equivalent fire resistance as that

required for the pump room, or as approved by the fire code official. Access keys shall be provided in the key box as required by IFC Section 506.1.

Section 1809.5.1 Frost Protection at required exits: Section deleted

Section 2702.5; added to read as follows:

Section 2702.5 Designated Critical Operations Areas (DCOA): In areas within a facility or site requiring continuous operation for the purpose of public safety, emergency management, national security or business continuity, the power systems shall comply with NFPA 70 Article 708.

Section 2901.1; add a sentence to read as follows:

[P] 2901.1 Scope. {existing text to remain} The provisions of this Chapter are meant to work in coordination with the provisions of Chapter 4 of the International Plumbing Code. Should any conflicts arise between the two chapters, the Building Official shall determine which provision applies.

Section 2902.1; add a second paragraph to read as follows:

2902.1 Minimum number of fixtures. {bulk of text unchanged}...shall be determined by this code. In other than E Occupancies, the minimum number of fixtures in Table 2902.1 may be lowered, if requested in writing, by the applicant stating reasons for a reduced number and approved by the Building Official.

Table 2902.1; add footnote g to read as follows:

- g. Drinking fountains are not required in Group M occupancies with an occupant load of 50 or less, Group B occupancies with an occupant load of 25 or less, and for dining and/or drinking establishments.

Add Section 2902.1.4 to read as follows:

2902.1.4 Additional fixtures for food preparation facilities. In addition to the fixtures required in this Chapter, all food service facilities shall be provided with additional fixtures set out in this section.

2902.1.4.1 Hand washing lavatory. At least one hand washing lavatory shall be provided for use by employees that is accessible from food preparation, food dispensing and ware washing areas. Additional hand washing lavatories may be required based on convenience of use by employees.

2902.1.4.2 Service sink. In new or remodeled food service establishments, at least one service sink or one floor sink shall be provided so that it is conveniently located for the cleaning of mops or similar wet floor cleaning tool and for the disposal of

mop water and similar liquid waste. The location of the service sink(s) and/or mop sink(s) shall be approved by the Tarrant County Health Department.

Section 3002.1 Hoistway Enclosure Protection required. Add exceptions as follows:

Exceptions:

1. Elevators completely located within atriums shall not require hoistway enclosure protection.
2. Elevators in open or enclosed parking garages that serve only the parking garage, shall not require hoistway enclosure protection.

Section 3005.4 Machine rooms, control rooms, machinery spaces and control spaces; Delete exceptions and add two new exceptions to as follows:

Exceptions:

1. Elevator machine rooms, control rooms, machinery spaces, and control spaces completely located within atriums shall not require enclosure protection.
2. Elevator machine rooms, control rooms, machinery spaces, and control spaces in open or enclosed parking garages that serve only the parking garage, shall not require enclosure protection.

Section 3005.5: Add a new subsection to Section 3005.5.1 as follows:

3005.5.1 Fire Protection in Machine rooms, control rooms, machinery spaces, and control spaces.

3005.5.1.1 Automatic sprinkler system. The building shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, except as otherwise permitted by Section 903.3.1.1.1 and as prohibited by Section 3005.5.1.1.1.

3005.5.1.1.1 Prohibited locations. Automatic sprinklers shall not be installed in machine rooms, elevator machinery spaces, control rooms, control spaces and elevator hoistways.

3005.5.1.1.2 Sprinkler system monitoring. The sprinkler system shall have a sprinkler control valve supervisory switch and water-flow initiating device provided for each floor that is monitored by the building's fire alarm system.

3005.5.1.2 Water protection. An approved method to prevent water from infiltrating into the hoistway enclosure from the operation of the automatic sprinkler system outside the elevator lobby shall be provided.

3005.5.1.3 Omission of Shunt trip. Means for elevator shutdown in accordance with Section 3005.5 shall not be installed.

Section 3005.7; add Section 3005.7 as follows:

3005.7 Storage. Storage shall not be allowed within the elevator machine room, control room, machinery spaces and or control spaces. Provide approved signage at each entry to the above listed locations stating: "ELEVATOR MACHINERY - NO STORAGE ALLOWED".

Section 3006.2, Hoistway opening protection required; Revise text as follows:

5. The building is a high rise and the elevator hoistway is more than 55 feet (16 764 mm) in height. The height of the hoistway shall be measured from the lowest floor at or above grade to the highest floors served by the hoistway."

Section 3007.3 and Section 3008.3: Revise text by deleting "enclosed" as follows:

3007.3 Water Protection. Water from the operation of an automatic sprinkler system outside the lobby shall be prevented from infiltrating into the hoistway enclosure in accordance with an approved method.

3008.3 Water Protection. Water from the operation of an automatic sprinkler system outside the lobby shall be prevented from infiltrating into the hoistway enclosure in accordance with an approved method.