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ORDINANCE NO. **75-26**

AN ORDINANCE OF THE CITY OF SIOUX FALLS, SD, AMENDING THE CODE OF ORDINANCES OF THE CITY BY ADOPTING THE 2024 *INTERNATIONAL MECHANICAL CODE* AND THE 2024 *INTERNATIONAL FUEL GAS CODE* AND AMENDMENTS THERETO.

BE IT ORDAINED BY THE CITY OF SIOUX FALLS, SD:

Section 1. That Section 150.030 of the Code of Ordinances of Sioux Falls, SD, is hereby amended to read:

§ 150.001 ADOPTED.

(a) The *International Mechanical Code*, 2024 edition, including Appendix A, and the *International Fuel Gas Code* including Appendix A, B, and C, 2024 edition, as amended, are hereby adopted for regulating the design, construction, quality of materials, erection, installation, alteration, repair, location, relocation, replacement, addition to, use, or maintenance of heating, ventilation, cooling, refrigeration, incinerators, or other miscellaneous heat producing appliances in the city, and for providing for performance of inspections and collection of fees therefor.

(b) The adoption of the 2024 *International Mechanical Code* and the 2024 *International Fuel Gas Code* will become effective July 1, 2026. The minimum mechanical standards referenced in the *International Mechanical Code* and the *International Fuel Gas Code* shall be applied to any permit issued after June 30, 2026.

(c) The city shall publish this ordinance, without attachments, after its passage. The attachments are on file and available for inspection at the office of the city clerk.

Section 2. That Section 150.031 of the Code of Ordinances of Sioux Falls, SD, is hereby amended to read:

§ 150.031 AMENDMENTS, ADDITIONS, AND DELETIONS TO THE 2024 INTERNATIONAL MECHANICAL CODE.

The following sections and subsections of the 2024 *International Mechanical Code* adopted in this subchapter shall be amended, added, or deleted as follows. All other sections or subsections of the 2024 *International Mechanical Code* shall remain the same.

[A] 101.1 Title. These regulations shall be known as the Mechanical Code of the city of Sioux Falls, hereinafter referred to as "this code."

[A] 103.1 Creation of agency. The mechanical division is hereby created and the official in charge thereof shall be known as the code official. The function of the agency shall be the implementation, administration, and enforcement of the provisions of this code.

[A] 103.2 Appointment. Not adopted by the city.

[A] 104.8 Liability. The code official, member of the board of appeals, or employee charged with the enforcement of this code, while acting for the jurisdiction in good faith and without malice in the discharge of the duties required by this code or other pertinent law or ordinance, shall not thereby be rendered civilly or criminally liable personally, and is hereby relieved from personal liability for any damage accruing to persons or property as a result of an act or by reason of an act or omission in the discharge of official duties.

This code shall not be construed to relieve or lessen the responsibility of any person owning, operating, or controlling any building or structure for any damages to persons or property caused by defects, nor shall the city, or its officers and employees, be held as assuming any such liability by reason of the inspections authorized by this code or any permits or certificates issued under this code.

[A] 104.8.1 Legal defense. Any suit or criminal complaint instituted against any officer or employee because of an act or omission performed by that officer or employee in the lawful discharge of duties and under the provisions of this code or other laws or ordinances implemented through the enforcement of the code shall be afforded all the protection provided by the city's insurance pool and immunities and defenses provided by other applicable state and federal laws and be defended by the legal representatives of the jurisdiction until the final termination of the proceedings. The code official or any subordinate shall not be liable for costs in an action, suit, or proceeding that is instituted in pursuance of the provisions of this code.

[A] 105.4.5 Suspension or revocation of permit. The code official shall have the authority to suspend or revoke a permit issued under the provisions of this code wherever the permit is issued in error, is issued with an agreed upon document with stipulations or on the basis of incorrect, inaccurate or incomplete information, or in violation of any ordinance or regulation or any of the provisions of this code.

The building official is authorized to suspend or revoke a permit when an official court document has been issued.

[A] 108.2 Required inspections and testing. It shall be the duty of the licensed mechanical contractor, or his designated mechanic doing the work authorized by a permit, or the homeowner holding the homeowner's mechanical permit to notify the mechanical inspector that such work is ready for inspection. The building official may require that every request for inspection be filed at least one working day before such inspection is desired.

The code official, upon notification from the permit holder or the permit holder's agent, shall make the following inspections and other such inspections as necessary, and shall either release that portion of the construction or shall notify the permit holder or the permit holder's agent of violations that must be corrected. The holder of the permit shall be responsible for the scheduling of such inspections.

1. Underground inspection shall be made after trenches or ditches are excavated and bedded, piping installed, and before backfill is put in place. Where excavated soil contains rocks, broken concrete, frozen chunks, and other rubble that would damage or break the piping or cause corrosive action, clean backfill shall be on the job site.

2. Rough-in inspection shall be made after the roof, framing, fire blocking, and bracing are in place and all ducting and other components to be concealed are complete, and prior to the installation of wall or ceiling membranes.

3. Final inspection shall be made upon completion of the mechanical system.

Exception: Ground-source heat pump loop systems tested in accordance with Section 1210.10 shall be permitted to be backfilled prior to inspection.

The requirements of this section shall not be considered to prohibit the operation of any heating equipment or appliances installed to replace existing heating equipment or appliances serving an occupied portion of a structure provided that a request for inspection of such heating equipment or appliances has been filed with the department not more than 48 hours after such replacement work is placed into operation or substantially completed, and before any portion of such equipment or appliances is concealed by any permanent portion of the structure.

[A] 108.2.1 Fee schedule. The fees for mechanical work shall be as indicated in the following schedule:

Table No. 1-A. Mechanical Permit Fees*			
Total Project Valuation	**% of Project**	**Mechanical Valuation**	**Fee**
$0.01 to $50,000.00	10%	$0.01 to $5,000.00	$40
$50,000.01 to $250,000.00	10%	$5,000.01 to 25,000.00	$40 for the first $5,000, plus $6 for each additional $1,000 or fraction thereof, to and including $25,000
$250,000.01 to $500,000.00	10%	$25,000.01 to $50,000.00	$160 for the first $25,000, plus $5.25 for each additional $1,000 or fraction thereof, to and including $50,000
$500,000.01 to $1,000,000.00	10%	$50,000.01 to $100,000.00	$323 for the first $50,000, plus $4.50 for each additional $1,000 or fraction thereof, to and including $100,000

$1,000,000.01 to $2,500,000.00	10%	$100,000.01 to $250,000.00	$548 for the first $100,000 plus $4.25 for each additional $1,000 or fraction thereof, to and including $250,000
$2,500,000.01 to $5,000,000.00	10%	$250,000.01 to $500,000.00	$1,186 for the first $250,000, plus $4 for each additional $1,000 or fraction thereof, to and including $500,000
$5,000,000.01 to $10,000,000.00	10%	$500,000.01 to $1,000,000.00	$2,186 for the first $500,000, plus $3.50 for each additional $1,000 or fraction thereof, to and including $1,000,000
$10,000,000.01 and up	10%	$1,000,000.01 and up	$3,936 for the first $1,000,000, plus $3 for each additional $1,000 or fraction thereof

Other Inspections and Fees	
1. Homeowner's permit.	$25
2. Inspections outside of normal business hours (minimum charge, one hour), per hour.	$200**
3. Reinspection fees assessed under provisions of Section 108 of the International Mechanical Code (minimum charge, one hour), per hour.	$200**
4. When a plan or other data is required to be submitted by SDCL 36-18A or when the building official requires submittal of plans, computations, or specifications in accordance with Section 110, a plan review fee shall be charged. The plan review fee shall be 25 percent of the mechanical permit fee as shown on Table No. 1-B, Commercial Building Permit Fees, of § 150.017 of the Code of Ordinances of Sioux Falls, South Dakota.	
5. Additional plan review required by changes, additions, revisions to approved plans (minimum charge, one hour), per hour.	$100**

6. Fee for late corrections. If corrections listed on an inspection report are not completed within the specified time, the inspector shall issue a correction order and assess a $100 administrative fee. The inspector shall also assess a reinspection fee.	$100
7. Fee for failure to request a required inspection. Where mechanical or fuel gas work is completed without a request for an inspection, an administrative fee of $250 may be charged.	$250
8. Board of appeals fees. Before any action is taken by the board, the party or parties requesting the hearing shall deposit with the secretary of the board or his or her authorized agent, the sum of $100 to cover the approximate cost of the procedure. Under no condition shall the sum or any portion thereof be refunded for failure of the request to be approved.	$100
9. Examination fee; per examination	$75
10. A mileage fee at the current rate per mile as established by the finance department shall be charged for any inspection occurring outside city limits.	
11. Bond claims. An administrative fee shall be charged to cover the administrative cost of filing a claim.	$250
*The Total Project Valuation of the project will be used when a building permit is issued.	
**Or the total hourly cost to the city, whichever is greater. This cost shall include supervision, overhead, equipment, hourly wages, and fringe benefits of the employees involved.	

The building official may refuse to issue permits or conduct inspections for any delinquent account.

[A] 108.6 Refunds. The code official is authorized to establish a refund policy. The refunding of fees shall be as follows:

1. The full amount of any fee paid hereunder which was erroneously paid or collected.

2. Not more than 80 percent of the permit fee paid where work has not been done under a permit issued in accordance with this code.

3. Not more than 80 percent of the plan review fee paid where an application for a permit for which a plan review fee has been paid is withdrawn or canceled before any plan review effort has been expended.

The code official shall not authorize the refunding of any fee paid later than 180 days after the date of fee payment or when the fee is the minimum established fee as established in Table 1-A, 1-B, and 1-C of Section 150.017 of the Code of Ordinance of Sioux Falls, SD.

[A] 111.2 Required inspections and testing. It shall be the duty of the licensed mechanical contractor, or his or her designated mechanic doing the work authorized by a permit, or the homeowner holding the homeowner's mechanical permit to notify the mechanical inspector that such work is ready for inspection. The building official may require that every request for inspection be filed at least one working day before such inspection is desired.

The code official, upon notification from the permit holder or the permit holder's agent, shall make the following inspections and other such inspections as necessary, and shall either release that portion of the construction or shall notify the permit holder or the permit holder's agent of violations that must be corrected. The holder of the permit shall be responsible for the scheduling of such inspections.

1. Underground inspection shall be made after trenches or ditches are excavated and bedded, piping installed, and before backfill is put in place. Where excavated soil contains rocks, broken concrete, frozen chunks and other rubble that would damage or break the piping or cause corrosive action, clean backfill shall be on the job site.

2. Rough-in inspection shall be made after the roof, framing, fire blocking and bracing are in place and all ducting and other components to be concealed are complete, and prior to the installation of wall or ceiling membranes.

3. Final inspection shall be made upon completion of the mechanical system.

Exception: Ground-source heat pump loop systems tested in accordance with Section 1210.10 shall be permitted to be backfilled prior to inspection.

The requirements of this section shall not be considered to prohibit the operation of any heating equipment or appliances installed to replace existing heating equipment or appliances serving an occupied portion of a structure provided that a request for inspection of such heating equipment or appliances has been filed with the department not more than 48 hours after such replacement work is placed into operation or substantially completed, and before any portion of such equipment or appliances is concealed by any permanent portion of the structure.

[A] 112.1 Mechanical board of appeals and examiners. There is hereby created a mechanical board of appeals and examiners to hear and decide appeals of orders, decisions, or determinations made by the building official relative to the application and interpretation of the *International Mechanical Code*, *International Fuel Gas Code*, including Part V—Mechanical and Part VI—Fuel Gas of the *International Residential Code*, to determine that the provisions of these codes do not fully apply, to determine if an equally or better construction is proposed as an alternative, to review all prospective changes to the mechanical and fuel gas codes and to submit recommendations to the responsible official and the city council, to review licensing and test application determinations and to examine applicants for licensing, and to investigate matters brought to the board. It shall consist of five members qualified by experience and training to pass upon matters pertaining to mechanical design, construction, and maintenance and the public health aspects of mechanical systems referenced in the *International Mechanical Code* and the *International Fuel Gas Code*. Members shall be appointed by the mayor with the advice and consent of the council and shall hold office for a term of three years. The board shall adopt rules and procedures for conducting its business. All decisions and findings shall be provided in writing to the appellant with a duplicate copy provided to the building services division.

[A] 112.2 Limitation of authority. The mechanical board of appeals and examiners shall not have the authority to waive requirements of this code or interpret the administration of this code.

[A] 112.3 Qualifications. Not adopted by the city.

[A] 112.4 Administration. Not adopted by the city.

[A] 113.1 Membership of board. Not adopted by the city.

[A] 114.3 Prosecution of violation. If the notice of violation is not complied with promptly, the code official shall request the legal counsel of the jurisdiction to deem the violation as a strict liability offense and institute the appropriate proceeding at law or in equity to restrain, correct, or abate such violation, or to require the removal or termination of the unlawful occupancy of the structure in violation of the provisions of this code or of the order or direction made pursuant thereto.

[A] 114.4 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 mechanical 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 an ordinance violation and be subject to administrative citations through the code enforcement process.

[A] 114.1 Mechanical board of appeals and examiners. There is hereby created a mechanical board of appeals and examiners to hear and decide appeals of orders, decisions, or determinations made by the building official relative to the application and interpretation of the *International Mechanical Code*, *International Fuel Gas Code*, including Part V—Mechanical and Part VI—Fuel Gas of the *International Residential Code*, to determine that the provisions of these codes do not fully apply, to determine if an equally or better construction is proposed as an alternative, to review all prospective changes to the mechanical and fuel gas codes and to submit recommendations to the responsible official and the city council, to review licensing and test application determinations and to examine applicants for licensing, and to investigate matters brought to the board. It shall consist of five members qualified by experience and training to pass upon matters pertaining to mechanical design, construction, and maintenance and the public health aspects of mechanical systems referenced in the *International Mechanical Code* and the *International Fuel Gas Code*. The building official or mechanical inspector shall be an ex officio member and shall act as secretary of the board, but shall have no vote upon any matter before the board. Members shall be appointed by the mayor with the advice and consent of the council and shall hold office for a term of three years. The board shall adopt rules and procedures for conducting its business. All decisions and findings shall be provided in writing to the appellant with a duplicate copy provided to the building services division.

[A] 114.2 Limitations of authority. The mechanical board of appeals and examiners shall not have authority to waive requirements of this code or interpret the administration of this code.

[A] 114.3 Qualifications. Not adopted by the city.

[A] 114.4 Administration. Not adopted by the city.

201.3 Terms defined in other codes. Where terms are not defined in this code and are defined in the *International Building Code, International Residential Code, International Existing Building Code, NFPA 70, International Fire Code, International Fuel Gas Code*, or the *Uniform Plumbing Code*, such terms shall have meanings ascribed to them as in those codes.

Section 202—General Definitions. Add the following definition:

STRICT LIABILITY OFFENSE. An offense in which the prosecution in a legal proceeding is not required to prove criminal intent as a part of its case. It is enough to prove that the defendant either did an act which was prohibited or failed to do an act which the defendant was legally required to do.

301.2 Energy utilization. Heating, ventilating, and air-conditioning systems of all structures may be designed and installed for efficient utilization of energy in accordance with the *International Energy Conservation Code*.

301.11 Plumbing connections. Potable water supply and building drainage system connections to equipment and appliances regulated by this code shall be in accordance with the Plumbing Code.

304.10 Clearances from grade. Equipment and appliances installed at grade level shall be supported on a level concrete slab or other approved material extending not less than 1 1/2 inches (38 mm) above adjoining grade or shall be suspended not less than 6 inches (152 mm) above adjoining grade. Such support shall be in accordance with the manufacturer's installation instructions.

304.11 Guards. Guards shall be provided where various components that require service and roof hatch openings are located within 10 feet (3,048 mm) of a roof edge or open side of a walking surface and such edge or open side is located more than 30 inches (762 mm) above the floor, roof, or grade below. The guard shall extend not less than 30 inches (762 mm) beyond each end of components that require service and each end of the roof hatch parallel to the roof edge. The top of the guard shall be located not less than 42 inches (1,067 mm) above the elevated surface adjacent to the guard. The guard shall be constructed so as to prevent the passage of a 21-inch-diameter (533 mm) sphere and shall comply with the loading requirements for guards specified in the *International Building Code*.

306.2 Appliances in rooms. Rooms containing appliances shall be provided with a door and an unobstructed passageway to the service area of the appliance measuring not less than 36 inches (914 mm) wide and 80 inches (2,032 mm) high.

Exception: Within a dwelling unit, appliances installed in a compartment, alcove, basement, or similar space shall be accessed by an opening or door and an unobstructed passageway measuring not less than 24 inches (610 mm) wide and large enough to allow removal of the largest appliance in the space, provided that a level service space of not less than 30 inches (762 mm) deep and the height of the appliance, but not less than 30 inches (762 mm), is present at the front or service side of the appliance with the door open.

306.5 Equipment and appliances on roofs or elevated structures. Where equipment requiring access or appliances are located on an elevated structure or the roof of a building such that personnel will have to climb higher than 16 feet (4,877 mm) above grade or floor level to access such equipment or appliances, an interior or exterior means of access shall be provided. Such access shall not require climbing over obstructions greater than 30 inches (762 mm) in height or walking on roofs having a slope greater than 4 units vertical in 12 units horizontal (33 percent slope). Such access shall not require the use of portable ladders. Where access involves climbing over parapet walls, the height shall be measured to the top of the parapet wall.

Permanent ladders installed to provide the required access shall comply with the following minimum design criteria:

1. The side railing shall extend above the parapet or roof edge or landing platform not less than 42 inches (1,067 mm).

2. Ladders shall have rung spacing not less than 10 inches (254 mm) and not to exceed 14 inches (356 mm) on center. The uppermost rung shall be not greater than 24 inches (610 mm) below the upper edge of the roof hatch, roof, or parapet, as applicable.

3. Ladders shall have a toe spacing not less than 7 inches (178 mm) and not more than 12 inches (305 mm) deep.

4. There shall be not less than 16 inches (406 mm) between rails.

5. Rungs shall have a diameter not less than 0.75 inch (19.1 mm) and be capable of withstanding a 300-pound (136 kg) load.

6. Ladders over 30 feet (9,144 mm) in height shall be provided with offset sections and landings capable of withstanding 100 pounds per square foot (488 kg/m^2). Landing dimensions shall be not less than 18 inches (457 mm) and not less than the width of the ladder served. A guard rail shall be provided on all open sides of the landing.

7. Climbing clearance. The distance from the centerline of the rungs to the nearest permanent object on the climbing side of the ladder shall be not less than 30 inches (762 mm) measured perpendicular to the rungs. This distance shall be maintained from the point of ladder access to the bottom of the roof hatch. A minimum clear width of 15 inches (381 mm) shall be provided on both sides of the ladder measured from the midpoint of and parallel with the rungs except where cages or wells are installed.

8. Landing required. The ladder shall be provided with a clear and unobstructed bottom landing area having a minimum dimension of 30 inches (762 mm) by 30 inches (762 mm) centered in front of the ladder.

9. Ladders shall be protected against corrosion by approved means.

10. Access to ladders shall be provided at all times.

11. Top landing required. The ladder shall be provided with a clear and unobstructed landing on the exit side of the roof hatch, having a minimum space of 30 inches (762 mm) deep and being the same width as the hatch.

12. Exterior access may be by means of a ladder which need not extend closer than 8 feet (2,438 mm) to finished grade.

13. When a new hatch is being used to access equipment or appliances on a roof or elevated structure, the handle or release must be on the same side of the roof hatch as the ladder or within 18 inches of the ladder.

Catwalks installed to provide the required access shall be not less than 24 inches (610 mm) wide and shall have railings as required for service platforms.

Exception: This section shall not apply to Group R-3 occupancies.

306.5.1 Sloped roofs. Where appliances, equipment, fans, or other components that require service are installed on a roof having a slope of greater than 3 units vertical in 12 units horizontal (25 percent slope) and having an edge more than 30 inches (762 mm) above grade at such edge, a level platform shall be provided on each side of the appliance or equipment to which access is required for service, repair, or maintenance. The platform shall be not less than 30 inches (762 mm) in any dimension and shall be provided with guards. The guards shall extend not less than 42 inches (1,067 mm) above the platform, shall be constructed so as to prevent the passage of a 21-inch-diameter (533 mm) sphere, and shall comply with the loading requirements for guards specified in the *International Building Code*. Access shall not require walking on roofs having a slope greater than 4 units vertical in 12 units horizontal (33 percent slope).

Where access involves obstructions greater than 30 inches (762 mm) in height, such obstructions shall be provided with ladders installed in accordance with Section 306.5 or stairways installed in accordance with the requirements specified in the *International Building Code* in the path of travel to and from appliances, fans, or equipment requiring service.

307.2.2 Drain pipe materials and sizes. Components of the condensate disposal system shall be ABS, cast iron, copper and copper alloy, CPVC, cross-linked polyethylene, galvanized steel, PE-RT, polyethylene, polypropylene, PVC or PVDF 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 applicable provisions of Chapter 7 of the *Plumbing Code* relative to the material type. Condensate waste and drain line size shall be not less than 3/4-inch pipe size and shall not decrease in size 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 Table 307.2.2.

312.1 Load calculations. When deemed necessary by the mechanical inspector, heating and cooling system design loads for the purpose of sizing systems, appliances, and equipment shall be determined in accordance with the procedures described in the ASHRAE/ACCA Standard 183. Alternatively, design loads shall be determined by an approved equivalent computation procedure, using the design parameters specified in Chapter 3 [CE] of the *International Energy Conservation Code*.

401.2 Ventilation required. Every occupied space shall be ventilated by natural means in accordance with Section 402 or by mechanical means in accordance with Section 403. Where the air infiltration rate in a dwelling unit is less than 5 air changes per hour when tested with a blower door at a pressure of 0.2-inch water column (50 Pa) in accordance with Section 402.4.1.2

of the International Energy Conservation Code, the dwelling unit shall be ventilated by mechanical means in accordance with section 403.

401.4 Intake opening location. Air intake openings shall comply with all of the following:

1. Intake openings shall be located not less than 10 feet (3,048 mm) from lot lines or buildings on the same lot.

2. Mechanical and gravity outdoor air intake openings shall be located not less than 10 feet (3,048 mm) horizontally from any hazardous or noxious contaminant source, such as vents, streets, alleys, parking lots, and loading docks, except as specified in Item 3 or Section 501.3.1. Outdoor air intake openings shall be permitted to be located less than 10 feet (3,048 mm) horizontally from streets, alleys, parking lots, and loading docks provided that the openings are located not less than 25 feet (7,620 mm) vertically above such locations. Where openings front on a street or public way, the distance shall be measured from the centerline of the street or public way.

3. Intake openings shall be located not less than 3 feet (914 mm) below contaminant sources where such sources are located within 10 feet (3,048 mm) of the opening. Separation is not required between intake air openings and living space exhaust air openings of an individual dwelling unit or sleeping unit where an approved factory-built intake/exhaust combination fitting is used to separate the air streams in accordance with the manufacturer's instructions.

4. Intake openings on structures in flood hazard areas shall be at or above the elevation required by Section 1612 of the *International Building Code* for utilities and attendant equipment.

403.3.2 Group R-2, R-3, and R-4 occupancies. The design of local exhaust systems and ventilation systems for outdoor air in Group R-2, R-3, and R-4 occupancies shall comply with Sections 403.3.2.1 through 403.3.2.5.

Exceptions:

1. A bathroom exhaust fan shall operate continuously at a minimum rate of 20 cfm. A 6-inch-round passive makeup air shall be provided. If opening directly into the occupied space, such opening shall not decrease the comfort conditions of the occupied space. Such opening may also be used to provide combustion air for fuel-fired appliances if sized and designed for combustion air purposes. If opening into the mechanical room, permanent openings shall be provided between the mechanical room and occupied space to provide a path of travel for the air. The exhaust fan shall be located in the bathroom farthest away from the source of makeup air and shall be rated for 0.8 sones or less.

2. A 4-inch-round fresh air duct connected to the return side of the air handler. The duct shall be insulated to a minimum R-6 and shall connect to the return trunk duct within 8 feet of the air handler duct connection, not above a finished ceiling.

Table 403.3.2.3

MINIMUM REQUIRED LOCAL EXHAUST RATES FOR GROUP R-2, R-3, AND R-4 OCCUPANCIES

AREA TO BE EXHAUSTED	EXHAUST RATES
Bathrooms—Toilet Rooms	50 cfm intermittent or 20 cfm continuous

501.3.1 Location of exhaust outlets. The termination point of exhaust outlets and ducts discharging to the outdoors shall be located with the following minimum distances:

1. For ducts conveying explosive or flammable vapors, fumes, or dusts: 30 feet (9,144 mm) from property lines; 10 feet (3,048 mm) from operable openings into buildings; 6 feet (1,829 mm) from exterior walls and roofs; 30 feet (9,144 mm) from combustible walls and operable openings into buildings that are in the direction of the exhaust discharge; 10 feet (3,048 mm) above adjoining grade.

2. For other product-conveying outlets: 10 feet (3,048 mm) from the property lines; 3 feet (914 mm) from exterior walls and roofs; 10 feet (3,048 mm) from operable openings into buildings; 10 feet (3,048 mm) above adjoining grade.

3. For all environmental air exhaust: 3 feet (914 mm) from property lines; 3 feet (914 mm) from operable openings, except where the exhaust opening is located not less than 1 foot (305 mm) above the gravity air intake opening into buildings for all occupancies other than Group U; and 10 feet (3,048 mm) from mechanical air intakes. Such exhaust shall not be considered hazardous or noxious. Separation is not required between intake air openings and living space exhaust air openings of an individual dwelling unit or sleeping unit where an approved factory-built intake/exhaust combination termination fitting is used to separate the air streams in accordance with the manufacturer's instructions.

Exceptions:

1. Bathroom exhaust fans serving individual dwelling units or sleeping units in Group R occupancies may be 3 feet from property lines, operable openings, and mechanical air intakes.

2. Minimum clearances between the exhaust and intake openings of an HRV/ERV system shall be in accordance with the manufacturer's installation instructions.

3. Exhaust outlets serving structures in flood hazard areas shall be installed at or above the elevation required by Section 1612 of the *International Building Code* for utilities and attendant equipment.

4. For specific systems, see the following sections:

4.1. Clothes dryer exhaust, Section 504.4.

4.2. Kitchen hoods and other kitchen exhaust equipment, Sections 506.3.13, 506.4, and 506.5.

4.3. Dust stock and refuse conveying systems, Section 511.2.

4.4. Subslab soil exhaust systems, Section 512.4.

4.5. Smoke control systems, Section 513.10.3.

4.6. Refrigerant discharge, Section 1105.7.

4.7. Machinery room discharge, Section 1105.6.1.

504.4 Exhaust installation. Dryer exhaust ducts for clothes dryers shall terminate on the outside of the building not less than 5 feet (1524 mm) from any intake opening and shall be equipped with a backdraft damper. Screens shall not be installed at the duct termination. Ducts shall not be connected or installed with sheet metal screws or other fasteners that will obstruct the exhaust flow. Clothes dryer exhaust ducts shall not be connected to a vent connector, vent, or chimney. Clothes dryer exhaust ducts shall not extend into or through ducts or plenums. Clothes dryer exhaust ducts shall be sealed in accordance with Section 603.9.

508.1.1 Makeup air temperature. The temperature of makeup air shall not be more than 10ºF (-12ºC) below the temperature of the air in the conditioned space.

Exceptions:

1. Makeup air that is part of the air-conditioning system.

2. Makeup air that does not decrease the comfort conditions of the occupied space.

511.2 Materials. Subslab soil exhaust system duct material shall be air duct material listed and labeled to the requirements of UL 181 for Class 0 air ducts, or any of the following piping materials that comply with the plumbing code as building sanitary drainage and vent pipe: cast iron; galvanized steel; copper or copper-alloy pipe and tube of a weight not less than Type DWV; and plastic piping.

512.5 Identification. Not adopted by the city.

602.3.3 Wiring. Combustible electrical wires and cables and optical fiber cables exposed within a plenum shall be listed and labeled as having a peak optical density not greater than 0.50, an average optical density not greater than 0.15, and a flame spread distance not greater than 5 feet (1,524 mm) when tested in accordance with NFPA 262 or shall be installed in metal raceways or metal sheathed cable. Combustible optical fiber and communication raceways exposed within a plenum shall be listed and labeled as having a peak optical density not greater than 0.5, an average optical density not greater than 0.15, and a flame spread distance not greater than 5 feet (1,524 mm) when tested in accordance with UL 2024. Only plenum-rated wires and cables shall be installed in plenum-rated raceways.

Exception: Alternate wiring systems located within a plenum serving an information technology equipment room are allowed per NFPA 70.

603.2 Duct sizing. Ducts installed within a single dwelling unit shall be sized in accordance with ACCA Manual D, the appliance manufacturer's installation instructions, or other approved methods. Ducts installed within all other buildings may be sized in accordance with the ASHRAE *Handbook of Fundamentals* or other equivalent computation procedure.

603.6.1.1 Duct length. Flexible air ducts shall be limited to 14 feet (4.3 m) in length.

603.6.2 Flexible air connectors. Not adopted by city.

603.6.2.1 Connector length. Not adopted by city.

603.6.2.2 Connector penetration limitations. Not adopted by city.

603.6.3 Air temperature. The design temperature of air to be conveyed in flexible air ducts shall be less than 250ºF (121ºC).

603.6.4 Flexible air duct clearance. Flexible air ducts shall be installed with a minimum clearance to an appliance as specified in the appliance manufacturer's installation instructions.

603.8.2 Sealing. Ducts shall be sealed, secured, and tested prior to concrete encasement or direct burial.

603.9 Joints, seams, and connections. All longitudinal and transverse joints, seams, and connections in metallic and nonmetallic ducts shall be constructed as specified in SMACNA HVAC *Duct Construction Standards—Metal and Flexible* and NAIMA *Fibrous Glass Duct Construction Standards*. All joints, longitudinal and transverse seams, and connections in ductwork outside the building thermal envelope, all return ducts located within 10 feet (3.05 m) of any appliance or all return ducts within a mechanical room, and all supply main trunk ducts and branch duct connections to the main trunk ducts shall be securely fastened and sealed with welds, gaskets, mastics (adhesives), mastic-plus-embedded-fabric systems, liquid sealants, or tapes. Tapes and mastics used to seal fibrous glass ductwork shall be listed and labeled in accordance with UL 181A and shall be marked "181 A-P" for pressure-sensitive tape, "181 A M" for mastic or "181 A-H" for heat-sensitive tape. Tapes and mastics used to seal metallic and flexible air ducts and flexible air connectors shall comply with UL 181B and shall be marked "181 B-FX" for pressure-sensitive tape or "181 B-M" for mastic. Duct connections to flanges of air distribution system equipment shall be sealed and mechanically fastened. Mechanical fasteners for use with flexible nonmetallic air ducts shall comply with UL 181B and shall be marked "181 B-C." Closure systems used to seal all ductwork shall be installed in accordance with the manufacturer's instructions.

Exception: For ducts having a static pressure classification of less than 2 inches of water column (500 Pa), additional closure systems shall not be required for continuously welded joints and seams and locking-type joints and seams. This exception shall not apply to snap-lock and button-lock type joints and seams located outside the conditioned spaces.

[F] 606.4.1 Supervision. The duct smoke detectors shall be connected to a fire alarm system where a fire alarm system is required by Section 907.2 of the *International Fire Code*. The actuation of a duct smoke detector shall activate a visible and audible supervisory signal at a constantly attended location. In facilities that are required to be monitored by a supervising station, duct smoke detectors shall report only as a supervisory signal, not as a fire alarm. Duct

smoke detectors installed more than 10 feet (3.1 m) above a finished floor, above a ceiling, or on a rooftop shall be installed with remote test/indicators in an approved location below and in proximity to the unit served.

Exceptions:

1. The supervisory signal at a constantly attended location is not required where the duct smoke detector activates the building's alarm-indicating appliances.

2. In occupancies not required to be equipped with a fire alarm system, actuation of a smoke detector shall activate a visible and audible signal in an approved location. Duct smoke detector trouble conditions shall activate a visible or audible signal in an approved location and shall be identified as air duct detector trouble.

[BF] 607.5.2 Fire barriers. Ducts and air transfer openings that penetrate fire barriers shall be protected with listed fire dampers installed in accordance with their listing. Ducts and air transfer openings shall not penetrate enclosures for interior exit stairways and ramps and exit passageways except as permitted by Sections 1023.5 and 1024.6, respectively, of the *International Building Code*.

Exception: Fire dampers are not required at penetrations of fire barriers where any of the following apply:

1. Penetrations are tested in accordance with ASTM E119 or UL 263 as part of the fire-resistance-rated assembly.

2. Ducts are used as part of an approved smoke control system in accordance with Section 513 and where the fire damper would interfere with the operation of the smoke control system.

3. Such walls are penetrated by fully ducted HVAC systems, have a required fire-resistance rating of 1 hour or less, are in areas of other than Group H and are in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 of the *International Building Code*. For the purposes of this exception, a fully ducted HVAC system shall be a duct system for the structure's HVAC system. Such a duct system shall be constructed of sheet steel not less than 26 gage [0.0217 inch (0.55 mm)] thickness and shall be continuous from the air-handling appliance or equipment to the air outlet and inlet terminals. Flexible air ducts shall be permitted in a fully ducted system, limited to the following installations:

3.1 Nonmetallic flexible ducts that connect a duct to an air handling unit or equipment located within a mechanical room in accordance with Section 603.9.

3.2 Nonmetallic flexible air ducts in accordance with Section 603.6.1 that connect an overhead metal duct to a ceiling diffuser where the metal duct and ceiling diffuser are located within the same room.

[BF] 607.5.3 Fire partitions.

Ducts and air transfer openings that penetrate fire partitions shall be protected with listed fire dampers installed in accordance with their listing.

Exception: In occupancies other than Group H, fire dampers are not required where any of the following apply:

1. Corridor walls in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 of the *International Building Code* and the duct is protected as a through penetration in accordance with Section 714 of the *International Building Code*.

2. The partitions are tenant partitions in covered and open mall buildings where the walls are not required by provisions elsewhere in the *International Building Code* to extend to the underside of the floor or roof sheathing, slab, or deck above.

3. The duct system is constructed of approved materials in accordance with Section 603 and the duct penetrating the wall complies with all of the following requirements:

3.1. The duct shall not exceed 100 square inches (0.06 m^2).

3.2. The duct shall be constructed of steel not less than 0.0217 inch (0.55 mm) in thickness.

3.3. The duct shall not have openings that communicate the corridor with adjacent spaces or rooms.

3.4. The duct shall be installed above a ceiling.

3.5. The duct shall not terminate at a wall register in the fire-resistance-rated wall.

3.6. A minimum 12-inch-long (305 mm) by 0.060-inch-thick (1.52 mm) steel sleeve shall be centered in each duct opening. The sleeve shall be secured to both sides of the wall and all four sides of the sleeve with minimum 1 1/2-inch by 1 1/2-inch by 0.060-inch (38 mm by 38 mm by 1.52 mm) steel retaining angles. The retaining angles shall be secured to the sleeve and the wall with No. 10 (M5) screws. The annular space between the steel sleeve and the wall opening shall be filled with rock (mineral) wool batting on all sides.

4. Such walls are penetrated by ducted HVAC systems, have a required fire-resistance rating of 1 hour or less, and are in areas of other than Group H and are in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 of the *International Building Code*. For the purposes of this exception, a ducted HVAC system shall be a duct system for conveying supply, return, or exhaust air as part of the structure's HVAC system. Such a duct system shall be constructed of sheet steel not less than 26 gage in thickness and shall be continuous from the air-handling appliance or equipment to the air outlet and inlet terminals. Flexible air ducts shall be permitted in a fully ducted system, limited to the following installations:

4.1. Nonmetallic flexible connectors that connect a duct to an air handling unit or equipment located within a mechanical room in accordance with Section 603.9.

4.2. Nonmetallic flexible air ducts in accordance with 603.6.1 that connect an overhead metal duct to a ceiling diffuser where the metal duct and ceiling diffuser are located within the same room.

1109.2.5 Refrigerant pipe shafts. Refrigerant piping that penetrates two or more floor/ceiling assemblies shall be enclosed in a fire-resistance-rated shaft enclosure. The fire-resistance-rated shaft enclosure shall comply with Section 713 of the *International Building Code*.

Exceptions:

1. Refrigeration systems using R-718 refrigerant (water).

2. Piping in a direct refrigeration system where the refrigerant quantity does not exceed the limits of Table 1103.1 for the smallest occupied space through which the piping passes.

3. Piping located on the exterior of the building where vented to the outdoors.

1209.5 Insulation and thermal break required. Radiant floor heating systems shall be provided with insulation and a thermal break in accordance with Sections 1209.5.1 and 1209.5.2.

1209.5.1 Slab-on-grade installation. Radiant piping utilized in slab-on-grade applications shall be provided with insulating materials installed beneath the piping having a minimum R-value of 5.

1209.5.2 Suspended floor installation. In suspended floor applications, insulation shall be installed in the joist bay cavity serving the heating space above and shall consist of materials having a minimum R-value of 11.

Exception: Insulation shall not be required in engineered systems where it can be demonstrated that the insulation will decrease the efficiency or have a negative effect on the installation.

Section 3. That Section 150.032 of the Code of Ordinances of Sioux Falls, SD, is hereby amended to read:

§ 150.032 AMENDMENTS, ADDITIONS, AND DELETIONS TO THE INTERNATIONAL FUEL GAS CODE.

The following sections of the 2024 *International Fuel Gas Code* shall be amended, added, or deleted as follows. All other sections or subsections of the 2024 *International Fuel Gas Code* as published shall remain the same.

[A] 101.1 Title. These regulations shall be known as the fuel gas code of the city of Sioux Falls, hereinafter referred to as "this code."

[A] 101.2 Scope. This code shall apply to the installation of fuel-gas piping systems, fuel gas appliances, gaseous hydrogen systems, and related accessories in accordance with Sections 101.2.1 through 101.2.5.

Exceptions:

1. Detached one- and two-family dwellings and town houses not more than three stories above grade plane in height with separate means of egress and their accessory structures not more than three stories above grade plane in height, shall comply with this code or the *International Residential Code*.

2. Fuel gas systems in existing buildings undergoing repair, alterations or additions, and change of occupancy shall be permitted to comply with the *International Existing Building Code*.

[A] 103.1 Creation of agency. The mechanical division is hereby created and the official in charge thereof shall be known as the code official. The function of the agency shall be the implementation, administration, and enforcement of the provisions of this code.

[A] 103.2 Appointment. Not adopted by the city.

[A] 104.8 Liability. The code official, member of the board of appeals, or employee charged with the enforcement of this code, while acting for the jurisdiction in good faith and without malice in the discharge of the duties required by this code or other pertinent law or ordinance, shall not thereby be rendered civilly or criminally liable personally, and is hereby relieved from all personal liability for any damage accruing to persons or property as a result of an act or by reason of an act or omission in the discharge of official duties.

This code shall not be construed to relieve or lessen the responsibility of any person owning, operating, or controlling any building or structure for any damages to persons or property caused by defects, nor shall the city, or its officers and employees, be held as assuming any such liability by reason of the inspections authorized by this code or any permits or certificates issued under this code.

[A] 104.8.1 Legal defense. Any suit or criminal complaint instituted against any officer or employee because of an act or omission performed by that officer or employee in the lawful discharge of duties and under the provisions of this code or other laws or ordinances implemented through the enforcement of this code shall be afforded all the protection provided by the city's insurance pool and immunities and defenses provided by other applicable state and federal laws and be defended by the legal representatives of the jurisdiction until the final termination of the proceedings. The code official or any subordinate shall not be liable for costs in an action, suit, or proceeding that is instituted in pursuance of the provisions of this code.

[A] 105.5.5 Suspension or revocation of permit. The code official shall have the authority to suspend or revoke a permit issued under the provisions of this code wherever the permit is issued in error, is issued with an agreed upon document with stipulations or on the basis of incorrect, inaccurate or incomplete information, or in violation of any ordinance or regulation or any of the provisions of this code.

The building official is authorized to suspend or revoke a permit when an official court document has been issued.

[A] 108.2.1 Fee schedule. The fees for work shall be as indicated in Table No. 1-A, Mechanical Permit Fees in this code.

[A] 108.6 Refunds. The code official is authorized to establish a refund policy. The refunding of fees shall be as follows:

1. The full amount of any fee paid hereunder that was erroneously paid or collected.

2. Not more than 80 percent of the permit fee paid where work has not been done under a permit issued in accordance with this code.

3. Not more than 80 percent of the plan review fee paid where an application for a permit for which a plan review fee has been paid is withdrawn or canceled before any plan review effort has been expended.

The code official shall not authorize the refunding of any fee paid later than 180 days after the date of fee payment or when the fee is the minimum established fee as established in Tables 1-A, 1-B, and 1-C of Section 150.017 of the Code of Ordinances of Sioux Falls, SD.

[A] 111.2 Required inspections and testing. It shall be the duty of the licensed mechanical contractor, or his or her designated mechanic, doing the work authorized by a permit, or the homeowner holding the homeowner's mechanical permit to notify the mechanical inspector that such work is ready for inspection. The building official may require that every request for inspection be filed at least one working day before such inspection is desired.

The code official, on notification from the permit holder or the permit holder's agent, shall make the following inspections and other such inspections as necessary, and shall either release that portion of the construction or notify the permit holder or the permit holder's agent of violations that are required to be corrected. The holder of the permit shall be responsible for scheduling such inspections.

1. Underground inspection shall be made after trenches or ditches are excavated and bedded, piping is installed, and before backfill is put in place. Where excavated soil contains rocks, broken concrete, frozen chunks, and other rubble that would damage or break the piping or cause corrosive action, clean backfill shall be on the job site.

2. Rough-in inspection shall be made after the roof, framing, fire blocking, and bracing are in place and all ducting and other components to be concealed are complete and prior to the installation of wall or ceiling membranes.

3. Final inspection shall be made upon completion of the mechanical system.

The requirements of this section shall not be considered to prohibit the operation of any heating appliance installed to replace an existing heating appliance serving an occupied portion of a structure provided that a request for inspection of such heating equipment or appliance has been filed with the department not more than 48 hours after replacement work is placed into operation or substantially completed, and before any portion of such equipment or appliance is concealed by any permanent portion of the structure.

[A] 112.1 General. There is hereby created a mechanical board of appeals and examiners to hear and decide appeals of orders, decisions, or determinations made by the building official relative to the application and interpretation of the *International Mechanical Code*, *International Fuel Gas Code*, including Part V—Mechanical and Part VI—Fuel Gas of the *International Residential Code*, to determine that the provisions of these codes do not fully apply, to determine if an equally or better construction is proposed as an alternative, to review all prospective changes to the mechanical and fuel gas codes and to submit recommendations to the responsible official and the city council, to review licensing and test application determinations and to examine applicants for licensing, and to investigate matters brought to the board. It shall consist of five members qualified by experience and training to pass upon matters pertaining to mechanical design, construction, and maintenance and the public health aspects of mechanical systems referenced in the *International Mechanical Code* and the *International Fuel Gas Code*.

The building official or mechanical inspector shall be an ex officio member and shall act as secretary of the board but shall have no vote upon any matter before the board. Members shall be appointed by the mayor with the advice and consent of the council and shall hold office for a term of three years. The board shall adopt rules and procedures for conducting its business. All decisions and findings shall be provided in writing to the appellant with a duplicate copy provided to the building services division.

[A] 112.2 Limitation of authority. The mechanical board of appeals and examiners shall have no authority to waive requirements of this code or interpret the administration of this code.

[A] 113.3 Prosecution of violation. If the notice of violation is not complied with promptly, the code official shall request the legal counsel of the jurisdiction to deem the violation as a strict liability offense and institute the appropriate proceeding at law or in equity to restrain, correct, or abate such violation, or to require the removal or termination of the unlawful occupancy of the structure in violation of the provisions of this code or of the order or direction made pursuant thereto.

[A] 113.4 Violation penalties. Persons who shall violate a provision of this code, fail to comply with any of the requirements thereof, or erect, install, alter, or repair 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 an ordinance violation and be subject to administrative citations through the code enforcement process.

201.3 Terms defined in other codes. Where terms are not defined in this code and are defined in the *International Building Code, International Residential Code, International Existing Building Code, NFPA 70, International Fire Code, International Mechanical Code*, or the *Uniform Plumbing Code*, such terms shall have meanings ascribed to them as in those codes.

Section 202—General Definitions. Add the following definition:

STRICT LIABILITY OFFENSE. An offense in which the prosecution in a legal proceeding is not required to prove criminal intent as a part of its case. It is enough to prove that the defendant either did an act which was prohibited or failed to do an act which the defendant was legally required to do.

301.6 Plumbing connections. Potable water supply and building drainage system connections to appliances regulated by this code shall be in accordance with the plumbing code.

304.6 Outdoor combustion air. Outdoor combustion air shall be provided through opening(s) to the outdoors in accordance with Section 304.6.1, 304.6.2, or 304.6.3. The minimum dimension of air openings shall be not less than 3 inches (76 mm).

304.6.3 Alternate combustion air sizing (IFGC). As an alternate, the net free area of openings, ducts, or plenums supplying air to an area containing gas- and oil-burning appliances shall be in accordance with CSA B149.1:20, Natural Gas and Propane Installation Code, published by the Canadian Standards Association (CSA).

The combustion air duct is required to be upsized one diameter size when a dryer is installed in the same room as the combustion air.

305.1 General. Equipment and appliances shall be installed as required by the terms of their approval in accordance with the conditions of listing, the manufacturer's instructions, and this code. Manufacturers' installation instructions shall be available on the job site at the time of inspection. Where a code provision is less restrictive than the conditions of the listing of the equipment or appliance or the manufacturer's installation instructions, the conditions of the listing and the manufacturer's installation instructions shall apply.

After completion of the installation, all safety and operating controls and venting shall be tested before placing the burner in service in accordance with the manufacturer's installation instructions. The following requirements need to be recorded and affixed to the inside of the gas train access panel:

1. The rate of flow of the gas or fuel shall be adjusted to within plus or minus 5 percent of the required Btu/hr rating at the manifold pressure specified by the manufacturer. When the prevailing pressure is less than the manifold pressure specified, the rates shall be adjusted at the prevailing pressure.

2. The gas inlet pressure per the manufacturer's installation settings.

3. The temperature rise across the heat exchanger per the manufacturer's installation settings.

4. The static pressure of the supply and return ducts per the manufacturer's installation settings.

Unlisted appliances approved in accordance with Section 301.3 shall be limited to uses recommended by the manufacturer and shall be installed in accordance with the manufacturer's instructions, the provisions of this code, and the requirements determined by the code official.

305.7 Clearances from grade. Equipment and appliances installed at grade level shall be supported on a level concrete slab or other approved material extending not less than 1 1/2 inches (38 mm) above adjoining grade or shall be suspended not less than 6 inches (152 mm) above adjoining grade. Such supports shall be installed in accordance with the manufacturer's instructions.

[M] 306.2 Appliances in rooms. Rooms containing appliances shall be provided with a door and an unobstructed passageway to the service area of the appliance measuring not less than 36 inches (914 mm) wide and 80 inches (2,032 mm) high.

Exception: Within a dwelling unit, appliances installed in a compartment, alcove, basement, or similar space shall be provided with access by an opening or door and an unobstructed passageway measuring not less than 24 inches (610 mm) wide and large enough to allow removal of the largest appliance in the space, provided that a level service space of not less than 30 inches (762 mm) deep and the height of the appliance, but not less than 30 inches (762 mm), is present at the front or service side of the appliance with the door open.

[M] 306.5 Equipment and appliances on roofs or elevated structures. Where equipment requiring access or appliances are located on an elevated structure or the roof of a building such that personnel will have to climb higher than 16 feet (4,877 mm) above grade or to access such equipment or appliances, an interior or exterior means of access shall be provided. Such access shall not require climbing over obstructions greater than 30 inches (762 mm) in height or walking on roofs having a slope greater than 4 units vertical in 12 units horizontal (33 percent slope). Such access shall not require the use of portable ladders. Where access involves climbing over parapet walls, the height shall be measured to the top of the parapet wall.

Permanent ladders installed to provide the required access shall comply with the following minimum design criteria:

1. The side railing shall extend above the parapet, roof edge or landing platform not less than 42 inches (1,067 mm).

2. Ladders shall have rung spacing not less than 10 inches (254 mm) and not to exceed 14 inches (356 mm) on center. The upper-most rung shall be not more than 24 inches (610 mm) below the upper edge of the roof hatch, roof, or parapet, as applicable.

3. Ladders shall have a toe spacing not less than 7 inches (178 mm) and not more than 12 inches (305 mm) deep.

4. There shall be not less than 16 inches (406 mm) between rails.

5. Rungs shall have a diameter not less than 0.75 inch (19.1 mm) and be capable of withstanding a 300-pound (136 kg) load.

6. Ladders over 30 feet (9,144 mm) in height shall be provided with offset sections and landings capable of withstanding 100 pounds per square foot (488 kg/m^2). Landing dimensions shall be not less than 18 inches (457 mm) and not less than the width of the ladder served. A guard rail shall be provided on all open sides of the landing.

7. Climbing clearance. The distance from the centerline of the rungs to the nearest permanent object on the climbing side of the ladder shall be not less than 30 inches (762 mm) measured perpendicular to the rungs. This distance shall be maintained from the point of ladder access to the bottom of the roof hatch. A minimum clear width of 15 inches (381 mm) shall be provided on both sides of the ladder measured from the midpoint of and parallel with the rungs, except where cages or wells are installed.

8. Landing required. The ladder shall be provided with a clear and unobstructed bottom landing area having a minimum dimension of 30 inches by 30 inches (762 mm by 762 mm) centered in front of the ladder.

9. Ladders shall be protected against corrosion by approved means.

10. Access to ladders shall be provided at all times.

11. Top landing required. The ladder shall be provided with a clear and unobstructed landing on the exit side of the roof hatch having a minimum space of 30 inches (762 mm) deep and be of the same width as the hatch.

12. Exterior access may be by means of a ladder which need not extend closer than 8 feet (2,438 mm) to finished grade.

13. When a new hatch is being used to access equipment or appliances on a roof or elevated structure, the handle or release must be on the same side of the roof hatch as the ladder or within 18 inches of the ladder.

Catwalks installed to provide the required access shall be not less than 24 inches (610 mm) wide and shall have railings as required for service platforms.

Exception: This section shall not apply to Group R-3 occupancies.

[M] 306.5.1 Sloped roofs. Where appliances, equipment, fans, or other components that require service are installed on a roof having a slope of greater than 3 units vertical in 12 units horizontal (25-percent slope) and having an edge more than 30 inches (762 mm) above grade at such edge, a level platform shall be provided on each side of the appliance or equipment to which access is required for service, repair, or maintenance. The platform shall be not less than 30 inches (762 mm) in any dimension and shall be provided with guards. The guards shall extend not less than 42 inches (1067 mm) above the platform, shall be constructed so as to prevent the passage of a 21-inch-diameter (533 mm) sphere, and shall comply with the loading requirements for guards specified in the *International Building Code*. Access shall not require walking on roofs having a slope greater than 4 units vertical in 12 units horizontal (33-percent slope). Where access involves obstructions greater than 30 inches (762 mm) in height, such obstructions shall be provided with ladders installed in accordance with Section 306.5 or stairways installed in accordance with the requirements specified in the *International Building Code* in the path of travel to and from appliances, fans, or equipment requiring service.

[M] 306.6 Guards. Guards shall be provided where various components that require service and roof hatch openings are located within 10 feet (3,048 mm) of a roof edge or open side of a walking surface and such edge or open side is located more than 30 inches (762 mm) above the floor, roof, or grade below. The guard shall extend not less than 30 inches (762 mm) beyond each end of components that require service and each end of the roof hatch parallel to the roof edge. The top of the guard shall be located not less than 42 inches (1,067 mm) above the elevated surface adjacent to the guard. The guard shall be constructed so as to prevent the passage of a 21-inch-diameter (533 mm) sphere and shall comply with the loading requirements for guards specified in the *International Building Code*.

404.2 CSST. CSST piping systems shall be installed in accordance with the terms of their approval, the conditions of listing, the manufacturer’s instructions and this code.

The piping located on the exterior extending from the gas meter to the inside of the structure shall be a metallic pipe in compliance with Section 403.3. The entrance into the structure shall be provided with the appropriate transition flange where an alternate gas piping material is utilized on the inside of the structure.

404.3 Prohibited locations. Piping shall not be installed in or through a ducted supply, return or exhaust, or a clothes chute, chimney or gas vent, dumbwaiter, or elevator shaft.

404.6 Piping through foundation walls. Underground piping, where installed through the outer foundation or basement wall of a building, shall be encased in a protective sleeve or protected by an approved device or method. The space between the gas piping and the sleeve and between the sleeve and the wall shall be sealed to prevent the entry of gas and water.

404.12 Minimum burial depth. Underground piping systems shall be installed a minimum depth of 12 inches (305 mm) below grade. The minimum depth shall be increased to 18 inches (457 mm) if external damage to the piping or tubing from external forces is likely to result. Where a minimum of 12 inches of depth cannot be provided, the pipe shall be installed in conduit or bridged (shielded).

409.1.2 Prohibited locations. Shutoff valves shall be prohibited in concealed locations, furnace plenums, and accessible spaces between a fixed ceiling and a dropped ceiling, unless serving a gas appliance installed in that space.

Date adopted: 09/15/26 .

Christine Erickson, Mayor

ATTEST:
Jermery J. Washington, City Clerk