

ORDINANCE NO. 14,981

AN ORDINANCE to amend the Municipal Code of the City of Des Moines, Iowa, 2000, adopted by Ordinance No. 13,827, passed June 5, 2000, as heretofore amended, by repealing Chapter 26 thereof in its entirety, and enacting a new Chapter 26 establishing the Building and Fire Code Board of Appeals and the Board of Power Engineers; establishing the Permit and Development Division within the Community Development Department; adopting the 2009 editions of the International Building Code, International Existing Building Code, International Energy Conservation Code, International Mechanical Code, International Fuel Gas Code, and Parts I, II, III, V, VI and appendix chapters H & J of the International Residential Code; adopting the 2008 edition of the National Electrical Code; adopting the 2009 edition of the Uniform Plumbing Code; licensing contractors, masters, journeymen, apprentices and other individuals and businesses engaged in construction and construction activities; licensing persons engaged in the operation or control of steam or power operating equipment; and providing for the administration and enforcement of such codes.

BE IT ORDAINED by the City Council of the City of Des Moines, Iowa:

Sec 1. That the Municipal Code of the City of Des Moines, Iowa, 2000, adopted by Ordinance No. 13,827, passed June 5, 2000, as hereto fore amended, be and is hereby amended by repealing Chapter 26 thereof in its entirety, and enacting a new Chapter 26 establishing the Building and Fire Code Board of Appeals and the Board of Power Engineers; establishing the Permit and Development Division within the Community Development Department; adopting the 2009 editions of the International Building Code, International Existing Building Code, International Energy Conservation Code, International Mechanical Code, International Fuel Gas Code, and Parts I, II, III, V, VI and appendix chapters H & J of the International Residential Code; adopting the 2008 edition of the National Electrical Code; adopting the 2009 edition of the Uniform Plumbing Code; licensing contractors, masters, journeymen, apprentices and other individuals and businesses engaged in construction and construction activities; licensing persons engaged in the operation or control of steam or power operating equipment; and providing for the administration and enforcement of such codes, as follows:

CHAPTER 26. BUILDINGS AND BUILDING REGULATIONS

Article I. In General

Sec. 26-1. Title.

This chapter shall consist of the building code, electrical code, mechanical code and fuel gas code, plumbing code, and steam power equipment code, all of which shall be referred to collectively as the "building codes" or "this chapter." A person who performs or is in the business of performing the work or activities regulated by this chapter may be referred to as a "contractor."

Sec. 26-2. Purpose.

The purpose of this chapter is to provide for the protection of the public health and safety by: creation of a permit and development division, a building and fire code board of appeals and a board of power engineering examiners; adoption of building codes; enforcement of penalties for the violation of the building codes; and repealing conflicting ordinances.

Sec. 26-3. Interpretation.

Article I consists of general provisions applicable to all articles. Articles III through VII contain specific provisions pertaining to particular trades and activities. In the event of a conflict with article I, the specific provisions of articles III through VII shall control.

Secs. 26-4--26-99. Reserved

Division 1. Permit And Development Division

Sec. 26-100. Permit and development division established; officials appointed.

There is established in the city within the community development department the permit and development division which shall be under the direction and supervision of the permit and development administrator. The permit and development administrator and the building official shall be appointed by and be responsible to the director of the community development department. In the event the permit and development administrator does not also serve as the building official, the building official shall be responsible to the permit and development administrator.

Sec. 26-101. Powers and duties of building official.

- (a) *Generally.* Any reference in this article to the building official shall include the building official's designees and inspection staff. The general powers and duties of the building official shall be as follows:
- (1) Enforce all the provisions of this chapter.
 - (2) Be accountable for the issuance of permits and inspections of work.

- (3) Serve as city staff and advisor to the building and fire code board of appeals and to the board of power engineer examiners.
 - (4) Render interpretations of the building codes and adopt and enforce rules and regulations supplemental to such codes as the building official may deem necessary in order to clarify the application of the provisions of such codes. Such interpretations, rules and regulations shall be in conformity with the intent and purpose of the applicable code.
 - (5) Determine value or valuation under any of the provisions of the building codes.
 - (6) Appoint staff members and delegate duties to those staff members.
- (b) *Reports and records.* The building official shall
- (1) Provide the director of community development and the city manager, not less than once per year a summary of the building official's recommendations as to desirable amendments to the building codes.
 - (2) Keep a permanent, accurate account of all fees and other monies collected and received under the codes assigned to the building official for enforcement, the names of the persons upon whose account the fees were paid, the date and amount thereof, together with the location of the building or premises to which they relate.
 - (3) Keep a record of the issuance of permits, inspections made, and other official work performed in accordance with this chapter.
 - (4) Keep records of building and fire code board of appeals meetings, hearings, rulings, and other matters performed in accordance with this chapter.
 - (5) Keep records of board of power engineer examiners meetings, hearings, rulings, and other matters performed in accordance with this chapter.
- (c) *Specific powers*
- (1) Whenever any condition exists that is in violation of the codes or creates a danger to health and safety, the building official may until further notice:
 - a. Order any work stopped.
 - b. Order changes to any work to correct an unsafe or illegal condition.
 - c. Order discontinuation of any utilities supplying the premises.
 - d. Order vacation of any premises.
 The building official shall give notice of such action to individuals in control of the premises, and may prescribe a period of time to comply with such notice based on the urgency of the situation.
 - (2) Whenever necessary to make an inspection to enforce any of the provisions of the building codes or whenever the building official has reasonable cause to believe that there exists in any building or upon any premises any condition or code violation which makes such building or premises unsafe, dangerous or hazardous, the building official may enter such building or premises at all reasonable times to inspect the building or premises or to perform any duty imposed upon the building official by the building code. However, if such building or premises is occupied, the building official shall first present proper credentials and request entry. If such entry is refused, the building official shall have recourse to every remedy provided by law to secure entry. When the building official shall have first obtained a proper inspection warrant or other remedy provided by law to secure entry, no owner or occupant or any other persons having charge, care or control of any building or premises shall fail or neglect, after proper request is made as

- provided in this subsection, to promptly permit entry therein by the building official for the purpose of inspection and examination pursuant to the such codes.
- (3) The building official shall have the authority to remove or cause the removal of covering, finishes, or other obstruction which may prevent the proper inspection of work or equipment.
- (d) *Emergencies and public nuisances.*
- (1) Whenever the building official finds a public nuisance exists which requires immediate action to protect the public health and safety, such official may issue an order reciting its existence and requiring that action be taken as such official deems necessary. The action required by such official shall depend upon the nature of the nuisance, the danger to the public that the nuisance presents, the condition and deterioration of the premises, the potential for rehabilitation of any structure involved and the time reasonably necessary to take the required action. If the owner does not comply with the order within the time specified in such order, such official may authorize the taking of the action specified in the order. Any costs incurred may be assessed against the property.
- (2) Notice of the order shall be given to all owners, tenants, and other persons holding a property interest in the premises who are reasonably known to such official. Notice shall be given by that method which is reasonably calculated to inform each recipient within the shortest practicable period of time, considering the nature of the emergency and any difficulties in notifying the owners. If an owner or other person holding a property interest in the premises cannot be found, an affidavit shall be completed by the person attempting to locate such person, describing the efforts made, and held on file.
- (e) *Cooperation of other officials and officers.* The building official may request and shall receive so far as is required, in the discharge of the building official's duties, the assistance and cooperation of other officials of this jurisdiction.
- (f) *Conflict of Interest.* Neither the building official nor any of the inspectors shall engage in any work for hire regulated by that individual, either directly or indirectly, nor shall the official or any of the inspectors have any financial interest in any firm engaged in such trade or business in the city at any time while employed by the city.
- (g) *Liability.*
- (1) Neither the city nor any employee is liable for damages to a person or property as a result of any act or failure to act in the enforcement of the building codes, unless the act of enforcement constitutes false arrest.
- (2) The building codes shall not be construed to relieve from or lessen the responsibility of any person owning, operating or controlling any equipment or structure regulated by such codes for damage to a person or property caused by its defects, nor shall the city or any city employee be held as assuming any such liability because of the inspections authorized by such codes or any approvals issued under such codes.

Secs. 26-102--26-119. Reserved.

Division 2. Building and Fire Code Board of Appeals

Sec. 26-120. Building and fire code board of appeals created; authority.

There is created a building and fire code board of appeals with authority to:

- (1) Review the building, electrical, mechanical and fuel gas, plumbing, and fire codes periodically and make recommendations thereto to the city council.
- (2) Act as a board of appeals to hear grievances arising from a decision of the building official or fire chief and to provide for reasonable interpretations consistent with the provisions of the building, electrical, mechanical and fuel gas, plumbing and fire codes. Any person may upon written request appeal a previous decision of the building official or fire chief in the enforcement of such codes to the board for consideration.
- (3) Determine the suitability of alternate materials and types of construction to those otherwise allowed by the building codes and to provide reasonable interpretations of the provisions of such article.
- (4) Waive building code requirements that, in the opinion of the Board, do not render the building or structure more hazardous, based on life safety, fire safety and sanitation, than the code requires.
- (5) The board shall not have authority over administrative matters or matters covered by the board of power engineer examiners.

Sec. 26-121. Terms; composition.

- (a) The building and fire code board of appeals shall consist of 17 members. Fifteen of the members shall be appointed for terms of three years, provided however that the terms of five of the initial appointed members shall be for one year, and the terms of five of the initial appointed members shall be for two years. All appointed terms shall expire on April 1st.
- (b) The appointed members of the building and fire code board of appeals shall consist of the following persons having a minimum of five years of experience in the required field:
 - (1) One Iowa registered architect.
 - (2) One Iowa registered professional engineer (structural or construction).
 - (3) One Iowa registered professional engineer (mechanical).
 - (4) One Iowa registered professional engineer (electrical).
 - (5) One general contractor experienced in residential construction.
 - (6) One general contractor experienced in commercial construction.
 - (7) Two electricians who hold an active master electrician certificate of competency or license issued by the city or by the state of Iowa and are in responsible charge of the electrical installation operation of a licensed electrical contracting firm.
 - (8) One plumber who holds an active master plumber certificate of competency or license issued by the state of Iowa and is in responsible charge of the plumbing installation operation of a licensed plumbing contracting firm.
 - (9) One plumber who holds an active journeyman plumber certificate of competency or license issued by the state of Iowa.
 - (10) Two mechanical contractors who hold an active class A, B, C or D mechanical contractor license issued by the city or who hold a master's mechanical license issued by the state of Iowa.
 - (11) One licensed attorney.
 - (12) One person shall be a qualified engineer, architect, technologist, technician or safety professional trained in fire protection engineering, fire science or fire

technology, including but not limited to fire protection contractors and certified technicians engaged in fire protection system design.

- (13) One person with experience in historic preservation.
- (c) The building official and fire marshal shall serve as ex officio members of the board.
- (d) Any member of the board may be removed by the city council for malfeasance in office, incapacity, or neglect of duty.

Sec. 26-122. Hearings.

- (a) Any person affected by a decision of the building official, fire chief or their designees, may request and shall be granted a hearing before the building and fire code board of appeals on the decision, provided that the person shall file in the permit and development center a written petition requesting a hearing and setting forth a brief statement of the grounds within 15 days after receiving notice of the decision. Upon receipt of the petition, the permit and development center shall set a time and place for the hearing and shall give the petitioner written notice thereof at least three days before the hearing, unless such notice requirement is waived in writing by the petitioner. The hearing shall be commenced not later than thirty days after the day on which the petition was filed, unless for good cause shown the building official grants a postponement in writing.
- (b) At the hearing the petitioner shall be given an opportunity to be heard to show why the decision of the building official, fire chief or their designees should be modified or withdrawn. The building official or fire chief shall have the opportunity to be heard to show why their decision should be affirmed.

Sec. 26-123. Decisions.

- (a) After the hearing as provided in section 26-122, the building and fire code board of appeals shall affirm, modify or withdraw the decision of the building official, fire chief or their designees. The decision of the board is the final administrative decision.
- (b) The proceedings at any hearing before the board, including the findings and decision of the building official or fire chief, if applicable, shall be summarized, reduced to writing, and entered as a matter of public record in the permit and development center. This record shall include a copy of every notice or order issued in connection with the matter.

Sec. 26-124. Meetings; rules of procedure.

- (a) The building and fire code board of appeals shall hold regular meetings as necessary to hear appeals or conduct other business. Special meetings may be called at any time by the chair of the board, the building official, the fire chief or upon the written request of two members of the board to the chair and the building official or fire chief.
- (b) The building and fire code board of appeals shall adopt reasonable rules and regulations for conducting its meetings.
- (c) The city council shall provide suitable rooms in which the board shall hold its meetings and shall provide for the necessary expenses incurred by the board.

Sec. 26-125. Legal counsel.

The building and fire code board of appeals shall have the right to legal counsel from the city attorney.

Secs. 26-126--26-134.

Division 3. Permits and Fees

Part 1. General

Sec. 26-135. Permits required.

No person shall perform any work for which a permit is required under this chapter without first securing a permit from the building official. A separate permit shall be obtained for each building, individual address and each trade discipline unless otherwise indicated.

Sec. 26-136. Issuance of permits.

- (a) Except as otherwise provided, a contractor as defined in Sections 26-230 and 26-250 shall sign all applications for electrical, mechanical and plumbing permits. The building official shall issue electrical, mechanical and plumbing permits in the name of the contractor and the contractor's business, if any. If a contractor becomes associated with a new firm or corporation, immediate notice must be given by filing the name of such firm or corporation with the office of the building official.
- (b) In cases in which an owner-occupant of a single family dwelling desires to conduct work on electrical, mechanical, or plumbing systems in the owner-occupant's single family dwelling the owner-occupant may appear before the respective discipline inspector to demonstrate that he or she is competent to do the specific work to be accomplished, and after successful demonstration of competence as determined by the inspector, may obtain the permit(s) by paying the proper fee. For purposes of this section a single family dwelling unit shall mean a detached residence designed for or occupied by one family only which is the primary residence of the owner-occupant with record of homestead and qualifies for the homestead tax exemption. No refrigeration work requiring the recovery or charging of such systems shall be conducted by those individuals not having the required certification in accordance with CFC federal regulations.
- (c) A person seeking a permit to construct a swimming pool, spa or water recreational facility, or any addition, remodeling or other alteration thereto shall make application to the office of the building official for such permit. The plans and specifications and plot plan, as well as other pertinent explanatory data, shall be submitted with each application.
- (d) A person seeking to erect, alter, relocate or maintain any sign or sign structure, as defined in section 26-360, shall make application to the zoning enforcement officer for a permit to conduct such work.
- (e) No permit shall be issued to any person who has fees outstanding as required by this article or any other laws or city ordinances.

Sec. 26-137. Permit transferability; permit restrictions.

- (a) Permits issued pursuant to this chapter are not transferable. Either the person or contractor securing the permit or another qualified employee from the same firm or business as the contractor shall perform the work.
- (b) A contractor shall secure permits only for themselves and their firm or business. When a contractor has secured a permit, only the employees of that contractor or that contractor's firm or business shall perform the work for which the permit was obtained. For purposes of this section, an employee shall be one employed by the contractor for a wage or salary. A contractor may be required by the building official to show positive evidence as to the employee status of workers on the job. The evidence shall be in the form of payroll and time records, cancelled checks, or other documents. The contractor may also be required to show the agreement or contract pertaining to the work being questioned as evidence that he or she is, in fact, the actual contractor for the work. Failure or refusal by the contractor to make available such employee or contractual records within 24 hours of demand shall be grounds for immediate revocation of any permit for the work in question.

Sec. 26-138. Permit fees.

- (a) There shall be paid to the community development department for the issuance of each permit, fees in the amounts set in the schedule of fees adopted by the city council by resolution. Permit fees shall include but not be limited to fees for plumbing permits, mechanical permits, electrical permits, building permits, certificates of occupancy, plan reviews, demolition permits, energy reviews, handicap reviews, reinspections, signs & billboards, and fees for failure to obtain permits before starting work.
- (b) The determination of value or valuation under any of the provisions of the building codes shall be made by the building official. The valuation to be used in computing the permit and plan-check fees shall be the total value of all construction work for which the permit is issued, as well as all finish work, painting, roofing, electrical, plumbing, heating, air conditioning, elevators, fire extinguishing systems and any other permanent work or permanent equipment.
- (c) If a permit is issued for a specific amount of work and, upon inspection, it is determined that more work was performed than was authorized by the permit, the permittee shall amend the permit or obtain another permit to include all additional work and shall pay any fees pursuant to paragraph (a) for the new or amended permit.
- (d) If an inspection is requested and performed and the building official determines that the work was not ready, the inspection fails two or more times, or the permit card was not available for sign-off, a re-inspection fee may be charged at the discretion of the building official in the amounts set in the schedule of fees adopted by the city council by resolution.
- (e) In addition to other fees required in this section, a fee shall be paid to the building official for the review of plans and inspection of construction for compliance with the thermal efficiency standards of Chapter 303 of the Iowa State Building Code. The amount of such fee is set in the Schedule of Fees adopted by the city council by resolution.
- (f) In addition to other fees required in this section, a fee shall be paid to the building official for review of documents (plans, specifications and related documentation) for compliance with the accessibility provisions of Chapter 11 of the IBC for the City of Des Moines and Chapter 302 of the Iowa State Building Code. The amount of such fee is set in the Schedule of Fees adopted by the city council by resolution.

- (g) *Plan-checking fees.* Plan-checking fees shall be as follows:
- (1) When a plan is required to be submitted a plan-checking fee in the amount set in the Schedule of Fees adopted by the City Council by resolution shall be paid to the building official at the time of submitting plans and specifications for checking. Exception: The plan-check fee for buildings of one and two family dwelling occupancies and accessory structures for compliance with the International Residential Code may be waived by the building official when the plans do not involve unusual or complex engineering design features.
 - (2) Where plans are incomplete or changed so as to require additional plan checking, an additional plan-check fee shall be charged at the rate set in the Schedule of Fees adopted by the city council by resolution.
 - (3) Applications for which no permit is issued within 180 days following the date of application shall expire by limitation, and plans submitted for checking may thereafter be returned to the applicant or destroyed by the building official. The building official may extend the time for action by the applicant for a period not exceeding 180 days upon written request by the applicant showing that circumstances beyond the control of the applicant have prevented action from being taken. In order to renew action on an application after expiration, the applicant shall resubmit plans and pay a new plan-check fee.
- (h) No permit shall be issued to any person or firm that owes the city any outstanding fees or fines.

Sec. 26-139. Fee for failure to obtain permit before starting work.

Except in emergency situations, as determined by the building official, if work for which a permit is required by the building codes is started or continued by any person before obtaining a required permit, the regular total fees as specified in this article for such work may be doubled. The payment of such double fee shall not relieve any person from fully complying with the requirements of the building codes in the execution of the work nor from any other penalties prescribed in this chapter. However, no double fee shall be imposed upon any person who starts work without a permit if:

- (1) Work is started on Saturday, Sunday, or holiday, or during any other day when the office of the building official is not normally open for business; and
- (2) Such person secures the proper permit on the next working day of the community development department; and
- (3) No plan review is required prior to issuance of the permit.

Sec. 26-140. Collection of fees; refunds.

- (a) All fees due the city for examinations, licenses, certificates and permits pursuant to this article shall be collected in the office of the building official and paid thereafter to the city treasurer.
- (b) *Fee refunds.* Fees may be refunded as follows:
- (1) The building official may authorize the refunding of any fee paid under this section which was erroneously paid or collected.
 - (2) The building official may authorize the refunding of not more than 80 percent of the permit fee paid when no work has been done under a permit issued in accordance with the building code.

- (3) The building official may authorize the refunding of not more than 80 percent of the plan review fee paid when an application for a permit for which a plan review fee has been paid is withdrawn or cancelled before any plan reviewing is done.

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

Sec. 26-141. Exemption from fees.

- (a) Persons performing work on government owned public properties for the federal, state or county governments may obtain permits for that work without paying the permit fees described in this section, provided that nothing in this section shall be construed to exempt payment of permit fees by persons working under the direction of the city in connection with the abatement of any public nuisance on private property, pursuant to city ordinance or state law.
- (b) *Waiver of permit fees by city council.* The city council upon receipt of timely application may by resolution waive payment of permit fees required in this chapter to persons who develop a project within the Metro Center Urban Renewal Project Area which will receive assistance from the city, from Polk County or from the state of Iowa under Iowa Code, Chapter 15F, Vision Iowa Program.

Sec. 26-142. Revocation, expiration and extension of permit.

- (a) Any permit required by this chapter may be revoked by the building official upon the violation of any section of this article. In addition to the revocation of a permit a person may be guilty of a misdemeanor punishable by fine or imprisonment as provided by section 1-15 of the city Code, or may be guilty of a municipal infraction punishable by a civil penalty as provided by section 1-15 of the city Code.
- (b) A willfully false statement in an application for a permit shall be sufficient cause for revocation.
- (c) Every permit, except a demolition permit, issued by the building official under the provision of the building codes shall expire under any one of the following conditions:
 - (1) Failure to begin work authorized within 180 days after issuance of the permit.
 - (2) Suspension or abandonment of work for 120 days after commencement of the work. Time of occurrence of suspension or abandonment of work shall be computed from the date of the most recent inspection since which no progress has been made.
 - (3) Failure to complete work on a structure designed for residential uses within one year after issuance of a permit.
 - (4) Failure to complete work on a structure designed for commercial or industrial uses within two years after issuance of a permit. For permits with a valuation exceeding \$10,000,000.00 work shall be completed within three years after issuance of a permit.
- (d) Any permittee holding an unexpired permit may apply for an extension of the time within which the permittee may commence or continue work. The building official may give such extension of time at the building official's discretion as follows:
 - (1) For structures designed for residential uses, two extensions, each extension not exceeding 90 days.

- (2) For structures designed for residential/ commercial uses, three extensions, each extension not exceeding 90 days.
- (3) For structures designed for commercial or industrial uses, three extensions, each extension not exceeding 180 days.
- (4) In all cases, when a renewal is granted the structure for which the permit is required shall comply with code requirements in effect at the time the permit is renewed.
- (e) Any of the extensions in subsection (d) of this section may be further extended by action of the city council. An expired permit may not be reissued without a permit fee except by resolution of the city council.

Sec. 26-143. Validity of Permit.

- (a) The issuance or granting of a permit or approval of plans and specifications shall not be construed to be a permit for or an approval of any violation of any of the provisions of the building codes. No permit presuming to give authority to violate or cancel the provisions of the building codes shall be valid, except insofar as the work or use which it authorizes is lawful.
- (b) The issuance of a permit based upon plans and specifications shall not prevent the building official from thereafter requiring the correction of errors in such plans and specifications or from preventing construction being carried on when in violation of the building codes or of any other ordinance.

Secs. 26-144—26-149. Reserved.

Part 2. Reserved

Part 3. Building

Sec. 26-150. Building permit required.

- (a) Building permits are required as identified in IBC chapter 1, part 2; IRC chapter 1, part 2; and IEBC Chapter 1, part 2.
- (b) A fee for each building permit shall be paid to the building official in the amount set in the Schedule of Fees adopted by the city council by resolution. The fee for a permit to construct only a foundation for a future building shall be 150 percent of the fee specified in the Schedule of Fees, with the value of the foundation for such purpose being ten percent of the total valuation of the future building and foundation.

Sec. 26-151. Building permit exemptions.

- (a) A building permit shall not be required for the following:
 - (1) One-story detached accessory buildings used as tool or storage sheds, playhouses, pet shelters, and similar uses constructed in accordance with the International Residential Code, provided the projected roof area does not exceed 120 square feet in area and complies with all applicable zoning requirements. Such building must be located at least two feet from any property line and three feet from any dwelling.

- (2) Chain link or wire fences four feet or less in height and all other fences three feet or less in height.
 - (3) Movable cases, counters, and partitions not over five feet high.
 - (4) Playground equipment.
 - (5) Retaining walls, which are not over four feet in height, measured from the bottom of the footing to the top of the wall, unless supporting a surcharge or impounding flammable liquids.
 - (6) Water tanks supported directly upon grade if the capacity does not exceed 5,000 gallons and the ratio of height to diameter or width does not exceed two to one.
 - (7) Platforms, walks, and driveways not more than 30 inches above grade and not over any basement or story below.
 - (8) Painting, papering, and similar finish work.
 - (9) Temporary motion picture, television and theater stage sets and scenery.
 - (10) Window awnings supported by an exterior wall of one and two family dwellings and accessory structures to one and two family dwellings when projecting not more than 54 inches.
 - (11) Minor maintenance and repair work that is deemed by the building official not to affect structural strength, safety, fire resistance, or sanitation, provided that no such work shall be performed in a manner contrary to any provisions of the building code or any other laws.
- (b) Unless otherwise exempted, separate plumbing, electrical and mechanical permits will be required when appropriate for the exempted items in subsection (a) of this section.
 - (c) Exemption from the permit requirements of this section shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of the building code or any other laws or ordinances of this jurisdiction.

Secs. 26-152—26-159. Reserved.

Sec. 26-160. Sign and billboards permits required.

- (a) Except as provided in this division, it shall be unlawful for any person to erect, alter, relocate or maintain within the city any sign or sign structure, as defined in section 26-360, without first obtaining a permit issued by the zoning enforcement officer and making payment of the permit fee provided in this division.
- (b) A sign permit shall not be required for the following:
 - (1) Identification signs, as defined in chapter 134 of the city Code, not exceeding one square foot in area.
 - (2) Memorial signs on buildings, showing only the building's name and date of erection, when such sign is carved into or made an integral part of the exterior of the building or when such sign is constructed of bronze or other metal alloy and securely and permanently attached to such building.
 - (3) A sign that is painted on or attached to an operative self-propelled vehicle.
 - (4) Flags bearing only the official design or recognized symbol of a governmental entity, an educational institution, or a company or other organization.
 - (5) Traffic or other municipal signs such as legal notices, railroad crossings, danger and other emergency signs as may be approved by the enforcement authority.
 - (6) For the replacement of the removable display board or other removable display surface of a sign having a stationary framework or structure so designed that a

display board or panel or other display surface may be inserted therein or attached thereto or removed whenever desired without unfastening or removing the stationary framework or structure from its supports.

- (7) Private traffic direction signs directing traffic movement into a premises or within a premises, provided such signs do not exceed four square feet in area and are not illuminated.
- (8) Horizontal directional signs painted on or installed flush with paved areas.
- (9) Non-illuminated real estate signs with an area of six square feet or less.
- (c) The permit fee for every sign permit required by this division shall be in the amount set in the Schedule of Fees adopted by the city council by resolution.
- (d) Every sign, whether existing or erected, shall be classified by the zoning enforcement officer according to its type as a "combination," "ground," "pole," "projecting," "roof," "wall" or "fascia," or "marquee" sign.

Sec. 26-161. Sign and billboard permit application; plans and specifications.

- (a) Application for a sign permit shall be made in writing upon forms furnished by the zoning enforcement officer. Such application shall contain the street address or legal description, as required, of the property upon which the sign is to be located, the name and address of the owner and the sign erector, and such other information as may be required by the zoning enforcement officer.
- (b) Two copies of plans and specifications shall be submitted when required with the application for each sign permit. Such plans shall show complete details, methods of attachment or support, location, and materials to be used. Computations, stress diagrams, and other data sufficient to show the correctness of the plans shall be submitted when required by the community development department.

Secs. 26-162—26-169. Reserved.

Part 4. Electrical

Sec. 26-170. Electrical permit required.

No person shall perform any electrical work nor install electrical equipment in or upon any building or property without first securing from the Permit and Development Center a permit therefore; nor shall any alteration or change be made in the wiring of any building, or in any electrical installation therein or thereon, either before or after inspection, nor shall any electric current be connected to any wires, or apparatus, without notifying the electrical inspector and securing a permit therefore. A separate permit shall be obtained for each building. A fee for each electrical permit shall be paid to the building official in the amount set in the schedule of fees adopted by the city council by resolution.

Secs. 26-171—26-179. Reserved.

Part 5. Mechanical

Sec. 26-180. Mechanical permit required.

- (a) Mechanical permits are required as identified in IMC chapter 1, part 2 and in IFGC chapter 1, part 2.
- (b) A fee for each mechanical permit shall be paid to the building official in the amount set in the schedule of fees adopted by the city council by resolution.

Sec. 26-181. Mechanical permit exemptions.

The following are also excluded from the permit requirements of IMC section 106:

- (1) Section 106.2 shall not be interpreted to exclude any walk-in refrigerating systems of any kind from the permit requirements.
- (2) Minor repair, cleaning, adjustment, or replacement of minor parts of any heating, ventilating, cooling, or refrigeration equipment where the total cost of the work does not exceed \$100.00. This exemption shall be deemed to include adjustments by a gas supplier in a gas piping system due to the exchange or relocation of a gas meter.

Secs. 26-182—26-189. Reserved.

Part 6. Plumbing

Sec. 26-190. Plumbing permits required.

- (a) Plumbing permits are required as identified in the Uniform Plumbing Code chapter 1.
- (b) A fee for each plumbing permit shall be paid to the building official in the amount set in the schedule of fees adopted by the city council by resolution.
- (c) Excavation permits issued by the city engineer pursuant to chapter 102 to open streets, parking or other public property for the purpose of installation or repair shall be issued only after plumbing permits for the work have been obtained in accordance with this division. Each excavation permit shall contain the plumbing permit number.

Sec. 26-191. Plumbing permit exceptions

No plumbing permits shall be required for the following:

- (a) Any work generally known as maintenance work, such as the repairing of leaks, the removal of stoppage in sewer or waste pipes, or the repairing of faucets and closet tanks. However, nothing in this subsection shall be construed as permitting the excavation of any part of a street, parking or sidewalk without a plumbing permit.
- (b) When a private sewer, other than a building or house sewer, is constructed under the jurisdiction, standard specifications and inspection of the city engineer, or when lateral sewer stubs, extending from a public sewer to the property line, are constructed under the jurisdiction and standard specifications and inspection of the city engineer.

Sec. 26-192. Plumbing permit issuance criteria; plans and specifications.

- (a) *Issuance.* Plumbing permits shall be issued only in the name of the person holding a current plumbing contractor's license issued by the city or by the State of Iowa, a copy

which shall be kept on file with the building official. The application for a plumbing permit shall recite the name of the person holding the plumbing contractor's license, the personal signature of the certified or licensed master plumber or the master plumber's duly authorized agent, the street and building number of the proposed work, the owner's name and address, the occupancy or use of the premises, the specific items of work to be performed, and such other pertinent information as may be required by the building official. The contractor and any master, journeyman or apprentice plumber shall keep a copy of their license readily accessible at the premises to which the permit applies.

- (b) *Plans and specifications.* Plans and specifications shall be submitted as follows:
- (1) When required by the building official for the enforcement of any provisions of the plumbing code, plans and specifications for the installation of any plumbing or plumbing system shall be filed with and approved by the permit and development administrator before the issuance of any permit.
 - (2) The building official may require such plans and specifications to be prepared and designed by an engineer licensed by the state to practice as such.
 - (3) One set of plans and specifications may be filed for checking, provided that not less than two sets of corrected plans and specifications are filed before the building official gives approval. After approval, one set of plans shall be retained by the building official and the other set shall be returned to the applicant, which set shall be kept on such building or work at all times during which the work authorized is in progress.
 - (4) When the plans and specifications do not comply with provisions of the plumbing code, the necessary changes or revisions shall be made thereto.
 - (5) Every plan shall be a print or other type of approved plan. The information contained on the plans shall be clearly legible and specifically indicated. Plans shall be drawn to an appropriate scale.
 - (6) Specifications, legibly and definitely stated, shall be included either on the plan or on separate sheets.
 - (7) The approval of any plans or specifications shall not be construed to sanction any violation of the plumbing code.
 - (8) No person shall deviate materially from any approved plans or specifications or fail, neglect, or refuse to comply therewith unless permission to do so has been obtained from the building official.
 - (9) The plans or specifications shall show the following data, along with such other information as may be required by the building official:
 - a. Layout for each floor drawn to accurate scale or dimensions of all working spaces and a legend of all symbols used.
 - b. Locations, size, and material of all piping and fixtures.
 - c. The first sheet of each set of plans and specifications shall show the address of the proposed work and the name and address of the owner or lessee of the premises.
 - d. Plans and specifications shall be of sufficient clarity to show that the proposed installation will conform to the provisions of the plumbing code and all applicable laws, ordinances, rules, regulations and orders.

Secs. 26-193--26-199. Reserved.

Division 4. Licenses And Certificates

Part 1. Reserved

Part 2. Reserved

Secs. 26-200--26-209. Reserved.

Part 3. Sign & Billboard

Sec. 26-210. Billboard license and bond required.

Any person or any agent thereof, before erecting, constructing or maintaining any billboard as defined in section 26-360, must procure a class A sign erector's license and furnish a bond when so required by section 26-213 of this division.

Sec. 26-211 Sign erector's license required; to whom issued; classes; expiration; annual fees.

- (a) Every person erecting or installing signs for which permits are required by section 26-160 shall obtain a sign erector's license to conduct such operations, except that the occupant of a premises may obtain a permit to erect or install a sign on the premises without a license if the sign is not electrical, does not exceed 15 square feet, does not exceed 50 pounds, and is attached flat against the side of a building or parapet wall.
- (b) The license to erect signs shall be known as a sign erector's license, of which there shall be three classes, as set out in this subsection, and shall be issued only to those persons who show sufficient knowledge and experience to satisfy the zoning enforcement officer as to their ability to erect signs of a size and weight allowed by the class of license for which they are applying in a safe and substantial manner in accordance with the provisions of division IV of Article III of this chapter. The three classes of license and the allowable size and weight of signs that may be erected thereunder shall be as follows:
 - (1) Class A. A class A sign erector's license shall entitle the holder thereof to erect any sign or billboard that may be erected in accordance with the provisions of this division.
 - (2) Class B. A class B sign erector's license shall entitle the holder thereof to erect any sign, but not a billboard, which does not exceed 75 square feet in area or 400 pounds in weight.
 - (3) Class C. A class C sign erector's license shall entitle the holder thereof to erect any sign, but not a billboard or roof sign, which does not exceed 20 square feet in area or 150 pounds in weight.
- (c) All sign erector's licenses shall expire on December 31 of each even-numbered year and may be renewed prior to expiration by payment of the license fee for the next biennial term. Any expired license may be renewed without examination within 30 days after the expiration date upon payment of the license fee plus a late renewal fee in the amount set in the Schedule of Fees adopted by the city council by resolution. When more than 30 days have passed after the expiration date, no expired license shall be renewed except upon the recommendation of the zoning enforcement officer and payment of the license fee plus the late renewal fee.

- (d) The license fees for sign erector's licenses shall be in the amounts set in the schedule of fees adopted by the city council by resolution.

Sec. 26-212 Sign erector's license application; examination of qualifications of applicant; issuance.

Applications for sign erector's licenses shall be made to the zoning enforcement officer and shall contain the name and address of the proprietor, president or other senior officer in charge of the applicant's business and such other pertinent information as may be requested. The zoning enforcement officer shall examine the qualifications of each applicant and shall cause licenses to be issued to all those properly qualified after their bonds have been filed and approved by the legal department and license fees have been paid.

Sec. 26-213 Sign erector's bond.

- (a) Prior to the issuance of a sign erector's license, the person desiring such a license shall file with the zoning enforcement officer a good and sufficient bond running to the city, the penal sum of which shall be \$10,000.00 for a class A license, \$5,000.00 for a class B license, \$2,500.00 for a class C license, to indemnify, save and keep harmless the city from any and all costs, damages, or expenses of any kind whatsoever which may be suffered by the city or which it may be put to or which may accrue against it by charging to or recovering from the city from or because of the granting of permission to erect such signs or because of any acts or things done under or by authority of permission granted by the zoning enforcement officer to erect such signs in the city or because of the negligence, failure or refusal of any person to comply with all the sections of this division applicable to such signs, or to pay any sign permit fees.
- (b) At any time the bond of any sign erector is permitted to lapse, such sign erector's license shall be automatically suspended and shall remain suspended until such sign erector again files a bond as required in this section.

Secs. 26-214—26-229. Reserved

Part 4. Electrical

Sec. 26-230 Electrical contractor's license.

- (1) Except as provided in section 26-232, only those individuals or business entities holding an electrical contractor license as recognized in this section may apply for and obtain permits to conduct electrical work in the city.
- (2) Any person, firm or business engaged in, or which presents itself as engaging in any electrical systems activity or business within the city, shall present for copying by the building official, all licenses issued by the electrical examining board to any of its workers or employees prior to such workers or employees engaging in such work within the city.
- (3) No new electrical contractor licenses shall be issued by the city.
- (4) Except as otherwise provided in this chapter, no person, firm or business shall engage in, or present itself as engaging in any electrical work or business regulated by article IV of this chapter unless it is an electrical contractor licensed as such by the Iowa electrical

examining board and is, or employs, a class A master electrician licensed as such by such board.

Sec. 26-231. Master, journeyman, and apprentice licenses.

Except as provided in section 26-232 or as otherwise specifically allowed by this chapter, no person shall work in the electrical trades or perform any work regulated by articles IV of this chapter without a license recognized by this chapter.

- (1) Those persons working in the electrical trades who have been issued a license, exclusive of class B licenses, by the Iowa electrical examining board pursuant to I.C. chapter 103, shall be recognized as licensed and eligible to work in the city within the scope of activities authorized by such licenses.
- (2) Those persons working in the electrical trades who have been issued a class B license by the Iowa electrical examining board pursuant to I.C. chapter 103, shall be recognized as licensed and eligible to work in the city within the scope of activities authorized by such licenses only if they previously held a comparable electrical license issued by the City.

Sec. 26-232. Exemptions from licensing requirements.

The provisions of sections 26-230 and 26-231 shall not apply to the following:

- (1) The electrical work of a public utility company, telephone, or telegraph company, nor the persons performing electrical work for such companies, if that electrical work is an integral part of the plant used by such public utility company or telephone or telegraph company in rendering its duly authorized service to the public.
- (2) A regular employee of any railroad who does electrical work only as part of that employment.
- (3) The service or maintenance of comfort heating equipment by any person who is licensed as a comfort heating contractor under the provisions of article V of this chapter of the City Code, provided that such service or maintenance shall include electrical work only on electrical equipment that is part of comfort heating equipment. This work shall include the connection of the comfort heating equipment to an existing individual branch circuit.
- (4) The electrical work performed in or on city-owned buildings or equipment when such work is performed by regular city employees who are classified as electricians in the city's position classification plan.
- (5) The work performed on traffic signals or streetlights by an employee of a contractor qualified according to the standard specifications of the state department of transportation and acting pursuant to a contract of the city or the state that is included in a jointly approved project agreement.
- (6) In cases in which an owner-occupant of a single family dwelling desires to conduct work on electrical systems in the owner-occupant's single family dwelling the owner-occupant may appear before the respective discipline inspector to demonstrate that he or she is competent to do the specific work to be accomplished, and after successful demonstration of competence as determined by the inspector, may obtain the permit(s) by paying the proper fee. For purposes of this section a single family dwelling unit shall mean a detached residence designed for or occupied by one family only which is the primary residence of the

owner-occupant with record of homestead and qualifies for the homestead tax exemption.

Secs. 26-233—26-249. Reserved.

Part 5. Mechanical and Plumbing

Sec. 26-250 Mechanical and plumbing contractor's license.

- (1) Except as provided in section 26-252, only those individuals or business entities holding a mechanical or plumbing contractor license as recognized in this section may apply for and obtain permits to conduct mechanical or plumbing work in the City of Des Moines.
- (2) Any person, firm or business engaged in, or which presents itself as engaging in any plumbing, HVAC, refrigeration or hydronic systems activity or business within the city, shall present for copying by the building official, all licenses issued by the plumbing and mechanical systems examining board, to any of its workers or employees prior to such workers or employees engaging in such work within the city.
- (3) Any person desiring a new city mechanical contractor license or city plumbing contractor license shall make application on forms furnished by the building official, shall provide the contractor's bond identified in section 26-253 and shall pay the application fee in the amount set in the schedule of fees adopted by the city council by resolution. Any applicant for a mechanical or plumbing contractor's license which satisfies the requirements set forth in this section for the type of contractor license applied for shall be issued such license.
- (4) *Mechanical contractor.* Except as otherwise provided in this chapter, no person, firm or business shall engage in, or present itself as engaging in any HVAC, refrigeration or hydronic systems activity or business regulated by article V of this chapter, unless it satisfies one of the following qualifying criteria:
 - a. It is a mechanical contractor licensed to engage in such discipline of the mechanical contractor trade by the Iowa plumbing and mechanical systems examining board and is, or employs, a master mechanic licensed in such trade by such board; or,
 - b. It holds a city mechanical contractor license in such discipline of the mechanical contractor trade and is, or employs, either: i) a master mechanic licensed in such discipline by the city, or; ii) a master mechanic licensed in such discipline by the Iowa plumbing and mechanical systems examining board. HOWEVER, no person, firm or business shall engage in, or hold themselves out as engaging in, any discipline of the mechanical trade regulated by article V of this chapter, under authority of this paragraph, for more than four months after the Iowa plumbing and mechanical systems examining board begins issuing mechanical contractors licenses for such discipline of the mechanical contractor trade.
- (5) *Plumbing contractor.* Except as otherwise provided in this chapter, no person, firm or business shall engage in, or present itself as engaging in, any plumbing activity or business regulated by article VI of this chapter unless it satisfies one of the following qualifying criteria:

- a. It is a plumbing contractor licensed as such by the Iowa plumbing and mechanical systems examining board and is, or employs, a master plumber licensed as such by such board; or,
- b. It holds a city plumbing contractor license and is, or employs, either: i) a master plumber licensed as such by the city, or; ii) a master plumber licensed as such by the Iowa plumbing and mechanical systems examining board. However, no person, firm or business shall engage in any plumbing work or business regulated by article IV of this chapter under authority of this paragraph for more than four months after the Iowa plumbing and mechanical systems examining board begins issuing plumbing contractor licenses.

Sec. 26-251. Master, journeyman, and apprentice license required.

- (1) Except as provided in section 26-252, a person shall not install or repair plumbing, HVAC, refrigeration, or hydronic systems without obtaining a license issued by the State of Iowa for the applicable discipline, or install or repair medical gas piping systems without obtaining a valid certification approved by the Iowa plumbing and mechanical systems examining board.
- (2) Except as provided in section 26-252, a person shall not engage in the business of designing, installing, or repairing plumbing, HVAC, refrigeration, or hydronic systems unless at all times a state licensed master in such discipline, who shall be responsible for the proper designing, installing, and repairing of the HVAC, refrigeration, or hydronic system, is employed by the person and is actively in charge of the plumbing, HVAC, refrigeration, or hydronic work of the person. An individual who performs such work pursuant to a business operated as a sole proprietorship shall be a state licensed master in the applicable discipline.
- (3) *State licenses - mechanical and plumbing.* Those persons working in the mechanical and plumbing trades who have been issued a license by the Iowa plumbing and mechanical systems examining board pursuant to I.C. chapter 105, shall be recognized as licensed and eligible to work in the city within the scope of activities authorized by such licenses.
- (4) *City mechanical and plumbing licenses.* Except for mechanical contractor licenses and plumbing contractor licenses, all mechanical and plumbing licenses issued by the city have expired. Every mechanical contractor license and plumbing contractor license issued by the city pursuant to this chapter which was valid on July 1, 2009, or was first issued at any time thereafter, shall remain in effect without renewal until four months after the date the Iowa plumbing and mechanical systems examining board begins issuing plumbing contractor licenses.

Sec. 26-252. Exemptions from licensing requirements.

The requirements imposed by sections 26-250 and 26-251 shall do not be construed to:

1. Apply to a person licensed as an engineer pursuant to I.C. chapter 542B, licensed as a manufactured home retailer or certified as a manufactured home installer pursuant to I.C. chapter 103A, registered as an architect pursuant to I.C. chapter 544A, or licensed as a landscape architect pursuant to I.C. chapter 544B who provides consultations or develops plans or other work concerning plumbing, HVAC, refrigeration, or hydronic work and who is exclusively engaged in the practice of the person's profession.

2. Require employees of municipal utilities, electric membership or cooperative associations, public utility corporations, rural water associations or districts, railroads, or commercial retail or industrial companies performing manufacturing, installation, service, or repair work for such employer to hold licenses while acting within the scope of their employment. This licensing exemption does not apply to employees of a rate-regulated gas or electric public utility which provides plumbing or mechanical services as part of a systematic marketing effort, as defined pursuant to I.C. section 476.80.
3. Prohibit an owner of property from performing work on the owner's principal residence within the scope of section 26-136(b), if such residence is an existing dwelling rather than new construction and is not larger than a single-family dwelling, or farm property, excluding commercial or industrial installations or installations in public use buildings or facilities, or require such owner to be licensed under this chapter. In order to qualify for inapplicability pursuant to this subsection, a residence shall qualify for the homestead tax exemption.
4. Require that any person be a member of a labor union in order to be licensed.
5. Apply to a person who is qualified pursuant to administrative rules relating to the storage and handling of liquefied petroleum gases while engaged in installing, servicing, testing, replacing, or maintaining propane gas utilization equipment, or gas piping systems of which the equipment is a part, and related or connected accessory systems or equipment necessary to the operation of the equipment.
6. Apply to a person who meets the requirements for a certified well contractor pursuant to I.C. section 455B.190A while engaged in installing, servicing, testing, replacing, or maintaining a water system, water well, well pump, or well equipment, or piping systems of which the equipment is a part, and related or connected accessory systems or equipment necessary to the operation of the water well.
7. Require a helper engaged in general manual labor activities while providing assistance to an apprentice, journeyman, or master to obtain a plumbing, HVAC, refrigeration, or hydronic license. Experience as a helper shall not be considered as practical experience for a journeyman license.
8. Apply to a person who is performing work subject to chapter I.C. 100C.
9. Apply to an employee of any unit of state or local government, including but not limited to cities, counties, or school corporations, performing work on a mechanical system or plumbing system, which serves a government-owned or government-leased facility while acting within the scope of the government employee's employment.
10. Apply to the employees of manufacturers, manufacturer representatives, or wholesale suppliers who provide consultation or develop plans concerning plumbing, HVAC, refrigeration, or hydronic work, or who assist a person licensed under this chapter in the installation of mechanical or plumbing systems.
11. Prohibit an owner or operator of a health care facility licensed pursuant to I.C. chapter 135C, assisted living center licensed pursuant to I.C. chapter 231C, hospital licensed pursuant to I.C. chapter 135B, adult day care center licensed pursuant to I.C. chapter 231D, or a retirement facility certified pursuant to I.C. chapter 523D from performing work on the facility or requiring such owner or operator to be licensed under this chapter; except for projects that exceed the dollar amount specified as the competitive bid threshold in I.C. section 26.3.
12. Prohibit a rental property owner or employee of such an owner from performing routine maintenance on the rental property.

Sec. 26-253. Contractor's bond.

- (a) Any person or business seeking a new plumbing or mechanical contractor license from the City shall file with the office of the building official a surety bond running to the city in the sum of \$5,000.00 to be approved by the building official and legal department, to save the city harmless on account of any and all failures on the part of such applicant to comply in all particulars with the provisions of the building codes and all other applicable laws and ordinances, rules and regulations relating to the work for which a permit has been issued; to ensure the rectification of defective work to the satisfaction of the building official; and to ensure the payment of the required fees for all permits obtained by such contractor from the city under authority of such license.
- (b) Any contractor's bond held by the city for a plumbing or mechanical contractor shall be retained by the City until 90 days after the earlier of December 31, 2010, or the date such contractor license is revoked, withdrawn or relinquished.

Secs. 26-254--26-269. Reserved.

Division 5. Inspections and Enforcement

Sec. 26-270. Inspections.

- (a) The person doing any work for which a permit is required shall notify the building official that the work is ready for inspection. The building official shall perform the required inspection and, if the work complies with the provisions of the building codes, issue written verification noting the date and results of the inspection. If the work does not comply with the provisions of the building codes, the building official shall post a violation tag in a conspicuous place on or near the work. The violation tag shall contain the date and results of the inspection and, when requested, shall note specific violations. No tag shall be removed by any person other than the building official.
- (b) When the work is completed, the person doing it shall notify the building official that the work is ready for final inspection.
- (c) All construction trades inspectors shall have the right to enter upon any property during reasonable hours in the discharge of their official duties. They are authorized and directed to inspect any and all building and environmental support system installations within the city and order the removal, reconfiguration or other modification, for the protection of the public health, safety and welfare, of any system or component that is not in compliance with the provisions of municipal ordinances and construction codes. Such order may mandate the isolation of affected systems or disconnection of utilities.

Sec. 26-271. Notice of and failure to remedy defects.

Any work for which a permit is required is subject to inspection at any time. The building official may revoke a permit at any time when the work is not in compliance with the building codes, or any other applicable law, ordinance, rule or regulation. The building official may take any necessary action including but not limited to disconnecting utility service affecting the defective work. The utility service shall not be reinstated until all defects or improper conditions have been removed or repaired and re-inspected to assure compliance with the provisions of the building codes.

Sec. 26-272. Correcting defective work.

When a contractor is notified that defects exist in the work, the contractor shall make corrections within 30 days after notification. If not so made, the building official may refuse to issue any other permits to the contractor or for the property until defects are corrected and the work is approved after re-inspection by the building official.

Sec. 26-273. Covering or concealing work.

No work for which a permit is required shall be concealed in any manner from access or sight until the work has been inspected and approved by the building official.

Sec. 26-274. Temporary work.

Temporary work means work that is obviously installed for the convenience of a contractor or builder during construction. This work shall be the complete responsibility of the person or company that installs it and shall not require the building official's approval prior to being used, provided that the building official may require corrections in the work to eliminate any hazardous or unsafe conditions.

All such work shall be installed by a licensed contractor or the licensed contractor's employee and shall be removed before final approval of permanent work. Temporary work shall not be permitted to remain in use in excess of six months except by written permission of the building official.

Sec. 26-275. Furnishing utility service prior to approval of work.

No utility furnishing electrical, gas or water service shall connect that service, or furnish electricity, gas or water to any building or premises which has not been inspected and approved by the building official. Upon written notice from the building official the utility shall immediately disconnect such building or premises from its service.

Sec. 26-276. Civil violations and penalties.

- (a) No person shall engage in or cause any activity to be done in violation of any provision of the building codes or state law regulating contractor licensing.
- (b) Persons who fail to perform an act required by the provisions of this chapter or who commit an act prohibited by the provisions of this article shall be guilty of a misdemeanor punishable by fine or imprisonment as provided by section 1-15 of the city Code, or shall be guilty of a municipal infraction punishable by a civil penalty as provided by section 1-15 of the city Code.
- (c) The city may obtain injunctive relief to enforce the provisions of this chapter.

Sec. 26-277. Unsafe buildings.

- (a) All buildings or equipment which contain one or more of the following defects may be considered unsafe and unfit for occupancy:

- (1) structural instability, dilapidated, decayed, obsolete, dangerous, abandoned, not secured against entry;
 - (2) insanitary, contains filth and contamination, vermin infested;
 - (3) lack adequate egress, light, ventilation, maintenance, or minimum safeguards to protect or warn occupants in the event of fire;
 - (4) involve illegal or improper occupancy.
- (b) All unsafe buildings or equipment may be declared to be public nuisances by the building official and shall be abated by repair, rehabilitation, demolition, or removal. All unsafe residential buildings and equipment are also subject to the residential public nuisance code in article III of chapter 60 of this code.

Sec. 26-278. Factory built structures.

- a) Factory-built buildings constructed and certified in accordance with the Iowa State Building Code shall be exempt from the following requirements of this code.
 - 1) Sections 26-270, 26-271, 26-272 and 26-273 of this article requiring personal inspection by the plumbing inspector;
 - 2) Sections 26-230 and 26-250 of this article requiring a contractor's license;
 - 3) Sections 26-231 and 26-251 requiring a master, journeyman or apprentice license; and,
 - 4) Section 26-273 of this article prohibiting the concealment of plumbing work prior to inspection by the plumbing inspector.
- b) The correction of violations and all on-site plumbing work shall be subject to the provisions of this chapter without benefit of the exemptions provided in this section. The term "on-site plumbing work" shall include all plumbing work not certified by such certificate of inspection.

Secs. 26-279--26-299. Reserved.

ARTICLE III. BUILDING CODE

Division 1. Generally

Sec. 26-300. Adoption of international codes.

- (a) This article shall consist of the International Building Code ("IBC"), the International Existing Building Code ("IEBC"), the International Energy Conservation Code ("IECC") and Parts I, II, III, V, VI and appendix chapters H & J of the International Residential Code ("IRC") all 2009 editions published by the International Code Council, which volumes are incorporated by this reference in their entirety, except as otherwise indicated in this article.
- (b) This article and all provisions incorporated in this article, by reference or otherwise, shall be known as the building code. References to section numbers not preceded by "26-" will be to sections in the International Building Code, the International Existing Building Code, International Energy Conservation Code or the International Residential Code.
- (c) Climatic and geographic design criteria for the City of Des Moines

Ground Snow Load	Wind Speed	Seismic Design Category	Subject To Damage From:				Winter Design Temp	Ice Shield Underlayment Required	Flood Hazard	Air Freezing Index	Mean Annual Temperature
			Weathering	Frost Line Depth	Termite	Decay					
30 psf	90 mph	A	Severe	42"	Moderate to Heavy	Slight to Moderate	0°F	Yes	Mar-1984	1833	48.6°F

Sec.26-301. Historic buildings.

Notwithstanding the provisions of IBC section 3409, buildings of any occupancy, except for group H (hazardous) occupancies, classified as historical buildings within the context of IBC sections 202 and 3409, or buildings more than 50 years old, may be repaired, modified, altered, moved or improved in accordance with the provisions of the IEBC. The provisions of the IEBC shall not supersede the provisions of the building code relating to unsafe buildings or structures.

Secs. 26-302--26-309. Reserved.

Division 2. Deletions and Amendments

Sec. 26-310. Deletions.

The following are deleted from the building code and are of no force or effect in this article:

- (1) Sections 103, 113, 116, ,3109; and,
- (2) Subsections 101.4 104.8, 105.2, 105.5, 109.3, and 110.3.5 of the International Building Code.
- (3) Sections R103, R112; and,
- (4) Subsections R104.8, R105.2, R105.5, R108.3, G2420.5.3, exception 4 in G2422.1.2.3; and,
- (5) Table R403.1 of the International Residential Code.
- (6) Section 103, 112, 115; and,
- (7) Subsections 104.8, 105.2, 105.5, 108.3, 109.3.5, of the International Existing Building Code.
- (8) Section 109 of the International Energy Conservation Code.

Sec. 26-311. Exceptions

Skywalk system. Notwithstanding the provisions of Chapter 32 of the International Building Code, the structures of a duly authorized portion of the public skywalk system may project into an alley to the extent authorized by the city council pursuant to article IV of chapter 102 of the city Code.

Sec. 26-312. Amendments and additions.

The remaining sections in this article represent amendments and additions to the requirements contained in the International Building Code, the International Residential Code,

the International Energy Conservation Code and the International Existing Building Code. In the event there are requirements that conflict with these codes, the requirements of this article shall prevail.

Sec. 26-313. Foundations for stud bearing walls.

Notwithstanding the provisions of the IRC Table 403.1 the minimum width for all footings shall be 16 inches.

Sec. 26-314. Foundation retaining walls for one and two family dwelling occupancies.

- (a) *Scope.* Notwithstanding other design requirements of Sections R404.1 – R404.1.5.3 of the International Residential code, foundation retaining walls for One and Two Family Dwelling occupancies of type V construction may be constructed in accordance with this section, provided that use or building site conditions affecting such walls are within the limitations specified in this section.
- (b) *Specifications.* General specifications for such foundation retaining walls shall be as follows:
 - (1) The maximum height of the foundation wall shall be seven feet eight inches measured between the foundation plate and a concrete floor slab having a minimum thickness of 3 1/2 inches. If such floor slab is not provided, a specially designed means of providing lateral support at the bottom of the wall shall be required.
 - (2) The foundation plate shall be attached to the wall with one-half-inch steel bolts as prescribed in of the International Residential code.
 - (3) Material used for backfilling shall be carefully placed granular soil of average or high permeability and shall be drained with an approved drainage system. The height of finish grade requirements of Section R404.1.6 of the International Residential code shall be observed at all times.
 - (4) Where soils containing a high percentage of clay, fine silt or similar materials of low permeability or expansive soils are encountered or where backfill materials are not drained or an unusually high surcharge is to be placed adjacent to the wall, a specially designed wall shall be required.
- (c) *Hollow concrete masonry foundation walls.* Specifications for hollow concrete masonry foundation walls shall be as follows:
 - (1) Hollow concrete masonry units shall be set in type M or type S mortar.
 - (2) All footings shall be of cast-in-place concrete having a minimum compressive strength of 3,000 pounds per square inch at 28 days, and shall be reinforced longitudinally with not less than No 4 steel rebar deformed ASTM A615 grade 40 for one-story construction, or two No 4 steel rebars deformed ASTM A615 grade 40 for two-story construction. Footing reinforcement shall be symmetrically placed and so located as to ensure no less than three inches of concrete cover on all sides.
 - (3) Foundation walls having a nominal thickness of not less than 12 inches may be unreinforced. Other foundation walls shall comply with the following requirements:
 - a. The nominal thickness of concrete masonry units shall not be less than eight inches.

- b. When a foundation wall has a horizontal clear span of more than 12 feet between supporting cross walls or corners, fully grouted vertical reinforcing shall be provided in the center of such wall in the amount of 0.075 square inch of ASTM A615 grade 40 steel per lineal foot of wall. All reinforcing steel shall be deformed bars spaced no more than eight feet zero inches on center. All grout shall comply with section R607 of the International Residential code.
- (d) *Cast-in-place plain concrete foundation walls.* Cast-in-place plain concrete foundation walls constructed under this subsection shall be of concrete having a minimum compressive strength in 28 days of not less than 3,000 pounds per square inch. All materials, proportioning, and placing shall conform to the requirements of chapter 4 of the International Residential Code. In addition:
 - (1) The minimum thickness of wall shall be 7 1/2 inches.
 - (2) Walls shall be reinforced with no less than three one-half-inch diameter deformed ASTM A615 grade 40 steel bars placed horizontally at the center of the wall, with one bar located near the top, one bar located near the bottom, and one bar located near midheight of the wall. Reinforcing bars and methods of placement shall be in accordance with chapter 16 or 19 of the building code.

Sec. 26-315. Snow loads.

For purposes of determining snow loads as required in Sections 1608 of the International Building Code and Section R301.2 of the International Residential Code, the minimum ground snow load for design purposes shall be 30 pounds per square foot. Subsequent increases or decreases shall be allowed as otherwise provided in the building code, except that the minimum allowable flat roof snow load may be reduced to not less than 80 percent of the ground snow load.

Sec. 26-316. Ice dam Protection.

Notwithstanding the provisions of Section R905.2.7.1 of the IRC, Ice Protection, ice dam protection materials are not required if:

- (a) the building is constructed with a raised heel truss or similar design, and
- (b) a minimum R38 attic insulation extends across the top plate to a point aligning with the exterior sheathing, and
- (c) The plans for the alternative design described in this section are submitted and approved at the time the building permit is issued.

Sec. 26-317. Permanent occupancy of public property generally.

- (a) No part of any structure or any appendage thereto, except signs, shall project beyond the property line of the building site, except as specified in the building code; provided, however, that a structure or appendage thereto may project beyond the property line of the building site when the applicant holds a property interest, including but not limited to air rights, within the area of the projection sufficient to establish a legal right to build therein or thereon.
- (b) Structures or appendages regulated by this section shall be constructed of materials as specified in the building code.

- (c) The projection of any structure or appendage shall be the distance measured horizontally from the property line to the outermost point of the projection.
- (d) Nothing in the building code shall prohibit the construction and use of a structure between buildings and over or under a public way provided the structure complies with all requirements of the building code.
- (e) No subsection of this section and no provision of the Building Code shall be construed to permit the violation of other laws or ordinances regulating the use and occupancy of the public property.

Sec. 26-318. Demolition of buildings and structures.

- (a) Permit required; expiration. A permit shall be required for demolition of buildings and structures in accordance with the following:
 - (1) No person shall commence the work of demolishing any building or structure until a permit authorizing such work has been obtained from the building official. Every demolition permit issued under the provisions of this section shall expire by limitation and become null and void if the work authorized by such permit is not commenced within seven calendar days from the date of issuance, or if the work authorized by such permit is not completed within 30 calendar days of the date of issuance, unless, because of the extensiveness of the project, the building official deems at the time of issuance a longer period for either commencement or completion should be granted.
 - (2) Any permittee holding an unexpired demolition permit may request in writing an extension of time within which the demolition work may be commenced or completed. If such request contains good and satisfactory reasons showing that circumstances beyond the control of the permittee have prevented timely commencement or completion of the work, the building official may extend the applicable expiration date.
 - (3) Except as provided in this section, a demolition permit that has expired shall be null and void, and before any demolition work is subsequently commenced a new permit therefore shall be obtained. The fee for such permit shall be at the same rate as the original permit.
 - (4) If a demolition permit to remove an unsafe building or a building that is the subject of a public nuisance action has expired, the building official shall order the prompt removal of such structure, in accordance with all requirements of this article. All of the costs attendant to this action, including administrative costs, shall be either assessed against the property or collected from the owner unless otherwise directed by the city council.
- (b) *Application for permit.* Application for a permit to demolish a building or structure shall be made to the building official. The applicant shall provide the following information:
 - (1) The name and address of the person in responsible charge of the work.
 - (2) The street address and legal description of the property on which the building or structure is located.
 - (3) The name and address of the owner and, when appropriate, his or her legal agent in responsible charge of the property.
 - (4) Overall dimensions, number of stories and materials of construction of the building or structure to be demolished.

- (5) A plan showing areas to be protected by fences, barricades, covered walkways, or other protective devices, and details of construction for such devices.
- (6) Location of the site where the demolition debris is to be discarded.
- (7) Approval from other affected city departments or governmental agencies when deemed necessary by the building official and any special conditions or restrictions relating thereto.
- (8) For demolition by explosives, the applicant shall furnish the information required in this subsection and shall furnish information regarding the person who will be conducting the demolition by explosives and shall furnish plans showing how the building or structure will be prepared for demolition, the type and amount of explosives to be used, and a detailed plan showing what safety precautions will be taken to protect persons and property.
- (9) A permit for the demolition of a building or structure by the use of explosives may be issued by the city council subject to the following conditions:
 - a. The applicant for a permit must demonstrate to the city council the need for demolition by explosives rather than demolition by conventional means and must demonstrate that demolition by explosives can be safely conducted at the specific location requested.
 - b. The building official, fire chief and police chief shall review the application and submit their opinions to the city council concerning whether or not the demolition can be safely conducted, together with any recommendations they may have.
 - c. The applicant shall provide a certificate of liability insurance for personal injuries, death and for property damage in an amount not less than \$1,000,000.00 naming the city as an additional named insured party. The certificate shall provide that the coverage shall not be cancelled or changed without ten days' prior written notice to the city. The city council may require additional insurance coverage when the hazard appears greater than normally expected and may also in such instance require the posting of a bond acceptable to the city in an amount commensurate with the severity of the hazard. The bond shall provide that the applicant shall well and satisfactorily perform the demolition. The bond shall be for the benefit of the city and any person who is injured or damaged by the failure of the applicant to satisfactorily perform the demolition.
 - d. The applicant shall agree to indemnify and hold harmless the city from all losses resulting from damages or injuries caused by the applicant or the applicant's employees, servants or agents arising out of the use of explosives in demolition.
 - e. The applicant shall pay the city in advance for reasonable expenses that will be incurred by the city in furnishing necessary security and police protection in the vicinity of the demolition site.
 - f. The applicant shall observe all applicable federal, state and local laws in the course of the demolition, including but not limited to the following:
 1. The applicable provisions of the city fire prevention code relating to the storage, transportation and use of explosives.
 2. The rules and regulations of the United States Environmental Protection Agency relating to the demolition of buildings or structures containing asbestos materials or other hazardous air pollutants.

- g. The applicant shall meet all other requirements of this article relating to the demolition of structures or buildings; provided, however, that if a conflict exists between the provisions of this subsection and other sections of the city Code, the provisions of this subsection shall be deemed to be controlling.
 - h. The applicant need not obtain an obstruction permit as provided in section 26-319 of this article to block off portions of public property within an appropriate distance of the demolition site, provided that the obstruction is for less than a 24-hour period and provided that the obstruction is for security purposes in connection with the use of explosives. However, the applicant shall be required to obtain an obstruction permit to use public property in the cleanup operations following the detonation of explosives.
 - i. The city council shall at any time have the authority to impose additional requirements and safety precautions in the interest of the public health, safety and welfare.
- (10) Such other information as shall be reasonably required by the building official.
- (c) *Disconnection of sewer and water.* No permit to demolish shall be issued until it has been established that existing sewer and/or water services have been properly disconnected and approved.
 - (d) *Bond required.*
 - (1) Before a permit is issued to remove a building which has been ordered removed as a public nuisance and which period of time granted by the city or by the courts for removal or other remedial action by the applicant or other party of interest has expired, the applicant may be required to post a cash bond equal to the estimated costs of the removal of the building and the disconnection of the existing utility services. If the applicant does not remove the building at the time the permit expires at a time specified by the building official, such bond shall be forfeited and used toward the costs of the city to remove it.
 - (2) If the building is removed by the applicant prior to the time the permit expires, such bond shall be returned to the applicant. A return of the bond does not exempt the applicant from further assessments to the real estate for costs that have occurred prior to the issuance of the permit.
 - (e) *General requirements.*
 - (1) The building official shall have the authority to impose at any time reasonable requirements and safety precautions in the interest of public health, safety, and welfare which, in his or her opinion, are commensurate with the severity of hazard, either demonstrated or anticipated, provided that such requirements may be appealed to and reviewed by the board of appeals at the request of the affected party.
 - (2) In addition, the following shall be met:
 - a. The discharging, loading, or dumping of building materials from any building shall be accomplished in such manner as to minimize the creation of dust and scattering of debris. Materials shall not be dropped by gravity to any point lying outside the building walls except through an enclosed chute, unless such materials are dust free and the height of drop is at least equal to the horizontal distance to the nearest property or barricade line. Where such horizontal distance is not available and practical necessity dictates the dropping of relatively large masses of materials, the building official may approve appropriate protective measures designed to provide protection from danger

equivalent to that afforded by the otherwise required horizontal setback; provided, however, that in all cases such materials shall be handled in a manner approved by the air pollution control division of the county health department.

- b. When necessary to protect the public health, safety, or welfare, every demolition project shall be barricaded, fenced, lighted, and signed with warning and/or directional signs in a manner approved by the building official. The building official may also require the presence of approved security guards or flag persons. Such barricades, fences, lights, and signs as may be deemed necessary by the building official for protection of the public shall be maintained after completion of the demolition work until such time as the site is cleaned of all debris and all excavations, basements, and depressions in the ground are restored to grade and rendered harmless.
 - c. Adequate precautions shall be taken to ensure that procedures or conditions relating to the demolition work do not constitute a fire hazard. If, in the opinion of the fire chief, a fire hazard exists or is likely to exist, he or she may order the cessation of work or require that appropriate protective measures approved by him or her be taken.
 - d. All streets, alleys, and public ways adjacent to the demolition site shall be kept free and clear of any rubbish, refuse, and loose material resulting from the demolition work unless an obstruction permit for such space has been obtained.
 - e. Upon completion of the demolition work, the site shall be left in a clean, smooth condition. Inorganic building rubble, sand, clean earth, or other approved fill material may be used to fill excavations, basements, and depressions, provided that the top 12 inches shall be clean earth or its equivalent in terms of surface smoothness, free from dust, and cleanliness. If the surface is to be used for the parking of vehicles, it shall be constructed as required in chapter 134 of the city Code pertaining to zoning.
- 3) No permit to demolish shall be issued until a grading permit, waiver of grading permit, or a solid waste disposal site license is obtained for any location within the city where the demolition debris is to be discarded.

Sec. 26-319. Obstruction permit, bond, and insurance.

- (a) No person shall use any portion of public property as described in Section 3308 of the International building code without first obtaining an obstruction permit which shall state the following:
 - (1) The name of the owner of the property abutting the public property to be used.
 - (2) The name of the person applying for the obstruction permit.
 - (3) An accurate description of the public property to be obstructed or occupied.
 - (4) The length of time such obstruction or occupancy shall exist.
 - (5) An agreement to comply in all respects with the provisions and requirements of the building code, this article and other city ordinances relating to the use of streets and alleys and to indemnify and save and keep harmless the city from any and all costs, expense or liability for damages or injuries to persons or property or liability of any kind whatsoever, arising from or growing out of the use and

- occupancy of such street or growing out of the deposit of such material or any failure to properly pile, deposit, guard, light or care for such.
- (6) Such additional requirements as may be deemed necessary for the protection of the city and its inhabitants.
 - (b) Before an obstruction permit shall be issued, there shall be placed on file in the office of the building official a surety bond and liability insurance as follows:
 - (1) A surety bond in the sum of \$5,000.00 conditioned to ensure removal of the obstruction and restoration of the right-of-way and all public improvements thereon by or before the expiration date of such obstruction permit or such extended time as may be granted by the city; and
 - (2) Liability insurance showing the city as named additional insured and providing a minimum limit of liability in the amount of \$500,000.00 each accident, for accidents caused by maintenance of such obstruction. The insurance policy shall contain a provision whereby such insurance may be cancelled or materially altered only after giving the city ten days' written notice of the change or cancellation.
 - (c) Such surety bond and liability insurance shall be approved by the building official and the legal department and shall be conditioned to secure the performance of such agreement by the applicant.
 - (d) No person shall, under any permit, occupy more area than is stated in the obstruction permit.
 - (e) The fee for an obstruction permit shall be as set forth in the Schedule of Fees adopted by the city council by resolution.
 - (f) This section shall not apply to street maintenance and actions by the city and its employees and contractors.

Sec. 26-320. Exterior building wall construction.

- (a) Notwithstanding anything contained in section 602 or 705 of the International Building Code, an exterior wall may be constructed with openings without complying with the requirements of such sections related to opening protection, provided that before a building permit is issued which permits an exterior wall to be so constructed, the owner of the building shall furnish the building official with either of the following:
 - (1) A copy of an easement or covenant running with the land applicable throughout the existence of the proposed building in which those with interests in the property abutting the side of the property on which such exterior wall is to be constructed agree not to construct a building on such abutting property within the distances to such exterior wall set forth in such sections 602 and 705 which would require such exterior wall and such building on such abutting property to have the opening protection of such sections 602 and 705, which copy shall show the book and page where such document has been filed of record in the office of the county recorder; or
 - (2) An agreement, in a form capable of being filed of record in the office of the county recorder, for the benefit of those with interest in the abutting property, by which the owner of the building and the owner of the property on which such building is to be built, jointly and severally agree, on behalf of themselves and their successors and assigns for so long as such building is in existence, that, in consideration for being permitted to build an exterior wall of such building

without complying with such sections 602 and 705, at such time as a building is erected on the abutting property within the distances to such exterior wall contained in such sections 602 and 705, they shall modify or rebuild such exterior wall to conform at least to the requirements of such sections 602 and 705 applicable to the actual separations of the buildings; such agreement shall be recorded at the expense of the applicant for the building permit.

- (b) Notwithstanding anything contained in section 602 or 705 of the International Building Code, an exterior wall may be constructed with openings adjacent to a public street or alley right-of-way without complying with the requirements of such sections related to opening protection, provided the following conditions are each satisfied:
- (1) The setback between the exterior wall and the far side of the adjoining public right-of-way must conform at least to the requirements of such sections 602 and 705 applicable to the actual separation of building.
 - (2) The city council has by resolution declared an intent to permanently maintain the adjoining right-of-way as a public street or alley, and to never permit a structure to be constructed or placed upon the right-of-way within the required separation from the exterior wall. The resolution shall specifically describe the affected right-of-way and shall be in a form that can be recorded and indexed into the records of the county recorder.
 - (3) The owner of the building has furnished a copy of the city council resolution described above, which copy shall show the book and page where such document has been filed of record in the office of the county recorder.

Sec. 26-321. Footings for accessory structures in the IRC.

Notwithstanding the provisions of section R403.1.4.1, the building official may approve the omission of frost footings under a one-story wood or metal frame building not exceeding 720 square feet in area used exclusively for accessory structures in the IRC. Any foundation system shall, however, provide the same approximate uniform frost protection.

Sec. 26-322. Residential wood floor cantilevers.

Notwithstanding the provisions of Chapter 5 of the International Residential Code, the maximum floor cantilevers of dimensional wood floor systems serving uses regulated by the International Residential Code shall not exceed a projecting dimension equal to twice the depth of the floor joist for bearing cantilevers and three times the depth of the joist for non-bearing cantilevers. This provision shall not apply to Engineered Wood products or cantilevers designed by a registered design professional for a specific application.

Sec. 26-323. Treads and risers for residential occupancies.

Notwithstanding the provisions of section 311.7.4 of the International Residential Code, the greatest riser height of any flight of stairs shall not exceed the smallest by more than 3/8 inches, except at the top or bottom riser of an interior stair where this dimension may deviate by 1 inch. In no case shall the risers exceed the maximum height of 7 3/4 inches. The greatest tread depth within any flight of stairs shall not exceed the smallest by more than 3/8 inch

(C00, § 26-215; O.14,447, 14,685)

Sec. 26-324. Residential handrails.

On handrails serving uses regulated by the International Residential Code or the International Building Code within the dwelling unit, continuous handrails shall be permitted to be interrupted by newel posts at turns, and at one location in a straight stair when the rail terminates into a wall or ledge and is offset and immediately continues. Ends shall be returned to or shall terminate in newel posts or safety terminals.

Sec. 26-325. Landings for basement egress windows.

Notwithstanding section R310.1 of the International Residential Code (IRC) a landing may be constructed at the authority of the building official when egress windows are required from habitable spaces as outlined therein and the sill height of the window exceeds 44 inches in height from the interior finished floor. Where a landing is provided, that landing shall be a minimum width of 36 inches and a minimum depth of 24 inches, and a maximum height of 24 inches. This landing shall be permanently affixed.

Sec. 26-326. Shelter for the homeless.

- (a) As used in this section, the term "shelter for the homeless" means a building used to provide primarily short term lodging, or short term lodging and meals, and which may also provide other services, including counseling, with or without compensation, to transient individuals or to individuals who have no access to traditional or permanent housing. For purposes of this subsection, short term lodging shall include facilities offering lodging for 30 days or less.
- (b) No building or portion thereof that is to be used as a shelter for the homeless shall be occupied as such unless an inspection certificate for such use has been issued by the building official. Such certificate shall be valid for not more than one year from the date of issuance, and no new certificate shall be issued until the premises have been reinspected for compliance with applicable building code, zoning and fire safety requirements. No fee shall be charged for the annual inspection or certificate of compliance issued under this subsection; provided, however, that this fee exemption shall not apply to permit fees, when required.
- (c) Facilities which fall under federal, state or other local regulations which require annual inspections for building and health safety standards shall be exempted from this section.

Sec. 26-327. Easement required for skywalk corridor prior to building permit issuance.

Where a skywalk corridor is shown on an approved site plan for a proposed development, no building permit shall be issued for that proposed development until the city council has accepted a right to an easement for such skywalk corridor.

Sec. 26-328. Automatic fire sprinkler system

Subsections R313.1 and R313.2 of the IRC are hereby amended by deleting said sections and inserting in lieu thereof the following:

The following structures shall be provided with automatic fire sprinkler systems installed in accordance with section 2904 of the IRC, NFPA 13, NFPA 13R, or NFPA 13D:

1. Any residential dwelling unit that exceeds 8,000 square feet in gross floor area.
2. Townhouse structures that contain more than 8 dwelling units.
3. Townhouse structures that exceed 18,000 square feet in gross floor area.

Sec. 26-329. Fire-resistant construction

The exception under IRC subsection R302.2 is hereby amended by deleting such exemption and replacing it with the following:

Exceptions:

1. If an automatic fire sprinkler system is installed in accordance with section 2904 of the IRC, NFPA 13, NFPA13R, or NFPA13D, then subject to paragraph 3, below, a common 1-hour fire-resistance-rated wall assembly tested in accordance with ASTM E 119 or UL 263 is permitted for townhomes.
2. If an automatic fire sprinkler system is not installed in accordance with section 2904 of the IRC, NFPA 13, NFPA13R, or NFPA13D, then subject to paragraph 3, below, a common 2-hour fire-resistance-rated wall assembly tested in accordance with ASTM E 119 or UL 263 is permitted for townhomes.
3. Plumbing, mechanical equipment, ducts and vents shall not be permitted in the cavity of the common wall. The common wall shall be rated for fire exposure from both sides and shall extend to and be tight against exterior walls and the underside of the roof sheathing. Electrical installations shall be installed in accordance with Chapters 34 through 43. Penetrations of electrical outlet boxes shall be in accordance with Section R302.4.

Sec. 26-330. Piping system installation.

Notwithstanding the provisions of Section G2415 of the IRC, Copper pipe and tubing shall not be installed in locations other than in LP piping systems located on the building's exterior and before the secondary meter. Corrugated stainless steel tubing shall not be installed where subject to physical damage. Locations subject to physical damage include, but are not limited to, building exteriors and where used as an appliance connection between the appliance and shutoff valve.

Sec. 26-331. Bathrooms.

Bathrooms, water closet compartments and similar rooms shall be provided with natural or artificial lights and be provided with mechanical ventilation system. The minimum ventilation rates shall be 50 cubic feet per minute (24L/s) for intermittent ventilation or 20 cubic feet per minute (10L/s) for continuous ventilation. Ventilation air from the space shall be exhausted directly to the outside.

Sec. 26-332. Conversion to condominium or multiple housing cooperative.

- (a) The conversion of any residential building or portion thereof to a horizontal property regime or to a multiple housing cooperative shall be treated as a change of occupancy

classification for the building, notwithstanding anything in the building codes to the contrary, and shall conform to the International Building Code.

- (b) No person shall file or record a declaration in the office of the county recorder to convert an existing structure located within the city to a horizontal property regime unless a certificate of occupancy for compliance with the current building codes has been issued by the building official
- (c) No person shall file or record an instrument in the office of the county recorder conveying an interest in real estate located in the city to a multiple housing cooperative unless a certificate of occupancy for compliance with the current building codes has been issued by the building official.
- (d) At least 60 days before being filed or recorded in the office of the county recorder, the applicant shall file a copy of such declaration or such instrument, together with the following documents with the permit and development administrator, and shall also pay a conversion fee in the amount set in the schedule of fees adopted by the city council by resolution:
 - (1) Two copies of an as-built plan for the entire structure.
 - (2) A building code analysis prepared by a licensed architect or professional engineer demonstrating that the structure conforms with the current building codes, or can be brought into conformance with the current building codes by planned improvements to be made to the structure.
 - (3) Two copies of construction plans for planned improvements to be made to the structure to bring the structure into conformance with the current building codes.
- (e) Upon receipt of the documents and the conversion fee as provided above, the permit and development administrator or the administrator's designee shall review the building code analysis and conduct such inspections of the structure as may be deemed appropriate by the administrator to determine whether or not the structure conforms with the requirements of paragraph (a) above. If the permit and development center administrator or the administrator's designee determines that the structure has been shown to be in substantial compliance with the requirements of paragraph (a) above, the administrator shall cause a certificate of occupancy to be issued for the use of the structure as a horizontal property regime or a multiple housing cooperative. If the structure has not been shown to be in substantial compliance with the requirements of paragraph (a) above, the administrator shall give written notice to the applicant of any violations of the applicable code requirements discovered to exist in the building.

(O.14,924, 14,927)

Secs. 26-333--26-349. Reserved.

*Cross reference(s)--Skywalks generally, § 102-316 et seq.

Division 3. Skywalk System

Sec. 26-350. Scope of Division.

Notwithstanding anything contained in this chapter and chapter 46 of the Municipal Code, the provisions of this division also shall be part of the building code and fire prevention code requirements for the skywalk system and shall take precedence over anything in conflict with this division.

Sec. 26-351. Definitions.

The definitions for the terms "skywalk system," "skywalk corridor" and "skywalk bridge" as used in this division shall be the same as in article IV of chapter 102 of the city Code.

*Cross reference(s)--Definitions generally, § 1-2.

Sec. 26-352. Exit requirements from skywalk system.

- (a) There must be two means of egress, as described in this section, from any point in the skywalk system during the hours that the portion of such skywalk system including such point is open in accordance with article IV of chapter 102 of the Municipal Code.
- (b) In addition to those exits defined in chapter 10 of the International Building Code, any fire door assemblies in a skywalk bridge may constitute an exit from the skywalk system within the meaning of such chapter 10, provided that there is a continuous and unobstructed means of egress from such fire doors assemblies in the direction of exit to a public way on the ground level and provided, further, that such means of egress may include passage through one or more skywalk bridges, one or more skywalk corridors, or portions of one or more buildings, and such skywalk bridges, skywalk corridors or portions of buildings need not satisfy the requirements for corridors or exit passageways contained in such chapter 10.
- (c) Doors or other barriers may be locked so as to block passage through a portion of the skywalk system during the hours such portion of the skywalk system is not required to be open in accordance with article IV chapter 102 of the Municipal Code. Any such door or other barrier equipped with a locking device shall have a readily visible, durable sign on or adjacent to the door or other barrier stating "this door to remain unlocked during skywalk system hours." The sign shall be in letters not less than one inch high on a contrasting background.
- (d) When a portion of the system is closed, the portion of the skywalk system that is open shall be so arranged that it is possible to go in either direction from any point in the system to an exit, except for dead ends not exceeding 20 feet in length within a building, or 50 feet in length within a sprinklered building.

Sec. 26-353. Materials of construction for skywalk bridges and corridors.

- (a) The materials of construction for skywalk bridges and skywalk corridors between buildings shall be noncombustible.
- (b) The materials of construction for skywalk corridors exterior to and structurally supported by any building, as defined in subsections 26-354(1) and (2), shall be as required by the most restrictive type of construction for the building.

Sec. 26-354. Protection of openings onto the skywalk system which are located within 25 feet of property line.

Notwithstanding anything to the contrary contained in the International Building Code, openings onto the skywalk system which are located within 25 feet of the property line shall be protected as follows:

- (1) If two buildings are joined by a skywalk corridor constructed between such buildings:
 - a. The centerline of the skywalk corridor easement shall be deemed the property line, and no opening shall be permitted in any wall of such skywalk corridor which is less than seven feet from the property line;
 - b. Such skywalk corridor shall be protected by an approved automatic sprinkler system;
 - c. Any wall of the skywalk corridor which is less than seven feet from the adjacent property line shall be of at least two-hour fire resistive construction; and
 - d. Any openings in the skywalk corridor walls shall be either:
 1. Of approved opening protective set in metal frames in accordance with the International Building Code, provided a draft curtain of at least one-hour fire resistive construction and not less than 12 inches in height shall be provided to protect the skywalk corridor from the adjacent building area, which draft curtain shall be located above the glass and extend a minimum of 12 inches below the lowest finished ceiling of either such adjacent building area or the skywalk corridor, or, if the finished ceiling is not a fire-rated assembly, the draft curtain shall extend from the opening protective to a rated ceiling or floor assembly; or
 2. Protected in the following manner:
 - i. The adjacent building area onto which such opening occurs is protected by an approved automatic sprinkler system;
 - ii. A draft curtain of at least one-hour fire resistive construction and not less than 12 inches in height and including an approved water curtain of sprinkler heads six feet on center immediately adjacent to such draft curtain and above the opening within the building area shall be provided to protect the skywalk corridor from the adjacent building area, which draft curtain shall be located above the opening and shall extend a minimum of 12 inches below the lowest finished ceiling area of either such adjacent building area or the skywalk corridor or, if such finished ceiling is not a fire-rated assembly, the draft curtain shall extend from the opening to a rated ceiling or floor assembly; and
 - iii. Either (i) the ceiling, walls and floor of the adjacent building area onto which such opening occurs shall be separated from the rest of such building by at least two-hour fire resistive construction and all duct penetrations in such building area shall be protected with fire dampers in accordance the International Building Code, or (ii) the entire story is protected by an approved automatic sprinkler.

- (2) If a skywalk corridor is constructed exterior to and attached to any one building, but is not between two or more buildings, and such skywalk corridor extends over the adjacent property line related to such building:
- a. The centerline of the skywalk corridor easement shall be deemed the property line, and no opening shall be permitted in any wall of such skywalk corridor which is less than seven feet from the property line; and
 - b.
 1. If the adjacent building is protected or is required to be protected by an approved automatic sprinkler system, such skywalk corridor shall be protected by an approved automatic sprinkler system; or
 2. If the adjacent building does not have and is not required to be protected by an approved automatic sprinkler system, such skywalk corridor need not be provided with an approved automatic sprinkler system at the time of construction, provided that the property owners and/or lessees who are responsible for such skywalk corridor under a skywalk agreement with the city shall also agree in such skywalk agreement to provide an approved automatic sprinkler system if a second building is constructed within ten feet of such skywalk corridor; and
 - c. Any wall of the skywalk corridor which is less than seven feet from the adjacent property line shall be of at least two-hour fire resistive construction;
 - d. Any openings from such skywalk corridor into the adjacent building shall be in accordance with subsection (1)d of this section; and
 - e. Any windows in the wall of such skywalk corridor opposite the building to which it is adjacent either:
 1. Shall be of approved opening protective set in metal frames in accordance with section 715 of the International Building Code; or
 2. May be of other glass, provided that the property owners and/or lessees who are responsible for such skywalk corridor under a skywalk agreement with the city shall also agree in such skywalk agreement to:
 - i. Replace such glass with approved opening protective set in metal frames in accordance with the International Building Code if any building subsequently is constructed which is within ten feet, but not attached to, such skywalk corridor wall; and
 - ii. Pay the equivalent of the cost of providing such approved opening protective towards the cost of reconstructing all openings in such skywalk corridor wall in accordance with subsection (1)d of this section if any building subsequently is constructed which is attached to such skywalk corridor wall.
- (3) Two buildings may be joined by a wall opening, provided:
- a. The wall opening shall be protected by a fire assembly having at least a 1 1/2-hour fire protection rating; or
 - b. The wall opening may be unprotected if the entire building on both sides of wall opening are protected by an approved automatic sprinkler system; and
 - c. In either case, there is a draft curtain of at least two-hour fire resistive construction and not less than 12 inches in height, which draft curtain shall be located above the opening and shall extend a minimum of 12 inches

below the lowest finished ceiling on either side of the wall opening, or, if the finished ceiling is not a fire-rated assembly on either side, the draft curtain shall extend from the opening to a rated ceiling or floor assembly on such side of the opening.

- (4) If two buildings are connected by a skywalk bridge:
- a. If such skywalk bridge is not connected to a skywalk corridor which is exterior to any building to which such skywalk bridge is connected, it shall be sufficient if the opening at one end of such skywalk bridge is protected by approved fire assemblies having at least a 1 1/2-hour fire protection rating with gasketed frames, and the remaining construction where such end of the skywalk bridge penetrates the adjacent building is of at least two-hour fire rating construction; or
 - b. If such skywalk bridge is connected to a skywalk corridor which is exterior to any building to which such skywalk bridge is connected, all openings from such skywalk bridge into the adjacent buildings shall conform to the requirements of subsection (1) of this section.

(Secs. 26-355--26—359. Reserved.

Division 4. Sign And Billboard

Sec. 26-360. Definitions.

For the purpose of this division, certain terms, phrases, words and their derivatives shall be construed as specified in either this section or as specified in the building code. Where terms are not defined, they shall have their ordinary accepted meanings within the context with which they are used. Webster's Third New International Dictionary of the English Language, Unabridged, copyright 1993, shall be considered as providing ordinary accepted meanings.

Approved plastic materials means those which are defined in the International Building Code.

Billboard means all structures, regardless of the material, used in the construction of the structures that are erected, maintained or used for public display of posters, painted signs, wall signs, whether the structure is placed on the wall or painted on the wall itself, pictures or other pictorial reading matter which advertise a business or attraction which is not carried on or manufactured in or upon the premises upon which such signs or billboards are located.

Curb line means the line at the face of the curb nearest to the street or roadway. In the absence of a curb, the curb line shall be established by the city engineer.

Legal setback line means a line established by ordinance beyond which no building may be built. A legal setback line may be a property line.

Marquee means a permanent roofed structure attached to and supported by the building and projecting over public property.

Noncombustible, applied to building construction material, means a material which, in the form in which it is used, is either one of the following:

- (1) Material of which no part will ignite and burn when subjected to fire. Any material conforming to International Building Code shall be considered noncombustible within the meaning of this section.

- (2) Material having a structural base of noncombustible material as defined in subsection (1) of this definition with a surfacing material not over one-eighth inch thick which has a flame-spread rating of 50 or less.

The term "noncombustible" does not apply to surface finish materials. Material required to be noncombustible for reduced clearances to flues, heating appliances, or other sources of high temperature shall refer to material conforming to subsection (1) of this definition. No material shall be classed as noncombustible which is subject to increase in combustibility or flame-spread rating beyond the limits established in this definition, through the effects of age, moisture or other atmospheric condition. The term "flame-spread rating" as used in this definition refers to rating obtained according to tests conducted as specified in International Building Code.

Nonstructural trim means the molding, battens, caps, nailing strips, latticing, cutouts or letters and walkways which are attached to the sign structure.

Portable display surface means a display surface temporarily fixed to a standardized advertising structure and which may be moved from structure to structure at periodic intervals.

Projection means the distance by which a sign extends over public property or beyond the building line.

Sign means any structure, including but not limited to a device or display, other than buildings or landscaping, used primarily for visual communication for the purpose of or having the result of bringing the subject thereof to the attention of a person, group of persons, or the public generally. The term "sign" includes but is not limited to any and all reading matter, letters, numerals, pictorial representations, emblems, trademarks, inscriptions, and patterns, whether affixed to a building, painted or otherwise, depicted on a building, or separate from any building. Nothing in this division shall be construed so as to prohibit ideological or noncommercial advertising on any sign on which commercial advertising is permitted.

Sign area means the total area contained within the faces of a sign; provided, however, that the area of a sign containing back-to-back sign faces or V-type sign faces with an internal angle of 45 degrees or less, attached to a single supporting structure, shall be the area of the larger separate sign face. The area of a sign composed of characters or words attached directly to a building or wall surface is the smallest rectangle which encloses the group.

Sign, electric means any sign containing electrical wiring, but not including signs illuminated by an exterior light source.

Sign, ground means a sign, other than a pole sign, that is supported in or upon the ground and not attached to any building or wall.

Sign, illuminated means any sign that is artificially lighted, by any direct, indirect, or internal light source.

Sign, pole means a sign that is supported by one or more uprights or braces in or upon the ground.

Sign, projecting means a sign, other than a wall sign, which projects from and is supported by a wall of a building or structure.

Sign, roof means a sign erected upon or above a roof or parapet of a building.

Sign structure means any structure which supports or is capable of supporting any sign as defined in this section. A sign structure may be a single pole and may or may not be an integral part of a building.

Sign, wall or fascia sign means any sign attached to or erected against the wall of a building or structure, with the exposed face of the sign in a plane parallel to the plane of such wall.

Structure means a structure which is built or constructed, an edifice or building of any kind, or any piece of work artificially built up or composed of parts jointed together in some definite manner.

*Cross reference(s)--Definitions generally, § 1-2.

Sec. 26-361. Scope of division.

This division is intended to regulate the construction, erection, alteration, repair, and maintenance of all signs and sign structures in the city.

Sec. 26-362. Design.

- (a) *Generally.* General requirements for signs and sign structures shall be as follows:
 - (1) Signs and sign structures shall be designed and constructed to resist wind and forces as specified in this section. All bracing systems shall be designed and constructed to transfer lateral forces to the foundations. For signs on buildings the dead and lateral loads shall be transmitted through the structural frame of the building to the ground in such manner as not to overstress any of the elements thereof.
 - (2) The overturning moment produced from lateral forces shall in no case exceed two-thirds of the dead load resisting moment. Uplift due to overturning shall be adequately resisted by proper anchorage to the ground or to the structural frame of the building. The weight of earth superimposed over footings may be used in determining the dead load resisting moment. Such earth shall be carefully placed and thoroughly compacted.
- (b) *Wind loads.* Wind loads shall comply with the following:
 - (1) Signs and sign structures shall be designed and constructed to resist wind forces as specified in the International Building Code.
 - (2) In the absence of plans certified by an engineer registered in this state, simple pole or ground sign supports shall provide a section-modulus at the point of maximum bending equal to or greater than that obtained from the following formula:

$$S.M. - 0.0004615 \times (AS) \times (PW) \times (HC)$$

Where:

S.M. = Section modulus.

AS = Area of sign face in square feet.

PW = Pressure of wind in pounds per square feet as determined from table 23-F of the building code

HC = Height of in feet of centroid of sign area from point of maximum bending

- (c) *Combined loads.* Vertical design loads, except roof live loads, shall be assumed to be acting simultaneously with the wind loads.
- (d) *Allowable stresses.* Allowable stresses shall be as follows:

- (1) The design of wood, concrete, steel or aluminum members shall conform to the requirements of the International building code. Loads, both vertical and horizontal, exerted on the soil, shall not produce stresses exceeding those specified in the building code.
- (2) The working stresses of wire rope and its fastenings shall not exceed 25 percent of the ultimate strength of the rope or fasteners.
- (3) Working stresses for wind loads combined with dead loads may be increased as specified in the building code.

Sec. 26-363. Construction.

- (a) *Generally.* The supports for all signs or sign structures shall be placed in or upon private property and shall be securely built, constructed, and erected in conformance with the requirements of the International Building Code.
- (b) *Materials.* Materials of construction shall be as follows:
 - (1) Materials of construction for signs and sign structures shall be of the quality and grade as specified for buildings in the International Building Code.
 - (2) In all signs and sign structures, the materials and details of construction shall, in the absence of specified requirements conform with the following:
 - a. Structural steel shall be of such quality as to conform with the International Building Code. Secondary members in contact with or directly supporting the display surface may be formed of light gauge steel, provided such members are designed in accordance with the specifications of the design of light gauge steel as specified in the International Building Code and, in addition, shall be galvanized. Secondary members, when formed integrally with the display surface shall be not less than no. 24 gauge in thickness. When not formed integrally with the display surface, the minimum thickness of the secondary members shall be no. 12 gauge. The minimum thickness of hot-rolled steel members furnishing structural support for signs shall be one-fourth inch, except that if galvanized such members shall be not less than one-eighth inch thick. Steel pipes shall be of such quality as to conform with International Building Code. Steel members may be connected with one galvanized bolt provided the connection is adequate to transfer the stresses in the members.
 - b. Anchors and supports when made of wood and embedded in the soil or within six inches of the soil shall be of all heartwood of a durable species or shall be pressure treated with an approved preservative. Such members shall be marked or branded by an approved agency.
- (c) *Restriction on combustible materials.*
 - (1) All signs and structures erected in fire zone no. 1 shall have structural members of noncombustible materials. Ground signs may be constructed of any material meeting the requirements of the International Building Code, except as provided in subsection (b) of this section.
 - (2) Roof signs, wall signs, projecting signs, and signs on marquees shall be constructed of noncombustible materials, except as provided in subsection (d) of this section. No combustible materials other than approved plastics shall be used in the construction of electric signs.

- (d) *Nonstructural trim.* Nonstructural trim and portable display surfaces may be of wood, metal, approved plastics, or any combination thereof.
- (e) *Anchorage.*
- (1) Members supporting unbraced signs shall be so proportioned that the bearing loads imposed on the soil in either direction, horizontal or vertical, shall not exceed the safe values. Braced ground signs shall be anchored to resist the specified wind load acting in any direction. Anchors and supports shall be designed for safe bearing loads on the soil and for an effective resistance to overturning. Anchors and supports shall penetrate to a depth below ground greater than that of the frostline. Portable ground signs supported by frames or posts rigidly attached to the base shall be so proportioned that the weight and size of the base will be adequate to resist the wind pressure specified in the International Building Code. Signs attached to masonry, concrete, or steel shall be safely and securely fastened thereto by means of metal anchors, bolts, or approved expansion screws of sufficient size and anchorage to support safely the loads applied.
 - (2) No wooden blocks or plugs or anchors with wood used in connection with screws or nails shall be considered proper anchorage, except for signs attached to wood framing.
 - (3) No anchor or support of any sign shall be connected to or supported by an unbraced parapet wall, unless such wall is designed in accordance with the requirements for parapet walls specified in Chapter 16 of the International Building Code.
 - (4) Adjustable turnbuckles shall be safely secured to prevent movement.
- (f) *Display surfaces.* Display surfaces in all types of signs may be made of metal, glass, or approved plastics, except that glass shall not be used in any pole or projecting signs. Glass thickness and area limitations shall be as set forth in table no. 4-A in this section. Sections of approved plastics on wall signs shall not exceed 150 square feet in area. Exceptions:
- (1) In fire zone no. 3 the area may be increased by 50 percent.
 - (2) Sections of approved plastics on signs other than wall signs may be of unlimited area if approved by the building official.

TABLE NO. 4-A SIZE, THICKNESS AND TYPE OF GLASS PANELS IN SIGNS

Maximum Size of Exposed Glass Panel			
Any Dimension (in inches)	Area (in square inches)	Minimum Thickness of Glass (in inches)	Type of Glass
30	500	1/8	Plain, plate or wired glass
45	700	3/16	Plain, plate or wired glass

144	3,600	1/4	Plain, plate or wired glass
Over 144	Over 3,600	1/4	Wired glass

- (g) *Approved plastics.* The zoning enforcement officer shall require that sufficient technical data be submitted to substantiate the proposed use of any plastic material and, if it is determined that the evidence submitted is satisfactory for the use intended, he or she may approve its use.
- (h) *Concealment of structural framework.* No structural framework of any sign shall be covered or concealed.
- (i) *Electrical wiring.* All signs containing electrical wiring shall be subject to all provisions of the electrical code.
- (j) *Maintenance and repair.* All signs, together with all of their supports, braces, guys, and anchors, shall be kept in repair and in a proper state of preservation. The display surfaces of all signs shall be kept neatly painted or posted at all times.
- (k) *Name of erector and date of erection.* Every off-premises sign, as defined in chapter 134 of the city Code, and every sign which projects over any public right-of-way erected after the effective date of the ordinance from which chapter 134 of the city Code derives shall have painted or otherwise attached on the exterior of the sign the name of the sign erector and date of erection. Such name and date shall be of sufficient size and contrast to be easily read from a reasonable distance.

Sec. 26-364. Projection and clearance.

- (a) *Generally.* All types of signs shall conform to the clearance and projection requirements of this section.
- (b) *Clearance from high voltage power lines.* Signs shall be located not less than six feet horizontally or eight feet vertically from overhead electrical conductors which are energized in excess of 600 volts. The term "overhead conductors" as used in this subsection means any electrical conductor, either bare or insulated, installed above the ground except such conductors as are enclosed in iron pipe or other material covering of equal strength.
- (c) *Clearance from fire escapes, exits or standpipes.* No sign or sign structure shall be erected in such a manner that any portion of its surface or supports will interfere in any way with the free use of any fire escape, exit, or standpipe.
- (d) *Obstruction of openings.* No sign shall obstruct any openings to such an extent that light or ventilation is reduced to a point below that required by the building code. Signs erected within five feet of an opening in an exterior wall shall be constructed of noncombustible material or approved plastics.
- (e) *Projection over alleys.* No sign or sign structure shall project into any public alley below a height of 14 feet above grade, nor project more than 18 inches when such sign is 14 feet to 18 feet above grade. The sign or sign structure may project not more than 36 inches into the public alley where the sign or sign structure is located more than 18 feet above grade.

Sec. 26-365. Pole signs.

- (a) Pole signs shall be constructed of noncombustible material except as provided in sections 26-254 and 26-255 of this division.
- (b) All supports of pole signs shall be placed upon private property and shall be securely built, constructed and erected to conform with requirements specified in sections 26-254 and 26-255 of this division.

Sec. 26-366. Ground signs.

- (a) Ground signs may be constructed of any material meeting the requirements of the building code, except as provided in sections 26-254 and 26-255 of this division.
- (b) Ground signs shall be designed in accordance with the requirements specified in section 26-254 of this division.
- (c) Ground signs may have display surfaces of combustible materials except in fire zone no. 1 with further exceptions as provided in section 26-254 of this division.

Sec. 26-367. Roof signs.

- (a) Roof signs shall be constructed of noncombustible materials, except as specified in sections 26-254 and 26-255 of this division.
- (b) Roof signs shall be thoroughly secured and anchored to the frame of the building over which they are constructed and erected, and shall be designed in accordance with the requirements specified in section 26-254 of this division.
- (c) Passage clear of all obstructions shall be left under or around and immediately adjacent to all signs exceeding a height of four feet above the roof thereunder. Such passages shall be not less than three feet wide and four feet high and shall be at parapet or roof level. There shall be one such passage or access opening as follows:
 - (1) For each roof sign upon a building.
 - (2) An access opening for every 50 lineal feet of horizontal roof sign extension.
 - (3) Within 20 feet of walls and parapets when roof signs are at right angles to a face of the building.

Sec. 26-368. Wall or fascia signs.

- (a) Wall signs in fire zones no. 1 and 2 shall be constructed of noncombustible material, except as provided in sections 26-254 and 26-255 of this division.
- (b) Wall signs shall be designed in accordance with the requirements specified in section 26-254 of this division.
- (c) When otherwise permitted, no wall sign shall have a projection over public property or beyond a legal setback line greater than the distances set forth in section 26-256 of this division.

Sec. 26-369. Projecting signs.

- (a) Projecting signs shall be constructed of noncombustible materials, except as specified in sections 26-254 and 26-255 of this division.

- (b) Projecting signs shall be designed in accordance with the requirements specified in section 26-254 of this division.
- (c) Subject to all other city regulations, the height of signs projecting over public property shall be determined by the clearance of the bottoms thereof above the level of the sidewalk or grade immediately below, as set forth in section 26-256 of this division.

Sec. 26-370. Marquees.

Signs may be placed on, attached to, or constructed in a theater marquee. Such signs shall, for the purpose of determining projection, clearance, height and material, be considered a part of and shall meet the requirements for a marquee as specified in the International building code.

Secs. 26-371--26-379. Reserved.

Division 5. Swimming Pools, Spas and Water Recreational Facilities

Sec. 26-380. Definitions.

The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Swimming pool, for purposes of enclosure requirements of this Code, means any body of water which has a depth of 18 inches or more in an artificial or semi-artificial receptacle, but excluding the following:

1. Landscaping pools not intended for wading or swimming.
2. Storm water retention and/or detention basins on property owned by the city, county, state or federal government.
2. Storm water retention and/or detention basins constructed and maintained in substantial compliance with an approved site plan or preliminary plat, or other city approved design.

Wading pool means a swimming pool that is a permanent artificial basin of water no more than 18 inches deep at any point, which is primarily intended for use by young children under the age of 12 for general recreation or training.

 *Cross reference(s)--Definitions generally, § 1-2.

Sec. 26-381. Design requirements.

- (a) *Material*. The material used for lining swimming pools shall be one which is light in color, which is impervious, and which will provide a tight tank with smooth and easily cleaned surfaces. Sand or dirt bottoms are prohibited.
- (b) *Plumbing*. All cross connections between the city water supply or the sewer system and the plumbing of a swimming pool shall be constructed in accordance with the city plumbing code.

Sec. 26-382. Enclosure of facilities.

- (a) *In-ground facilities.* In-ground swimming and water recreational facilities shall be enclosed as follows:
- (1) Except for fill and drain wading pools, swimming pools, spas and other related facilities shall be protected by a fence, wall, building, enclosure or solid wall made of durable material not less than five feet high having a maximum vertical clearance to grade of two inches.
 - (2) Vertical board fences shall have a maximum edge to edge spacing of three-fourths of an inch between the boards. Horizontal nailing boards on rails shall be 45 inches apart. When boards are placed in other than a vertical position, there shall be no space between them.
 - (3) Chainlink fences shall have a maximum opening between the links of 2 3/8 inches as measured diagonally. Support posts shall be firmly implanted in the ground and shall be spaced not more than ten feet apart.
 - (4) Wrought iron style fencing shall have a maximum spacing of four inches between the vertical rails and a minimum spacing of 45 inches between the horizontal rails. No ornamental devices shall be placed between the vertical rails that could act as a foothold.
 - (5) Access gates shall comply with the requirements of subsections (a)(1), (2), (3), and (4) of this section and shall be self-closing and shall have a self-latching device located on the facility side of the gate. Secondary access gates need not be self-closing and self-latching if they are kept locked.
 - (6) All horizontal supports shall be on the pool side of the barriers. Barriers shall be constructed so as not to provide external footholds.
 - (7) No part of a facility constructed after the publication of Ordinance No. 9968 on June 30, 1981, shall be constructed within four feet of a property line, other wall, other fence, or other structure.
 - (8) All required elements of a swimming pool enclosure shall be completed and the enclosure approved by the city at the point in time that a swimming pool receptacle shall be capable of holding 18 inches of water or more. If the owner or occupant of the property fails to adequately complete the pool enclosure at such time, the pool receptacle shall be dismantled or rendered incapable of holding water if an aboveground pool or completely drained and covered if an in-ground pool. The pool receptacle shall not be made capable of holding water and shall remain covered if so ordered until such time as the enclosure is approved by the city.
 - (9) All facilities with indoor pools and spas which have a secured entry to the facility shall be considered to have met the requirements of subsections (a)(1) through (8) of this section.
 - (10) In the absence of an imminent hazard, the environmental health officer may grant an extension of time for compliance with this subsection.
 - (11) All facility enclosures which were in use and which were legally acceptable prior to the effective date of the ordinance from which this section derives shall continue to be deemed as acceptable; provided, however, that no alterations or changes can be made which would diminish the level of protection afforded by the fence or barrier.

- (b) *Aboveground facilities.* In lieu of subsection (a) of this section, facilities manufactured and approved for installation above ground shall be installed in accordance with the following criteria:
 - (1) When not in conflict with this subsection, aboveground facilities shall be installed in accordance with the manufacturer's recommendations.
 - (2) Enclosure of an aboveground facility shall meet the same requirements set forth in subsection (a) of this section for in-ground facilities. For the purpose of satisfying these requirements, a fence or wall at least five feet above any adjoining grade, located within four feet of the facility enclosure, may be used in combination with the vertical water enclosing wall of the facility to provide the required degree of security.
 - (3) Steps, ladders, ramps, or any other device affording access to the facility shall be constructed in a manner that will afford the same degree of security against unauthorized access as that prescribed for the facility enclosure.
 - (4) No part of a facility or deck connected thereto constructed after the publication of Ordinance No. 9968 on June 30, 1981, shall be constructed within four feet of a property line.
- (c) *Covers.* The enclosure requirements of this section may be satisfied for outdoor facilities with a water surface area of not greater than 60 square feet by equipping the facility with a rigid cover capable of supporting at least 200 pounds and which, when not in actual use, shall be securely locked so as to render the facility inaccessible.

Sec. 26-383. Applicability; certificate of occupancy.

- (a) The requirement to enclose a facility and provide for a gate or door as provided in section 26-282 shall be applicable to public facilities regardless of when constructed.
- (b) No person shall maintain or use a public facility unless a certificate of occupancy has been issued as provided for in this chapter.

Sec. 26-384. Enforcement.

In addition to any other remedies available under this chapter, a violation of any of the sections of this division may be grounds for temporary closing of the operation of the facility. The facility shall be reopened only with the approval of the building official upon a showing of compliance with the section of this division that has been violated.

Secs. 26-385--26-399. Reserved.

Article IV. Electrical Code

 *Cross reference(s)--City electric light and power, § 118-476 et seq.; electric franchise, app. C.

Division 1. Generally

Sec. 26-400. Adoption of the National Electrical Code.

- (a) This article shall consist of the National Electrical Code, 2008 edition, published by the National Fire Protection Association, commonly known as and referred to in this article as the "National Electrical Code" or "NEC", a copy of which is on file in the office of the city clerk and which is incorporated by this reference in its entirety, except as otherwise indicated in this article.
- (b) This article and all provisions incorporated in this article, by reference or otherwise, shall be known as the electrical code. References to section numbers not preceded by "26-" will be to sections in the National Electrical Code.

Sec. 26-401 to 26-404 Reserved.

Division 2. Deletions and Amendments

Sec. 26-405. Amendments and additions.

- (a) The remaining sections in this article are and represent amendments and additions to the requirements contained in the National Electrical Code (NEC) and where their requirements conflict with those of the NEC the requirements of this article shall prevail.
- (b) The following sections of this article shall be construed in the context of the enumerated chapter of the NEC.
- (c) The provisions of Article 210-8 of the 2005 National Electric Code shall remain in full force and effect in accordance with the amendments set forth by the State of Iowa's adoption of the NEC.
- (d) The provisions of Article 210-8 of the 2008 National Electric Code are hereby deleted in their entirety.

Sec. 26-406. Scope.

- (a) The provisions of this article shall apply to the following:
 - (1) The electrical conductors and equipment installed within or on public and private buildings and other premises.
 - (2) The conductors that connect the installations to a supply of electricity, and other outside conductors adjacent to the premises.
 - (3) Mobile homes.
- (b) Additions to, alterations of, and repairs to existing electrical equipment shall comply with the electrical code. Furthermore, existing electrical equipment that is temporarily exposed or made accessible because of any remodeling or repair of an existing structure, shall be made to comply with the electrical code. In any event, the building official may, when any additions, alterations, or repairs are made, order other reasonable additions or alterations in the electrical equipment of a structure or on any premises when a danger to life or property may result if such other additions or alterations were not made.
- (c) Installations which were in compliance with the electrical code in existence at the time such installations were made shall be presumed to be safe and proper, which presumption can be rebutted by evidence that the installation may be dangerous to life or property.
- (d) If the classification of a building has been changed due to a change in occupancy, the wiring in the entire building shall comply with all the electrical standards applicable to the new classification. If the occupancy of a building has been changed to a mixed

occupancy, with the required fire separation between the mixed occupancy, each occupancy shall comply with its own particular classification and shall be wired in compliance with the electrical standards of its particular classification.

- (e) No permit or inspections are required for electrical wiring of 50 volts or less.
- (f) The provisions of sections 26-135 through 26-143 and 26-230 through 26-231, inclusive, of this article shall not apply in any respect to persons who are licensed by law to engage in the business of supplying and distributing electricity or the transmission of communication, when the person is installing, operating or maintaining electrical equipment or doing electrical work as an integral part of such business.
- (g) Whenever service entrances are altered or upgraded, residential structures shall be updated throughout to the requirements consistent with the electrical code in accordance with the City of Des Moines Electrical Residential Update Requirements, as amended from time to time.

Sec. 26-407. Applicability to moved buildings.

Buildings or structures moved into or within the boundaries of the city shall comply with the electrical code in accordance with the City of Des Moines Electrical Residential Update Requirements, as amended from time to time.

Sec. 26-408. Separation of services and circuits from communications conductors.

- (a) All service entrances in and upon buildings and structures within the city shall be of the class known as "rigid metal conduit or electrical metallic tubing," except as provided in this section.
- (b) Underground service entrances for all buildings except in single-family, two-family, and row dwellings shall be of moisture resistant wire installed in rigid metal conduit or approved non-metallic raceway such as schedule 40 polyvinylchloride or its equivalent.
- (c) Other provisions of this section to the contrary notwithstanding, that portion of an underground service lateral that is installed by an electrical contractor, but is owned and maintained by a business licensed by law to engage in the business of supplying and distributing electricity, may be of a type used by such a business for such an installation.
- (d) All direct burial cable used by the utility company for the purpose of distributing electrical current within the city, shall be placed and located in the ground a minimum depth of 30" below the proposed final grade. No separation shall be required between electrical conductors and communications conductors when laid in a common trench.
- (e) Underground service entrance risers, to the meter, may be schedule 40 PVC, when not subject to physical damage.

Sec. 26-409. Conformity with standards.

Conformity with standards established by any nationally recognized third-party testing and certification agency approved by the American National Standards Institute shall be evidence of conformity with approved standards for electrical equipment.

Secs. 26-410--26-499. Reserved.

ARTICLE V. MECHANICAL CODE AND FUEL GAS CODE

Division 1. Generally

Sec. 26-500. Adoption of International Mechanical Code and International Fuel Gas Code.

- (a) This article shall consist of the International Mechanical Code (“IMC”) and International Fuel Gas Code (“IFGC”), 2009 edition, published jointly by the International Code Council, which volumes are incorporated by this reference in their entirety, except as otherwise indicated in this article.
- (b) This article and all provisions incorporated in this article, by reference or otherwise, shall be known as the mechanical code or fuel gas code. References to section numbers not preceded by "26-" will be to sections in the International Mechanical Code and International Fuel Gas Code.
- (c) All references to the International Plumbing Code found within the International Mechanical and Fuel Gas Codes shall be deleted and replaced with the appropriate reference to the Uniform Plumbing Code as identified below in this article.
- (d) One and Two family dwellings and townhomes shall be governed by Chapters 12-24 of the 2009 International Residential Code as adopted pursuant to section 26-300.

Sec. 26-501 -- 26-504 Reserved

Division 2. Deletions and Amendments

Sec. 26-505. Deletions.

- (a) The following sections appearing in the IMC are deleted from the mechanical code and are of no force or effect in this article:
 - (1) Section 103 – Department of Mechanical Inspection (see section 26-100 and 26-101)
 - (2) Sub-Section 106.5 - Fees (see 26-180)
 - (3) section 109 – Means of Appeal (see 26-122)
- (b) The following sections appearing in the IFGC are deleted from the Fuel Gas Code and are of no force or effect in this article:
 - (1) Section 103 – Department of Mechanical Inspection (See 26-100 and 26-101)
 - (2) Subsection 106.6 – Fees (See section 26-180)
 - (3) Section 109 – Means of Appeal (See section 26-122)
 - (4) Table 402.4(14) and Table 402.4 (15) for CSST Tubing
 - (5) Section 411.1 Item #2
 - (6) Section 409.5.3 - Located at Manifold
 - (7) Section 411.1.3.3 Exception #4

Sec. 26-506. Amendments and additions.

The remaining sections in this article are and represent amendments and additions to the requirements contained in the International Mechanical Code (IMC) or the International Fuel Gas Code (IFGC), and where their requirements conflict with these codes, the requirements of this article shall prevail.

Sec. 26-507. Inspection and testing procedure.

Notwithstanding the provisions of Section 406.4.1 of the IFGC, the minimum test pressures for piping systems shall be 10 pounds gauge for threaded pipe and 60 pounds gauge for welded pipe. For systems employing CSST, the test pressure shall be limited to 7.5 pounds gauge.

Sec. 26-508. Roof Access for Multi-tenant buildings.

If the tenants of a multiple tenant building have, or are allowed to have, mechanical facilities on or which penetrate the roof, then roof access ladders must be provided for use by all such tenants and their agents and contractors in a manner that does not require accessing space under the control of another tenant.

Sec. 26-509. Prohibited Locations of CSST.

Notwithstanding the provisions of Section 404 of the IFGC, corrugated stainless steel tubing shall not be installed where subject to physical damage. Locations subject to physical damage include but are not limited to building exteriors and where used as an appliance connector between the appliance and shutoff valve.

Sec. 26-510. Use of copper in piping systems.

Notwithstanding the provisions of Section 404 of the IFGC, copper pipe and tubing shall not be installed in locations other than in LP piping systems located on the building's exterior and before the secondary regulator.

Sec. 26-511. Definition.

The term "portable" as set forth in section 106.2 shall mean that which may be easily and/or readily carried or transported by hand from place to place without tools or aid of devices.

Secs. 26-512--26-599. Reserved.

*Cross reference(s)--Definitions generally, § 1-2.

Article VI. Plumbing Code

*Cross reference(s)--Sewers and sewage disposal, § 118-31 et seq.; industrial waste, § 118-316 et seq.; water, § 118-586 et seq.; sewer districts, app. G.

Division 1. Generally

Sec. 26-600.

- (a) The provisions of the plumbing code shall apply to all new construction, relocated buildings, and to any alterations, repairs or reconstruction, except as otherwise provided for in the plumbing code.
- (b) Additions to, identified faulty work, alterations of and repairs to any part of an existing plumbing or drainage system, if covered by the plumbing code, shall comply with the provisions of the plumbing code. Further, the building official may, when such additions, alterations or repairs are made, order further reasonable additions or alterations in a building, structure, or premises when any work or installation regulated by the plumbing code is dangerous, unsafe, insanitary, constitutes a nuisance or is a menace to life, health or property, or is otherwise in violation of the plumbing code. The order shall be issued to the property owner or his or her authorized agent. Refusal, failure or neglect to comply with any lawful order of the building official shall constitute a violation of the plumbing code.
- (c) Installations which were in compliance with the city plumbing ordinances in existence at the time the installations were made shall be presumed to be safe and proper, which presumption can be rebutted by evidence that the installation is insanitary, dangerous, unsafe, constitutes a nuisance or is a menace to life, health or property, or is contrary to generally accepted standards of good practice.
- (d) Excavations within the public rights-of-way or upon city land are also subject to the requirements in article IX of chapter 102.

Sec. 26-601. Adoption of Uniform Plumbing Code.

- (a) This article shall consist of the Uniform Plumbing Code (“UPC”), 2009 edition, published by the International Association of Plumbing and Mechanical Officials, which volume is incorporated by this reference in its entirety, except as otherwise indicated in this article.
- (b) This article and all provisions incorporated in this article, by reference or otherwise, shall be known as the plumbing code. References to section numbers not preceded by "26-" will be to sections in the Uniform Plumbing Code

Sec. 26-602. Applicability to moved buildings.

Buildings or structures moved into the city shall comply with the provisions of the plumbing code for new buildings or structures.

Sec. 26-603. Applicability to subsurface drainage.

The provisions of section 26-650 of this article which relate to subsurface drainage shall apply to all such subsurface drainage from buildings, whether new or existing, if such drainage would, but for compliance therewith, discharge to a point upon or so adjacent to a public sidewalk or street as to permit the water so discharged to drain upon a public sidewalk or street. Failure to comply with this section shall constitute a violation of the plumbing code. It is specifically provided, however, that no offense shall be charged under this section for such discharge during periods of community emergency generated by extraordinarily high levels of precipitation.

Sec. 26-604. Applicability to county park property.

The provisions of this article shall not apply or be enforced within or upon county park property situated within the corporate boundaries of the city so long as the county shall maintain in force within the county a nationally recognized plumbing code and shall provide for the enforcement of such plumbing code within and upon such park property.

Sec. 26-605. Authority of building official.

The building official is responsible for the enforcement of the plumbing code and the rules and regulations of the local boards of health and state board of public health governing plumbing. When used in this article, the term "administrative authority" shall mean the building official or his or her duly authorized representative.

When it is impossible or impractical to install plumbing in strict compliance with the provisions of the plumbing code or any other applicable law, ordinance, rule or regulation, the building official may, with the approval of the state department of public health, permit minor variations which are safe and reasonable.

Sec. 26-606. Definitions.

In addition to the definitions described in chapter 1 of the Uniform Plumbing Code, the following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Building (house) storm drain means a building drain used for conveying rainwater, surface water, groundwater, subsurface water, or other similar discharge to a building storm sewer or a combined building sewer, extending to a point not less than three feet outside the building wall.

Building (house) storm sewer means the extension from the building storm drain to the public storm sewer, combined sewer, or other point of disposal.

Storm sewer means a sewer used for conveying rainwater, surface water, condensate, cooling water, or similar liquid wastes, exclusive of sewage and industrial waste.

Subsoil drain means a drain which receives only subsurface or seepage water and conveys it to a place of disposal.

Secs. 26-607—26-609 Reserved

Division 2. Deletions and Amendments

Sec. 26-610. Deletions.

The following are deleted from the Uniform Plumbing Code, and are of no force or effect in this article:

- (1) Chapter 1 - Administration subsections:
 - Section 103.1 Permits (See section 134-135)
 - Section 103.2 Application for Permit (See section 134-136)
 - Section 103.3 Permit Issuance (See section 134-136)
 - Section 103.4 Fees (See section 134-138)

- Table 1-1 Permit Fees (See adopted schedule of fees)
- (2) Chapter 12 – Fuel Pipe Sizing Pressure Drop Tables:
Table 12-20 CSST Pipe sizing table.
Table 12-21 CSST Pipe sizing table.

Sec. 26-611. Amendments and additions.

The remaining sections in this article are and represent amendments and additions to the requirements contained in the Uniform Plumbing Code, and where their requirements conflict with those of the Uniform Plumbing Code, the requirements of this article shall prevail.

Sec. 26-612. Required plumbing fixture calculations.

Section 412 and Table 4-1 of the UPC regarding the minimum number of fixtures are hereby amended by deleting said section and table and inserting in lieu thereof the following:

Plumbing fixtures shall be provided in accordance with chapter 29 of the International Building Code (IBC) adopted in section 26-300, with the following amendments and additions:

- (1) All references in chapter 29 of the IBC to provisions in the International Plumbing Code shall instead be interpreted to refer to the corresponding provisions in the Iowa State Plumbing Code at Iowa Administrative Code chapter 641-25, which are repeated below for ease of reference.
- (a) *IPC 410.1 - Drinking fountains.* Section 410.1. Approval - Drinking fountains shall conform to ASME A112.19.1, ASME A112.19.2M, or ASME A112.19.9M and water coolers shall conform to NSF 61, Section 9. Where water is served in restaurants, drinking fountains shall not be required. In other occupancies, where drinking fountains are required, water coolers or bottled water dispensers shall be permitted to be substituted for not more than 50 percent of the required drinking fountains.
- (b) *IPC 411 - Emergency showers and eye wash stations.*
Section 411.1. Approval - Emergency showers and eyewash stations shall conform to ISEA Z358.1.
Section 411.2. Waste Connection - Waste connections shall not be required for emergency showers and eyewash stations.
- (2) The following provisions in the Iowa State Plumbing Code at Iowa Administrative Code chapter 641-25 are hereby incorporated into the plumbing code:
IPC 419.2 Substitution for water closets. In each bathroom or toilet room, urinals shall not be substituted for more than 67 percent of the required water closets in assembly and educational occupancies. Urinals shall not be substituted for more than 50 percent of the required water closets in all other occupancies.
- (3) Accessible plumbing facilities and fixtures shall be provided as required by chapter 11 of the IBC.

Sec. 26-613. Floor drains required.

Notwithstanding provisions of section 411, floor drains shall be provided as required in this section.

- (a) Unless otherwise approved by the plumbing inspector, at least one floor drain shall be provided in each room where an automatic water heater is or will be installed and in each mechanical room. When installed in a basement floor, such floor drain shall be at least three inches in diameter. Floor drains in other locations may be no less than two inches in diameter.
- (b) Every water heater shall be located in close proximity to a floor drain.

Sec. 26-614. Cross connection control-containment.

Notwithstanding provisions of section 603, cross connection control shall be provided in accordance with this section.

(a) *Definitions.* For the purpose of this section, the following definitions supersede definitions given elsewhere in this article or in the plumbing code and shall apply only to this section:

Administrative authority means the city water works and building official.

Approved backflow prevention assembly for containment means a backflow prevention assembly which is approved by the University of Southern California Foundation for Cross-Connection Control and Hydraulic Research. The approval listing shall include the limitations of use based on the degree of hazard. The backflow prevention assembly shall also be listed by the International Association of Plumbing and Mechanical Officials (IAPMO) or by the American Society of Sanitary Engineering (ASSE) as having met the requirements of one of the standards listed below.

Standard	Product Covered
ANSI/ASSE 1013-2009	Reduced Pressure Principle Backflow Preventers
ANSI/ASSE 1015-2009	Double Check Backflow Prevention Assembly
ANSI/ASSE 1047-2009	Reduced Pressure Detector Backflow Preventer
ANSI/ASSE 1048-2009	Double Check Detector Assembly Backflow Preventer
ANSI/AWWA C510-07	Double Check Valve Backflow Prevention Assembly
ANSI/AWWA C511-07	Reduced-Pressure Principle Backflow Prevention Assembly

Approved backflow prevention assembly for containment in a fire protection system means a backflow prevention assembly to be used in a fire protection system which meets the requirements of Factory Mutual Research Corporation (FM) and Underwriters' Laboratories, Inc. (UL), and the requirements of the city fire code and building code, in addition to the requirements of subsection (g)(1). Devices sized smaller than 2 1/2 inches, which have not been listed by Underwriters' Laboratories, Inc. (UL) and tested by Factory Mutual Research Corporation (FM), may be allowed if they meet the requirements of the city fire code and building code.

Auxiliary water supply means any water supply on or available to the premises other than the water purveyor's approved public water supply, such as but not limited to a private well, pond, or river.

Containment means a method of backflow prevention which requires the installation of a backflow prevention assembly at the water service entrance.

Cross connection means any actual or potential connection or arrangement, physical or otherwise, between a potable water supply system and any plumbing fixture or tank, receptacle, equipment, or device, through which it may be possible for non-potable, used, unclean, polluted, and contaminated water or other substance to enter into any part of such potable water system under any condition.

Customer means the owner, operator, or occupant of a building or property which has a water service from a public water system, or the owner or operator of a private water system which has a water service from a public water system.

Degree of hazard means the rating of a cross connection or water service which indicates if it has the potential to cause contamination or pollution.

Double check valve backflow prevention assembly means a backflow prevention device consisting of two independently acting internally loaded check valves, four properly located test cocks, and two isolation valves.

High hazard cross connection means a cross connection which may cause an impairment of the quality of the potable water by creating an actual hazard to the public health, through poisoning or through the spread of disease by sewage, industrial fluids, or waste.

Isolation means a method of backflow prevention in which a backflow prevention assembly is located at the cross connection rather than at the water service entrance.

Low hazard cross connection means a cross connection which may cause an impairment of the quality of potable water to a degree which does not create a hazard to the public health, but which does adversely and unreasonably affect the aesthetic qualities of such potable waters for domestic use.

Reduced pressure principle backflow prevention assembly means a backflow prevention device consisting of two independently acting internally loaded check valves, a different pressure relief valve, four properly located test cocks, and two isolation valves.

Registered backflow prevention assembly technician means a person who is registered by the state to test or repair backflow prevention assemblies and report on the condition of those assemblies.

Thermal expansion means volumetric increase of water due to heating resulting in increased pressure in a closed system.

Water service, depending on the context, means the physical connection between a public water system and a customer's building, property, or private water system, or the act of providing potable water to a customer.

Water works means the city water works.

(b) *Administrative authority.*

(1) Water works or the building official shall have the right to enter, with the consent of the customer or upon the basis of a suitable warrant issued by a court of appropriate jurisdiction, any property to inspect for possible cross connections.

(2) Water works shall maintain records of cross connection hazard surveys and the installation, testing, and repair of all backflow prevention assemblies installed for containment purposes.

(c) *New water services.* New water services shall comply with the following:

(1) Plans shall be submitted to water works for review on all new water services in order to determine the degree of hazard.

- (2) The water works shall, in consultation with the building official, determine the type of backflow prevention assembly required for containment based on the degree of hazard.
- (3) The building official shall inspect the installation of the required backflow prevention assembly for containment before the initiation of water service.
- (d) *Existing water services.* Existing water services shall comply with the following:
 - (1) Upgrades of existing water services shall be treated as new water services for the purpose of this section.
 - (2) The water works shall, on the basis of information received from customers or gathered through on-premises investigations or surveys, determine the type of backflow prevention assembly required for containment based on the degree of hazard.
 - (3) Within the timeframe specified in writing by water works, the customer shall install a backflow prevention assembly for containment required by water works.
 - (4) For existing water services, water works may inspect the premises to determine the degree of hazard. When high hazard cross connections are found, water works shall, at its sole discretion:
 - a. Develop a schedule of compliance which the customer shall follow; or
 - b. Terminate the water service until a backflow prevention assembly for containment required by water works has been installed.
 - (5) Failure of water works to notify a customer that the customer is believed to have a high hazard cross connection and that the customer shall install backflow prevention assemblies for containment in no way relieves a customer of the responsibility to comply with all requirements of this section.
- (e) *Customer.* Responsibilities of the customer shall be as follows:
 - (1) The customer shall be responsible for ensuring that no cross connections exist without approved backflow protection within his or her premises starting at the point of service from the public potable water system.
 - (2) The customer shall, at his or her own expense, cause installation, operation, testing and maintenance of backflow prevention assemblies.
 - (3) The customer shall ensure that copies of records of the installation and of all tests and repairs made to the backflow prevention assembly on the approved form within 15 days after testing and/or repairs are completed.
 - (4) If a backflow incident occurs, the customer shall immediately notify water works of the incident and take steps to confine the contamination or pollution.
- (f) *Required backflow prevention assemblies for containment for water services.* Backflow prevention assemblies for containment for water services shall be required as follows:
 - (1) An air-gap or an approved reduced pressure principle backflow prevention assembly is required for water services having one or more cross connections which the administrative authority has classified as high hazard.
 - (2) An approved double check valve assembly is required for water services having no high hazard cross connections but having one or more cross connections which the water works has classified as low hazard.
- (g) *Required backflow prevention assemblies for containment for fire protection systems.* Backflow prevention assemblies for containment for fire protection systems shall be required as follows:

- (1) A reduced pressure principle backflow prevention assembly shall be installed on all new and existing fire protection systems which water works determines to have any of the following:
 - a. Direct connections from public water mains with an auxiliary water supply on or available to the premises for pumper connection.
 - b. Interconnections with auxiliary supplies such as reservoirs, rivers, ponds, wells, mills, or other industrial water systems.
 - c. Use of antifreezes or other additives in the fire protection system.
 - d. Combined industrial and fire protection systems supplied from the public water mains only, with or without gravity storage or pump suction tanks.
 - e. Any other facility, connection, or condition which may cause contamination.
- (2) A double check valve assembly will be required for all other fire protection systems. The double check valve assembly shall be required on all new systems at the time of installation and on existing systems at the time that they are upgraded.
- (3) Submittal of proposed backflow prevention devices to water works does not relieve the designer or the sprinkler contractor of the responsibility of submitting plans, including backflow prevention devices to the fire marshal for approval.
- (h) *Backflow prevention assembly technicians.* A backflow prevention assembly technician registered by the state shall include his or her registration number on all correspondence and forms required by or associated with this section.
- (i) *Registered backflow prevention assembly technician noncompliance.* Noncompliance with any of the following by a registered technician shall be grounds for reporting such individual to the state department of public health:
 - (1) Improper testing or repair of backflow prevention assemblies.
 - (2) Improper reporting of the results of testing or of repairs made to backflow prevention assemblies.
 - (3) Failure to meet registration requirements.
 - (4) Related unethical practices.
- (j) *Installation of backflow prevention assemblies.* Backflow prevention assemblies shall be installed in compliance with the following:
 - (1) The required backflow prevention assemblies for containment shall be installed in horizontal plumbing immediately following the meter or as close to that location as deemed practical by water works. In any case, it shall be located upstream from any branch piping. Installation at this point does not eliminate the responsibility of the customer to protect the water supply system from contamination or pollution between the backflow prevention assembly and the water main.
 - (2) Reduced pressure principle backflow prevention assemblies shall be installed so as to be protected from flooding.
 - (3) Reduced pressure principle backflow prevention assemblies shall not be installed in underground vaults or pits.
 - (4) All backflow prevention assemblies shall be protected from freezing. Those devices used for seasonal water services may be removed in lieu of being protected from freezing; however, the devices must be reinstalled and tested by a registered backflow prevention technician prior to service being reactivated.
 - (5) If hot water is used within the water system, thermal expansion shall be provided for when installing a backflow prevention assembly for containment.
 - (6) Provisions shall be made to convey the discharge of water from reduced pressure principle backflow prevention assemblies to a suitable drain.

- (7) No backflow prevention assemblies shall be installed in a place where it would create a safety hazard, such as but not limited to over an electrical panel or above ceiling level.
 - (8) If interruption of water service during testing and repair of backflow prevention assemblies for containment is unacceptable, another backflow prevention assembly, sized to handle the temporary water flow need during the time of test or repair, should be installed in parallel piping.
 - (9) All backflow prevention assemblies shall be installed so that they are accessible for testing as stated in section 603.3.4.
 - (10) All shutoff valves shall conform with the current edition of the Manual of Cross-Connection Control (University of Southern California) requirements for either ball or resilient seat gate valves at the time of installation. Ball valves shall be used on assemblies installed in piping two inches and smaller and resilient seat gate valves on assemblies installed in piping larger than two inches.
 - (11) Location and protection of the containment assembly shall be approved by water works prior to installation.
- (k) *Testing of backflow prevention assemblies.* Backflow prevention assemblies shall be tested as follows:
- (1) Testing of backflow prevention assemblies shall be performed by a registered backflow prevention assembly technician. The costs of tests required in the subsections (k)(2) through (5) of this section shall be borne by the customer.
 - (2) Backflow prevention assemblies shall be tested upon installation and tested and inspected at least annually.
 - (3) Backflow prevention assemblies which are in place, but have been out of operation for more than three months, shall be tested before being put back into operation. Backflow prevention assemblies used in seasonal applications shall be tested before being put into operation each season.
 - (4) Any backflow prevention assembly which fails a periodic test shall be repaired or replaced. When water service has been terminated for noncompliance, the backflow prevention assembly shall be repaired or replaced prior to the resumption of water service. A registered backflow prevention assembly technician shall retest Backflow prevention assemblies immediately after repair or replacement.
 - (5) Water works or the building official may require backflow prevention assemblies to be tested at any time in addition to the annual testing requirement.
 - (6) The registered backflow prevention assembly technician shall report the successful test of a backflow prevention assembly to the customer and to water works on the form provided by water works within 15 days of the test.
 - (7) Water works or the building official may require, at the owner's expense, additional tests of individual backflow prevention assemblies as it shall deem necessary to verify test procedures and results.
- (l) *Repair of backflow prevention assemblies.* Backflow prevention assemblies shall be repaired in accordance with the following:
- (1) All repairs to backflow prevention assemblies shall be performed by registered backflow prevention assembly technicians.
 - (2) The registered backflow prevention assembly technician shall not change the design, material, or operational characteristics of a backflow prevention assembly

- during repair or maintenance, and shall use only original manufacturer replacement parts.
- (3) The registered backflow prevention assembly technician shall report the repair of a backflow prevention assembly to the customer and to water works on the form provided by water works within 15 days of the repair. The report shall include the list of materials or replacement parts used.
 - (4) Any time fire services are discontinued for a period of time longer than necessary to test the device, the tester is required to notify the fire marshal's office that the fire services are shut off for repair.
- (m) *Customer noncompliance.* The water service may be discontinued in the case of noncompliance with this section. Noncompliance includes but is not limited to the following:
- (1) Refusal to allow water works and/or the plumbing inspection division personnel access to the property to inspect for cross connections.
 - (2) Removal of a backflow prevention assembly which has been required by water works.
 - (3) Bypassing of a backflow prevention assembly which has been required by water works.
 - (4) Providing inadequate backflow prevention when cross connections exist.
 - (5) Failure to install a backflow prevention assembly which has been required by water works.
 - (6) Failure to test and/or properly repair a backflow prevention assembly as required by water works.
 - (7) Failure to comply with the requirements of this section.
- (n) *Replacements.* Replace listed reduced pressure zone assemblies with stainless steel dual check backflow prevention assembly with an atmospheric opening complying with section 603.4.12 of the plumbing code.

Sec. 26-615. Materials used for water distribution.

Notwithstanding provisions of section 604, materials used for water distribution shall meet the requirements of this section.

- (a) Water pipe and fittings used for water distribution, except for underground applications, shall be of brass, copper, cast iron ductile, galvanized steel, PVC, CPVC, PEX, or other approved materials. Water piping and fittings used for exterior underground applications shall be of brass, copper, cast iron, ductile, pex or other approved materials per Des Moines Water Works regulations. Asbestos cement material shall not be used for water distribution piping or fittings. All piping and fittings shall comply with all the conditions and limitations of section 604 of the plumbing code. PVC piping of four inches or larger may be used for service lines provided that it conforms to AWWA standard C 900 DR 14 and the following:
 - (1) A no. 12 or larger type TW or THWN solid single strand copper tracer wire is installed throughout the length of the pipe. Wire connections shall be soldered and waterproofed. Connection points shall be in accordance with water works specifications.
 - (2) PVC shall not be used within five feet of a building.
- (b) When ductile iron pipe and cast iron fittings are used, they shall be encased in plastic at least eight mills thickness. Lead pipe, lead solders, and flux containing more than 0.2

percent lead shall not be used. All materials used in the water supply system, except valves and similar devices, shall be of a like material, except where otherwise approved by the building official. Galvanized pipe may only be used underground with prior approval of the plumbing inspector.

- (c) Cast iron fittings up to and including two inches (50.8 mm) in size, when used in connection with potable water piping shall be galvanized.
- (d) All malleable iron water fittings shall be galvanized.
- (e) Piping and tubing which has previously been used for any purpose other than for potable water systems shall not be used.
- (f) Notwithstanding the provisions of section 608.5, relief valve drains located inside a building shall not be of CPVC or PB.

Sec. 26-616. Use of copper tubing.

- (a) Notwithstanding provisions of section 701.1.4 and Table 7-1, copper tube for underground drainage and vent piping shall have a weight of not less than that of copper drainage tube type L.
- (b) Notwithstanding provisions of section 701.1.4 and Table 7-1, copper tube for aboveground drainage and vent piping shall have a weight of not less than type M, except that type DWV may be used in one- and two-family dwellings.
- (c) Copper tube shall not be used for chemical or industrial wastes as defined in section 903.2 of the plumbing code.
- (d) Notwithstanding provisions of section 604.2, copper tube for water piping shall have a weight of not less than type M, except that type K shall be used underground.
- (e) Notwithstanding provisions of section 604.3, in addition to the required incised marking, all hard drawn copper tubing shall be marked by means of a continuous and indelibly colored stripe at least one-quarter inch (6.4 mm) in width, as follows: type K, green; type L, blue; type M, red; type DWV, yellow.
- (f) Listed flexible copper water connections shall be installed in exposed locations, unless otherwise listed.

Sec. 26-617. Depth of water service.

Notwithstanding provisions of section 609.1, water service piping shall, wherever feasible, be no less than five feet below the surface of the ground.

Sec. 26-618. Drainage systems.

Notwithstanding provisions of section 701 and table 7-1, drainage piping systems shall be installed in accordance with this section.

- (a) Drainage pipe shall be cast iron, no-hub cast iron, galvanized steel, galvanized wrought iron, lead, copper, brass, ABS, PVC or other approved materials having a smooth and uniform bore. Exceptions shall be as follows:
 - (1) No galvanized wrought iron, galvanized steel, or DWV copper pipe shall be used underground, and it shall be kept at least six inches (152.4 mm) aboveground.
 - (2) ABS and PVC pipes and fittings shall be marked to show conformance with the standards in the plumbing code. ABS and PVC installations are limited to construction not exceeding the following conditions:

- a) ABS, PVC and SDR 23.5 shall be installed with a minimum bedding of four inches below and up all sides with three-eighths-inch clean smooth gravel or a bedding product allowed by the Des Moines Metropolitan Design Standards, class I, 1 inch clean bedding.
 - b) All installations shall be made in accordance with the manufacturer's recommendations.
- (b) Drainage fittings shall be of cast iron, malleable iron, lead, brass, copper, ABS, PVC, no-hub fittings or other approved materials having a smooth interior waterway of the same diameter as the piping served, and all such fittings shall conform to the type of pipe used, as follows:
 - (1) Fittings on screwed pipe shall be of the recessed drainage type. Burred ends shall be reamed to the full bore of the pipe.
 - (2) The threads of drainage fittings shall be tapped so as to allow one-fourth inch per foot (20.9 mm/m) grade.

Sec. 26-619. Backwater valves.

Notwithstanding provisions of section 710.1, backwater valves shall be installed in accordance with the provisions of this section.

- (a) In areas of the city that have been determined to experience sanitary sewer backups by the city engineer, drainage piping serving fixtures which have flood level rims located below the elevation of the next upstream manhole cover of the public sewer serving such drainage piping shall be protected from backflow of sewage by installing an approved type backwater valve. Fixtures above such elevation shall not discharge through a required backwater valve.
- (b) Backwater valves required by this section shall either be manually operated or automatic in operation as described in section 25.4(3) of the Iowa State Plumbing Code administrative rule 641 chapter 25 (105). Note: In existing structures where the installation of backwater valves in accordance with this section is technically infeasible, this section may not apply.

Sec. 26-620. Size of building sewers.

Notwithstanding provisions of sections 717, the minimum diameter for any building sewer, regardless of the number of fixtures, shall be four inches.

Sec. 26-621. Appliances.

Notwithstanding provisions of section 807.4, no domestic dishwashing machine shall be directly connected to a drainage system or food waste disposer without the use of an approved dishwasher air-gap fitting on the discharge side of the dishwashing machine, or by looping the discharge line of the dishwasher as high as possible near the flood level of the kitchen sink where the waste disposer is connected. Listed air-gaps shall be installed with the flood level (FL) marking at or above the flood level of the sink or drain board, whichever is higher.

Sec. 26-622. Swimming pools.

Notwithstanding provisions of section 813, in other than single family dwellings and duplexes pipes carrying wastewater from swimming pools, wading pools, or hot tubs, including pool drainage, backwash from filters, water from scum gutter drains or floor drains which serve walks around pools, shall be installed as an indirect waste by an air gap. Where the recirculation pump is used to discharge waste pool water to the drainage system, the pump discharge shall be installed as an indirect waste, with an air gap, to the sanitary sewer.

Sec. 26-623. Air conditioning wastes.

Notwithstanding provisions of section 814 and table 8-2, air conditioning waste piping systems shall be installed in accordance with this section.

- (a) *Size.* Air conditioning waste pipes shall be independent of any drainage and waste systems and shall not be smaller than shown in the following:
 - (1) Three-fourths inch serving five tons maximum.
 - (2) One inch serving 25 tons maximum.
 - (3) One and one-fourth inches serving 50 tons maximum.
 - (4) One and one-half inches serving 100 tons maximum.
 - (5) Two inches serving over 100 tons.Acrylonitrile-butadiene-styrene (ABS) and polyvinyl chloride (PVC) plastic drain, waste, and vent pipe and fittings conforming to table I or other approved material may be used for air conditioning condensate waste.
- (b) *Point of discharge.* Air conditioning condensate waste pipes shall discharge at one of the following:
 - (1) Indirectly to a properly trapped fixture, floor drain or open sight drain.
 - (2) Sump pump.
 - (3) Surface (permission must be obtained from the building official for this point of discharge).
 - (4) Indirectly to the building storm sewer through a roof drain.
- (c) *Vents and traps.* Vents and traps shall not be required on air conditioning condensate waste pipes.

Sec. 26-624. Vent exceptions.

Notwithstanding provisions of section 902, no vents will be required on a downspout or rain leader trap, a backwater valve or a subsoil catch basin trap.

Sec. 26-625. Vents and venting.

Notwithstanding provisions of section 903 and table 7-1, vent pipe shall be cast iron, galvanized steel, galvanized wrought iron, lead, copper, brass, ABS, PVC or other approved materials. Exceptions shall be as follows:

- (1) Galvanized wrought iron, galvanized steel, or copper DWV pipe shall not be used underground and shall be kept at least six inches aboveground.
- (2) ABS and PVC pipes and fittings shall be marked to show conformance with the standards in the plumbing code. ABS and PVC installations are limited to construction not exceeding the following conditions:
 - a. ABS, PVC shall be installed with a minimum bedding of four inches below and up all sides with three-eighths-inch clean smooth gravel or a bedding

product allowed by the Des Moines Metropolitan Design Standards, class I, 1 inch clean bedding.

- b. All installations shall be made in accordance with the manufacturer's recommendations.

Sec. 26-626. Vent termination.

Notwithstanding provisions of section 906.7, each plumbing vent extension through a roof shall be increased in size as follows:

Vent Diameter (inches)	Extension Diameter (inches)
Less than 3	3
3 to 4	4
Over 4	Same as vent

The change in diameter shall be made at least one foot below the roof and shall extend to the point of vent termination, which shall be not less than ten inches above the roof or as required by the plumbing inspector. Increasers shall be no longer than thirty inches in length.

Sec. 26-627. Wet venting.

Section 908.2.1, Horizontal Wet Venting is hereby amended by deleting the first sentence from said section and inserting in lieu thereof the following:

Water closets, bathtubs, showers and floor drains within one (1) bathroom group located on the same floor level and for private use shall be permitted to be vented by a wet vent.

Sec. 26-628. Table of horizontal distance of trap arms.

Table 10-1, Horizontal Lengths of Trap Arms is hereby amended by modifying said table as follows:

TABLE 10-1 HORIZONTAL DISTANCE OF TRAP ARMS*

(Except for water closets and similar fixtures not exceeding six feet)

Trap Arm (inches)	Distance Trap to Vent	
	Feet	Inches
1 1/4	5	0
1 1/2	6	0
2	8	0
3	12	0

4 and larger	12	0
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* The developed length between the trap of a water closet, or similar fixture, and the vent shall not exceed six feet.

Sec. 26-629. Grease interceptors and FOG.

Notwithstanding provisions of section 1014.1, regulation of Fat Oil and Grease (FOG) and sizing of FOG removal devices shall be in accordance with Section 118 Article III of the Wastewater Reclamation Authority ordinance for the regulation of industrial wastewater and commercial wastewater.

Sec. 26-630. Use of copper in piping systems.

Notwithstanding provisions of sections 1209.5.2 and 1209.5.3, copper pipe and tubing shall not be installed in locations other than in LP piping systems located on the building's exterior and before the secondary regulator.

Sec. 26-631. Prohibited locations of CSST.

Notwithstanding provisions of section 1211.2.5, corrugated stainless steel tubing shall not be installed where subject to physical damage. Locations subject to physical damage include but are not limited to building exteriors, and where used as an appliance connector between the appliance and the shutoff valve.

Sec. 26-632. Piping test pressures.

Notwithstanding the provisions of section 1214.3.2 of the UPC the minimum test pressures for piping systems shall be 10 pounds gauge for threaded pipes and 60 pounds gauge for welded pipes. For systems employing CSST, the test pressure shall be limited to 7.5 pounds gauge.

Secs. 26-633--26-649. Reserved.

Division 3. Storm Drainage Systems

Sec. 26-650. General requirements.

Subsections 1101.5 and 1101.6 of the UPC are hereby amended by deleting said sections and inserting in lieu thereof the following:

- (a) *Disposal of subsurface drainage and stormwater.* Where a storm sewer is not available, the disposition of stormwater and subsurface drainage shall be as follows:
 - (1) For one- and two-family dwellings, to sump and pump to grade or drywell seepage pit as shown in the illustration of proper disposal of subsurface drainage and stormwater, on file in the office of the senior plumbing inspector.
 - (2) For other than one- and two-family dwellings, to sump and pump to drywell seepage pit, or use lateral system similar to septic system with overflow on end.

- (3) Exception to subsections (c)(1) and (2) of this section, gravity drainage approved if footing and area drainage elevation is higher than drywell seepage pit drain discharge flow line.
- (b) *Traps.* Leaders or downspouts, when connected to a combined sewer, shall be trapped.
- (c) *Subsoil drain.* Where subsoil drains are placed under the cellar or basement floor or are used to surround the outer walls of a building, they shall be installed in accordance with the building code and shall be made of open-jointed, horizontally split, or perforated clay tile or asbestos-cement pipe or rigid plastic pipe not less than four inches in diameter. They shall be drained into an open sump with protective cover. Such sumps need not be vented. The building storm and subsoil drainage systems shall be connected to a storm sewer when such a sewer abuts the property. Where a sump pump is used, the discharge piping to the storm sewer, drywell seepage pit, or lateral system shall be inspected and approved before use.
- (d) *Parking lot and retention pond drains.* Parking lot and retention pond drains shall be installed as directed by the city engineer and in accordance with the approved site plan, a copy of which shall be available on the job site.

Sec. 26-651. Materials.

- (a) *Inside conductors.* Notwithstanding provisions of section 1102.1, materials for inside conductors shall be as follows:
 - 1. All installations shall be made in accordance with recommendations of the manufacturer when found specifically conforming with other sections of the plumbing code and the installation procedures appearing in the appendix of the applicable ASTM standard.
 - 2. A variance in application of these materials may be allowed by the building official in a particular case when specifically certified as warranted by a professional engineer or professional architect.
- (b) *Outside leaders.* Notwithstanding provisions of section 1102.2, when outside leaders are of sheet metal and connected with a building storm drain or storm sewer, they shall be connected to a cast iron drain extending above the finish grade, or the sheet metal leader shall be protected against injury.
- (c) *Building storm drains.* Notwithstanding provisions of section 1102.3, building storm drains, which are underground and beneath the building, shall be of cast iron soil pipe, seamless copper pipe, schedule 40 PVC, or copper tube.
- (d) *Building storm sewers.* Notwithstanding provisions of section 1102.4, the building storm sewer shall be of cast iron soil pipe, vitrified clay pipe, concrete pipe, asbestos cement pipe, or approved plastic pipe.

Sec. 26-652. Traps.

Notwithstanding provisions of section 1103, traps shall be provided on storm drains and leaders as required in this section.

- (a) *Main trap.* Stormwater drains connected to a combined sewer system shall be trapped except where the roof or gutter opening is located in accordance with the requirements for vent terminals, section 906.0. One trap may serve several conductors, but traps must be set below frost or inside the building.

- (b) *Material.* Stormwater traps, when required, shall be of cast iron or copper pipe or copper tube.
- (c) *Exception.* No traps shall be required for stormwater drains that are connected to a sewer carrying stormwater exclusively.
- (d) *Size.* Traps for individual conductors shall be the same size as the horizontal branch to which they are connected.
- (e) *Location.* Conductor traps shall be so located that an accessible cleanout may be installed on the building side of the trap.

Sec. 26-653. Size of leaders and storm drains.

Notwithstanding provisions of section 1106, vertical leaders, horizontal storm drains, and gutters shall be sized in accordance with this section.

- (a) *Leaders.* Under this division, vertical leaders shall be sized on the maximum projected roof area, according to the following table:

TABLE 11a. SIZE OF VERTICAL LEADERS

Diameter of Leader or Conductor* (inches)	Maximum Projected Roof Area (sq. ft.)
2	720
2 1/2	1,300
3	2,200
4	4,600
5	8,650
6	13,500
8	29,000

* The equivalent diameter of a square or rectangular leader may be taken as the diameter of that circle which may be inscribed within the cross sectional area of the leader.

Table 11a is based on a maximum rate of rainfall of four inches per hour.

TABLE 11b. SIZE OF HORIZONTAL STORM DRAINS

Maximum Projected Roof Area for Drains for Various Slopes			
Diameter of Drain (inches)	1/8 inch (sq. ft.)	1/4 inch (sq. ft.)	1/2 inch (sq. ft.)
3	822	1,160	1,644

4	1,880	2,650	3,760
5	3,340	4,720	6,680
6	5,350	7,550	10,700
8	11,500	16,300	23,000
10	20,700	29,200	41,400
12	33,300	47,000	66,600
15	59,500	84,000	119,000

Table 11b is based on a maximum rate of rainfall of four inches per hour.

- (b) *Building storm drain.* The size of the building storm drain or any of its horizontal branches having a slope of one-half inch or less per foot shall be based upon the maximum projected roof area to be handled according to the following table:
- (c) *Roof gutters.* The size of semicircular gutters shall be based on the maximum projected roof area, according to the following table:

TABLE 11c. SIZE OF GUTTERS

Maximum Projected Roof Area for Gutters of Various Slopes				
Diameter of gutter* (inches)	1/16 inch (sq. ft.)	1/8 inch (sq. ft.)	1/4 inch (sq. ft.)	1/2 inch (sq. ft.)
3	170	240	340	480
4	360	510	720	1,020
5	625	880	1,250	1,770
6	960	1,360	1,920	2,770
7	1,380	1,950	2,760	3,900
8	1,990	2,800	3,980	5,600
10	3,600	5,100	7,200	10,000

* Gutters other than semicircular may be used provided they have an equivalent cross sectional area.

Sec. 26-654. Size of combined drains and sewers.

Notwithstanding provisions of section 1106, in computing the size of combined building drains or sewers to which storm drains serving a roof, court, or paved area are to be connected, the area drained may be converted to equivalent fixture unit loads by placing a value of 256

fixture units on the first 1,000 square feet or portion thereof of area to be drained and one additional fixture unit for each 3.9 square feet thereafter.

Secs. 26-655--26-699. Reserved.

ARTICLE VII. STEAM OR POWER OPERATING EQUIPMENT

Division 1. Required Licenses and Reports

Sec. 26-700. License required.

No person shall operate, control, or assume responsible supervision of any stationary or portable steam engine, any stationary or portable steam boiler or other steam generating apparatus, or any appurtenance thereto, unless and until he or she is properly licensed as provided in this article. No owner, user, or agent of any owner or user of any such engine, boiler or other steam generating apparatus or appurtenance thereto shall cause, permit, or allow such to operate or be operated without first having determined that the person operating and the person in responsible charge thereof are in possession of proper and valid licenses for that purpose.

Sec. 26-701. Operator's report.

Any person owning, using or controlling the use of any engine, boiler or other apparatus coming under this division shall furnish annually to the mechanical section of the building safety division, at such time and in such form as shall be required by the board of power engineer examiners, a complete physical description and record of all such engines, boilers, or other apparatus and a complete roster of all employees engaged in any capacity in its operation, control or management. This roster shall include the name, residence address and license number of each person so engaged and shall be kept up to date by notice to the department within five days of when the name of any person is removed or added. The roster should identify which vessels the licensed operator's are in charge of controlling/ maintaining/ operating.

Sec. 26-702. Exemptions from article.

This article shall not apply to state inspected boilers, to locomotives of common carriers, to mines and mining, to agricultural machinery, to any apparatus subject to the inspection laws of the United States, to miniature boilers used exclusively for process steam, or to any boiler or other steam generating apparatus not in excess of nine nominal horsepower when the safety valve is set to release at 15 pounds or less. For the purpose of this division, ten square feet of heating surface shall be taken as one nominal horsepower.

Secs. 26-703---26-709. Reserved.

Division 2. Board of Power Engineer Examiners

Sec. 26-710. Board of power engineer examiners created.

- (a) There is created and established a board of power engineer examiners, referred to in this division as the "board of examiners."

- (b) The board of examiners shall be composed of six members.
- (c) Five members of the board of examiners shall be nominated by the mayor and appointed by the city council. The building official, or the official's designee, shall be an ex officio member. A majority of those appointed and serving on the board shall constitute a quorum for the conduct of business. Notwithstanding section 2-1059 regarding term limits, members of the board of examiners may be reappointed for a third or subsequent consecutive term.
- (d) Each appointee of the board of examiners shall be the holder of a first class engineer's license in the city and shall not be interested, directly or indirectly, in the sale or agency of any equipment, apparatus, or service that could be construed in any manner as affecting his or her impartial judgment as contemplated in this division.
- (e) All appointments to membership on the board of examiners shall be made for a period of three years.

Sec. 26-711. Powers and duties of the board of examiners.

- (a) The board of examiners shall hold regular stated meetings at least once monthly for the purpose of examining into and determining the qualifications of applicants for license as engineers or firemen and shall make and post such rules and regulations not inconsistent with this article, other provisions of this Code or state statutes as shall be necessary and proper for carrying into effect the provisions relative to examinations and hearings.
- (b) The board of examiners shall have the power to issue licenses, as provided for in this article, to those found to be eligible after due examination.
- (c) After giving the accused licensee an opportunity to be heard, the board of examiners shall have the power to suspend or revoke the licenses provided in this article for the following reasons:
 - (1) Carrying a higher steam pressure than authorized by the senior mechanical inspector.
 - (2) Intoxication or the drinking of intoxicating liquors while on duty.
 - (3) Any unauthorized absence from the post of duty.
 - (4) Defacing or obstructing a license certificate.
 - (5) Any negligence, incompetence or incapacity that may endanger life or property.
 - (6) Any violation of this division.

Sec. 26-712. Appeal from action of board of examiners.

- (a) Any person questioning the action of the board of examiners in refusing to grant a license because of failure to pass the prescribed examination or for other cause or who feels aggrieved by an order of revocation or suspension by the board of examiners may, within ten days from the board action complained of, appeal his or her case to the city council. The council shall then appoint a special board of examiners consisting of three persons holding first class licenses as engineers in the city, which shall review the action complained of together with other evidence or facts pertaining to the action in question, after which it shall submit a finding of facts to the city council together with a recommendation in the premises.
- (b) After the report and recommendation has been filed, the city council shall either affirm or reverse the action of the board of examiners.

- (c) Compensation for the special board of examiners shall be at the same rate as for the regular board of examiners.

Secs. 26-713--26-719. Reserved.

Division 3. Licensing

Sec. 26-720. Classes of licenses.

Licenses required under this article shall be of the following classifications: first class engineer, second class engineer, third class engineer, first class fireman, and second class fireman.

Sec. 26-721. Work authorized by license.

- (a) *Holder of first class license.* A license as first class engineer, unless restricted in any manner by the board of examiners, shall entitle the holder to take charge of any plant referred to in this article.
- (b) *Holder of second class license.* A license as second class engineer, unless restricted in any manner by the board of examiners, shall entitle the holder to take charge of any plant not exceeding 200 plant horsepower or to act as a shift engineer in a first class plant under the supervision of a first class engineer in charge.
- (c) *Holder of third class license.* A license as third class engineer, unless restricted in any manner by the board of examiners, shall entitle the holder to take charge of and operate any plant not exceeding 125 plant horsepower, except plants in which steam engines are operated, or to act as a shift fireman under the immediate supervision of a shift engineer holding first or second class license.
- (d) *Holder of first class fireman's license.* A license as a first class fireman, unless restricted in any manner by the board of examiners, shall entitle the holder to take charge of and operate any low pressure heating plant of not more than 75 plant horsepower, unless a qualified engineer is in charge and on duty.
- (e) *Holder of second class fireman's license.* A license as a second class fireman, unless restricted in any manner by the board of examiners, shall be limited to low pressure heating plants of not more than 50 plant horsepower.

Sec. 26-722. Limited or restricted licenses.

If, after examination, the board of examiners finds that an applicant is qualified to operate a type of plant or a specific plant within the general classifications, set out in section 26-459, but is not qualified to hold an unrestricted license in any of such classifications, the board may issue a limited license within any of these classifications, upon which the restriction shall be noted.

Sec. 26-723. License application.

- (a) Any person desiring to act as a stationary engineer or fireman shall apply to the board of examiners for a license to do so.
- (b) The application referred to in subsection (a) of this section shall be in writing, on forms furnished for that purpose; shall be accompanied by the required fee in the amount set

forth in the schedule of fees adopted by the City Council by resolution; and shall set out the applicant's name, age, place of residence, present place and position of employment and a complete record of his or her experience as an engineer or fireman, all of which information shall be vouched for by two citizens of the city or may be verified under oath by the applicant.

Sec. 26-724. Qualifications of license applicant.

To be eligible for examination in any classification, an applicant for a license, under the provisions of this article, shall be not less than 18 years of age, shall be of temperate habits and not addicted to the use of drugs or the excessive use of intoxicating liquor, and shall be able to meet the requirements of the particular class of license applied for.

Sec. 26-725. Experience of license applicant.

No person shall be granted a license required by this article until he or she furnishes the board of examiners with the following satisfactory proof:

- (1) For a first class engineer, that he or she has had five years' experience in steam engineering or refrigeration plants and has had experience in the operation of heating ventilation and electric apparatus.
- (2) For a second class engineer, that he or she has had three years' experience in steam engineering and knowledge of refrigeration, heating, ventilation and electric apparatus.
- (3) For third class engineer, that he or she has had two years' experience in steam engineering as fireman or helper around a boiler plant.
- (4) For a first class fireman's license, that he or she has had two years' experience as fireman or helper around a boiler plant.
- (5) For a second class fireman's license, that he or she has had one year's experience as fireman's helper around a boiler plant.

Sec. 26-726. Examinations.

- (a) Notice shall be given to applicants of the time and place of the examination required by this article at least three days prior thereto.
- (b) Examinations shall be designed to test fairly the applicant's knowledge of engineering matters and to determine his or her competence and fitness to hold the grade of license applied for.
- (c) All examinations shall be in writing or oral, by the question and answer method, and shall be graded on a percentage basis.
- (d) If, after examination, it shall appear to the board of examiners that the applicant is not qualified to serve in the classification for which he or she has taken the examination, the board shall refuse to issue the applicant a license in that classification.

Sec. 26-727. Display of license and certificate of boiler inspection.

- (a) Each engineer and fireman licensed under this division shall at all times keep his or her license posted under glass in a conspicuous place at the plant in which he or she is

employed. He or she shall report at once to the mechanical division any change in his or her employment or in his or her place of residence.

- (b) The owner, agent or lessee shall post the current certificate of inspection of the boiler in a conspicuous place near the boiler.

Sec. 26-728. License expiration and proration of fees.

Any applicant who qualifies for the issuance or renewal of a license pursuant to this division shall be issued such license upon payment of the license fee in the amount set in the schedule of fees adopted by the city council by resolution. All licenses required by this division shall expire on January 1 of each year. Original license fees shall be prorated quarterly to the following January 1. Licenses expiring other than on January 1 shall be prorated on the quarterly basis to the following January 1, at which time they shall be renewed on the annual basis. Any license not renewed within 30 days from the date of expiration shall be considered void, and its holder shall be required to pass another examination to operate within the city.

Secs. 26-729--26-799. Reserved.

Sec. 2. Except as hereinafter provided, this ordinance shall be in full force and effect from and after the later of January 1, 2011, or its passage and publication as provided by law.

This ordinance shall not apply to:

- a) Permit applications accepted by the City on or before December 31, 2010;
- b) Permit applications accepted by the City on or before June 30, 2011, which are determined by the Building Official and Fire Chief, or their respective designees, to be for construction or renovation projects upon which substantial design work was completed prior to the adoption of this ordinance, and which are of such size and complexity, or that utilize state or federal funding sources with such long approval timelines, that it was unfeasible to complete the design and apply for a building permit prior to December 31, 2010;
- c) The issuance of a permit on the basis of an application accepted within the deadlines identified above; and
- d) To any work authorized by such a permit,

all of which shall remain subject to the requirements of Chapter 26 of the Municipal Code of the City of Des Moines, Iowa, as it existed immediately prior to the passage of this ordinance.

FORM APPROVED:

Roger K. Brown
Assistant City Attorney