

CITY OF EDGEWATER
ORDINANCE NO. 2023-08
SERIES OF 2023

AN ORDINANCE ADOPTING BY REFERENCE THE 2021 EDITIONS OF EACH OF FOLLOWING: THE INTERNATIONAL BUILDING CODE, THE INTERNATIONAL PLUMBING CODE, THE INTERNATIONAL MECHANICAL CODE, THE INTERNATIONAL FUEL GAS CODE, THE INTERNATIONAL FIRE CODE, THE INTERNATIONAL ENERGY CONSERVATION CODE, THE INTERNATIONAL RESIDENTIAL CODE AND THE INTERNATIONAL EXISTING BUILDING CODE; PROVIDING PENALTIES FOR THE VIOLATION THEREOF; AND MAKING CONFORMING AMENDMENTS TO THE EDGEWATER MUNICIPAL CODE

WHEREAS, pursuant to Part 2 of Article 16 of Title 31 of the Colorado Revised Statutes and Section 6.8 of the Edgewater Home Rule Charter (“Charter”), the Edgewater City Council (“Council”) possesses the authority to adopt codes by reference; and

WHEREAS, pursuant to this authority, the Council previously adopted by reference and made local amendments to the 2018 editions of several International Codes and codified such Codes and amendments within Chapter 18 of the Edgewater Municipal Code (“Code”); and

WHEREAS, the International Code Council has prepared and published 2021 editions of the International Codes previously adopted by the Council; and

WHEREAS, the City Council recognizes the value of the various International Codes as providing commonly adopted uniform standards for public health, safety and welfare issues relating to the subject matter of each and as the standards recommended by the City Building Official; and

WHEREAS, a public hearing on this Ordinance, and proper notice thereof, was provided in accordance with C.R.S. § 31-16-203; and

WHEREAS, penalties for violating the International Codes adopted hereby are set forth in full in this Ordinance and shall be published in full after final adoption in accordance with C.R.S. § 31-16-204 and Edgewater Charter Section 6.8(2); and

WHEREAS, certified copies of all Codes adopted hereby were filed with the City Clerk at least fifteen (15) days prior to public hearing on this Ordinance, and such codes remain open to public inspection and purchase; and

WHEREAS, the Council therefore desires to adopt by reference the 2021 editions of the International Codes specifically referenced herein, provide penalties for violating the same, and make conforming amendments to the Edgewater Municipal Code.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF EDGEWATER, COLORADO THAT:

Section 1. Code Section 18-2-10, concerning the adoption of the International Building Code by reference, is hereby amended as follows:

Sec. 18-2-10. Adoption.

Pursuant to Title 31, Article 16, Part 2, C.R.S., there is adopted as the building code of the City, by reference thereto, the *International Building Code (IBC) 2018 2021* Edition, together with all appendices I and N, and tables thereto, published by the International Code Council, 4051 West Flossmoor Road, County Club Hills, IL 60478-579, to have the same force and effect as if set forth herein in every particular. The subject matter of the adopted code includes comprehensive provisions and standards regulating the erection, construction, enlargement, alteration, repair, moving, removal, conversion, demolition, occupancy, equipment, use, height, area and maintenance of buildings and structures for the purpose of protecting the public health, safety, and general welfare.

Section 2. Code Section 18-2-30, concerning amendments to the adopted version of the International Building Code, is hereby amended to read in its entirety as follows:

Sec. 18-2-30. - Amendments.

The following chapters, sections, subsections, paragraphs, and appendices of the IBC are hereby amended as follows:

- (1) Section 101.1 of the IBC is amended to insert "The City of Edgewater".
- (2) Section 101.4 of the IBC is amended by the addition of the following at the end of the paragraph:

In case of conflict between this code and other codes or ordinances in effect, the more restrictive shall apply.

- (3) Section 103.1 of the IBC is amended to insert "building department".
- (4) Section 105.2 of the IBC is amended as follows:

Building:

~~13. Movable cases, counters and partitions not over 5 feet 9 inches in height.~~

~~7. Painting, papering, tiling, carpeting, cabinets, countertops and similar finish work.~~

~~9 Prefabricated swimming pools accessory to a Group R-3 occupancy, as applicable in section 101.2, which are less than 24 inches deep, do not exceed 5,000 gallons and are installed entirely above ground.~~

~~11. Swings and other playground equipment accessory to detached one and two family dwellings.~~

14. Concrete flatwork on private property that is placed on the exterior or interior that is not structural. Monolithic concrete slabs and footings are not exempt.

15. Installation or repair of gutters and downspouts, but not including piped or integral roof drainages systems.

(5) Section 105.5 of the IBC is amended to read in its entirety as follows:

See Section 18-1-50 of the Edgewater Municipal Code.

(6) Section 105.6 of the IBC is amended by the addition of the following:

The suspension or revocation of any permit or other privileges conferred by the City shall not be regarded as a penalty for the purpose of this building code.

(7) Section 109 of the IBC is amended by the addition of the following:

Section 109.4 of the IBC remains amended by the addition of the following:

Such fee will generally be equal to the permit fee.

109.7 Permit Fees. See Section 18-1-40(a) of the Edgewater Municipal Code.

109.8 Plan Review Fee. See Section 18-1-40(c) of the Edgewater Municipal Code.

109.9 Permits Not Requiring Fees. The Government of the United States of America, the State of Colorado and its political subdivisions, the City of Edgewater and all agencies and departments thereof shall be exempt from the payment of fees for work performed on buildings, structures or utilities owned wholly by such agencies or departments and devoted exclusively

to governmental use when such work to be performed is actually performed by employees of such agencies and departments.

(8) Section 113 of the IBC is amended to read in its entirety as follows:

BOARD OF APPEALS

113.1 General. See Section 18-1-30 of the Edgewater Municipal Code.

(9) Section 115 of the IBC is amended to read in its entirety as follows:

SECTION 115 STOP WORK ORDER

115.1 Authority. Whenever the building official finds any work regulated by this code being performed in a manner either contrary to the provisions of this code or dangerous or unsafe, the building official is authorized to issue a stop work order.

115.2 Issuance. The stop work order shall be in writing and shall be given to the owner of the subject property, or to the owner's agent, or to the person doing the work. In the event that no such person is present at the subject property, the stop work order shall be issued by posting it at a conspicuous location on the subject property. Upon issuance of a stop work order, the cited work shall immediately cease. The stop work order shall state the reason for the order, and the conditions under which the cited work will be permitted to resume.

115.3 Unlawful continuance. It shall be unlawful to remove any posted stop work order prior to receipt of written permission of the building official for resumption of the work. It shall be unlawful to continue any work after having been served with a stop work order, or to work on a property upon which a stop work order has been posted, except for such work as a person may be directed to perform to remove a violation or unsafe condition.

(10) Chapter 9, Fire Protection and Life Safety Systems, of the IBC is deleted in its entirety and replaced with the following:

Refer to the 2021 International Fire Codes, Chapter 9, and amendments per Article 7 of this Chapter.

(11) Section 1101.1 of the IBC, Scope, is amended by adding the following sentences to the end of the paragraph:

Where there are seven or more residential dwelling units in a project, the provisions of Colorado Revised Statutes (C.R.S.) Title 9, Article 5,

Standards for Accessible Housing, shall be enforced by this Code. C.R.S. Title 9, Article 5 as amended, is reproduced in Appendix R of this Code for reference. CRS 9-5 can be found at <https://leg.colorado.gov/sites/default/files/images/olls/crs2018-title-09.pdf>.

(12) Section 1511.2.4 of the IBC, Type of construction, is deleted in its entirety and replaced with the following:

1511.2.4 Type of construction. Penthouses shall be constructed of *building element* materials as required for the type of construction of the building. Penthouse *exterior walls* and roof construction shall have a *fire-resistance rating* as required for the type of construction of the building. Supporting construction of such *exterior walls* and roof construction shall have a *fire-resistance rating* not less than required for the *exterior wall* or roof supported.

(13) Section 1612.3 of the IBC is amended to insert “Jefferson County, Colorado and Incorporated Areas” and “August 2, 2022”.

(14) Section 2902.1.1 of the IBC is amended by the addition of the following sentence at the end of the paragraph:

Gender neutral toilet and bath fixtures shall be taken into consideration towards the calculation of required fixtures.

Section 3. Code Section 18-3-10, concerning the adoption of the International Residential Code (IRC) by reference, is hereby amended as follows:

Sec. 18-3-10. - Adoption.

Pursuant to Title 31, Article 16, Part 2, C.R.S., there is adopted as the residential code of the City, by reference thereto, the *International Residential Code (IRC) 2018 2021* Edition, together with all appendices and tables thereto, including but not limited to Appendix F concerning radon control methods, published by the International Code Council, 4051 West Flossmoor Road, County Club Hills, IL 60478-579, to have the same force and effect as if set forth herein in every particular. The subject matter of the adopted code concerns the fire, life and structural safety aspects of one-family and two-family dwellings and townhouses, and national test, material and special design standards for these types of buildings and structures.

Section 4. Code Section 18-3-30, concerning amendments to the International Residential Code (IRC) adopted by reference, is hereby amended to read in its entirety as follows:

Sec. 18-3-30. - Amendments.

The following chapters, sections, subsections, paragraphs and appendices of the IRC are hereby amended as follows:

- (1) Section 101.1 of the IRC is amended by inserting “The City of Edgewater”.
- (2) Section 105.2 of the IRC is amended to read as follows:

Building:

- 1. Concrete flatwork on private property on the exterior or interior that is not structural. Monolithic concrete slabs and footings are not exempt.
- 2. Installation or repair of gutters and downspouts.
- (3) Section 105.5 of the IRC is deleted in its entirety and replaced with the following:

See Section 18-1-50 of the Edgewater Municipal Code.

- (4) Section R112 of the IRC is deleted in its entirety and replaced with the following:

BOARD OF APPEALS

112.1 General. See Section 18-1-30 of the Edgewater Municipal Code.

- (5) Section R114 of the IRC is deleted in its entirety and replaced with the following:

**SECTION R114
STOP WORK ORDER**

R114.1 Authority. Whenever the building official finds any work regulated by this code being performed in a manner either contrary to the provisions of this code or dangerous or unsafe, the building official is authorized to issue a stop work order.

R114.2 Issuance. The stop work order shall be in writing and shall be given to the owner of the subject property, or to the owner's agent, or to the person doing the work. In the event that no such person is present at the subject property, the stop work order shall be issued by

posting it at a conspicuous location on the subject property. Upon issuance of a stop work order, the cited work shall immediately cease. The stop work order shall state the reason for the order, and the conditions under which the cited work will be permitted to resume.

R114.3 Unlawful continuance. It shall be unlawful to remove any posted stop work order prior to receipt of written permission of the building official for resumption of the work. It shall be unlawful to continue any work after having been served with a stop work order, or to work on a property upon which a stop work order has been posted, except for such work as a person may be directed to perform to remove a violation or unsafe condition.

(6) Table R301.2 of the IRC is deleted in its entirety and replaced with the following:

GROUND SNOW LOAP ⁶	WIND DESIGN				SEISMIC DESIGN CATEGORY ⁷	SUBJECT TO DAMAGE FROM			WINTER DESIGN TEMP ⁸	ICE BARRIER UNDERLAYMENT REQUIRED ⁹	flood HAZARDS ¹⁰	AIR FREEZING INOEX ¹¹	MEAN ANNUAL T ENIP ¹²
	Speed ¹ (mph)	Topographical effects ²	Special wind region ³	Windborne debris zone ⁴		Weathering ⁵	Frost depth	Termite ⁶					
40 psf	130	-	-	-	B	moderate	36"	slight	-5°	yes	-	-	-
Manual J Design Criteria:													
Elevation		Latitude	Winter heating	Summer cooling	Altitude correction factor	Indoor design temperature		Design temperature cooling	Heating temperature difference				
5381		39°N	-5°	90°	.85	70°		75°	75°				
Cooling temperature Difference		Wind velocity heating	Wind velocity cooling	Coincident wet bulb	Daily range	Winter humidity		Summer humidity		-			
15°		15mph	7.5mph	64	H	30%		50%		-			

(7) A new Section R305.1.2, Habitable attics and basements in existing buildings, is added as follows:

R305.1.2 Habitable attics and basements in existing buildings.

Where a habitable attic or habitable space in a basement is created in an existing building, ceiling height shall be not less than 6 feet 8 inches. Bathrooms, toilet rooms and laundry rooms shall have a ceiling height of not less than 6 feet 4 inches.

Exceptions:

1. For rooms with sloped ceilings, the required floor area of the room shall have a ceiling height of not less than 5 feet (1524 mm) and not less than 50 percent of the required floor area shall have a ceiling height of not less than 6 feet 8 inches (2134 mm).
2. At beams, girders, ducts or other obstructions, the ceiling height shall be not less than 6 feet 4 inches (1931 mm) from the finished floor.

(8) A new Section R311.7.9, Stairways in existing buildings, is added as follows:

R311.7.9 Stairways in existing buildings. Alternations to existing stairs shall not be required to comply with the requirements of this code where the existing space and construction does not allow a reduction in pitch or slope.

(9) Section R309.5 of the IRC is amended by the addition of the following sentence:

This requirement shall not apply to one-family dwellings.

(10) Section R313.2 of the IRC is amended by striking the requirement of automatic fire sprinkler systems for one-family dwellings.

(11) Section R506.2.3 of the IRC, Vapor retarder, is repealed and replaced with the following:

R506.2.3 Vapor retarder. A minimum 6 mil (0.006 inch; 152 µm) polyethylene or *approved* vapor retarder with joints lapped not less than 6 inches (152 mm) shall be placed between the concrete floor slab and the base course or the prepared subgrade where a base course does not exist.

(12) Chapter 11 of the IRC, concerning Energy Efficiency, is hereby deleted in its entirety. *[Note: energy efficiency standards are instead governed by the currently adopted version of the International Energy Conservation Code – see, elsewhere in Chapter 18 of the Edgewater Municipal Code]*

(13) Section M1304.2 of the IRC is amended by the addition of the following section:

Fireplace Installation. Any new or remodeled fireplace to be installed or constructed in any dwelling in the city shall be one of the following:

- (a) A gas appliance;
- (b) An electric device;
- (c) Fireplace or fireplace insert that meets the most stringent emissions standards for wood stoves established by the CO Air Quality Commission (AQC) pursuant to C.R.S Section 25-7-407(8), or any other clean burning device that is approved by the CO AQC.

(14) Section M1408 of the IRC is deleted in its entirety and replaced with the following:

M1408.1 General. Floor furnaces are prohibited in any construction.

(15) Section G2437 of the IRC is deleted in its entirety and replaced with the following:

G2437.1 General. Floor furnaces are prohibited in any construction.

(16) Section G2445 of the IRC is deleted in its entirety and replaced with the following:

G2445.1 General. Unvented room heaters are prohibited in any construction.

Section 4. Code Section 18-5-10, concerning the adoption of the International Mechanical Code by reference, is hereby amended as follows:

Sec. 18-5-10. - Adoption.

Pursuant to Title 31, Article 16, Part 2, C.R.S., there is adopted as the mechanical code of the City, by reference thereto, the International Mechanical Code (IMC) ~~2018~~ 2021 Edition, published by the International Code Council, 4051 West Flossmoor Road, County Club Hills, IL 60478-579, to have the same force and effect as if set forth herein in every particular. The subject matter of the adopted code concerns requirements for the installation and maintenance of heating, ventilating, cooling and refrigeration systems.

Section 5. Code Section 18-5-30, concerning the amendments to the International Mechanical Code adopted by reference, is hereby amended to read in its entirety as follows:

Sec. 18-5-30. - Amendments.

The following chapters, sections, subsections, paragraphs and appendices of the IMC are hereby amended as follows:

- (1) Section 101.1 of the IMC is amended by inserting "The City of Edgewater".
- (2) Section 103.1 of the IMC is amended by inserting "building department".
- (3) Section 106.4.3 of the IMC is deleted in its entirety and replaced with the following:

See Section 18-1-50 of the Edgewater Municipal Code.

(4) Section 106.5 of the IMC is amended by the addition of the following:

106.5.4 Permit Fees. See Section 18-1-40(a) of the Edgewater Municipal Code.

106.5.5 Plan Review Fee. See Section 18-1-40(c) of the Edgewater Municipal Code.

106.5.6 Fee Refunds. See Section 18-1-40(d) of the Edgewater Municipal Code.

(5) Section 114 of the IMC is amended to read in its entirety as follows:

MEANS OF APPEAL

114.1 General. See Section 18-1-30 of the Edgewater Municipal Code.

(6) Section 910 of the IMC is deleted in its entirety and replaced with the following:

910.1 General. Floor furnaces are prohibited in any construction.

Section 6. Code Section 18-6-10, concerning the adoption of the International Plumbing Code by reference, is hereby amended as follows:

Sec. 18-6-10. - Adoption.

Pursuant to Title 31, Article 16, Part 2, C.R.S., there is adopted as the plumbing code of the City by reference thereto, the International Plumbing Code (IPC) ~~2018~~ 2021 Edition, published by the International Code Council, 4051 West Flossmoor Road, County Club Hills, IL 60478-579, to have the same force and effect as if set forth herein in every particular. The subject matter of the adopted code concerns plumbing, including requirements for plumbing materials and installation standards.

Section 7. Code Section 18-6-30, concerning amendments to the International Plumbing Code adopted by reference, is hereby amended to read in its entirety as follows:

Sec. 18-6-30. - Amendments.

The following chapters, sections, subsections, paragraphs and appendices of the IPC are hereby amended as follows:

- (1) Section 101.1 of the IPC is amended by inserting “City of Edgewater”.
- (2) Section 103.1 of the IPC is amended by inserting “Building Department”.
- (3) Section 106.5.3 of the IPC is deleted in its entirety and replaced with the following:

See Section 18-1-50 of the Edgewater Municipal Code.

- (4) Section 106.6 of the IPC is amended by the addition of the following:

106.2.3 Permit Fees. See Section 18-1-40(a) of the Edgewater Municipal Code.

106.2.4 Plan Review Fee. See Section 18-1-40(c) of the Edgewater Municipal Code.

106.2.5 Fee Refunds. See Section 18-1-40(d) of the Edgewater Municipal Code.

- (5) Section 114 of the IPC is deleted in its entirety and replaced with the following:

MEANS OF APPEAL

114.1 General. See Section 18-1-30 of the Edgewater Municipal Code.

- (6) Section 305.4.1 of the IPC is amended by adding “42”.

- (7) Section 903.1 of the IPC is amended by adding “12”.

Section 8. Code Section 18-7-10, concerning the adoption of the International Fire Code by reference, is hereby amended as follows:

Sec. 18-7-10. - Adoption.

Pursuant to Title 31, Article 16, Part 2, C.R.S., there is adopted as the fire code of the City, by reference thereto, the International Fire Code (IFC) 2018 2021 Edition, including Appendix Chapters B, C, D, F, H, I, K, L, and M, as published by the International Code Council, 4051 West Flossmoor Road, County Club Hills, IL 60478-579, to have the same force and effect as if set forth herein in every particular. The subject matter of the adopted code concerns fire prevention standards and requirements, and fire

related standards for testing and materials.

Section 9. Code Section 18-7-30, concerning amendments to the International Fire Code, is hereby amended to read in its entirety as follows:

Sec. 18-7-30. - Amendments.

(1) Section 101.1 of the IFC is amended by inserting “The City of Edgewater”.

(2) Section 102.11 of the IFC is amended by the addition of the following new section:

102.11.1 Rules and regulations promulgated by the State of Colorado under the authority established by 2433.51204.5, C.R.S. including, but not limited to the 2021 Colorado Fire Suppression Rules, shall be enforced under the provisions of sections 102.8 through 102.11.

(3) Section 104.7 is amended by the addition of the following sentence:

Nothing herein shall be construed as a waiver of immunities provided by § 24-10-101, et seq., C.R.S. or by other statutes, or by the common law.

(4) Section 104.7.1 of the IFC is repealed and reenacted to read in its entirety as follows:

104.7.1 Legal Defense. Any suit instituted against any officer or employee of any fire protection district or any officer or employee of the City of Edgewater because of an act performed by that officer or employee in the lawful discharge of duties and under the provisions of this code shall be defended by the legal representative of the fire protection district or City by which he or she is employed, respectively, until the final termination of the proceedings. The fire code official, city officer or employee, or any subordinate thereof, shall not be liable for costs in an action, suit or proceeding that is instituted in pursuance of the provisions of this code; and any such official, officer, employee or subordinate, acting in good faith and without malice, shall be free from liability for acts performed under any of its provisions or by reason of any acts or omission in the performance of official duties in connection therewith.

(5) Section 104.6 of the IFC is changed to the following:

The fire code official shall keep official records as required by Sections 104.6.1 through 104.6.4. Such official records shall be

retained for not less than six years.

(6) Section 104.12 of the IFC is amended by the addition of the following sentence:

The authority of the Fire Chief of the District or designated members of the Life Safety Division and district to act as police officers shall only extend as far as the authority set forth in §32-1-1002, CRS, or other applicable state statutes.

(7) Subsection 105.5 of the IFC is amended by the addition of the following new paragraphs:

105.5.53 Assisted living facilities. An operational permit is required to operate an assisted living facility.

105.6.25 Buildings and facilities. Any owner or owner's authorized agent who intends to construct, enlarge, alter, repair, move, demolish or change occupancy of a building, or structure, or facility permitted under the International Building Code, or which requires a new fire sprinkler or fire alarm system to be installed or modified, or to cause any such work to be performed, shall make an application to the fire code official and obtain the required permit.

(8) Section 111 of the IFC is deleted and replaced with the following:

SECTION 111 MEANS OF APPEALS

111.1 General. See Section 18-1-30 of the Edgewater Municipal Code.

(9) Sections 112.4 and 113.4 of the IFC, Violation penalties and Failure to comply, are replaced and amended as follows:

112.4 Violation penalties. Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation of the approved construction documents or directive of the fire code official, or of a permit or certificate used under provisions of this code, shall be guilty of a Fire Code Violation. City ordinance and County resolutions shall stipulate what the offense(s) will be. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

113.4 Failure to comply. Any person who shall continue any work after having been served with a stop work order, except such work

as that person is directed to perform to remove a violation or unsafe condition, shall be subject to fine and/or imprisonment up to the maximum specified in §32-1-1001 and §32-1-1002, CRS. City ordinance and County resolutions shall stipulate what the offense(s) will be.

(10) Section 107.2.1 of the IFC is added as follows:

107.2.1 Inspection Fees:

(a) Pursuant to §32-1-1002 (1)(e)(II) CRS, the Board may fix and from time to time may increase or decrease fees and charges, at its discretion, for inspections and review of plans and specifications, which are:

(1) Requested or mandated for existing structures, buildings and improvements; and

(2) Necessitated in conjunction with any county regulation, resolution or condition of development; or

(3) Performed in conjunction with the construction of new structures, buildings, and improvements.

(b) Said fees and charges may, at the discretion of the Board, include a charge for reimbursement to the district of any consultation fees, expenses or costs incurred by the district in the performance of the inspections or review of the plans and specifications.

(11) Section 115 of the IFC is added as a new section to read as follows:

115. This Chapter shall be interpreted to be consistent with the provision of §32-1-1002(3), CRS.

(12) Chapter 2 of the IFC is amended as follows:

Occupancy Classification, Assembly Group A:

Amend Accessory with places of religious worship to read as follows:

1. Accessory religious educational rooms and religious auditoriums with occupant loads of less than 100 per room or space are not considered separate occupancies.

2. Rooms and spaces within places of religious worship providing overnight homeless sheltering for fewer than 50 occupants, for less than 16 continuous hours, shall be classified as part of the primary occupancy notwithstanding any other provisions of this code which would disallow overnight occupancy in such rooms or spaces, and provided the aggregate area used for sleeping is less than 10,000 square feet and has all of the following:

- a) exiting and emergency lighting
- b) operational smoke alarms and carbon monoxide alarms in all sleeping areas
- c) a minimum of one awake attendant
- d) an emergency plan.

An operational permit and an *approved* emergency plan for such use may be required on an annual basis through the governing Fire Code Official subject to review of compliance with these provisions.

(13) Section 503.2 of the IFC is amended by the addition of the following sentence:

See Appendix D for further requirements.

(14) Section 503.2.1 of the IFC is deleted and replaced with the following:

503.2.1 Dimensions.—Fire apparatus access streets and drive aisles shall have an unobstructed width of not less than 24 feet, exclusive of shoulders, except at approved security gates in accordance with Section 503.6, Appendix D103.5, and an unobstructed vertical clearance of not less than 13 feet 6 inches.

(15) Section 503.2.3 of the IFC is amended by the addition of the following sentence:

Grass concrete and similar surfaces are NOT allowed.

(16) Section 503.2.4 of the IFC is deleted and replaced with the following:

503.2.4. Turning radius. The required turning radius of a fire apparatus access road shall be a minimum inside radius of 25 feet and an outside radius of 50 feet or as determined by the fire code official.

(17) Section 503.2.8 of the IFC is deleted and replaced with the following:

503.2.8. Angles of approach and departure. The angles of approach and departure for fire apparatus access roads shall be no greater than 10% or within the limits established by the fire code official based on the fire district's apparatus.

(18) Section 507.5.1.1 of the IFC is deleted and replaced with the following:

507.5.1.1 Hydrants for standpipe and/or automatic sprinkler systems. Buildings equipped with a standpipe system installed in accordance with Section 905, and/or an automatic sprinkler system installed in accordance with 903.3.1.1 or 903.3.1.2 shall have a fire hydrant with a minimum of 50 feet and a maximum of 100 feet from the fire department connection(s) in an approved location.

(19) Sections 510.4.1.1 and 510.4.1.2 of the IFC are deleted and replaced, respectively, with the following:

510.4.1.1 Minimum signal strength into the building. The minimum inbound signal strength shall be sufficient to provide usable voice communications throughout the coverage area as specified by the fire code official. The inbound signal level shall be a minimum of -85 dBm throughout the coverage area and sufficient to provide not less than a Delivered Audio Quality (DAQ) of 3.0 or an equivalent Signal-to-Interference-Plus-Noise Ratio (SINR) applicable to the technology for either analog or digital signals.

510.4.1.2 Minimum signal strength out of the building. The minimum outbound signal strength shall be sufficient to provide usable voice communications throughout the coverage area as specified by the fire code official. The outbound signal level shall be sufficient to provide not less than a DAQ of 3.0 or minimum signal strength of -90 dBm applicable to the technology for either analog or digital signals.

(20) A new Section 510.4.1.4 is added to the IFC to read in its entirety as follows:

510.4.1.4 Field Strength. If the field strength OUTSIDE the building where the receiving antenna system for the in-building system is located is less than the (-85 dBm), then the minimum required in-building field strength shall equal the field strength being delivered to the receive antenna of the building.

(21) A new Section 510.5.4. is added to the IFC to read in its entirety as follows:

510.5.4. Prior to testing, the fire agency's radio technician shall be notified and participate in the testing process to ensure the noise floor of the hosting transmitter site is not impacted by the amplification equipment.

(22) A new Section 510.5.6. is added to the IFC to read in its entirety as follows:

510.5.6 Location of essential components. All essential components shall be installed in a room accessible for repair and testing within the structure that is rated at 2-hours.

Exception

A 1-hour rated room shall be required for installations in existing buildings installed in accordance with Chapter 11.

(23) Section 901.4.7 of the IFC is hereby amended to read as follows:

901.4.7 Pump and riser room size. Where provided, fire pump rooms and automatic sprinkler system riser rooms shall be designed with adequate space for all equipment necessary for the installation, as defined by the manufacturer, with sufficient working space around the stationary equipment. Clearances around equipment to elements of permanent construction, including other installed equipment and appliances, shall be sufficient to allow inspection, service, repair, or replacement without removing such elements of permanent construction or disabling the function of a required fire-resistance-rated assembly. Fire pump and automatic sprinkler system riser rooms shall be provided with doors and unobstructed passageways large enough to allow removal of the largest piece of equipment. The room shall provide a minimum of 36 square feet working space around a fire pump or automatic sprinkler system riser.

901.4.7.1 Access. Automatic sprinkler system risers, fire pumps, and controllers shall be provided with ready access. Where located in a fire pump room or automatic sprinkler system riser room, the door shall be permitted to be locked provided that the key is available at all times. When automatic fire sprinkler systems are provided within a building and the system serves multiple tenant spaces, the main fire sprinkler control valves shall be placed within an approved room that has access provided direction from the building exterior.

(24) A new subsection 901.6.4 of the IFC is added to read in its entirety as follows:

901.6.4 Third party reporting. The fire code official is authorized to require inspection, testing, and maintenance contractors to utilize third party tracking and reporting of the status of fire protection, fire detection, and life safety systems.

(25) Section 903.4.2 of the IFC is deleted and replaced with the following:

903.4.2 Alarms. An approved audible/visual appliance, located on the exterior of the building in an approved location, shall be connected to each automatic sprinkler system. Such sprinkler water-flow alarm appliances shall be activated by water flow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. Where a fire alarm system is installed, actuation of the automatic sprinkler system shall actuate the building fire alarm system.

(26) Section 907.6.6 of the IFC is amended by the addition of the following section:

907.6.6.4 Separate Systems. Fire alarm panels and security alarm panels shall be separate and not combined.

(27) Section 1103.5.3 of the IFC is amended by inserting the following:

The fire sprinkler system shall be installed and approved by December 31, 2025.

(28) A new Section 5610 of the IFC is added to read in its entirety as follows:

5610. Other Requirements. This chapter shall be interpreted to be consistent with the provisions of 24.33.5-2001 et seq., CRS and any applicable municipal ordinance which shall govern all fireworks, their sale, storage and use.

(29) Section 5303.7 of the IFC is amended by the addition of the following sentence at the end of the paragraph:

The provisions of this section shall apply to new or existing systems.

(30) Section 6109.13 of the IFC is amended by the deletion of the exception.

(31) Section B105.1 of Appendix B of the IFC is amended by adding “footnote a” to the Table as follows:

Appendix B Table B105.1(1), footnote a. The minimum fire-flow shall not be less than 1000 gallons per minute for all fire-flow calculation areas. (Strike through “500” inside the Table)

(32) Table B105.2 of the IFC is amended as follows:

Change the minimum fire flow percentage from 25% to 50% of the value in Table B105.1(2) for buildings sprinklered under section 903.3.1.1 and 903.3.1.2 of the International Fire Code.

Table B105.2 “Footnote a” is amended to read:

Footnote a. The reduced fire flow shall not be less than 1,500 gallons per minute.

(33) Section D102.1 of Appendix D of the IFC is deleted and replaced with the following:

D102.1 Access and loading. Facilities, buildings and portions thereof hereafter constructed shall be accessible to fire department apparatus by way of an approved driving surface capable of supporting the imposed load of fire apparatus weighing at least eighty-five thousand (85,000) pounds (38,636 kg).

Section 10. Code Section 18-8-10, concerning the adoption of the International Fuel Gas Code by reference, is hereby amended as follows:

Sec. 18-8-10. - Adoption.

Pursuant to Title 31, Article 16, Part 2, C.R.S., there is adopted as the fuel gas code of the City, by reference thereto, the International Fuel Gas Code (IFGC) ~~2018~~ 2021 Edition, published by the International Code Council, 4051 West Flossmoor Road, County Club Hills, IL 60478-579, to have the same force and effect as if set forth herein in every particular. The subject matter of the adopted code concerns requirements for the installation and maintenance of fuel gas burning appliances and systems.

Section 11. Code Section 18-8-30, concerning amendments to the International Fuel Gas Code adopted by reference, is hereby amended to read in its entirety as follows:

Sec. 18-8-30. - Amendments.

The following chapters, sections, subsections, paragraphs and appendices of the IFGC are hereby amended as follows:

(1) Section 101.1 of the IFGC is amended by inserting “The City of Edgewater”.

(2) Section 106.5.3 of the IFGC is replaced with the following:

See Section 18-1-50 of the Edgewater Municipal Code.

(3) Section 108.4 of the IFGC is amended to read in its entirety as follows:

108.4. Violation and Penalties. It is unlawful for any person, firm or corporation to erect, install, alter, add, repair, relocate, replace, maintain or use any plumbing system or cause or permit the same to be done in violation of this code.

(4) Section 108.5 of the IFGC is amended to read in its entirety as follows:

108.5. Stop work orders. Anyone receiving or notified of a Stop Work Order shall immediately cease and desist all work until the conditions of said order are adhered to and work is authorized to resume.

(5) Section 109 of the IFGC is amended by adding and replacing the following:

109.2 Schedule of Permit Fees. See Section 18-1-40(a) of the Edgewater Municipal Code.

109.2.1 Plan Review Fee. See Section 18-1-40(c) of the Edgewater Municipal Code.

106.9.6 Fee Refunds. See Section 18-1-40(d) of the Edgewater Municipal Code.

(6) Section 113 of the IFGC is deleted and replaced with the following:

MEANS OF APPEAL

113.1 General. See Section 18-1-30 of the Edgewater Municipal Code.

(7) Section 609 of the IFGC is deleted and replaced with the following:

609.1 General. Floor furnaces are prohibited in any construction.

(8) Section 621 of the IFGC is deleted and replaced with the following:

621.1 General. Unvented room heaters are prohibited in any construction.

Section 12. Code Section 18-9-10, concerning the adoption of the International Existing Building Code by reference, is hereby amended as follows:

Sec. 18-9-10. - Adoption.

Pursuant to Title 31, Article 16, Part 2, C.R.S., there is adopted as the existing building code of the City, by reference thereto, the International Existing Building Code (IEBC) ~~2018~~ 2021 Edition, published by the International Code Council, 4051 West Flossmoor Road, County Club Hills, IL 60478-579, to have the same force and effect as if set forth herein in every particular. The subject matter of the adopted code concerns the fire, life and structural safety aspects of existing buildings, addressing repair, alteration or change of occupancy.

Section 13. Code Section 18-9-30, concerning amendments to the International Existing Building Code (IEBC) adopted by reference, is hereby amended to read in its entirety as follows:

Sec. 18-9-30. - Amendments.

The following chapters, sections, subsections, paragraphs and appendices of the IEBC are hereby amended as follows:

(1) Section 101.1 is amended by inserting "The City of Edgewater".

(2) Section 105.2 of the IEBC is replaced with the following:

Building:

1. Concrete flatwork on private property on the exterior or interior that is not structural. Monolithic concrete slabs and footings are not exempt.

2. Prefabricated swimming pools accessory to a Group R-3 occupancy, as applicable in section 101.2, which are less than 24 inches deep, do not exceed 5,000 gallons and are installed entirely above ground.

3. Swings and other playground equipment accessory to detached one- and two-family dwellings.

4. Installation or repair of gutters and downspouts on residential units only.

(3) Section 105.5 of the IEBC is replaced with the following:

See Sec. 18-1-50 of the Edgewater Municipal Code.

(4) Section 112 of the IEBC is deleted and replaced with the following:

BOARD OF APPEALS

112.1 General. See Section 18-1-30 of the Edgewater Municipal Code.

(5) Section 202 of the IEBC, Definitions, is amended by the addition of the following definition:

Cold Weather Care Housing. Places of religious worship or civic centers within the city that allow the temporary housing of homeless persons during the months of October through March.

(6) Section 1011.2.1 of the IEBC is deleted and replaced with the following:

1011.2.1 Fire sprinkler system. Where a change in occupancy classification occurs or where there is a change of occupancy within a space where there is a different fire protection system threshold requirement in Chapter 9 of the International Building Code that requires an automatic fire sprinkler system to be provided based on the new occupancy in accordance with Chapter 9 of the International Building Code, such system shall be provided throughout the area where the change of occupancy occurs.

Exception: Group A-3 places of religious worship or civic centers participating in Cold Weather Care Housing, which allow temporary housing of homeless persons during the months of October through March, in which the aggregate occupant load of all sleeping areas is less than 25 persons for each story that is being used as a sleeping area.

Section 14. Code Section 18-10-10, concerning the adoption of the International Energy Conservation Code by reference, is hereby amended as follows:

Sec. 18-10-10. Adoption.

Pursuant to Title 31, Article 16, Part 2, C.R.S., there is adopted as the energy conservation code of the City, by reference thereto, The International Energy Conservation Code, ~~2018~~ 2021 Edition, (the "IECC"), published by the International Code Council, 500 New Jersey Avenue, NW, 6th Floor, Washington, DC 20001, to have the same force and effect as if

set forth herein in every particular. The IECC includes appendices CB and RB by the International Code Council, and new appendices CD and RD as set forth below. The subject matter of the adopted Code concerns the design of energy efficient and high-performance buildings, envelopes and installation of energy-efficient mechanical, lighting and power systems and for energy conservation related standards for testing and materials, and related energy uses including mechanical, lighting, power systems, and electric vehicle infrastructure for the purpose of protecting the public health, safety, and welfare. The 2021 IECC, as amended in this Article, shall apply to all property within the City of Edgewater.

Section 15. Code Section 18-10-30, concerning amendments to the International Energy Conservation Code adopted by reference, is hereby amended to read in its entirety as follows:

Sec. 18-10-30. – Amendments

The following chapters, sections, subsections, paragraphs and appendices of the IECC are hereby amended as follows:

(1) Section R101.1 of the IECC is amended to read in its entirety as follows:

R101.1. Title. This code shall be known as the Energy Conservation Code of The City of Edgewater, and shall be cited as such. It is referred to herein as “this code.

(2) Section R103.2 of the IECC, Information on construction documents, is amended by modifying item 6 and adding items 10, 11, and 12, so that each reads as follows:

6.Mechanical and service water heating systems and equipment types, sizes, fuel source, and efficiencies.

10.Details of additional electric infrastructure, including branch circuits, conduit, or pre-wiring, and panel capacity in compliance with the provisions of this code.

11.Location of pathways for routing of raceways or cable from the solar ready zone to the electrical service panel.

12. Location of designated *EVSE spaces*, *EV ready spaces*, and *EV capable spaces* in parking facilities, as applicable.

(3) Section R202 of the IECC, General Definitions, is amended by the addition of the following definitions, to be inserted in alphabetical order:

ALL-ELECTRIC BUILDING. A *building* and building site that contains no *combustion equipment*, or plumbing for *combustion equipment*, and that uses heat pump technology as the primary supply for

heating, cooling, and service water heating loads.

COMBUSTION EQUIPMENT: Any equipment or appliances used for space heating, cooling, water heating (including pools and spas), cooking, clothes drying or lighting that uses natural gas, propane, other fuel gas, or fuel oil.

MIXED-FUEL BUILDING. A *building* and building site that contains *combustion equipment*, or plumbing for *combustion equipment*, for space heating, cooling, water heating (including pools and spas), cooking, or clothes drying.

(4) Section R401.2.4 of the IECC, concerning tropical climate region option, is deleted in its entirety.

(5) Section R401.3 of the IECC, Certificate, is amended by modifying item 4 and by adding items 8, 9, and 10 so that each reads as follows:

R401.3 Certificate. A permanent certificate shall be completed by the builder or other approved party and posted on a wall in the space where the furnace is located, a utility room or an approved location inside the building. Where located on an electrical panel, the certificate shall not cover or obstruct the visibility of the circuit directory label, service disconnect label or other required labels. The certification shall indicate the following:

4. The types, sizes, fuel sources, and efficiencies of heating, cooling and service water heating equipment. Where a gas-fired unvented room heater, electric furnace or baseboard electric heater is installed in the residence, the certificate shall indicate “gas-fired unvented room heater,” “electric furnace” or “baseboard electric heater,” as appropriate. An efficiency shall not be indicated for gas-fired unvented room heaters, electric furnaces and electric baseboard heaters.
8. The fuel sources for cooking and clothes drying equipment.
9. Where combustion equipment is installed, the certificate shall indicate information on the installation of additional electric infrastructure including which equipment and/or appliances include additional electric infrastructure, capacity reserved on the electrical service panel for replacement of each piece of combustion equipment and/or appliance.
10. Where a solar-ready zone is provided, the certificate shall indicate the location, dimensions, and capacity reserved on the electrical service panel.

(6) Section R403.5 of the IECC, Service hot water systems, is amended to read in its entirety as follows:

R403.5 Service hot water systems. Energy conservation measures for service hot water systems shall be in accordance with Sections R403.5.1 through R403.5.4.

(7) Section R403.5.4 of the IECC, Water heating equipment location, is added to read in its entirety as follows:

R403.5.4 Water heating equipment location. Water heaters with *combustion equipment* shall be located in a space with the following characteristics:

1. Minimum dimensions of 3 feet by 3 feet by 7 feet high.
2. Minimum volume of 760 cubic feet, or the equivalent of one 16-inch by 24-inch grill to a heated space and one 8-inch duct of no more than 10 feet in length for cool exhaust air.
3. Contains a condensate drain that is no more than 2 inches higher than the base of the installed water heater and allows natural draining without pump assistance, installed within 3 feet of the water heater.

Exceptions:

1. Water heaters with an input capacity of greater than 300,000 Btu/h that serves multiple *dwelling units* or *sleeping units*.

(8) Section R404.1.1 of the IECC, Fuel gas lighting, is amended to read in its entirety as follows:

Section R404.1.1. Fuel gas lighting. Fuel gas lighting systems are prohibited.

(9) A new Section R404.4 of the IECC, Additional electric infrastructure, is added to read in its entirety as follows:

R404.4 Additional electric infrastructure. All *combustion equipment* shall be installed in accordance with Section R403.5.4 and shall be provided with a junction box and conductors that are connected to an electrical panel by continuous raceways that meet the following requirements:

1. The junction box, raceway, and bus bar in the electric panel and conductors serving the electric panel and future equipment shall be sized to accommodate electric equipment sized to serve the same load as the *combustion equipment*.

2. The panel shall have reserved physical space for a dual-pole circuit breaker.
3. The junction box and electrical panel directory entry for the dedicated circuit breaker space shall have labels stating “For future electric equipment.”
4. The junction box shall allow for the electric equipment to be installed within the same place of the *combustion equipment* that it replaces.

Exceptions:

1. Fossil fuel space heating equipment where a 208/240-volt electrical circuit with a minimum capacity of 40 amps exists for space cooling equipment.
2. Water heating equipment with an input capacity greater than 300,000 Btu/h that serves multiple dwelling units or sleeping units.

(10) Table R405.2 of the IECC, Requirements for Total Building Performance, is amended by the addition of a new row under Mechanical and a new row under Electrical Power and Lighting Systems as follows:

TABLE R405.2 REQUIREMENTS FOR TOTAL BUILDING PERFORMANCE

SECTION	TITLE
Mechanical	
R403.5.4	Water heating equipment location
Electrical Power and Lighting Systems	
R404.4	Additional electric infrastructure

(11) Table R406.2 of the IECC, Requirements for Energy Rating Index, is amended by the addition of a new row under Mechanical and a new row under Electrical Power and Lighting Systems as follows:

TABLE R406.2 REQUIREMENTS FOR ENERGY RATING INDEX

SECTION	TITLE
Mechanical	

R403.5.4	Water heating equipment
Electrical Power and Lighting Systems	
R404.4	Additional electric infrastructure

(12) Section R406.4 of the IECC, concerning Energy Rating Index, is amended by the addition of a new sentence to read as follows:

A HERS Index Score may be utilized in lieu of the ERI score.

(13) Section R407 of the IECC, Tropical Climate Region Compliance Path, is hereby deleted in its entirety.

(14) Section R502.3.2 of the IECC is hereby amended as follows:

R502.3.2 Heating and cooling systems. Newly installed HVAC systems in an addition shall comply with R404.4. HVAC ducts newly installed as part of an addition shall comply with Section R403.

Exception: Where ducts from an existing heating and cooling system are extended to an addition.

(15) Section 503.1.2 of the IECC is hereby amended as follows:

R503.1.2 Heating and cooling systems. Alterations that meet a “level 3 alteration” in accordance with the International Existing Building Code shall comply with R404.4. HVAC ducts newly installed as part of any alteration shall comply with Section R403.

(16) Appendix RB of the IECC is amended by amending the title to read as follows: “**Appendix RB Solar Ready Provisions.**”

(17) The first sentence of RB103.1 of the IECC is amended to read as follows, with the rest of the section remaining:

RB103.1 General. New residential buildings with not less than 600 square feet (55.74 m²) of roof area oriented between 110 degrees and 270 degrees of true north shall comply with Sections RB103.2 through RB103.8.

(18) A new Appendix RD is added to the IECC, to read in its entirety as follows:

APPENDIX RD

EV READINESS - RESIDENTIAL

RD101. Purpose and intent. The purpose and intent of this Appendix RD is to accommodate the growing need for EV charging infrastructure, in particular meeting preferences for charging at home. Including these measures during initial construction substantially reduces the costs and difficulty of installing EV infrastructure at a later date.

RD102. Applicability. This Appendix RD shall apply to all new residential construction to which the International Residential Code applies.

RD103. Definitions.

AUTOMOBILE PARKING SPACE. A space within a building or private or public parking lot, exclusive of driveways, ramps, columns, office, and work areas, for the parking of an automobile.

DIRECT CURRENT FAST CHARGING (DCFC) EVSE: EV power transfer infrastructure capable of fast charging on a 100A or higher 480VAC three-phase branch circuit. AC power is converted into a controlled DC voltage and current within the *EVSE* that will then directly charge the *electric vehicle*.

EV LOAD MANAGEMENT SYSTEM: A system designed to allocate charging capacity among multiple *EVSE* and that complies with the current National Electric Code.

ELECTRIC VEHICLE (EV). An automotive-type vehicle for on-road use, such as passenger automobiles, buses, trucks, vans, neighborhood *electric vehicles*, and electric motorcycles, primarily powered by an electric motor that draws current from an electric source.

ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE). Equipment for plug-in power transfer including the ungrounded, grounded, and equipment grounding conductors, and the *electric vehicle* connectors, attachment plugs, personal protection system and all other fittings, devices, power outlets or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the *electric vehicle*.

ELECTRIC VEHICLE SUPPLY EQUIPMENT INSTALLED SPACE (EVSE space). An automobile parking space that is provided with a dedicated *EVSE* connection.

ELECTRIC VEHICLE CAPABLE SPACE (EV CAPABLE SPACE). A designated automobile parking space that is provided with electrical

infrastructure, such as, but not limited to, raceways, cables, electrical capacity, and panelboard or other electrical distribution equipment space, necessary for the future installation of an *EVSE*.

ELECTRIC VEHICLE READY SPACE (EV READY SPACE). An automobile parking space that is provided with a branch circuit and either an outlet, junction box or receptacle, that will support an installed *EVSE*.

UNIVERSAL VEHICLE CHARGING STATION. A charging station installed in a parking space for a minimum vehicle width of 120 inches (3048 mm) with 36 inch access aisles (915 mm) on each side.

RD104 One- and two- family dwellings and townhouses. One *EV ready space* shall be provided for each dwelling unit. The branch circuit shall be identified as *EV ready* in the service panel or subpanel directory, and the termination location shall be marked as *EV ready*.

Exception: Dwelling units where no parking spaces are either required or provided.

RD105 Residential multi-family dwellings, 3-stories or less. New dwelling units for residential multi-family buildings, other than duplexes and townhomes, shall be provided with *electric vehicle* power transfer infrastructure in compliance with Sections RD105.1 through RD105.6 and Section RD106.

RD105.1 Quantity. The number of required *EVSE spaces*, *EV ready spaces*, and *EV capable spaces* shall be determined in accordance with this Section and Table RD105.1 based on the total number of *automobile parking spaces* and shall be rounded up to the nearest whole number. For R-2 buildings, the Table requirements shall be based on the total number of dwelling units or the total number of *automobile parking spaces*, whichever is less.

1. Where more than one parking facility is provided on a building site, the number of required *automobile parking spaces* required to have EV power transfer infrastructure shall be calculated separately for each parking facility.
2. Installed *EVSE spaces* that exceed the minimum requirements of this section may be used to meet minimum requirements for *EV ready spaces* and *EV capable spaces*.
3. Installed *EV ready spaces* that exceed the minimum requirements of this section may be used to meet minimum requirements for *EV capable spaces*.
4. Where the number of *EV ready spaces* allocated for R-2 occupancies is equal to the number of dwelling units or to the number of *automobile*

- parking spaces* allocated to R-2 occupancies, whichever is less, requirements for *EVSE spaces* for R-2 occupancies shall not apply.
5. In residential multi-family complexes that contain multiple buildings, required EV spaces shall be dispersed throughout parking areas so that each building has access to a similar number of spaces per dwelling unit.

**TABLE RD105.1
REQUIRED EV POWER TRANSFER INFRASTRUCTURE FOR
MULTI-FAMILY**

BUILDING TYPE	MINIMUM INSTALLED SPACES ^{EV}	MINIMUM EV READY SPACES	MINIMUM EV CAPABLE SPACES
Group R-1 and R-2 ^a	15%	5%	40%
Group R-3 and R-4	2%	0%	5%

a. Where all (100%) parking serving R-2 occupancies are *EV ready spaces*, requirements for EVSE spaces for R-2 occupancies shall not apply.

RD105.2 EV capable spaces. Each *EV capable space* used to meet the requirements of Section RD105.1 shall comply with all of the following:

1. A continuous raceway or cable assembly shall be installed between an enclosure or outlet located within 3 feet (914 mm) of the *EV capable space* and a suitable panelboard or other onsite electrical distribution equipment.
2. Installed raceway or cable assembly shall be sized and rated to supply a minimum circuit capacity in accordance with RD105.5
3. The electrical distribution equipment to which the raceway or cable assembly connects shall have sufficient dedicated space and spare electrical capacity for a 2-pole circuit breaker or set of fuses.

4. The electrical enclosure or outlet and the electrical distribution equipment directory shall be marked: "For future electric vehicle supply equipment (EVSE)."
5. Reserved capacity shall be no less than 4.1 kVA (20A 208/240V) for each *EV capable space*.

RD105.3 EV ready spaces. Each branch circuit serving *EV ready spaces* used to meet the requirements of Section RD105.1 shall comply with all of the following:

1. Terminate at an outlet or enclosure, located within 3 feet (914 mm) of each *EV ready space* it serves.
2. Have a minimum circuit capacity in accordance with RD105.5.
3. The panelboard or other electrical distribution equipment directory shall designate the branch circuit as "For electric vehicle supply equipment (EVSE)" and the outlet or enclosure shall be marked "For electric vehicle supply equipment (EVSE)."

RD105.4 EVSE spaces. An installed *EVSE* with multiple output connections shall be permitted to serve multiple *EVSE spaces*. Each *EVSE* installed to meet the requirements of Section RD105.1, serving either a single *EVSE space* or multiple *EVSE spaces*, shall comply with all of the following:

1. Have a minimum circuit capacity in accordance with RD105.5.
2. Have a minimum charging rate in accordance with RD105.4.1.
3. Be located within 3 feet (914 mm) of each *EVSE space* it serves.
4. Be installed in accordance with Section RD105.6 and RD105.7

RD105.4.1 EVSE minimum charging rate. Each installed *EVSE* shall comply with one of the following:

1. Be capable of charging at a minimum rate of 6.2 kVA (or 30A at 208/240V).
2. When serving multiple *EVSE spaces* and controlled by an energy management system providing load management, be capable of simultaneously charging each *EVSE space* at a minimum rate of no less than 3.3 kVA.
3. When serving *EVSE spaces* allowed to have a minimum circuit capacity of 2.7 kVA in accordance with RD105.5.1 and controlled by an energy management system providing load management, be capable of simultaneously charging each *EVSE space* at a minimum rate of no less than 2.1 kVA.

RD105.5 Circuit capacity. The capacity of electrical infrastructure serving each *EV capable space*, *EV ready space*, and *EVSE space* shall comply with one of the following:

1. A branch circuit shall have a rated capacity not less than 8.3 kVA (or 40A at 208/240V) for each *EV ready space* or *EVSE space* it serves.
2. The requirements of RD104.5.1.

RD105.5.1 Circuit capacity management. The capacity of each branch circuit serving multiple *EVSE spaces*, *EV ready spaces* or *EV capable spaces* designed to be controlled by an energy management system providing load management in accordance with NFPA 70, shall comply with one of the following:

1. Have a minimum capacity of 4.1 kVA per space.
2. Have a minimum capacity of 2.7 kVA per space when serving *EV ready spaces* or *EVSE spaces* for a building site when all (100%) of the automobile parking spaces are designed to be *EV ready* or *EVSE spaces*.

RD105.6 EVSE installation. *EVSE* shall be installed in accordance with NFPA 70 and shall be listed and labeled in accordance with UL 2202 or UL 2594.

RD105.7. EVSE ENERGY STAR. All *EVSE* shall be ENERGY STAR certified.

RD106. Identification. Construction documents shall designate all *EV capable spaces*, *EV ready spaces* and *EVSE spaces* and indicate the locations of conduit and termination points serving them. The circuit breakers or circuit breaker spaces reserved for the *EV capable spaces*, *EV ready spaces*, and *EVSE spaces* shall be clearly identified in the panel board directory. The conduit for *EV capable spaces* shall be clearly identified at both the panel board and the termination point at the parking space.

(19) Section C101.1 of the IECC, Title, is amended as follows:

C101.1 Title. This code shall be known as the Energy Conservation Code of The City of Edgewater, and shall be cited as such. It is referred to herein as “this code.”

(20) Section C103.2 of the IECC, Information on construction documents, is amended by modifying item 6 and by adding items 14, 15, and 16 so that each reads as follows:

6. Mechanical and service water heating systems and equipment types, sizes, fuel source, and efficiencies.

14. Details of additional electric infrastructure, including branch circuits, conduit, or pre-wiring, and panel capacity in compliance with the provisions of this code.

15. Location of pathways for routing of raceways or cable from the solar ready zone to the electrical service panel.

16. Location of designated *EVSE spaces*, *EV-Ready spaces*, and *EV-Capable spaces* in parking facilities.

(21) Section C105.2.5 of the IECC, Electrical system, is amended to read in its entirety as follows:

C105.2.5 Electrical system. Inspection shall verify lighting system controls, components, meters, and additional electric infrastructure, as required by the code, *approved* plans and specifications.

(22) Section C202 of the IECC, General Definitions, is amended to add and revise the following definitions in alphabetical order:

ALL-ELECTRIC BUILDING. A *building* and building site that contains no *combustion equipment*, or plumbing for *combustion equipment*, and that uses heat pump technology as the primary supply for heating, cooling, and service water heating loads.

COMBUSTION EQUIPMENT: Any equipment or appliances used for space heating, cooling, water heating (including pools and spas), cooking, clothes drying or lighting that uses natural gas, propane, other fuel gas, or fuel oil.

HORTICULTURAL LIGHTING. Electric lighting used for horticultural production, cultivation or maintenance.

MIXED-FUEL BUILDING. A *building* and building site that contains *combustion equipment*, or plumbing for *combustion equipment*, for space heating, cooling, water heating (including pools and spas), cooking, or clothes drying.

PHOTOSYNTHETIC PHOTON EFFICACY (PPE). Photosynthetic photon flux emitted by a light source divided by its electrical input power in units of micromoles per second per watt, or micromoles per joule ($\mu\text{mol}/\text{J}$) between 400-700nm as defined by ANSI/ASABE S640.

(23) Item 2 of Section C401.2.1 of the IECC is amended as follows:

#2 Total Building Performance. The Total Building Performance option requires compliance with ~~Section C407~~ ASHRAE 90.1, Appendix G, and, for *mixed fuel buildings*, Section C405.13.

(24) Section C407 of the IECC, Total Building Performance, is deleted in its entirety.

(25) Section C401.2.2 of the IECC, ASHRAE 90.1, is amended to read in its entirety as follows:

C401.2.2 ASHRAE 90.1. Commercial buildings shall comply with the requirements of ANSI/ASHRAE/IESNA 90.1 and, for *mixed fuel buildings*, Section C405.13.

(26) Section C402.3 of the IECC, Roof solar reflectance and thermal emittance, first sentence, is amended to read as follows, with the other parts of the section to remain:

C402.3 Roof solar reflectance and thermal emittance. Low-sloped roofs directly above conditioned spaces shall comply with one or more of the options in Table C402.3.

(27) Section C404.2.1 of the IECC, High input service water-heating systems, is amended by amending item 1 under exceptions, to read in its entirety as follows:

Where not less than 50 percent of the annual *service water heating* requirement is provided by *on-site renewable energy* or site-recovered energy not including any capacity used for compliance with Section C406 of this code, the minimum thermal efficiency requirements of this section shall not apply.

(28) A new IECC Section C404.10 is added, to read in its entirety as follows:

C404.10 Water heating equipment location. Water heaters with *combustion equipment* shall be located in a space with the following characteristics:

1. Minimum dimensions of 3 feet by 3 feet by 7 feet high.
2. Minimum volume of 760 cubic feet, or the equivalent of one 16-inch by 24-inch grill to a heated space and one 8-inch duct of no more than 10 feet in length for cool exhaust air.
3. Contains a condensate drain that is no more than 2 inches higher than the base of the installed water heater and allows natural draining without pump assistance, installed within 3 feet of the water heater.

Exceptions:

1. Instantaneous water heaters located within 10 feet of the point of use.
2. Water heaters with an input capacity of more than 300,000 Btu/h.

(29) Section C405.4 of the IECC, Lighting for plant growth and maintenance, is re-titled “Horticultural Lighting” and is further amended to read in its entirety as follows:

C405.4 Horticultural Lighting. Permanently installed luminaires shall have a *photosynthetic photon efficacy* of not less than 1.7 $\mu\text{mol}/\text{J}$ for *horticultural lighting* in *greenhouses* and not less than 1.9 $\mu\text{mol}/\text{J}$ for all other horticultural lighting. Luminaires for horticultural lighting in greenhouses shall be controlled by a device that automatically turns off the luminaire when sufficient daylight is available. Luminaires for horticultural lighting shall be controlled by a device that automatically turns off the luminaire at specific programmed times.

(30) Section C405.5.3 of the IECC, Gas lighting, is amended to read in its entirety as follows:

C405.5.3. Gas lighting. Gas fired lighting appliances are not permitted.

(31) Table C405.12.2 of the IECC, ENERGY USE CATEGORIES, is amended by the addition of a new line at the end to read as follows:

<i>Electric vehicle charging</i>	<i>Electric vehicle charging loads.</i>
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(32) A new Section C405.13 is added to the IECC, to read in its entirety as follows:

C405.13 Additional electric infrastructure. All *combustion equipment* shall be provided with a junction box that is connected to an electrical panel by continuous raceways and conductors that meet the following requirements:

1. The junction box, raceway, and bus bar in the electric panel and conductors serving the electric panel and future equipment shall be sized to accommodate electric equipment sized to serve the same load as the *combustion equipment*.
2. The panel shall have reserved physical space for a three-pole circuit breaker.
3. The junction box and electrical panel directory entry for the dedicated circuit breaker space shall have labels stating “For future electric equipment.”
4. The junction box shall allow for the electric equipment to be installed within the same place of the *combustion equipment* that it replaces.

Exceptions:

1. Warm air furnaces serving spaces that also have space cooling.
2. Water heating equipment with an input capacity more than 300,000 Btu/h
3. Industrial, manufacturing, laboratory, and high hazard occupancy combustion equipment.

(33) TABLE C406.1(2) of the IECC, ADDITIONAL ENERGY EFFICIENCY CREDITS FOR GROUP R AND I OCCUPANCIES, is amended by amending the following rows to read in their entirety as follows, with the remainder of the Table to remain the same:

**TABLE C406.1(2)
ADDITIONAL ENERGY EFFICIENCY CREDITS FOR GROUP R AND I
OCCUPANCIES**

SECTION	CLIMATE ZONE 5B
C406.7.3: Efficient fossil fuel water heater ^b	5
C406.7.4: Heat pump water heater ^b	9

(34) TABLE C406.1(3) of the IECC, ADDITIONAL ENERGY EFFICIENCY CREDITS FOR GROUP E OCCUPANCIES is amended by amending the following rows to read in their entirety as follows, with the remainder of the Table to remain the same:

**TABLE C406.1(3)
ADDITIONAL ENERGY EFFICIENCY CREDITS FOR GROUP E OCCUPANCIES**

SECTION	CLIMATE ZONE 5B
C406.7.3: Efficient fossil fuel water heater ^a	1
C406.7.4: Heat pump water heater ^a	3

a. For schools with showers or full-service kitchens.

(35) TABLE C406.1(5) of the IECC, ADDITIONAL ENERGY EFFICIENCY CREDITS FOR OTHER OCCUPANCIES, is amended by amending the following rows to read in their entirety as follows, with the remainder of the Table to remain the same:

**TABLE C406.1(5)
ADDITIONAL ENERGY EFFICIENCY CREDITS FOR OTHER^a OCCUPANCIES**

SECTION	CLIMATE ZONE 5B
C406.7.3: Efficient fossil fuel water heater ^b	5
C406.7.4: Heat pump water heater ^b	9

a. Other occupancies include all groups except Groups B, E, I, M, and R.

b. For occupancy groups listed in Section 406.7.1

(36) Section C502.3.3 of the IECC, Building mechanical systems, is amended as follows:

C502.3.3 Building mechanical systems. New mechanical systems and equipment that are part of the addition and serve the building heating, cooling and ventilation needs shall comply with Sections C403, C405.13 and C408.

(37) Section C503.3 of the IECC, Heating and cooling systems, is amended as follows:

C503.3 Heating and cooling systems. New heating, cooling and duct systems that are part of the alteration shall comply with Sections C403 and C408. Alterations that meet a “level 3 alteration” in accordance with the International Existing Building Code shall also comply with Section C405.13.

(38) Section CB103.1 of the IECC is amended by amending the first sentence thereof to read in its entirety as follows, with the exceptions to remain:

CB103.1 General. A solar-ready zone shall be located on the roof of all new buildings that are subject to the commercial provisions of the IECC and that are oriented between 110 degrees and 270 degrees of true north or have low-slope roofs. Solar-ready zones shall comply with Sections CB103.2 through CB103.9.

(39) A new Appendix CD is added to the IECC, to read in its entirety as follows:

**APPENDIX CD
EV READINESS – COMMERCIAL**

CD101. Purpose and intent. The purpose and intent of this Appendix CD is to accommodate the growing need for EV charging infrastructure. Including these measures during initial commercial construction substantially reduces the costs and difficulty of installing EV infrastructure at a later date.

CD102. Applicability. This Appendix CD shall apply to all new commercial construction to which the current International Building Code applies.

Section CD103. Definitions.

AUTOMOBILE PARKING SPACE. A space within a building or private or public parking lot, exclusive of driveways, ramps, columns, office, and work areas, for the parking of an automobile.

DIRECT CURRENT FAST CHARGING (DCFC) EVSE: EV power transfer infrastructure capable of fast charging on a 100A or higher 480VAC three-phase branch circuit. AC power is converted into a controlled DC voltage and current within the *EVSE* that will then directly charge the *electric vehicle*.

EV LOAD MANAGEMENT SYSTEM: A system designed to allocate charging capacity among multiple *EVSE* and that complies with the current National Electric Code.

ELECTRIC VEHICLE (EV). An automotive-type vehicle for on-road use, such as passenger automobiles, buses, trucks, vans, neighborhood *electric vehicles*, and electric motorcycles, primarily powered by an electric motor that draws current from an electric source.

ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE). Equipment for plug-in power transfer including the ungrounded, grounded, and equipment grounding conductors, and the *electric vehicle* connectors, attachment plugs, personal protection system and all other fittings, devices, power outlets or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the *electric vehicle*.

ELECTRIC VEHICLE SUPPLY EQUIPMENT INSTALLED SPACE (EVSE space). An automobile parking space that is provided with a dedicated *EVSE* connection.

ELECTRIC VEHICLE CAPABLE SPACE (EV CAPABLE SPACE). A designated automobile parking space that is provided with electrical infrastructure, such as, but not limited to, raceways,

cables, electrical capacity, and panelboard or other electrical distribution equipment space, necessary for the future installation of an *EVSE*.

ELECTRIC VEHICLE READY SPACE (EV READY SPACE). An automobile parking space that is provided with a branch circuit and either an outlet, junction box or receptacle, that will support an installed *EVSE*.

CD104 Electric vehicle power transfer infrastructure. New parking facilities shall be provided with *electric vehicle* power transfer infrastructure in compliance with Sections CD104.1 through CD104.6 and CD105.

CD104.1 Quantity. The number of required *EVSE spaces*, *EV ready spaces*, and *EV capable spaces* shall be determined in accordance with this Section and Table CD104.1 based on the total number of *automobile parking spaces* and shall be rounded up to the nearest whole number. For R-2 buildings, the Table requirements shall be based on the total number of dwelling units or the total number of *automobile parking spaces*, whichever is less.

1. Where more than one parking facility is provided on a building site, the number of required *automobile parking spaces* required to have EV power transfer infrastructure shall be calculated separately for each parking facility.
2. Where one shared parking facility serves multiple building occupancies, the required number of *spaces* shall be determined proportionally based on the floor area of each building occupancy.
3. Installed *EVSE spaces* that exceed the minimum requirements of this section may be used to meet minimum requirements for *EV ready spaces* and *EV capable spaces*.
4. Installed *EV ready spaces* that exceed the minimum requirements of this section may be used to meet minimum requirements for *EV capable spaces*.
5. Where the number of *EV ready spaces* allocated for R-2 occupancies is equal to the number of dwelling units or to the number of *automobile parking spaces*, whichever is less, requirements for *EVSE spaces* for R-2 occupancies shall not apply.
6. In commercial multi-family (R-2, R-3, and R-4) complexes, four stories or greater, that contain multiple buildings, required EV spaces shall be dispersed throughout parking areas so that each building has access to a similar number of spaces per dwelling unit.
7. Requirements for a Group S-2 parking garage shall be determined by the occupancies served by that parking garage. Where new *automobile parking spaces* do not serve specific occupancies, the values for Group S-2 parking garage in Table CD104.1 shall be used.

8. Direct Current Fast Charging. The number of *EVSE spaces* for Groups A, B, E, I, M and S-2 Occupancies may be reduced by up to ten per *DCFC EVSE* provided that the building includes not less than one parking space equipped with a *DCFC EVSE* and not less than one *EV ready space*. A maximum of fifty spaces may be reduced from the total number of *EVSE spaces*.

Exception: Parking facilities, serving occupancies other than R-2 with fewer than 10 *automobile parking spaces*.

**TABLE CD104.1
REQUIRED EV POWER TRANSFER INFRASTRUCTURE**

BUILDING TYPE	MINIMUM EV INSTALLED SPACES	MINIMUM EV READY SPACES	MINIMUM EV CAPABLE SPACES
Group A, B, E, M	10%	5%	10%
Group F, I, R-3, R-4	2%	0%	5%
Group R-1 and R-2 ^a	15%	5%	40%
Group S-2 Parking Garages	10%	5%	0%

a. Where all (100%) parking serving R-2 occupancies are *EV ready spaces*, requirements for EVSE spaces for R-2 occupancies shall not apply.

CD104.2 EV capable spaces. Each *EV capable space* used to meet the requirements of Section CD104.1 shall comply with all of the following:

1. A continuous raceway or cable assembly shall be installed between an enclosure or outlet located within 3 feet (914 mm) of the *EV capable space* and a suitable panelboard or other onsite electrical distribution equipment.
2. Installed raceway or cable assembly shall be sized and rated to supply a minimum circuit capacity in accordance with CD104.5
3. The electrical distribution equipment to which the raceway or cable assembly connects shall have sufficient dedicated space and spare electrical capacity for a 2-pole circuit breaker or set of fuses.
4. The electrical enclosure or outlet and the electrical distribution equipment directory shall be marked: "For future electric vehicle supply equipment (EVSE)."
5. Reserved capacity shall be no less than 4.1 kVA (20A 208/240V) for each *EV capable space*.

CD104.3 EV ready spaces. Each branch circuit serving *EV ready*

spaces used to meet the requirements of Section CD104.1 shall comply with all of the following:

1. Terminate at an outlet or enclosure, located within 3 feet (914 mm) of each *EV ready space* it serves.
2. Have a minimum circuit capacity in accordance with CD104.5.
3. The panelboard or other electrical distribution equipment directory shall designate the branch circuit as “For electric vehicle supply equipment (EVSE)” and the outlet or enclosure shall be marked “For electric vehicle supply equipment (EVSE).”

CD104.4 EVSE spaces. An installed *EVSE* with multiple output connections shall be permitted to serve multiple *EVSE spaces*. Each *EVSE* installed to meet the requirements of Section CD104.1, serving either a single *EVSE space* or multiple *EVSE spaces*, shall comply with all of the following:

1. Have a minimum circuit capacity in accordance with CD104.5.
2. Have a minimum charging rate in accordance with CD104.4.1.
3. Be located within 3 feet (914 mm) of each *EVSE space* it serves.
4. Be installed in accordance with Section CD104.6 and CD104.7.

CD104.4.1 EVSE minimum charging rate. Each installed *EVSE* shall comply with one of the following:

1. Be capable of charging at a minimum rate of 6.2 kVA (or 30A at 208/240V).
2. When serving multiple *EVSE spaces* and controlled by an energy management system providing load management, be capable of simultaneously charging each *EVSE space* at a minimum rate of no less than 3.3 kVA.
3. When serving *EVSE spaces* allowed to have a minimum circuit capacity of 2.7 kVA in accordance with CD104.5.1 and controlled by an energy management system providing load management, be capable of simultaneously charging each *ESVE space* at a minimum rate of no less than 2.1 kVA.

CD104.5 Circuit capacity. The capacity of electrical infrastructure serving each *EV capable space*, *EV ready space*, and *EVSE space* shall comply with one of the following:

1. A branch circuit shall have a rated capacity not less than 8.3 kVA (or 40A at 208/240V) for each *EV ready space* or *EVSE space* it serves.
2. The requirements of CD104.5.1.

CD104.5.1 Circuit capacity management. The capacity of each branch circuit serving multiple *EVSE spaces*, *EV ready spaces* or *EV capable spaces* designed to be controlled by an energy management

system providing load management in accordance with NFPA 70, shall comply with one of the following:

1. Have a minimum capacity of 4.1 kVA per space.
2. Have a minimum capacity of 2.7 kVA per space when serving *EV ready spaces* or *EVSE spaces* for a building site where all (100%) of the automobile parking spaces are designed to be *EV ready* or *EVSE spaces*.

CD104.6 EVSE installation. *EVSE shall* be installed in accordance with NFPA 70 and shall be listed and labeled in accordance with UL 2202 or UL 2594.

CD104.7. EVSE ENERGY STAR. All *EVSE* shall be ENERGY STAR certified.

CD105. Identification. Construction documents shall designate all *EV capable spaces*, *EV ready spaces* and *EVSE spaces* and indicate the locations of conduit and termination points serving them. The circuit breakers or circuit breaker spaces reserved for the *EV capable spaces*, *EV ready spaces*, and *EVSE spaces* shall be clearly identified in the panel board directory. The conduit for *EV capable spaces* shall be clearly identified at both the panel board and the termination point at the parking space.

Section 16. The penalty clause applicable to violations of each of the International Codes adopted by reference by this Ordinance is as set forth in Code Section 1-4-20(a) and reads as follows:

- (a) Any person convicted of a violation of this Code for which a different penalty is not provided shall be punished by a fine not exceeding nine hundred ninety-nine dollars (\$999.00) or by imprisonment for not more than one hundred eighty (180) days, or by both such fine and imprisonment, except as hereinafter provided in Section 1-4-30. Each day that a violation continues shall be deemed a separate offense.

Section 17. The City Clerk shall cause at least one certified copy of each Code adopted by reference by this Ordinance to be on file in her office at least fifteen (15) days prior to the public hearing on this Ordinance and, after adoption, shall maintain a reasonable supply of copies of such Codes available for purchase by the public at a moderate price.

Section 18. Severability. If any section, paragraph, sentence, clause, or phrase of this ordinance is held to be unconstitutional or invalid for any reason, such decision shall not affect the validity or constitutionality of the remaining portions of this ordinance. The City Council hereby declares that it would have adopted this ordinance and each part or parts hereof irrespective of the fact that any one part or parts be declared unconstitutional or invalid.

Section 19. Repeal. All other ordinances or portions thereof inconsistent or conflicting with this ordinance or any portion hereof are hereby repealed to the extent of such inconsistency or conflict.

Section 20. Safety Clause. The City Council hereby finds, determines, and declares that this ordinance is promulgated under the general police power of the City, that it is promulgated for the health, safety, and welfare of the public, that this ordinance is necessary for the preservation of health and safety and for the protection of public convenience and welfare, and that this ordinance bears a rational relation to the proper legislative object sought to be attained.

Section 21. Effective Date. This ordinance shall become effective September 1, 2023.

INTRODUCED, READ AND PASSED ON FIRST READING AFTER PUBLIC HEARING, AND ORDERED PUBLISHED this 20th day of June, 2023

/s/ John Beltrone
John Beltrone, Mayor

ATTEST:

/s/ Lenore Pedroza
Lenore Pedroza, CMC
City Clerk

PASSED AND ADOPTED ON SECOND READING AND ORDERED PUBLISHED this 18th day of July, 2023.

/s/ John Beltrone
John Beltrone, Mayor

ATTEST:

/s/ Lenore Pedroza
Lenore Pedroza, CMC
City Clerk

APPROVED AS TO FORM:

/s/ Carmen Beery
Carmen Beery, City Attorney