

**Town of Erie
Ordinance No. ____-2022**

An Ordinance of the Board of Trustees of the Town of Erie Repealing and Reenacting a portion of Chapter 1, Title 9 of the Erie Municipal Code to Adopt the 2021 editions of the International Building Code, International Residential Code, International Energy Conservation Code, International Mechanical Code, International Plumbing Code, International Fuel Gas Code, International Existing Building Code, International Swimming Pool and Spa Code, and International Property Maintenance Code

Whereas, on _____, 2022, the Board of Trustees held a properly-noticed public hearing on the adoption of the 2021 code editions, collectively referred herein as the International Codes, and

Whereas, after considering the recommendation of Town staff and any comments from the public, the Board of Trustees finds it in the best interest of the public health, safety and welfare to adopt the 2021 editions of the International Codes.

Now Therefore be it Ordained by the Board of Trustees of the Town of Erie, Colorado, that:

Section 1. Chapter 1 of Title 9 of the Erie Municipal Code is hereby repealed in its entirety, other than Sections 9-1-3 (Electrical Code) and 9-1-9 (Fire Code) which shall remain as existing, and reenacted as follows:

9-1-1: Building Code.

A. Code Adopted: The International Building Code, 2021 Edition (the "IBC"), including Appendix B, as published by the International Code Council, 500 New Jersey Avenue, NW, 6th Floor, Washington, DC 20001, a copy of which is on file and open for inspection in the office of the Town Clerk, is hereby adopted by reference with the amendments set forth herein.

B. Amendments: The IBC is amended as follows:

1. Section 101.1 is amended by inserting "Town of Erie" where indicated.
2. Section 101.4.3 is amended by deleting the last sentence.
3. Section 103.1 is amended by inserting "Town of Erie Building Division" where indicated.
4. Section 105.2 is amended by replacing the number "7" to read "3" in item #2 under "Building:"

5. Section 109.2 is amended by adding the following at the end of the section: "Such fees for each permit shall be in accordance with the Town of Erie Fee Schedule. The federal government, state, town, and all agencies and departments thereof shall be exempt from payment of fees for work performed on buildings or structures owned wholly by such agencies or departments and devoted to governmental use."

6. Section 109.4 is replaced with the following: "109.4 Work Commencing before Permit Issuance. Any person who commences any work requiring a permit, including foundation excavation, on a building, structure, electrical, gas, mechanical or plumbing system before obtaining the necessary permit shall be subject to an additional fee equal to the amount of the permit fee required by the Town of Erie Fee Schedule."

7. Section 109.5 is amended by adding the following at the end of the section: "In addition to permit fees, a separate plan review fee established by the Town of Erie Fee Schedule shall be paid for each permit for the review of construction documents submitted as required by Sections 105.3 and 107."

8. Section 109.6 is replaced with the following: "109.6 Fee Refunds. The Building Official may authorize the following fee refunds: the full amount of any fee hereunder which was erroneously paid or collected; not more than 80% of the permit fee when no work has been done under a permit issued in accordance with this Code; not more than 80% of the plan review fee when an application for a permit is withdrawn or cancelled before any plan review effort has been expended. The Building Official shall not authorize the refunding of any fees except upon written application filed by the original permittee not later than 180 days after the date of payment."

9. Section 109 is amended by adding the following: "109.7 Re-inspection Fee. A re-inspection fee may be assessed for each scheduled inspection or re-inspection when such portion of work is not complete or when corrections are not made. A re-inspection fee may be assessed when the inspection card is not posted or otherwise available on the job site, the approved plans are not readily available to the inspector, the site address is not temporarily posted, site access is not provided on the date of scheduled inspection, or work deviates from the approved plans. The re-inspection fee established by the Town of Erie Fee Schedule shall be paid prior to scheduling a re-inspection."

10. Section 110.1 is amended by adding subsection 110.1.1 to read as follows: "110.1.1, Inspection Record Card. Work requiring a permit shall not commence until the permit holder or their agent has posted the inspection record card in a conspicuous place on the premises and in such a position as to allow the Building Official to make necessary entries conveniently thereon regarding the inspection results of the work. The

inspection record card shall be maintained on the premises by the permit holder until all required inspections have been performed and final approval by the Building Official has been granted."

11. Section 202 is amended by adding the following definition: "Sleeping Room. A habitable space within a dwelling or sleeping unit that meets the minimum area provisions of the IBC and contains a closet or an area that is readily convertible to a closet. An adjacent area fitted with permanently affixed floor to ceiling shelving and no clothes rod may be defined as a storage room in a non-sleeping room."

12. Section 305.2.3 is replaced with the following: "305.2.3 Within a Dwelling Unit. A facility such as the above within a dwelling unit shall comply with the International Residential Code (IRC) adopted by the Town."

13. Section 508.5.1 is amended by deleting item #4.

14. Section 1031.2 is amended by deleting the first exception.

15. Section 1512.1 is amended by adding the following after the first sentence: "A permit is required when more than one square of roof covering is to be replaced over the aggregate area of the roof. Every slope where roof covering is to be replaced shall be replaced in its entirety. The interface of different types of roof covering shall only occur at a ridge, hip or open valley. A roof covering replacement requiring a permit shall comply with applicable ventilation requirements of Section 1202."

16. Section 1608.2 is replaced with the following: "1608.2 Ground Snow Loads. The ground snow loads to be used in determining the design snow loads for roofs shall be 30 pounds per square foot (psf). The design roof snow load shall be no less than 30 psf at any element of the roof."

17. Section 1609.3 is replaced with the following: "1609.3 Ultimate Design Wind Speed.

Allowable Stress Design Wind Speed, $V_{asd} = 110$ mph.

Ultimate Strength Design Wind Speed, V_{ult} , is determined by the Risk Category of the structure as follows: Category I, $V_{ult} = 130$ mph; Category II, $V_{ult} = 139$ mph; Category III & IV, $V_{ult} = 149$ mph."

18. Section 1612.3 is amended by inserting "Town of Erie" where indicated and "December 18, 2012 & August 15, 2019" where indicated.

19. Section 1809.5 is amended by deleting method 1 and replacing it with the following: "Extending below the Town of Erie frost depth of 30 inches below finished grade line."

20. Section 2304.12.2.3 is amended by deleting the exception.
21. Section 2901.1 is amended by deleting the sentence "Private sewage disposal systems shall conform to the International Private Sewage Disposal Code."
22. Table 2902.1 is amended by replacing the number "15" to read "25" in footnote e and by adding the following new footnote: "g. A drinking fountain is not required where only 1 water closet is required within the building or space."
23. Section 2902.6 is replaced with the following: "2902.6 Small Occupancies. A drinking fountain is not required where only 1 water closet is required within the building or space."
24. Section B101.3 is amended by inserting the number "3" where indicated.

9-1-2: Residential Code.

A. Code Adopted: The International Residential Code, 2021 Edition (the "IRC"), including Appendices AF and AK, as published by the International Code Council, 500 New Jersey Avenue, NW, 6th Floor, Washington, DC 20001, a copy of which is on file and open for inspection in the office of the Town Clerk, is hereby adopted by reference with the amendments set forth herein.

B. Amendments: The IRC is amended as follows:

1. Section R101.1 is amended by inserting "Town of Erie" where indicated.

2. Section R104.1 is amended by adding the following sentence after the last sentence: "Any requirements necessary for the strength, stability or proper operation of an existing or proposed system, or for the public safety, health and general welfare, not specifically covered by this code shall be determined by the code official."

3. Section R105.2 is amended as follows:

Building: 2 - Replace "7 feet" with "4 feet".

Add "11. Pre-fabricated ramps not more than 30 inches above grade at any point."

Electrical: 3 – Replace to read "Reinstallation or replacement of receptacles, switches, light fixtures and similar devices in the same location."

Plumbing: Add "3. Reinstallation or replacement of sinks, faucets and water closets in the same location."

4. Section R106.1 is amended by deleting the first and second sentences and replacing them with the following: "Submittal documents consisting of *construction documents*, and supporting data shall be submitted in a digital format with each application for a permit. The foundation and structural framing plans of the construction documents shall be prepared and sealed (stamped, signed and dated) by a Colorado registered professional engineer unless otherwise exempt under C.R.S. § 12-25-303. Structural framing plans for a roof covering over a balcony, deck or patio where the roof is 12 feet (3658 mm) or more above grade plane shall be prepared and sealed by a Colorado registered professional engineer."

5. Section R108.2 is replaced with the following: "R108.2 Schedule of Permit Fees. On buildings, structures, electrical, gas, mechanical and plumbing systems or alterations requiring a permit, fees for each permit shall be in accordance with the Town of Erie Fee Schedule. The federal government, state, town, and all agencies and departments thereof shall be exempt from payment of fees for work performed on buildings or structures owned wholly by such agencies or departments and devoted to governmental use."

6. Section R108.4 is amended by adding new subsections R108.4.1 and R108.4.2 to read as follows: "R108.4.1 Plan Review Fee. In addition to permit fees, a separate plan review fee, as established by the Town of Erie Fee Schedule, shall be paid for each permit for the review of construction documents submitted as required by Sections R105.3 and R106. Construction document revisions submitted after completion of the initial plan review shall require an additional plan review fee. R108.4.2 Re-inspection Fee. A re-inspection fee may be assessed for each inspection or re-inspection when the portion of work for which inspection was requested is not complete or when correction items are not addressed. A re-inspection fee may be assessed when the inspection card is not posted or otherwise available on the work site, the approved plans and engineered roof truss package are not readily available to the inspector, the address of the structure is not posted in a conspicuous place and readily visible from the public right-of-way, the structure is not "dried-in", which includes installation of all windows, doors, roof shingles along with roof vents and jacks, access to the site is not provided on the date of inspection, or work deviates from the approved plans. When a re-inspection fee has been assessed, no additional inspections may be scheduled until the re-inspection fee has been paid.

7. Section R108.5 is replaced with the following: "R108.5 Fee Refunds. The Building Official may authorize the following fee refunds: the full amount of any fee hereunder which was erroneously paid or collected; not more than 80% of the permit fee when no work has been done under

a permit issued in accordance with this Code; not more than 80% of the plan review fee when an application for a permit is withdrawn or cancelled before any plan review effort has been expended. The Building Official shall not authorize the refunding of any fees except upon written application filed by the original permittee not later than 180 days after the date of payment."

8. Section R108.6 is replaced with the following: "R108.6 Work Commencing before Permit Issuance. Any person who commences work requiring a permit, including foundation excavation, on a building, structure, electrical, gas, mechanical or plumbing system before obtaining the necessary permits shall be subject to an additional fee equal to the amount of the permit fee required by the Town of Erie Fee Schedule."

9. Section R109.1.1 is replaced with the following: "R109.1.1 Foundation Inspection. Foundation systems, including without limitation excavation/soils, piers, footings, voids, footing and foundation reinforcement, concrete encased electrode (Ufer) placement/location, perimeter underdrain, damp and/or water proofing, shall be inspected by personnel working under the supervision of a Colorado registered professional engineer. R109.1.1.1 Foundation Location Certificate. Foundation location with top of foundation elevation verification shall be submitted to the Building Division for review and approval prior to scheduling any above grade inspections. Such foundation location and top of foundation elevation verification shall be prepared and stamped by a Colorado registered professional land surveyor."

10. Section R109.1.6 is amended by adding new subsection R109.1.6.2 to read as follows: "R109.1.6.2 Documentation Submittal Requirements. The following documents shall be submitted to the Building Division prior to requesting a Certificate of Occupancy: original permit/inspection card, front and back, with all necessary inspections, including Public Works, signed-off; Colorado licensed professional land surveyor stamped, signed and dated Improvement Location Certificate ("ILC"); Colorado registered professional land surveyor or engineer stamped, signed and dated Final Grading Certificate that includes the statement *Final grading generally coincides with and matches grading as approved by the Town* or provide survey certification form with Final Grading Certificate; third party final energy code compliance report, insulation compliance certificate(s); Colorado licensed professional engineer stamped, signed and dated inspection observation reports/letters for excavation/soils, piers, footings, voids, footing and foundation reinforcement, concrete encased electrode (Ufer) placement/location, perimeter underdrain, damp and waterproofing.

11. Section R109.4 is replaced with the following: "R109.4 Approval Required. Construction or work for which a permit is required shall be subject to inspection by the Building Official and such construction

or work shall remain accessible and exposed for inspection purposes until approved. Approval as a result of an inspection shall not be construed to be an approval of a violation of any law. Inspections presuming to give authority to violate any law shall not be valid. It is the duty of the permit holder or their duly authorized agent to cause the work to remain accessible and exposed for inspection purposes. The Town shall not be liable for expenses entailed in the removal or replacement of any material required to allow inspection."

12. Section R111.1 is amended by adding the following after the first sentence: "Separate utility service connections shall be provided to each property. Utility service connections shall not extend through an adjacent dwelling unit."

13. Section R202 is amended by adding the following definitions: "Sleeping Room. A habitable space within a dwelling unit that meets the minimum area provisions of the IRC and contains a closet or an area that is readily convertible to a closet. An area fitted with permanently affixed floor to ceiling shelving and no clothes rod may not be considered a closet in a non-sleeping room."

"Pergola. An accessory structure having at least 50% of the supported roof area open and unobstructed above."

14. Table R301.2 – is completed to read as follows:

Ground Snow Load	Wind Design				Seismic Design Category	Subject to Damage From			Winter Design Temp	Ice-barrier Under-layment Required	Flood Hazard	Air Freezing Index	Mean Annual Temp
	Speed (V asd)	Topographic effects	Special Wind Region	Wind-Borne Debris Zone		Weathering	Frost Line Depth	Termite					
30psf	110	NO	Yes – See Wind Speed	No	B	Severe	30 in.	Slight to Moderate	0°F	No	12/18/2012 and 8/15/2019	979	48.8°F
Manual J Design Criteria ^a													
Elevation	Altitude correction factor	Coincident wet bulb degrees F		Wind Velocity Heating/Cooling mph		Indoor design temperature		Winter Heating degrees F		Heating temperature difference			
5130	0.821	59		15/7.5		degrees F 70		0		degrees F 66			
Latitude	Daily Range	Winter Humidity		Summer Humidity		Design temperature cooling		Summer Cooling degrees F		Cooling temperature difference			
40.05	High	%		%		degrees F 75		91		degrees F 18			

15. Table R302.1 (1) is amended by adding footnote "c" to read as follows: "c. Soffit vents shall be permitted within 2 to 5 feet from the *fire separation distance* if provided with 1/8-inch pre-installed metal cloth."

16. Section R303.8 is amended by adding the following sentence after the second sentence: "Deck stairways not a part of the means of egress are permitted to have the required artificial light source provided by existing exterior illumination subject to approval by the code official."

17. Section R308.4.6 is amended by replacing "36 inches" in the first sentence with "60 inches."

18. Section R310.1 is amended by adding the following sentence: "The emergency escape and rescue opening shall be located within a habitable space in basements without a sleeping room(s).", and by adding the following sentence to exception 3: "Area wells provided with a cover in accordance with R310.4.4 shall not be considered an obstruction of the path to a public way."

19. Section R310.4.4 is amended by adding the following sentence: "All area wells shall be provided with a cover capable of supporting a 40 pound per square foot live load."

20. Section R313 Automatic Fire Sprinkler Systems is

21. Section R317.1 is amended by deletion of the exception to item #8.

22. Section R328.2 is amended by deletion of the exception.

23. Section R401.1 is amended by adding the following after the first sentence: "Foundations and structural floor slabs of buildings and accessory structures over 200 square feet in floor area shall be designed by a Colorado-registered professional engineer."

24. Section R403.1.4.1 is amended by replacing exception 1 and 2 as follows:

"1. Protection of uninhabited and unconditioned free-standing accessory structures with an area of 600 square feet (56 m²) or less, of light-frame construction, with an eave height of 10 feet or less is not required.

2. Protection of uninhabited and unconditioned free-standing accessory structures with an area of 400 (37 m²) square feet or less, of other than light-frame construction, with an eave height of 10 feet or less is not required."

25. Section R405.2.3 is replaced with the following: "R405.2.3 Drainage System. Unless the foundation drainage system is installed to discharge into a community underdrain system, it shall discharge into a sump pit in accordance with Section P3303 and shall be capable of positive gravity or mechanical drainage to remove any accumulated water. The drainage system shall discharge not less than 5 feet from the foundation."

26. Section R507.3.1 is replaced with the following: "R507.3.1 Minimum Size. Where a specific design is not provided the minimum size of concrete footings supporting decks of *light-frame construction* shall be 12 inches (305 mm) in diameter. Footings supporting a deck, stairway or landing with a tributary area of 20 square feet or less may be 8 inches (203 mm) in diameter."

27. Section R610.1 is amended by deleting the second sentence and replacing it with the following: "Structural insulated panel wall construction drawings, details and specifications shall bear the seal of a Colorado-registered design professional responsible for the design."

28. Section R905.2.4.1 is amended by adding the following sentence after the third sentence: "Asphalt shingles shall be provided with a 110 mph sustained wind warranty."

29. Section R908.1 is amended by adding the following after the first sentence: "A permit is required when more than 1 square of roof covering is to be replaced over the aggregate area of the roof. Every slope where roof covering is to be replaced shall be replaced in its entirety. The interface of different types of roof covering shall only occur at a ridge, hip or open valley. A roof covering replacement requiring a permit shall comply with the roof ventilation requirements of Section R806 as applicable."

30. Section R908.3.1.1 is amended by replacing condition 3 to read as follows: "Where the existing roof has 1 or more applications of any type of roof covering material."

31. Part IV - Energy Conservation is deleted in its entirety. Refer to the Residential Provisions of the 2021 International Energy Conservation Code (IECC) for energy conservation code requirements.

32. Section M1302.1 is amended by adding new subsection M1302.1.1 to read as follows: "M1302.1.1 Solid Fuel-Burning Appliances. Solid fuel-burning appliances shall comply with the Regulations on Emissions of the State of Colorado in effect at the time of permit application for such appliance."

33. Section M1502.4.2 is amended by replacing "12 feet" with "8 feet" in the first sentence.

34. Section M1602.2 is amended by adding item #8 to read as follows: "8. Return air shall be provided from each habitable story and finished basement."

35. Section G2417.4.1 (406.4.1) is replaced with the following: "G2417.4.1 (406.4.1) Test Pressure. The test pressure for a low-pressure gas system shall be not less than 20 psi (138 kPa) gauge pressure. The test pressure for welded piping and for piping carrying gas at a pressure

greater than 14-inches water column pressure shall be not less than 60 psi (413.7 kPa) gauge pressure."

36. Section G2417.4.2 (406.4.2) is amended by replacing "10 minutes" with "30 minutes."

37. Section P2503.5.1 is amended by deleting the first sentence and replacing it with the following: "DWV systems shall be tested upon completion of the rough piping installation by water or by air without evidence of leakage."

38. Section P2603.5 is amended by deleting the second sentence and replacing it with the following: "Water service pipe shall be installed not less than 54 inches below finished grade."

39. Section P2603.5.1 is replaced with the following: "P2603.5.1, Sewer Depth. *Building sewers* shall not be less than 36 inches below finished grade."

40. Section P2902.5.3 is amended by adding the following sentence: "Lawn irrigation systems shall be equipped with a rain sensing device."

41. Section P2903.3.2 is replaced with the following: "P2903.3.2 Maximum Pressure. An approved water pressure-reducing valve conforming to ASSE 1003 or CSA B356 shall be installed to reduce the pressure on the domestic water branch main or riser at the connection to the water service pipe to not greater than 80 psi (552 kPa) static."

42. Section P3005.2.4 is amended by adding new subsection P3005.2.4.1 to read as follows: "P3005.2.4.1 Base of Stacks. An accessible cleanout shall be provided near the base of each vertical waste or soil stack."

43. Section E3401.1 is amended by adding the following after the last sentence: "Where there is a conflict between Part VIII of this Code and the adopted edition of the National Electrical Code (NEC), the NEC shall govern."

44. Section E3704.4 is amended by adding the following after the third sentence: "The number of general-purpose outlets shall not exceed 8 on a 15-ampere circuit and 10 on a 20-ampere circuit. The number of permanent LED fixtures shall not exceed 12 on a 15-ampere circuit and 14 on a 20-ampere circuit."

45. Section E3905.1 is amended by adding the following sentence: "All junction box covers shall be permanently labelled with corresponding panel and circuit number."

46. Section E3902.5 is amended by adding the following sentence after the second sentence: "A GFCI and Arc-Fault protected receptacle shall be installed within 6 feet of the bottom of a sump pit."

47. Section AF103 is amended by adding subsection AF103.13 to read as follows: "AF103.13 Vent Pipe Fan. A vent pipe fan shall be located outside of the *building thermal envelope*."

48. Section AF103.4 is amended by adding subsection AF103.4.11 to read as follows: AF103.4.11. Basement Finish. The finishing of a basement shall require compliance to Section AF103.4 to the maximum extent feasible."

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9-1-4: Energy Conservation Code.

A. Code Adopted: The International Energy Conservation Code, 2021 Edition (the "IECC"), including Appendices CB and RB, as published by the International Code Council, 500 New Jersey Avenue, NW, 6th Floor, Washington, DC 20001, a copy of which is on file and open for inspection in the office of the Town Clerk, is hereby adopted by reference with the amendments set forth herein.

B. Amendments: The IECC is amended as follows:

1. Section C101.1 is amended by inserting "Town of Erie" where indicated.

2. Section C103.2 is amended by modifying item 6 and adding items 14, 15, and 16 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, EVSE Universal spaces, EV-Ready spaces, and EV-Capable spaces in parking facilities."

3. Section C202 is amended by adding the following definitions:

"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.

Demand Responsive Control. An automatic control that can receive and automatically respond to demand response requests from a utility, electrical system operator, or third-party demand response program provider.

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."

4. Section C401.2.1 is amended by replacing item 2 to read as follows: "2. Total Building Performance. The Total Building Performance option requires compliance with Section C407 and, for a mixed-fuel building, Section C405.13 and 10 credits from Tables C406.1(1) through C406.1(5)."

5. Section C401.2.2 is amended to read as follows: "C401.2.2 ASHRAE 90.1. Commercial buildings shall comply with the requirements of ANSI/ASHRAE/IESNA 90.1 and, for a mixed-fuel building, Section C405.13 and 10 credits from Tables C406.1(1) through C406.1(5)."

6. Section C402.3 is amended by replacing the first sentence to read as follows: "Low-sloped roofs directly above conditioned spaces shall comply with 1 or more of the options in Table C402.3."

7. Section C403.2.3 is amended by replacing the first sentence to read as follows: "New buildings with 1 or more HVAC systems serving a gross conditioned floor area of 25,000 square feet (1,858 square meters) or larger and controlled by a direct digital control (DDC) system shall include a fault detection and diagnostics (FDD) system to monitor the HVAC system's performance and automatically identify faults."

8. Section C403.4 is amended by adding subsection C403.4.1.6 to read as follows: "C403.4.1.6 Demand responsive thermostats. All thermostats shall be provided with demand responsive controls capable of increasing the cooling set point by no less than 4°F (2.2°C) and decreasing the heating set point by no less than 4°F (2.2°C). Exception: Health care and assisted living facilities."

9. Section C404.2.1 is amended by replacing Exception 1 to read as follows: "1. Where not less than 50% 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."

10. Section C404 is amended by adding subsection C404.10 to read 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."

11. Section C405.5.3 is amended to read as follows: "Gas fired lighting appliances shall not be permitted."

12. Table C405.12.2 is amended to add a new line at the end of the table as follows:

Electric vehicle charging	Electric vehicle charging loads
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13. Section C405 is amended by adding subsection C405.13 to read 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 that meet the following requirements:

1. The junction box, raceway, and bus bar in the electric panel and conductors serving the electric panel 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 electrical 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."

14. Section C406.1 is amended by replacing the first sentence to read as follows: "New all-electric buildings shall achieve a total of 10 credits and new mixed-fuel buildings shall achieve a total of 20 credits from Tables C406.1 (1) through C406.1 (5) where the table is selected based on the use group of the building and from credit calculations as specified in relevant subsections of C406."

15. Table C406.1 (2) is retained in its entirety, except Sections C406.7.3 and C406.7.4 in Climate Zone 5B are amended to read as follows:

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	3
C406.7.4: Heat pump water heater	9

16. Table C406.1 (3) is retained in its entirety, except Sections C406.7.3 and C406.7.4 in Climate Zone 5B are amended to read as follows:

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	N/A
C406.7.4: Heat pump water heater ^a	3

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

17. Table C406.1 (5) is retained in its entirety, except Sections C406.7.3 and C406.7.4 in Climate Zone 5B are amended to read as follows:

Table C406.1 (5) Additional Energy Efficiency Credits for Other Occupancies ^a

Section	Climate Zone 5B
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C406.7.3: Efficient fossil fuel water heater ^b	3
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

18. Table C407.2 is retained in its entirety and amended to add the following:

Table C407.2 Requirements for Total Building Performance

Section	Title
Envelope	
C401.3	Thermal envelope certificate
C402.2.4	Slabs-on-grade
C402.2.6	Insulation of radiant heating system
C402.3	Roof solar reflectance and thermal emittance

19. Section CB103.1 is amended by replacing the first sentence to read as follows, with the exceptions to remain: "A solar-ready zone shall be located on the roof of all new buildings that are subject to the commercial provisions of this code 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."

20. A new Appendix CD is added to read as follows:

"Electric Vehicle Readiness - Commercial

CD101. Purpose and intent. The purpose and intent of 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. Appendix CD shall apply to all new commercial construction to which the International Building Code (IBC) 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 EV.

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.

EV Supply Equipment (EVSE). Equipment for plug-in power transfer including the ungrounded, grounded, and equipment grounding conductors, and the EV 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 EV.

EVSE Installed Space. An automobile parking space that is provided with a dedicated EVSE connection.

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 panel board or other electrical distribution equipment space, necessary for the future installation of an EVSE.

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 with 36-inch access aisles on each side.

CD104 EV power transfer infrastructure. New parking facilities shall be provided with EV power transfer infrastructure in compliance with Sections CD104.1 through CD104.6, CD105, and CD106.

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. DCFC. The number of EVSE spaces for Groups A, B, E, I, M and S-2 Occupancies may be reduced by up to 10 per DCFC EVSE provided that the building includes not less than 1 parking space equipped with a DCFC EVSE and not less than 1 EV ready space. A maximum of 50 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 H, S	1%	0%	0%
Group R-1 and R-2 ^a	15%	5%	40%

Group S-2 Parking Garages	10%	5%	0%
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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 of the EV capable space and a suitable panel board 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 of each EV ready space it serves.
2. Have a minimum circuit capacity in accordance with CD104.5.
3. The panel board or other electrical distribution equipment directory shall designate the branch circuit as "For electric vehicle supply equipment" and the outlet or enclosure shall be marked "For electric vehicle supply equipment."

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 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 1 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 1 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 100% of the automobile parking spaces are 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.

CD105. Universal vehicle charging stations. Where EV charging stations are provided for public use, or where EV charging stations are shared by multiple multi-family dwelling units, the number of universal vehicle charging stations shall be provided in accordance with Table CD104.1. When multiple stalls are required, access aisles may be shared.

Table CD105.1 Universal EV Space Requirements

Total # of EV Charging Stations	Minimum # of Universal Vehicle Charging Stations
1 or more	25%

CD106. 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."

21. Section R101.1 is amended by inserting "Town of Erie" where indicated.

22. Section R103.2 is amended by modifying item 6 and adding items 10, 11, and 12 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 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, EVSE Universal spaces, EV-Ready spaces, and EV-Capable spaces in parking facilities, as applicable."

23. Section R105.1 is amended by replacing the first sentence to read as follows: "Construction or work for which a permit is required shall be subject to inspection by the code official, his or her designated agent or an *approved agency*, and such construction or work shall remain visible and able to be accessed for inspection purposes until *approved*."

24. Section R202 is amended by adding the following definitions:

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."

25. Section R401.2.5 is amended as follows: "R401.2.5 Additional Energy Efficiency. This section establishes additional requirements applicable to all compliance approaches to achieve additional energy efficiency.

1. For buildings complying with Section R401.2.1, the building shall meet one of the following:

1.1. For all-electric buildings, 1 of the additional efficiency package options shall be installed according to Section R408.2.

1.2. For mixed-fuel buildings, 3 of the additional efficiency packages shall be installed, at least 1 of which addresses the envelope.

2. For buildings complying with Section R401.2.2, the building shall meet one of the following:

2.1. For all-electric buildings, one of the additional efficiency package options in Section R408.2 shall be installed without including such measures in the proposed design under Section R405.

2.2. For mixed-fuel buildings, 3 of the additional efficiency packages shall be installed, at least 1 of which addresses the envelope, without including such measures in the proposed design under Section R405.

2.3. For all-electric buildings, the proposed design of the building under Section R405.3 shall have an annual energy cost that is less than or equal to 95% of the annual energy cost of the standard reference design.

2.4. For mixed-fuel buildings, the proposed design of the building under Section R405.3 shall have an annual energy cost that is less than or equal to 70% of the annual energy cost of the standard reference design.

3. For buildings complying with the Energy Rating Index alternative of Section R401.2.3, the Energy Rating Index ("ERI") value shall be at least 5% less than the ERI target specified in Table R406.5.

The options selected for compliance shall be identified in the certificate required by Section R401.3."

26. Section R401.3 is amended as follows and by replacing item 4 and adding new items 8, 9, and 10 to read 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 or 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 or appliances include additional electric infrastructure, capacity reserved on the electrical service panel for replacement of each piece of combustion equipment 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."

27. Section R403.5 is amended 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."

28. Section R403.5 is amended by adding subsection R403.5.4 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.

Exception: Water heaters with an input capacity greater than 300,000 Btu/h that serves multiple dwelling units or sleeping units."

29. Section R404.1.1 is amended to read as follows: "Fuel gas lighting systems shall not be permitted."

30. Section R404 is amended by adding subsection R404.4 to read 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 that is 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 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 electrical 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."

31. Table R405.2 is amended by adding new rows under Mechanical and 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

32. Section R406.2 is amended by replacing the first paragraph to read as follows: "Compliance based on the ERI may utilize the HERS Index Score and requires that the rated design meets all of the following:

1. The requirements of Table R406.2.
2. The maximum ERI of Table R406.5."

33. Table R406.2 is amended by adding new rows under Mechanical and 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

34. Section R406.5 is amended to read as follows: "R406.5 ERI-based compliance. Compliance based on an ERI analysis requires that the rated proposed design and confirmed built dwelling be shown to have an ERI less than or equal to the appropriate value for the proposed all-electric or mixed-fuel building as indicated in Table R406.5 when compared to the ERI reference design."

Table R406.5 Maximum Energy Rating Index

Climate Zone	All-Electric Building	Mixed Fuel Building
5	55	47

35. Section R402.4.1.2 is amended by changing "3 air changes per hour in Climate Zones 3-8" in the first sentence to read "5 air changes per hour in Climate Zones 3-8".

36. Section R403.5.3 is amended by changing "3/4 inch" in item 1 to read "1 inch".

37. Section R503.1.1 is amended by adding a new exception 7 to read as follows: "Basement walls of the building thermal envelope shall be insulated by a minimum of R-10 continuous or R-15 cavity insulation at the time of basement alteration."

38. Section RB103.1 is amended by replacing the first sentence to read as follows, with the exceptions to remain: "New residential buildings with not less than 600 square feet of roof area that are oriented between 110 degrees and 270 degrees of true north shall comply with Sections RB103.2 through RB103.8."

39. A new Appendix RD is added to read as follows:

"Electric Vehicle 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 (IRC) applies.

RD103. Definitions. The definitions contained in Appendix CD shall apply to this Appendix.

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 EV power transfer infrastructure in compliance with Sections RD105.1-RD105.6 and Sections RD106-RD107.

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 1 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 EV Installed Spaces	Minimum EV Ready Spaces	Minimum EV Capable Spaces
Group R-1 and	15%	5%	40%

R-2 ^a			
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 of the EV capable space and a suitable panel board 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 of each EV ready space it serves.
2. Have a minimum circuit capacity in accordance with RD105.5.
3. The panel board 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 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 1 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 RD104.5.1 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 1 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 1 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 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. Universal vehicle charging stations. Where EV charging stations are provided for public use, or where EV charging stations are shared by multiple multi-family dwelling units, the number of universal vehicle charging stations shall be provided in accordance with Table RD106.1. When multiple stalls are required, access aisles may be shared.

Table RD106.1

Universal EV Space Requirements

Total #of EV Charging Stations	Minimum # of Universal Vehicle Charging Stations
1 or more	25%

RD107. Identification. Construction documents shall designate all EV capable spaces, EV ready spaces and EV installed 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 EV installed 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."

DRAFT

9-1-5: Mechanical Code.

A. Code Adopted: The International Mechanical Code, 2021 Edition (the "IMC"), as published by the International Code Council, 500 New Jersey Avenue, NW, 6th Floor, Washington, DC 20001, a copy of which is on file and open for inspection in the office of the Town Clerk, is hereby adopted by reference with the amendments set forth herein.

B. Amendments: The IMC is amended as follows:

1. Section 101.1 is amended by inserting "Town of Erie" where indicated.

2. Section 103.1 is amended by inserting "Town of Erie Building Division" where indicated.

3. Section 109.2 is replaced with the following: "109.2 Fee Schedule. The fees for mechanical work shall be in accordance with the Town of Erie Fee Schedule. The federal government, state, town, and all agencies and departments thereof shall be exempt from payment of fees for work performed on buildings or structures owned wholly by such agencies or departments and devoted to governmental use."

4. Section 109.6 is replaced with the following: "109.6 Fee Refunds. The Building Official may authorize the following fee refunds: the

full amount of any fee hereunder which was erroneously paid or collected; not more than 80% of the permit fee when no work has been done under a permit issued in accordance with this Code; not more than 80% of the plan review fee when an application for a permit is withdrawn or cancelled before any plan review effort has been expended. The Building Official shall not authorize the refunding of any fees except upon written application filed by the original permittee not later than 180 days after the date of payment."

5. Section 115.4 is replaced with the following: "Section 115.4 Violation Penalties. Any person who violates a provision of this code or fails to comply with any of the requirements thereof, or who erects, installs, alters or repairs mechanical work in violation of the *approved construction documents*, or directive of the code official, or of a permit or certificate issued under the provisions of this code, shall be subject to penalties as prescribed by law."

6. Section 905.1 is amended by adding the following sentence at the end: "Solid fuel-burning appliances shall comply with the Regulations on Emissions of the State of Colorado in effect at the time of permit application for such appliance."

7. Section 1011.1 is amended by adding new subsection 1011.1.1 to read as follows: "1011.1.1 Certificate of Inspection. A certificate of inspection shall be obtained from the State of Colorado prior to the operation of a boiler or pressure vessel. Such certificate of inspection shall be displayed in a conspicuous place on or near the boiler or pressure vessel. Boilers and pressure vessels shall be operated and maintained in compliance with nationally recognized standards and requirements for protection of the public."

9-1-6: Plumbing Code.

A. Code Adopted: The International Plumbing Code, 2021 Edition (the "IPC") as published by the International Code Council, 500 New Jersey Avenue, NW, 6th Floor, Washington, DC 20001, a copy of which is on file and open for inspection in the office of the Town Clerk, is hereby adopted by reference with the amendments set forth herein.

B. Amendments: The IPC is amended as follows:

1. Section 101.1 is amended by inserting "Town of Erie" where indicated.

2. Section 103.1 is amended by inserting "Town of Erie Building Division" where indicated.

3. Section 109.2 is replaced with the following: "109.2 Fee Schedule. The fees for plumbing work shall be in accordance with the Town

of Erie Fee Schedule. The federal government, state, town, and all agencies and departments thereof shall be exempt from payment of fees for work performed on buildings or structures owned wholly by such agencies or departments and devoted to governmental use."

4. Section 109.5 is replaced with the following: "109.5 Fee Refunds. The Building Official may authorize the following fee refunds: the full amount of any fee hereunder which was erroneously paid or collected; not more than 80% of the permit fee when no work has been done under a permit issued in accordance with this Code; not more than 80% of the plan review fee when an application for a permit is withdrawn or cancelled before any plan review effort has been expended. The Building Official shall not authorize the refunding of any fees except upon written application filed by the original permittee not later than 180 days after the date of payment."

5. Section 115.4 is replaced with the following: "Section 115.4 Violation Penalties. Any person who violates a provision of this code or fails to comply with any of the requirements thereof, or who erects, installs, alters or repairs plumbing work in violation of the *approved construction documents*, or directive of the code official, or of a permit or certificate issued under the provisions of this code, shall be subject to penalties as prescribed by law."

6. Section 305.4 is amended by deleting the second sentence and replacing it with the following: "Exterior water supply system piping shall be installed not less than 54 inches below grade."

7. Section 305.4.1 is replaced with the following: "305.4.1 Sewer Depth. Building sewers shall be installed not less than 36 inches below grade."

8. Section 312.1 is amended by deleting the fourth sentence and replacing it with the following: "All plumbing system piping shall be tested with either water or air."

9. IPC Section 410.4 is amended by adding an exception to read as follows: "Exception: A water cooler or bottled water may be substituted where only 1 drinking fountain is required by Table 403.1."

10. Section 604.8 is amended by deleting the first sentence and replacing it with the following: "An approved water pressure-reducing valve conforming to ASSE 1003 or CSA B356 with strainer shall be installed to reduce the pressure in the building water distribution piping to not greater than 80 psi (552 kPa) static."

11. Section 608.17.5 is amended by adding the following sentence: "All lawn irrigation systems shall be equipped with a rain sensor device."

12. Section 903.1.1 is amended by inserting the number "12" where indicated.

13. Section 1002 is amended by adding a new subsection 1002.11 to read as follows: "1002.11 Hair Traps. Fixtures with an intended purpose for the washing of hair, including fixtures within pet grooming facilities, shall be equipped with an approved hair trap."

9-1-7: Fuel Gas Code.

A. Code Adopted: The International Fuel Gas Code, 2021 Edition, (the "IFGC") as published by the International Code Council, 500 New Jersey Avenue, NW, 6th Floor, Washington, DC 20001, a copy of which is on file and open for inspection in the office of the Town Clerk, is hereby adopted by reference with the amendments set forth herein.

B. Amendments: The IFGC is amended as follows:

1. Section 101.1 is amended by inserting "Town of Erie" where indicated.

2. Section 103.1 is amended by inserting "Town of Erie Building Division" where indicated.

3. Section 109.2 is replaced with the following: "109.2 Fee Schedule. The fees for fuel gas work shall be in accordance with the Town of Erie Fee Schedule. The federal government, state, town, and all agencies and departments thereof shall be exempt from payment of fees for work performed on buildings or structures owned wholly by such agencies or departments and devoted to governmental use."

4. Section 109.6 is replaced with the following: "109.6 Fee Refunds. The Building Official may authorize the following fee refunds: the full amount of any fee hereunder which was erroneously paid or collected; not more than 80% of the permit fee when no work has been done under a permit issued in accordance with this Code; not more than 80% of the plan review fee when an application for a permit is withdrawn or cancelled before any plan review effort has been expended. The Building Official shall not authorize the refunding of any fees except upon written application filed by the original permittee not later than 180 days after the date of payment."

5. Section 115.4 is replaced with the following: "Section 115.4 Violation Penalties. Any person who violates a provision of this code or fails to comply with any of the requirements thereof, or who erects, installs, alters or repairs work in violation of the *approved construction documents*, or directive of the code official, or of a permit or certificate issued under the provisions of this code, shall be subject to penalties as prescribed by law."

6. Section 406.4.1 is replaced with the following: "406.4.1 Test Pressure and Duration. The minimum test pressure for a low-pressure gas system shall be 20 pounds per square inch for 30 minutes. Low-pressure gas shall be defined as 14 inches of water column or less. The minimum test pressure for any other gas system shall be 60 pounds per square inch for 30 minutes."

7. Section 406.4.2 is deleted in its entirety.

9-1-8: Existing Building Code.

A. Code Adopted: The International Existing Building Code, 2021 Edition, (the "IEBC") as published by the International Code Council, 500 New Jersey Avenue, NW, 6th Floor, Washington, DC 20001, a copy of which is on file and open for inspection in the office of the Town Clerk, is hereby adopted by reference with the amendments set forth herein.

B. Amendments: The IEBC is amended as follows:

1. Section 101.1 is amended by inserting "Town of Erie" where indicated.

2. Section 103.1 is amended by inserting "Town of Erie Building Division" where indicated.

3. Section 301.1 is amended by adding the following sentence after the last sentence: "Regardless of the compliance method applied, all dwelling units that undergo a repair, alteration, addition, or relocation shall install CO alarms in accordance with the applicable provisions of the IBC or IRC."

4. Section 302.2 is amended by deleting "International Private Sewage Disposal Code" from the first sentence.

5. Section 705 is deleted in its entirety.

6. Section 1011.2.1 is amended by adding new exception #4 to read as follows: "Exception #4: Where a change of occupancy classification occurs for a grade level Group A occupancy meeting all of the following: the total floor area of the change of occupancy shall not exceed 2,500 square feet; the Code determined total occupant load of the change of occupancy shall not exceed 99; and the total floor area of the change of occupancy shall be detected throughout with an approved automatic fire alarm system."

9-1-10: Swimming Pool and Spa Code.

A. Code Adopted: The International Swimming Pool and Spa Code, 2021 Edition, (the "ISPSC") as published by the International Code Council, 500 New Jersey Avenue, NW, 6th Floor, Washington, DC 20001, a copy of which is on file and open for inspection in the office of the Town Clerk, is hereby adopted by reference with the amendments set forth herein.

B. Amendments: The ISPSC is amended as follows:

1. Section 101.1 is amended by inserting "Town of Erie" where indicated.

2. Section 103.1 is amended by inserting "Town of Erie Building Division" where indicated.

3. Section 108.2 is replaced with the following: "108.2 Fee Schedule. Such fee for each permit shall be in accordance with the Town of Erie Fee Schedule. The federal government, state, town, and all agencies and departments thereof shall be exempt from payment of fees for work performed on buildings or structures owned wholly by such agencies or departments and devoted to governmental use."

4. Section 108.6 is replaced with the following: "108.6 Fee Refunds. The Building Official may authorize the following fee refunds: the full amount of any fee hereunder which was erroneously paid or collected; not more than 80% of the permit fee when no work has been done under a permit issued in accordance with this Code; not more than 80% of the plan review fee when an application for a permit is withdrawn or cancelled before any plan review effort has been expended. The Building Official shall not authorize the refunding of any fees except upon written application filed by the original permittee not later than 180 days after the date of payment."

5. Section 113.4 is replaced with the following: "Section 113.4 Violation Penalties. Any person who violates a provision of this code or fails to comply with any of the requirements thereof, or who erects, installs, alters or repairs a pool or spa in violation of the *approved construction documents*, or directive of the code official, or of a permit or certificate issued under the provisions of this code, shall be subject to penalties as prescribed by law."

6. Section 320.1 is replaced with the following: "320.1 Backwash Water or Draining Water. Backwash water and draining water shall be de-chlorinated prior to discharging slowly by pump to the sanitary sewer, or into an approved disposal system on the premise, or shall be disposed of by other means approved by the local authority. Direct connections shall not be made between the end of the backwash line and the disposal system. Drains shall discharge through an air gap."

9-1-11: Property Maintenance Code.

A. Code Adopted: The International Property Maintenance Code, 2021 Edition, (the "IPMC") as published by the International Code Council, 500 New Jersey Avenue, NW, 6th Floor, Washington, DC 20001, a copy of which is on file and open for inspection in the office of the Town Clerk, is hereby adopted by reference with the amendments set forth herein.

B. Amendments: The IPMC is amended as follows:

1. Section 101.1 is amended by inserting "Town of Erie" where indicated.

2. Section 103.1 is amended by inserting "Town of Erie Building Division" where indicated.

3. Section 302.4 is deleted in its entirety.

4. Section 304.14 is amended by deleting the first sentence and replacing it with the following: "Every door, window and other outside opening required for *ventilation* of habitable rooms, food preparation areas, food service areas or any areas where products to be included or utilized in food for human consumption are processed, manufactured, packaged or stored shall be supplied with *approved* tightly fitting screens of minimum 16 mesh per inch (16 mesh per 25 mm), and every screen door used for insect control shall have a self-closing device in good working condition."

5. Section 602.3 is amended by deleting the first sentence and replacing it with the following: "Every *owner* and *operator* of any building who rents, leases or lets one or more *dwelling units* or *sleeping units* on terms, either expressed or implied, shall supply heat to the *occupants* thereof to maintain a minimum temperature of 68 degrees F (20 degrees C) in all habitable rooms, *bathrooms* and *toilet rooms*."

6. Section 602.4 is amended by deleting the first sentence and replacing it with the following: "Indoor occupiable work spaces shall be supplied with heat to maintain a minimum temperature of 65 degrees F (18 degrees C) during the period the spaces are occupied."

9-1-12: Violation; Penalties.

A. It is unlawful for any person to violate any provision of this Chapter.

B. Violations of this Chapter shall be subject to the penalties set forth in Erie Municipal Code § 1-4-4. Each day that the violation continues shall be considered a separate offense.

C. In addition to any and all other remedies, the Town may institute an appropriate action for injunction, mandamus or abatement to prevent, enjoin, abate or remove any unlawful erection, construction, reconstruction, alteration, remodeling or use.

Section 2. Severability. If any article, 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 Board of Trustees hereby declares that it would have passed this Ordinance and each part or parts hereof irrespective of the fact that any one, or part, or parts be declared unconstitutional or invalid.

Section 3. Safety. The Board of Trustees finds that the adoption of this Ordinance is necessary for the protection of the public health, safety and welfare.

Section 4. Effective Date. This Ordinance shall take effect 30 days after publication following adoption.

Introduced, read, passed and ordered published this ___ day of _____, 2022.

DRAFT

Justin Brooks, Mayor

Attest:

Debbie Stamp, Town Clerk