

COUNCIL REPORT

Report Date: February 3, 2023 Contact: Saul Schwebs Contact No.: 604.873.7040

RTS No.: 15422 VanRIMS No.: 08-2000-20

Meeting Date: February 14, 2023

Submit comments to Council

TO: Vancouver City Council

FROM: The Chief Building Official

SUBJECT: Alignment with the Electrical Safety Regulations, Housekeeping, and

Miscellaneous updates to the Building and Electrical By-laws

Recommendations

A. THAT Council approve, in principle, various housekeeping, and miscellaneous changes to the Building By-law #12511 as set out in this report and as attached in Appendix A, to come into force and take effect upon enactment, except that some amendments will come into force and take effect on July 1, 2023;

FURTHER THAT Council instruct the Director of Legal Services to bring forward the necessary by-law amendments for enactment by Council, generally as set out in Appendix A.

B. THAT Council approve, in principle, various housekeeping amendments, and miscellaneous changes to the Electrical By-law #5563, as attached in Appendix B, to come into force and take effect upon enactment;

FURTHER THAT Council instruct the Director of Legal Services to bring forward the necessary by-law amendments for enactment by Council, generally as set out in Appendix B.

Purpose and Executive Summary

This report recommends amendment of certain existing provisions of the Building and the Electrical By-laws, for the following purposes:

 Miscellaneous changes to the Electrical By-law to harmonize with recent provincial amendment to the *Electrical Safety Regulations* (last amended October 1, 2022) forming part of the Provincial *Safety Standards Act*.

- Miscellaneous changes to the Building and Electrical By-laws to simplify their application, and create greater alignment between City priorities and changing provincial regulations.
- Administrative changes to the Building and Electrical By-laws schedule of fees to provide a more equitable distribution of fees based on work performed.
- Housekeeping and clarifying changes to existing provisions that clarify and facilitate the use of the Building By-law, and correct some editorial deficiencies.

The details of the proposed amendments to the Building and Electrical By-laws are provided in Appendices A and B of this report.

Council Authority/Previous Decisions

The general authority to regulate the construction of buildings, establish minimum standards of performance, and a system for the certification of a building is provided by Section 306. of the Vancouver Charter. Through Clause 306.(1)(w), Council may adopt by reference, in whole or in part and with any change Council considers appropriate, any code relating to fire safety or energy conservation or affecting the construction, alteration, or demolition of buildings.

The Electrical By-law is established under the authority of Section 314 of the Vancouver Charter, and Section 312(2), and under an administrative agreement with the Province pursuant to Section 5(3) of the Safety Standards Act. The City is authorized to administer all or part of the Act to maintain and enhance public safety, consistency of the Act, and be responsive to client needs.

City Manager's Comments

The City Manager concurs with the foregoing recommendations.

Context and Background

Under the authority of the Vancouver Charter, Council has previously enacted the Building By-law – adopting the 2018 British Columbia Building Code (BCBC) as the base document and includes "Unique to Vancouver" provisions reflective of local concerns and objectives. This model of adoption and amendment is consistent with the model used by each of the province in Canada, including the BC Provincial government in developing the BCBC, which is substantially based upon the National Building Code of Canada (NBCC) with the inclusion of specific provincial enactments.

Further to this, and in parallel with building construction regulations, Council has enacted an Electrical By-law to ensure that local electrical safety objectives are being satisfied. The core document adopted through this regulation is the 24th edition of Canadian Electrical Code.

Discussion

The mechanism of adoption and amendment of parent codes and standards allows Vancouver to focus resources on responding to local concerns, and establishing sound construction policy related to changes in development objectives, and construction methods and technologies.

It is the intention that the proposed series of amendments to the Building and Electrical By-law, presented in **Appendices A and B**, will support continued harmonization with the parent Codes and standards, and bolster Vancouver's leadership in the areas of life and fire safety, health, equity, and environmental stewardship.

The proposed amendments generally include the following:

 General housekeeping, clarity, and editorial amendments to support the harmonization of the Building and Electrical By-laws with their parent codes and standards and correct editorial inaccuracies.

Based on industry, staff, and other stakeholder experiences and feedback, City staff have identified suitable clarification and errata amendments to the text of the Building By-law as detailed in **Appendix A**. These proposed amendments are located throughout the Building By-law and are generally consistent with existing Council direction or administrative in nature, and clarify the intended manner by which the existing by-law text is to be interpreted.

The proposed updates to the Electrical By-law detailed in **Appendix B** are principally of administrative nature, motivated primarily by recent Provincial changes.

Further to this, limited to amendments to the fee schedule of both the Building and Electrical By-laws are proposed. This will improve the City's ability to recover administrative costs and allows the fees to more accurately reflect the true cost of work.

2. Miscellaneous changes outlined in the table below are intend to provide direction to code users or that simplify the application of the Code. This will assist in reducing barriers to compliance and promote better alignment with reference standards or provincial regulations.

Building By-law	
Book I - General	Permission for the Chief Building official to consider the use of
	appropriately designed overhead garage doors as part of a means of
	egress. [Div. B, 9.9.6.4.]
	Revisions to eliminate the master lighting switch in dwelling units
	where energy efficient light fixtures have been installed throughout
	[Div. B, 10.2.2.10.]
	Revisions to enhance the provisions requiring HRVs to be in a user
	serviceable location, directly accessible from the dwelling unit.
Book II - Plumbing	Provision of a new option to use the IAPMO water demand calculator,
	expanding designer options for compliance. This has been used
	successfully in other jurisdictions in North America.
	Introduces a specific permission for press fittings, which have been in
	use broadly throughout industry in North America, and which have a
	long track record of reliability.
Electrical By-law	
	Harmonize with recent provincial amendments to the Electrical Safety
	Regulations (last amended October 1, 2022) forming part of the
	Provincial Safety Standards Act.

Option to use a dedicated subpanel instead of requiring a combir panel board to be located in an ancillary residential suite. This all the occupant of the ancillary residential unit independent access breakers and fuses.			
Fee Schedule			
	Introduction a reduced fee option for Mechanical permits where limited to single private residential deck, patio, or balcony. This better aligns permit values with City costs.		

Table 1.: Miscellaneous changes to the Building and Electrical By-laws

Financial Implications

A reduced mechanical fee is proposed as part of the Building and Electrical By-law amendments. The proposed fee add an option for a reduced fee for certain types of mechanical permit is intended to more equitably assign costs to those requiring those services. This is consistent with both City's equity goals, and the Chief Building Official's obligation to recover City costs.

Legal Implications

The proposed amendments to the Building and Electrical By-laws fall within the authority granted to the City under the Vancouver Charter relative to their respective Sections. Consequently, there are no anticipated legal risk resulting from the enactment of the proposed regulatory amendments.

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APPENDIX A BUILDING BY-LAW AMENDMENTS

DRAFT By-law to amend Building By-law No. 12511 Regarding Housekeeping and Miscellaneous Amendments

Note: A By-law will be prepared generally in accordance with the provisions listed below, subject to change and refinement prior to posting.

- 1. This By-law amends the indicated provisions of Building By-law 12511.
- 2. In Book I, Division B, Article 1.3.1.2., in Table 1.3.1.2. Council deletes the following row:

"

ASHRAE	ANSI/ASHRAE 90.1-2016	Energy Standard for Buildings Except Low-Rise Residential Buildings	10.2.2.2.(1) Table 10.2.2.5.A 11.7.1.1.(3)
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and substitutes the following:

"

90.1-2016 for E Exce Resi	rgy Standard Buildings Ept Low-Rise idential dings
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- 3. In Book I, Division B, Article 3.1.11.7., in Sentence (6), Council strikes out "Sentences (1) to (4)" and substitutes "Sentences (1) to (5)".
- 4. In Book I, Division B, Article 3.1.11.7., in Sentence (7), Council strikes out "Sentences (1) to (4)" and substitutes "Sentences (1) to (5)".
- 5. In Book I, Division B, Article 3.2.2.50., in Clause (1)(c), Council:

- (a) adds a comma after "uppermost floor level"; and
- (b) strikes out "that does not serve a rooftop enclosure for elevator machinery, a stairway or a *service room* used only for service to the *building*,".
- 6. In Book I, Division B, Article 3.2.2.58., in Clause (1)(c), Council:
 - (a) adds a comma after "uppermost floor level"; and
 - (b) strikes out "that does not serve a rooftop enclosure for elevator machinery, a stairway or a *service room* used only for service to the *building*,".
- 7. In Book I, Division B, Article 3.2.3.13., in Subclause 3.2.3.13.(5)(c)(ii), Council strikes out "within 300 mm of the ceiling" and substitutes "within 300 mm of a smooth horizontal ceiling".
- 8. In Book I, Division B, in Article 3.2.7.9., Council strikes out Clause (1)(a) and substitutes the following:
 - "a) every elevator serving *storeys* above the *first storey* in a *building* that is more than 18 m high measured between *grade* and the floor level of the top *storey*, other than in a *building* complying with Sentence 3.2.6.1.(2), and every elevator for firefighters in conformance with Sentence (2),".
- 9. In Book I, Division B, Article 3.8.2.1., in Sentence (1), Council strikes out "this Section" and substitutes "Subsections 3.8.2. through 3.8.4.".
- 10. In Book I, Division B, in Article 3.8.5.5., Council strikes out Sentence (1) and substitutes the following:

1) At least one bathroom in an *adaptable dwelling unit* that includes a floor level exceeding 40 m² shall

- a) have a washbasin,
- b) have a toilet,
- c) have either a bathtub, shower, or be configured to accommodate the future installation of a low barrier shower and shall be constructed with
 - i) the addition of structural reinforcement of framed construction to accommodate the subsequent change in load, or the removal or reduction of

the capacity of structural elements to facilitate the future installation of a low barrier shower.

- ii) pre-plumbing of a drain connection the greatest extent permitted by this Code to facilitate the future installation of a low barrier shower where it passes through a concrete floor or floor topping, or
- iii) alternative measures to the satisfaction of the *Chief Building Official* where it can be demonstrated that the future installation of a low barrier shower can be installed without substantial changes to the *building* structure or layout,
- d) be arranged so as to provide a minimum clear floor space of 750 mm by 1200 mm in front of a washbasin, toilet, bathtub or shower required by Clause (c), and
- e) be located on
 - i) the principal floor exceeding 40 m² containing living space with level access to an entry at the adjacent ground level, or
 - ii) a floor provided with features that in the opinion of the *Chief Building Official* can readily be modified to facilitate future use by persons with limited mobility (see Note A-3.8.5.5.(1)).

".

- 11. In Book I, Division B, note to Part 3 A-3.8.3.1.(2), in the title to Figure A-3.8.3.1.(2)(i)-A and Figure A-3.8.3.1.(2)(i)-B, Council strikes out "Signs indicating accessible facilities".
- 12. In Book I, Division B, in the Notes Part 3, Council inserts, in correct numerical order, the following:
 - "A-3.8.3.4.(1) Passenger-Loading Zones. The provision of the VBBL regarding Passenger-Loading Zones are applicable to dedicated spaces for the loading and unloading of passengers from vehicles which may require additional clearances due the use of lifts, or a larger than usual door swing to facilitate accessibility.

Sentence 3.8.3.4.(1) is intended to be applied to space for the standing of a vehicle for the purpose of discharging or taking on passengers – exterior on-site with direct grade level access such as a porte-cochere or covered loading area, or interior within the building floor area, where a bus, accessible passenger directed vehicle, or similar commercial passenger vehicle may be expected to be present. As such, this aligns with the requirements of the Parking By-law, where Passenger Class B or larger loading spaces are required by Section 7, or as otherwise required by the Director of Planning, in consultation with the City Engineer.

Note that the design of vehicular access, ingress and egress routes to and from these loading areas, are required to comply with the appropriate provision of the Parking Bylaw.".

- 13. In Book I, Division B, Article 8.2.1.3., in Sentence (1), Council strikes out "2 m or more from a street, fencing, boarding or barricades" and substitutes "2 m or less from a *street*, fencing, boarding or barricades".
- 14. In Book I, Division B, Article 9.9.6.4., Council adds in correct numerical order, the following:
 - **"6)** Except as *acceptable* to the *Chief Building Official*, overhead garage doors shall not be used a *means of egress* except where designed to swing on a vertical axis.".
- 15. In Book I, Division B, Article 9.10.18.2., in Sentence (1), Council strikes out "Sentences (3) and (4)" and substitutes "Sentences (3), (4) and (5)".
- 16. In Book I, Division B, Article 9.10.20.3., in Sentence (8), Council:
 - (a) strikes out "residential building" and substitutes "single detached house or duplex";
 - (b) strikes out "containing not more than 2 principal dwelling units,"; and
 - (c) strikes out "no less than" and substitutes "not more than".
- 17. In Book I, Division B, Sentence 10.2.1.1.(2), Council strikes out "Chief Building Official" and substitutes "Chief Building Official".
- 18. In Book I, Division B, Sentence 10.2.1.1.(6), Council strikes out "principle" and substitutes "principal".
- 19. In Book I, Division B, Article 10.2.1.2., in Clause (1)(i), Council strikes out "gas-fired fire places" and substitutes "domestic gas-fired fireplace".
- 20. In Book I, Division B, Sentence 10.2.1.5.(2), Council
 - (a) In Subclause (a)(i) after the words "Sentences 10.2.2.15.(1) through (4)" inserts " and (6)", and
 - (b) In Clause (2)(m) adds "and" at the end of the clause.

- 21. In Book I, Division B, Article 10.2.2.10., in Sentence (1), Council strikes out Clause (b) and substitutes:
 - "b) a switch near the principal entrance of each residential *suite* that controls all non highefficiency lighting fixtures within the *suite*, except lights serving corridors, stairs, washrooms, and rooms with no exterior window."
- 22. In Book I, Division B, Article 10.2.2.12., Council strikes out Sentence (1) and substitutes the following:
 - "1) In a *building* required to comply with this Article, water heating appliances shall be electrically operated except as permitted by Sentence (2), and shall comply with
 - a) CSA C191-04, "Performance of electric storage tank water heaters for domestic hot water service", or
 - b) CAN/CSA-C745 "Energy Efficiency of Electric Storage Tank Water Heaters and Heat Pump Water Heaters", or
 - c) CAN/CSA-P.9 Combined space- and water-heating systems.".
- 23. In Book I, Division B, Article 10.2.2.15., in Sentence (6), Council strikes out the last period.
- 24. In Book I, Division B, Sentence 10.2.2.17.(3), Council strikes out Clause (j) and substitutes the following:
 - "j) be located in an *accessible* location within the *dwelling unit*, that can be readily accessed for maintenance, and
 - i) designed and installed to operate with an acceptable level of weather and freeze protection,
 - ii) in a duplex or single detached house and their contained *ancillary residential units*, be within a *conditioned space* and provided with direct access from at least one of the *dwelling units* that it serves, and
 - iii) have a minimum headroom clearance of 2 m with sufficient room to replace or maintain the heat recovery ventilator.".
- 25. In Book I, Division B, Article 10.4.1.1., in Table 10.4.1.1. Council strikes out the following rows:

10.3.1.1. Electrical Service and Capacity

(1)	[F02-OS1.2] [F02-OP1.2]
(2)	[F81-OP1.2]
(3)	[F41-OE1]

and substitutes the following:

"

10.3.1.1. Electrical Service and Capacity				
(1) [F02-OS1.2] [F02-OP1.2]				
(2)	[F41-OE1]			

"

- 26. In Book I, Division B, Note A-10.2.2.10., Council strikes out the first paragraph titled "10.2.2.10.(1)(b) Master Switch." and substitutes the following:
 - "10.2.2.10.(1)(b) Master Switch. Except for residences containing only high efficiency light fixtures (LED, etc.) (other than pot lights), the objective is to require a master switch that will permit non-essential lighting to be turned off when an occupant leaves the premises. As this was only intended to consider residential portions of a building, it is acceptable to consider each portion of the building structure located above the parkade slab constructed to Article 3.2.1.2. on an individual basis given that the cost-effectiveness of such energy saving features would not be as significant for smaller structures with proportionally larger exterior wall and roof surface areas relative to their volume."
- 27. In Book I, Division B, Article 11.2.1.2., in Sentence (3), Council strikes out "Sentence (9) and".
- 28. In Book I, Division B, Article 11.2.1.2., Council strikes out Clause (8)(a) and substitutes the following:
 - "a) the change in *major occupancy* is to a single *suite* of not more than 100 m², and the work does not exceed 5% of the *building area*, or ".
- 29. In Book I, Division B, Sentence 11.2.1.2.(9), in Table 11.2.1.2.-A, Council:

(a) strikes out the title and substitutes the following:

"Table 11.2.1.2.-A Maximum Aggregate Suite Area

Forming part of Sentence 11.2.1.2.(9)"; and

- (b) strikes out note (2) and substitutes "(2) Except as acceptable to the Chief Building Official".
- 30. In Book I, Division B, Sentence 11.2.1.3.(3), in Table 11.2.1.3., Council strikes out the title and substitutes the following:

Table 11.2.1.3.
Sprinkler Installation Determination Where
Dwelling Units are Added

"

Forming part of Sentences 11.2.1.3.(1),(2), and (3)

- "
- 31. In Book I, Division B, Sentence 11.2.1.4.(1), in Table 11.2.1.4.(1)-A, Council strikes out notes (5) and (6) and substitutes the following:
 - "(5) All existing wood frame walls to be anchored to existing concrete foundation walls for seismic resistance.
 - (6) Aggregate increase in floor area less than 25% of the building area (see flow chart #3 of Note A-11.2.1.2).".
- 32. In Book I, Division B, Sentence 11.2.1.4.(1), in Table 11.2.1.4.(1)-B, Council strikes out note (7) and substitutes the following:
 - "(7) Aggregate increase in floor area less than 25% of the building area (see flow chart #3 of Note A-11.2.1.2).".
- 33. In Book I, Division B, Sentence 11.2.1.4.(1), in Table 11.2.1.4.(1)-C, Council strikes out note (6) and substitutes the following:
 - "(6) Aggregate increase in floor area less than 25% of the building area (see flow chart #3 of Note A-11.2.1.2).".

34. In Book I, Division B, Sentence 11.2.1.4.(2), Council strikes out Table 11.2.1.4. and substitutes the following:

"Table 11.2.1.4.(2) Energy Efficiency Upgrade Requirements for Residential Buildings containing not more than Two Principal Dwelling Units

Forming part of Sentence 11.2.1.4.(2)

	EnerGuide Assessment ⁽¹⁾	Air tightness upgrades ⁽²⁾	Attic and Sloped Roof Insulation ⁽³⁾	Electric Space and Hot Water Heating	
Alteration construction (\$) value	9				
\$0.00 to \$19,999	N	N	N	N	
\$20,000 to \$74,999	Y	N	N	N	
\$75,000 to \$249,999	Y ⁽¹⁾	Y	Y	N	
≥\$250,000	Y ⁽¹⁾	Y	Y	Y	
Scope of Work					
Strata Property Conversion (4)	Y	Y	Y	Y	
Relocation	Y	Y	Y	N	

Notes to Table 11.2.1.4.(2):

- (1) An EnerGuide Assessment completed within the last 4 years must be submitted, a postconstruction assessment must also be completed where the cost of construction exceeds \$75,000.
- (2) Where EGH>5 air changes per hour, air sealing is required.
- (3) Where attic insulation <R12 (2.11RSI), increase to R28 (4.93RSI); where attic insulation ≥R12 (2.11RSI), increase to R40 (7.04RSI); Insulation in existing attics shall not exceed R43.7 (7.7RSI). All flat roof and cathedral ceiling insulation shall be upgraded to ≥R14 (2.47RSI).
- ⁽⁴⁾ An *existing building* or parcel converted into 2 or more strata lots.
- 35. In Book I, Division B, Article 11.7.1.3., in Sentence (1), Council strikes out "11.7.1.6." and substitutes "11.7.1.5.".
- 36. In Book I, Division B, Article 11.7.1.5., in Sentence (1), after the words "Except as otherwise required", Council inserts "by Sentence 11.7.1.1.(7), Table 11.2.1.4.(2), or".
- 37. In Book I, Division B, Note A-11.2.1.2., in the second bullet under the subheading "SMALL SUITE" under the heading "REHABILITATION PROJECT TYPE (Flow Chart No. 1)", Council strikes out "Article 3.1.17.1.(1)(c)" and substitutes "Clause 3.1.17.1.(1)(c)".

- 38. In Book I, Division B, Note A-11.2.1.2., in the text under the subheading "Restricted Change of Major Occupancy" under the heading "CHANGE OF MAJOR OCCUPANCY CLASSIFICATION PROJECTS (Flow Chart No. 2)", Council strikes out "Article 11.2.1.2.(10)" and substitutes "Clause 11.2.1.2.(9)(c)".
- 39. In Book I, Division B, Note A-11.2.1.2, in note (1) to Flow Chart No.2, Council strikes out "Article 11.2.1.2.(9) and note" and substitutes "Sentence 11.2.1.2.(9) and Note".
- 40. In Book I, Division B, in Note A-11.2.1.2.(9), Council:
 - (a) strikes out "Article 11.2.1.2.(9)", and substitutes "Sentence 11.2.1.2.(9)"; and
 - (b) strikes out "table A-11.2.1.2.-B and substitutes "Table A-11.2.1.2.-B".
- 41. In Book I, Division B, in Note A-11.6.3.2.(2), Council strikes out the following:

"Fixed term housing or shelters may be consist of temporarily repurposed buildings, or may be constructed as modular factory built structures in accordance with CSA Z240 MH to the extent permitted by Division A (See also note A-1.1.1.1.(3) of Division A) or other regulatory requirements.

The requirements of Sentence 11.6.3.2.(2) and Division C Article 1.6.8.1.(1) require that the term of occupancy be limited. This reflects the potential risk that the form of construction may not be appropriate for permanent use, either as a consequence of the inability to maintain the building due to ongoing use, or due to reduced durability. However, this term may be extended once by the Chief Building Official in accordance with Article 1.6.8.8., provided that it can be shown that the building will be able to support extended use.",

and substitutes:

"Fixed term housing or shelters may be consist of temporarily repurposed buildings, or may be constructed as modular factory built structures in accordance with CSA Z240 MH to the extent permitted by Division A (See also Note A-1.1.1.1.(3) of Division A) or other regulatory requirements.

The requirements of Sentence 11.6.3.2.(2) and Division C Sentence 1.6.8.1.(1) require that the term of occupancy be limited. This reflects the potential risk that the form of construction may not be appropriate for permanent use, either as a consequence of the inability to maintain the building due to ongoing use, or due to reduced durability. However, this term may be extended once by the *Chief Building Official* in accordance

with Article 1.6.8.8., provided that it can be shown that the building will be able to support extended use.".

- 42. In Book II, Division A, Sentence 1.4.1.2.(1), Council adds in correct alphabetical order the following definitions:
 - (a) "Riser means a water distribution pipe that extends through at least one full storey."; and
 - (b) "Press-Connect means a permanent mechanical joint incorporating an elastomeric seal or an elastomeric seal and corrosion resistant grip ring, with the joint made with a pressing tool and jaw or ring that complies with the manufacturer's installation instructions."
- 43. In Book II, Division B, Table 1.3.1.2., Council adds, in correct alphabetical order, the following new rows:

(a)

ANSI/ASME B16.51- Copper and Copper Alloy Press-2021 Connect Pressure Fittings 2.2.7.8.(1)

(b)

ASTM F3226/F3226M- Standard Specification for Metallic Press-Connect Fittings for Piping and Tubing Systems 2.2.7.8.(1)

(c)

CoV Standards of Maintenance By-law⁽⁴⁾ A-2.4.2.4.(2)

(d) "

CoV Street and Traffic By-law⁽⁴⁾ A-2.4.2.4.(2)

"; and

(e)

IAPMO/ANSI/CAN Z1117- 2022	Press Connections	2.2.7.8.(1)
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44. In Book II, Division B, Table 1.3.1.2., Council strikes out the By-law reference for the "IAPMO Water Demand Calculator" and substitutes:

"2.6.3.1.(2) 2.6.3.2.(5) 2.6.3.4.(2) 2.7.6.2.(2)"

- 45. In Book II, Division B, Subsection 2.2.7., Council:
 - (a) renumbers Article 2.2.7.8. as Article 2.2.7.9.; and
 - (b) adds a new Article 2.2.7.8. as follows:

"2.2.7.8. Press-Connect Water Fittings

- 1) Press-Connect fittings for water distribution systems shall conform to
- a) ANSI/ASME B16.51 "Copper and Copper Alloy Press-Connect Pressure Fittings,"
- b) ASTM F3226 "Standard Specification for Metallic Press-Connect Fittings for Piping and Tubing Systems," or
- c) IAPMO/ANSI/CAN Z1117 "Press Connections." ".
- 46. In Book II, Division B, Council strikes out Article 2.4.2.4. and substitutes:

"2.4.2.4. Connections to Storm Drainage Systems

- **1)** Except as provided in Sentence (2), *building* and site drainage shall connect to a *storm drainage system*.
- 2) Building and site drainage need not connect to a storm drainage system if
 - a) on-site rainwater or *storm water* management practices are employed and overflow is connected to a *storm drainage system*, and
 - b) rainwater or *storm water* does not create a hazardous condition or discharge upon or impact other lands or sites. (See Note A-2.4.2.4.(2).)".
- 47. In Book II, Division B, Council strikes out Sentence 2.6.3.1.(2) and substitutes:
 - **"2)** Potable water systems shall be designed, fabricated and installed in accordance with good engineering practice, such as that described in the ASHRAE Handbooks and ASPE Data Books, and for dwelling units, may be sized using the IAPMO Water Demand Calculator. (See Note A-2.6.3.1.(2).)".
- 48. In Book II, Division B, Article 2.6.3.2., Council adds the following new Sentence in the correct numerical order:

- **"5)** Notwithstanding the provisions of Sentences (1) through (4), the determination of hydraulic load is not a requirement for *water distribution systems* in *dwelling units* that have been designed in accordance with the IAPMO Water Demand Calculator."
- 49. In Book II, Division B, Article 2.6.3.4., Council strikes out Sentence (2) and substitutes:
 - **"2)** Water distribution systems shall be sized in conformance with Table 2.6.3.2.-A, except for water distribution systems in dwelling units, which shall be sized either in conformance with Table 2.6.3.2.-A or in accordance with the IAPMO Water Demand Calculator.
- 50. In Book II, Division B, Table 2.8.1.1., Council:
 - (a) strikes out "2.2.7.8. Lead Waste Pipe and Fittings" and substitutes "2.2.7.9. Lead Waste Pipe and Fittings"; and
 - (b) adds above the row "2.2.7.9. Lead Waste Pipe and Fittings", two new rows:

"2.2.7.8. Press-Connect Water Fittings

- (1) [F20-OP5]"
- 51. In Book II, Division C, Sentence 1.5.2.10., Council strikes out "plumbing system" and substitutes "plumbing system".
- 52. In Book II, Division C, Clause 2.2.2.1.(2)(c), Council strikes out "Part 3 or Part 9" and substitutes "Part 3 or Part 9 of Division B of Book I (General) of this By-law".
- 53. In Book II, Division C, Sentence 2.2.3.3.(1), Council strikes out "permit" and substitutes "permit".
- 54. In Book II, Division C, Clauses 2.2.3.4.(1)(a) and (b), Council strikes out "size" wherever it appears and substitutes "size".
- 55. In Book II, Division C, Clause 2.2.7.1.(1)(a), Council strikes out "Part 3 of Division B" and substitutes "Part 3 of Division B of Book I (General) of this By-law".
- 56. In Book II, Division C, Sentence 2.2.7.1.(1), Council strikes out "Part 9 of Division B" wherever it appears and substitutes "Part 9 of Division B of Book I (General) of this By-law".
- 57. In Book II, Division C, Clause 2.2.7.1.(1)(b), Council strikes out "Article 1.3.3.4. of Division A" and substitutes "Article 1.3.3.4. of Division A of Book I (General) of this By-law".

- 58. In Book II, Division C, Clause 2.2.9.1.(1)(a), Council strikes out "(See A-11.2.1.2. of Div C)" and substitutes "(See Note A-11.2.1.2. of Division B of Book I (General) of this Bylaw.)".
- 59. In Book II, Division B, in the Notes to Part 2, Council adds in correct numeric order the following new note:
 - "Note A-2.4.2.4.(2). Water Flow and Hazardous Conditions. Refer to the *Street and Traffic By-law* and *Standards of Maintenance By-law* for restrictions on water flow to streets, sidewalks, driveways, stairways and landings, and for prohibitions on ponding or entrance of water into a *building*."
- 60. In Book I and II, Division C, Article 1.6.2.7., Council inserts the following new Sentence:
 - **"2)** Where fees have been submitted to the *City* as part of an application for an alternative solution or an *operating permit*, and the *Chief Building Official* approves, the Director of Finance may refund a portion of the fees related to the application, after deduction of the administrative fee set out in the Schedule of Fees at the end of this Part.".
- 61. In Books I and II, Division C, in the Schedule of Fees, Council:
 - (a) in "Part A Building", in Section 1, strikes out subsection (f);
 - (b) in "Part A Building", in Section 2, adds the following new subsection in correct alphabetical order:
 - "(r) For each refund issued pursuant to Sentence 1.6.2.7.(2) of Book I, Division C, and Book II, Division C the administrative fee to be deducted is ... \$90.10"; and
 - (c) strikes out the part titled "Part D Mechanical Permits", and substitutes the following:

PART D - MECHANICAL PERMITS

Every applicant for a Mechanical PERMIT shall, at the time of application, pay to the City the fees set out hereunder:

For a MECHANICAL PERMIT for a single private residential deck, patio, or balcony, in a DWELLING UNIT

For a	MECHANICAL PERMIT in a	a 1-3 storey BUILDI	NG	\$367.50 plus \$13.00 per 1kW
For a	MECHANICAL PERMIT in a	a BUILDING of 4 sto	oreys and above	\$840.00 plus \$105 for each electric heat pump installation above 6 total heat pump units
62.	In Book I, Division B, Table	e T-10.4.1.1., at the	end of the table, (Council adds the following
	" 10.4.1.2. Low Carbon M (1) [F101-OE2.2]	aterials and Const	ruction	
63.	A decision by a court that that part from this by-law,	• •	•	
64.	This by-law is to come into section 62 will come into enactment of by-law #133	o force and take efforce and take effo	ect on the date of	its enactment except that
ENAC	CTED by Council this	day of		, 2023
				Mayor
				City Clerk
				Only Oldin

APPENDIX B ELECTRICAL BY-LAW AMENDMENTS

DRAFT By-law to amend the Electrical By-law No. 5563 Regarding Alignment with Changes in the Provincial Electrical Safety Regulations and Other Miscellaneous Amendments

Note: A By-law will be prepared generally in accordance with the provisions listed below, subject to change and refinement prior to posting.

- 1. This by-law amends the indicated provisions and Schedule of Electrical By-law No. 5563.
- In section 7.1, Council strikes out the words "Canadian Electrical Code, Part I, 24th Edition, Safety Standard for Electrical Installations, Canadian Standards Association Standard C22.1-2018", and substitutes "Canadian Electrical Code, Part I, 25th Edition, Safety Standard for Electrical Installations, Canadian Standards Association Standard C22.1:21".
- 3. In section 7.3.5, Council strikes out subsection (b) and substitutes the following
 - "(b) notwithstanding subsection (a), in a new residential building, a combination panelboard must be provided with a combination subpanel installed in any smaller dwelling unit within a principal dwelling unit;".
- 4. Council strikes out section 7.3.7 and substitutes the following:
 - "7.3.7 Electric Vehicle Charging

Where required by the Building By-law or the Parking By-law, or both, an owner shall comply with the requirements governing electric vehicle charging in that By-law, except where in the opinion of the City Electrician such compliance creates an electrical safety hazard.".

5. A decision by a court that any part of this by-law is illegal, void, or unenforceable severs that part from this by-law, and is not to affect the balance of this by-law.

6.	This by-law is to come int	o force and take eπ	ect on the date of its enactment.	
ENACT	TED by Council this	day of		, 2023
				 Mayor
				City Clerk