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Summary

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Part 2 – LAWS AND REGULATIONS

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Contents

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1ST SESSION

43RD LEGISLATURE

Québec, 27 March 2024

Office of the Lieutenant-Governor

Québec, 27 March 2024

This day, at five past four o'clock in the afternoon, Her Excellency the Lieutenant-Governor was pleased to assent to the following bill:

46 An Act to improve the protection of children receiving educational childcare services

To this bill the Royal assent was affixed by Her Excellency the Lieutenant-Governor.

Québec Official Publisher

PROVINCE OF QUÉBEC

1ST SESSION

43RD LEGISLATURE

QUÉBEC, 9 APRIL 2024

OFFICE OF THE LIEUTENANT-GOVERNOR

Québec, 9 April 2024

This day, at five past four o'clock in the afternoon, Her Excellency the Lieutenant-Governor was pleased to assent to the following bill:

47 An Act to reinforce the protection of students, including with regard to acts of sexual violence (*modified title*)

To this bill the Royal assent was affixed by Her Excellency the Lieutenant-Governor.

Québec Official Publisher

NATIONAL ASSEMBLY OF QUÉBEC

FIRST SESSION FORTY-THIRD LEGISLATURE

Bill 46
(2024, chapter 6)

An Act to improve the protection of children receiving educational childcare services

Introduced 7 December 2023
Passed in principle 8 February 2024
Passed 26 March 2024
Assented to 27 March 2024

Québec Official Publisher
2024

EXPLANATORY NOTES

This Act mainly amends the Educational Childcare Act to improve the protection of children receiving childcare services covered by that Act.

To that end, the Act revises the process for investigations establishing that no impediment exists applicable in the field of educational childcare services. In addition to specifying the persons who must be investigated and those who may apply for an investigation, the Act specifies the roles of the various stakeholders in the process, in particular the role of police forces, the information they are called on to collect or assess and the documents they may issue.

The Act establishes new potential impediments, such as the impediment for permit applicants or permit holders, or for one of their directors or shareholders or their chief officer having exhibited behaviour that could reasonably cause one to fear that the person does not have the required integrity to manage subsidies paid out of public funds, in the case where the childcare services are subsidized.

In addition, the Act prescribes specific standards applicable to investigations establishing that no impediment exists in respect of persons who have been residing in Canada for less than one year or who have resided outside Canada for one year or more, mainly with regard to the information that they must provide. It provides for the establishment, by the Minister, of the Comité d'examen des empêchements, whose responsibility is to provide its opinion, in certain cases, as to whether an impediment exists and to communicate it to the third person responsible for assessing the content of an attestation of a potential impediment. The Act prescribes the period of validity of attestations establishing that no impediment exists and determines the situations in which a new investigation is required or conditions on which a person may be exempted from a new investigation.

Furthermore, the Act requires every permit holder to immediately suspend a staff member and every coordinating office to suspend a home educational childcare provider's recognition in certain situations where the health, safety or well-being of the children could be seriously compromised. It also provides that any person who is called upon to work in the facility of a permit holder and who has

been the subject of a suspension is required, in certain cases, to declare the suspension. In addition, the Act introduces an obligation, for staff members of an educational childcare provider, to refrain from compromising children's health, safety or well-being.

The Act allows the Minister to refuse to issue a childcare centre permit or a day care centre permit, to suspend or revoke the permit or to refuse to renew it if the permit applicant or permit holder, or a director or shareholder of the applicant or holder, is likely lending their name to a person whose application for a permit would be refused.

Likewise, the Act allows the Minister to suspend, revoke or refuse to renew a permit if the permit holder fails to inform the Minister that they, or a director or shareholder of the permit holder, are charged with or have been found guilty of a new criminal offence, makes a false declaration with a view to being granted a subsidy or acts in such a way as to falsely suggest that the childcare services they provide are subsidized. It also provides for the revocation by operation of law of a permit if a permit holder provides childcare services while their permit is suspended. In addition, the Act introduces rules concerning the recognition of a home educational childcare provider.

Moreover, the Act allows the evacuation of children receiving educational childcare services from all or part of a permit holder's facility or of a residence where childcare is provided if the health, safety or well-being of the children could be seriously compromised, and specifies that the evacuation order suspends the permit or the recognition by operation of law if the order relates to the whole facility or, as applicable, to the whole residence. The Act also introduces measures that protect persons against reprisals, where those persons have filed a complaint with the Minister or with a coordinating office or have cooperated in an inspection or an investigation conducted by the Minister.

The Act allows children of school age to be present in an educational childcare provider's centre in certain circumstances, more particularly in certain situations where educational childcare services are provided according to an atypical schedule, if the children concerned are the home educational childcare provider's grandchildren or their assistant's grandchildren or if an agreement is entered into regarding certain children of an Indigenous community who are not offered childcare at school.

The Act contains various measures mainly to allow the Government to make a regulation governing mandatory training activities for the staff members of a permit holder and for home educational childcare providers, to authorize certain additional situations in which occasional childcare may be provided by non-profit organizations, to review the distribution of the provenance of the members who sit, in their capacity as parents, on the board of directors of a childcare centre that is accredited as a coordinating office as well as to allow the Minister to establish various standard agreement models for childcare services, in particular in situations where the services are provided on a sporadic or irregular basis.

Lastly, the Act introduces amendments to penal provisions and contains consequential and transitional provisions.

LEGISLATION AMENDED BY THIS ACT:

– Act respecting labour standards (chapter N-1.1);

– Educational Childcare Act (chapter S-4.1.1);

– Act to amend the Educational Childcare Act to improve access to the educational childcare services network and complete its development (2022, chapter 9).

REGULATIONS AMENDED BY THIS ACT:

– Regulation respecting the application of the Consumer Protection Act (chapter P-40.1, r. 3);

– Educational Childcare Regulation (chapter S-4.1.1, r. 2).

Bill 46

AN ACT TO IMPROVE THE PROTECTION OF CHILDREN RECEIVING EDUCATIONAL CHILDCARE SERVICES

THE PARLIAMENT OF QUÉBEC ENACTS AS FOLLOWS:

EDUCATIONAL CHILDCARE ACT

1. Section 2.2 of the Educational Childcare Act (chapter S-4.1.1) is amended by inserting ", except in a situation referred to in section 53.1 or 101.2.1" at the end.

2. The Act is amended by inserting the following section after section 5.2:

"**5.3.** A staff member of an educational childcare provider may not compromise, by an act or omission, the health, safety or well-being of the children to whom childcare is provided.

Among other things, a staff member may not apply degrading or abusive measures, use exaggerated punishment, denigration or threats, or employ abusive or disparaging language that could humiliate or frighten a child or undermine the child's dignity or self-esteem."

3. Section 6 of the Act is amended by replacing subparagraphs 3 and 4 of the second paragraph by the following subparagraphs:

"(3) non-profit community organizations that, incidentally to their mission, provide occasional childcare in situations other than those referred to in subparagraph 4;

"(4) non-profit legal persons that provide, in an educational institution or, within the scope of an agreement entered into with the institution, near such an institution, occasional childcare exclusively to children of students attending that institution while the latter are pursuing their studies and where the latter can make themselves available if needed; or".

4. Section 8 of the Act is amended by inserting "and, if applicable, in section 101.2.1" at the end of paragraph 1.2.

5. Section 11 of the Act is amended by inserting "and, if applicable, in section 101.2.1" at the end of subparagraph 1.1.1 of the first paragraph.

6. Section 16.2 of the Act is amended, in the first paragraph,

(1) by replacing "may authorize, for a specified period," by "may, for a specified period, authorize";

(2) by replacing "ou à le" in the French text by "ou le".

7. Section 26 of the Act is amended

(1) by replacing paragraphs 2 and 3 by the following paragraph:

"(2) the applicant or a director or a shareholder of the applicant does not hold an attestation establishing that no impediment exists issued under Division I of Chapter VI.1;";

(2) by replacing "convicted" in paragraph 4 by "found guilty";

(3) by striking out "under paragraph 4 or 5 of section 28" in paragraph 5;

(4) by replacing "convicted" in paragraph 5.1 by "found guilty";

(5) by adding the following paragraph at the end:

"(7) the Minister considers that a reasonable person would conclude that the applicant or a director or a shareholder of the applicant is lending their name to a person whose application for a permit would be refused."

8. Section 27 of the Act is repealed.

9. Section 28 of the Act is amended

(1) by replacing paragraphs 3 and 4 by the following paragraphs:

"(3) the permit holder fails to establish, with respect to themselves or to a director or a shareholder of the permit holder, that no impediment exists under Division I of Chapter VI.1;

"(3.1) the permit holder fails or neglects to inform the Minister that, since the last time the permit holder was issued an attestation establishing that no impediment exists, the permit holder has been charged with or found guilty of a criminal offence related to the elements referred to in the second paragraph of section 81.2.4 or that a director or shareholder of the permit holder has notified the latter that they have been so charged or found guilty;

"(4) the permit holder makes a false declaration or distorts a material fact in the application for the issue or renewal of a permit, in a document required by the Minister, when communicating information to the Minister or with a view to being granted a subsidy by the Minister.

"(4.1) the permit holder acts in such a way as to falsely suggest that the childcare services the permit holder provides are subsidized;";

(2) by inserting "or 74 or with an evacuation order made under section 81.0.3" at the end of paragraph 7;

(3) by adding the following at the end:

"(9) the permit holder fails to establish that they, or a director or a shareholder of the permit holder are not lending their name to a person whose application for a permit would be refused; or

"(10) the permit holder fails to show that a person who is selected for the office of chief officer of a childcare centre or day care centre or who holds that office has the integrity required to manage subsidies paid out of public funds, where the educational childcare services provided are subsidized.

The Minister may attach conditions to the suspension of a permit as well as time limits to be complied with to have the suspension lifted.

In the case of a childcare centre permit, the suspension, revocation or refusal to renew the permit may concern one or more facilities indicated on the permit."

10. The Act is amended by inserting the following section after section 28.1:

"**28.2.** A permit is revoked by operation of law if the permit holder directly or indirectly provides childcare services while their permit is suspended."

11. Section 29 of the Act is replaced by the following section:

"**29.** Before refusing to issue or to renew a permit or suspending or revoking a permit, the Minister must notify in writing the prior notice prescribed by section 5 of the Act respecting administrative justice (chapter J-3) to the permit applicant or permit holder and give the applicant or holder at least 15 days to submit observations and to produce documents to complete the record. The Minister's decision, with reasons, is notified to the applicant or holder in writing.

The Minister may, however, if a decision is made in urgent circumstances or to prevent serious or irreparable injury or damage to persons, suspend a permit without having to comply with the prior obligations set out in the first paragraph. In such situations, the permit holder may, within 15 days from the suspension, submit observations and produce documents to complete the record in order to allow the Minister to review the decision."

12. Section 40.2 of the Act is amended

(1) by replacing paragraph 2 by the following paragraph:

"(2) at least 2/3 of the members are parents who use the childcare provided by the childcare centre or by a home educational childcare provider that the childcare centre has recognized;";

(2) by adding the following paragraph at the end:

"Among the members referred to in subparagraph 2 of the first paragraph, at least one must be a parent who uses the childcare provided by the childcare centre and another must be a parent who uses the home educational childcare."

13. The Act is amended by inserting the following section after section 42:

"**42.0.1.** If a home educational childcare coordinating office has reasonable grounds to believe that the health, safety or well-being of children receiving childcare from a home educational childcare provider in a residence is or could be seriously compromised, in particular if the coordinating office considers that the state of the residence or part of the residence constitutes an imminent danger for the children, the coordinating office may, in addition to any other measure that may be taken by the coordinating office or by the Minister and after having notified the parents, order the evacuation of the children receiving childcare from all or part of the residence.

A coordinating office that orders such an evacuation notifies it in writing to the home educational childcare provider who may, within 15 days from the notification, submit observations and produce documents to complete their record in order to allow the coordinating office to review the evacuation order.

If the evacuation is ordered for the whole residence, the recognition of the home educational childcare provider is suspended by operation of law."

14. Section 53.1 of the Act, amended by section 32 of chapter 9 of the statutes of 2022, is replaced by the following section:

"**53.1.** If present while childcare is being provided, children under nine years of age who are the home educational childcare provider's own children, children of the provider's assistant, if applicable, as well as children under nine years of age who ordinarily live with the provider or with the assistant are included, for the purpose of the calculation of the number of children to whom the provider and assistant may provide childcare under sections 52 and 53. The same applies with respect to their grandchildren.

However, the children and grandchildren of the persons referred to in the first paragraph are not included for the purpose of that calculation if the children are present in the following circumstances:

(1) the child is present only outside school hours, on days on which the child receives preschool education services or elementary school instructional services provided for by the Education Act (chapter I-13.3); or

(2) the child participates, in a place other than in the residence, in an activity beginning in the morning and continuing in the afternoon and is present only outside the hours of that activity.

For the purposes of this section, "grandchild" means the home educational childcare provider's own grandchild or their assistant's grandchild, the grandchild of a person ordinarily living with the provider or with the assistant as well as the child of a person who ordinarily lives with their child in a place other than the residence where the childcare services are provided."

15. Section 66 of the Act is amended by replacing both "120" and "90" in the second paragraph by "180".

16. The Act is amended by inserting the following section before section 81.1:

"**81.0.3.** If an inspector or an investigator has reasonable grounds to believe that the health, safety or well-being of children receiving childcare from a permit holder in a facility is or could be seriously compromised, in particular if the inspector or investigator considers that the state of a facility or of part of a facility constitutes an imminent danger for the children, the inspector or the investigator may, in addition to any other measure that may be taken by the inspector or the investigator or by the Minister and after having notified the parents, order the evacuation of the children from all or part of the facility.

An inspector or an investigator who orders an evacuation in accordance with the first paragraph must notify the order in writing to the permit holder who may, within 15 days from the notification, submit observations and produce documents to complete the record in order to allow the Minister to review the order.

If the evacuation is ordered for the whole facility, the permit holder's permit is suspended by operation of law for that facility."

17. The Act is amended by inserting the following chapter after section 81.2:

"**CHAPTER VI.1**

"PREVENTION MEASURES FOR THE SAFETY OF CHILDREN

"**DIVISION I**

"INVESTIGATION ESTABLISHING THAT NO IMPEDIMENT EXISTS

"§1. — *Investigation*

"**81.2.1.** The following persons must be the subject of an investigation establishing that no impediment exists:

(1) a permit applicant or a permit holder, in the case of a natural person;

(2) a director or a shareholder of a permit applicant or of a permit holder;

(3) a person of full age who works in a permit holder's facility while childcare is being provided;

(4) a trainee or a volunteer who is of full age and who is regularly present in a permit holder's facility while childcare is being provided;

(5) a person who regularly transports children on behalf of a permit holder;

(6) a person applying for recognition or who is recognized as a home educational childcare provider;

(7) a person of full age living in a private residence where childcare is, or is expected to be, provided by a person referred to in paragraph 6;

(8) a trainee or a volunteer who is of full age and who is regularly present in a residence where childcare is provided by a home educational childcare provider, as well as the latter's assistant or occasional replacement;

(9) a staff member of a home educational childcare coordinating office whose function is to manage the office, to recognize or to monitor home educational childcare providers, or to provide technical and educational support to the home educational childcare providers recognized by that coordinating office; and

(10) a director of a home educational childcare coordinating office, where that coordinating office does not hold a childcare centre permit.

"**81.2.2.** The investigation establishing that no impediment exists must be conducted by a Québec police force.

The purpose of the investigation is to determine whether information exists that could establish the existence of an impediment.

An application for an investigation is made, as applicable,

(1) by a person referred to in paragraph 1 of section 81.2.1, for an investigation establishing that no impediment exists regarding that person personally;

(2) by a permit applicant or a permit holder, for an investigation establishing that no impediment exists regarding any person referred to in paragraphs 2 to 5 of section 81.2.1, unless that person is part of the staff provided by a legal person providing replacement childcare staff;

(3) by a home educational childcare coordinating office, for an investigation establishing that no impediment exists regarding any person referred to in paragraphs 6 to 10 of section 81.2.1; or

(4) by a legal person providing replacement childcare staff members, for an investigation establishing that no impediment exists regarding the staff it provides to a permit holder.

The application made to the police force must be accompanied by the written consent of the person being investigated to having all the information specified in the second paragraph of section 81.2.4 investigated and to having the results of the investigation communicated in accordance with section 81.2.5.

An educational childcare provider, a coordinating office or a permit applicant may not cause a staff member or an aspiring staff member to pay the fees for the investigation, whether directly or indirectly.

"**81.2.3.** In this Act, unless the context indicates otherwise, the following constitute an impediment:

(1) the fact that the person exhibits or has exhibited behaviour that could reasonably pose a threat for the physical or emotional safety of the children to whom the person proposes to provide childcare or, as applicable, among whom the person wants to carry out a role, a function or work;

(2) the fact that the person is charged with or has been found guilty of a criminal offence related to the abilities and conduct required to operate a childcare centre or a day care centre or to provide home educational childcare services or, as applicable, to carry out a role, a function or work among children to whom childcare is provided;

(3) the fact that the person is the subject of a court order that subsists against the person and that is related to the abilities and conduct required to operate a childcare centre, a day care centre or, as applicable, to carry out a role, a function or work among children to whom childcare is provided; and

(4) the fact that the person exhibits or has exhibited behaviour that could reasonably cause one to fear that the person does not have the required integrity to manage subsidies paid out of public funds.

Subparagraph 4 of the first paragraph applies only to a permit applicant or permit holder whose childcare services are subsidized, to a director or shareholder of such an applicant or holder, to a director of a coordinating office that does not hold a childcare centre permit or to a person who is selected for or who holds the office of chief officer of such a coordinating office, of a childcare centre or of a day care centre whose childcare services are subsidized.

"**81.2.4.** Every Québec police force is required to conduct the investigations establishing that no impediment exists applied for.

The verifications carried out by the police force must be concerned with any sexual misconduct, failure to provide necessities of life, criminal operation of a motor vehicle, violent behaviour, criminal negligence, fraud, theft, arson and drug- or narcotic-related offence. However, they are to exclude any criminal offence other than the offences listed in Schedule 2 to the Criminal Records Act (Revised Statutes of Canada, 1985, chapter C-47), for which the person has obtained a pardon.

"**81.2.5.** If the verifications carried out in the databases available to the police force do not reveal any information that could establish the existence of an impediment, the police force issues an attestation establishing that no impediment exists to the person being investigated and sends a copy to the person who applied for the investigation.

If the verifications do reveal such information, the police force issues an attestation of a potential impediment to the person being investigated. The attestation must state the information that is needed to assess whether or not an impediment exists.

"**81.2.6.** A person referred to in paragraphs 1 to 6 or 8 to 10 of section 81.2.1 to whom a police force issues an attestation of a potential impediment must decide whether they wish to continue the investigation process. If so, the person must send the attestation of a potential impediment to the third person designated by section 81.2.8 and attach to the attestation, if the person considers it necessary, any observations or any document.

"**81.2.7.** A person referred to in paragraph 7 of section 81.2.1 to whom a police force issues an attestation of a potential impediment must decide whether they consent to the police force communicating it to the person who resides with them and who has applied for recognition or who is recognized as a home educational childcare provider.

If such is the case, the latter must then decide whether they wish to continue the investigation process. If so, with the consent of the person concerned by the attestation of a potential impediment, the person who resides with the latter and who has applied for recognition or who is recognized as a home educational

childcare provider must send the attestation to the third person designated by section 81.2.8 and attach to the attestation, if the person considers it necessary, any observations or any document.

"**81.2.8.** The content of an attestation of a potential impediment must be assessed by one of the following third persons:

(1) the Minister, after having obtained the opinion of the Comité d'examen des empêchements established under section 81.2.26, for an attestation concerning a person referred to in paragraph 1, 2 or 10 of section 81.2.1 and for an attestation issued following an application for an investigation establishing that no impediment exists made by a legal person providing replacement childcare staff;

(2) a permit applicant or a permit holder, for an attestation concerning a person referred to in paragraph 3, 4 or 5 of section 81.2.1, after having obtained the opinion of the Comité d'examen des empêchements if the attestation concerns a person who is selected for the office of chief officer of a childcare centre or day care centre or who holds that office; or

(3) a coordinating office, for an attestation concerning a person referred to in paragraphs 6 to 9 of section 81.2.1, after having obtained the opinion of the Comité d'examen des empêchements if the attestation concerns a person who is selected for the office of chief officer of the coordinating office or who holds that office.

Despite subparagraphs 2 and 3 of the first paragraph, every attestation is to be assessed by the Minister, after having obtained the opinion of the Comité d'examen des empêchements, where the person concerned by the attestation of a potential impediment is a person related, within the meaning of subparagraph *a* of paragraph 2 of section 3, to any natural person otherwise called upon to assess the content of the attestation.

"**81.2.9.** The third person to whom an attestation of a potential impediment is sent must, after having obtained the opinion of the Comité d'examen des empêchements where section 81.2.8 so provides and taking into account any observations and any document attached to the attestation, assess the attestation's content and determine whether an impediment exists.

If the third person determines that an impediment exists, the third person issues a notice of impediment to the person concerned by the attestation.

Otherwise, the third person issues an attestation establishing that no impediment exists to the person concerned by the attestation.

If the attestation concerns a person who is selected for the office of chief officer of a coordinating office that does not hold a childcare centre permit or of a childcare centre or a day care centre, or who holds that office, the third person responsible for assessing the content of the attestation must inform the

Minister in writing and without delay of their decision to issue an attestation in accordance with the third paragraph and must send the Minister the reasons for the decision as well as a copy of the committee's opinion.

Any notice of impediment or any attestation establishing that no impediment exists issued under this section is to be communicated in writing to the person concerned by the attestation. A copy is also communicated to the person who applied for the investigation or is kept by that person if they assessed the attestation themselves.

The issue of any notice or any attestation by a permit applicant, a permit holder or a coordinating office under this section must first be authorized by resolution of the board of directors.

"§2. — *Responsibilities*

"**81.2.10.** The permit holder must,

(1) if the permit holder is a natural person, at all times hold a valid attestation establishing that no impediment exists; and

(2) ensure that the persons referred to in paragraphs 2 to 5 of section 81.2.1 at all times hold a valid attestation establishing that no impediment exists.

The same applies to a person who is recognized as a home educational childcare provider with regard to the persons referred to in paragraphs 7 and 8 of section 81.2.1 and to a coordinating office with regard to the persons referred to in paragraphs 6, 9 and 10 of section 81.2.1.

"§3. — *Validity of attestations establishing that no impediment exists, and new investigation*

"**81.2.11.** An attestation establishing that no impediment exists is valid for a period of three years after being issued, on the conditions set out in section 81.2.12.

A new application for an investigation, made at least three months before the expiry of an attestation establishing that no impediment exists, extends the period of validity of the latter as long as a new attestation has not been issued.

Sections 81.2.1 to 81.2.9 apply to a new application for an investigation, with the necessary modifications.

The issue of a notice of impediment puts an end to the validity of any attestation establishing that no impediment exists.

"**81.2.12.** Subject to section 81.2.16, an attestation establishing that no impediment exists is valid only so that the attestation holder may, as applicable,

(1) hold a permit or be recognized as a home educational childcare provider following an application made, as applicable, under subparagraph 1 or 3 of the third paragraph of section 81.2.2;

(2) carry out a role, a function or work for the same permit applicant, the same educational childcare provider or the same coordinating office, following an application for an investigation concerning the attestation holder made under subparagraphs 2 and 3 of the third paragraph of section 81.2.2;

(3) be in the presence of the children received in the residence of the home educational childcare provider in which the attestation holder lives following an application for an investigation concerning the attestation holder made under subparagraph 3 of the third paragraph of section 81.2.2; or

(4) act as staff member in any permit holder's centre within the scope of a relationship between the latter and a legal person providing replacement childcare staff members that has made an application for an investigation concerning the attestation holder under subparagraph 4 of the third paragraph of section 81.2.2.

Despite subparagraph 2 of the first paragraph, if the holder of an attestation establishing that no impediment exists is selected for the office of chief officer of a childcare centre, a day care centre whose childcare services are subsidized or a coordinating office that does not hold a childcare centre permit, but the attestation holder's attestation was issued for the exercise of a role, a function or work other than that of chief officer, that attestation remains valid only if the attestation holder provides a sworn statement indicating that, since the attestation was issued, the attestation holder has not been charged with or found guilty of a criminal offence related to the elements referred to in the second paragraph of section 81.2.4 and if the conditions set out in either of the following paragraphs are met:

(1) the attestation that the attestation holder already holds was issued by a police force; or

(2) the attestation that the attestation holder already holds was issued under section 81.2.9 and the attestation of a potential impediment whose content assessment led to the issue of that attestation has been sent to the third person designated, according to section 81.2.8, as being responsible for assessing the content of an attestation of a potential impediment concerning a person who is selected for the office of chief officer, and that third person has determined that no impediment exists.

"**81.2.13.** Despite section 81.2.10, when there is a change of director, the permit applicant, the permit holder or the coordinating office that does not hold a childcare centre permit has 10 days from the day of the change to apply for

an investigation establishing that no impediment exists in respect of the director in accordance with section 81.2.2. The new director is then deemed to be the holder of an attestation establishing that no impediment exists until such an attestation or a notice of impediment, as applicable, is issued in respect of the new director.

"**81.2.14.** The holder of an attestation establishing that no impediment exists who has been charged with or found guilty of a criminal offence related to the elements referred to in the second paragraph of section 81.2.4 must immediately notify the person who may apply for an investigation establishing that no impediment exists in respect of the attestation holder in accordance with section 81.2.2. If the holder of an attestation establishing that no impediment exists is a permit applicant or a permit holder, they must immediately inform the Minister of that fact.

The permit applicant, permit holder or coordinating office that does not hold a childcare centre permit must also immediately inform the Minister of any notice given to them under the first paragraph by one of their directors or shareholders, if applicable.

"**81.2.15.** The Minister may require that a new application for an investigation establishing that no impediment exists be made in accordance with sections 81.2.1 to 81.2.9 for any holder of an attestation establishing that no impediment exists, where the Minister is informed of a change relating to the information that could establish the existence of an impediment regarding the attestation holder. Any person referred to in section 81.2.2 may do the same for the holder of an attestation establishing that no impediment exists in respect of whom the person may make an application for an investigation in accordance with that section.

Failure of the holder of an attestation establishing that no impediment exists to follow up on an application made under the first paragraph within the time indicated by the Minister or by the person who may make an application for an investigation in respect of the attestation holder puts an end to the validity of the attestation establishing that no impediment exists.

"§4. — *Persons exempt from an investigation*

"**81.2.16.** Despite section 81.2.12, an educational childcare provider may exempt a person referred to in paragraph 3, 4 or 8 of section 81.2.1 from being the subject of a new investigation establishing that no impediment exists, on the following conditions:

(1) the person holds an attestation establishing that no impediment exists issued in the last three years; and

(2) the person provides a sworn statement indicating that, since the attestation was issued, the person has not been charged with or found guilty of a criminal offence related to the elements referred to in the second paragraph

of section 81.2.4 or has not been suspended or dismissed by an educational childcare provider.

"**81.2.17.** When a minor works or is regularly present as a trainee or volunteer while childcare is being provided in a permit holder's facility or in a residence where childcare is provided, the permit holder or the home educational childcare provider must ensure that either of the following requirements is met:

(1) the minor, when in the presence of children receiving childcare, is accompanied at all times by a person of full age who holds an attestation establishing that no impediment exists; or

(2) the minor is the holder of a document, that the minor carries with them when present in the facility or in the residence, attesting that verifications carried out in the databases available to a police force do not reveal any information related to the elements listed in the second paragraph of section 81.2.4 concerning the minor.

The document referred to in subparagraph 2 of the first paragraph must have been issued two years earlier or less by a police force at the request of the educational institution that the minor attends or at the request of the permit applicant or permit holder or of the home educational childcare coordinating office. The minor who holds that document, and who is charged with or found guilty of a criminal offence related to the elements referred to in the second paragraph of section 81.2.4, must immediately notify the permit holder or the home educational childcare provider of that fact.

A person referred to in the first and second paragraphs may, on the same conditions and despite any provision to the contrary, continue to work or be regularly present as a trainee or volunteer in the facility of a permit holder or in the residence where childcare is provided as of the date of their eighteenth birthday if an application for an investigation establishing that no impediment exists concerning the person was made three months or less before that date, until the process referred to in sections 81.2.1 to 81.2.9 has been completed. In such a case, the investigation must be conducted by the police force after the person's eighteenth birthday.

"§5. — *Persons who have been residing in Canada for less than one year*

"**81.2.18.** The investigation establishing that no impediment exists in respect of a person referred to in section 81.2.1 who has been residing in Canada for less than one year is governed by this subdivision.

"**81.2.19.** The investigation is applied for by the person who may make an application for an investigation in accordance with the third paragraph of section 81.2.2. It consists in the assessment of the content of a sworn statement provided by the person being investigated, to determine whether an impediment exists.

The statement referred to in the first paragraph

(1) contains the information concerning any behaviour the person being investigated has exhibited in Canada or abroad, any criminal offence the person has been charged with or found guilty of in Canada or abroad and any court order that subsists against the person in Canada or abroad that could establish the existence of an impediment; and

(2) addresses all the elements listed in the first sentence of the second paragraph of section 81.2.4.

"**81.2.20.** In the case where the statement contains no information that would make it possible to establish the existence of an impediment, the person who applied for the investigation issues an attestation establishing that no impediment exists to the person who was investigated and keeps a copy of it.

"**81.2.21.** In the case where the statement contains information that could establish the existence of an impediment, sections 81.2.8 and 81.2.9 apply, with the necessary modifications and subject to the second paragraph.

With the consent of the person being investigated, a permit applicant, a permit holder or a coordinating office may, even where section 81.2.8 does not provide for it, ask the Comité d'examen des empêchements to examine the information contained in the statement and give them its opinion as to whether an impediment exists.

"**81.2.22.** An attestation establishing that no impediment exists issued under this subdivision is valid until the person concerned by the attestation has resided in Canada for one year.

An application for an investigation made in accordance with the process provided for in sections 81.2.1 to 81.2.9 during the month preceding the expiry of an attestation establishing that no impediment exists issued in accordance with this subdivision extends the period of validity of the attestation until a new attestation is issued. However, the issue of a notice of impediment puts an end to the validity of any attestation establishing that no impediment exists.

Section 81.2.12 applies, with the necessary modifications, to the validity of that attestation.

"**81.2.23.** The Minister may require that a new application for an investigation establishing that no impediment exists be made, in respect of a person who is the holder of an attestation establishing that no impediment exists issued in accordance with the process provided for in this subdivision, following that process or the process provided for in sections 81.2.1 to 81.2.9, if the Minister is informed of a change relating to the information that could establish the existence of an impediment with respect to the attestation holder.

Any person referred to in section 81.2.19 may do the same with respect to the holder of an attestation establishing that no impediment exists in respect of whom the person may make an application for an investigation in accordance with that section.

Failure of the holder of an attestation establishing that no impediment exists to follow up on an application made under the first paragraph within the time indicated by the Minister or by the person who may make an application in respect of the attestation holder puts an end to the validity of the attestation establishing that no impediment exists.

"**81.2.24.** Sections 81.2.10, 81.2.12 to 81.2.14 and 81.2.17 apply in the situations and to the persons referred to in this subdivision, with the necessary modifications.

"§6. — *Persons having resided outside Canada for one year or more*

"**81.2.25.** Any person referred to in section 81.2.1 having resided outside Canada for a continuous period of one year or more since the date of their eighteenth birthday and who is not referred to in subdivision 5 must, in addition to complying with the provisions of subdivisions 1 to 4 that apply to the person, make a sworn statement

(1) containing the information concerning any behaviour the person exhibited abroad, any criminal offence the person was charged with or found guilty of abroad and any court order subsisting against the person abroad that could establish the existence of an impediment; and

(2) addressing all the elements listed in the first sentence of the second paragraph of section 81.2.4.

The person must then send their statement and the consent required for its communication to the person referred to in section 81.2.2 who applied for the investigation establishing that no impediment exists in respect of the person making the statement, before the former makes such an application to a police force.

The process for the investigation establishing that no impediment exists is continued in accordance with subdivisions 1 to 4, except in the case where the statement referred to in the first paragraph contains information that could establish the existence of an impediment. In that case, the person who applied for the investigation establishing that no impediment exists must notify the police force. The police force carries out verifications in accordance with sections 81.2.4 and 81.2.5, but may not issue an attestation establishing that no impediment exists under the first paragraph of section 81.2.5. If the verifications carried out in the databases available to the police force do not reveal any information that could establish the existence of an impediment, the police force issues a research note to that effect.

The statement referred to in the first paragraph, if it contains information that could establish the existence of an impediment, must be sent to the third person responsible for assessing the content of an attestation of a potential impediment in accordance with section 81.2.8 and be taken into account by the third person as if it were such an attestation, and is added to the attestation, if applicable, for the purpose of establishing whether an impediment exists. The third person may ask the Comité d'examen des empêchements to examine the information contained in the statement and to give them its opinion as to whether an impediment exists.

"§7. — *Comité d'examen des empêchements*

"**81.2.26.** The Minister establishes the Comité d'examen des empêchements ("the committee").

The function of the committee is to examine the information provided by a police force in an attestation of a potential impediment to be submitted to the committee under this division, and to give its opinion as to whether an impediment exists.

The committee gives reasons for the opinion in writing and communicates it to the third person responsible for assessing the content of an attestation of a potential impediment and to the person concerned by the attestation.

"**81.2.27.** The committee is composed of at least five members appointed by the Minister, at least two of whom are lawyers. From among the members, the Minister designates a chair, who presides at its meetings and sees to the committee's smooth operation, and another member who acts as vice-chair.

The committee must be composed of at least one member from an Aboriginal community when an attestation of a potential impediment concerns an Aboriginal person.

The members must have a marked interest in child protection and expertise or experience in that field or regarding investigations establishing that no impediment exists.

"**81.2.28.** The term of office of the committee members may not exceed two years.

When their term ends, members remain in office until replaced or reappointed.

"**81.2.29.** The secretariat of the committee is the responsibility of the Ministère de la Famille, des Aînés et de la Condition féminine.

"**81.2.30.** The quorum for meetings of the committee is at least half of its members.

The committee's opinions are decided by a majority of the members present. In the event of a tie, the chair has a casting vote.

"**81.2.31.** When the chair is absent or unable to act, the functions and powers of the chair are assumed by the vice-chair or, failing that, by a presiding member.

"**81.2.32.** The members of the committee receive no remuneration, except in such cases, on such conditions and to such extent as may be determined by the Government. They are, however, entitled to the reimbursement of expenses incurred in the exercise of their functions, on the conditions and to the extent determined by the Government.

"§8. — *Agreement and information*

"**81.2.33.** The Minister and the Minister of Public Security must enter into a framework agreement for establishing the procedures to be followed by Québec police forces when conducting an investigation establishing that no impediment exists in the area of childcare services.

The agreement specifies the measures to be put in place so that persons who require the services of a police force may know the processing time generally observed for applications for an investigation establishing that no impediment exists.

The agreement may include models for giving consent that comply with this division.

"**81.2.34.** The Minister prepares a guide on investigations establishing that no impediment exists for educational childcare providers and sees to its dissemination on the Gouvernement du Québec's website.

The guide is prepared after consultation with the bodies representative of educational childcare providers.

"**81.2.35.** The activity report of the Comité d'examen des empêchements is to be included in the annual management report of the department.

"**DIVISION II**

"SUSPENSION OF A STAFF MEMBER

"**81.2.36.** A permit holder must immediately suspend any staff member in the following cases:

(1) if the permit holder is informed that the staff member is implicated in a report that has been accepted for evaluation by the director of youth protection as well as if such a person is implicated in a report leading to a disclosure of confidential information by the director of youth protection to the Director of Criminal and Penal Prosecutions or to a police force provided for in section 72.7 of the Youth Protection Act (chapter P-34.1);

(2) if the staff member is the subject of an investigation conducted by the Minister with the knowledge of the permit holder on the basis of acts allegedly committed by the staff member that are such that, were they to continue or be repeated, the health, safety or well-being of the children to whom the permit holder provides educational childcare would be seriously compromised; or

(3) if the staff member is the subject of a complaint filed with the permit holder and which the latter considers admissible, relating to acts allegedly committed by the staff member and that are such that, were they to continue or be repeated, the health, safety or well-being of the children to whom the permit holder provides educational childcare would be seriously compromised.

The permit holder must notify the person in writing and without delay of their suspension and the reasons for it, and give the person an opportunity to submit observations and produce any document as soon as possible and, in all cases, within 10 days.

The suspension lasts until the permit holder makes a final decision about the alleged situation.

"**81.2.37.** Before taking up their employment, any person called upon to work in the facility of a permit holder while childcare is being provided must declare to the permit holder any suspension covered by section 81.2.36, and concerning the person that

(1) is ongoing;

(2) was ongoing at the time the person left a previous employment with a permit holder, within a period of 36 months after leaving that employment; or

(3) was the subject of a final decision, under that section, that has led to sanctions being imposed in the last 36 months."

18. Section 83.1 of the Act is amended by replacing "the childcare agreement referred to in the second paragraph of section 92" by "a childcare agreement referred to in section 92".

19. Section 92 of the Act is amended

(1) by inserting the following paragraphs after the first paragraph:

"The subsidy agreement may, in particular, provide that the childcare provider is required, in the childcare provider's contractual relationship with the parent of a child who occupies a subsidized childcare space, to use a standard agreement model for childcare services whose form, content, required elements, terms of renewal and whose other mandatory clauses are established by the Minister.

The Minister may, in the subsidy agreement, establish various childcare services agreement models and set out which model is to be used in which cases and on which conditions.

The Minister may, in particular, establish a childcare services agreement model for the provision of childcare services to a child on a sporadic or an irregular basis.";

(2) by replacing "In such a subsidy agreement, the Minister may determine the form, content, required elements and any other mandatory clause of a childcare agreement between the educational childcare provider and the parent of a child who occupies a subsidized childcare space, and may also determine the terms of renewal of such an agreement. However, the childcare agreement may not, when intended for" in the second paragraph by "A childcare services agreement model may not, however, when intended to be used by".

20. Section 95 of the Act is amended by inserting ", unless the latter are referred to in section 53.1 or 101.2.1" at the end.

21. The Act is amended by inserting the following chapter before Chapter VII.1:

"**CHAPTER VII.0.1**

"CHILDCARE SERVICES OFFERED ACCORDING TO AN ATYPICAL SCHEDULE TO CERTAIN CHILDREN OF SCHOOL AGE

"**101.2.1.** An educational childcare provider may, with the Minister's authorization, receive children admitted to preschool education services or elementary school instructional services, provided that every child received as such is there at the same time as either

(1) a child referred to in the first paragraph of section 2 with whom the child of school age resides; or

(2) a staff member who is the parent of the child of school age or a person with whom the child resides.

An authorization is granted if the applicant shows, to the satisfaction of the Minister,

(1) that the applicant has the facilities needed to ensure the health, safety and well-being of the children receiving childcare;

(2) that being granted such an authorization will not affect their ability, in the case of a permit holder, to comply with the rules otherwise applicable to the permit holder, in particular those relating to the ratio of staff to children receiving childcare or, in the case of a home educational childcare provider,

the rules relating to the number of children to whom they may provide childcare; and

(3) that the services provided to those children are not intended to remedy the lack of childcare services at school or to replace them, but rather are intended to complete a childcare service supply according to atypical schedules with a view to facilitating, for the parents, the reconciliation of their parental responsibilities with their professional or student responsibilities.

"Atypical schedule" means a schedule during which the children receiving childcare are mostly present at the educational childcare provider's centre outside the core hours of 7 a.m. to 6 p.m., from Monday to Friday, except in exceptional circumstances.

The Government may determine, by regulation, from among the standards set out in this Act and those established under section 106, the standards that apply to the children referred to in the first paragraph, and establish new ones."

22. Section 101.3 of the Act, amended by section 49 of chapter 9 of the statutes of 2022, is again amended by replacing "78, 81.0.1" in the first paragraph by "5.2, 78, 81.0.1, 81.2.10".

23. The Act is amended by inserting the following chapter after section 101.34:

"**CHAPTER VII.3**

"COMPLAINTS AND PROTECTION AGAINST REPRISALS

"**101.35.** It is forbidden to take a reprisal against a person on the ground that the person has, in good faith, filed a complaint with the Minister or a home educational childcare coordinating office and communicated to the Minister information that could show that a contravention of this Act has been committed or is about to be committed or that the person has cooperated in an inspection or investigation conducted by the Minister.

It is also forbidden to threaten to take a reprisal against a person so that the person abstains from filing a complaint with the Minister or a home educational childcare coordinating office and from communicating to the Minister information that could show that a contravention of this Act was committed or is about to be committed, or so that the person abstains from cooperating in an inspection or investigation conducted by the Minister.

"**101.36.** The following are presumed to be a reprisal within the meaning of section 101.35:

(1) the demotion, suspension, dismissal or transfer of a person referred to in that section or any other disciplinary measure or measure that adversely affects such a person's employment or conditions of employment; or

(2) if the person referred to in that section is the parent of a child to whom childcare services are provided by an educational childcare provider, depriving that person or the person's child of any right or subjecting them to differential treatment, or suspending or expelling the person's child.

"**101.37.** Any person who believes a reprisal referred to in section 101.35 has been taken against them may file a complaint with the Minister in order to have the Minister examine whether the complaint is well-founded and take, if applicable, any measure provided for by this Act that the Minister considers appropriate with regard to the educational childcare provider or home educational childcare coordinating office concerned by the reprisal.

However, if the reprisal a person believes has been taken against them constitutes a prohibited practice within the meaning of subparagraph 21 of the first paragraph of section 122 of the Act respecting labour standards (chapter N-1.1), the Minister refers that person to the Commission des normes, de l'équité, de la santé et de la sécurité du travail and puts an end to the examination of the complaint."

24. Section 104 of the Act is amended by adding the following paragraph at the end:

"In the case of a permit suspended under the second paragraph of section 29, the 60-day period runs from the expiry of the time allotted to apply for a review of the suspension provided for in that paragraph. However, if such an application for a review has been made, the period runs from the review decision."

25. The Act is amended by inserting the following section after section 104:

"**104.1.** If the suspension of recognition in urgent circumstances or to prevent serious or irreparable damage to persons is contested, the 60-day period provided for in the first paragraph of section 104 runs from the expiry of the time allotted to apply for a review of the suspension. However, if such an application for review has been made, the period runs from the review decision."

26. Section 106 of the Act, amended by section 58 of chapter 9 of the statutes of 2022, is again amended, in the first paragraph,

(1) by inserting the following subparagraph after subparagraph 1:

"(1.1) determine the staff members of a permit holder who are required to participate in training activities and the persons qualified to offer the training activities, and identify any activity or course that must be participated in or taken, or prescribe its content, its duration and the manner in which the activity or course is to be offered, and the terms for updating the knowledge of the staff members having participated in or taken it;";

(2) by replacing "maintaining the training" in subparagraph 4.1 by "updating the knowledge";

(3) by striking out ", and determine which of the impediments or criminal or indictable offences referred to in paragraphs 2 and 3 of section 26 are to be retained" in subparagraph 7;

(4) by inserting the following subparagraph after subparagraph 7:

"(7.1) determine the maximum fees payable to a police force to carry out an investigation establishing that no impediment exists;";

(5) by replacing subparagraphs 18 and 18.1 by the following subparagraphs:

"(18) determine any other rules or terms and conditions applicable to the process for investigations establishing that no impediment exists referred to in sections 81.2.1 to 81.2.17, in particular the time within which the Comité d'examen des empêchements must give its opinions and the consequences of any failure to comply with that time, provide for the obligation for other persons to be the subject of an investigation establishing that no impediment exists and establish who plays a role in that respect;

"(18.1) establish rules or terms and conditions relating to an investigation establishing that no impediment exists that add to, clarify or complete those set out in subdivisions 5 and 6 of Division I of Chapter VI.1, if the person being investigated has been residing in Canada for less than one year or has resided outside Canada for one year or more, in particular as concerns persons carrying out a role or responsibilities within the context of the investigation process, and as concerns the documents and information that must be communicated by them or by the person being investigated;";

(6) by inserting "and, if training activities are prescribed to that effect, determine the persons qualified to offer the training activities, identify any activity or course that must be participated in or taken or prescribe its content, its duration, the manner in which the activity or course must be offered, and the terms for updating the knowledge of the persons having taken it" at the end of subparagraph 21;

(7) by inserting the following subparagraph after subparagraph 29.7:

"(29.8) determine the standards provided for by this Act and those established under this section that apply to the children referred to in the first paragraph of section 102.1, and establish new ones;".

27. The Act is amended by inserting the following heading after section 107:

"**CHAPTER X.1**
"POWERS OF THE MINISTER".

28. The Act is amended by inserting the following section after section 108:

"**108.0.1.** The Minister may, on the recommendation of the Minister of Health and Social Services, establish protocols or identify protocols concerning the administration of non-prescription medication or the application of a product to a child.

The protocols must be published by the Minister on the website of the Gouvernement du Québec. All protocols and each of the updates to them must be communicated by the Minister to permit holders and to home educational childcare coordinating offices. The permit holders and coordinating offices must notify without delay the staff members concerned or, as applicable, the home educational childcare providers they have recognized.

Where parental authorization is required under a regulation enacted under section 106 for the administration of a medication or for the application of a product and that medication or product is covered by a protocol, the authorization can only be given for an administration or application made in accordance with the protocol."

29. The Act is amended by inserting the following section after section 113.2:

"**113.2.1.** A staff member of an educational childcare provider who contravenes section 5.3 by seriously compromising, by an act or omission, the health, safety or well-being of the children to whom childcare is provided is liable to a fine of $2,500 to $12,500."

30. The Act is amended by inserting the following sections after section 115.1:

"**115.2.** Any person responsible for assessing the content of an attestation in accordance with the fourth paragraph of section 81.2.9 that fails or neglects to inform the Minister in accordance with that paragraph is liable to a fine of $500 to $5,000 in the case of a natural person and $1,500 to $15,000 in other cases.

"**115.3.** Any person that contravenes section 81.2.10 is liable to a fine of $500 to $5,000 in the case of a natural person and $1,500 to $15,000 in other cases.

"**115.4.** Any person that fails or neglects to notify or inform the Minister in accordance with section 81.2.14 or to provide the statement or make the declaration required under any of sections 81.2.17, 81.2.19, 81.2.25 or 81.2.37

or that provides false or misleading information in the application of any of those sections is liable to a fine of $500 to $5,000.

"**115.5.** A person that allows children to access a facility or part of a facility that is the subject of an evacuation order made under section 81.0.3 or allows children to access a residence or part of a residence in contravention of an evacuation order made under section 42.0.1 is liable to a fine of $5,000 to $50,000.

"**115.6.** A permit holder that contravenes subparagraph 1 of the first paragraph of section 81.2.36 is liable to a fine of $2,500 to $12,500.

"**115.7.** A person that contravenes section 101.35 is liable to a fine of $500 to $5,000 in the case of a natural person and $1,500 to $30,000 in other cases."

31. The Act is amended by inserting the following section after section 121.1:

"**121.2.** The parties referred to in section 121.1 may reach an agreement to allow children admitted to preschool in an Aboriginal community who are not offered childcare at school to receive the services provided by an educational childcare provider governed by this Act. The agreement may specify the standards applicable to the childcare services so provided."

32. Section 153.1 of the Act is repealed.

ACT RESPECTING LABOUR STANDARDS

33. Section 122 of the Act respecting labour standards (chapter N-1.1) is amended by adding the following subparagraph at the end of the first paragraph:

"(21) on the ground that the employee filed a complaint, communicated information or cooperated in an inspection or investigation under Chapter VII.3 of the Educational Childcare Act (chapter S-4.1.1)."

ACT TO AMEND THE EDUCATIONAL CHILDCARE ACT TO IMPROVE ACCESS TO THE EDUCATIONAL CHILDCARE SERVICES NETWORK AND COMPLETE ITS DEVELOPMENT

34. Section 58 of the Act to amend the Educational Childcare Act to improve access to the educational childcare services network and complete its development (2022, chapter 9) is amended by striking out paragraphs 8 and 9.

35. Section 108 of the Act is amended by replacing "paragraphs 8, 9 and 12 of section 58" in paragraph 2 by "paragraph 12 of section 58".

REGULATION RESPECTING THE APPLICATION OF THE CONSUMER PROTECTION ACT

36. The Regulation respecting the application of the Consumer Protection Act (chapter P-40.1, r. 3) is amended by inserting the following section after section 15:

"**15.0.1.** Despite subparagraphs *e* and *f* of the first paragraph of section 190 of the Act, a childcare services contract involving sequential performance entered into by a subsidized educational childcare provider under the Educational Childcare Act (chapter S-4.1.1) and allowing the sporadic or irregular use of services need not indicate the number of hours, days or weeks over which the services are distributed nor the total amount the consumer must pay under the contract."

EDUCATIONAL CHILDCARE REGULATION

37. Section 1 of the Educational Childcare Regulation (chapter S-4.1.1, r. 2) is amended by striking out the definitions of "attestation establishing that no impediment exists", "attestation of information that may establish an impediment" and "impediment".

38. Sections 2 to 6 of the Regulation are revoked.

39. Section 10 of the Regulation is amended by replacing paragraph 7 by the following paragraph:

"(7) a copy of the attestation establishing that no impediment exists, for the applicant and for each director or shareholder;".

40. Section 25 of the Regulation is amended

(1) by replacing subparagraph 2 of the first paragraph by the following subparagraph:

"(2) for any person referred to in paragraph 3 or 4 of section 81.2.1 of the Act, a copy of the person's valid attestation establishing that no impediment exists and, if applicable, a copy of the latest attestation of a potential impediment concerning that person, accompanied by a certified true copy of the board of directors' resolution certifying that the person concerned by the attestation has no impediment;";

(2) by replacing "the documents required under sections 4.2 and 20.1" in the second paragraph by "a valid attestation establishing that no impediment exists and the documents required under section 20.1".

41. Section 48 of the Regulation is amended

(1) by replacing paragraph 2 by the following paragraph:

"(2) for any person referred to in paragraph 9 or 10 of section 81.2.1 of the Act, a copy of the person's valid attestation establishing that no impediment exists and, if applicable, a copy of the latest attestation of a potential impediment concerning a person referred to in paragraph 9 of that section, accompanied by a certified true copy of the board of directors' resolution certifying that the person concerned by the attestation has no impediment;";

(2) by striking out "and, if applicable, the documents certifying that the person designated pursuant to section 81 to occasionally replace the educational childcare provider meets the requirements of section 5" in subparagraph *a* of paragraph 5;

(3) by replacing subparagraph *b* of paragraph 5 by the following subparagraph:

"(*b*) for any person referred to in paragraphs 6 to 8 of section 81.2.1 of the Act, a copy of the person's valid attestation establishing that no impediment exists and, if applicable, a copy of the latest attestation of a potential impediment concerning that person, accompanied by a certified true copy of the board of directors' resolution certifying that the person concerned by the attestation has no impediment;".

42. Section 51 of the Regulation is amended

(1) by striking out "do not have an impediment related to the abilities and the conduct required for home childcare and that they" in paragraph 10;

(2) by inserting the following paragraph after paragraph 10:

"(10.1) show that the natural person and the persons residing in the residence where the natural person proposes to provide childcare hold, if so required, a valid attestation establishing that no impediment exists;".

43. Section 60 of the Regulation is amended by replacing paragraph 13 by the following paragraph:

"(13) for the applicant and, if applicable, any person of full age living in the private residence where the applicant intends to provide childcare, a copy of their attestation establishing that no impediment exists and, if applicable, of the attestation of a potential impediment concerning them;".

44. Section 75 of the Regulation is amended

(1) by inserting the following paragraphs before paragraph 1:

"(0.1) the provider fails to establish, with respect to themselves, to a person of full age living in the residence where childcare is provided, or to their assistant or their occasional replacement, that no impediment exists under Division I of Chapter VI.1 of the Act;

"(0.2) the provider failed or neglected to inform the person who may apply for an investigation establishing that no impediment exists with respect to the provider in accordance with section 81.2.2 of the Act that, since the last time the provider was issued an attestation establishing that no impediment exists, the provider has been charged with or found guilty of a criminal offence related to the elements referred to in the second paragraph of section 81.2.4 of the Act;";

(2) by inserting "or with an evacuation order made under section 42.0.1 of the Act" at the end of paragraph 2;

(3) by striking out "6," in paragraph 3;

(4) by replacing paragraph 6 by the following paragraphs:

"(6) the provider made a false declaration or distorted a material fact in the application for or renewal of a recognition, in a document required by the Minister or by the coordinating office, when communicating information to the Minister or to the coordinating office, or with a view to being granted a subsidy by the Minister or by the coordinating office;

"(6.1) the provider acts in such a way as to falsely suggest that the childcare services the provider provides are subsidized;";

(5) by adding the following paragraph at the end:

"The coordinating office may attach conditions to the suspension of the recognition as well as time limits to be complied with to have the suspension lifted."

45. Sections 76 and 77 of the Regulation are replaced by the following sections:

"**76.** Recognition is revoked by operation of law if the home educational childcare provider directly or indirectly provides childcare while their recognition is suspended.

"**77.** Before refusing to issue or to renew a recognition or suspending or revoking a recognition, the coordinating office must notify in writing the reasons supporting its intention to the person applying for recognition or who is

recognized as a home educational childcare provider and give the person at least 15 days to submit observations and to produce documents to complete their record. The coordinating office then notifies its decision in writing, with reasons, to the person applying for recognition or who is recognized as a home educational childcare provider.

The coordinating office may, however, if the decision is made in urgent circumstances or to prevent serious or irreparable injury or damage to persons, including in the cases referred to in section 77.1, suspend a recognition without having to comply with the prior obligations set out in the first paragraph. In such situations, the coordinating office notifies the parents of children receiving educational childcare that the recognition has been suspended. The person who is recognized as a home educational childcare provider may, within 15 days of the suspension, submit observations and produce documents to complete their record in order to allow the coordinating office to review its decision.

The coordinating office gives reasons for its decision or its review decision and notifies it in writing to the home educational childcare provider. The decision or the review decision must make mention of the right to contest it before the Administrative Tribunal of Québec and indicate the time limit for doing so provided for in section 104 of the Act.

"**77.1.** The coordinating office must immediately suspend the recognition of a home educational childcare provider in the following cases:

(1) if the provider or, as applicable, their assistant or a person living in the residence where childcare is provided is implicated by a report that has been accepted for evaluation by the director of youth protection. The same applies if any of those persons is implicated by a report leading to a disclosure of confidential information by the director of youth protection to the Director of Criminal and Penal Prosecutions or to a police force provided for in section 72.7 of the Youth Protection Act (chapter P-34.1);

(2) if the provider is the subject of an investigation conducted by the Minister with the knowledge of the coordinating office on the basis of acts allegedly committed by the provider that are such that, were they to continue or be repeated, the health, safety or well-being of the children to whom the provider provides educational childcare would be seriously compromised; or

(3) if the provider is the subject of a complaint filed with the coordinating office, which the latter considers admissible, relating to acts allegedly committed by the provider and that are such that, were they to continue or be repeated, the health, safety or well-being of the children to whom the provider provides educational childcare would be seriously compromised.

The suspension lasts until the coordinating office makes a final decision about the alleged situation."

46. Section 83 of the Regulation is revoked.

47. Section 99 of the Regulation is amended

(1) by replacing "on the premises" by "in the facility";

(2) by adding the following sentences at the end: "In the case of a home educational childcare provider, that obligation extends to the outdoor yard, if it is sometimes used while childcare is being provided, and to the outbuildings in the yard, if applicable. If the yard and outbuildings are shared, the home educational childcare provider must make sure no alcohol is consumed there by any person residing with the home educational childcare provider."

48. The heading of Division II of Chapter IV of the Regulation is replaced by the following heading:

"MEDICATION AND OTHER PRODUCTS".

49. Section 116 of the Regulation is amended

(1) by inserting "or natural product" after "medication" in the first paragraph;

(2) by inserting "and natural products" after "medication" in the second paragraph;

(3) by adding the following paragraph at the end:

"In this division, "natural product" means any supplement, vitamin, essential oil, hormone, homeopathic or cosmetic product or other similar product in which active substances are found and that is meant to be ingested, to be applied on the skin or to come into contact with mucous membranes."

50. Section 121 of the Regulation is replaced by the following section:

"**121.** Despite section 116 and the first paragraph of section 118, an educational childcare provider may supply, keep and administer medication or a natural product to any child without the authorization of a health professional, but only in accordance with a written authorization signed by the parent and only if the medication or the natural product is covered by a protocol established in accordance with section 108.0.1 of the Act.

If, in such a case, the medication or the natural product is provided by the parent, its container must be clearly marked with the name of the child for whom it is intended."

51. Section 121.6 of the Regulation is amended

(1) by replacing "the protocol in Schedule II, duly signed by the parent" in the first paragraph by "a written authorization signed by the parent and only if the insect repellent is covered by a protocol established in accordance with section 108.0.1 of the Act";

(2) by replacing "and medication" in the second paragraph by ", medication and natural products".

52. Section 121.7 of the Regulation is amended by inserting "in accordance with section 121.6" at the end of the third paragraph.

53. Section 123.1 of the Regulation is amended by striking out "4, 4.1, 6," in the first paragraph.

54. Section 124 of the Regulation is amended by striking out "4, 4.1, 6,".

55. Schedule II to the Regulation is revoked.

56. The Regulation is amended by inserting "or natural products", "or natural product", "or a natural product", "or of the natural product", "or the natural product", "and the natural products", "and of the natural products" or "and natural products" after all occurrences of "medication" in sections 117 to 121.6 and in the headings of subdivisions 1 and 2 of Division II of Chapter IV, except in sections 120 and 121 and the third paragraph of section 121.2, with the necessary modifications.

TRANSITIONAL AND FINAL PROVISIONS

57. From 27 September 2024 until 31 August 2026,

(1) section 6.1 of the Educational Childcare Act (chapter S-4.1.1) is to be read as if "under paragraph 2 or 3 of section 26" in subparagraph 4 of the first paragraph were struck out;

(2) section 6.1 of the Educational Childcare Regulation (chapter S-4.1.1, r. 2) is to be read as if "second paragraph of section 27" in the second paragraph were replaced by "second paragraph of section 81.2.4";

(3) sections 6.2 and 6.3 of the Educational Childcare Regulation are to be read as if all occurrences of "attestation of information that may establish an impediment" were replaced by "attestation of a potential impediment"; and

(4) in advance of the assessment the Minister is to make in accordance with section 6.2 of the Educational Childcare Regulation, the Minister may ask the Comité d'examen des empêchements established under section 81.2.26 of the Educational Childcare Act, enacted by section 13 of this Act, to examine any attestation of a potential impediment and give its opinion to the Minister as to whether an impediment exists.

58. As of 27 September 2024, the committee referred to in the third paragraph of section 27 of the Educational Childcare Act, as it read before that date, is dissolved, without further formality. The matters in respect of which it had not yet advised the Minister are forwarded, for analysis, to the Comité d'examen des empêchements established under section 81.2.26 of the Educational

Childcare Act, enacted by section 17 of this Act. The latter analyses the matters in accordance with the Educational Childcare Act, as it read at the time the request was received.

59. Despite the date of their coming into force, the provisions of Division I of Chapter VI.1 of the Educational Childcare Act, enacted by section 17 of this Act, as well as those of section 48 of the Educational Childcare Regulation, enacted by section 41 of this Act, apply to a director of a home educational childcare coordinating office, where that office does not hold a childcare centre permit, from 27 December 2024.

60. An attestation establishing that no impediment exists issued under the Educational Childcare Act and the Educational Childcare Regulation, as they read on 26 September 2024, serves as an attestation establishing that no impediment exists issued under the first paragraph of section 81.2.5 of the Educational Childcare Act, enacted by section 17 of this Act. Its date of issue remains the same.

An attestation of information that may establish an impediment issued under the Educational Childcare Act and the Educational Childcare Regulation, as they read on 26 September 2024, serves as an attestation establishing that no impediment exists issued under the third paragraph of section 81.2.9 of the Educational Childcare Act, enacted by section 17 of this Act, insofar as the content of the attestation was assessed by a third person in accordance with the provisions applicable at the time it was issued, and that the latter considered that the person concerned by the attestation was not the subject of an impediment. Its date of issue is deemed to be the date on which the third person concluded that the person was not the subject of an impediment.

61. The Minister must, no later than 27 April 2024, publish on the Internet the Protocol for administering acetaminophen to treat fever and the Protocol for applying insect repellent, as they read in Schedule II to the Educational Childcare Regulation on the previous day. The protocols so published are deemed to have been published under section 108.0.1 of the Educational Childcare Act, enacted by section 28 of this Act, as of the date of coming into force of that section.

62. This Act comes into force on 27 April 2024, except

(1) section 2, paragraph 5 of section 7, paragraphs 1, 2 and 3 of section 9 insofar as they respectively concern paragraph 4, subparagraphs 7 and 9 of the first paragraph of section 28 of the Educational Childcare Act, sections 10, 11, 13, 16, 23 to 25 and 29, section 30 insofar as it enacts sections 115.5 and 115.7 of that Act, section 33, paragraphs 2 and 4 of section 44 insofar as paragraph 4 concerns paragraph 6 of section 75 of the Educational Childcare Regulation, and section 45, which come into force on 27 June 2024;

(2) paragraphs 1, 2 and 4 of section 7, section 8, paragraph 1 of section 9 insofar as it enacts subparagraphs 3 and 3.1 of the first paragraph of section 28

of the Educational Childcare Act, sections 17 and 22, paragraphs 3 to 5 of section 26, section 30 insofar as it enacts sections 115.2 to 115.4 and 115.6 of that Act, sections 37 to 43, paragraphs 1 and 3 of section 44 and sections 46, 53, 54, 57 and 59, which come into force on 27 September 2024.

106857

NATIONAL ASSEMBLY OF QUÉBEC

FIRST SESSION FORTY-THIRD LEGISLATURE

Bill 47
(2024, chapter 9)

An Act to reinforce the protection of students, including with regard to acts of sexual violence

Introduced 6 December 2023
Passed in principle 6 February 2024
Passed 9 April 2024
Assented to 9 April 2024

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EXPLANATORY NOTES

This Act amends the Education Act and the Private Education Act to introduce various provisions to reinforce the protection of students, including with regard to acts of sexual violence.

For that purpose, school service centres and private educational institutions are required to adopt a code of ethics applicable to members of their personnel and to other persons required to work with their minor or handicapped students or be regularly in contact with them, and those centres and institutions must report to the Minister on the reports brought to their attention concerning any failure to comply with that code in relation to behaviours that could reasonably pose a threat for the physical or psychological safety of the students.

The Act establishes the duty for school service centres and private educational institutions to ensure that persons who work with or would be required to work with minor or handicapped students or be regularly in contact with them have not exhibited behaviour that could reasonably pose a threat for the physical or psychological safety of students in the exercise of their functions in such a centre, such an institution or another educational body in Québec. Those centres and institutions are also required, when they conclude that such behaviour has been exhibited by a person, to inform the other school service centres, private educational institutions and educational bodies in Québec in which the person who has exhibited such behaviour holds a position.

The Act allows those centres and institutions to take into account a disciplinary measure previously imposed on an employee because of a behaviour that could reasonably pose a threat for the physical or psychological safety of students when they impose a disciplinary measure on the same employee because of such a behaviour, despite any provision relating to working conditions.

The scope of the provisions relating to a serious fault or a derogatory act by a person holding a teaching licence is broadened to cover certain persons assigned to teaching duties by a school service centre who do not hold a teaching licence, and every employee of a school service centre or private educational institution must report without delay to the Minister of Education any situation involving a teacher and behaviour that could reasonably pose a threat

for the physical or psychological safety of students. The Minister is required to submit to the inquiry committee any situation concerning a teacher that has been brought to the Minister's attention if he or she is of the opinion that the information in his or her possession could demonstrate a serious fault committed in the exercise of the teacher's functions or an act derogatory to the honour or dignity of the teaching profession. Furthermore, the inquiry committee is to be composed of members appointed for a term not exceeding five years.

Persons who make a report or file a complaint, cooperate in the processing of a report or complaint or accompany a person who makes a report or files a complaint are granted protection against reprisals.

The Act also establishes a register of teaching licences, which the Minister must keep up to date and make accessible to school service centres, private educational institutions and other educational bodies in Québec, and to the authorities of the other provinces and the territories of Canada that are responsible for issuing teaching licences.

Lastly, the Act creates penal offences, makes consequential amendments and contains transitional and final provisions.

LEGISLATION AMENDED BY THIS ACT:

– Act respecting private education (chapter E-9.1);

– Education Act (chapter I-13.3).

Bill 47

AN ACT TO REINFORCE THE PROTECTION OF STUDENTS, INCLUDING WITH REGARD TO ACTS OF SEXUAL VIOLENCE

THE PARLIAMENT OF QUÉBEC ENACTS AS FOLLOWS:

EDUCATION ACT

1. The Education Act (chapter I-13.3) is amended by inserting the following section after section 23:

"**24.** The Minister shall keep up to date a register of teaching licences and make it accessible to school service centres, to institutions governed by the Act respecting private education (chapter E-9.1) and educational bodies in Québec that provide all or part of the educational services referred to in this Act, and to the authorities of the other provinces and the territories of Canada that are responsible for issuing teaching licences."

2. The heading of subdivision 3 of Division III of Chapter II of the Act is amended by adding "*or by a person assigned to teaching duties by a school service centre pursuant to section 25*" at the end.

3. Section 26 of the Act is amended

(1) by replacing "in writing, include reasons and be made under oath" in the third paragraph by "in writing and include reasons";

(2) by replacing "a copy of" in the fourth paragraph by "the reasons for".

4. Section 28 of the Act is replaced by the following sections:

"**28.** Where the Minister considers that the complaint is admissible and where the teacher has not admitted to having committed the alleged fault, the Minister shall submit the complaint to the inquiry committee.

"**28.0.1.** The Minister shall establish a committee whose mandate is to inquire into and give its opinion on situations involving a serious fault committed in the exercise of functions or an act derogatory to the honour or dignity of the teaching profession.

The committee shall be composed of three members, including a chair selected from among the members of the Barreau who, in the Minister's opinion,

is familiar with the educational community. The other two members must have expertise, experience and a marked interest in the protection of minors or handicapped persons. The members shall be selected after consultation with bodies that the Minister considers to be most representative of the principals of educational institutions, of the teachers of those institutions and of the parents of students attending such institutions.

The members of the committee are appointed for a term not exceeding five years. At the expiry of their terms, the members shall remain in office until they are replaced or reappointed.

The salary of the committee members and the rules relating to the reimbursement of expenses they incur in the exercise of their functions shall be fixed by regulation of the Minister.

"**28.0.2.** The committee shall establish the operating rules applicable to its inquiries.

The operating rules must include measures specific to inquiries involving situations of sexual violence.

The operating rules shall be submitted to the Minister for approval."

5. The Act is amended by inserting the following section after section 28:

"**28.1.** The Minister shall submit to the inquiry committee any situation concerning a teacher that is brought to the Minister's attention if he is of the opinion that the information in his possession could demonstrate a serious fault committed in the exercise of the teacher's functions or an act derogatory to the honour or dignity of the teaching profession.

That information is processed as a complaint and examined in accordance with the provisions of this division, with the necessary modifications."

6. Section 29 of the Act is amended by inserting the following paragraph after the first paragraph:

"The Minister may, on such an occasion, suspend the teacher's teaching licence."

7. Section 34.5 of the Act is amended by replacing "minors" in the second paragraph by "minors or handicapped persons".

8. Section 34.6 of the Act is amended

(1) by inserting "in the second paragraph of section 29 or" after "referred to" in the first paragraph;

(2) by inserting the following paragraph after the first paragraph:

"However, the Minister may, where urgent action is required or to prevent irreparable harm, suspend or revoke a teaching licence without being bound by those prior obligations. In such a case, the person concerned by the decision may, within the time it specifies, submit observations to the Minister for a review of the decision."

9. Section 34.7 of the Act is amended by inserting "in the second paragraph of section 29 or" after "referred to" in the first paragraph.

10. Section 35 of the Act is amended by adding the following paragraph at the end:

"The same applies if the teacher covered by such an authorization admits to having committed a serious fault in the exercise of his functions or an act derogatory to the honour or dignity of the teaching profession or has, in the inquiry committee's opinion, committed such a fault or act."

11. Section 75.1 of the Act is amended by inserting ", in the form prescribed by the Minister," after "adopting" in the first paragraph.

12. Section 215 of the Act is amended

(1) by inserting "or handicapped" after all occurrences of "minor" in the second paragraph;

(2) by adding the following paragraph at the end:

"The agreement must be accompanied by the code of ethics provided for in section 258.0.1 and provide that any person required to work with minor or handicapped students or be in contact with them must undertake to comply with that code."

13. Section 220 of the Act is amended by replacing "reported to the institution and the measures taken." in the second paragraph by "brought to the institution's attention and the measures taken. The report must also state, in addition to the elements the Minister may prescribe, the number and nature of the reports brought to the school service centre's attention concerning any failure to comply with the provisions of its code of ethics that could reasonably pose a threat for the physical or psychological safety of the students, the processing time for those reports and the measures taken."

14. The Act is amended by inserting the following sections before section 258.1:

"**258.0.1.** The school service centre must adopt, in the form prescribed by the Minister, a code of ethics applicable to members of its personnel and to any person required to work with minor or handicapped students or be in contact

with them. The code must set out, in particular, the practices and conduct expected of persons required to work with minor or handicapped students or be in contact with them. In addition, the code must set out the obligation to report to the school service centre without delay any failure to comply with its provisions that could reasonably pose a threat for the physical or psychological safety of the students.

The school service centre shall publish the code of ethics on its website and make the code otherwise accessible to any person who requests it.

"**258.0.2.** The school service centre shall take all necessary measures to preserve the confidentiality of any information allowing a person who has made a report to be identified, unless the person consents to being identified. However, the school service centre may communicate the identity of the person to the director of youth protection or to the police force concerned."

15. Section 258.4 of the Act is amended

(1) by replacing "judicial record verification guide for school service centres" by "guide for school service centres on the verification of judicial records and of behaviours that could reasonably pose a threat for the physical or psychological safety of students";

(2) by adding the following sentence at the end: "In particular, the guide must pertain to the period covered by the verification of behaviours.";

(3) by adding the following paragraph at the end:

"Behaviours that could reasonably pose a threat for the physical or psychological safety of the students include acts of sexual violence."

16. Section 261.0.1 of the Act is amended by inserting "or handicapped" after "minor" in the first paragraph.

17. Section 261.0.2 of the Act is amended

(1) by inserting "or handicapped" after both occurrences of "minor" in the first paragraph;

(2) by inserting ", subject to the regulation made under section 449.1" at the end of the second paragraph.

18. Sections 261.0.3 and 261.0.4 of the Act are amended by inserting "or handicapped" after all occurrences of "minor".

19. The Act is amended by inserting the following sections after section 261.1:

"**261.1.1.** Before hiring persons who would be required to work with its minor or handicapped students or be regularly in contact with them, the school service centre shall ensure that those persons have not exhibited behaviour that

could reasonably pose a threat for the physical or psychological safety of students in the exercise of their functions in a school service centre or in an educational institution governed by the Act respecting private education (chapter E-9.1) or an educational body in Québec that provide all or part of the educational services covered by this Act.

For that purpose, those persons shall send to the school service centre a declaration concerning the functions they exercise or have exercised in a school service centre or in such an institution or body.

The declaration must be accompanied by the written consent of the person concerned to the verification of the information or documents necessary for establishing the existence or absence of any behaviour referred to in the first paragraph and, where applicable, to the communication of the absence of such information or documents. If the verification reveals information or documents that could establish the existence of such behaviour, the person must, after examining them and if the person still wishes to apply, decide whether he consents to them being communicated to the school service centre that requests them in order for the centre to assess the content.

"**261.1.1.1.** At the request of the school service centre, persons who work with its minor or handicapped students and persons who are regularly in contact with them must send it a declaration concerning the functions they exercise or have exercised in a school service centre or in an educational institution governed by the Act respecting private education (chapter E-9.1) or an educational body in Québec that provide all or part of the educational services covered by this Act.

The school service centre shall ensure that those persons have not exhibited behaviour that could reasonably pose a threat for the physical or psychological safety of students in the exercise of their functions in a school service centre or in such an institution or body.

The third paragraph of section 261.1.1 applies, with the necessary modifications, to such a declaration.

"**261.1.2.** Every school service centre must, at the request of a school service centre or of an educational institution governed by the Act respecting private education (chapter E-9.1) or an educational body in Québec that provide all or part of the educational services covered by this Act, provide it with the information and documents the school service centre holds and that are required to establish the existence or absence of behaviour that could reasonably pose a threat for the physical or psychological safety of students with a view to the hiring of a person who would be required to work with the centre's, institution's or body's minor or handicapped students or be regularly in contact with them or for the purpose of verifying the existence or absence of such behaviour from a person who works with those minor or handicapped students or is regularly in contact with them.

The school service centre shall keep the information and documents necessary for the purposes of this subdivision, taking into account the guide prepared by the Minister in accordance with section 258.4.

"**261.1.3.** Where a school service centre concludes that behaviour that could reasonably pose a threat for the physical or psychological safety of students has been exhibited by a person who works with its minor or handicapped students or is regularly in contact with them in the exercise of his functions, that person must send to the school service centre a declaration concerning the functions he exercises in another school service centre or in an educational institution governed by the Act respecting private education (chapter E-9.1) or an educational body in Québec that provide all or part of the educational services covered by this Act.

The school service centre shall inform any other school service centre and any educational institution governed by the Act respecting private education and any educational body in Québec that provide all or part of the educational services covered by this Act in which the person exercises a function of the situation.

"**262.** Any employee of a school service centre who, in the exercise of his functions, has reasonable grounds to believe that a teacher has committed a serious fault in the exercise of his functions or an act derogatory to the honour or dignity of the teaching profession involving behaviour that could reasonably pose a threat for the physical or psychological safety of students must report the situation without delay to the Minister.

"**263.** No provision of an agreement or decree within the meaning of the Act respecting labour standards (chapter N-1.1) or of a regulation made under section 451 may have the effect of preventing a school service centre, where the latter imposes a disciplinary measure on an employee who works with minor or handicapped students or is regularly in contact with them because of a behaviour that could reasonably pose a threat for the physical or psychological safety of students, from taking into account a disciplinary measure that has previously been imposed on the employee because of such a behaviour."

20. Section 297 of the Act is amended by adding the following paragraph at the end:

"The contract must be accompanied by the code of ethics provided for in section 258.0.1 and provide that the driver must undertake to comply with that code."

21. The Act is amended by inserting the following section after section 449:

"**449.1.** The Government may, by regulation,

(1) determine the information and documents necessary for establishing the existence or absence of a judicial record that police forces are required to

provide to a school service centre or to a person who is the subject of a judicial record verification;

(2) determine the cases in which a judicial record declaration must be requested by a school service centre and the cases in which the declaration must be verified;

(3) determine the terms and conditions applicable to judicial record declarations and verifications, in particular the cases in which additional documents must be transmitted and the nature of those documents; and

(4) determine the intervals at which a judicial record declaration must be requested and verified by a school service centre."

22. Section 456.1 of the Act is amended by replacing "28" by "28.0.1".

23. Section 478 of the Act is amended by adding the following sentence at the end of the first paragraph: "The Minister may, in the same manner, designate a person to verify whether the information in his possession could demonstrate that a teacher has committed a serious fault in the exercise of his functions or an act derogatory to the honour and dignity of the teaching profession."

24. The Act is amended by inserting the following section after section 479:

"**479.1.** Reprisals are prohibited against a person who, in good faith, makes a report or files a complaint, cooperates in the processing of a report or complaint or accompanies a person who makes a report or files a complaint under sections 26, 28.1, 258.0.1 and 262.

It is also prohibited to threaten to take a reprisal against a person to dissuade the person from performing an act described in the first paragraph.

The demotion, suspension, termination of employment or transfer of a person or any disciplinary or other measure that adversely affects the employment or working conditions of a person is presumed to be a reprisal. Depriving a student, child or their parents of any right or subjecting them to differential treatment or suspending or expelling a student who has made a report or filed a complaint is also presumed to be a reprisal."

25. The Act is amended by inserting the following section after section 480:

"**481.** Every person who threatens or intimidates or attempts to threaten or intimidate a person or takes or attempts to take reprisals referred to in section 479.1 is liable to a fine of not less than $2,000 nor more than $20,000 in the case of a natural person and not less than $10,000 nor more than $250,000 in any other case.

For a subsequent offence, the amounts are doubled."

ACT RESPECTING PRIVATE EDUCATION

26. The Act respecting private education (chapter E-9.1) is amended by inserting the following sections before section 54.1:

"**54.0.1.** An institution must adopt, in the form prescribed by the Minister, a code of ethics applicable to members of its personnel and to any person required to work with minor or handicapped students or be in contact with them. The code must set out, in particular, the practices and conduct expected of persons required to work with minor or handicapped students or be in contact with them. In addition, the code must set out the obligation to report to the institution without delay any failure to comply with its provisions that could reasonably pose a threat for the physical or psychological safety of the students.

The institution shall publish the code of ethics on its website and make the code otherwise accessible to any person who requests it.

"**54.0.2.** The institution shall take all necessary measures to preserve the confidentiality of any information allowing a person who has made a report to be identified, unless the person consents to being identified. However, the institution may communicate the identity of the person to the director of youth protection or to the police force concerned."

27. Section 54.4 of the Act is amended

(1) by replacing "judicial record verification guide for institutions" by "guide for institutions on the verification of judicial records and of behaviours that could reasonably pose a threat for the physical or psychological safety of students";

(2) by adding the following sentence at the end: "In particular, the guide must pertain to the period covered by the verification of behaviours.";

(3) by adding the following paragraph at the end:

"Behaviours that could reasonably pose a threat for the physical or psychological safety of the students include acts of sexual violence."

28. Section 54.5 of the Act is amended by inserting "or handicapped" after "minor".

29. Section 54.6 of the Act is amended

(1) by inserting "or handicapped" after both occurrences of "minor" in the first paragraph;

(2) by inserting ", subject to a government regulation" at the end of the second paragraph.

30. Sections 54.7 and 54.8 of the Act are amended by inserting "or handicapped" after all occurrences of "minor".

31. The Act is amended by inserting the following sections after section 54.11:

"**54.11.1.** Before hiring persons who would be required to work with its minor or handicapped students or be regularly in contact with them, the institution shall ensure that those persons have not exhibited behaviour that could reasonably pose a threat for the physical or psychological safety of students in the exercise of their functions in a school service centre or in an educational institution governed by this Act or an educational body in Québec that provide all or part of the educational services covered by the Education Act (chapter I-13.3).

For that purpose, those persons shall send to the institution a declaration concerning the functions they exercise or have exercised in a school service centre or in such an institution or body.

The declaration must be accompanied by the written consent of the person concerned to the verification of the information or documents necessary for establishing the existence or absence of any behaviour referred to in the first paragraph and, where applicable, to the communication of the absence of such information or documents. If the verification reveals information or documents that could establish the existence of such behaviour, the person must, after examining them and if the person still wishes to apply, decide whether he consents to them being communicated to the institution that requests them in order for the institution to assess the content.

"**54.11.1.1.** At the request of the institution, persons who work with its minor or handicapped students and persons who are regularly in contact with them must send it a declaration concerning the functions they exercise or have exercised in a school service centre or in an educational institution governed by this Act or an educational body in Québec that provide all or part of the educational services covered by the Education Act (chapter I-13.3).

The institution shall ensure that those persons have not exhibited behaviour that could reasonably pose a threat for the physical or psychological safety of students in the exercise of their functions in a school service centre or in such an institution or body.

The third paragraph of section 54.11.1 applies, with the necessary modifications, to such a declaration.

"**54.11.2.** Every institution must, at the request of a school service centre or of an educational institution governed by this Act or an educational body in Québec that provide all or part of the educational services covered by the Education Act (chapter I-13.3), provide it with the information and documents the institution holds and that are required to establish the existence or absence of behaviour that could reasonably pose a threat for the physical or psychological

safety of students with a view to the hiring of a person who would be required to work with the centre's, institution's or body's minor or handicapped students or be regularly in contact with them or for the purpose of verifying the existence or absence of such behaviour from a person who works with those minor or handicapped students or is regularly in contact with them.

The institution shall keep the information and documents necessary for the purposes of this subdivision, taking into account the guide prepared by the Minister in accordance with section 54.4.

"**54.11.3.** Where an institution concludes that behaviour that could reasonably pose a threat for the physical or psychological safety of students has been exhibited by a person who works with its minor or handicapped students or is regularly in contact with them in the exercise of his functions, that person must send to the institution a declaration concerning the functions he exercises in a school service centre or in an educational institution governed by this Act or an educational body in Québec that provide all or part of the educational services covered by the Education Act (chapter I-13.3).

The institution shall inform the school service centre and any educational institution governed by this Act and any educational body in Québec that provide all or part of the educational services covered by the Education Act in which the person exercises a function of the situation.

"**54.11.4.** Any employee of an institution who, in the exercise of his functions, has reasonable grounds to believe that a teacher has committed a serious fault in the exercise of his functions or an act derogatory to the honour or dignity of the teaching profession involving behaviour that could reasonably pose a threat for the physical or psychological safety of students must report the situation without delay to the Minister.

"**54.11.5.** No provision of an agreement or decree within the meaning of the Act respecting labour standards (chapter N-1.1) may have the effect of preventing an institution, where the latter imposes a disciplinary measure on an employee who works with minor or handicapped students or is regularly in contact with them because of a behaviour that could reasonably pose a threat for the physical or psychological safety of students, from taking into account a disciplinary measure that has previously been imposed on the employee because of such a behaviour."

32. Section 63.1 of the Act is amended by inserting ", in the form prescribed by the Minister," after "adopt" in the first paragraph.

33. Section 63.8 of the Act is amended by replacing "reported to the institution and the measures taken." by "brought to the institution's attention and the measures taken. The report must also state, in addition to the elements the Minister may prescribe, the number and nature of the reports brought to the institution's attention concerning any failure to comply with the provisions of its code of ethics that could reasonably pose a threat for the physical or

psychological safety of the students, the processing time for those reports and the measures taken."

34. Section 65.2 of the Act is amended

(1) by inserting "or handicapped" after all occurrences of "minor" in the second paragraph;

(2) by adding the following paragraph at the end:

"The agreement must be accompanied by the code of ethics provided for in section 54.0.1 and provide that any person required to work with minor or handicapped students or be in contact with them must undertake to comply with that code."

35. Section 111 of the Act is amended by adding the following paragraphs at the end:

"(13) determine the cases in which a judicial record declaration must be requested by an institution and the cases in which the declaration must be verified;

"(14) determine the terms and conditions applicable to judicial record declarations and verifications, in particular the cases in which additional documents must be transmitted and the nature of those documents; and

"(15) determine the intervals at which a judicial record declaration must be requested and verified by an institution."

36. Section 115 of the Act is amended by replacing the introductory clause of the first paragraph by the following:

"**115.** The Minister may designate a person generally or specially to verify whether the provisions of this Act and the statutory instruments are being complied with. The Minister may also, in the same manner, designate a person to verify whether the information in his possession could demonstrate that a teacher has committed a serious fault in the exercise of the teacher's functions or an act derogatory to the honour or dignity of the teaching profession.

The person designated may".

37. The Act is amended by inserting the following section after section 118:

"**118.1.** Reprisals are prohibited against a person who, in good faith, makes a report or files a complaint, cooperates in the processing of a report or complaint or accompanies a person who makes a report or files a complaint under sections 54.0.1 and 54.11.4.

It is also prohibited to threaten to take a reprisal against a person to dissuade the person from performing an act described in the first paragraph.

The demotion, suspension, termination of employment or transfer of a person or any disciplinary or other measure that adversely affects the employment or working conditions of a person is presumed to be a reprisal. Depriving a student, child or their parents of any right or subjecting them to differential treatment or suspending or expelling a student who has made a report or filed a complaint is also presumed to be a reprisal."

38. The Act is amended by inserting the following section after section 135:

"**135.1.** Every person who threatens or intimidates or attempts to threaten or intimidate a person or takes or attempts to take reprisals referred to in section 118.1 is liable to a fine of $2,000 to $20,000 in the case of a natural person and $10,000 to $250,000 in any other case.

For a subsequent offence, the amounts are doubled."

TRANSITIONAL AND FINAL PROVISIONS

39. A committee set up under section 28 of the Education Act (chapter I-13.3), as it read on the date preceding the date of coming into force of section 4 of this Act, to inquire into a complaint continues the inquiry in accordance with the provisions of subdivision 3 of Division III of Chapter II of the Education Act, as they read on that date.

40. The Minister must, not later than the date that is five years after the date of coming into force of sections 14 and 26 of this Act, report to the Government on the implementation of this Act. The report must contain the number and nature of the reports brought to the attention of school service centres and private educational institutions each year concerning any failure to comply with the provisions of their code of ethics in accordance with section 220 of the Education Act and section 63.8 of the Act respecting private education (chapter E-9.1).

The report must be tabled by the Minister in the National Assembly within the next 30 days or, if the Assembly is not sitting, within 30 days of resumption.

41. The provisions of this Act come into force on the date or dates to be set by the Government.

106842

Regulations and other Acts

Gouvernement du Québec

O.C. 843-2024, 15 May 2024

Designation of foreign States where the rules and practices relating to surrogacy meet the requirements prescribed by article 541.31 of the Civil Code

WHEREAS, under the first paragraph of article 541.31 of the Civil Code, as enacted by section 20 of the Act to reform family law with regard to filiation and to protect children born as a result of sexual assault and the victims of that assault as well as the rights of surrogates and of children born of a surrogacy project (2023, chapter 13), a parental project involving surrogacy may be carried out only if the woman or the person who has agreed to give birth to the child is domiciled in a foreign State designated by the Government;

WHEREAS, under the second paragraph of article 541.31 of the Civil Code, as enacted by section 20 of the Act to reform family law with regard to filiation and to protect children born as a result of sexual assault and the victims of that assault as well as the rights of surrogates and of children born of a surrogacy project, the Government may only designate a foreign State where the rules and practices relating to surrogacy are not contrary to public order and respect the interest of the child once born, including the child's safety and integrity, as well as the safety and integrity of the other persons involved in a surrogacy project, and the Government may also take into account any other criteria it considers appropriate;

WHEREAS it is expedient to designate Alberta, British Columbia, Prince Edward Island, Manitoba, Nova Scotia, Ontario and Saskatchewan as foreign States where the rules and practices relating to surrogacy are not contrary to public order and respect the interest of the child once born, including the child's safety and integrity, as well as the safety and integrity of the other persons involved in a surrogacy project, and where the rules in this matter are similar to those of Québec;

IT IS ORDERED, therefore, on the recommendation of the Minister of Justice, the Minister of Health, the Minister Responsible for Social Services and the Minister Responsible for Canadian Relations and the Canadian Francophonie:

THAT Alberta, British Columbia, Prince Edward Island, Manitoba, Nova Scotia, Ontario and Saskatchewan be designated as foreign States where the rules and practices relating to surrogacy are not contrary to public order and respect the interest of the child once born, including the child's safety and integrity, as well as the safety and integrity of the other persons involved in a surrogacy project, and where the rules in this matter are similar to those of Québec;

THAT 6 June 2024 be set as the date of coming into force of that designation.

DOMINIQUE SAVOIE
Clerk of the Conseil exécutif

106851

Gouvernement du Québec

O.C. 848-2024, 15 May 2024

Building Act
(chapter B-1.1)

Construction Code

Regulation
— Amendment

Regulation to amend the Construction Code and the Regulation respecting the application of the Building Act

WHEREAS, under the first and second paragraphs of section 173 of the Building Act (chapter B-1.1), the Régie du bâtiment du Québec is to adopt by regulation a building code containing building standards for buildings, facilities intended for use by the public, installations independent of a building and petroleum equipment installations or their vicinity;

WHEREAS, under subparagraph 1 of the third paragraph of section 173 of the Act, the code may contain building standards regarding the design and procedures for the construction of buildings, facilities intended for use by the public, installations independent of a building or petroleum equipment installations;

WHEREAS, under subparagraph 2 of the third paragraph of section 173 of the Act, the code may contain building standards regarding fire and accident prevention and protection;

WHEREAS, under subparagraph 3 of the third paragraph of section 173 of the Act, the code may contain building standards regarding the safety and strength of buildings, facilities intended for use by the public, installations independent of a building or petroleum equipment installations;

WHEREAS, under subparagraph 5 of the third paragraph of section 173 of the Act, the code may contain building standards regarding ease of access to buildings and facilities intended for use by the public;

WHEREAS, under subparagraph 7 of the third paragraph of section 173 of the Act, the code may contain building standards regarding the materials, appliances or equipment to be used or prohibited in buildings, facilities intended for use by the public, installations independent of a building or petroleum equipment installations;

WHEREAS, under subparagraph 8 of the third paragraph of section 173 of the Act, the code may contain building standards regarding the quality, assembly, erection, inspection, certification, approval, quantity, site and tests of materials, facilities, apparatus and installations;

WHEREAS, under section 176 of the Act, the code may require manufacturers to provide instructions regarding the assembly, erection, maintenance and inspection of materials, facilities and installations;

WHEREAS, under section 176.1 of the Act, the code may, with respect to the matters to which it applies, contain provisions concerning the subjects listed in section 185 of the Act;

WHEREAS, under section 178 of the Act, the code may require observance of a technical standard drawn up by another government or by an agency empowered to draw up such standards and also provide that any reference it makes to other standards include subsequent amendments;

WHEREAS, under section 179 of the Act, the Board may determine the provisions of a code of which the infringement shall constitute an offence under paragraph 7 of section 194 of the Act;

WHEREAS, under paragraph 0.1 of section 185 of the Act, the Board may, by regulation, exempt from the application of the Act or certain of its provisions categories of persons, contractors, owner-builders, manufacturers of pressure installations, or owners of buildings, facilities intended for use by the public, installations independent of a building or petroleum equipment installations, and categories of buildings, pressure installations, facilities, installations or construction work;

WHEREAS, under paragraph 0.2 of section 185 of the Act, the Board may, by regulation, for the purposes of section 10 of the Act, designate any facility as a facility intended for use by the public and establish criteria for determining whether or not a facility is intended for use by the public;

WHEREAS, under paragraph 2.1.1 of section 185 of the Act, the Board may, by regulation, prescribe in what cases and on what terms and conditions the members of a professional order are, by virtue of their status, recognized to exercise the functions of a recognized person for the purposes of sections 16, 17.4, 33 to 35 and 37.4 of the Act;

WHEREAS, under paragraph 7 of section 185 of the Act, the Board may, by regulation, determine the cases in which a contractor or owner-builder must obtain plans and specifications before construction work begins or final plans and specifications when the work is completed, in accordance with section 17.4, and the other obligations, terms and conditions relating to those plans and specifications, in particular to their form, content, conservation and delivery;

WHEREAS, under paragraph 37 of section 185 of the Act, the Board may, by regulation, determine the provisions of a regulation adopted under this section of which the infringement shall constitute an offence under subparagraph 7 of section 194 of the Act, with the exception of provisions adopted under paragraphs 5.2, 18, 18.1, 20 and 36.1 and under paragraphs 16 and 17 with respect to fees payable;

WHEREAS, under paragraph 38 of section 185, the Board may, by regulation, adopt, generally, any other related or suppletory provision it considered necessary to give effect to the provisions of this section and of the Act;

WHEREAS, under the first paragraph of section 192 of the Act, the contents of the code or the regulations may vary according to the classes of persons, contractors, owner-builders, owners of buildings, facilities intended for use by the public, installations independent of a building, as well as classes of buildings, pressure installations, facilities or installations to which the code or the regulations apply;

WHEREAS the board of directors of the Board made the Regulation to amend the Construction Code and the Regulation respecting the application of the Building Act by its resolution dated 8 June 2023;

WHEREAS, in accordance with sections 10 and 11 of the Regulations Act (chapter R-18.1), a draft Regulation to amend the Construction Code and the Regulation respecting the application of the Building Act was

published in Part 2 of the *Gazette officielle du Québec* of 13 September 2023 with a notice that it could be approved by the Government, with or without amendment, on the expiry of 45 days following that publication;

WHEREAS, under section 189 of the Building Act, every code or regulation of the Board is subject to approval by the Government, which may approve it with or without amendment;

WHEREAS the board of directors of the Board recommended to the Minister of Labour to submit the Regulation to amend the Construction Code and the Regulation respecting the application of the Building Act to the Government for approval and publication in the *Gazette officielle du Québec* by its resolution dated 7 February 2024;

WHEREAS it is expedient to approve the Regulation with amendments;

IT IS ORDERED, therefore, on the recommendation of the Minister of Labour:

THAT the Regulation to amend the Construction Code and the Regulation respecting the application of the Building Act, attached to this Order in Council, be approved.

DOMINIQUE SAVOIE
Clerk of the Conseil exécutif

Regulation to amend the Construction Code and the Regulation respecting the application of the Building Act

Building Act
(chapter B-1.1, s. 173, 1st and 2nd pars., 3rd par., subpars. 1 to 3, 5, 7, and 8, ss. 176, 176.1, 178, 179, 185, pars. 0.1, 0.2, 2.1.1, 7, 37 and 38, and s. 192)

1. The Construction Code (chapter B-1.1, r. 2) is amended by replacing Chapter IV by the following:

"**CHAPTER IV**
ELEVATORS AND OTHER ELEVATING DEVICES

DIVISION I
GENERAL

4.01. This Chapter applies to all construction work on an elevator or elevating device in a building or constituting a facility intended for use by the public under section 4.05.

Despite the first paragraph, this Chapter does not apply to construction work on wind turbine tower elevators.

4.02. In this Chapter, unless the context indicates otherwise,

"code" means Code ASME A17.1-2019/CSA B44:19, Safety Code for Elevators and Escalators, published by CSA Group;

"elevating device" means a lift referred to and defined in the standard.

"standard" means Standard CSA B355:19, Platform lifts and stair lifts for barrier–free access, published by CSA Group;

In addition, elevator includes freight elevators, dumbwaiters, escalators, moving walks and material lifts referred to and defined in the Code, except wind turbine tower elevators.

4.03. The code and standard referred to in the first paragraph of section 4.02 are incorporated into this Chapter by reference, subject to the amendments specified in Division III.

4.04. Any amendment to the Code or the standard, published by CSA Group, applies to construction work as of the last day of the sixth month that follows the publication of the French version of the amendment.

Despite the first paragraph, errata take effect as soon as they are published by CSA Group.

4.05. The following facilities are intended for use by the public for the purposes of section 10 of the Building Act (chapter B-1.1):

(1) elevators, dumbwaiters, escalators, moving walks and material lifts covered by the Code, other than wind turbine tower lifts;

(2) elevating devices covered by the standard.

4.06. Subject to the second paragraph, a reference in this Chapter to a standard, including a code, is a reference to that standard as adopted by a chapter of the Construction Code, the Safety Code (B-1.1, r. 3) or another regulation made under the Building Act (chapter B-1.1) that refers to it.

Despite paragraph 13 of section 5.05 of the Construction Code, section 38 of the Canadian Electrical Code, Part I, CSA C22.1, published by CSA Group, applies for the purposes of this Chapter.

DIVISION II
DESIGN, MANUFACTURING AND WORK CONFORMITY

§1. Recognized persons and bodies

4.07. For the purposes of this Chapter, every engineer who is a member of the Ordre des ingénieurs du Québec and every holder of a special authorization issued by the Order under section 42.4 of the Professional Code (chapter C-26) whose professional activities are connected with the field of elevators and other lifts are recognized *ex officio*.

4.08. For the purposes of this Chapter and the requirements of the Code and the standard, and for the purposes of CSA Standard B44.1/ASME A17.5, Elevator and escalator electrical equipment, and ASME A17.7/ CSA Standard B44.7, Performance-based safety code for elevators and escalators, a certification body is any conformity assessment body accredited by one of the following bodies:

(1) the Standards Council of Canada;

(2) a body member of the International Accreditation Forum and signatory of multilateral recognition agreements for the certification of products;

(3) a body designated in accordance with the Protocol on the mutual acceptance of the results of conformity assessment, integrated into the Comprehensive Economic and Trade Agreement between Canada and the European Union and its Member States.

§2. Design and manufacturing

4.09. Elevators and other elevating devices shall comply with the design and manufacturing requirements of the Code or standard, as the case may be.

4.10. Where the Code or one of the standards referred to in section 4.08 requires that a material, accessory, device, component, system or subsystem be certified, it shall be certified by a certification body referred to in that section.

4.11. Before carrying out the construction work referred to in section 4.01, a contractor or an owner-builder shall obtain the plans and specifications prepared by a recognized person.

The first paragraph does not apply to maintenance, repair or demolition work on an elevator or other elevating device.

4.12. The plans shall include, depending on the type of elevator or elevating device, the information provided for in section 2.28 or 3.28 of the Code.

4.13. The plans shall be drawn to scale and shall, with the specifications, indicate the nature and scope of the work in such manner as to establish if the work carried out complies with this Chapter.

4.14. Before installing an elevating device, a prototype of the device shall be the subject of a certificate of conformity to the standard prepared by a recognized person. The certificate shall be sent to the Régie du bâtiment du Québec and shall include

(1) the type of device;

(2) the trademark of the device;

(3) the model number of the device;

(4) the features of the device; and

(5) the name of the manufacturer of the device.

The Board shall publish and keep up to date on its website a list of the prototypes of elevating devices that are the subject of the certificate of conformity provided for in the first paragraph.

§3. Work conformity

4.15. Following the carrying out of the construction work referred to in section 4.01, other than maintenance, repair or demolition work, the contractor or owner-builder shall

(1) submit the elevator or the elevating device to the tests and inspections referred to in section 8.10 of the Code or Annex A of the standard, as the case may be; and

(2) send to the Board, not later than 20 days after the date of completion of the work or the re-use of the elevator or elevating device, a declaration of work including the following information:

(*a*) the components that were subject to the tests and inspections referred to in paragraph 1;

(*b*) the date on which the tests and inspections were conducted together with the name and title of the person by whom they were performed;

(*c*) the name, address, telephone number and email address of the owner;

(*d*) the address of the work site and the nature of the work;

(*e*) the type, trademark, model, technical features and the name of the manufacturer of the elevator or the elevating device.

DIVISION III
AMENDMENTS TO THE CODE AND THE STANDARD

4.16. The amendments to the Code are as follows:

Provision	Amendments
	Replace the terms “inspection”, “inspecter” and “inspecté” wherever they appear in the French text by “vérification”, “vérifier” and “vérifié”, respectively;
	Replace the terms “palier terminal” and “paliers terminaux” wherever they appear in the French text by “palier extrême” and “paliers extrêmes”, respectively.
1.1.2	Add “, except dumbwaiters and material lifts” at the end of *w*).
1.2.1	Add the following at the end: “For the purposes of b) and c), the approval of the Régie du bâtiment du Québec is required, in accordance with section 127 of the Building Act (chapter B-1.1).”.
1.2.2	Add “and provided that the Régie du bâtiment du Québec approves it in accordance with section 127 of the Building Act (chapter B-1.1)” at the end.
1.2.2.1	Strike out the section.
1.2.2.2	Strike out the section.
1.2.2.3	Strike out the section.
1.3	Add the following at the end of the definitions of “*elevator, inclined*” and “**inclined elevator**”: “This term also includes a funicular elevator”;
	Replace the definitions of the defined terms below by the following: “**Authority having jurisdiction** — Régie du bâtiment du Québec (see **Regulatory authority**).”; “**Regulatory authority** — Régie du bâtiment du Québec (see **Authority having jurisdiction**).”; **“Building code** — the National Building Code of Canada (NBC).”;

Provision	Amendments
	Replace the term “ou monte-charge” wherever it appears in the French text of the definition of “**Ascenseur ou monte-charge d’habitation privée**” by “ou petit monte-charge”;
	Replace “des personnes autorisées, de leurs outils et de leur matériel” in the French text of the definition of “**Ascenseur ou monte-charge pour usage spécial**” by “du personnel autorisé, de ses outils et de son matériel”;
	Replace the defined term “Ascenseur ou monte-charge d’habitation privée” in the French text by the following: “**Ascenseur ou petit monte-charge d’habitation privée** — voir **Ascenseur ou monte-charge**”;
	Replace the defined term “**Dispositif de réarmement manuel d’ascenseur ou monte-charge d’habitation privée**” in the French text by the following: “**Dispositif de réarmement manuel d’ascenseur ou petit monte-charge d’habitation privée** — dispositif non accessible aux occupants ou au personnel autorisé qui requiert l’intervention sur place d’un membre du personnel d’ascenseur avant le redémarrage d’un ascenseur ou petit monte-charge.”
	Replace “aux personnes autorisées” in the French text of the definition of “**Dispositif de réarmement manuel d’escalier mécanique et de trottoir roulant**” by “au personnel autorisé”;
	Replace the defined term “**Élingue**” in the French text by the following, respecting alphabetical order: “**Étrier** — voir **Étriers de cabine**.”;
	Replace “des personnes autorisées” in the French text of the definition of “Monte-matériaux” by “du personnel autorisé”;
	Replace “des personnes autorisées” in the French text of the definition of “**Préposé désigné**” by “du personnel autorisé”;
	Replace the definition of “Personne autorisée” in the French text by the following: “**Personnel autorisé** — personne qui a reçu la formation nécessaire lui permettant d’utiliser le matériel et qui a été désigné comme utilisateur de ce matériel par le propriétaire.”;

Provision	Amendments
	Replace the definition of "Phase I Rappel d'urgence" in the French text by the following: "**Phase I ou rappel de secours** — fonctionnement qui rappelle automatiquement ou manuellement un ascenseur ou un monte-charge au palier de rappel et qui retire l'appareil du service normal à la suite du déclenchement de mesures d'urgence contre les incendies."; Replace the definition of "Dispositif de déplacement, escalier mécanique ou trottoir roulant" in the French text by the following, respecting alphabetical order: "**Relocalisation d'escalier mécanique ou trottoir roulant** — déplacement d'un escalier mécanique ou d'un trottoir roulant à partir d'une gaine ou cuvette vers une autre gaine ou cuvette, ou l'action de fixer l'escalier mécanique ou trottoir roulant à différentes plaques de soutien ou supports."; Replace the definition of "Rétablissement de plongeur télescopique" in the French text by the following, respecting alphabetical order: "**Synchronisation de plongeur télescopique** — opération qui permet de rétablir la position verticale relative des plongeurs multiples d'un ensemble de plongeurs télescopiques."; Replace "des personnes autorisés qui connaissent" in the French text of the definition of "Zone réservée" by "du personnel autorisé qui connait".
2.2.2.6	Replace the section by the following: "**2.2.2.6** Struck out. **2.2.2.7** Sump pumps and their control equipment shall not be installed in any elevator pit".
2.5.1.6	Insert ", on each side of the hoistway," after "Where the lowest landing sill"; Insert "between the lower part of each car platform apron and the hoistway fascia corresponding" after "This clearance shall be maintained".
2.7.8	Replace "à distance" wherever it appears in the French text by "séparés".

Provision	Amendments
2.7.8.4	Replace “à distance” wherever it appears in the French text by “séparés”.
2.13.3.4.10	Replace “aux personnes autorisées” and “SEULES LES PERSONNES AUTORISÉES ONT” in (b) of the French text by “au personnel autorisé” and “SEUL LE PERSONNEL AUTORISÉ A”, respectively.
2.14.1.3	Replace “gaine” in the heading of the French text by “cabine”.
2.14.2.1.2	Replace “et un indice de propagation des flammes maximal de 0 à 450” in b) of the French text by “et un indice de dégagement des fumées de 0 à 450”.
2.15.9	Insert “and non-retractable” after “smooth”.
2.20.6	Strike out “ascenseurs ou” in the French text.
2.20.8.1	Replace “le découplement de l’alimentation électrique” in the French text of c) by “la coupure de l’alimentation électrique”.
2.25.3.3.1	Replace “des conducteurs intégrés au câble mobile” in the second paragraph of the French text by “des conducteurs intégrés au câble pendentif”.
2.27.7.2	Replace “rappel d’urgence” in the French text of the heading of Figure 2.27.7.2 by “rappel de secours”.
2.27.11 to 2.27.11.6.10	Replace 2.27.11 to 2.27.11.6.10 by the following: “**2.27.11 Occupant Evacuation Operation** Occupant evacuation using an elevator is prohibited.”.
3.4.1.2	Replace “tout appareillage sur la cabine” in the French text of a) by “tout matériel sur la cabine”.

Provision	Amendments
3.12	Replace the heading in the French text by the following: "**3.12 Dispositifs de verrouillage et de détection de fermeture de porte ou barrière palière et interrupteurs d'accès à la gaine**".
3.19.2.2	Replace "de série 40" in the French text by "de Schedule 40".
3.25.1.1	Replace "le rétablissement (voir l'article 3.26.7)" in the third paragraph of the French text by "la synchronisation (voir l'article 3.26.7)".
3.25.2.4.4	Replace "Les dispositifs redondants utilisés pour satisfaire à l'alinéa i)" in the French text of a)2) by "Les dispositifs redondants utilisés pour satisfaire à l'alinéa 1)".
3.26.1	Replace "Les exigences de l'article 2.26.10" in the French text of e) by "Les exigences de l'article 2.26.6".
3.26.3.1.5	Replace "le rétablissement" in the French text of b) by "la synchronisation".
3.26.7	Replace the terms "Rétablissement", "le rétablissement" and "de rétablissement" wherever they appear in the French text by "Synchronisation", "la synchronisation" and "de synchronisation", respectively.
3.26.11.1	Replace "(article 2.13)" in the French text of b) by "(article 3.13)"; Replace "rétablissement" in the French text of h) by "synchronisation".
3.26.11.3	Replace "ou de la batterie d'ascenseurs" in a) of the French text by "ou du groupe des ascenseurs"
4.2.5.1	Replace "emplacement de la machinerie distinct" in the French text by "emplacement de la machinerie séparé".
4.2.5.3	Replace "emplacement de la machinerie distinct" in the French text by "emplacement de la machinerie séparé".

Provision	Amendments
4.2.15.11	Replace “à une personne autorisée” in the French text by “au personnel autorisé”.
5	Replace “ascenseurs ou monte-charges à utilisation limitée ou à usage limité” in the French text of b) by “ascenseurs à utilisation limitée et à usage limité”.
5.1.7	Replace “Appareillage” in the heading of the French text by “Matériel”.
5.2	Replace the title in the French text by the following: “5.2 Ascenseurs à utilisation limitée et à usage limité”; Replace “ascenseurs ou monte-charges à utilisation limitée/à usage limité” in the French text by “ascenseurs à utilisation limitée et à usage limité”; Replace “ascenseurs ou monte-charges à utilisation limitée ou à usage limité” in the French text of the Note by “ascenseurs à utilisation limitée et à usage limité”.
5.2.1	Strike out “ou monte-charges” in the French text.
5.2.1.1.1	Strike out “ou monte-charges” in the French text.
5.2.1.4.1	Strike out “ou monte-charges” in the French text.
5.2.1.16.2	Strike out “ou monte-charge” in the French text of a).
5.2.1.16.3	Strike out “ou monte-charges” in the French text.
5.2.1.20.1	Strike out the term “ou monte-charges” wherever it appears in the French text.
5.2.1.24.1	Strike out “ou monte-charges” in the French text.
5.2.1.28	Strike out “ou monte-charges” in the French text.

Provision	Amendments
5.2.2	Strike out “ou monte-charges” in the French text of the heading;
	Replace “ascenseurs ou monte-charges à utilisation limitée/usage limité” in the French text by “ascenseurs à utilisation limitée et à usage limité”.
5.2.2.5.1	Strike out “ou monte-charges” in the first paragraph of the French text.
5.2.2.6	Replace the French text of the section by the following: “**5.2.2.6 Vérins hydrauliques et poulies** Les vérins hydrauliques et les poulies doivent être conformes à l’article 3.18. Toute référence à l’article 2.20 dans l’article 3.18.1.2.1 doit être remplacée par une référence à l’article 5.2.1.20. Toute référence à l’article 2.24.2 dans l’article 3.18.1.2.3 doit être remplacée par une référence aux l’articles 5.2.1.24.2 et 5.2.1.24.3.”.
5.3.1.7.3	Replace the heading of the French text by the following: “**5.3.1.7.3 Locaux des machines et des commandes séparés et emplacements de la machinerie séparés**”.
5.3.2.4.6	Replace “l’article 7.2.5” in the French text of e) by “l’article 5.3.1.12.6”.
5.7	Replace “des personnes autorisées, de leurs outils et de leur matériel” in the French text by “du personnel autorisé, de ses outils et de son matériel”.
5.7.18.9	Replace “aux personnes autorisées” in the French text by “au personnel autorisé”.
5.10.1.7.1	Replace “aux personnes autorisées” in the French text of b) by “au personnel autorisé”.
5.10.1.9.5	Replace “il doit aussi y avoir des serrures positives” in the French text of a) by “il doit aussi y avoir des dispositifs à action positive”.
5.11	Strike out the section.

Provision	Amendments
5.12 to 5.12.3	Replace sections 5.12 to 5.12.3 by the following: "**5.12 OUTSIDE EMERGENCY ELEVATORS.** Outside emergency elevators are prohibited.".
6.1.3.15	Replace the section by the following: "**6.1.3.15 Water Accumulation.** Permanent provisions shall prevent accumulation of groundwater in the pit.".
6.1.6.1.1	Replace the section by the following: "**6.1.6.1.1 Automatic Operation.** Automatic starting is prohibited. Automatic stopping, except as required in 6.1.6, is prohibited.".
	Add the following section: "**6.1.7.3.5** If machinery or the controller of an escalator is installed outside the trusses, the following requirements for machine rooms and control rooms shall apply, with the necessary modifications: 2.7.1, 2.7.2, 2.7.3.1.1, 2.7.3.1.3, 2.7.3.3, 2.7.3.4.1, 2.7.3.4.2, 2.7.3.5, 2.7.6.6, 2.7.9.2, 2.8.1, 2.8.2.1, 2.8.3, 2.8.4, 2.8.5, 6.1.7.1.1 and 8.1.3. Machine rooms and control rooms shall have clear headroom of not less than 2 130 mm (84 in.). Moving equipment (chain and belt of the driving machine, gearing, key, keyways, and screws in projecting shafts) shall be guarded to protect against accidental contact.".
6.2.3.18	Replace the section by the following: "**6.2.3.18 Water Accumulation.** Permanent provisions shall prevent accumulation of groundwater in the pit.".
6.2.6.1.2	Replace the section by the following: "**6.2.6.1.2 Automatic Operation.** Automatic starting is prohibited. Automatic stopping, except as required in 6.2.6, is prohibited.".
	Add the following section: "**6.2.7.3.5** If machinery or the controller of a moving walk is installed outside the trusses, the following requirements for machine rooms and control rooms

Provision	Amendments
	shall apply, with the necessary modifications: 2.7.1, 2.7.2, 2.7.3.1.1, 2.7.3.1.3, 2.7.3.3, 2.7.3.4.1, 2.7.3.4.2, 2.7.3.5, 2.7.6.6, 2.7.9.2, 2.8.1, 2.8.2.1, 2.8.3, 2.8.4, 2.8.5, 6.1.7.1.1 and 8.1.3. Machine rooms and control rooms shall have clear headroom of not less than 2 130 mm (84 in.). Moving equipment (chain and belt of the driving machine, gearing, key, keyways, and screws in projecting shafts) shall be guarded to protect against accidental contact.”.
7.1.7.1	Replace “emplacement de la machinerie distinct” in the French text by “emplacement de la machinerie séparé”.
7.1.7.2	Replace “emplacement de la machinerie distinct” in the French text by “emplacement de la machinerie séparé”.
7.2.12.36	Replace “Les moteurs monophasés” in the French text by “Les moteurs simple phase C.A.”.
7.4.1	Replace “des personnes autorisées” in the French text by “du personnel autorisé”.
7.4.2.2	Replace “7.6 m (25 ft)” in (*c*) by “5 m (200 in.)”.
7.4.10.3	Strike out the section.
7.4.14.2	Strike out the section.
7.4.14.3	Strike out the section.
7.5.12.2.18	Strike out the section.
7.5.12.2.24	Replace “Les moteurs monophasés” in the French text by “Les moteurs simple phase C.A.”.

Provision	Amendments
8.1.3	Replace “personne autorisée” in the French text of the heading by “personnel autorisé”;
	Strike out “authorized and”.
8.1.4	Replace “aux personnes autorisées” in the French text by “au personnel autorisé”.
8.2.2.5.1	Replace “bas” in the title of Figure 8.2.2.5.1 in the French text by “basé.”
8.2.8.4	Replace “de série d’au moins 80 ou mieux” in the French text of the last paragraph by “de Schedule d’au moins 80”.
8.3.3.4.9	Replace the section in the French text by the following: “**8.3.3.4.9 Distances d’isolation électrique** Les distances d’isolation électrique doivent être conformes à l’article 16 de CSA B44.1/ASME A17.5.”.
8.4.8.2.2	Add the following in the French text after “Rapport $\frac{L}{\ell}$”: “L = distance entre les butées supérieure et inférieure du contrepoids, mm (po) ℓ = distance entre les étriers de fixation de guide, mm (po) W = masse réelle du contrepoids, kg (lb) W_a = masse ajustée du contrepoids, kg (lb) Pour des rapports de $L/\ell < 0{,}65$, on doit utiliser la masse pondérée du contrepoids $W_a = QW$ pour déterminer l’espacement des étriers de fixation de guide et le nombre d’étriers-tirants intermédiaires nécessaire. Exemple (pour un guide de 15 lb) : (unités SI) Pour un rapport $L/\ell = 0{,}15$ et un contrepoids d’une masse réelle de 3630 kg $Q = 1{,}35$ $W_a = 1{,}35\ (3630) = 4900$ kg

Provision	Amendments
	Si l'on prend la figure 8.4.8.2-4, zone de niveau 3 ou supérieure : l'espacement des étriers de fixation de guide = 3200 mm (sans étrier-tirant) ou jusqu'à 4215 mm (un étrier-tirant) ou jusqu'à 4675 mm (deux étriers-tirants) (unités anglo-saxonnes) Pour un rapport L/ℓ = 0,15 et un contrepoids d'une masse réelle de 8000 lb Q = 1,35 W_a1 = 1,35 (8000) = 10 800 lb Si l'on prend la figure 8.4.8.2-4, zone de niveau 3 ou supérieure : l'espacement des étriers de fixation de guide = 10 pi 6 po (sans étrier-tirant) ou jusqu'à 13 pi 10 po (un étrier-tirant) ou jusqu'à 15 pi 4 po (deux étriers-tirants)".
8.4.11.13	Replace the terms "du mazout" and "de mazout" wherever they appear in the French text by "de l'huile" and "d'huile", respectively.
8.4.12.2.1	Replace "Ascenseurs ou monte-charges à adhérence ou à câbles" in the French text of a) by "Ascenseurs ou monte-charges à adhérence ou hydrauliques à câbles".
8.5.2.2	Replace "(1 0,25)" and "(1 0,50)" in the French text of the second column of the table by "(1 ± 0,25)" and "(1 ± 0,50)", respectively.
8.6.1.1.2	Replace the section by the following: "**8.6.1.1.2** Maintenance, repairs, replacements, and tests shall conform to Section 8.6.".
8.6.1.1.3	Replace "8.6.1.1.2" by "Chapter IV, Elevators and other elevating devices, of the Safety Code (chapter B-1.1, r. 3)".
8.6.1.2.1	Replace "provided by the person(s) and/or firm maintaining the equipment" in (*a*) by "in place";

Provision	Amendments
	Add the following after *e*)*7*): "(*8*) CSA B44.2-10, *Maintenance requirements and intervals for elevators, dumbwaiters, escalators, and moving walks*, provides for the mandatory maintenance intervals where the condition, usage or inherent quality of the equipment is not known, or in the absence of the original manufacturer's recommendations. The measure does not apply for equipment installed, altered or modernized according to ASME A17.1-2010/CSA B44-10 or subsequent editions.".
8.6.1.2.2	Replace "des personnes autorisées" in (*d*)(*1*) of the second paragraph in the French text by "du personnel autorisé";
	Replace "des personnes autorisées" in (*d*)(*2*) of the second paragraph in the French text by "du personnel autorisé".
8.6.1.4	Strike out ", or as specified by the authority having jurisdiction".
8.6.1.4.1	Replace "le cas échéant" in the French text of a)2) by "selon le cas";
	Replace "de l'unité de transport" in (a)(3)(-c) of the French text by "de l'appareil";
	Replace "du registre" in (a)(3)(-d) of the French text by "de l'enregistrement";
	Strike out "or as specified by the authority having jurisdiction," in (*b*);
	Strike out "or as specified by the authority having jurisdiction" in (*c*).
8.6.1.7	Replace the section by the following: "**8.6.1.7. Periodic Tests.** The frequency of periodic tests are as follows: (*a*) category 1 tests: each year; (*b*) category 3 tests: every 3 years; (*c*) category 5 tests: every 5 years.".
8.6.1.7.1	Strike out the section.

Provision	Amendments
8.6.1.7.2	Insert “or the record” after “the test tag”.
8.6.1.7.5	Replace “manufacturer’s or the altering company’s procedures” by “manufacturer or those of an engineer”.
8.6.3.4.4	Add “The date on which the pull-through test was performed shall be entered in the record.” at the end.
	Add the following section: “**8.6.4.7.5** Sumps installed in pits shall be covered. The cover shall be secured and level with the pit floor.”.
8.6.4.19	Strike out “Note” and replace “8.11.1.3” by “8.6.1.7”.
8.6.4.20	Strike out “Note” and replace “8.11.1.3” by “8.6.1.7”.
8.6.4.20.4	Replace “ASME A17.12000/CSA B4400” in the second paragraph of the French text by “ASME A17.1-2000/CSA B44-00”.
8.6.5.13	Replace the term “joint d’étanchéité” wherever it appears in the French text by “scellé”.
8.6.5.14	Strike out “Note” and replace “8.11.1.3” by “8.6.1.7”.
8.6.5.15	Strike out “Note” and replace “8.11.1.3” by “8.6.1.7”.
8.6.5.16	Strike out “Note” and replace “8.11.1.3” by “8.6.1.7”.

Provision	Amendments
8.6.5.16.1	Strike out “at intervals specified by the authority having jurisdiction”.
8.6.7.2	Replace the title in the French text by the following: “**8.6.7.2 Ascenseurs à utilisation limitée et à usage limité**”. Replace “ascenseurs ou monte-charges à utilisation limitée ou à usage limité” in the French text by “ascenseurs à utilisation limitée et à usage limité”.
8.6.7.2.1	Replace “ascenseurs ou monte-charges à utilisation limitée ou à usage limité” in the French text by “ascenseurs à utilisation limitée et à usage limité”.
8.6.8.15	Strike out “Note” and replace “8.11.1.3” by “8.6.1.7”.
8.6.11.4.1	Replace “à des personnes autorisées (voir l’article 1.3) et formées” in the French text by “au personnel autorisé (voir l’article 1.3) et formé”.
8.6.11.4.5	Replace “des personnes autorisées formées” in the French text by “du personnel autorisé formé”.
8.6.11.5.4	Replace “Toutes les personnes autorisées” in the French text by “Tout le personnel autorisé”.
8.6.11.5.6	Replace “des personnes autorisées formées” in the French text by “du personnel autorisé formé”.
8.6.11.6.1	Replace a) in the French text by the following: “a) Seul le personnel autorisé (voir l’article 1.3) formé conformément aux articles 8.6.11.6.2 à 8.6.11.6.4 doit mettre en marche un escalier mécanique ou un trottoir roulant.”.
8.6.11.6.3	Replace “des personnes autorisées” in the French text by “du personnel autorisé”.
8.6.11.6.4	Replace “des personnes autorisées formées” in the French text by “du personnel autorisé formé”.

Provision	Amendments
8.6.11.13	Replace “des personnes autorisées” in the French text by “du personnel autorisé”.
8.7.2.16.1	Replace “à presse de serrage à coin graduel et à clavettes” in e) in the first paragraph of the French text by “à mâchoires à coin graduelles et à mâchoires-guides”.
8.7.5.3	Insert “petits” before the word “monte-charges” in the title in the French text; Insert “petit” before the word “monte-charge” wherever it appears in the French text.
8.7.5.4	Insert “petit” before the word “monte-charge” wherever it appears in the French text.
8.8.1	Strike out the section.
8.10.1.1.1	Strike out “by an inspector employed by the authority having jurisdiction, or by a person authorized by the authority having jurisdiction”.
8.10.1.1.2	Strike out “in the presence of the inspector specified in 8.10.1.1.1”.
8.10.1.1.3	Strike out the section.
8.10.1.1.4	Strike out “and of the inspector witnessing the test, including their inspector’s ID number and certifying organization,”.
8.10.1.1.5	Replace “, the name of the person or firm performing the test, the inspector’s name that witnessed the tests and their inspector’s ID number and certifying organization” by “and the name of the person or firm performing the test”.
8.10.1.2	Strike out the section.
8.10.1.6	Replace “Un document sur le matériel d’ascenseur ou monte-charge” in the French text by “Un document sur l’appareil”.

Provision	Amendments
8.10.5.2	Insert “petits” before the word “monte-charges” in the title and the first paragraph of the French text;
	Insert “petit” before “monte-charge” in the second paragraph of the French text.
8.10.5.4	Replace “seulement si des dispositifs de commande ou des parachutes de cabine sur le toit de la cabine et des parachutes de cabine sont installés” in the French text by “seulement si des dispositifs de commande de toit de cabine et des parachutes de cabine sont installés”.
8.10.5.5	Replace “ seulement si des dispositifs de commande et des parachutes de cabine sont installés sur le toit de la cabine” in the second paragraph of the French text by “seulement si des dispositifs de commande de toit de cabine et des parachutes de cabine sont installés”.
8.10.5.13	Replace the title in the French text by the following: “**8.10.5.13 Ascenseurs à utilisation limitée et à usage limité**”;
	Replace “ascenseurs ou monte-charges à utilisation limitée ou à usage limité” in the French text by “ascenseurs à utilisation limitée et à usage limité”.
8.11	Strike out the section.
9.1	Replace “CSA W47.1-1992 (R1998)” by “CSA W47.1 (latest edition)”.
Appendix V	Strike out the Appendix.
Appendix X	Replace “Rétablissement” in the French text of line 18 of Table X-2 by “Synchronisation”.

4.17. The amendments to the standard are as follows:

Provision	Amendments
	Replace the terms “inspection”, “inspecter” and “inspecté” wherever they appear in the French text by “vérification”, “vérifier” and “vérifié”, respectively.
1.6	Add “and the Régie du bâtiment du Québec has approved it in accordance with section 127 of the Building Act (chapter B-1.1)” at the end of the paragraph.
	Insert the following Clause: “**4.1.6 Elevating devices exposed to the elements** **4.1.6.1** Elevating devices exposed to the elements shall be designed and installed so that exposure to the elements does not hamper their operation. **4.1.6.1.1** Elevating device equipment and supports shall be protected against corrosion. **4.1.6.1.2** Electrical equipment and wiring shall afford a degree of protection suitable for outdoor installation, in accordance with the requirements of the *Canadian Electrical Code, Part I*.”.
4.2.1	Replace paragraph b) by the following: “*b*) enclosed platform lift: i) 7000 mm in the case of a private residence; or ii) 4250 mm in other cases.”.
4.2.5	Insert “or a stair platform lift” after “a stair lift”.
4.4.1	Insert the following at the end of Item b): “provided that the requirements for use by a person sitting or standing specified in the following Clauses are fulfilled: i) 7.7.2; ii) 7.7.3 by replacing “wheelchair-and-attendant platform” by “wheelchair platform”; and iii) 7.7.5 by replacing “wheelchair-and-attendant platform” by “wheelchair platform”;”.

Provision	Amendments
4.4.2	Insert the following at the end of Item b): “provided that the requirements for use by a person sitting or standing specified in the following Clauses are fulfilled: i) 7.7.2; ii) 7.7.3 by replacing “wheelchair-and-attendant platform” by “wheelchair platform”; and iii) 7.7.5 by replacing “wheelchair-and-attendant platform” by “wheelchair platform””.
	Add the following Clause: “**4.8.4** An automatic lighting of the car shall be permitted on the following conditions: a) the lighting may be cut only if the following three conditions exist for at least 5 minutes: i) the car is stopped at a landing; ii) the doors are closed; and iii) no call is made from the car or the landings. b) the momentary interruption of one of those conditions immediately activates the lighting; c) the operation of a switch or safety-related device must maintain or put into operation the lighting.”.
5.1.3.1	Strike out Item c).
5.1.3.2	Replace “lb-pi” in the French text of Items b)ii) and b)iii) by “lbf”.
	Add the following Clause: “**5.2.2.3 Vertical clearance** The vertical clearance between the bottom of the landing door or gate and the landing sill shall not exceed 10 mm (0.375 in.).”.

Provision	Amendments
	Add the following Clause: "**5.2.3.6** Interlocks certified in accordance with Clause 5.2.5.11 a) shall lock the door in the closed position with a minimum locking engagement of 7 mm (0.28 in.) of the locking elements before the interlock contacts associated with the closure of the doors or gates are closed.".
5.2.5.11	Replace the portion before a) by the following: "Locking engagement shall conform to the following requirement"; Strike out b).
5.4.2	Strike out "more than 300 mm" in the portion before Item a); Replace Items f) and g) by the following: "f) Pits extending to the ground shall be designed to prevent entry of groundwater into the pit. A drain shall be provided to prevent accumulation of water in the pit. g) Drains shall comply with the applicable National Plumbing Code, and they shall be provided with a positive means to prevent water, gases, and odours from entering the runway.".
5.6.2	Replace "by operation of the safeties" by "application of the safeties".
6.1.4.7	Replace "prior to use or engagement of the hand-moving device" by "while the hand-moving device is used or engaged".
	Add the following Clause: "**6.1.7 Suspension means passing through floors or stairs** Ropes and chains passing through a floor or stairway outside the hoistway enclosure shall be enclosed with a solid or openwork enclosure. Any openwork enclosure shall reject a ball exceeding 13 mm (0.5 in.) in diameter. Means for inspection shall be provided. The floor openings shall not be larger than is necessary to clear the suspension means.".

Provision	Amendments
6.2.1.1	Replace Item b) by the following “b) aircraft cable rope of 7 x 19 construction may be used in those applications where the rope is not subjected to crushing pressures. The aircraft cable shall meet the requirements of NPFC MIL-DTL- 83420M Spec, subject to the following exceptions: i) nonjacketed carbon steel, tin- or zinc-coated (Type 1A) 7 × 19 construction are permitted (see Section 3.4.3.3 of NPFC MIL-DTL-83420M Spec); and ii) identifying colour tracer filaments are not required (see Section 3.6.2 of NPFC MIL-DTL- 83420M Spec).”.
6.2.5.1	Strike out the Clause.
6.2.5.2	Strike out the Clause.
	Add the following Clause: “**6.6.2.1.4** The sizing of the relief valve and the bypass connection shall be sufficient to permit the maximum flow of the pump without the pressure rising above 50% of the working pressure. The use of more than one relief valve shall be permitted.”.
6.9 to 6.9.5.2	Strike out the Clauses.
7.2.7 to 7.2.7.2	Strike out the Clauses.
7.3.2	Replace “designed” in Item a) by “perforated and designed”.
7.6.4.1	Replace “1:10.1” in Item c) by “1:10”.
8.2.3.1	Replace “890 to 1370 mm” in Item d) by “400 to 1200 mm”.
8.3.3.1	Replace “the alarm on an enclosed vertical platform lift shall” by “the alarm and the emergency communication device on an enclosed vertical platform lift shall”.

Provision	Amendments
8.3.5	Replace the second paragraph by the following: "If the call is placed automatically and is not acknowledged by a live person, the call shall be automatically redirected within 45 seconds to a location monitored by personnel who may take the appropriate actions. The communications shall not be transmitted to an automated answering system.".
8.5.2.3	Replace the Clause by the following: "**8.5.2.3 Pendant control and remote control** Where a pendant control or remote control is used, an emergency stop device conforming to Clause 8.5.2.1 shall be incorporated in the pendant control and the remote control.".
Annex A	Replace the portion before A.1 by the following: "*Annex A (mandatory) Inspection and testing*"; Insert "and 4.1.6" after "4.1.4" in Clause A.2 a)i); Insert "and 6.1.7" after "6.1.6" in Clause A.2 b)iv); Insert ", 5.2.3.6," after "5.2" in Clause A.2 c)ii); Insert the following after Clause A.2 d)i): "i.1) automatic lighting of the car (4.8.4)"; Insert "5.2.2.3," before "7.5.4" in Clause A.2 e)iii).
Annex B	Replace the portion before B.1 by the following: "*Annex B (mandatory) Maintenance for platform lifts and stair lifts*".

DIVISION IV
MORE STRINGENT PROVISIONS COVERING ATTACHMENTS USING CABLE CLAMPS

4.18. Where permitted by the Code or the standard, attachments using rope clamps as means of fastening a wire rope shall conform to this Division.

4.19. The minimum number of rope clips at each end of a rope is

(1) two, for ropes not more than 10 mm in diameter;

(2) three, for ropes greater than 10 mm and not more than 16 mm in diameter;

(3) four, for ropes greater than 16 mm in diameter, but not more than 19 mm.

4.20. The spacing between the rope clips shall be not more that six times the rope diameter.

4.21. A rope clip shall be placed so that the groove of the U-bolt-type clip bears on the dead end, and the base of the clip bears on the live end of the rope.

4.22. A rope end shall be bent over a lug whose groove has a radius equal to that of the rope.

4.23. A clip nut shall be tightened with a tightening torque in conformity with the specifications of the rope clip manufacturer.

DIVISION V
OFFENCE

4.24. Any contravention to a provision of this Chapter constitutes an offence.”.

2. The Regulation respecting the application of the Building Act (chapter B-1.1, r. 1) is amended by striking out paragraphs 4 to 6 of section 3.4.

3. Chapter IV of the Construction Code, as it read before 13 July 2024, may be applied to construction work on an elevator or lift other than maintenance, repair or demolition work, provided the work began before 13 July 2025.

4. This Regulation comes into force on the forty-fifth day following the date of its publication in the *Gazette officielle du Québec*.

106852

Gouvernement du Québec

O.C. 849-2024, 15 May 2024

Building Act
(chapter B-1.1)

Safety Code
— Amendment

Regulation to amend the Safety Code

WHEREAS, under the first and second paragraphs of section 175 of the Building Act (chapter B-1.1), the Régie du bâtiment du Québec adopts by regulation a safety code that contains safety standards for buildings, facilities intended for use by the public, installations independent of a building and petroleum equipment installations and their vicinity, and standards for their maintenance, use, state of repair, operation and hygiene;

WHEREAS, under subparagraph 1 of the third paragraph of section 175 of the Act, the code may contain standards regarding fire and accident prevention and protection;

WHEREAS, under subparagraph 2 of the third paragraph of section 175 of the Act, the code may contain standards regarding the maximum number of persons that may be admitted to a building or to a facility intended for use by the public;

WHEREAS, under subparagraph 3 of the third paragraph of section 175 of the Act, the code may contain standards regarding the supervision measures required and the qualifications of the persons who are to carry them out;

WHEREAS, under subparagraph 4 of the third paragraph of section 175 of the Act, the code may contain standards regarding the materials, apparatus and equipment to be used or prohibited in buildings, facilities intended for use by the public, installations independent of a building or petroleum equipment installations;

WHEREAS, under subparagraph 5 of the third paragraph of section 175 of the Act, the code may contain standards regarding the assembly, erection, inspection, certification, approval, quantity, site and tests of materials, facilities, apparatus and installations;

WHEREAS, under subparagraph 6 of the third paragraph of section 175 of the Act, the code may contain standards regarding the use, display and storage of substances involving safety hazards;

WHEREAS, under section 176 of the Act, the code may require manufacturers to provide instructions regarding the assembly, erection, maintenance and inspection of materials, facilities and installations;

WHEREAS, under section 176.1 of the Act, the code may, with respect to the matters to which it applies, contain provisions concerning the subjects listed in section 185 of the Act;

WHEREAS, under section 178 of the Act, the code may require observance of a technical standard drawn up by another government or by an agency empowered to draw up such standards and also provide that any reference it makes to other standards include subsequent amendments;

WHEREAS, under section 179 of the Act, the Board may determine the provisions of a code of which the infringement shall constitute an offence under paragraph 7 of section 194 of the Act;

WHEREAS, under paragraph 0.1 of section 185 of the Act, the Board may, by regulation, exempt from the application of the Act or certain of its provisions categories of persons, contractors, owner-builders, manufacturers of pressure installations, or owners of buildings, facilities intended for use by the public, installations independent of a building or petroleum equipment installations, and categories of buildings, pressure installations, facilities, installations or construction work;

WHEREAS, under paragraph 2.1.1 of section 185 of the Act, the Board may, by regulation, prescribe in what cases and on what terms and conditions the members of a professional order are, by virtue of their status, recognized to exercise the functions of a recognized person for the purposes of sections 16, 17.4, 33 to 35 and 37.4 of the Act;

WHEREAS, under paragraph 20 of section 185 of the Act, the Board may, by regulation, determine the cases in which it shall collect fees for approval, authorization, revision, inspection, training, consultation, issuance of certificates of conformity, accreditation of recognized persons or bodies, and verifications, and fix such fees;

WHEREAS, under paragraph 37 of section 185 of the Act, the Board may, by regulation, determine the provisions of a regulation adopted under this section of which the infringement shall constitute an offence under subparagraph 7 of section 194 of the Act, with the exception of provisions adopted under paragraphs 5.2, 18, 18.1, 20 and 36.1 and under paragraphs 16 and 17 with respect to fees payable;

WHEREAS, under paragraph 38 of section 185, the Board may, by regulation, adopt, generally, any other related or suppletory provision it considered necessary to give effect to the provisions of this section and of the Act;

WHEREAS, under the first paragraph of section 192 of the Act, the contents of the code or regulations may vary according to the classes of persons, contractors, owner-builders, owners of buildings, facilities intended for use by the public, installations independent of a building, as well as classes of buildings, pressure installations, facilities or installations to which the code or regulations apply;

WHEREAS, the board of directors of the Board made the Regulation to amend the Safety Code by its resolution dated 8 June 2023;

WHEREAS, in accordance with sections 10 and 11 of the Regulations Act (chapter R-18.1), a draft Regulation to amend the Safety Code was published in Part 2 of the *Gazette officielle du Québec* of 13 September 2023 with a notice that it could be approved by the Government, with or without amendment, on the expiry of 45 days following that publication;

WHEREAS, under section 189 of the Building Act, every code or regulation of the Board is subject to approval by the Government, which may approve it with or without amendment;

WHEREAS the board of directors of the Board recommended to the Minister of Labour to submit the Regulation to amend the Safety Code to the Government for approval and publication in the *Gazette officielle du Québec* by its resolution dated 20 March 2024;

WHEREAS it is expedient to approve the Regulation with amendments;

IT IS ORDERED, therefore, on the recommendation of the Minister of Labour:

THAT the Regulation to amend the Safety Code, attached to this Order in Council, be approved.

DOMINIQUE SAVOIE
Clerk of the Conseil exécutif

Regulation to amend the Safety Code

Building Act
(chapter B-1.1, s. 175, 1st par., 2nd par., 3rd par., subpars. 1 to 6, ss. 176, 176.1, 178, 179, 185, pars. 0.1, 2.1.1, 20, 37 and 38, and s. 192)

1. The Safety Code (chapter B-1.1, r. 3) is amended by replacing Chapter IV by the following:

"**CHAPTER IV**
ELEVATORS AND OTHER ELEVATING DEVICES

DIVISION I
GENERAL

90. In this Chapter, unless the context indicates otherwise,

"Code" means ASME A17.1-2019/CSA B44:19, Safety Code for Elevators and Escalators, referred to in the first paragraph of section 4.02 of the Construction Code (chapter B-1.1, r. 2), replaced by section 1 of the Regulation to amend the Construction Code and the Regulation respecting the application of the Building Act, approved by Order in Council 848-2024 dated 15 May 2024;

"elevating device" means a lift referred to and defined in the standard;

"standard" means CSA B355:19, Platform lifts and stair lifts for barrier-free access, referred to in the first paragraph of section 4.02 of the Construction Code, replaced by section 1 of the Regulation to amend the Construction Code and the Regulation respecting the application of the Building Act, approved by Order in Council 848-2024 dated 15 May 2024.

In addition, in this Chapter,

(1) a freight elevator, a dumbwaiter, an escalator, a moving walk and a material lift referred to and defined in the Code, except a wind turbine tower elevator, is deemed to be an elevator;

(2) the term "alteration" has the meaning given in the Code or standard, as the case may be;

(3) the term "private residence" has the meaning given in the Code or standard, as the case may be.

90.0.1. This Chapter applies to every elevator or other elevating device in a building or constituting a facility intended for use by the public under section 4.05 of the Construction Code (chapter B-1.1, r. 2), made by section 1 of the Regulation to amend the Construction Code and the Regulation respecting the application of the Building Act, approved by Order in Council 848-2024 dated 15 May 2024.

Despite the first paragraph, this Chapter does not apply to a wind turbine tower elevator.

90.1. Subject to the second paragraph, a reference in this Chapter to a standard, including a code, is a reference to the standard as adopted by a chapter of the Construction Code (chapter B-1.1, r. 2), the Safety Code or another regulation made under the Building Act (chapter B-1.1) that refers to it.

Despite paragraph 13 of section 5.05 of the Construction Code, Section 38 of the Canadian Electrical Code, Part I, CSA C22.1, published by CSA Group, applies for the purposes of this Chapter.

90.2. For the provision of a certificate of safety referred to in sections 33 and 34 of the Building Act (chapter B-1.1), every engineer who is a member of the Ordre des ingénieurs du Québec and every holder of a special authorization issued by the Order under section 42.4 of the Professional Code (chapter C-26) whose professional activities are connected with the field of elevators and other lifts are recognized *ex officio*.

DIVISION II
REQUIREMENTS APPLICABLE BY YEAR OF CONSTRUCTION OR ALTERATION

90.3. Every elevator shall be maintained in a safe and proper working condition in accordance with the regulatory requirements applicable at the time of its construction. If subsequently altered, it must meet the regulatory requirements applicable at the time of its alteration. In addition, it shall be maintained in accordance with section 8.6 of the Code.

Based on the date of construction or alteration, the regulatory requirements applicable to an elevator are deemed to be those indicated in the table below.

Date of construction or alteration	Regulatory requirements applicable
Work completed before 2 August 1990 or, with regard to moving walks, before 4 August 1988:	Part II of the Regulation respecting elevators, escalators, dumbwaiters, moving walks, freight platform lifts and elevating devices for disabled persons, except sections 13, 15, 16 and 17, the second and third paragraphs of section 19, sections 19.1 to 21 and 43 (O.C. 1009-88, 1988-06-22).
Work performed between 2 August 1990 and 26 February 1997 or, with regard to moving walks, between 4 August 1988 and 26 February 1997:	CSA Standard CAN3-B44-M85, Safety Code for Elevators, dated March 1986, including Supplement No.1-1987 and Appendix A, Private Residence Elevators and Inclined Lifts, published by the Canadian Standards Association (O.C. 1009-88, 1988-06-22).
Work performed between 27 February 1997 and 20 October 2004:	CSA Standard CAN/CSA-B44-94, Safety Code for Elevators, published in October 1994 and its Appendix A, Private Residence Elevators, published by the Canadian Standards Association (O.C. 111-97, 1997-01-29).
Work performed between 21 October 2004 and 30 May 2006:	CSA B44-00, Safety Code for Elevators, including the updates of June, November and December 2003, published by the Canadian Standards Association (O.C. 895-2004, 2004-09-22).
Work performed between 31 May 2006 and 30 January 2007:	CSA B44-04, Safety Code for Elevators and Escalators, published by the Canadian Standards Association (O.C. 895-2004, 2004-09-22).
Work performed between 31 January 2007 and 27 February 2007:	CSA B44-04, Safety Code for Elevators and Escalators and Supplement No.1 – 2006 (B44S1-06), published by the Canadian Standards Association (O.C. 895-2004, 2004-09-22).
Work performed between 28 February 2007 and 30 August 2008:	CSA B44-04, Safety Code for Elevators and Escalators, Supplement No.1 – 2006 (B44S1-06) and update No. 1-B44-04 - May 2006, published by the Canadian Standards Association (O.C. 895-2004, 2004-09-22).
Work performed between 31 August 2008 and 12 July 2024:	ASME A17.1-2007/CSA B44-07, Safety Code for Elevators and Escalators, published by the Canadian Standards Association (O.C. 895-2004, 2004-09-22).
Work performed since 13 July 2024:	ASME A17.1-2019/CSA B44:19, Safety Code for Elevators and Escalators, published by CSA Group (D. 848-2024, 2024-05-15).

The regulatory requirements apply taking into account the fact that

(1) a prior regulatory requirement may be applied for a period of 6 months following the date of coming into force of a new requirement;

(2) a regulatory requirement in force at the time of construction or alteration of an elevator may be subject to an equivalency measure or different measures as provided for in sections 127 and 128 of the Building Act (chapter B-1.1);

(3) an elevator installed before 27 August 1997 and last altered before that date, if applicable, and that is still compliant with CAN/CSA-B44-M90, Safety Code for Elevators: Escalators, Dumbwaiters, Moving Walks, and Freight Platform Lifts, and its Supplement No. 1 – 1992, published by the Canadian Standards Association, except for section 12, is deemed to comply with the regulatory requirements applicable at the time of its construction; and

(4) an elevator in a private residence installed or altered on 2 August 1990 that is still compliant with Appendix A of a code earlier than CAN3-B44-M85, Safety Code

for Elevators, published by the Canadian Standards Association, is deemed to comply with the regulatory requirements applicable at the time of its construction.

90.4. Every elevating device shall be maintained in a safe and proper working condition in accordance with the regulatory requirements applicable at the time of its construction. If subsequently altered, it must meet the regulatory requirements applicable at the time of its alteration. In addition, it shall be maintained in accordance with Appendix B of the standard.

Based on the date of construction or alteration, the regulatory requirements applicable to an elevating device are deemed to be those indicated in the table below.

Date of construction or alteration	Regulatory requirements applicable
Work completed not later than 26 February 1997:	Sections 7 to 12 and 15 of the Regulation respecting elevators, escalators, dumbwaiters, moving walks, freight platform lifts and elevating devices for disabled persons (O.C. 1009-88, 1988-06-22).
Work performed between 27 February 1997 and 20 October 2004:	CAN/CSA-B355-94, Lifts for Persons with Physical Disabilities, French language edition, published in January 1995 by the Canadian Standards Association, (O.C. 111-97, 1997-01-29).
Work performed between 21 October 2004 and 29 April 2010:	CAN/CSA B355-00, Lifts for Persons with Physical Disabilities, including Supplement No. 1 B355S1-02 and the updates of March 2002 and October 2003, published by the Canadian Standards Association (O.C. 895-2004, 2004-09-22).
Work performed between 30 April 2010 and 12 July 2024:	CSA B355-09, Lifts for Persons with Physical Disabilities, published by the Canadian Standards Association (O.C. 895-2004, 2004-09-22; O.C. 635-2012, 2012-06-13).
Work performed since 13 July 2024:	CSA B355:19, Platform lifts and stair lifts for barrier-free access, published by the Canadian Standards Association, and the erratum published in July 2020 (D. 848-2024, 2024-05-15).

The requirements apply taking into account the fact that

(1) a prior regulatory requirement may be applied for a period of 6 months following the date of coming into force of a new requirement;

(2) a regulatory requirement in force at the time of construction or alteration of an elevator may be subject to an equivalency measure or different measures as provided for in sections 127 and 128 of the Building Act (chapter B-1.1);

(3) a private residence lift for persons with physical disabilities installed or altered before 21 October 2004 is deemed to be compliant with the regulatory requirements applicable at the time of its construction if it remains compliant with

(*a*) CAN/CSA-B613-M87, Elevating Devices for the Handicapped in Private Residences, published by the Canadian Standards Association;

(*b*) CAN/CSA B613-00, Private Residence Lifts for Persons with Physical Disabilities, published by the Canadian Standards Association; or

(*c*) the guide Appareils élévateurs d'habitation pour personnes handicapées selon la norme CSA B613-00, published on 3 February 2003 by the Comité inter-organismes gouvernementaux pour l'application de la norme CSA B613; and

(4) a private residence lift for persons with physical disabilities installed or altered before 13 July 2024, is deemed to be compliant with the regulatory requirements applicable at the time of its construction if it remains compliant with CAN/CSA B613-00, Private Residence Lifts for Persons with Physical Disabilities, including the update of January 2002.

DIVISION III
PUTTING INTO SERVICE, USE AND MAINTENANCE

90.5. The owner of an elevator shall, as soon as it is put into service, establish a maintenance control program in accordance with section 8.6 of the Code and carry out

(1) category 1 periodic tests each year;

(2) category 3 periodic tests every three years; and

(3) category 5 periodic tests every 5 years.

In addition, the owner of a hydraulic elevator must ensure that it meets the requirements of section 8.6.5.8 of the Code.

91. An elevator or other elevating device shall be used for the purposes for which it was designed.

92. Any required rectification shall be made to an elevator or other elevating device when hazardous operating conditions have developed due to, in particular, intensive use, wear and tear, obsolescence or modifications.

93. The owner of an elevator shall keep the documents referred to in section 8.6.1.2.2 of the Code on the premises for consultation by the Board.

The owner of an elevating device shall keep a register of information on the maintenance provided for in Appendix B of the standard, along with updated cable layouts.

94. Maintenance or repair work may not be recorded in the documents or the register referred to in section 93 until the work has been completed and the rectifications made.

DIVISION IV
LEVIES AND FEES

95. A levy of $97.25 per elevator or other elevating device shall be paid annually to the Board by the owner of an elevator or other elevating device. However, for the year during which an elevator or other lift is put into service, the levy shall be $193.05.

96. The following fees shall be paid to the Board by the owner for the inspection of an elevator or other elevating device not later than 30 days after the invoice date:

(1) in the case of an elevator or any elevating device other than an inclined elevator,

(*a*) $162.58 where the elevator or other elevating device serves ten landings or fewer; and

(*b*) $162.58 plus $14.51 per landing in excess of the tenth landing, where the elevator serves more than 10 landings;

(2) in the case of an inclined elevator, $162.58 per hour or fraction of an hour.

97. Every owner shall pay to the Board inspection fees of $162.58 per hour or fraction of an hour for the inspection of an elevator or other elevating device carried out following the issue of a remedial notice provided for in section 122 of the Building Act (chapter B-1.1).

98. The owner shall allow the Board to affix an identification plate to an elevator or other elevating device.

DIVISION V
OFFENCES

99. Any contravention of any of the provisions of this Chapter, except sections 95 to 97, constitutes an offence.".

2. Despite section 90.5 of the Safety Code (chapter B-1.1, r. 3), made by section 1 of this Regulation, the owner of an elevator put into service before 13 July 2024 must put in place a maintenance control program not later than 13 July 2027.

In the case of a hydraulic elevator put into service before the coming into force of this Regulation, the verification of compliance provided for in the second paragraph of section 90.5 of the Safety Code, made by section 1 of this Regulation, must be carried out not later than 13 January 2025.

This section does not apply in cases where the putting in place of a quality control program is provided for in an equivalent or different measure, approved or authorized pursuant to section 127 or 128 of the Building Act (chapter B-1.1).

3. This Regulation comes into force on the forty-fifth day following the date of its publication in the *Gazette officielle du Québec*.

106853

Gouvernement du Québec

O.C. 850-2024, 15 May 2024

Building Act
(chapter B-1.1)

Construction Code
— Amendment

Regulation to amend the Construction Code

WHEREAS, under the first and second paragraphs of section 173 of the Building Act (chapter B-1.1), the Régie du bâtiment du Québec must by regulation adopt a building code that contains building standards for buildings, facilities intended for use by the public, installations independent of a building and petroleum equipment installations or their vicinity;

WHEREAS, under subparagraphs 1 and 6 of the third paragraph of section 173 of the Act, the code may contain, in particular, building standards regarding the design and procedures for the construction of buildings, facilities intended for use by the public, installations independent of a building and petroleum equipment installations, and the energy efficiency of buildings;

WHEREAS, under the fourth paragraph of section 173 of the Act, the building standards may include measures advocated by the Government to promote energy efficiency in buildings, facilities intended for use by the public, installations independent of a building and petroleum equipment installations;

WHEREAS, under section 176 of the Act, the codes may require manufacturers to provide instructions regarding the assembly, erection, maintenance and inspection of materials, facilities and installations;

WHEREAS, under section 176.1 of the Act, the code may, with respect to the matters to which it applies, contain provisions concerning the subjects listed in section 185 of the Act;

WHEREAS, under section 178 of the Act, the code may require observance of a technical standard drawn up by another government or by an agency empowered to draw up such standards and may also provide that any reference it makes to other standards includes subsequent amendments;

WHEREAS, under paragraph 0.1 of section 185 of the Act, the Board may, by regulation, exempt from the application of the Act or certain of its provisions categories of persons, contractors, owner-builders, manufacturers of pressure installations, or owners of buildings, facilities intended for use by the public, installations independent of a building or petroleum equipment installations, and categories of buildings, pressure installations, facilities, installations or construction work;

WHEREAS, under paragraph 0.4 of section 185 of the Act, the Board may, by regulation, determine standards for the energy efficiency of buildings;

WHEREAS, under paragraph 38 of section 185 of the Act, the Board may, by regulation, adopt, generally, any other related or suppletory provision it considered necessary to give effect to the provisions of that section and of the Act;

WHEREAS, under the first paragraph of section 192 of the Act, the contents of the code may vary according, in particular, to the classes of buildings;

WHEREAS, by its resolution dated 20 March 2024, the board of directors of the Board made the Regulation to amend the Construction Code and recommended to the Minister of Labour that he submit the Regulation to the Government for approval and publication in the *Gazette officielle du Québec*;

WHEREAS, in accordance with sections 10 and 11 of the Regulations Act (chapter R-18.1), a draft Regulation to amend the Construction Code was published in Part 2 of the *Gazette officielle du Québec* of 27 December 2023 with a notice that it could be approved by the Government, with or without amendment, on the expiry of 45 days following that publication;

WHEREAS, under section 189 of the Building Act, every code or regulation of the Board is subject to approval by the Government which may approve it with or without amendment;

WHEREAS it is expedient to approve the Regulation with amendments;

IT IS ORDERED, therefore, on the recommendation of the Minister of Labour:

THAT the Regulation to amend the Construction Code, attached to this Order in Council, be approved.

DOMINIQUE SAVOIE
Clerk of the Conseil exécutif

Regulation to amend the Construction Code

Building Act

(chapter B-1.1, s. 173, 1st par., 2nd par., 3rd par., subpars. 1 and 6, 4th par., ss. 176, 176.1, 178, 185, pars. 0.1, 0.4 and 38, and s. 192)

1. The Construction Code (chapter B-1.1, r. 2) is amended in section 1.1.1 by replacing "the "National Energy Code of Canada for Buildings 2015" (NRCC 56191)" in the first paragraph by "the "National Energy Code of Canada for Buildings 2020" (NRCC-CONST-56438E)".

2. Section 1.1.6 is replaced by the following:

"**1.1.6.** The amendments to the Code are the following:

Provision	**Amendments**
Division A Part 1	
1.1.1.1.	Replace Sentence (1) by the following: "**1)** Except as provided in Sentence (3) and as provided in sections 1.1.2 and 1.1.3 of the Construction Code (chapter B-1.1, r. 2) made under the Building Act (chapter B-1.1), this Code applies: a) to the design and construction of i) all new *buildings*, and ii) all new swimming pools designated as facilities intended for use by the public under section 10.03 of the Construction Code, and b) to *additions*. (See Note A-1.1.1.1.(1).)".
	Strike out Sentence (2).

1.1.1.2.	Add the following line after "**1.1.1.2. Building Parameters Covered by this Code**": "(See Note A-1.1.1.2.)".
1.2.1.1.	Insert the following in Clause (1)(b) after "applicable acceptable solutions": "and approved by the Régie du bâtiment du Québec or, in the case of *buildings* or equipment on which the Board has no jurisdiction, by the *authority having jurisdiction*".
1.3.3.1.	Replace the heading of the Article by the following: "**1.3.3.1. Application of Parts 1 to 8**"; Replace "Parts 1, 3 to 8 and 10" in Sentence (1) by "Parts 1 to 8".
1.4.1.2.	Replace respectively in Sentence (1) the following terms defined below: "*Authority having jurisdiction** means the Régie du bâtiment du Québec, a regional county municipality or a local municipality."; "*Boiler** means pressure equipment, other than a *service water heater*†, equipped with a direct energy source, used to heat a heat-carrying liquid or transform it into steam."; "*Grade** means the lowest of the average levels of finished ground, measured along each exterior wall of a *building* required to face a street by Subsection 3.2.2. or 9.10.20. of Division B."; "*Floor surface area* means the area of a space or group of spaces, measured from the exterior surface of the perimeter walls, by the axis of party walls and interior walls and the virtual separation between interconnected spaces, at or near floor level, including the area occupied by columns, interior walls and openings in the floor."; "*Interior lighting power allowance* means lighting power allocated to illuminate the interior of a space or group of spaces."; "*Service water* means the drinking water for plumbing systems."; "*Thermal block* means a space or group of spaces that is considered as one homogeneous space for modeling purposes. A *thermal block* shall be: (a) one *temperature-control zone,* (b) a group of *temperature-control zones* (i) that are served by the same HVAC system or by HVAC systems that may be considered to be identical,

	(ii) that are operated and controlled in the same way, (iii) whose function and envelope characteristics are sufficiently similar that the heating and cooling energy consumption obtained by modeling the group of zones as a *thermal block* is not significantly different from what would be obtained by summing the results for the individual zones modeled separately, and (iv) whose azimuth of the glazed exterior facades of the group of *temperature-control zones* varies by no more than 45°, or (c) a zone consisting entirely of *conditioned spaces* that are indirectly heated, cooled or ventilated. (See Note A-1.4.1.2.(1).)".
	Insert "(See Note A-1.4.1.2.(1).)" at the end of the defined term "*Exterior lighting*" in Sentence (1);
	Insert "(See Note A-1.4.1.2.(1).)" at the end of the defined term "*Conditioned space*" in Sentence (1);
	Insert "glazed sections of curtain walls," after "*skylights*," in the defined term "*Fenestration*" in Sentence (1);
	Insert the following defined terms in alphabetical order: "*Effective thermal resistance* (RSI_E value) means the inverse of the *overall thermal transmittance*. The RSI_E value shall be calculated, (a) for *opaque building assemblies*, according to Sentence 3.1.1.5.(5) and Article 3.1.1.7., and (b) for opaque sections of curtain walls, according to Sentence 3.1.1.5.(6)."; "*Linear thermal transmittance* (Ψ) means the rate, in W/(m×K), at which heat is transferred per unit of length through a *building* assembly resulting from a steady-state temperature difference. (See Note A-1.4.1.2.(1).)"; "*Point thermal transmittance* (χ) means the rate, in W/K, of heat transfer by point penetration through a *building* assembly that is subject to a steady-state temperature difference. (See Note A-1.4.1.2.(1).)".
	Strike out the following defined terms in Sentence (1): "*Gross lighted area*"; "*Partition*".

1.4.2.1.	Insert the following symbols and other abbreviations in alphabetical order in Sentence (1): “HDD..... heating degree-days under 18°C”; “IILE ..... installed *interior lighting* energy”; “ILEA..... *interior lighting* energy allowance”; “kWh……kilowatt-hour”; “LPD…… lighting power density”.
Division A Notes to Part 1	
A-1.1.1.1.(2)	Strike out the Note.
	Add the following Note: “**A-1.1.1.2. Building Parameters.** The construction and design parameters used to establish compliance with this Code must represent the anticipated operating conditions of the building. The rentable areas that were not defined when preparing the plans and specifications and constructing the building are not exempted from the requirements of this Code.”.
A-1.2.1.1.(1)(b)	Replace ““alternative solution.”” in the Note concerning “**Code Compliance via Alternative Solutions**” by the following: ““alternative solution” and be approved by the Régie du bâtiment du Québec according to the conditions it determines in accordance with section 127 of the Building Act (chapter B-1.1) or, in the case of buildings or equipment on which the Board has no jurisdiction, by the authority having jurisdiction.”; Strike out the following at the end of the Note concerning “**Code Compliance via Alternative Solutions**”: “, i.e. the consequence remaining once the applicable acceptable solutions in Division B have been implemented represents the residual consequence deemed to be acceptable by the broad base of Canadians who have taken part in the consensus process used to develop the Code”.
A-1.4.1.2.(1)	Insert the following Notes in alphabetical order: “**Annual Energy Consumption** Fuel consumption is generally calculated by the programs in terms of volume. In such a case, the consumption must be converted in terms of energy.”; “**Conditioned space** The term “unconditioned space” is sometimes used in the NECB. Although that term is not defined in the NECB, where it is used in the NECB and its

	appended notes, its meaning is the opposite of the defined term “conditioned space”, namely: any space inside a building that is neither heated nor cooled. The same applies to the term “space-conditioning system”, which is not defined in the NECB. Where that term is used in the NECB and its appended notes, it refers to any heating or cooling system.”; “**Exterior Lighting** Exterior lighting includes in particular lighting of exterior advertising signage and exterior parking areas.”; “**Linear Thermal Transmittance** The coefficient makes it possible to express the influence of linear thermal bridging over the total heat losses of part of the envelope of a building.”; “**Point Thermal Transmittance** The coefficient makes it possible to express the influence of a point thermal bridging over the total heat losses of part of the envelope of a building.”; “**Thermal Block** Where multiple control zones have windows on more than one facade of the building, they may be considered a thermal block only under certain conditions. Grouping zones that have fenestration in a single thermal block is permitted only where the fenestration has a similar azimuth, that is, where the elements of fenestration have an azimuth that differs less than 45°. It is also possible that multiple azimuths of a same zone have an exterior fenestration, such as an office in the northeastern corner of an office tower. In that case, only one thermal block could be formed with all the offices of the intermediate storeys of the northeastern corner.”; Strike out the Notes concerning the defined terms “**Gross Lighted Area**” and “**Interior Lighting**”; Add the following at the end of the Note concerning the defined term “**Overall Thermal Transmittance (U-value)**”: “The unit of the Celsius temperature scale is the degree Celsius (symbol °C), which has the same magnitude as the kelvin (symbol K). Kelvin units and Celsius degrees are equivalent and a temperature interval in Celsius degrees has the same numerical value as a temperature interval in kelvin units.”.
Division B Part 1	
1.1.2.1.	Replace Clauses (1)(a) to (1)(c) by the following: “a) the prescriptive or trade-off requirements stated in Parts 3 to 7, or b) the performance requirements stated in Part 8.”.

1.1.4.2.	Replace Clauses (1)(b) to (1)(d) by the following: “b) “HRAI Digest”, and c) Hydronics Institute Manuals.”.
1.2.1.2.	Strike out Sentence (2).
1.3.1.2.	Replace the documents concerned by the following in Table 1.3.1.2.: “AAMA 501.5-07 Test Method for Thermal Cycling of Exterior Walls 3.1.1.8.(3)”; “AHRI 1061 (SI/2013) Performance Rating of Air-to-Air Exchangers for Energy Recovery Ventilation Equipment 5.2.10.1.(5) 5.2.10.4.(2)(b)”; “ASHRAE 2013 ASHRAE Handbook – Fundamentals 3.1.1.5.(4) A-3.1.1.5.(5)(a) A-3.1.1.5.(5)(b), (6)(c) and (7)(a) A-3.3.1.3.(2) A-8.4.3.3.(7)”; “ASHRAE/IES 90.1-2013 User’s Manual 8.4.4.6.(4) A-6.2.3.1.(1) A-8.4.4.6.(4)”; “ASHRAE ANSI/ASHRAE 140-2011

	Standard Method of Test for the Evaluation of Building Energy Analysis Computer Programs 8.4.2.2.(1) A-8.4.2.2.(1)”; “ASHRAE RP-1365-2011 Thermal Performance of Building Envelope Details for Mid- and High-Rise Buildings A-3.1.1.5.(5)(b), (6)(c) and (7)(a) A-3.3.1.3.(2)”; “ASTM C1363-11 Standard Test Method for Thermal Performance of Building Materials and Envelope Assemblies by Means of a Hot Box Apparatus 3.1.1.5.(4) 3.1.1.5.(5) 3.1.1.5.(7)”; “ASTM E283-04 Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen 3.1.1.8.(3) 3.1.1.8.(4)”; “CCBFC NRCC-CONST-56435E National Building Code of Canada 2020 1.1.1.3.(1)(3) 1.1.1.3.(2)(3) 1.4.1.2.(1)(3) A-3.2.1.1.(1)(3) 3.1.1.5.(1) A-3.2.3.1.(3) 5.2.1.1.(1) 5.2.2.1.(1) 5.2.2.8.(2)

	5.2.5.1.(1) 5.2.8.9.(4) 5.2.8.9.(5) 5.2.10.2.(2) A-5.2.2.8.(2) A-5.2.8.4.(1) A-5.2.10.4.(1) 8.4.3.6.(1) 8.4.4.17.(4) 8.4.4.17.(5)”;
	“CCBFC NRCC-CONST-56436E National Plumbing Code of Canada 2020 A-3.2.1.1.(1)(3) A-5.2.10.4.(1) 6.2.1.1.(1)”;
	“CSA AAMA/WDMA/CSA 101/I.S.2/A440-17 North American Fenestration Standard/Specification for windows, doors, and skylights 3.1.1.8.(2) 3.1.1.8.(4)”;
	“CSA A440.2:19/A440.3:19 Fenestration energy performance/User guide to CSA A440.2:19, Fenestration energy performance 3.1.1.5.(3) 3.1.1.5.(6) A-3.1.1.6.(1)”;
	“CSA CAN/CSA-C439-09 Standard laboratory methods of test for rating the performance of heat/energy-recovery ventilators 5.2.10.1.(5)(b) 5.2.10.4.(2)(a) A-5.2.10.4.(2)(a)”;

	“HVI HVI Publication 911 Certified Home Ventilating Products Directory 5.2.10.4.(2)(a); “IES ANSI/IES RP-28-07 Lighting and the Visual Environment for Senior Living Table 4.2.1.6. Table 8.4.3.4.-A Table A-8.4.3.8.(1)-B”; “ISO 14683:2007 Thermal bridges in building construction – Linear thermal transmittance – Simplified methods and default values A-3.1.1.5.(5)(b), (6)(c) and (7)(a)”; “NFRC 100-2017 Procedure for Determining Fenestration Product U-factors 3.1.1.5.(3) 3.1.1.5.(6)”; “NRCan Energy Efficiency Act A-5.2.12.1.(1) and 6.2.2.1.(1)”; “NRCan SOR/2016-311 Energy Efficiency Regulations, 2016 Table 5.2.12.1.-A Table 5.2.12.1.-B Table 5.2.12.1.-C Table 5.2.12.1.-D Table 5.2.12.1.-E Table 5.2.12.1.-G

	Table 5.2.12.1.-I Table 5.2.12.1.-K Table 5.2.12.1.-N Table 5.2.12.1.-O A-5.2.12.1.(1) and 6.2.2.1.(1) Table 6.2.2.1.”; “SMACNA ANSI/SMACNA 006-2006 HVAC Duct Construction Standards – Metal and Flexible 5.2.2.3.(1) A-5.2.2.1.(1) A-5.2.2.3.(1)”; “ULC CAN/ULC-S742-11 Standard for Air Barrier Assemblies – Specification 3.1.1.8.(1) A-3.1.1.8.(1) A-3.2.4.3.(1) and (2)”;
	Insert the following documents in Table 1.3.1.2., in order of the organizations: “ASTM E2357-18 Standard Test Method for Determining Air Leakage of Air Barrier Assemblies 3.1.1.8.(1) A-3.1.1.8.(1)”; “CSA A440S1:19 Canadian supplement to AAMA/WDMA/CSA 101/I.S.2/A440-17, North American Fenestration Standard/Specification for windows, doors, and skylights 3.1.1.8.(2) 3.1.1.8.(4)”;

	“ISO 6946:2007 Building components and building elements – Thermal resistance and thermal transmittance – Calculation method A-3.1.1.5.(5)(a)”; “ISO 10211:2017 Thermal bridges in building construction – Heat flows and surface temperatures – Detailed calculations A-3.1.1.5.(5)(b), (6)(c) and (7)(a)”; “UL UL 181A-2013 Closure Systems for Use with Rigid Air Ducts 5.2.2.3.(5)”; “UL UL 181B-2013 Closure Systems for Use with Flexible Air Ducts and Air Connectors 5.2.2.3.(5)”;
	Strike out the following documents in Table 1.3.1.2.: “ASHRAE 2011 ASHRAE Handbook – HVAC Applications A-6.2.4.1.(1)”; “ASHRAE ANSI/ASHRAE 62.1-2016 Ventilation for Acceptable Indoor Air Quality A-5.2.3.4.(1)”; “ASHRAE ANSI/ASHRAE 84-2013 Method of Testing Air-to-Air Heat/Energy Exchangers 5.2.10.1.(5)”;

	“ASHRAE/IES ANSI/ASHRAE/IES 90.1-2013 Energy Standard for Buildings Except Low-Rise Residential Buildings A-Table 3.2.2.2. A-5.2.3.4.(2)”; “ASME/CSA ASME A112.18.1-2018/CSA B125.1-18 Plumbing Supply Fittings 6.2.6.1.(1) 6.2.6.2.(1)”; “ASTM E779-10 Standard Test Method for Determining Air Leakage Rate by Fan Pressurization 8.4.2.9.(2)”; “ASTM E3158-18 Standard Test Method for Measuring the Air Leakage Rate of a Large or Multizone Building A-3.2.4.2.(1)”; “BC Hydro 2014 Building Envelope Thermal Bridging Guide A-3.1.1.5.(5)(a)”; “CSA C22.1-18 Canadian Electrical Code, Part I (24th edition), Safety Standard for Electrical Installations A-7.2.1.1.”; “CSA C390:10 Test methods, marking requirements, and energy efficiency levels for three-phase induction motors 7.2.4.1.(1)”;

	“CSA CAN/CSA-C802.1-13 Minimum efficiency values for liquid-filled distribution transformers 7.2.3.1.(1)”; “CSA CAN/CSA-C802.2-18 Test method and minimum efficiency values for dry-type transformers 7.2.3.1.(1)”; “CSA C802.3-15 Minimum efficiency values for power transformers 7.2.3.1.(1)”; “CSA CAN/CSA-C828-13 Performance requirements for thermostats sed with individual room electric space heating devices 5.2.8.6.(4)”; “CSA C873.4-14 Building energy estimation methodology – Part 4 – Energy consumption for lighting 4.3.1.3.(1) 4.3.1.3.(2) 4.3.1.3.(3) 4.3.1.3.(4) 4.3.1.3.(5)”; “DASMA ANSI/DASMA 105-2017 Test Method for Thermal Transmittance and Air Infiltration of Garage Doors 3.2.4.3.(8)”;

	“IES HB-10-11 The Lighting Handbook, 10th Edition A-Table 4.3.2.8.”; “ISO 13790:2008 Energy performance of buildings - Calculation of energy use for space heating and cooling 1.1.4.2.(1)”; “TIAC 2013 Mechanical Insulation Best Practices Guide A-5.2.2.5.(8) and 5.2.5.3.(7)”; “ULC CAN/ULC-S741-08 Standard for Air Barrier Materials – Specification 3.2.4.3.(2)”.
1.3.2.1.	Insert the following abbreviations, in alphabetical order, in Sentence (1): “BRE Building Research Establishment (www.bregroup.com)”; “UL Underwriters Laboratory (www.ul.com)”.

Division B Notes to Part 1

A-1.1.2.1.

Replace Figure A-1.1.2.1. by the following:

“

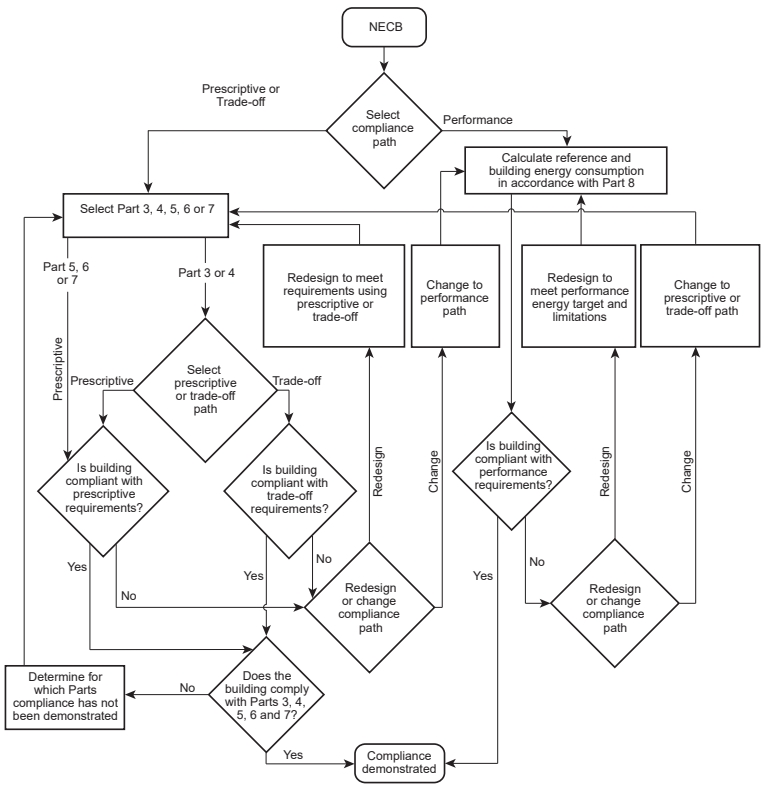


Figure A-1.1.2.1.

Decision flow chart for Code compliance”;

Strike out “and/or vary the fenestration and door area” after “more components of the building envelope” in the Note concerning “**Trade-off Path**”.

Division B Part 3	
3.1.1.2.	Insert “(See Note A-3.1.1.2.(1)(b).)” at the end of Sentence (1)(b).
3.1.1.5.	Replace Sentence (5) by the following: “**5)** The *effective thermal resistance* of *building* assemblies other than *fenestration*, doors and opaque sections of curtain walls shall be determined in accordance with a) a simplified calculation method that takes into account the specific parameters of *building* assemblies, including i) a discontinuity at the expanses of insulation, and ii) the thermal conductivity difference between the materials contributing to the discontinuity (see Note A-3.1.1.5.(5)(a)), b) the heat transfer digital simulations (see Note A-3.1.1.5.(5)(b), (6)(c) and (7)(a)), or c) laboratory tests performed in accordance with ASTM C 1363, “Standard Test Method for Thermal Performance of Building Materials and Envelope Assemblies by Means of a Hot Box Apparatus,” using an indoor air temperature of 21±1°C and an outdoor air temperature of -18±1°C.”. **6)** The *effective thermal resistance* of the opaque sections of curtain walls shall be determined in accordance with a) CSA A440.2/A440.3, “Fenestration energy performance/User guide to CSA A440.2:19, Fenestration energy performance,” b) NFRC 100, “Procedure for Determining Fenestration Product U-factors,” or c) the heat transfer digital simulations (see Note A-3.1.1.5.(5)(b), (6)(c) and (7)(a)). **7)** The *linear thermal transmittance* and the *point thermal transmittance* shall be determined from a) the heat transfer digital simulations (see Note A-3.1.1.5.(5)(b), (6)(c) and (7)(a)), or b) laboratory tests performed in accordance with ASTM C 1363, “Standard Test Method for Thermal Performance of Building Materials and Envelope Assemblies by Means of a Hot Box Apparatus,” using an indoor air temperature of 21±1°C and an outdoor air temperature of -18±1°C.”.

3.1.1.6.	Replace the heading of the Article by the following: "**3.1.1.6. Characteristics and Calculation of Surface Areas**"; Replace Sentences (3) and (4) by the following: **3)** In the calculation of allowable door and *fenestration* area, excluding *skylight* areas, the gross wall area shall be calculated as the sum of the areas of all above-ground wall assemblies including *fenestration* and doors, but not including parapets, projected fins, ornamentation and appendages. **4)** In the calculation of allowable door and *fenestration* area in *additions*, compliance shall be based on the *addition* considered by itself."; Add the following Sentences: **6)** *Opaque building assemblies* areas shall be calculated along the plane of the insulation using dimensions measured to the exterior walls of adjacent *building* assemblies, and include the area of the intersection surfaces of the interior *building* assemblies. (See Note A-3.1.1.6.(1).) **7)** Wall assemblies inclined less than 60° from the horizontal shall be considered as roof assemblies, and roof assemblies inclined 60° or more from the horizontal shall be considered as wall assemblies. **8)** *Fenestration* and door areas integrated to curtain walls shall be calculated from the axis of any mullion separating the *fenestration* or doors from the opaque sections of curtain walls.".
3.1.1.7.	Replace the Article by the following: "**3.1.1.7. Calculation of Effective Thermal Resistance** **1)** The calculation of the *effective thermal resistance* of *opaque building assemblies* shall account for the specific thermal resistance of a) continuous members, such as a concrete slab, b) repetitive structural members, such as studs and joists, jambs and resilient bars, and c) ancillary structural members, such as lintels, sills and plates. (See Note A-3.1.1.7.(1).) **2)** In calculating the *effective thermal resistance* of *opaque building assemblies*, the thermal bridging effect of major structural members, such as columns and spandrel beams, that are parallel to the plane of the *building envelope* and partly penetrate that *building envelope* assembly need not be taken into account, provided they do not reduce the *effective thermal resistance* at the projected area at less than half the value required by Section 3.2. (See Note A-3.1.1.7.(2).) **3)** In calculating the *effective thermal resistance* of *opaque building assemblies*, the following elements need not be taken into account when they must partially or completely penetrate the *building envelope* to perform their intended function and when they comply with the requirements of Article 3.2.1.2.: a) pipes, b) ducts,

	c) equipment with through-the-wall venting, d) equipment of an HVAC system, e) minor ties and anchors, and any other similar member, necessary to the structure of the envelope, f) linear anchoring devices, such as shelf angles for masonry, and g) major structural penetrations, such as balcony slabs, beams, girders, columns, ornamentation and appendages. (See Note A-3.1.1.7.(3).) **4)** Where a component of the *building envelope* is protected by an unconditioned enclosed space, such as a sun porch, enclosed veranda or vestibule, the enclosure may be considered to have an *effective thermal resistance* of 0.16 m²×K/W. (See Note A-3.1.1.7.(4).) **5)** In calculating the *effective thermal resistance* of an *opaque building assembly*, the effect of overlapping expanses of insulation, on either side of a *building* assembly, does not have to be taken into account where they comply with the requirements of Article 3.2.1.2. **6)** In calculating the *effective thermal resistance* of an *opaque building assembly*, the effect of the transitions between the constructive systems of the *building envelope*, such as joints between walls and *fenestration*, does not have to be taken into account where they comply with the requirements of Article 3.2.1.2. **7)** For the purposes of this Article, wall assemblies shall be considered to include all related structural framing and perimeter areas of intersecting interior walls. **8)** For the purposes of this Article, floor assemblies shall be considered to include all related structural framing. **9)** For the purposes of this Article, roof assemblies shall be considered to include all related structural framing.”.
	Add the following Article: “**3.1.1.8. Air Leakage in Building Assemblies** **1)** *Air barrier assemblies* in *opaque building assemblies* excluding the opaque sections of curtain walls shall be assessed in accordance with a) CAN/ULC-S742, “Standard for Air Barrier Assemblies – Specification,” or b) ASTM E 2357, “Standard Test Method for Determining Air Leakage of Air Barrier Assemblies,” provided that i) the *building* is erected in an area where it will not be submitted to extended wind pressures having a probability of 1 out of 50 to be exceeded during one year by more than 0.65 kPa, and ii) the *air barrier assembly* is installed on the warm side of the thermal insulation of the *opaque building assembly*. (See Note A-3.1.1.8.(1).) **2)** The air leakage rates of the *fenestration* excluding the glazed sections of curtain walls shall be assessed in accordance with a) AAMA/WDMA/CSA 101/I.S.2/A440-11, “NAFS – North American Fenestration Standard/Specification for windows, doors, and skylights,” and

	b) CSA A440S1, “Canadian Supplement to AAMA/WDMA/CSA 101/I.S.2/A440-17, NAFS – North American Fenestration Standard/Specification for windows, doors, and skylights.” **3)** Air leakage rates of curtain walls forming part of the *building envelope* shall be assessed in accordance with ASTM E 283, “Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen,” when the specimen is prepared in accordance with Clause 6 of AAMA 501.5, “Test Method for Thermal Cycling of Exterior Walls.” **4)** Air leakage rates of doors forming part of the *building envelope* shall be assessed in accordance with a) ASTM E 283, “Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen,” or b) the following standards: i) AAMA/WDMA/CSA 101/I.S.2/A440, “NAFS – North American Fenestration Standard/Specification for windows, doors, and skylights,” and ii) CSA A440S1, “Canadian Supplement to AAMA/WDMA/CSA 101/I.S.2/A440-17, NAFS – North American Fenestration Standard/Specification for windows, doors, and skylights.””.
3.2.1.1.	Replace “increasing the *overall thermal transmittance*” in Sentence (1) by “reducing the thermal resistance”. Replace “the *overall thermal transmittance*” in Sentence (2) by “the thermal resistance”.
3.2.1.2.	Replace the Article by the following: “**3.2.1.2. Continuity of Insulation** **1)** Except as provided in Sentences (2) to (7) and (9), interior *building* assemblies, including wall assemblies and major structural members that are embedded along exterior walls that partly penetrate the *building envelope* a) shall not break the continuity of the insulation, and b) shall have an *effective thermal resistance* at their projected area equal to at least the resistance required for the *building envelope*. (See Note A-3.2.1.2.(1).) **2)** The following members need not be taken into account to comply with Sentence (1): a) repetitive structural members, such as studs and joists, jambs and resilient bars, b) ancillary structural members, such as lintels, sills and plates, and c) minor penetrations of the envelope, such as ties. (See Note A-3.2.1.2.(2).)

	3) Except as provided in Sentences (4), (9) and (10), where an interior wall, *foundation* wall, *firewall*, party wall, structural member, ornementation or appendage penetrates the *building envelope* and breaks the continuity of its insulation, it shall a) be insulated i) on its faces exposed to air inward or outward from the *building envelope* for a distance equal to 4 times its uninsulated thickness, and ii) so that the *effective thermal resistance* of the penetrating member is not, for the distance prescribed by Subclause (i), less than that required for the penetrated component, or b) be insulated in continuity with the insulation of the penetrated component so that the *effective thermal resistance* at that location is equal to at least half the resistance required for the penetrated component. (See Note A-3.2.1.2.(3).) **4)** Where a structural slab penetrates the *building envelope* and breaks the continuity of the insulation, the slab shall be insulated a) in accordance with the requirements of Sentence (3), or b) with materials having a thermal resistance of at least i) 1.76 m²×K/W installed on the axis of the expanse of insulation of the penetrated wall for a distance of at least 2/3 of the penetration area, and ii) 0.09 m²×K/W installed above and under the slab inward for a distance equal to at least 4 times the thickness of the slab. (See Note A-3.2.1.2.(4).) **5)** Linear anchoring devices, shelf angles for masonry and other similar devices that penetrate the insulation of a component of the *building envelope* shall include intermittent transverse supports so that only the latter penetrate the insulation. (See Note A-3.2.1.2.(5).) **6)** Joints between *building* assemblies of the *building envelope*, such as expansion or construction joints and joints between walls and doors or *fenestration,* shall be insulated a) in a manner that provides continuity of insulation across such joints, and b) in a manner that the *effective thermal resistance* at the location of those joints is equal to at least half of the lowest of the values required for the contiguous *building* assemblies. (See Note A-3.2.1.2.(6).) **7)** Except as provided in Clause (9)(e), where 2 expanses of insulation are separated by a member of the *building envelope* and do not intersect, those expanses of insulation shall overlap for a distance equal to at least 4 times the thickness of the assembly separating them. (See Note A-3.2.1.2.(7).) **8)** To comply with Sentence (7), hollow-core masonry walls shall be filled with grout, mortar or insulation at the location coinciding with the limits of the overlapped expanses of insulation. (See Note A-3.2.1.2.(8).) **9)** The continuity of the insulation may be broken a) between a *foundation* wall and a floor slab in contact with the ground where the *foundation* wall is insulated from the exterior,

	b) the horizontal part of a *foundation* wall supporting an exterior screen-wall where it is insulated from the exterior, c) at minor transitions between the constructive systems of the *building envelope* that must break the continuity of the insulation to perform their intended function, such as backing necessary for fastening flashing at the intersection of parapets and roofs (see Note A-3.2.1.2.(9)(c)), d) where ducts or devices penetrate expanses of insulation of the *building envelope*, provided that the insulation is installed to follow closely the perimeter of those elements, or e) where the 2 expanses of insulation may not be extended for the distance required by Sentence (7), provided that the *effective thermal resistance* of the member of the *building envelope* that makes contact between the two insulation layers is equal to at least half the minimum value required. **10)** A thermal bridging breaker part of a point penetration of the *building envelope* need not be insulated in accordance with the requirements of Sentence (3) where all the components of the point penetration have a *point thermal transmittance* of not more than 0.5 W/K.”.
3.2.1.3.	Replace the Article by the following: “**3.2.1.3. Spaces Conditioned to Different Temperatures** **1)** The *effective thermal resistance,* RSI_{E1}, in m²×K/W, of *building* assemblies separating *conditioned spaces* that are intended to be heated or cooled to temperatures that differ by more than 10°C shall be equal to at least the value obtained with the following equation: $$RSI_{E1} = [(t_2 - t_1) \cdot RSI_E]/43$$ where t_2 = indoor design temperature of the warmer *conditioned space,* in °C, t_1 = indoor design temperature of the colder *conditioned space,* in °C, and RSI_E = *effective thermal resistance* of 3.60 m²×K/W for a wall and 5.46 m²×K/W for a floor. (See Note A-3.2.1.3.(1).) **2)** The *building* assemblies covered in Articles 3.2.2.2., 3.2.2.3., 3.2.2.4. and 3.2.3.1. insulating a heated but not cooled space whose heating setpoint is less than 18°C, shall have an *effective thermal resistance*, RSI_{E1}, in m²×K/W, equal to at least the value obtained with the following equation: $$RSI_{E1} = [(t_1 - t_0) \cdot RSI_E]/(18 - t_0)$$ where t_1 = heating setpoint in winter months, in °C, t_0 = outdoor 2.5% January heating design temperature according to the location of the *building* determined in accordance with Sentence 1.1.4.1.(1), in °C, and RSI_E = *effective thermal resistance* required in Tables 3.2.2.2., 3.2.2.3., 3.2.2.4. and 3.2.3.1., in m²×K/W. (See Note A-3.2.1.3.(2).)”.

3.2.1.4.

Replace the Article by the following:

"**3.2.1.4. Allowable Fenestration and Door Area**

1) The total area of doors and *fenestration*, excluding the *skylight* area, shall correspond to not more than 40% of the gross wall area determined in accordance with Article 3.1.1.6.

2) The total *skylight* area shall correspond to not more than 3% of the gross roof area as determined in Article 3.1.1.6.".

3.2.2.1.

Replace Clauses (3)(e) to (3)(g) by the following:

"e) opens directly from a *dwelling unit*, or

f) opens directly from a retail space less than 200 m^2 in *floor surface area* or from a space less than 150 m^2 in *floor surface area* for other uses.".

3.2.2.2.

Replace the Article by the following:

"**3.2.2.2. Thermal Characteristics of Above-ground Opaque Building Assemblies**

1) Except as provided in Sentences (2), (4), (5) and (6) and Article 3.2.1.3., the *effective thermal resistance* of above-ground *opaque building assemblies* shall be equal to at least that shown in Table 3.2.2.2. for the *building* or part thereof enclosed by the *opaque building assembly,* for the applicable heating-degree-day category taken at 18°C. (See Note A-3.2.2.2.(1).)

Table 3.2.2.2.
Effective Thermal Resistance of Above-ground Opaque Building Assemblies
Forming Part of Sentences 3.2.2.2.(1), (5) and (6)

Above-ground *Opaque Building Assembly*	Heating Degree-Days under 18°C of *Building* Location,(1) in Celsius Degree-Days					
	Zone 4: < 3000	Zone 5: 3000 to 3999	Zone 6: 4000 to 4999	Zone 7A: 5000 to 5999	Zone 7B: 6000 to 6999	Zone 8: ≥ 7000
	Minimum *Effective Thermal Resistance*, RSI_E, in m²×K/W					
Walls	3.60	3.60	3.60	3.60	4.05	4.05
Roofs	5.46	5.46	5.46	5.46	6.17	6.17
Floors	5.46	5.46	5.46	5.46	6.17	6.17

Notes to Table 3.2.2.2.:

(1) See Sentence 1.1.4.1.(1).

2) The *effective thermal resistance* of portions of a *foundation* wall that are above ground of which less than 50% of the area is exposed to exterior air shall be equal to at least that shown in Table 3.2.3.1., for the applicable heating-degree-day category taken at 18°C, for walls in contact with the ground. (See Note A-3.2.2.2.(2) and (3).)

3) The percentage of *foundation* walls that are above ground described in Sentence (2) shall be assessed independently for

a) each of the walls,

b) each of the *storeys*, and

c) each constructive system.

(See Note A-3.2.2.2.(2) and (3).)

4) Where radiant heating cables or heating or cooling pipes or membranes are integrated to above-ground *opaque building assemblies*, the minimum *effective thermal resistance* provided for in Sentence (1) for the *opaque building assemblies* shall be increased by 25%. (See Note A-3.2.2.2.(4).)

5) The *effective thermal resistance* required for a flat roof may be reduced by not more than 20% at its lowest point when drainage slopes are created by the insulation materials, provided that the value of the average *effective thermal resistance* for the roof is at least equal to the value shown in Table 3.2.2.2, for the applicable heating-degree-day category taken at 18°C, for a roof. (See Note A-3.2.2.2.(5).)

6) The *effective thermal resistance* required for a roof with an attic space may be reduced for a distance of not more than 1200 mm measured from the outside face of the wall when the slope of the roof with an attic space and the necessary clearance for the ventilation so require, provided that it is equal to at least the value shown in Table 3.2.2.2., for the applicable heating-degree-day category taken at 18°C, for an above-ground wall. (See Note A-3.2.2.2.(6).)".

3.2.2.3.

Replace "Sentences (3) and 3.2.1.3.(1)" in Sentence (2) by "Article 3.2.1.3.";

Replace Sentence (3) by the following:

"**3)** The *overall thermal transmittance* of *fenestration* shown in Table 3.2.2.3. shall be reduced by at least 10% in the case of an *addition*

a) whose *floor surface area* is not more than 200 m², and

b) whose opening percentage exceeds the values prescribed in Sentence 3.2.1.4.(1).";

Replace Table 3.2.2.3. by the following:

"**Table 3.2.2.3.**
Overall Thermal Transmittance of Fenestration
Forming Part of Sentences 3.2.2.3.(2) and (3)

Component	Heating Degree-Days under 18°C of *Building* Location,(1) in Celsius Degree-Days					
	Zone 4: < 3000	Zone 5: 3000 to 3999	Zone 6: 4000 to 4999	Zone 7A: 5000 to 5999	Zone 7B: 6000 to 6999	Zone 8: ≥ 7000
	Maximum *Overall Thermal Transmittance*, in W/(m²×K)					
Fenestration except *skylights*	2.00	2.00	2.00	2.00	1.60	1.60
Skylights	2.85	2.85	2.85	2.85	2.70	2.70

Notes to Table 3.2.2.3.:

(1) See Sentence 1.1.4.1.(1).".

3.2.2.4.

Replace "Except as provided in Sentences (2), (3), (5) and 3.2.1.3.(1)" in Sentence (1) by "Except as provided in Sentences (2) to (5) and Article 3.2.1.3.";

Replace Sentences (2) and (3) by the following:

"**2)** Except as provided in Sentences (3) and (5), the *overall thermal transmittance* of doors shown in Table 3.2.2.4. shall be reduced by at least 10% in the case of an *addition*

a) whose *floor surface area* is not more than 200 m², and

b) whose opening percentage exceeds the values prescribed in Sentence 3.2.1.4.(1).

3) The following doors need not comply with Sentence (1) or (2) where their total area is not more than 2% of the gross wall area calculated in accordance with Article 3.1.1.6.:

a) automatic sliding glass doors,

b) revolving doors,

c) fire shutters, and

d) other types of doors having an *overall thermal transmittance* of not more than 4.4 W/(m²×K).";

Replace Table 3.2.2.4. by the following:

"**Table 3.2.2.4.**
Overall Thermal Transmittance of Doors
Forming Part of Sentences 3.2.2.4.(1) and (2)

Component	Heating Degree-Days under 18°C of *Building* Location,(1) in Celsius Degree-Days					
	Zone 4: < 3000	Zone 5: 3000 to 3999	Zone 6: 4000 to 4999	Zone 7A: 5000 to 5999	Zone 7B: 6000 to 6999	Zone 8: ≥ 7000
	Maximum *Overall Thermal Transmittance*, in W/(m²×K)					
Glazed doors	2.00	2.00	2.00	2.00	1.60	1.60
Doors without glazing	0.90	0.90	0.90	0.90	0.80	0.80

Notes to Table 3.2.2.4.:

(1) See Sentence 1.1.4.1.(1).";

Replace Sentence (5) by the following:

"**5)** Storm doors need not comply with Sentence (1) or (2).".

3.2.3.1.

Replace Sentence (1) by the following:

"**1)** Except as provided in Sentence (2) and Article 3.2.1.3., the *effective thermal resistance* of walls or portions thereof that are below the exterior ground level and are part of the *building envelope* shall not be less than that shown in Table 3.2.3.1. for the applicable heating-degree-day category taken at 18°C.";

Strike out Sentence (2);

Replace Table 3.2.3.1. by the following:

Table 3.2.3.1.
Effective Thermal Resistance of Building Assemblies in Contact with the Ground
Forming Part of Sentences 3.2.2.2.(2), 3.2.3.1.(1) and 3.2.3.2.(1)

Assembly in Contact with the Ground	Heating Degree-Days under 18°C of *Building* Location,(1) in Celsius Degree-Days					
	Zone 4: < 3000	Zone 5: 3000 to 3999	Zone 6: 4000 to 4999	Zone 7A: 5000 to 5999	Zone 7B: 6000 to 6999	Zone 8: ≥ 7000
	Minimum *Effective Thermal Resistance*, RSI_E, in m²×K/W					
Walls	2.64	2.64	2.64	2.64	2.64	2.64
Roofs	2.64	2.64	2.64	2.64	2.64	2.64

Notes to Table 3.2.3.1.:

(1) See Sentence 1.1.4.1.(1).

Replace "the wall shall have an *overall thermal transmittance* no greater than 80% of that required by Sentence (1)" in Sentence (4) by "the minimum *effective thermal resistance* provided for in Sentence (1) shall be increased by at least 25%";

Replace Sentence (5) by the following:

"**5)** The *effective thermal resistance* of the vertical portion of a slab-on-ground shall be the same as that required for walls in contact with the ground over the full height of the slab. (See Note A-3.2.3.1.(5)).".

3.2.3.2.

Replace Sentence (1) by the following:

"**1)** The *effective thermal resistance* of roofs in contact with the ground that are part of the *building envelope* and are less than 2.4 m below the exterior ground level shall be equal to at least the values shown in Table 3.2.3.1. for the applicable heating-degree-day category taken at 18°C. (See Note A-3.2.3.2.(1).)";

Strike out Sentence (2).

3.2.3.3.

Replace the Article by the following:

"**3.2.3.3. Thermal Characteristics of Floors in Contact with the Ground**

(See Note A-3.2.3.3.)

1) For the purposes of this Article, "floor" also means the unfinished surface of a crawl space, where it is *conditioned space*.

2) Floors separating *conditioned space* from the ground shall be insulated with material having a thermal resistance equal to at least the values shown in in Table 3.2.3.3.-A or 3.2.3.3.-B, as the case may be.

Table 3.2.3.3.-A
Insulation of Floors in Contact with the Ground for any Occupancy except Dwelling Units
Forming Part of Sentences 3.2.3.3.(2) and (3)

Floors	Insulation Material	Intersection of the *Foundation* Wall with the Floor-on-ground
	Minimum Thermal Resistance, RSI, in m²×K/W	
Floors of a slab-on-ground that does not have integrated heating ducts or cables or heating or cooling pipes	1.76 installed at the perimeter of the floor over a width of 1.2 m	n/a
Floors less than 0.6 m under contiguous ground level that does not have integrated heating ducts or cables or heating or cooling pipes	0.88 installed over the full area or 1.32 installed at the perimeter of the floor-on-ground over a width of at least 1.2 m	0.88
Floors-on-ground that have integrated heating ducts or cables or heating or cooling pipes	1.76 installed over the full area	1.32
Floors of a slab-on-ground that have integrated heating ducts or cables or heating or cooling pipes		n/a

Table 3.2.3.3.-B
Insulation of Floors in Contact with the Ground for Dwelling Units
Forming Part of Sentences 3.2.3.3.(2) and (3)

Floors	Insulation Material	Intersection of the *Foundation* Wall with the Floor-on-ground
	Minimum Thermal Resistance, RSI, in m²×K/W	
Floors of a slab-on-ground that does not have integrated heating ducts or cables or heating or cooling pipes	1.32 installed over the full area	n/a
Floors at not more than 0.6 m under contiguous ground level that do not have integrated heating ducts or cables or heating or cooling pipes		1.32
Floors at least 0.6 m under contiguous ground level that do not have integrated heating ducts or cables or heating or cooling pipes	0.88 installed over the full area, or 1.32 installed at the perimeter of the floor-on-ground over a width of at least 1.2 m	0.7

	<table><tr><td>Floors of a slab-on-ground that have integrated heating ducts or cables or heating or cooling pipes</td><td rowspan="2">1.76 installed over the full area</td><td>n/a</td></tr><tr><td>Floors-on-ground that have integrated heating ducts or cables or heating or cooling pipes</td><td>1.32</td></tr></table> **3)** The thermal resistance of the insulation material between the *foundation* wall and the floor-on-ground shall be equal to at least the values shown in Table 3.2.3.3.-A or 3.2.3.3.-B, except a) where the insulation is installed on the exterior of the *foundation* wall and extends at least 2.4 m down from ground level or to the lower portion of the wall, or b) where the *foundation* wall and the floor slab are insulated from the inside and the insulation between the wall and the slab is continuous.”.
3.2.4.1.	Replace the portion after “by complying with” in Sentence (1) by “Article 3.2.4.3.”.
3.2.4.2.	Strike out the Article.
3.2.4.3.	Replace Sentences (1) to (9) by the following: “**1)** *Air barrier assemblies* shall have an air leakage rate not greater than 0.2 L/(s×m^2) at a pressure differential of 75 Pa and determined in accordance with Article 3.1.1.8. **2)** *Air barrier assemblies* shall conform to Sentence 3.1.1.8.(1). **3)** Metal and glass curtain walls that act as environmental separators shall have an air leakage rate not greater than 0.2 L/(s×m^2) when tested in accordance with Article 3.1.1.8.(3), at a pressure differential of 75 Pa. **4)** Fixed windows and *skylights* that act as environmental separators shall have an air leakage rate not greater than 0.2 L/(s×m^2) when tested in accordance with Sentence 3.1.1.8.(2), at a pressure differential of 75 Pa. **5)** Operable windows and *skylights* that act as environmental separators shall have an air leakage rate not greater than 0.5 L/(s×m^2) when tested in accordance with Sentence 3.1.1.8.(2), at a pressure differential of 75 Pa. **6)** Except as provided in Sentences (7) to (9), doors that act as environmental separators shall have an air leakage rate not greater than 0.5 L/(s×m^2) when tested in accordance with Sentence 3.1.1.8.(4), at a pressure differential of 75 Pa. **7)** Revolving doors and automatic commercial sliding doors, including their respective fixed sections, that act as environmental separators are permitted to have an air leakage rate not greater than 5.0 L/(s×m^2) when tested as a complete assembly in accordance with Sentence 3.1.1.8.(4), at a pressure differential of 75 Pa. **8)** Overhead doors that act as environmental separators are permitted to have an air leakage rate not greater than 5.0 L/(s×m^2) when tested as a complete

	assembly at a pressure differential of 75 Pa in accordance with Sentence 3.1.1.8.(4). **9)** Main entry exterior doors that act as environmental separators are permitted to have an air leakage rate not greater than 5.0 L/(s×m²) when tested as a complete assembly in accordance with Sentence 3.1.1.8.(4), at a pressure differential of 75 Pa, provided that the total area of such doors does not exceed 2% of the gross wall area calculated in accordance with Article 3.1.1.6. (See Note A-3.2.4.3.(9)).”.
3.3.1.	Replace the heading of the Subsection by the following: “**3.3.1. General**”.
3.3.1.1.	Replace the Article by the following: “**3.3.1.1. Application** **1)** Subject to the limitations stated in Article 3.3.1.2., where the *building envelope* does not comply with the requirements of Section 3.2. or 3.4., it shall comply with this Section. **2)** This Section does not apply to *building* assemblies of the *building envelope* separating *conditioned spaces* intended to be conditioned to temperatures differing by more than 10°C at design conditions. **3)** For the purposes of this Section, “reference *building*” refers to a *building* whose envelope complies with the requirements of Section 3.2.”.
3.3.1.2.	Replace the Article by the following: “**3.3.1.2. Limitations** (See Note A-3.3.1.2.) **1)** The method of trade-off paths described in this Section may only take into consideration the energy performance of above-ground *building* assemblies of the *building envelope* covered in Sentences 3.2.1.2.(3), (4), (6), (7) and (10), 3.2.2.2.(1), 3.2.2.3.(2) and 3.2.2.4.(1). **2)** The *building envelope* shall comply with the requirements of Section 3.2, except the provisions listed in Sentence (1). **3)** Except as provided in Sentence 3.3.1.3.(2), performances that can be characterized in accordance with Articles 3.1.1.5. and 3.1.1.6. shall be taken into consideration in the trade-off path for a) the minimum energy performance of above-ground *building* assembly of the reference *building envelope* covered in Sentence (1), and b) the lower or higher performance of *building* assemblies of the proposed *building* covered in Sentence (1). **4)** The trade-off path shall apply individually to *building* assemblies of spaces whose heating setpoint is less than 18°C and to those whose heating setpoint is 18°C or more.”.

Add the following Article:

"**3.3.1.3. Compliance**

1) Except as provided in Sentence (2), compliance with this Section shall be determined using the equation that follows to demonstrate that the sum of the areas of all above-ground *building* assemblies of the proposed *building* divided by their *effective thermal resistance* is not more than it would be if all above-ground assemblies complied with Section 3.2.:

$$\sum_{i=1}^{n} \frac{A_i}{RSI_{Eip}} \leq \sum_{i=1}^{n} \frac{A_i}{RSI_{Eir}}$$

where

n = total number of above-ground assemblies,

A_i = area of above-ground assembly i of the *building* calculated in accordance with the requirements of Article 3.1.1.6., in m²,

RSI_{Eip} = *effective thermal resistance* of above-ground assembly i of the proposed *building*, in (m²×K)/W, and

RSI_{Eir} = *effective thermal resistance* of above-ground assembly i of the reference *building*, in (m²×K)/W.

(See Note A-3.3.1.3.(1).)

2) Except as provided in Sentence (3), where a requirement in Sentences 3.2.1.2.(1) to (7) and (10) is not complied with, the *effective thermal resistance* of above-ground *opaque building assemblies* of the *building envelope* shall be derated using the equation that follows to take into account thermal bridging:

$$RSI_{EDi} = \frac{1}{\frac{\sum_{j=1}^{m}(\Psi_j \times L_j) + \sum_{k=1}^{n}(\chi_k \times N_k)}{A_i} + \frac{1}{RSI_{Ei}}}$$

where

RSI_{EDi} = derated *effective thermal resistance* of *opaque building assembly* i of the proposed or reference *building*, in (m²×K)/W,

Ψ_j = *linear thermal transmittance* of the type j intersection calculated in accordance with Sentence 3.1.1.5.(7), in W/(m×K),

L_j = length of the type j intersection, in m,

m = total number of types of intersections,

χ_k = *point thermal transmittance* of the type k penetration calculated in accordance with Sentence 3.1.1.5.(7), in W/K,

N_k = number of type k point penetrations,

n = total number of types of penetrations,

A_i = area of *opaque building assembly* i, calculated in accordance with Article 3.1.1.6., in m², and

RSI_{Ei} = *effective thermal resistance* of the non-derated *opaque building assembly*, calculated in accordance with any of Sentences 3.1.1.5.(5) and (6), in (m²×K)/W.

(See Note A-3.3.1.3.(2).)

3) The values in Tables 3.3.1.3.-A and 3.3.1.3.-B

a) may be used for the applicable penetrations or intersections of the proposed *building* that do not comply with Sentences 3.2.1.2.(1) to (7) and (10), and

b) shall be used for the penetrations and intersections of the reference *building* that are referred to in Clause (a).

(See Note A-3.3.1.3.(3).)

Table 3.3.1.3.-A
Default Linear Thermal Transmittance of Certain Intersections
Forming Part of Sentence 3.3.1.3.(3)

Intersection	Maximum *Linear Thermal Transmittance*, Ψ, in W/(m×K) Intersection of the reference *building*	Maximum *Linear Thermal Transmittance*, Ψ, in W/(m×K) Intersection of the proposed *building* that does not comply with the prescriptive requirements
Wall/roof	0.325	0.800
Wall/intermediate floor	0.300	0.850
Wall/projection(1)	0.500	1.000
Wall/*foundation*	0.450	0.850
Wall/opening or wall/wall, minor(2)	0.200	0.500
Wall/wall, major(3)	0.450	0.850

Notes to Table 3.3.1.3.-A:

(1) Projections include linear penetrations that fully go through or partially penetrate the building assembly, extending on the exterior side of the building assembly (e.g. a balcony).

(2) Minor intersections are intersections that generally result in moderate thermal loss.

(3) Major intersections are intersections that may result in more significant thermal loss.

Table 3.3.1.3.-B
Point Thermal Transmittance of Penetrations
Forming Part of Sentence 3.3.1.3.(3)

	Point Thermal Transmittance, X, in W/K Penetration of the reference *building*	*Point Thermal Transmittance*, X, in W/K Penetration of the proposed *building* that does not comply with the prescriptive requirements
Any penetration	0.5	1.0

4) Where the *effective thermal resistance* of the opaque section of curtain walls has not been determined in accordance with Sentence 3.1.1.5.(6), the values that follow shall be used in the proposed *building*:

a) 0.35 (m²×K)/W, where the opaque section of curtain walls does not have an insulation material, or

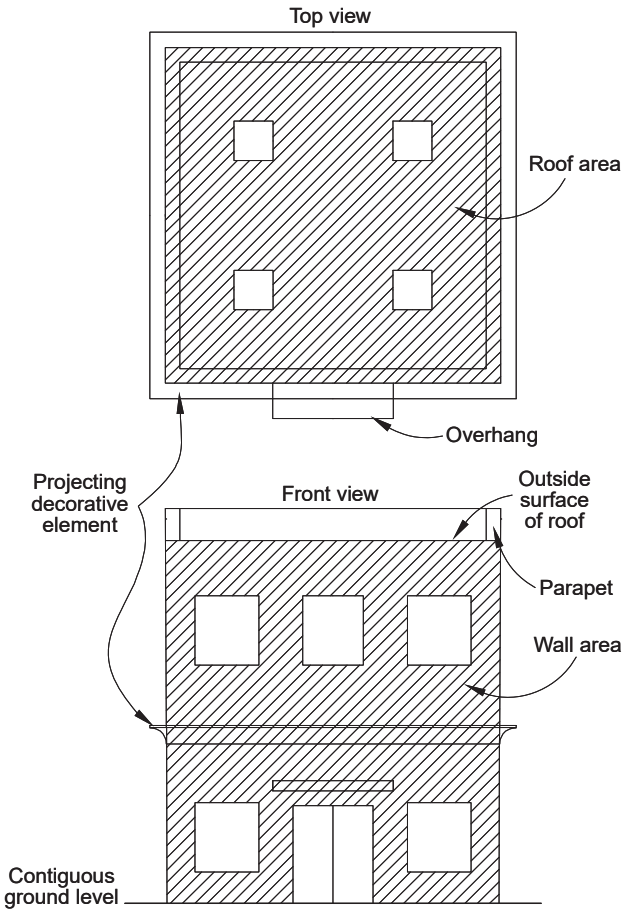
b) 0.88 (m²×K)/W, where the opaque section of curtain walls has an insulation material.”.

3.4.1.2.	Replace the Article by the following: "**3.4.1.2. Limitations** (See Note A-3.4.1.2.) **1)** The performance path described in this Section may only take into consideration the energy performance of the *building* assemblies of the *building envelope* covered a) in Articles 3.2.1.2. to 3.2.1.4. and 3.2.2.2. to 3.2.2.4., and b) except as provided in Sentence 8.4.3.3.(7), in Subsection 3.2.3. **2)** The *building* assemblies of the *building envelope* that are not covered in Sentence (1) shall comply with the requirements of Section 3.2.".
3.5.1.1.	Replace the heading of the appropriate Article in Table 3.5.1.1. by the following: "**3.3.1.2. Limitations**"; Replace respectively, in numerical order, the headings, objectives and functional statements in Table 3.5.1.1. by the following: "**3.1.1.7. Calculation of Effective Thermal Resistance** (1) [F92-OE1.1] (7) [F92-OE1.1] (8) [F92-OE1.1] (9) [F92-OE1.1]"; "**3.2.1.2. Continuity of Insulation** (1) [F92-OE1.1] (3) [F92-OE1.1] (4) [F92-OE1.1] (5) [F92-OE1.1] (6) [F92-OE1.1] (7) [F92-OE1.1] (8) [F92-OE1.1] (10) [F92-OE1.1]"; "**3.2.1.3. Spaces Conditioned to Different Temperatures** (1) [F92-OE1.1] (2) [F92-OE1.1]"; "**3.2.2.2. Thermal Characteristics of Above-ground Opaque Building Assemblies** (1) [F92-OE1.1] (2) [F92-OE1.1] (4) [F92,F95-OE1.1]"; "**3.2.3.1. Thermal Characteristics of Walls in Contact with the Ground**

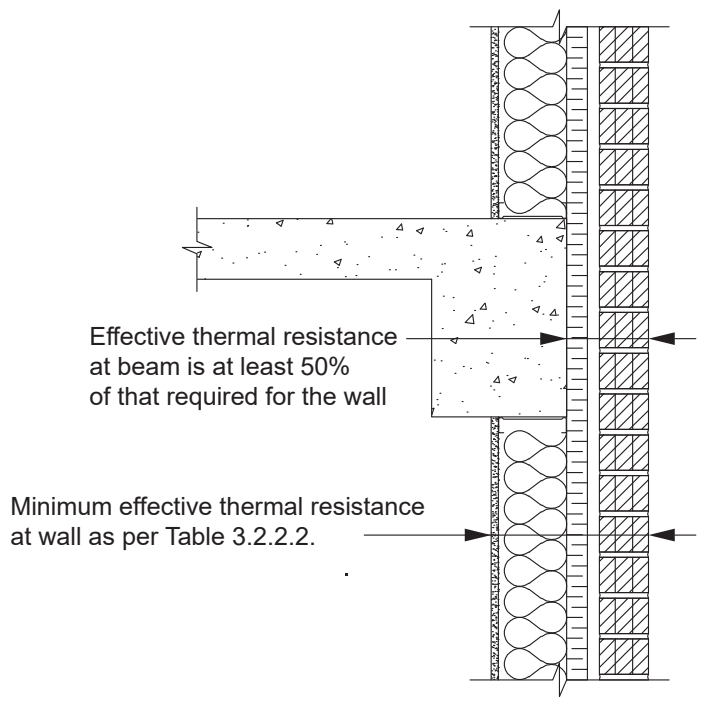
	(1) [F92-OE1.1] (3) [F92-OE1.1] (4) [F92,F95-OE1.1] (5) [F92-OE1.1]"; "**3.2.3.2. Thermal Characteristics of Roofs in Contact with the Ground** (1) [F92-OE1.1]"; "**3.2.3.3. Thermal Characteristics of Floors in Contact with the Ground** (2) [F92-OE1.1] (3) [F92-OE1.1]"; "**3.3.1.1. Application** (2) [F92-OE1.1]"; "**3.4.1.2. Limitations** (1) [F90,F92-OE1.1] (2) [F92-OE1.1]"; Insert respectively in Table 3.5.1.1, in numerical order, the following objectives and functional statements: "**3.1.1.5. Thermal Characteristics of Building Assemblies** (6) [F92-OE1.1] (7) [F92-OE1.1]"; Insert in Table 3.5.1.1., in numerical order, the following Articles, objectives and functional statements: "**3.1.1.8. Air Leakage in Building Assemblies** (1) [F90-OE1.1] (2) [F90-OE1.1] (3) [F90-OE1.1] (4) [F90-OE1.1]"; "**3.3.1.3. Compliance** (1) [F92-OE1.1] (2) [F92-OE1.1] (4) [F92-OE1.1]"; Strike out the following objectives and functional statements in Table 3.5.1.1.: "**3.2.4.2. Air Barrier System** (1) [F90-OE1.1] (2) [F90-OE1.1]".

Division B Notes to Part 3	
	Add the following Note: "**A-3.1.1.2.(1)(b) Building with Low Heat Requirement.** The exemption provided for in Clause 3.1.1.2.(1)(b) could apply, for example, to buildings in which permanent processes produce at all times sufficient heat so that no other heating source of a capacity of more than 10 W/m² is necessary to ensure comfort for the occupants during the whole year.".
A-3.1.1.5.(5)(a)	Replace the Note by the following: "**A-3.1.1.5.(5)(a) Calculation of the Effective Thermal Resistance of Opaque Building Assemblies using Simplified Calculation Methods.** The recognized simplified calculation methods are those from standard organizations such as ASHRAE, ISO et Codes Canada. The method for calculating isothermal planes described in the "ASHRAE Handbook – Fundamentals" may in particular be used for calculating the effective thermal resistance of assemblies that have a discontinuity in insulation layers. To implement that simplified calculation method, the material creating the discontinuity in the insulating layer must have a thermal conductivity slightly different from that of the insulating layer, as is the case for assemblies with wood frames. That method could not apply to a metal frame assembly because the difference in thermal conductivity between the frame and the insulation is too high. The simplified calculation method described in ISO 6946, "Building components and building elements -- Thermal resistance and thermal transmittance -- Calculation methods," for an assembly composed of homogeneous and heterogeneous layers may also be used for calculating the effective thermal resistance of assemblies that have a discontinuity in insulation layers. To implement that simplified calculation method, the material creating the discontinuity in the insulating layer must have a thermal conductivity slightly different from that of the insulating layer. Where the main frame of the assembly is composed of metal posts, the calculation method must be adapted. Weighing coefficients must be applied based on the configuration of the main frame. The adapted methods described in Note A-9.36.2.4.(1) of the NBC or in "BRE Digest 465" are examples of calculation rules using weighing coefficients that may be applied to that type of assembly. That adapted solution for calculating the effective thermal resistance applies only for simple metal frames, that is, where there is absence of double frame and horizontal, vertical or point resilient bars, or where there is absence of any other complex assembly of a similar nature that may affect heat flow, in which case the digital simulation of the heat transfer or a laboratory test is used to determine the effective thermal resistance of those assemblies.".
	Add the following Note: "**A-3.1.1.5.(5)(b), (6)(c) and (7)(a) Digital Simulation of Heat Transfer.** The "ASHRAE Handbook – Fundamentals" refers to the approach developed as part of research project ASHRAE RP-1365, "Thermal Performance of Building Envelope Details for Mid- and High-Rise Buildings" (Morrison Hershfield), for calculating thermal characteristics of building assemblies.

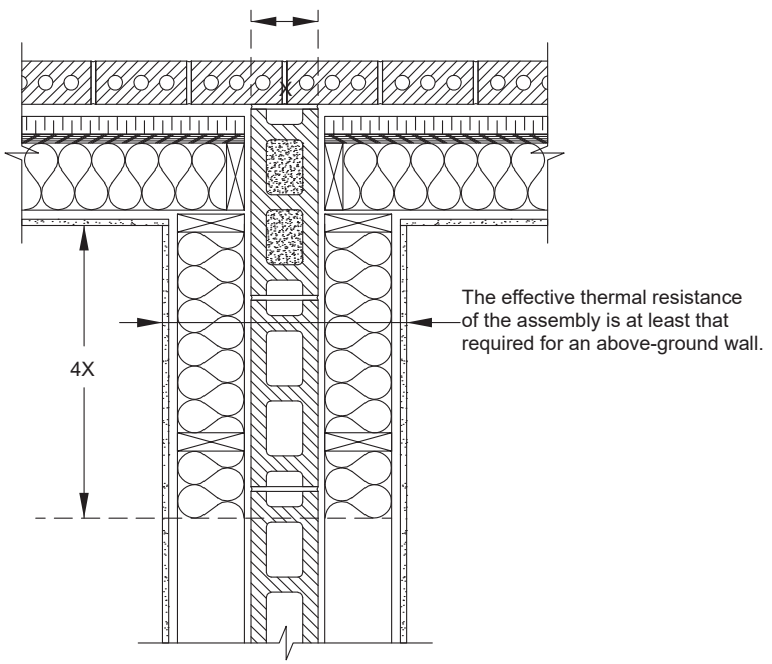
	The thermal characteristics of building assemblies determined according to such an approach involve the implementation of digital simulation tools that allow to obtain, using a finite element analysis, the distribution of heat under steady state in a building assembly. The thermal characteristics such as linear and point thermal transmittance or the effective thermal resistance of a building assembly may be determined with that type of simulation.”. ISO 14683, “Thermal bridges in building construction – Linear thermal transmittance – Simplified methods and default values,” ISO 10211, “Thermal bridges in building construction – Heat flows and surface temperatures – Detailed calculations,” the “Building Envelope Thermal Bridging Guide” by Morrison Hershfield, and research project report ASHRAE RP-1365, “Thermal Performance of Building Envelope Details for Mid- and High-Rise Buildings,” are also acceptable sources of information for calculating the effective thermal resistance of certain specific building assemblies and the incidence of thermal bridges.”.
A-3.1.1.6.(1)	Insert the following Sentences after the first Sentence of the Note: “Garage doors are included in the calculation of the door and fenestration area of a building. The opaque sections (spandrel panels) of curtain walls are part of the opaque building assembly. That component of curtain walls shall be taken into account in the calculation of the area of opaque building assemblies and not in the calculation of the fenestration and door area.”.
	Add the following Note: “**A-3.1.1.6.(6) Calculation of the Area of Opaque Building Assemblies**. Parapets, projected fins, ornamentation, appendages, and fenestration and doors are excluded from the area of opaque building assemblies. The area of an opaque building assembly in contact with the ground shall be calculated from the exterior ground level to the bottom surface of the slab-on-ground.

	Figure A-3.1.1.6.(6) illustrates the calculation of the area of opaque building assemblies according to the requirements of Sentence 3.1.1.6.(6).  **Figure A-3.1.1.6.(6)** **Calculation of the Area of Opaque Building Assemblies**".
A-3.1.1.7.(1)(b)	Strike out the Note.
A-3.1.1.7.(1)(d)	Strike out the Note.

	Add the following Note: “**A-3.1.1.7.(1) Calculation of the Effective Thermal Resistance of Opaque Building Assemblies of the Building Envelope.** For calculating the effective thermal resistance, Part 3 requires that the contribution of all continuous components of the envelope such as the insulation, siding and sheathing, of all repetitive structural members, such as columns, studs and resilient bars, and all secondary structural members such as lintels, sills and plates, be taken into account. Members that break the building envelope, such as beams, studs, joists and balconies, also have an effect on overall effective thermal resistance, but are excluded from the calculations of the effective thermal resistance, except as provided in Article 3.1.1.7. and Section 3.3. Those elements are the subject of prescriptive requirements detailed in Article 3.2.1.2.”.

A-3.1.1.7.(2)	Replace the Note by the following: "**A-3.1.1.7.(2) Continuity of Insulation at Beams and Columns.** The effective thermal resistance at spandrel beams may be reduced compared to what is required for walls penetrated by beams without any penalty, provided that the resulting effective thermal resistance across the building envelope at the spandrel beam is not less than half the required effective thermal resistance for the wall (see Figure A-3.1.1.7.(2)). A similar approach may be used for columns in exterior walls.  **Figure A-3.1.1.7.(2)** **Continuity of insulation at beams**."
	Add the following Note: "**A-3.1.1.7.(3) Penetrations of the Building Envelope.** The minor ties and anchors necessary for the assembly of the envelope, such as screws, bolts and masonry anchors, may be excluded from the calculation of the effective thermal resistance for demonstrating compliance. Other partial or complete discontinuities of insulation listed in Sentence 3.1.1.7.(3) need not be part of the calculation of the effective thermal resistance of the opaque building assembly affected where the penetrations comply with the requirements of Article 3.2.1.2.

	Permafrost Penetrations caused by metal pilings supporting the buildings constructed in permafrost regions need not be part of the calculation of the effective thermal resistance of the opaque building assembly where the penetrations comply with the requirements of Article 3.2.1.2.”.
A-3.1.1.7.(4)	Replace the Note by the following: “**A-3.1.1.7.(4) Effect of an Unconditioned Space.** The effective thermal resistance in Sentence 3.1.1.7.(4), which is equivalent to that of a layer of glass, is intended to provide an easy credit under the prescriptive path for any unconditioned space that may be protecting a component of the building envelope. The conservative value given does not take into account the construction of the enclosure surrounding the unconditioned space; the construction of this enclosure being uncontrolled by this Code, too many variables, such as its size or airtightness, may negate any higher credit that could be allowed. There may be simulation tools under the performance path that can provide a better assessment of the effect of an unheated space, which may be used to advantage when an unheated space is designed to provide significantly better protection than the assumed worst-case scenario. Vented spaces, such as attic and roof spaces or crawl spaces, are considered to be part of the exterior space; therefore, Sentence 3.1.1.7.(4) does not apply when calculating the effective thermal resistance of building envelope components.”.
	Add the following Note: “**A-3.1.1.8.(1) Air Barrier Assembly Testing.** Air barrier assemblies of the envelope of a building are subject to structural loading induced by mechanical systems, wind pressure and stack effect. Those assemblies may also be affected by physical degradation resulting from thermal or structural movement throughout time. The limits of the tests to be conducted in accordance with CAN/ULC-S742, “Air Barrier Assemblies – Specification,” and ASTM E 2357, “Standard Test Method for Determining Air Leakage of Air Barrier Assemblies,” are indicated in the test procedures to which they refer.”.
A-3.2.1.1.(1)	Strike out “vegetative roofing systems,” in the Note.
	Add the following Note: “**A-3.2.1.2.(1) Continuity of Insulation.** Sentence 3.2.1.2.(1) applies to building components such as wall assemblies, chimneys, fireplaces, and columns and beams that are embedded along exterior walls, but not to stud framing and ends of joists. Studs and joists in frame construction are not considered to break the continuity of the insulation. The Sentence also applies to components of mechanical and electrical systems in walls, roofs or floors.”.

A-3.2.1.2.(2)	Replace the Note by the following: "**A-3.2.1.2.(2) Structural Members and Minor Penetrations.** Sentence 3.2.1.2.(2) takes into account the fact that repetitive structural members are already included in the method for calculating effective thermal resistance of building assemblies as described in Article 3.1.1.7.
	Add the following Notes: "**A-3.2.1.2.(3) Break in the Continuity of Insulation.** Where they penetrate the envelope, interior walls, foundation walls, firewalls, party walls, structural members such as slabs, ornementations and other appendages are an important source of heat losses and have a significant impact on the overall thermal performance of the building envelope. Figures A-3.2.1.2.(3)-A, A-3.2.1.2.(3)-B, A-3.2.1.2.(3)-C and A-3.2.1.2.(3)-D illustrate ways to comply with the requirements of Sentence 3.2.1.2.(3).  **Figure A-3.2.1.2.(3)-A** **Example of a firewall part of a penetration insulated on both of its sides in accordance with Clause 3.2.1.2.(3)(a)**

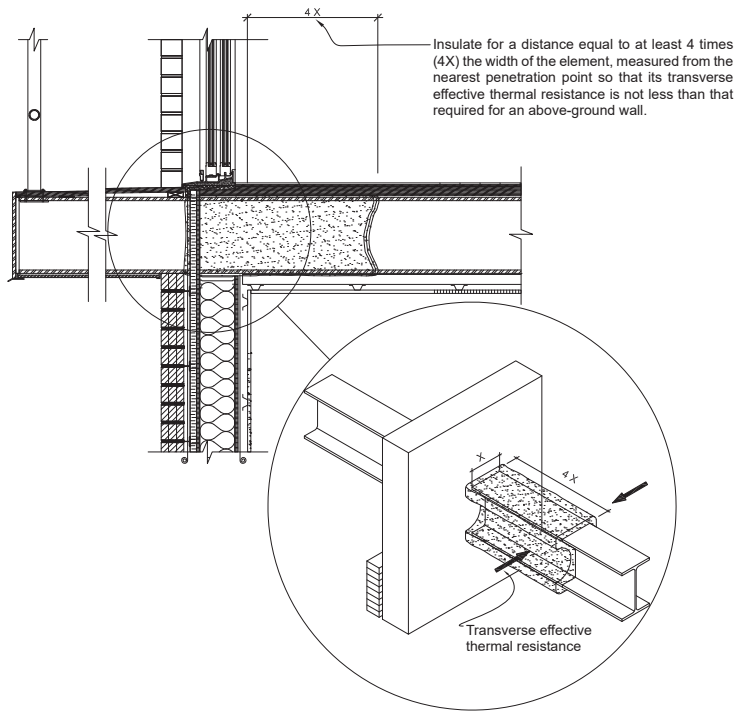


Figure A-3.2.1.2.(3)-B

Example of a structural beam part of a penetration insulated on all its surfaces in accordance with Clause 3.2.1.2.(3)(a)

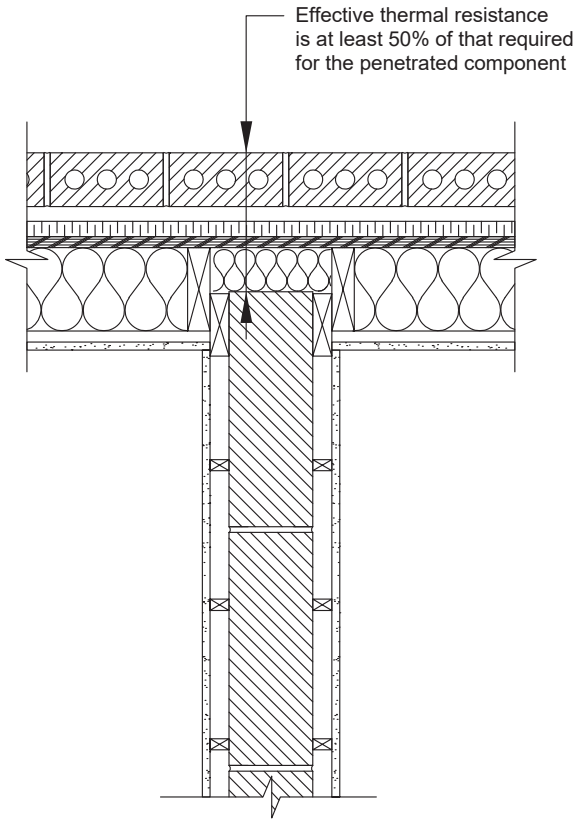


Figure A-3.2.1.2.(3)-C

Example of a party wall part of a penetration insulated along the plane of the insulation of the exterior wall in accordance with Clause 3.2.1.2.(3)(b)

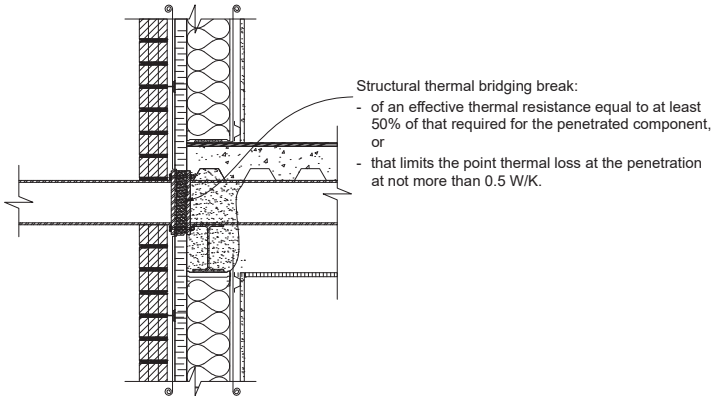


Figure A-3.2.1.2.(3)-D

Example of a structural beam part of a penetration insulated along the plane of the insulation of the exterior wall in accordance with Clause 3.2.1.2.(3)(b) and Sentence 3.2.1.2.(10)

A-3.2.1.2.(4) Insulation of a Concrete Slab. Sentence 3.2.1.2.(4) is intended to limit heat loss at the level of concrete structural slabs that are often extended outward to become balconies. That heat loss results in an excessive energy consumption and may also be the source of discomfort for occupants. Figures A-3.2.1.2.(4)-A, A-3.2.1.2.(4)-B and A-3.2.1.2.(4)-C show ways to comply with the requirements of Sentence 3.2.1.2.(4).

The effective thermal resistance of the structural thermal bridging breaker excludes metal reinforcing members.

Where the assembly complies with the requirements of Clause 3.2.1.2.(4)(b), the insulation material under and above the slab should be mould resistant.

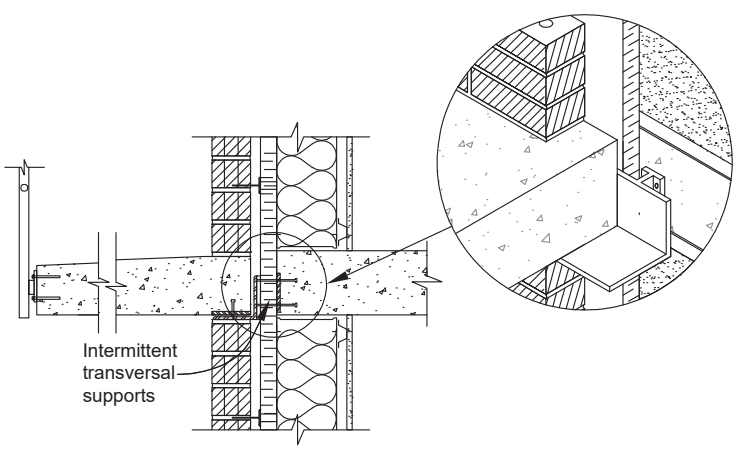


Figure A-3.2.1.2.(4)-A

Insulation in continuity with the insulation of the component penetrated by the use of angles for intermittent transversal supports, in accordance with Clause 3.2.1.2.(4)(a)

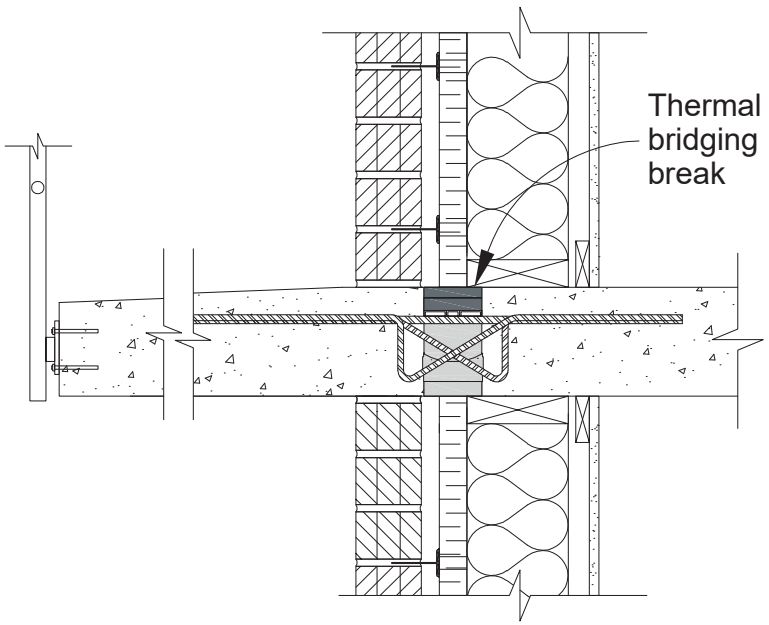


Figure A-3.2.1.2.(4)-B

Insulation in continuity with the insulation of the component penetrated by the use of thermal bridging breaks, in accordance with Clause 3.2.1.2.(4)(a)

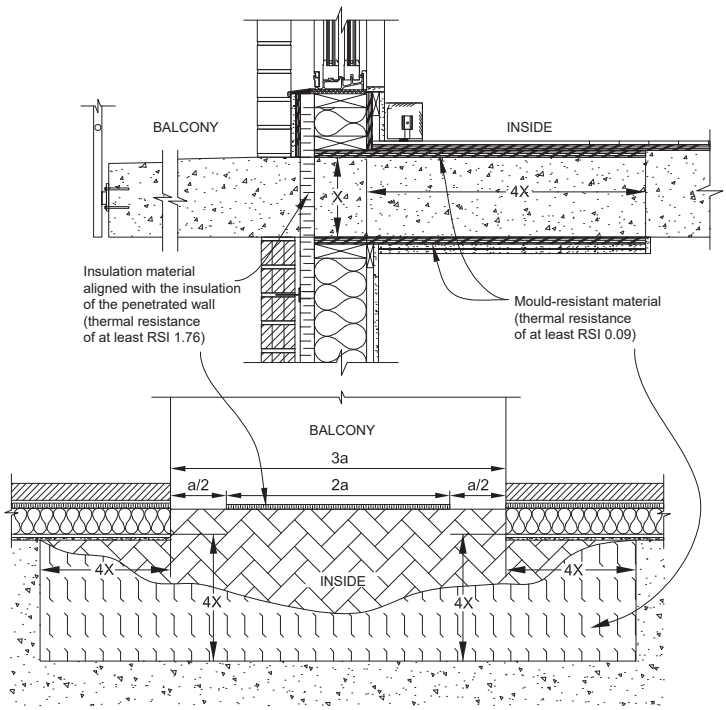


Figure A-3.2.1.2.(4)-C

Insulation of a balcony slab over two thirds of its surface, in accordance with Clause 3.2.1.2.(4)(b)

A-3.2.1.2.(5) Intermittent Transversal Supports. Sentence 3.2.1.2.(5) is intended to reduce the contact surface between anchoring devices and structural members to limit heat loss at the level of those elements. Figure A-3.2.1.2.(5) shows how to comply with the requirements of Sentence 3.2.1.2.(5). It should be noted that Sentence 3.2.1.2.(3) provides for requirements concerning the insulation of the slab.

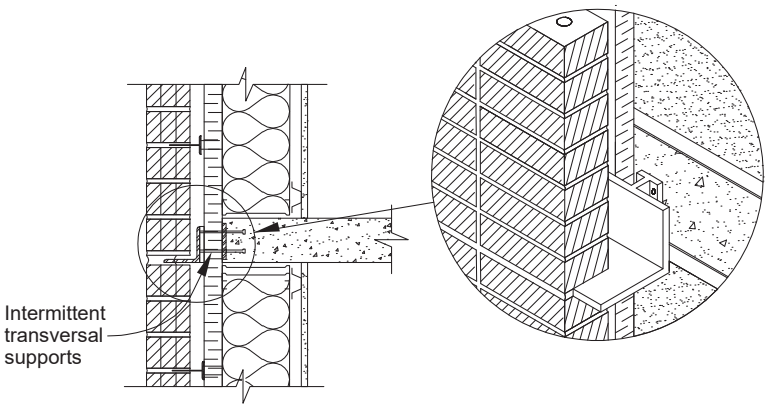


Figure A-3.2.1.2.(5)

Shelf angle attached to intermittent transversal supports

A-3.2.1.2.(6) Continuity of Insulation Where Components Meet. Sentence 3.2.1.2.(6) calls for continuity of the insulation at the intersection of two components of the building envelope, such as a wall with another wall or a roof, or a wall with a window. This means that there should be no gap in the insulation between the two components. An obvious application is insulating the space between a window or door frame and the rough framing members. However, structural members, such as studs and top plates, do not have to be taken into account, as provided in Sentences 3.1.1.7.(1) and 3.2.1.2.(2).

A-3.2.1.2.(7) Insulation Overlap. Where the break in insulation is due to the perpendicular interposition of a member of the envelope relative to another, Sentence 3.2.1.2.(7) requires that the overlap be carried out to extend the path of least thermal resistance from the inside out or toward an unconditioned adjacent space, as illustrated in Figure A-3.2.1.2.(7).”.

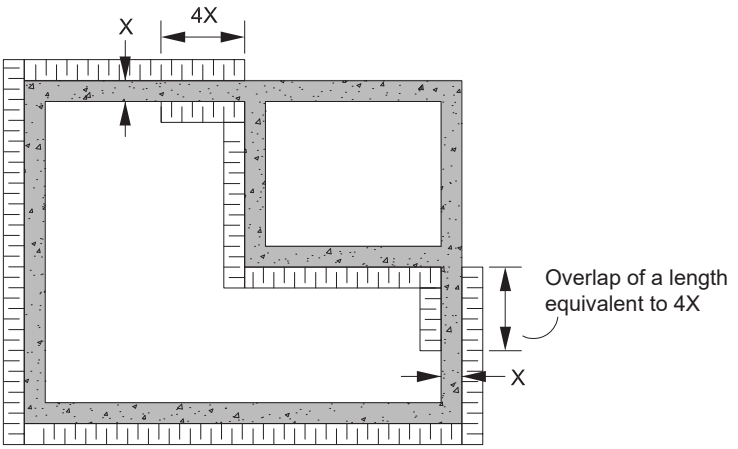


Figure A-3.2.1.2.(7)

Overlap of insulation planes in accordance with Sentence 3.2.1.2.(7)

A-3.2.1.2.(8) Overlap of Insulation for Hollow-core Masonry Walls. Where 2 insulation planes are separated by a hollow-core masonry wall and they cannot physically join, Sentence 3.2.1.2.(8) provides that they must overlap and the cores of the masonry wall coinciding with the upper and lower edges of each respective insulation plane must be filled with grout, mortar or insulation to carry the air barrier across the wall and limit the effect of convection in the cores, as shown in Figure A-3.2.1.2.(8).

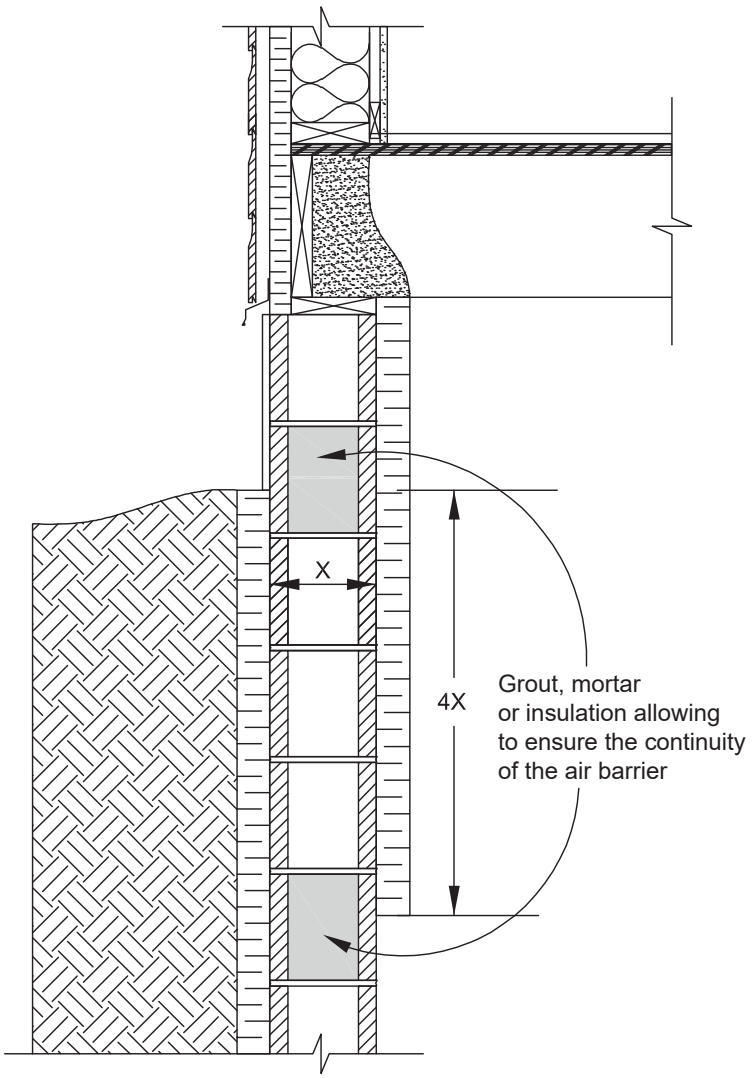
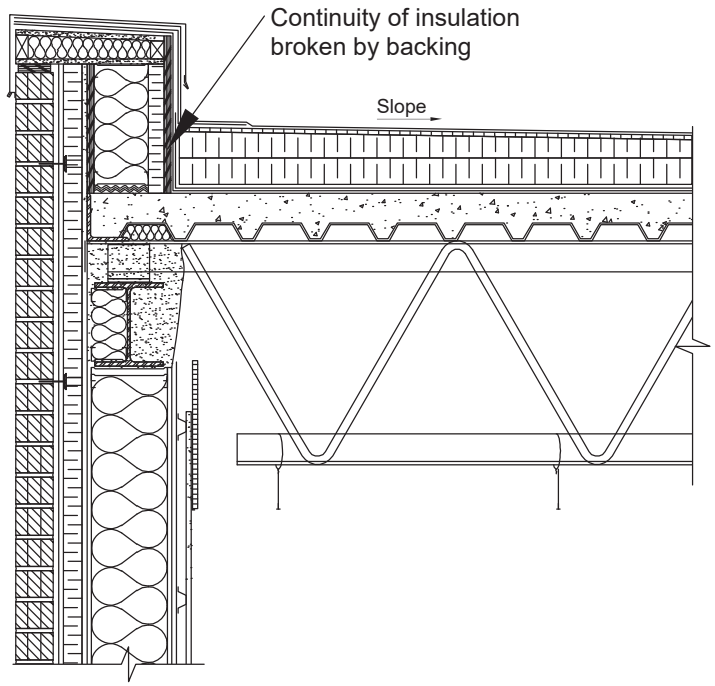


Figure A-3.2.1.2.(8)

Overlap of insulation planes for hollow-core masonry walls

A-3.2.1.2.(9)(c) Continuity of Insulation at the Level of Parapets. The continuity of insulation may be broken at minor transitions between constructive systems, such as backing necessary to attach the membrane, tie rods and flashings. Figure A-3.2.1.2.(9)(c) shows an example where insulation is broken by backing.

	 **Figure A-3.2.1.2.(9)(c)** **Example of continuity of insulation at the level of the parapet broken by backing**".
A-3.2.1.3.(1)	Replace the Note by the following: "**A-3.2.1.3.(1) Spaces Heated or Cooled to Different Temperatures.** This requirement applies, for example, to walls or floors that separate a space heated to a normal comfort temperature from another space maintained at a significantly lower temperature. This would be the case, for example, of a wall between an office block and an attached warehouse that is heated just to keep it above freezing. The value of the effective thermal resistance of building assemblies separating 2 spaces at different temperatures varies on the basis of the temperature difference between the spaces and does not depend on the location of the building. That effective thermal resistance is calculated from a reference value corresponding to the effective thermal resistance of building assemblies for less than 6000 degree-days of heating at 18°C. This requirement also applies to doors, windows and *skylights*.".

	Add the following Note: "**A-3.2.1.3.(2) Semi-Heated Spaces.** The Sentence applies to building assemblies of the envelope separating spaces heated to keep them above freezing. Given that setpoint, heat losses are reduced in winter. The heating setpoint is the temperature determined for the design of the heating system, and the outdoor heating design temperature is the 2.5% January design temperature according to the location of the building. The Sentence does not apply to spaces that must be conditioned to an indoor temperature of less than 18°C, such as a refrigerated warehouse. This requirement also applies to doors, windows and *skylights*.".
A-3.2.1.4.(1)	Strike out the Note.
A-3.2.2.2.(1)	Replace the Note by the following: "**A-3.2.2.2.(1) Thermal Characteristics of Opaque Above-ground Building Assemblies.** The effective thermal resistance required for above-ground walls also applies to opaque sections of curtain walls and to the above-ground portion of foundation walls, except as provided in Sentence 3.2.2.2.(2). If no RSI value may be obtained for a material or assembly according to the requirements of Article 3.1.1.5., then no RSI value may be allocated to the material or assembly concerned. A high sun reflectance index of a roof covering does not allow the reduction of the effective thermal resistance required for the roof.".
A-Table 3.2.2.2.	Strike out the Note.
	Add the following Note: "**A-3.2.2.2.(2) and (3) Insulation of an Exterior Wall.** The percentage of the exposed surface of the foundation walls must be established by considering each wall located in a same plane and for each storey. Where the foundation walls comprise various constructive systems, the percentage of the exposed surface is considered separately for each system. The entire above-ground surface of a foundation wall exposed to air over more than 50% of its surface will be insulated as an above-ground wall and the portion below ground level will be insulated as a wall in contact with the ground. Figure A-3.2.2.2.(2) and (3) shows an example of the application of Sentence (2).

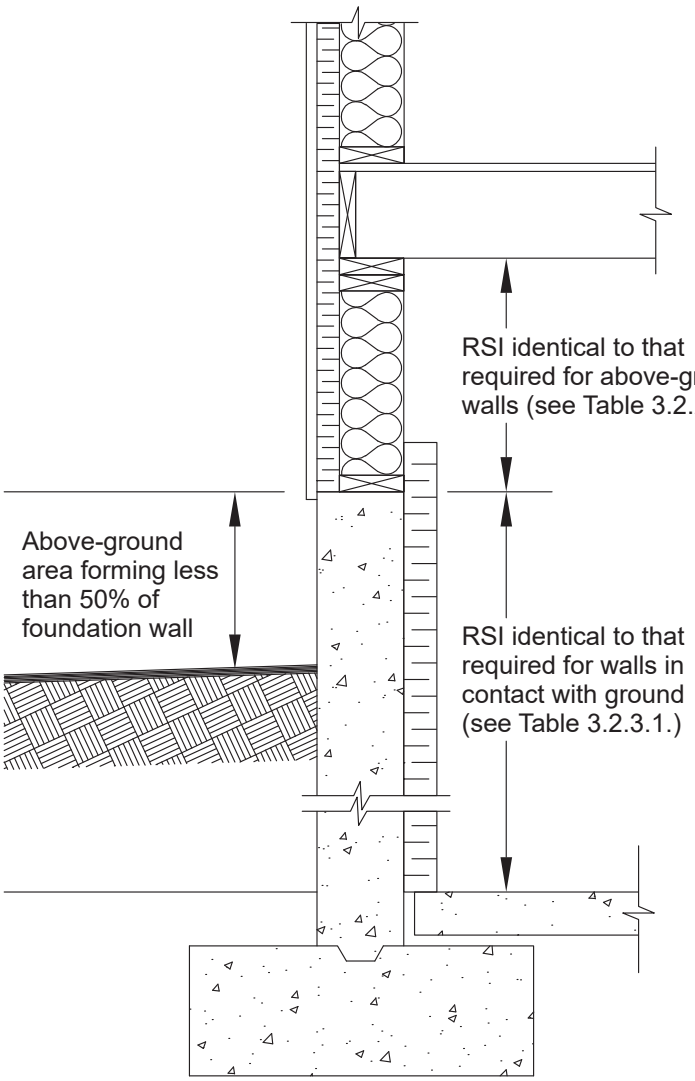
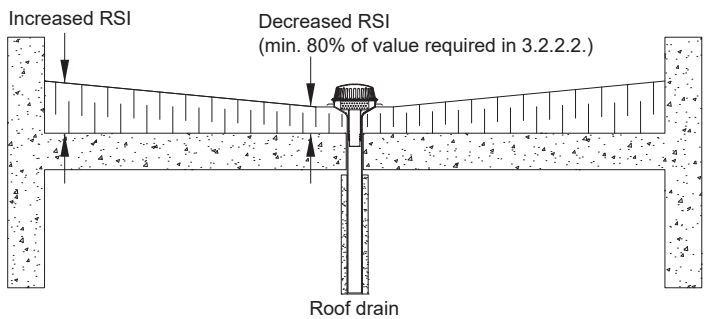
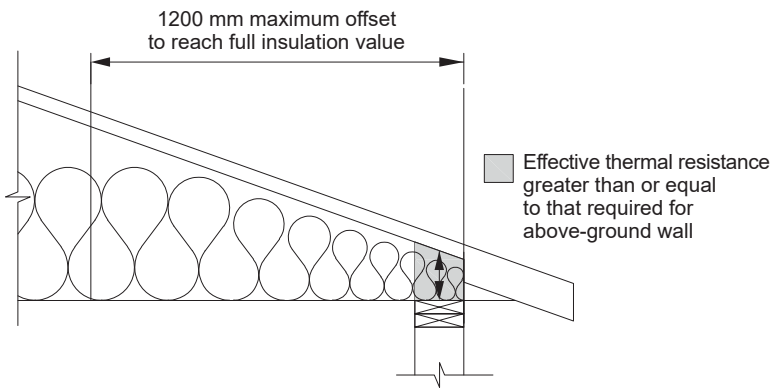
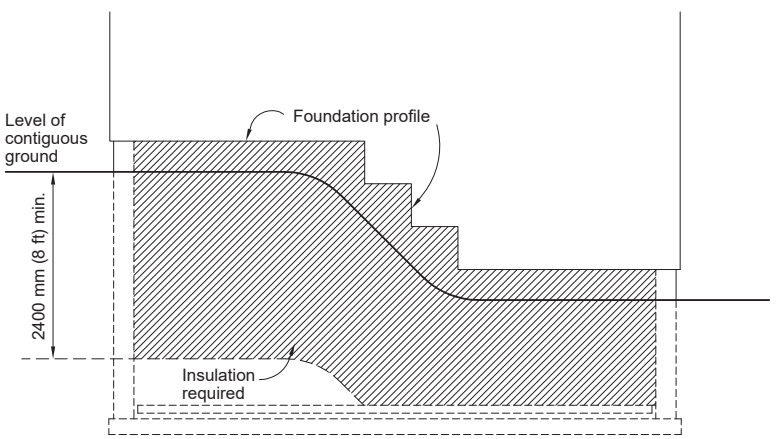
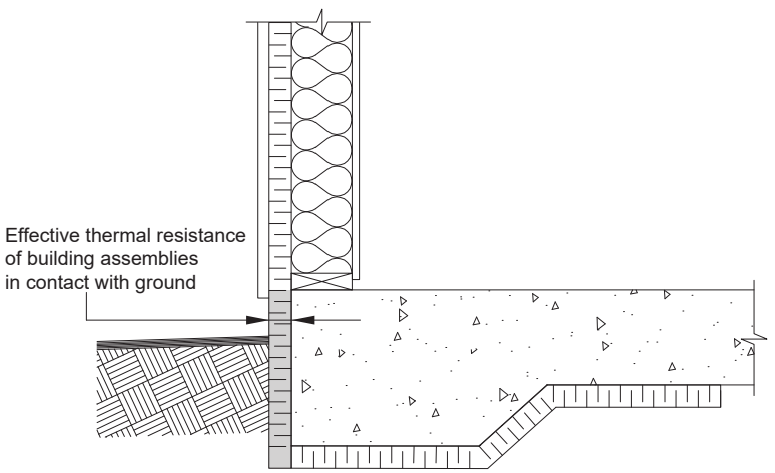


Figure A-3.2.2.2.(2) and (3)

Insulation of a foundation wall having less than 50% of the surface exposed to outdoor air".

A-3.2.2.2.(4)	Replace the Note by the following: "**A-3.2.2.2.(4) Thermal Characteristics of Above-ground Opaque Building Assemblies with Embedded Radiant Heating or Cooling.** Sentence 3.2.2.2.(4) applies in particular to overhanging floors and to insulated walls and top-storey ceilings under a roof or unheated attic space. The requirement also applies to floors above a crawl space, where it is kept at a temperature that differs by more than 10°C. The minimum thermal resistance of a floor, wall or ceiling containing radiant heating cables or heating or cooling pipes or membranes is increased to minimize heat losses due to the increased temperature difference between the interior and exterior surfaces.".
	Add the following Notes: "**A-3.2.2.2.(5) Effective Thermal Resistance of a Flat Roof.** Sentence 3.2.2.2.(5) allows the reduction of the effective thermal resistance around the drain of a roof provided that the dimension of the roof and the slope are sufficient to offset heat losses incurred in the portion that does not comply with the requirements of Article 3.2.2.2. Figure A-3.2.2.2.(5) illustrates the application.  **Figure A-3.2.2.2.(5)** **Reduction of the sloped insulation on a flat roof in accordance with Sentence 3.2.2.2.(5)** **A-3.2.2.2.(6) Effective Thermal Resistance Near the Eaves.** The values of the effective thermal resistance required for roofs with attic spaces are greater than those required for walls. The reduction allowed in Sentence 3.2.2.2.(6) assumes that the thickness of the insulation will be increased on the basis of the increase of the slope of the roof with an attic space until the space is sufficient to contain the full thickness of the insulation. Figure A-3.2.2.2.(6) illustrates the reduction allowed in that Article.

	 **Figure A-3.2.2.2.(6)** **Insulation reduction allowed for sloped roofs in accordance with Sentence 3.2.2.2.(6)**".
A-3.2.2.4.(5)	Strike out the Note.
A-3.2.3.1.(3)	Replace the Note by the following: **A-3.2.3.1.(3) Wall in Contact with the Ground.** The term "ground level" as used in Sentence 3.2.3.1.(3) has a different meaning than "grade", which is defined in the NBC. The wording in Sentence 3.2.3.1.(3) requires that the bottom of the insulation follow the contours of the exterior ground level at the required depth, as shown in Figure A-3.2.3.1.(3).  **Figure A-3.2.3.1.(3)** **Insulation of walls in contact with the ground**".

	Add the following Note: "**A-3.2.3.1.(5) Slab-on-Ground.** Sentence 3.2.3.1.(5) requires that the vertical section of a slab-on-ground be insulated over its entire height just like a wall in contact with the ground in accordance with the requirements of Sentence 3.2.3.1.(1), as shown in Figure A-3.2.3.1.(5).  **Figure A-3.2.3.1.(5)** **Vertical insulation of a slab-on-ground according to Sentence 3.2.3.1.(5)**".
A-3.2.3.2.(1)	Replace the word "grade" by "ground level"; Strike out the last sentence of the Note.
A-3.2.3.3.	Replace the Note by the following: "**A-3.2.3.3. Floors in Contact with the Ground.** Article 3.2.3.3. is also intended to include "floors" of heated or cooled crawl spaces even when there is no actual constructed "floor". The value of the most astringent thermal resistance determines that of the insulation material to be installed over the entire floor surface where the ground level adjacent to a floor-on-ground is variable according to the faces of an immovable. In the case of a building whose floor-on-ground is constructed in tiers, it is possible to apply the requirements of Article 3.2.3.3. to each tier. Consideration should be given to insulating the entire floor at sites where the soil is highly conductive or where there is a permanently high water table. Figures A-3.2.3.3.-A, A-3.2.3.3.-B, A-3.2.3.3.-C and A-3.2.3.3.-D illustrate the requirements in insulation for various types of floors-on-ground where these are less than 0.6 m below grade.

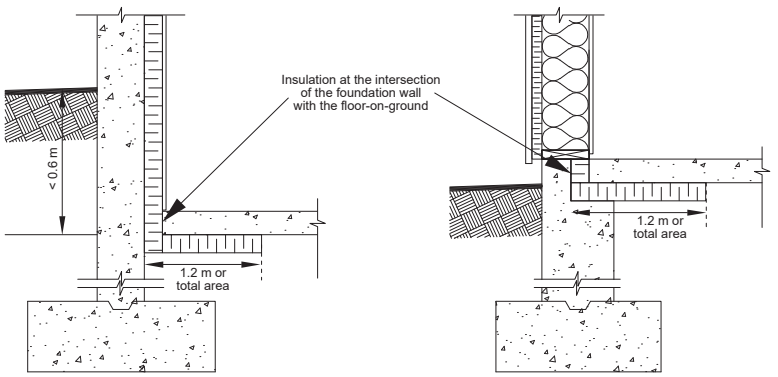


Figure A-3.2.3.3.-A

Insulation of floors in contact with the ground – example of insulation under the slab and at the intersection of the foundation wall with the floor-on-ground according to Sentence 3.2.3.3.(1)

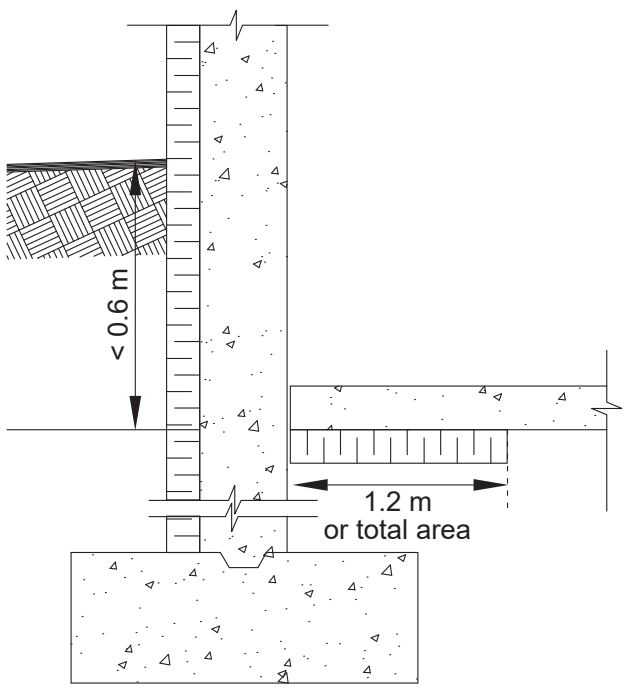


Figure A-3.2.3.3.-B

Insulation of floors in contact with the ground where the foundations are insulated from the exterior in accordance with Clause 3.2.3.3.(2)(a)

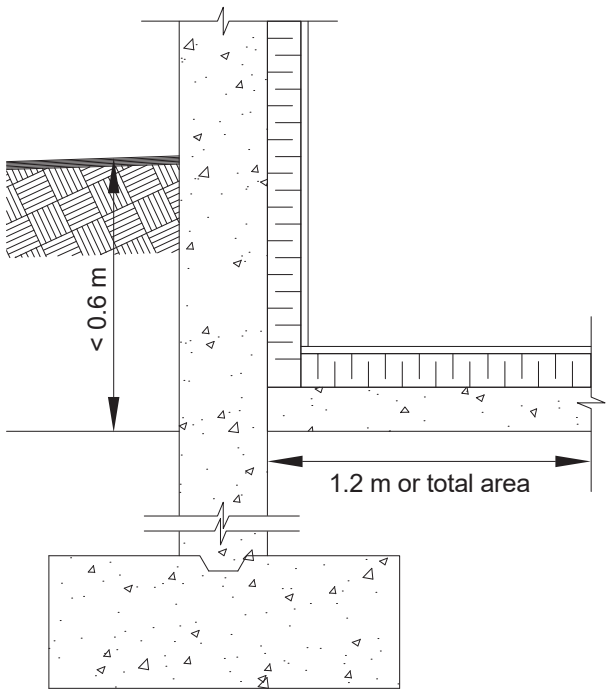
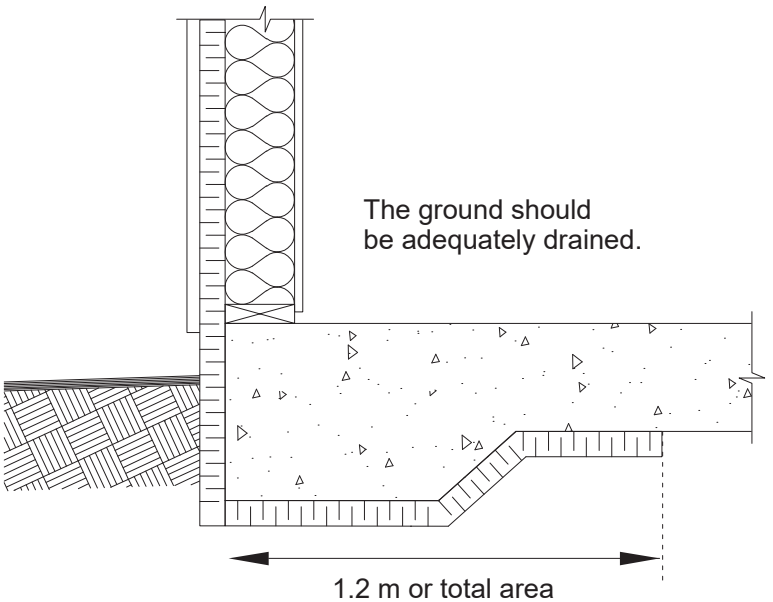


Figure A-3.2.3.3.-C

Insulation of floors in contact with the ground where the slab and the foundation wall are insulated from the interior in accordance with Clause 3.2.3.3.(2)(b)

	 **Figure A-3.2.3.3.-D** **Insulation of floors in contact with the ground for a slab-on-ground with integrated footings in accordance with Sentence 3.2.3.3.(3)**".
A-3.2.4.2.(1)	Strike out the Note.
A-3.2.4.3.(1) and (2)	Strike out the Note.
	Add the following Note: "**A-3.2.4.3.(9) Vestibule doors.** Main entry doors that are part of a complete air barrier system, such as interior and exterior doors of a vestibule, may be tested as an entire assembly.".
A-3.3.1.1.(6)	Strike out the Note.

Add the following Notes:

"**A-3.3.1.2. Limitations.** The trade-off path described in Section 3.3. allows the designer to offset the non-compliance with the prescriptive requirements of certain above-ground building assemblies of the building envelope by considering the enhanced performance, i.e. higher than the prescriptive requirements, of other above-ground building assemblies of the envelope. For example, on the basis of the demonstration required in Section 3.3., it would be possible for a designer to offset the lower energy performance of a structural glazing by enhancing the energy performance of other windows of the building above the prescriptive requirements of Section 3.2. Simpler than the building energy performance compliance path detailed in Part 8, the trade-off path is limited to certain components of the building envelope.

A-3.3.1.3.(1) Trade-off. The trade-off path is based on the comparison of the steady-state energy performance of above-ground building assemblies of the proposed building envelope, i.e. the building as in the plans and specifications, with that of a reference building: an identical building except its envelope, completely in conformity with the prescriptive requirements of Section 3.2. The area of each above-ground building assembly (A_i), including doors and fenestration, must be identical for the reference building and the proposed building. For opaque building assemblies of buildings that do not comply with the prescriptive requirements respecting the continuity of the insulation specified in Sentences 3.2.1.2.(1) to (7) and (10), the effective thermal resistance must be derated in accordance with Sentence (2).

A-3.3.1.3.(2) Derating of the Effective Thermal Resistance. The "derated" effective thermal resistance of opaque building assemblies of the envelope is generated from their effective thermal resistance calculated in accordance with Article 3.1.1.5. It must be derated to account for additional energy losses at the site of intersections and point penetrations of the envelope that do not comply with the continuity of insulation requirements in Sentences 3.2.1.2.(3) to (7) and (10). The intersections most often encountered in buildings are those of opaque building assemblies with parapets, foundations, intermediate floors and projections (such as cantilevered balconies).

Whereas the prescriptive requirements of those intersections or penetrations are descriptive in nature (see Sentences 3.2.1.2.(3) to (7) and (10)), the trade-off requires to quantify heat losses in relation to those intersections and penetrations where the prescriptive requirements are not complied with.

The derating of the effective thermal resistance of opaque building assemblies may be considered only if it is possible to characterize the parameters of the equation in Sentence 3.3.1.3.(2), whose values may be lower or higher than the prescriptive requirements, from recognized paths, in particular those in Articles 3.1.1.5. and 3.1.1.6.

The linear thermal transmittance of an intersection and the point thermal transmittance of a penetration may be obtained, for example, from laboratory tests or generated using digital heat transfer simulations (see the digital simulations in the research project of ASHRAE RP-1365, "Thermal Performance of Building Envelope Details for Mid- and High-Rise Buildings," provided as a reference in the "ASHRAE Handbook – Fundamentals," or the "Building Envelope Thermal Bridging Guide" by Morrison Hershfield). Point penetrations of the envelope and the wall/roof, wall/foundation, wall/projection and wall/intermediate floor

	intersections of the reference building must be characterized by the default values in Tables 3.3.1.3.(3)-A and 3.3.1.3.-B. **A-3.3.1.3.(3) Linear Thermal Transmittance and Point Thermal Transmittance by Default of Certain Intersections and Penetrations of the Reference Building.** Where the derating of the effective thermal resistance of opaque building assemblies is required, in accordance with the requirement in Sentence 3.3.1.3.(2), the trade-off path allows the application of the coefficients provided for in Tables 3.3.1.3-A and 3.3.1.3.-B. **A-3.4.1.2. Limitations.** The performance path allows to offset the non-compliance with the prescriptive requirements of the building assemblies of the envelope considered in Sentence 3.4.1.2.(1) by improving the performance of the lighting systems, the HVAC systems, the service water heating systems and the building assemblies of the envelope considered in Sentence 3.4.1.2.(1). As with the trade-off path, the performance exchanges with the building assemblies of the envelope may only be considered if it is possible to characterize the thermal performance of those assemblies in accordance with Articles 3.1.1.5. and 3.1.1.6. The performance path offers the designer more flexibility than the trade-off path since it allows performance exchanges between the various systems of the building. Quantification of exchanges, to be carried out to demonstrate compliance of the building by the performance path, is performed using a building energy model that is described and standardized in Part 8. Contrary to the trade-off path, the performance path allows consideration of a fenestration area greater than 40%, and heat exchanges of building assemblies in contact with the ground, except as provided in Sentence 8.4.3.3.(7) (See Note A-8.4.3.3.(7)).”.
Division B Part 4	
4.1.1.2.	Replace Sentence (2) by the following: “**2)** This Part does not apply to the following lighting systems: a) emergency lighting that is automatically off during normal hours of *building* operation, and b) lighting within *dwelling units* (see Note A-4.1.1.2.(2)(b)).”.
4.2.1.3.	Replace the Article by the following: “**4.2.1.3. Limits to Installed Interior Lighting Power** (See Note A-4.2.1.3.) **1)** Each space of the *building* shall appear in a space assembly considered in Sentence (3), except where the *building* has only one space, in which case the space is deemed to comply with Clauses (2)(a) and (2)(b). **2)** The space assembly considered in Sentence (3) shall a) be composed of more than one space,

	b) be composed of adjacent or superposed spaces, and c) except as provided in Sentence (4), correspond to a function in Table 4.2.1.5. **3)** Except as provided in Sentence (6), the *installed interior lighting power* calculated in Article 4.2.1.4. for a space assembly shall not exceed the *interior lighting power allowance* for that assembly, calculated in accordance with one of the following methods: a) the *building* area method described in Article 4.2.1.5., or b) the space-by-space method described in Article 4.2.1.6. **4)** The *interior lighting power allowance* of the *building* shall be calculated using the space-by-space method described in Article 4.2.1.6. in the following cases: a) where the space assembly considered in Sentence (1) corresponds to a function different than those in Table 4.2.1.5., or b) where a space cannot be included in a space assembly in conformity with Sentence (2). **5)** The *installed interior lighting power* of a space may exceed the *interior lighting power allowance* of that space, the transfer of power between spaces of the same assembly being permitted. (See Note A-4.2.1.3.(5).) **6)** Where a *building* has several space assemblies, the *installed interior lighting power* of a space assembly may exceed the *interior lighting power allowance* of that space assembly, the transfer of power between space assemblies being permitted on the following conditions: a) only one of the methods described in Sentence (3) is used for all the spaces considered, b) one of the following conditions is met: i) electrical inputs for all the spaces considered are connected to the same electric meter, or ii) all the spaces considered are intended to be occupied by the same occupant, and c) except as provided in Sentence 4.2.1.6.(8), the *interior lighting power allowance* for all the spaces considered is not exceeded. (See Note A-4.2.1.3.(6).)".
4.2.1.4.	Add "(See Note A-4.2.1.4.)" after "**4.2.1.4. Determination of the Installed Interior Lighting Power**"; Replace "Except as provided in Sentences (4) and (5)" in Sentence (1) by "Except as provided in Sentence (4)"; Strike out "by ceiling-height *partitions*" in Clause (4)(g); Replace Clause (4)(k) by the following: "k) lighting of devices that are for sale or for educational demonstration systems (see Note A-4.2.1.4.(4)(k)),";

Replace Clauses (4)(o) and (4)(p) by the following:

“o) mirror lighting in dressing rooms,

p) accent lighting in religious pulpit and choir areas,

q) lighting for covered vehicle entrances and *exits* from *storage garages*, and

r) lighting of work areas integrated to the furniture.”;

Strike out Sentence (5).

4.2.1.5.

Replace the Article by the following:

“**4.2.1.5. Calculation of Interior Lighting Power Allowance Using the Building Area Method**

(See Note A-4.2.1.5.)

1) Calculation of the *interior lighting power allowance* for the space assembly described in Sentence 4.2.1.3.(2) using the *building* area method shall be carried out as follows:

a) the *floor surface area* shall be determined for that space assembly,

b) the lighting power density (LPD) allowed for the *floor surface area* determined in accordance with Clause (a) shall be determined from Table 4.2.1.5. for the specific function, and

c) the *interior lighting power allowance* of the space assembly shall be calculated by multiplying the *floor surface area* determined in Clause (a) by the allowed LPD determined in Clause (b).

Table 4.2.1.5.
Lighting Power Density (LPD) Allowed According to the Function for Use with the Building Area Method
Forming Part of Sentences 4.2.1.3.(2) to (4) and 4.2.1.5.(1)

Function	Lighting Power Density, W/m²
Automobile facility	8.6
Convention centre	10.9
Courthouse	10.9
Dining:	
bar lounge/leisure	10.9
cafeteria/fast food	9.7
family	10.2
Dormitory	6.1
Exercise centre	9.0
Fire station	7.2
Gymnasium	10.1
Health care clinic	9.7
Hospital	11.3

Hotel/motel	9.4
Library	12.8
Manufacturing facility	12.6
Motion picture *theatre*	8.2
Multi-unit residential *building*	5.5
Museum	11.0
Office	8.8
Penitentiary	8.7
Performing arts *theatre*	14.9
Police station	9.4
Post office	9.4
Religious *building*	10.8
Retail area	13.5
School/university	9.4
Sports arena	9.8
Storage garage	2.3
Town hall	9.6
Transportation facility	7.5
Warehouse	7.1
Workshop	12.8

”.

4.2.1.6.	Replace Sentence (1) by the following: “**1)** The *interior lighting power allowance* using the space-by-space method shall be determined as follows: a) the *floor surface area* of each space of the assembly shall be determined, b) the allowed lighting power density (LPD) for each space shall be determined using Table 4.2.1.6. for the exact space type or a space type that most closely represents the proposed use of each space, c) the *interior lighting power allowance* for each space shall be calculated by multiplying the *floor surface area* determined in Clause (a) by the allowed LPD determined in Clause (b), and d) the *interior lighting power allowance* of the *building* shall be calculated by summing the *interior lighting power allowance* for each space determined in Clause (c).

2) Where the use of a space corresponds to more than one type provided for in Table 4.2.1.6., not dividing the space is permitted provided that the type described in Table 4.2.1.6. represents a *floor surface area* of

a) less than 20% of the space, for a space having a *floor surface area* of not more than 1500 m², or

b) less than 300 m², for a space having a *floor surface area* of more than 1500 m².

3) Increasing by 20% the *interior lighting power allowance* of a space other than an atrium, calculated in accordance with Clause (1)(c), is permitted where the space adjustment factor, AF, calculated using the following equation, is greater than the value referred to in Table 4.2.1.6.:

$$AF = 2.5 \times (H_1 - H_2) \times L / S$$

where

H_1 = height of luminaires in relation to the floor, in m,

H_2 = height of work surface in relation to the floor, in m,

L = perimeter of the *floor surface area* of the space, in m, and

S = *floor surface area* of the space, in m².

(See Note A-4.2.1.6.(3).)

4) Increasing by 20% the *interior lighting power allowance* of a corridor or transition area is permitted where the width of the space is less than 2.4 m. (See Note A-4.2.1.6.(4).)

5) Where lighting of a portion of a space is controlled by the type of control listed in Table 4.2.1.6. separately from the *general lighting* of the space, increasing the *interior lighting power allowance* of that portion of space by additional power, $P_{additional}$, in W, calculated using the following equation, is permitted:

$$P_{additional} = IILP_{portion} \times PI_{LPD}$$

where

$IILP_{portion}$ = *installed interior lighting power* of the portion of the space concerned, in W, and

PI_{LPD} = percentage of increase of allowed LPD indicated in Table 4.2.1.6.

(See Note A-4.2.1.6.(5).)

6) Where decorative lighting or lighting for displaying works of art or artefacts is controlled separately from the *general lighting* of the space, increasing the *interior lighting power allowance* of that portion of space by 10.8 W/m² is permitted. (See Note A-4.2.1.6.(6).)

7) Where lighting for displaying items for sale is controlled separately from the *general lighting* of the space, increasing the *interior lighting power allowance* of that portion of space by additional power $P_{additional}$, in W, calculated using the following equation, is permitted:

$$P_{additional} = 1000\ W + (A_1 \times 27\ W/m^2) + (A_2 \times 15\ W/m^2) + (A_3 \times 6.5\ W/m^2)$$

where

A_1 = areas reserved for displaying jewelry or crockery, including a traffic area having a width of not more than 900 mm, in m²,

	A_2 = areas reserved for displaying furniture, clothing, cosmetics or works of art for sale, including a traffic area having a width of not more than 900 mm, in m², and A_3 = areas reserved for displaying any other item for sale, including a traffic area having a width of not more than 900 mm, in m². (See Note A-4.2.1.6.(7).) **8)** Except for the additional power listed in Sentences (6) and (7), the transfer of unused additional power listed in this Article to increase the *interior lighting power allowance* of another space in accordance with Sentence 4.2.1.3.(6) is permitted.”;
	Replace Table 4.2.1.6. by the following:

"**Table 4.2.1.6.**
Allowed Lighting Power Density (LPD) for Use with the Space-by-Space Method, Adjustment Factor (AF) and Allowed Additional Lighting Power Density
Forming Part of Sentences 4.2.1.6.(1), (2), (3) and (5), and 4.2.2.1.(2), (10), (12) and (14)

Space Type	Lighting Power Density (LPD), W/m²	Adjustment Factor (AF)	Percentage of Increase of Allowed LPD (PI_{LPD})[1]	Type of Lighting Control[2]						
				Manual (see 4.2.2.1.(3))	Restricted to Manual ON (see 4.2.2.1.(6))	Restricted to Partial Automatic ON[3] (see 4.2.2.1.(8))	Bi-Level (see 4.2.2.1.(9))	Automatic Partial OFF (see 4.2.2.1.(10))	Automatic Full OFF[4] (see 4.2.2.1.(12))	Scheduled Shut-off (see 4.2.2.1.(14))
Common Space Types [5]										
Atrium										
< 6 m in height	1.06 per m (height)	n/a	10% where C2	X	A	A	–	–	B	B
≥ 6 m and ≤ 12 m in height	1.06 per m (height)	n/a	10% where C2	X	A	A	X	–	B	B
> 12 m in height	4.3 + 0.71 per m (height)	n/a	10% where C2	X	A	A	X	–	B	B
Audience seating area–permanent										
for auditorium	6.8	6	n/a	X	A	A	X	–	B	B
for convention centre	8.9	4	n/a	X	A	A	X	–	B	B
for gymnasium	7.0	6	n/a	X	A	A	X	–	B	B
for motion picture *theatre*	12.3	4	n/a	X	A	A	X	–	B	B
for penitentiary	3.0	4	n/a	X	A	A	–	–	B	B
for performing arts *theatre*	26.2	8	n/a	X	A	A	X	–	B	B
for religious *building*	16.5	4	n/a	X	A	A	X	–	B	B
for sports arena	4.6	4	n/a	X	A	A	–	–	B	B
other	4.6	4	n/a	X	A	A	–	–	B	B

Space Type	Lighting Power Density (LPD), W/m²	Adjustment Factor (AF)	Percentage of Increase of Allowed LPD (PL_{PD})[1]	Type of Lighting Control[2]						
				Manual (see 4.2.2.1.(3))	Restricted to Manual ON (see 4.2.2.1.(6))	Restricted to Partial Automatic ON[3] (see 4.2.2.1.(8))	Bi-Level (see 4.2.2.1.(9))	Automatic Partial OFF (see 4.2.2.1.(10))	Automatic Full OFF[4] (see 4.2.2.1.(12))	Scheduled Shut-off (see 4.2.2.1.(14))
Banking activity area and offices	10.9	6	n/a	X	A	A	X	–	B	B
Classroom/Lecture hall/Training room										
for penitentiary	14.5	4	10% where C1 or C2	X	A	A	X	–	X	–
other	13.4	4	10% where C1 or C2	X	A	A	X	–	X	–
Conference/Meeting/Multi-purpose room	13.3	6	10% where C1 or C2	X	A	A	X	–	X	–
Confinement cell	8.8	6	n/a	X	A	A	X	–	B	B
Copy/Print room	7.8	6	n/a	X	A	A	X	–	X	–
Corridor and transition area										
for hospital	10.7	Width < 2.4 m (see 4.2.1.6.(4))	10% where C2	X	–	–	–	B	B	B
for manufacturing facility	4.4	Width < 2.4 m (see 4.2.1.6.(4))	10% where C2	X	–	–	–	–	B	B
for space designed to ANSI/IES RP-28, "Lighting and the Visual Environment for Senior Living" (and used primarily by residents)	9.9	Width < 2.4 m (see 4.2.1.6.(4))	10% where C2	X	–	–	–	X	B	B
other	7.1	Width < 2.4 m (see 4.2.1.6.(4))	10% where C2	X	–	–	–	X	B	B
Courtroom	18.6	6	10% where C1 or C2	X	A	A	X	–	B	B

Space Type	Lighting Power Density (LPD), W/m²	Adjustment Factor (AF)	Percentage of Increase of Allowed LPD (PI_{LPD})[1]	Type of Lighting Control[2]						
				Manual (see 4.2.2.1.(3))	Restricted to Manual ON (see 4.2.2.1.(6))	Restricted to Partial Automatic ON[3] (see 4.2.2.1.(8))	Bi-Level (see 4.2.2.1.(9))	Automatic Partial OFF (see 4.2.2.1.(10))	Automatic Full OFF[4] (see 4.2.2.1.(12))	Scheduled Shut-off (see 4.2.2.1.(14))
Dining area										
for bar lounge/leisure dining	11.6	4	10% where C2	X	A	A	X	–	B	B
for cafeteria/fast food dining	7.0	4	10% where C2	X	A	A	X	–	B	B
for family dining	9.6	4	10% where C2	X	A	A	X	–	B	B
for penitentiary	10.3	6	10% where C2	X	A	A	X	–	B	B
for space designed to ANSI/IES RP-28, "Lighting and the Visual Environment for Senior Living" (and used primarily by residents)	28.5	4	10% where C2	X	A	A	X	–	B	B
other	7.0	4	10% where C2	X	A	A	X	–	B	B
Dressing/Fitting room for performing arts – *theatre*	6.6	6	n/a	X	A	A	X	–	X	–
Electrical or mechanical room	4.6	6	124%[6]	X	–	–	–	–	–	–
Emergency vehicle garage	6.1	4	10% where C2	X	A	A	–	–	B	B
Food preparation area	13.1	6	n/a	X	A	A	X	–	B	B
Guest room	5.1	6	n/a	See Sentence 4.2.2.6.(2)						
Laboratory										
for classroom	15.5	6	n/a	X	A	A	X	X	B	B
other	19.5	6	n/a	X	A	A	X	–	B	B

Space Type	Lighting Power Density (LPD), W/m²	Adjustment Factor (AF)	Percentage of Increase of Allowed LPD (P_{LPD})[1]	Type of Lighting Control[2]						
				Manual (see 4.2.2.1.(3))	Restricted to Manual ON (see 4.2.2.1.(6))	Restricted to Partial Automatic ON[3] (see 4.2.2.1.(8))	Bi-Level (see 4.2.2.1.(9))	Automatic Partial OFF (see 4.2.2.1.(10))	Automatic Full OFF[4] (see 4.2.2.1.(12))	Scheduled Shut-off (see 4.2.2.1.(14))
Laundry/washing area	6.5	4	n/a	X	A	A	X	–	B	B
Loading dock — interior	5.1	6	n/a	X	A	A	–	–	B	B
Lobby										
for elevator	7.0	6	10% where C2	X	–	–	–	–	B	B
for hotel	11.5	4	10% where C2	X	–	–	–	–	B	B
for motion picture *theatre*	6.4	4	10% where C2	X	–	–	–	–	B	B
for performing arts *theatre*	21.6	6	10% where C2	X	–	–	–	X	B	B
for space designed to ANSI/IES RP-28, "Lighting and the Visual Environment for Senior Living" (and used primarily by residents)	19.4	4	10% where C2	X	–	–	–	X	B	B
other	9.7	4	10% where C2	X	–	–	–	X	B	B
Locker room	8.1	6	n/a	X	A	A	X	–	X	–
Lounge or break room										
for health care facility	10.0	6	n/a	X	A	A	X	–	X	–
other	7.9	4	n/a	X	A	A	X	–	X	–

Space Type	Lighting Power Density (LPD), W/m²	Adjustment Factor (AF)	Percentage of Increase of Allowed LPD (PI_{LPD})[1]	Type of Lighting Control[2]						
				Manual (see 4.2.2.1.(3))	Restricted to Manual ON (see 4.2.2.1.(6))	Restricted to Partial Automatic ON[3] (see 4.2.2.1.(8))	Bi-Level (see 4.2.2.1.(9))	Automatic Partial OFF (see 4.2.2.1.(10))	Automatic Full OFF[4] (see 4.2.2.1.(12))	Scheduled Shut-off (see 4.2.2.1.(14))
Office										
open plan	10.6	4	5% where C1 or C2 25% where C3 30% where C4	X	A	A	X	–	B	B
enclosed, ≤ 25 m²	12.0	8	5% where C1 or C2	X	A	A	X	–	X	–
enclosed, > 25 m²	12.0	8	5% where C1 or C2	X	A	A	X	–	B	B
Pharmacy area	18.1	6	n/a	X	A	A	X	–	B	B
Sales area	15.5	6	n/a	X	A	A	X	–	B	B
Seating area	5.9	4	n/a	X	A	A	–	–	B	B
Computer/Server room	18.4	4	n/a	X	A	A	X	–	B	B
Stairway, except stairwell	The control and lighting power density requirements shall be the same as those for the space containing the stairway.									
Stairwell	7.4	10	10% where C2	X	–	–	X	X	B	B
Storage garage – interior	2.1	4	10% where C2	See Article 4.2.2.2.						

Storage room											
< 5 m²	13.3	6	n/a	X	–	–	–	–	B	B	
≥ 5 m² and ≤ 100 m²	6.8	6	n/a	X	A	A	–	–	X	–	
> 100 m²	6.8	6	n/a	X	A	A	–	X	B	B	
Vehicle maintenance area	7.3	4	n/a	X	A	A	X	–	B	B	
Washroom											
for space designed to ANSI/IES RP-28, "Lighting and the Visual Environment for Senior Living" (and used primarily by residents)	13.1	8	n/a	X	–	–	–	–	X	–	
other	10.5	8	n/a	X	–	–	–	–	X	–	
Workshop	17.2	6	n/a	X	A	A	X	–	B	B	
***Building*-Specific Space Types**[5]											
Convention centre – exhibit space	15.7	4	n/a	X	A	A	X	–	B	B	
Dormitory – living quarters	4.2	8	n/a	X	–	–	–	–	–	–	
Fire station – sleeping quarters	2.4	6	n/a	X	–	–	–	–	–	–	
Gymnasium/Fitness centre											
exercise area	7.8	4	10% where C2	X	A	A	X	–	B	B	
playing area	13.0	4	10% where C2	X	A	A	X	–	B	B	
Health care facility											
exam/treatment room	18.0	8	n/a	X	–	–	X	–	B	B	
imaging room	16.3	6	n/a	X	–	–	X	–	B	B	

					See "Storage Room" under **Common Space Types** for applicable control requirements.					
medical supply room	8.0	6	n/a	X	—	—	X	—	B	B
nursery	9.5	6	n/a	X	—	—	X	—	B	B
nurses' station	7.6	6	n/a	X	—	—	X	—	B	B
operating room	26.8	6	n/a	X	—	—	X	—	B	B
patient room	6.7	6	n/a	X	—	—	X	—	B	B
physical therapy room	9.9	6	n/a	X	—	—	X	—	B	B
recovery room	12.4	6	n/a	X	—	—	X	—	B	B
Library										
reading area	11.5	4	n/a	X	A	A	X	—	B	B
stacks	18.4	4	n/a	X	A	A	X	X	B	B
Manufacturing facility										
detailed manufacturing area	13.9	4	n/a	X	A	A	X	—	B	B
equipment room	8.0	6	n/a	X	A	A	X	—	B	B
extra high bay area (> 15 m floor-to-ceiling)	11.3	4	n/a	X	A	A	X	—	B	B
high bay area (7.5 m to 15 m floor-to-ceiling height)	13.3	4	n/a	X	A	A	X	—	B	B
low bay area (< 7.5 m floor-to-ceiling height)	12.9	4	n/a	X	A	A	X	—	B	B
Museum										
general exhibition area	11.4	6	n/a	X	A	A	X	—	B	B
restoration room	11.0	6	n/a	X	A	A	X	—	B	B

Post office – sorting area	10.2	4	n/a	X	A	A	X	X	B	B
Religious building										
fellowship hall	6.9	4	n/a	X	A	A	X	–	B	B
worship/pulpit/choir area	16.5	4	n/a	X	A	A	X	–	B	B
Retail facility										
dressing/fitting room	7.7	8	n/a	X	A	A	X	–	X	–
mall concourse	11.9	4	10% where C2	X	A	A	X	–	B	B
Space designed to ANSI/IES RP-28, "Lighting and the Visual Environment for Senior Living"										
chapel (used primarily by residents)	23.8	4	n/a	X	A	A	X	–	B	B
recreation room (used primarily by residents)	25.9	6	n/a	X	A	A	X	–	B	B
Sports arena – playing area										
playing area with facilities for more than 5000 spectators	39.7	4	n/a	X	A	A	X	–	B	B
playing area with facilities for more than 2000 spectators and not more than 5000 spectators	25.9	4	n/a	X	A	A	X	–	B	B
playing area with facilities for more than 200 spectators and not more than 2000 spectators	19.4	4	n/a	X	A	A	X	–	B	B

playing area with facilities for less than 200 spectators or without a facility for spectators	13.0	4	n/a	X	A	A	X	–	B	B
Transportation facility										
airport concourse	3.9	4	n/a	X	A	A	–	–	B	B
baggage/carousel area	5.7	4	n/a	X	A	A	–	–	B	B
terminal ticket counter	8.7	4	n/a	X	A	A	X	–	B	B
Warehouse – storage area										
medium to bulky palletized items	6.2	4	n/a	X	A	A	X	X	B	B
small hand-carried items	10.2	6	n/a	X	A	A	X	X	B	B

Notes to Table 4.2.1.6.:

(1) Controls C1 to C4 designate the following controls:
C1: controls lighting using a manual dimmer;
C2: controls lighting using an hourly program for multiple lighting levels;
C3: controls lighting using occupant sensors, where the lighting meets the following criteria:
a) the lighting is dedicated exclusively to work stations,
b) the lighting of each work station is independently controlled,
c) the portion of the lighting directed towards the work surface is controlled independently from the portion directed toward the ceiling,
d) the portion of the lighting directed towards the work surface is turned off automatically by continuous dimming devices in the first 30 min of vacancy; dimming for turning off lighting shall last a minimum of 2 min,
e) at the arrival of the occupant, the portion of lighting directed towards the work surface turns on automatically to a first minimum lighting level, then by continuous dimming for at least 30 sec before reaching a preset higher level, and
f) the portion of lighting directed towards the ceiling meets the requirements of Sentence 4.2.2.1.(12);
C4: controls lighting using a C3 control, while permitting manual adjustment of the lighting level by continuous dimming of the lighting directed towards the work station.

(2) n/a: not applicable;
A: at least one of the lighting controls marked with an "A" must be implemented in this space type;
B: at least one of the lighting controls marked with a "B" must be implemented in this space type;
X: all lighting controls marked with an "X" must be implemented in this space type; and
– (dash): this lighting control is not required to be implemented in this space type.

(3) Controls meeting the requirements for "Partial Automatic ON" in Sentence 4.2.2.1.(8) also comply with the requirements for "Bi-Level" lighting control in Sentence 4.2.2.1.(9).

(4) Controls meeting the requirements for "Automatic Full OFF" in Sentence 4.2.2.1.(12) also comply with the requirements for "Automatic Partial OFF" lighting control in Sentence 4.2.2.1.(10).

(5) In cases where a space type is listed both as a common space type and a *building*-specific space type, the requirements for the *building*-specific space type apply. See Note A-Table 4.2.1.6.

(6) An additional LPD of 5.7 W/m² is permitted, provided that the additional lighting is separately controlled from the lighting whose allowed LPD is 4.6 W/m²."**.**

4.2.2.1.	Replace Sentence (1) by the following: “**1)** Except as provided in Sentence (2), *interior lighting* control devices shall be installed in accordance with this Article for each space type in the *building*.”; Replace “LPD” in the French text of Sentence (2) by “DPE”; Replace Sentences (10) to (23) by the following: “**10)** Except as provided in Sentence (11), power for *general lighting* in spaces requiring controls that are “Automatic Partial OFF” in accordance with Table 4.2.1.6. shall automatically reduce by 50% or more within 20 min of the space being unoccupied. **11)** *General lighting* need not be controlled in accordance with Sentence (10) where a) the lighting power density for the space is not greater than 8.6 W/m², b) the space is lit by high-intensity discharge (HID) lamps, and c) the power for the *general lighting* in the space reduces automatically by 30% or more within 20 min of the space being unoccupied. **12)** Except as provided in Sentence (13), the lighting in spaces requiring controls that are "Automatic Full OFF" in accordance with Table 4.2.1.6. shall be controlled by automatic control devices that shut off the lighting within 20 min of the space being unoccupied, where each automatic control device controls an area not greater than 500 m². **13)** The following lighting applications need not comply with Sentence (12): a) *general lighting* and task lighting in shop and laboratory classrooms, b) *general lighting* and task lighting in spaces where automatic shut-off would endanger the safety or security of the *building* occupants, and c) lighting required to operate continuously due to operational requirements. **14)** Except as provided in Sentence (17), the lighting in spaces requiring controls that are "Scheduled Shut-off" in accordance with Table 4.2.1.6. shall shut off automatically during periods when the spaces are scheduled to be unoccupied by means of control devices complying with Sentence (15) that are a) time-of-day operated to automatically turn the lighting off at programmed times, or b) signals from other automatic control devices or alarm/security systems. **15)** A control device installed to meet the requirements of Sentence (14) shall a) control the lighting for an area of not more than 2500 m² on not more than one *storey*, and b) consider independently the operation during weekdays, weekends and holidays. **16)** Any manual control device installed to override the “Scheduled Shut-off” control device required in Sentence (14) shall a) turn the lighting on for 2 h or less per activation during scheduled “off” periods, and

	b) control an area of 500 m² or less. **17)** The control in Sentence (14) is not required where it is a) required to operate continuously due to operational requirements, b) located in spaces where patient care is rendered, or c) located in spaces where automatic shut-off would endanger the safety or security of the *building* occupants.”.
4.2.2.2.	Replace Sentence (2) by the following: “**2)** Except as provided in Sentence (4), the lighting power in a zone referred to in Sentence (1) shall be controlled by a device that automatically reduces the power of each lighting device of the zone by at least 30% when no activity is detected for 20 min. (See Note A-4.2.2.2.(2).)”; Replace Sentence (4) by the following: “**4)** Daylight transition zones and ramps without parking need not comply with the provisions of Sentences (1) and (2).”; Strike out Sentence (5).
4.2.2.3.	Strike out the Article.
4.2.2.4.	Strike out the Article.
4.2.2.5.	Strike out the Article.
4.2.2.6.	Replace “2 W” in Sentence (2) by “5 W”.
4.2.3.1.	Strike out Sentence (2); Replace Sentences (3) and (4) by the following: “**3)** Except as provided in Sentence (6), the installed *exterior lighting* power for each specific *building* exterior application listed in Table 4.2.3.1.-C that is to be illuminated shall not be greater than the allowance for the application concerned according to the applicable lighting zone plus any unused power from the basic site allowance listed in Table 4.2.3.1.-B. (See Note A-4.2.3.1.(3).)

4) Except as provided in Sentence (6), the installed *exterior lighting* power for all general *building* exterior applications that are to be illuminated shall not be greater than the sum of the allowances for the applications provided in Table 4.2.3.1.-D according to the applicable lighting zone plus any unused power from the basic site allowance listed in Table 4.2.3.1.-B, the transfer of power between the applications being permitted.";

Replace Table 4.2.3.1.-B by the following:

"**Table 4.2.3.1.-B**
Basic Site Allowances for Exterior Lighting
Forming Part of Sentences 4.2.3.1.(3) and (4)

Basic Site Allowances According to Lighting Zone				
Zone 0	Zone 1	Zone 2	Zone 3	Zone 4
No allowance	500 W	600 W	750 W	1300 W

";

Replace Table 4.2.3.1.-C by the following:

"**Table 4.2.3.1.-C**
Lighting Power Allowances for Specific Building Exterior Applications
Forming Part of Sentence 4.2.3.1.(3)

Exterior Application	Lighting Power Allowances According to Lighting Zone				
	Zone 0	Zone 1	Zone 2	Zone 3	Zone 4
Building facades (*façade lighting*)	A single luminaire of 60 W or less may be installed for each roadway or parking entry, trail head, and toilet facility, or other locations approved by the *authority having jurisdiction*	No allowance	1.1 W/m^2 for each illuminated wall or surface, or 8.2 W/m for each illuminated wall or surface length	1.6 W/m^2 for each illuminated wall or surface, or 12.3 W/m for each illuminated wall or surface length	2.2 W/m^2 for each illuminated wall or surface, or 16.4 W/m for each illuminated wall or surface length
Automated teller machines (ATM) and night depositories		270 W per location plus 90 W per additional ATM per location			
Entrances and gatehouse inspection stations at guarded facilities		8.1 W/m^2 of covered and uncovered area			
Loading areas for law enforcement, fire, ambulance and other emergency		5.4 W/m^2 of covered and uncovered area			

service vehicles		
Drive-up windows and doors		400 W per drive-through
Parking near 24-hour retail establishment entrances		800 W per main entry

";

Replace Table 4.2.3.1.-D by the following:

"**Table 4.2.3.1.-D**
Lighting Power Allowances for General Building Exterior Applications
Forming Part of Sentence 4.2.3.1.(4)

Exterior Application	Lighting Power Allowances According to Lighting Zone				
	Zone 0	Zone 1	Zone 2	Zone 3	Zone 4
Uncovered Parking Areas					
Parking areas and drives	No allowance	0.4 W/m^2	0.7 W/m^2	1.1 W/m^2	1.4 W/m^2
Building Grounds					
Walkways less than 3 m wide	No allowance	2.3 W/m	2.3 W/m	2.6 W/m	3.3 W/m
Walkways 3 m wide or greater, plaza areas, special feature areas		1.5 W/m^2	1.5 W/m^2	1.7 W/m^2	2.2 W/m^2
Stairways		8.1 W/m^2	11.0 W/m^2	11.0 W/m^2	11.0 W/m^2
Pedestrian tunnels		1.6 W/m^2	1.6 W/m^2	2.2 W/m^2	3.2 W/m^2
Landscape lighting		0.4 W/m^2	0.5 W/m^2	0.5 W/m^2	0.5 W/m^2
Exterior Entrances and Exterior Exits					
Main entries	No allowance	66 W/m of width	66 W/m of width	98 W/m of width	98 W/m of width
Other doors		66 W/m of width	66 W/m of width	66 W/m of width	66 W/m of width
Canopies		2.7 W/m^2	2.7 W/m^2	4.3 W/m^2	4.3 W/m^2

Sales Canopies Free-standing and attached	No allowance	6.5 W/m^2	6.5 W/m^2	8.6 W/m^2	11.0 W/m^2
Outdoor Sales Open areas (including vehicle sales lots)	No allowance	2.7 W/m^2	2.7 W/m^2	5.4 W/m^2	7.5 W/m^2
Street frontage for vehicle sales lots in addition to "open area" allowance		No allowance	33 W/m	33 W/m	98 W/m

";

Replace Sentence (5) by the following:

"**5)** Except as provided in Sentence (6), the installed *exterior lighting* power shall be determined in the same manner as the *installed interior lighting power* in accordance with Sentences 4.2.1.4.(1) to (3).";

Replace "independent control device that complies with the requirements of Subsection 4.2.4." in the portion before Clause(6)(a) by "autonomous control device";

Replace Clause (6)(a) by the following:

"a) lighting of water fountains or lighting integral to swimming pools;";

Strike out "or instrumentation" in Clause (6)(c);

Replace Clauses (6)(h) and (6)(i) by the following:

"h) lighting for theme elements in theme/amusement parks,

i) lighting used to highlight features of art objects, public monuments and designated national or provincial historic sites,

k) temporary lighting, and

l) lighting for searchlight.".

4.2.4.1.	Replace the Article by the following: “**4.2.4.1. Exterior Lighting Controls** **1)** *Exterior lighting* shall be equipped with automatic shut-off controls based on daylight. (See Note A-4.2.4.1.(1).) **2)** *Facade lighting* and *landscape lighting* shall be equipped with shut-off controls that shut it off automatically for the period a) beginning not later than midnight or when the *building* closes, and b) ending no sooner than 6 a.m. or when the *building opens*. **3)** *Exterior lighting*, excluding *facade lighting* and *landscape lighting*, shall be controlled by a device that automatically reduces the installed lighting power by at least 30% according to one of the following conditions: a) for the period i) beginning not later than midnight or 60 min after the *building* closes, and ii) ending no sooner than 6 a.m. or when the *building* opens, or b) during a 15-min period of inactivity. **4)** All lighting schedule controllers shall be equipped with backup provisions to retain programming and the time setting for at least 10 h during a power outage. **5)** The following *exterior lighting* applications need not comply with the requirements of Sentences (1) to (4): a) *exterior lighting* for covered vehicle entrances and *exits* from *storage garages*, and b) *exterior lighting* provided for in Clauses 4.2.3.1.(6)(b) to 6(d) and 4.2.3.1.(6)(j) and (6)(k).”.
4.3.1.1.	Replace “lighting controls” in Sentence (1) by “photocontrols”.
4.3.1.2.	Replace Sentence (1) by the following: “**1)** *Exterior lighting* and *exterior lighting* controls shall comply with Subsections 4.2.3. and 4.2.4. **2)** *Interior lighting* controls shall comply with Subsection 4.2.2.”.
4.3.1.3.	Replace the Article by the following: “**4.3.1.3. Compliance** **1)** *Interior lighting* shall be deemed to comply with this Section where the installed *interior lighting* energy, IILE, in kW×h/a, of the proposed *building*, calculated in accordance with Subsection 4.3.2., does not exceed the *interior lighting* energy allowance, ILEA, in kW×h/a, calculated in accordance with Subsection 4.3.3.”.

4.3.2.1.

Replace the Article by the following:

"**4.3.2.1. Determination of Installed Interior Lighting Energy**

1) The installed *interior lighting* energy, IILE, in kW×h/a, which is the total *annual energy consumption* of *interior lighting* in all spaces of the proposed *building,* shall be calculated using the following equation:

$$IILE = \sum_{i=1}^{N} E_{i,proposed}$$

where

N = total number of spaces in the proposed *building,* and

$E_{i,proposed}$ = *annual energy consumption* of *interior lighting* in space i, in kW×h/a, calculated in accordance with Sentence (2).

2) The *annual energy consumption* of *interior lighting* in a space, $E_{i,proposed}$, in kW×h/a, shall be calculated using the following equation:

$$E_{i,proposed} = LPD_{i,proposed} \times S_i \times t_i / 1000$$

where

$LPD_{i,proposed}$ = proposed LPD of the lighting in space i, in W/m², determined in accordance with Article 4.3.2.2.,

S_i = *floor surface area* of space i, in m², and

t_i = annual operational time of space i, in h/a, determined in accordance with Article 4.3.2.3.".

4.3.2.2.

Replace Sentence (1) by the following:

"**1)** The lighting power density for a space, $LPD_{i,proposed}$, in W/m², shall be calculated using the following equation:

$$LPD_{i,proposed} = \frac{P_i}{S_i}$$

where

P_i = lighting power in space i, in W, and

S_i = *floor surface area* of that space, in m².".

4.3.2.3.

Replace the Article by the following:

"**4.3.2.3. Determination of Operational Times**

1) The annual operational time of each space, t_i, in h/a, shall be determined from the anticipated operating schedules, by taking into consideration holidays and scheduled shut-off or shut-off attributable to *occupant sensors*.

2) Where part of a daylighted space is equipped with at least one photocontrol, the reduction of the annual operational time provided for in Sentence (1) is permitted in that part of the space

	a) from the detailed hourly calculations of daylight and the dynamic response of photocontrols resulting from a digital simulation conducted using specialized tools, or b) by applying the following reduction factors: i) 10% for photocontrols with two control levels, ii) 20% for multi-level photocontrols, or iii) 30% for continuous dimming photocontrols. (See Note A-4.3.2.3.(2).)".
4.3.2.4.	Strike out the Article.
4.3.2.5.	Strike out the Article.
4.3.2.6.	Strike out the Article.
4.3.2.7.	Strike out the Article.
4.3.2.8.	Strike out the Article.
4.3.2.9.	Strike out the Article.
4.3.2.10.	Strike out the Article.
4.3.3.1.	Replace Sentences (1) and (2) by the following: "**1)** The *interior lighting* energy allowance, ILEA, in kW·h/a, which is the maximum allowed *annual energy consumption* of all *interior lighting* complying with the prescriptive lighting power density determined using the space-by-space method in

	Article 4.2.1.6. and with the prescriptive lighting controls in Subsection 4.2.2., shall be calculated using the following equation: $$\mathrm{ILEA} = \sum_{i=1}^{N} E_{i,\mathrm{reference}}$$ where N = total number of spaces in the proposed *building*, and $E_{i,reference}$ = *annual energy consumption* for lighting in space i, in kW×h/a, calculated in accordance with Sentence (2). **2)** The *annual energy consumption* for lighting in a space, $E_{i,reference}$, in kW×h/a, shall be calculated using the following equation: $$E_{i,\mathrm{reference}} = \mathrm{LPD}_{i,\mathrm{reference}} \times S_i \times t_i / 1000$$ where $LPD_{i,reference}$ = reference LPD of space i, in W/m², determined in accordance with Article 4.2.1.6., S_i = *floor surface area* of space i, in m², and t_i = annual operational time in space i, in h/a, determined in accordance with Article 4.3.2.3.”.
4.3.3.2.	Strike out the Article.
4.3.3.3.	Strike out the Article.
4.3.3.4.	Strike out the Article.
4.3.3.5.	Strike out the Article.
4.3.3.6.	Strike out the Article.
4.3.3.7.	Strike out the Article.
4.3.3.10.	Strike out the Article.

	Add the following Article: "**4.4.1.2. Limitations** **1)** The *exterior lighting* and the *exterior lighting* controls shall comply with Subsections 4.2.3. and 4.2.4. **2)** The *interior lighting* controls shall comply with Subsection 4.2.2.". Replace the heading of the appropriate Article in Table 4.5.1.1. by the following: "**4.3.2.3. Determination of Operational Times**";
4.5.1.1.	Replace respectively, in Table 4.5.1.1, in numerical order, the functional statements and objectives of the following Articles by the following: "**4.2.2.1. Interior Lighting Controls** (1) [F94-OE1.1] (2) [F94-OE1.1] (3) [F94-OE1.1] (4) [F94-OE1.1] (6) [F94-OE1.1] (8) [F94-OE1.1] (9) [F94-OE1.1] (10) [F94-OE1.1] (12) [F94-OE1.1] (14) [F94-OE1.1] (15) [F94-OE1.1] (16) [F94-OE1.1]"; "**4.2.4.1. Exterior Lighting Controls** (1) [F94-OE1.1] (2) [F94-OE1.1] (3) [F94-OE1.1] (4) [F94-OE1.1]"; "**4.3.1.3. Compliance** (1) [F94-OE1.1]"; Strike out the following objectives and functional statements in Table 4.5.1.1.: "**4.2.1.3. Limits to Installed Interior Lighting Power** (1) [F94-OE1.1]"; "**4.2.1.5. Calculation of Interior Lighting Power Allowance Using the Building Area Method**

	(2) [F94-OE1.1] (3) [F94-OE1.1] (4) [F94-OE1.1] (5) [F94-OE1.1]"; "**4.2.2.2. Lighting Controls in Storage Garages** (4) [F94-OE1.1]"; "**4.2.3.1. Exterior Lighting** (2) [F94-OE1.1]"; Strike out the following Articles, functional statements and objectives in Table 4.5.1.1.: "**4.2.2.3. Determination of Primary and Secondary Sidelighted Areas** (1) [F94-OE1.1] (2) [F94-OE1.1] (3) [F94-OE1.1] (4) [F94-OE1.1] (5) [F94-OE1.1] (6) [F94-OE1.1] (7) [F94-OE1.1] (8) [F94-OE1.1]"; "**4.2.2.4. Determination of Daylighted Area Under Roof Monitors** (1) [F94-OE1.1] (2) [F94-OE1.1]"; "**4.2.2.5. Determination of Daylighted Area Under Skylights** (1) [F94-OE1.1] (2) [F94-OE1.1]"; "**4.3.2.4. Determination of Non-Daylighted Area** (1) [F94-OE1.1]"; "**4.3.2.5. Determination of Effective Annual Operational Times** (1) [F94-OE1.1] (2) [F94-OE1.1] (3) [F94-OE1.1]"; "**4.3.2.6. Determination of Operational Times** (1) [F94-OE1.1] (2) [F94-OE1.1]"; "**4.3.2.7. Determination of Factor for Daylight Harvesting**

	(1) [F94-OE1.1] (4) [F94-OE1.1] (5) [F94-OE1.1]"; "**4.3.2.8. Determination of the Daylight Supply Factor for Sidelighting** (1) [F94-OE1.1] (2) [F94-OE1.1] (3) [F94-OE1.1] (4) [F94-OE1.1]"; "**4.3.2.9. Determination of the Daylight Supply Factor for Toplighting** (1) [F94-OE1.1] (2) [F94-OE1.1] (3) [F94-OE1.1]"; "**4.3.2.10. Determination of Factors for Occupancy Control and Personal Control** (1) [F94-OE1.1] (2) [F94-OE1.1] (3) [F94-OE1.1]"; "**4.3.3.2. Determination of Lighting Power Density** (1) [F94-OE1.1]"; "**4.3.3.3. Determination of Daylighted Area** (1) [F94-OE1.1]"; "**4.3.3.4. Determination of Non-Daylighted Area** (1) [F94-OE1.1]"; "**4.3.3.5. Determination of Effective Annual Operational Times** (1) [F94-OE1.1] (2) [F94-OE1.1] (3) [F94-OE1.1]"; "**4.3.3.7. Determination of Factor for Daylight Harvesting** (1) [F94-OE1.1] (4) [F94-OE1.1] (5) [F94-OE1.1]"; "**4.3.3.10. Determination of Factors for Occupancy Control and Personal Control** (1) [F94-OE1.1] (2) [F94-OE1.1]".

Division B Notes to Part 4	
	Add the following Note: "**A-4.1.1.2.(2)(b) Application to Dwelling Units.** The interior lighting of dwelling units need not comply with the requirement of Part 4. The interior lighting of common parts of a building with dwelling units is not covered by the exclusion of that Clause and shall comply with the requirements of Part 4.".
A-4.1.1.2.(2)(c)	Strike out the Note.
A-4.1.1.3.(1)	Replace the Note by the following: "**A-4.1.1.3.(1) Compliance.** The flow chart in Figure A-4.1.1.3.(1) illustrates the process for all three paths of compliance applicable to Part 4.

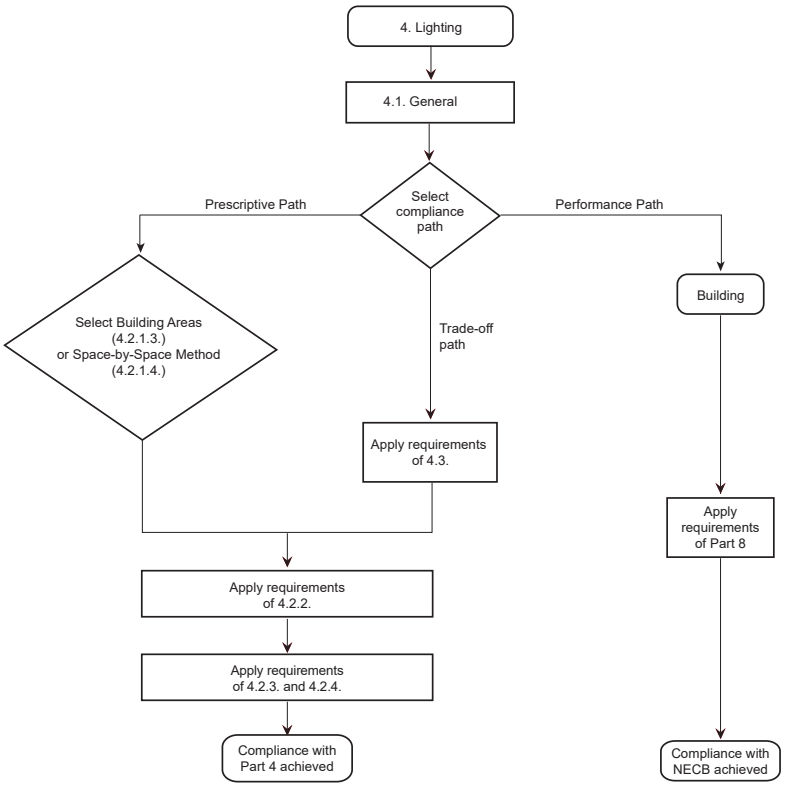


Figure A-4.1.1.3.(1)

Code compliance paths for lighting".

A-4.2.1.3.

Replace the second Sentence of the Note by the following:

"Mixing the two methods described in Sentence 4.2.1.3.(1) within a building is permitted under certain conditions.".

Add the following Notes:

"**A-4.2.1.3.(5) Power Transfer of Interior Lighting Allowance not Used Between Several Spaces in the Same Space Assemblies.** For a building with a single function, such as a library, the interior lighting power allowance is determined using the building area method from an LPD of 12.8 W/m² as provided in Table 4.2.1.5. In that case, the washrooms could have an installed LPD greater than 12.8 W/m², provided that the installed interior lighting power of the library is less than 12.8 W/m².

Similarly, if the interior lighting power allowance of the library were determined using the space-by-space method described in Article 4.2.1.6., the washrooms could have

	an LPD greater than the 10.5 W/m² provided in Table 4.2.1.6., provided that the interior lighting power allowance of the library is not exceeded. **A-4.2.1.3.(6) Power Transfer of Interior Lighting Allowance not Used Between Several Space Assemblies.** In a building with several space assemblies, the unused portion of the interior lighting power allowance may be transferred from one assembly to the other. For example, in a commercial building with several suites having different functions, transfer of the unused portion of the interior lighting power allowance is permitted. The transfer may only take place in the conditions described in Sentence 4.2.1.3.(6). **A-4.2.1.4. Spaces to Consider to Determine Installed Interior Lighting Power.** The spaces to be considered to determine the installed interior lighting power are defined in the definition for interior lighting. (See Article 1.4.1.2. and Note A-1.4.1.2. of Division A.)".
A-4.2.1.4.(2)	Replace the last paragraph of the Note by the following: "Where several lighting systems are controlled to ensure independently several levels of lighting, the system with the highest lighting power must be included in the calculation of the installed interior lighting power. For example, in a meeting room with a first system for subdued lighting for the use of a projector and a second lighting system for tables, where the controls of the two lighting systems do not allow their simultaneous illumination, Clause 4.2.1.4.(2)(b) allows to consider only the highest power between the two systems to calculate the installed lighting power.".
	Add the following Note: "**A-4.2.1.4.(4)(k) Commercial Demonstration Lighting.** That lighting designates the lighting devices and accessories that are intended to be sold to the public (e.g. in a luminaire store) and does not include accent lighting for a commercial shop window, which is covered in Clause 4.2.1.4.(4)(g).".
A-4.2.1.5.	Replace "by multiplying the gross lighted area of the building" in the Note by "by multiplying the floor surface area of the space assembly"; Replace "selected based on the project's building type" in the Note by "selected based on the function of the space assembly"; Strike out the last Sentence of the Note.

	Add the following Notes: "**A-4.2.1.6.(3) Adjustment Factor of Luminaires Positioned High.** The height of the luminaires, H_1, used in calculating the adjustment factor, AF, must correspond to the height of the light source. Where luminaires are not built in the ceiling, the designer must assess their heights in relation with the floor. The exchange of the unused portion of the increased interior lighting power allowance for those of the other spaces in accordance with Sentence 4.2.1.6.(8) is permitted. **A-4.2.1.6.(4) Additional Power of Luminaires Positioned in Corridors or Transition Areas.** The LPD in Table 4.2.1.6. concerning corridors are determined for corridors 2.4 m wide or more. For widths less than 2.4 m, the reflectance of the light on the walls increases and requires that the designer increase the lighting power to maintain a sufficient lighting level. The exchange of the unused portion of the increased power allowances for those of the other spaces in accordance with Sentence 4.2.1.6.(8) is permitted. **A-4.2.1.6.(5) Additional Power Due to Controls.** In certain conditions, increasing the interior lighting power allowance based on the addition of the controls referred to in Table 4.2.1.6 is permitted. Those controls are in addition to those required in Subsection 4.2.2. The exchange of the unused portion of the increased power allowances for those of the other spaces in accordance with Sentence 4.2.1.6.(8) is permitted. **A-4.2.1.6.(6) Additional Power Due to Decorative Lighting or Display Lighting for Art Work.** Although under Clause 4.2.1.4.(4)(a), lighting in museums or art galleries for the display of art work or artefacts is excluded from the calculation of installed power, the additional power due to display lighting applies to all functions that are not museums or art galleries. For example, lighting of a floor surface area occupied by the statue of an athlete at the entrance of an arena will not be excluded from the calculation of the power by Clause 4.2.1.4.(4)(a) and could be increased by 10.8 W for each m² of floor surface area occupied by the statue. The additional power due to decorative lighting or display lighting for art work is not permitted where the lighting concerned only contributes to the general lighting of the space. For example, where the only source of lighting in a 100 m² corridor are wall luminaires, the luminaires are not eligible for additional lighting due to decorative lighting because the wall luminaires do not have a decorative function but are only intended for the general lighting of the corridor. According to Table 4.2.1.6., the LPD allowance for that 100 m² corridor must not exceed 7.1 W/m² and the interior lighting power allowance for wall luminaires of the corridor will therefore be 710 W. As provided in Sentence 4.2.1.6.(8), the exchange of the unused portion of those powers against those of other spaces is not permitted. **A-4.2.1.6.(7) Additional Power Due to Display Lighting of Items for Sale.** Areas due to display lighting of items for sale only rarely correspond to the full floor surface area of the space considered; they are only constituted of areas occupied by the display cases concerned and an immediate traffic area around the cases.

	Where the lighting only contributes to the general lighting of the space, Sentence 4.2.1.6.(7) does not allow the increase of the interior lighting power allowance. As provided in Sentence 4.2.1.6.(8), the exchange of the unused portion of those powers for those of the other spaces is not permitted.”.
A-Table 4.2.1.6.	Replace the Note by the following: “**A-Table 4.2.1.6. Building Space Types.** **Common and Building-Specific** In some cases, a space can be described as both a common space type and a building-specific space type. For example, the medical supply room in a health care facility could also be a storage room. In such case, the building-specific space type “medical supply room” must be used. **Warehouse** In a warehouse storage area, the space used to store small hand-carried items is sometimes referred to as a “picking area.””.
A-4.2.2.1.(11) and (14)	Strike out the Note.
	Add the following Note: “**A-4.2.2.2.(2) Reduction of the Power During Unoccupied Periods in a Storage Garage.** To ensure user safety, uniform lighting is necessary in the garage. For that reason, the power must be reduced on each lighting unit rather than by turning off one unit out of three, for example.”.
A-4.2.2.3.	Strike out the Note.
A-4.2.2.3.(1) and (5)	Strike out the Note.
A-4.2.2.4.	Strike out the Note.
A-4.2.2.4.(1) and 4.2.2.5.(1)	Strike out the Note.

A-4.2.2.4.(2)	Strike out the Note.
A-4.2.2.5.(2)	Strike out the note.
A-4.2.3.1.(4)	Replace “Lighting” in the heading of the Note by “Transferable”; Replace “puissance admissible de base” in the French text of the Note by “puissance d’allocation de base”.
A-4.2.3.1.(5)	Strike out the Note.
	Add the following Note: “**A-4.2.4.1.(1) Shut-off Controls of Exterior Lighting During the Day.** It is possible to comply with the requirement, for example, by using photocontrolled breakers or an annual detailed program ensuring the automatic turning off of exterior lighting in the presence of daylight.”.
A-4.3.2.3.(2)	Replace the Note by the following: “**A-4.3.2.3.(2) Specialized Daylight Simulation Tools.** A specialized daylight simulation tool allows the modeling of • radiosity, • ray tracing, • hourly distribution of diffused light sources, such as the sky, • direct light sources, such as the sun, and • photocontrol operation parameters. Where applicable, the specialized daylight simulation tool must also model the operation of concealment devices, such as sun breakers, designed to prevent glare for occupants. The reduction of the operational time provided in Sentence 4.3.2.3.(2) applies to lighting controlled by photocontrols and not to all the lighting of a space.”.
A-4.3.2.7.(4)	Strike out the Note.
A-Table 4.3.2.7.-B	Strike out the Note.

A-Table 4.3.2.8.	Strike out the Note.
A-4.3.3.7.(4)	Strike out the Note.
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5.1.1.2.	Replace Sentence (2) by the following: "**2)** Unless otherwise provided in this Part and subject to Sentence (4), this Part does not apply to HVAC systems a) serving rooms in which the processes or activities call for temperatures, airflow rates or humidity levels outside the normal range required for comfort, or b) dedicated entirely to a process or activity calling for temperatures, airflow rates or humidity levels outside the normal range required for comfort. (See Note A-5.1.1.2.(2) and (4).)"; --- Add the following Sentence: "**4)** An HVAC system serving both rooms referred to in Sentence (2) and rooms calling for conditions within the normal range required for comfort must comply with this Part. (See Note A-5.1.1.2.(2) and (4).)".
5.2.2.3.	Replace the Article by the following: "**5.2.2.3. Duct Sealing** **1)** Except as provided in Sentences (2) to (5), air-handling ducts and *plenums* forming part of a heating, ventilating or and air-conditioning system shall be sealed like a Class A duct as described in ANSI/SMACNA 006, "HVAC Duct Construction Standards – Metal and Flexible." (See Note A-5.2.2.3.(1).) **2)** *Return ducts* located within *conditioned space* or in spaces used as return air *plenums* need not comply with Sentence (1). **3)** Sealing tape shall not be used as the primary sealant for sections of air-handling ducts and *plenums* with a static pressure of at least 250 Pa. **4)** The joints of air-handling ducts and *plenums* shall have mechanical fasteners and be assembled so that no mechanical effort is transmitted to the sealant. **5)** Sealing tape used to seal air-handling ducts and *plenums* shall comply with UL 181A, "Closure Systems for Use with Rigid Air Ducts," or UL 181B, "Closure Systems for Use with Flexible Air Ducts and Air Connectors." **6)** A suspended ceiling void used as return air *plenum* need not be sealed in accordance with this Article.".

5.2.2.4.

Replace the Article by the following:

"**5.2.2.4. Leakage Testing of Ducts**

1) The following air-handling ducts and *plenums* shall be tested for leakage in conformance with ANSI/SMACNA 016, "HVAC Air Duct Leakage Test Manual," and comply with the maximum permitted leakage calculated in accordance with Sentence (2):

a) air-handling ducts and *plenums* designed to operate at a static pressure of more than 750 Pa, and

b) air-handling ducts and *plenums* located outside of the *building envelope*.

2) The maximum permitted leakage of air-handling ducts and *plenums* tested as described in Sentence (1) shall be calculated as follows:

$$L_{max} = C_L \times \left(\frac{P}{249}\right)^{0.65}$$

where

L_{max} = maximum permitted leakage, in L/s per m² of duct surface area or *plenum*,

C_L = leakage class taken from Table 5.2.2.4., in L/s per m², and

P = maximum operating static pressure, in Pa.

Table 5.2.2.4.
Leakage Classes (C_L)
Forming Part of Sentence 5.2.2.4.(2)

Shape of Air-handling Ducts and *Plenums*	Maximum Operating Static Pressure, Pa	
	750 to 1000	> 1000
	C_L, in L/s per m²	
Rectangular	0.41	0.20
Round	0.20	0.10

3) The tests described in Sentence (1) shall

a) include the sections where leakage is predominant, such as sections with elbows, and

b) be performed over a minimum of 25% of the total surface area of the ducts and *plenums* referred to in Sentence (1).".

5.2.2.5.

Replace Sentence (1) by the following:

"**1)** Except as provided in Sentence (3), all air-handling ducts and *plenums* forming part of an HVAC system shall be thermally insulated in accordance with Table 5.2.2.5.";

Replace Table 5.2.2.5. by the following:

"**Table 5.2.2.5.**
Insulation of Ducts and Plenums
Forming Part of Sentences 5.2.2.5. (1) and (2) and 5.2.4.2. (3)

Temperature Difference,(1) °C	Minimum Thermal Resistance of Insulation of Ducts not Exceeding 3 m in Length that Connect to Terminal Grilles or Diffusers, m²×°C/W	Minimum Thermal Resistance of Insulation of *Plenums* and Other Ducts, m²×°C/W
< 5	0	0
5 to < 22	0.74	0.74
22 to < 29	0.74	1.06
29 to < 43	0.74	1.41
≥ 43	1.41	2.11

Notes to Table 5.2.2.5.:

(1) Refers to the temperature difference at design conditions between the space within which the duct or *plenum* is located and the design temperature of the air carried by the same duct or *plenum*. Where the duct or *plenum* is located outside the *building envelope,*

- if used for heating purposes, the temperature difference shall be calculated using the 2.5% January design temperature of Table C-1, or
- if used for cooling purposes, the temperature difference shall be calculated using the 2.5% July design dry-bulb temperature of Table C-1.

Where a duct or *plenum* is used for both heating and cooling purposes, the larger temperature difference shall be used.";

Replace Sentences (3) to (9) by the following:

"**3)** The following air-handling ducts and *plenums* need not comply with the requirements of Sentence (1):

a) e*xhaust ducts, return ducts* and air *supply ducts* located within *conditioned space*, except as provided in Sentence 5.2.4.2.(3),

b) ducts and *plenums* located within *conditioned space* in a *dwelling unit* and serving only that *dwelling unit*,

c) air *supply ducts* located within return *plenums*, and

d) provided they are insulated with a material having thermal resistance of at least 0.74 m²×°C/W:

i) *exhaust ducts* crossing an unconditioned space,

ii) *exhaust ducts* separated from *conditioned space* by an insulated *building* assembly in accordance with Section 3.2., and

iii) ducts in which outdoor air not heated and not mixed to indoor air circulates, where they cross *conditioned space*.".

5.2.2.7.	Replace the Article by the following: "**5.2.2.7. Cooling with Outdoor Air** **1)** Except as provided in Sentence (2), HVAC systems that incorporate mechanical cooling shall be designed with at least one economizer system to use outdoor air to reduce mechanical cooling energy by one of the means covered in Articles 5.2.2.8. and 5.2.2.9. **2)** An HVAC system need not comply with the requirements of Sentence (1) where a) it has a total cooling capacity less than 16 kW, b) it serves only server rooms and has a total cooling capacity less than 40 kW, c) it serves only a *dwelling unit* or a hotel or motel *suite*, d) it has a non-particle filtration system (see Note A-5.2.2.7.(2)(d)), e) it serves a hospital, provided that more than 75% of the distributed air is humidified at a wet-bulb temperature greater than 2°C, f) it recovers heat on the mechanical cooling equipment (see Note A-5.2.2.7.(2)(f)), g) it serves spaces maintained at a temperature of at least 26°C during operating hours (see Note A-5.2.2.7.(2)(g)), h) it is intended to operate or work according to operating hours of less than 20 h per week, or i) it distributes air using at least 80% of outdoor air. **3)** The economizer system shall be integrated to a mechanical cooling system so that a) the mechanical cooling be inactive when the economizer system can ensure alone all the cooling charge, and b) the mechanical cooling is partially activated when the economizer system cannot ensure alone all the cooling charge. (See Note A-5.2.2.7.(3).) **4)** An HVAC system must at least use a water economizer system in accordance with Article 5.2.2.9 when the HVAC system includes a) a water loop mechanical cooling, and b) a humidification system that maintains indoor humidity at a wet-bulb temperature greater than 2°C. (See Note A-5.2.2.7.(4).)".
5.2.2.8.	Replace Sentences (2) to (6) by the following: "**2)** The systems described in Sentence (1) shall a) be designed to automatically revert to the minimum outdoor airflow required for acceptable indoor air quality as prescribed by the NBC when the use of outdoor air no longer allows the reduction of the cooling energy according to the conditions described in Table 5.2.2.8.-A,

b) be controlled by only one of the types of controls provided for in Table 5.2.2.8.-A, and

c) stop the direct use of outdoor air for cooling when any of the conditions resulting in the shut-off provided for in Table 5.2.2.8.-A is met.

(See Note A-5.2.2.8.(2).)

Table 5.2.2.8.-A
Type of Control and High-Limit Shut-off Control of Direct Use of Outdoor Air
Forming Part of Sentence 5.2.2.8.(2)

Type of Setting	Conditions Resulting in Shut-off	
	Parameters[1]	Description
Fixed dry bulb	T_{OA} > 21°C when HDD under 18°C < 6000	Outdoor air temperature exceeds 21°C in a locality where the number of degree-days under 18°C is under 6000
	T_{OA} > 24°C when HDD under 18°C ≥ 6000	Outdoor air temperature exceeds 24°C in a locality where the number of degree-days under 18°C is at least 6000
Differential dry bulb	$T_{OA} > T_{RA}$	Outdoor air temperature exceeds return air temperature
Fixed enthalpy with fixed dry bulb	H_{OA} > 47 kJ/kg or T_{OA} > 24°C	Outdoor air enthalpy exceeds 47 kJ/kg or outdoor air temperature exceeds 24°C
Differential enthalpy with fixed dry bulb	$H_{OA} > h_{RA}$ or T_{OA} > 24°C	Outdoor air enthalpy exceeds return air enthalpy or outdoor air temperature exceeds 24°C

Notes to Table 5.2.2.8.-A:

(1) T_{OA} = temperature outdoor air,
T_{RA} = temperature return air,
H_{OA} = enthalpy outdoor air,
H_{RA} = enthalpy return air.

3) Except as provided in Sentence (4), an HVAC system including a *supply air handler* whose mechanical cooling is direct expansion shall have at least 2 cooling stages when the mechanical cooling

a) is integrated to cooling by direct use of outdoor air as described in Sentence (1),

b) has a total cooling capacity of more than 18 kW, and

c) is directly controlled from the space temperature.

(See Note A-5.2.2.8.(3).)

4) When an HVAC system including a *supply air handler* has direct expansion mechanical cooling in compliance with Table 5.2.2.8.-B, that system need not comply with Sentence (3). (See Note A-5.2.2.8.(4).)

Table 5.2.2.8.-B
Minimum Number of Direct Expansion Mechanical Cooling Stage
Forming Part of Sentence 5.2.2.8.(4)

Cooling Capacity (1)	Minimum Number of Mechanical Cooling Stages	Minimum Displacement of the First Cooling Stage (1)
≥ 18 kW and < 70 kW	3	≤ 33% of the total cooling capacity
≥ 70 kW	4	≤ 25% of the total cooling capacity

Notes to Table 5.2.2.8.-B:

(1) The values of the cooling capacity and minimum displacement of the first cooling stage apply to a variable-speed compressor.".

5.2.2.9.

Add the following line after "**5.2.2.9. Cooling by Indirect Use of Outdoor Air (Water Economizer System)**":

"(See Note A-5.2.2.9.)";

5.2.3.1.

Replace the Article by the following:

"**5.2.3.1. Application**

(See Note A-5.2.3.1. and 5.2.6.)

1) This Subsection applies to all fans of HVAC systems used alone or in a combination where the total rated capacities described in Sentence (4) are at least 4 kW. (See Note A-5.2.3.1.(1) to (3).)

2) Except as provided in Sentence (3), the total of the rated capacities and the total of the brake horsepower of the fans of HVAC systems shall only include the fans that operate at design conditions requiring the highest capacity to supply air to the *conditioned space*. (See Note A-5.2.3.1.(1) to (3).)

3) The following fans may not be included in the total rated capacities provided for in Sentence (4) and in the total brake horsepower provided for in Sentence (5):

a) an independent exhaust fan whose motor rated capacity is not more than 750 W,

b) an exhaust or transfer fan that serves unconditioned spaces, and

c) a fan that dissipates the heat of an HVAC system located outside the *building envelope*, such as a condenser or a cooling tower fan.

(See Note A-5.2.3.1.(1) to (3).)

4) For the purposes of this Subsection, the total of the rated capacities of the fans of HVAC systems, TRC, in W, shall be the sum of the nameplate ratings of each motor.

5) For the purposes of this Subsection, the total brake horsepower of the fans of HVAC systems, TBHP, in W, is the sum of the brake horsepower of each fan established

a) according to the curves or tables provided by the fan manufacturers, or

b) using the following equation:

$$TBHP = 0.001 \times \sum_{i=1}^{n} (D_i \times PS_i / \eta_i)$$

where

n = number of fans,

D_i = design flow rate of the i^{th} fan, in L/s,

PS_i = design static pressure difference between both sides of the i^{th} fan, in Pa, and

η_i = efficiency of the i^{th} fan, expressed as a decimal fraction.

6) For the purposes of Clauses 5.2.3.2.(1)(b) and 5.2.3.3.(1)(b), the values of the static pressure adjustment, SPA_i, in Pa, are those stated in Table 5.2.3.1.

Table 5.2.3.1.
Fan Design – Static Pressure Adjustment, SPA_i, in Pa
Forming Part of Sentence 5.2.3.1.(6)

Description	**Positive Adjustment**(1)
All completely channelled *return ducts* and *exhaust ducts* of the HVAC system(2)	For a laboratory and vivarium HVAC system: + 535 Pa For other HVAC system: + 125 Pa
Pressure control damper installed in a *return duct* and/or *exhaust duct*(2)	For each damper: + 125 Pa
Filter on the *exhaust duct*, scrubber or other air treatment device on the *exhaust duct*	For each filter or device: + pressure loss value provided by the manufacturer at design conditions
Particle filter with a MERV(3) efficiency included between 9 and 15	For each filter: + (28.5×MERV) − 174 Pa
Particle filter with a MERV ≥ 16 efficiency or electrostatic filter	For each filter: + double the pressure loss value provided by the manufacturer at design conditions
Carbon air purifier or using another gas phase	For each purifier: + pressure loss value provided by the manufacturer at design conditions
Biological safety cabinet	For each cabinet: + pressure loss value provided by the manufacturer at design conditions
Heat- or energy-recovery unit, except coil heat-recovery systems	For each airflow rate of the recovery unit: + (550×recovery efficiency(4)) − 125 Pa
Coil heat-recovery system	For each airflow rate of the recovery system: + 150 Pa
Humidifier or evaporative cooler in series with another cooling coil	For each humidifier or cooler: + pressure loss value provided by the manufacturer at design conditions
Sound absorbing section	For each section: + 38 Pa
Exhaust equipment for hoods	For each equipment: + 85 Pa
Exhaust ducts installed in high *buildings* for laboratory and vivarium hoods	For each 30 m section of vertical duct, except the first 25 vertical metres: + 60 Pa
Natural gas or propane heat pump or *supply air handler*	For HVAC system: + 50 Pa

	<table><tr><th>Description</th><th>Negative Adjustment(1)</th></tr><tr><td>HVAC system without cooling equipment in the *supply air handler*</td><td>For the HVAC system: − 150 Pa</td></tr><tr><td>HVAC system without heating equipment in the *supply air handler*</td><td>For the HVAC system: − 75 Pa</td></tr></table> **Notes to Table 5.2.3.1.:** (1) See Note A-Table 5.2.3.1. (2) Static pressure adjustments in the air distribution system are included in the equations provided for in Clauses 5.2.3.2.(1)(b) and 5.2.3.3.(1)(b). (3) MERV means “minimum efficiency reporting value;” it is a measurement scale to rate the effectiveness of air filters. (4) Recovery unit efficiency established according to Sentence 5.2.10.1.(5).”.
5.2.3.2.	Replace Sentence (1) by the following: “**1)** Except as provided in Sentence (2), where fans produce a constant airflow rate, a) the total of the rated capacities provided for in Sentence 5.2.3.1.(4), TRC, in W, shall not exceed the total allowable rated capacities, TARC, in W, established using the following equation: $$\mathrm{TARC} = \mathrm{D_a} \times 1.61$$ where D_a = air supply design flow rate, in L/s, or b) the total of the brake horsepower provided for in Sentence 5.2.3.1.(5), TBHP, in W, shall not exceed the total allowable brake horsepower, TABHP, in W, established using the following equation: $$\mathrm{TABHP} = \mathrm{D_a} \times 1.42 + \sum_{i=1}^{n} (\mathrm{D_i} \cdot \mathrm{SPA_i}/650)$$ where D_a = air supply design flow rate, in L/s, n = number of equipments requiring a static pressure adjustment, D_i = flow from i^{th} equipment requiring a static pressure adjustment, in L/s (see Sentence 5.2.3.1.(5)), and SPA_i = static pressure adjustment of i^{th} equipment, in Pa (see Sentence 5.2.3.1.(6)). (See Note A-5.2.3.2.(1).) **2)** Constant-flow fan systems used for hospitals, vivariums or laboratories and whose exhaust or return flow is controlled to maintain a specific pressure for health or safety reasons may use the limits of a variable volume fan. (See Note A-5.2.3.2.(2).)”.

5.2.3.3.

Replace the Article by the following:

"**5.2.3.3. Variable-Air-Volume Fan Systems**

(See Note A-5.2.3.3.)

1) In the case of fans automatically varying the airflow rate based on static pressure,

a) the total of the rated capacities provided for in Sentence 5.2.3.1.(4), TRC, in W, shall not exceed the total allowable rated capacities, TARC, in W, established using the following equation:

$$\mathrm{TARC} = \mathrm{D_a} \times 2.31$$

where

D_a = air supply design flow rate, in L/s, or

b) the total of the brake horsepower provided for in Sentence 5.2.3.1.(5), TBHP, in W, shall not exceed the total allowable brake horsepower, TABHP, in W, established using the following equation:

$$\mathrm{TABHP} = \mathrm{D_a} \times 2.02 + \sum_{i=1}^{n} (\mathrm{D_i} \times \mathrm{SPA_i}/650)$$

where

D_a = air supply design flow rate, in L/s,

n = number of equipments requiring a static pressure adjustment,

D_i = flow from i^{th} equipment requiring a static pressure adjustment, in L/s (see Sentence 5.2.3.1.(5)), and

SPA_i = static pressure adjustment of i^{th} equipment, in Pa (see Sentence 5.2.3.1.(6)).

2) In variable-air-volume HVAC systems, every supply, discharge or return fan whose rated capacity is at least 7.4 kW shall operate at not more than 30% of its power demand at design conditions where the fan provides 50% of the air design flow rate. (See Note A-5.2.3.3.(2).)

3) Except as provided in Sentence (4), static pressure sensors used to control a variable-air-volume supply fan shall be

a) located so that the static pressure setpoint is not more than 300 Pa, and

b) installed downstream from the fan,

i) in the main supply duct before any intersection, or

ii) in each intersection of a main supply duct.

(See Note A-5.2.3.3.(3).)

4) The static pressure setpoint of an HVAC system supply fan shall be adjusted to the value of the *conditioned space* requiring the highest static pressure when the following conditions are met:

a) all the *conditioned spaces* of the HVAC system are individually served by terminal zone boxes,

b) a direct digital control system is installed on the terminal zone box of each *conditioned space*, and

c) each direct digital control system is centralized on the supply fan main control panel.

(See Note A-5.2.3.3.(4).)

5) The main control panel referred to in Clause (4)(c) shall

a) measure the opening degree of each terminal zone box,

b) signal terminal zone boxes that remain open the longest, and

c) permit the manual removal of the control logic of the terminal zone boxes referred to in Clause (b) to maximize the setpoint readjustment potential.”.

5.2.3.4. Strike out the Article.

5.2.4.1. Replace Sentence (4) by the following:

“**4)** Where the duct or opening does not exceed 0.08 m², air intake and air exhaust dampers required by Sentence (1) are permitted to be gravity or spring-operated backflow dampers.”.

5.2.4.2. Replace Sentence (3) by the following:

“**3)** Dampers required in Article 5.2.4.1. are permitted to be located inboard of the *building envelope*, provided the thermal resistance of the duct insulation between the damper and the *building envelope* is that provided in Table 5.2.2.5. according to the applicable temperature difference, without being less than 0.74 m²×K/W.”.

5.2.5.3. Replace Sentence (1) by the following:

“**1)** Except as provided in Sentences (2) to (6), piping and accessories forming part of an HVAC system shall be thermally insulated in accordance with Table 5.2.5.3. (See Notes A-5.2.5.3.(1), and A-5.2.2.5.(2), 5.2.5.3.(8) and 6.2.3.1.(6).)”;

Replace Table 5.2.5.3. by the following:

“**Table 5.2.5.3.**
Minimum Thickness of Piping Insulation, in mm
Forming Part of Sentences 5.2.5.3.(1), (3) to (5), and (8)

Type of System	Design Operating Temperature Range, ^{0}C	Thermal Conductivity of Insulation		Nominal Pipe Diameter, mm (inches)		
		Conductivity Range, W/(m×K)	Mean Rating Temperature, °C	≤ 25.4 (≤ 1)	> 25.4 and ≤ 51 (> 1 and ≤ 2)	> 51 (> 2)
				Minimum Thickness of Piping Insulation, mm		
Heating Systems (steam, steam condensate and hot water)	> 177	0.046 – 0.049	121	114	127	127
	122 – 177	0.042 – 0.045	93	76.2	101.6	114
	94 – 121	0.039 – 0.043	65	63.5	63.5	76.2

	61 – 93	0.036 – 0.042	52	38.1	50.8	50.8
	41 – 60	0.035 – 0.040	38	25.4	38.1	38.1
Cooling Systems (chilled water, brine and refrigerant)	4 – 16	0.030 – 0.039	24	25.4	25.4	25.4
	< 4	0.030 – 0.039	24	25.4	38.1	38.1

";

Replace Sentence (3) by the following:

"**3)** Piping for HVAC systems need not comply with Table 5.2.5.3. if it

a) is located within a *conditioned space* and conveys fluids with design operating temperatures greater than 16°C and less than 41°C,

b) is used only to reject heat and is located outside the *building envelope*, or

c) is used for the circulation of a fluid that is neither heated nor cooled by electricity or a fossil fuel. (See Note A-5.2.5.3.(3)c).)";

Strike out "(See Note A-5.2.2.5.(8) and 5.2.5.3.(7).)" in Sentence (7).

5.2.6.

Insert the following after the heading of the Subsection:

"(See Note A-5.2.3.1. and 5.2.6.)".

5.2.6.1.

Replace Sentences (1) and (2) by the following:

"**1)** This Subsection applies to pumping of HVAC systems

a) with a total of the pump system motor power ratings in Sentence (2) of at least 7.5 kW, and

b) including control valves designed to modulate or to open and close in steps as a function of thermal energy load.

2) For the purposes of this Subsection, the total of the pump motor power ratings of the HVAC system shall be the sum of the nameplate power ratings of each pump motor required to operate at design conditions to supply thermal energy to an HVAC system or *conditioned space*.".

5.2.6.2.

Replace the Article by the following:

"**5.2.6.2. Requirements for Pumping Systems of HVAC Systems**

1) Except as provided in Sentence (2), pumping systems that provide thermal energy to an HVAC system or a *conditioned space* shall be

a) designed for variable fluid flow, and

b) capable of reducing system flow to 50% or less of design flow.

(See Note A-5.2.6.2.(1).)

	2) Sentence (1) does not apply to pumping systems that provide thermal energy to an HVAC system or a *conditioned space* a) in which a minimum flow greater than 50% of the design flow is required for the proper operation of the HVAC system, b) with a single control valve, or c) that include controls to reset the fluid supply temperature based on either outdoor temperature or HVAC system loads.”.
5.2.6.3.	Strike out the Article.
5.2.8.1.	Replace “include at least one automatic space temperature control device that is accurate to within 1°C” in Sentence (1) by “serve at least one *temperature-control zone*”; Strike out Sentence (2).
5.2.8.2.	Replace Sentence (1) by the following: “**1)** Each *dwelling unit* shall be considered as at least one *temperature-control zone*.”; Strike out Sentence (2).
5.2.8.4.	Replace Clause (1)(b) by the following: “b) on interior walls or on exterior walls with an *effective thermal resistance* of at least 3.60 (m²×K)/W”.
5.2.8.5.	Strike out “(See Note A-5.2.8.5.(1) and 5.2.11.1.(2)(e).)” in Sentence (1).
5.2.8.6.	Replace “to a zone” in Sentence (1) by “to a *temperature-control zone*”; Replace “the zone(s) it serves” in Clause (2)(b) by “the *temperature-control zone(s)* it serves”; Replace “a space” in Sentence (3) by “a *temperature-control zone*”; Replace Sentences (4) and (5) by the following:

	"**4)** Where heating and cooling to a *temperature-control zone* are controlled by the same thermostatic control, the difference between the heating cycle shutdown temperature and the cooling cycle startup temperature shall be at least 1.5°C and conversely. **5)** Vestibules between *conditioned spaces* and the outdoors shall a) have a temperature-control device that limits the maximum heating temperature in the vestibule to 15°C, or b) be heated by an air curtain equipped with shut-off settings activated when the exterior entry doors are closed.".
5.2.8.7.	Replace the Article by the following: "**5.2.8.7. Ice- and Snow-Melting Heater Controls and Frost Protection Equipment** **1)** Ice- and snow-melting heating systems located outside the *building* shall be provided with automatic controls that shut the systems down where a) the outdoor temperature is more than 4.4°C, or b) the temperature of the surface with a heating system is more than 10°C. **2)** Equipment for protecting piping located outside the *building* against frost using a heating cable shall be equipped with automatic controls that shut down the equipment a) where the outdoor temperature is more than 4.4°C, or b) where there is no risk of frost for the fluid circulating in the protected piping.".
5.2.8.8.	Replace Sentence (2) by the following: "**2)** Reheating supply air previously cooled to reach the required humidity level is permitted. (See Note A-5.2.8.8.(2).)"; --- Insert "(See Note A-5.2.8.8.(3).)" at the end of Sentence (3).
5.2.8.9.	Replace the term "Except as provided in Sentence (4)" wherever it appears in Sentences (1) to (3) by "Except as provided in Sentence (6)"; --- Replace Sentence (4) by the following: "**4)** Except as provided in Sentence (6), the airflow rate that is reheated, cooled or mixed in the *temperature-control zones* without a direct digital control system shall not exceed the highest flow among the following: a) 30% of the maximum supply flow in the *temperature-control zone*, or b) the outdoor airflow rate required for acceptable indoor air quality as prescribed by the NBC.

	(See Note A-5.2.8.9.(4) and (5).) **5)** Except as provided in Sentence (6), *temperature-control zones* with a direct digital control system shall have a) a supply airflow rate not exceeding the highest flow from among the following, where the supply airflow rate of the *temperature-control zone* is neither heated nor cooled: i) 20% of the maximum supply flow of the *temperature-control zone*, or ii) the outdoor airflow required for acceptable indoor air quality as prescribed by the NBC, b) an airflow reheated, cooled or mixed less than 50% of the maximum supply flow of the *temperature-control zone*, and c) the following heating sequence: i) a first heating stage to modulate the zone temperature setpoint to the maximum supply temperature and to maintain an airflow rate equal to that established in Clause (5)(a), and ii) a second heating stage to maintain the zone temperature setpoint to its maximum value and to modulate the airflow rate to the airflow rate provided for in Clause (5)(b). (See Note A-5.2.8.9.(4) and (5).) **6)** Sentences (1) to (5) do not apply in *temperature-control zones* in which at least 75% of the energy necessary for heating shall be provided by a) the energy recovered at the site, or b) the solar energy produced at the site, except the energy due to passive heat gain created by *fenestration*. (See Note A-5.2.8.9.(6).)".
5.2.9.	Replace the heading of the Subsection by the following: "**5.2.9. Humidification and Dehumidification**".
5.2.10.1.	Replace Sentence (1) by the following: "**1)** Except as provided in Sentence (3), when the quantity of sensible heat of the exhaust air equipment as calculated in accordance with Sentence (4) exceeds 50 kW, the HVAC system shall be equipped with energy recovery equipment compliant with Sentence (5). (See Note A-5.2.10.1.(1).)"; Replace Sentences (3) to (5) by the following: "**3)** The following equipment need not comply with Sentence (1): a) specialized exhaust equipment, such as those used to exhaust smoke, grease-laden vapours, or toxic, flammable, paint, or corrosive fumes or dust, b) exhaust equipment operated less than 20 h per week, and

	c) exhaust equipment serving *conditioned spaces* with a temperature maintained at less than 16°C. **4)** The sensible heat, in kW, referred to in Sentence (1), which is the sensible heat content of the total quantity of exhaust, shall be calculated as follows: $$\text{Sensible heat} = 0.00123 \times Q \times (T_e - T_o)$$ where Q = rated capacity of the exhaust system at normal exhaust air temperature, in L/s, T_e = temperature of exhaust air before heat recovery, in °C, and T_o = outdoor 2.5% January design temperature, in °C. **5)** Heat- or energy-recovery equipment shall have a) a net sensible efficiency of at least 60% where the efficiency is i) established at 100% of the heating test flow, ii) measured according to AHRI 1061 (SI), "Performance Rating of Air-to-Air Exchangers for Energy Recovery Ventilation Equipment," and iii) certified by AHRI, by Intertek Testing Services NA Ltd. or by Element Materials Technology Canada Inc., or b) a sensible heat-recovery capacity of at least 55% where the recovery capacity is i) established at a flow of at least 22 L/s for a temperature at the supply air inlet of −25°C, ii) measured according to CAN/CSA-C439, "Standard laboratory methods of test for rating the performance of heat/energy-recovery ventilators," and iii) certified by HVI or other certification body that is accredited by the Standards Council of Canada.".
5.2.10.2.	Replace the Article by the following: "**5.2.10.2. Swimming Pools** **1)** HVAC systems for swimming pools with a surface area of at least 10 m² located within *conditioned spaces* shall comply with Sentences (2) and (3). **2)** Exhaust air equipment of the swimming pool referred to in Sentence (1) shall a) have an exhaust airflow limited to the outdoor airflow required for acceptable indoor air quality as prescribed by the NBC, and b) recover at least 60% of the sensible heat of the exhaust air at the design conditions in compliance with Sentence 5.2.10.1.(5). (See Note A-5.2.10.2.(2).)

	3) HVAC systems that serve a swimming pool referred to in Sentence (1) shall include mechanical dehumidification equipment that a) ensures untreated dehumidification by the exhaust air equipment described in Sentence (2), and b) rejects heat from dehumidification in *building* systems. (See Note A-5.2.10.2.(3)(b).)".
5.2.10.3.	Replace the Article by the following: "**5.2.10.3. Refrigeration Systems** **1)** The following systems shall comply with Sentences (2) and (3): a) refrigeration systems for creating or maintaining an ice sheet in heated *buildings*, such as an ice arena or a curling rink, and b) refrigeration systems i) for food conservation, ii) installed in heated *buildings* with a *building* area of more than 2500 m², and iii) composed of several equipment connected to a centralized refrigeration system. (See Note A-5.2.10.3.(1)(b).) **2)** The refrigeration systems referred to in Sentence (1) shall include heat-recovery equipment a) that recovers at least 25% of the heat before it is rejected to the condenser (see Note A-5.2.10.3.(2)(a)), or b) that meets at least 80% of the space heating or *service water* heating capacity. (See Note A-5.2.10.3.(2)(b).) **3)** The heat-recovery equipment described in Sentence (2) shall not increase the refrigerant saturation temperature beyond the temperature established at design conditions. **4)** Auxiliary heating in a space heated by the heat-recovery equipment described in Sentence (2) is not permitted to operate where the equipment may completely ensure the heating load of that space.".
5.2.10.4.	Replace the Article by the following: "**5.2.10.4. Dwelling units** **1)** The principal mechanical ventilation system of a *dwelling unit* shall be equipped with heat- or energy-recovery equipment. (See Note A-5.2.10.4.(1).) **2)** The heat- or energy-recovery equipment referred to in Sentence (1) shall have a) for equipment serving only one *dwelling unit*, a sensible heat-recovery capacity of at least 55% in the case of a *building* located in a municipality whose number of degree-days under 18°C is less than 6000 and of at least 60% in the case of a *building* located in another municipality where the recovery capacity is

	i) established at a flow of at least 22 L/s for a supply air inlet temperature of −25°C, ii) measured according to CAN/CSA-C439, “Standard laboratory methods of test for rating the performance of heat/energy-recovery ventilators,” and iii) certified by HVI or by other certification body that is accredited by the Standards Council of Canada (see Note A-5.2.10.4.(2)(a)), or b) in other cases, net sensible efficiency of at least 60% in the case of a *building* located in a municipality whose number of degree-days under 18°C is less than 6000 and of at least 65% in the case of a *building* located in another municipality where the efficiency is i) established at 100% of the heating test flow, ii) measured according to AHRI 1061 (SI), “Performance Rating of Air-to-Air Exchangers for Energy Recovery Ventilation Equipment,” and iii) certified by AHRI, by Intertek Testing Services NA Ltd. Or by Element Materials Technology Canada Inc.”.
5.2.11.1.	Replace Sentence (1) by the following: “**1)** The following HVAC systems shall be equipped with automatic controls complying with Sentences (2) and (4): a) HVAC systems that are not intended to operate continuously, b) HVAC systems serving *dwelling units*, c) HVAC systems whose heating or cooling capacity is more than 5 kW, or d) HVAC systems i) whose heating or cooling capacity is 5 kW or less, and ii) serving *temperature-control zones* that are not equipped with readily accessible manual controls. (See Note A-5.2.11.1.(1).)”; --- Replace Clause (2)(e) by the following: “e) in the case of heat pumps, temporarily suppressing supplementary heating elements or anticipation of the reaching of the setpoint established during periods of occupancy. (See Note A-5.2.11.1.(2)(e)”; --- Strike out Sentence (3).
5.2.11.2.	Replace Sentences (1) to (3) by the following: “**1)** Except as provided in Sentences (7) and (8), each air distribution system serving multiple *temperature-control zones* shall be divided into *airflow control areas*. (See Note A-5.2.11.2.(1) and (2).)

	2) Each *airflow control area* required by Sentence (1) shall serve a *floor surface area* of not more than 2300 m². (See Note A-5.2.11.2.(1) and (2).) **3)** Each *airflow control area* required by Sentence (1) shall include only the *temperature-control zones* to be operated simultaneously.”;
	Replace “Sentences (1) and (2)” in Sentence (4) by “Sentence (1)”;
	Insert “(See Note A-5.2.11.2.(5).)” at the end of Sentence (5);
	Replace Sentences (7) and (8) by the following: “**7)** Controls and devices such as direct digital control and variable-air-volume systems shall be provided to allow stable operation of all HVAC systems for any length of time while they are serving a single *airflow control area* (see note A-5.2.11.2.(7)). **8)** The following need not be incorporated into *airflow control areas*: a) *temperature-control zones* in which outdoor air and exhaust requirements prevent the reduction or stopping of the air supply, or b) *dwelling units*.”.
5.2.11.3.	Replace “HVAC pumping systems” in Sentence (1) by “HVAC systems”.
5.2.11.4.	Insert “(See Note A-5.2.11.4.(1).)” at the end of Sentence (1); Replace Sentences (2) and (3) by the following: “**2)** Except as provided in Sentence (3), where the heating load of *boilers* of an HVAC system exceeds 176 kW, the HVAC system shall consist of a) more than one *boiler*, b) a multi-stage *boiler,* or c) a fully modulating *boiler*. **3)** Where the heating load of the *boilers* of an HVAC system exceeds 352 kW, those *boilers* shall be fully modulating.”.
5.2.11.5.	Replace Sentence (1) by the following: “**1)** Except as provided in Sentences (2) and (3), chilled- or hot-water systems with a design capacity greater than 88 kW supplying chilled or heated water to an HVAC system shall be equipped with automatic controls that reset the supply water loop temperatures

	a) in relation to the outdoor temperature using an indoor/outdoor controller, or b) in relation to the *building* heating and cooling loads. (See Note A-5.2.11.5.(1).)"; Insert "(See Note A-5.2.11.5.(2).)" at the end of Sentence (2).
5.2.12.1.	Replace Sentence (1) by the following: "**1)** Unitary and packaged equipment and components that are part of a *building* HVAC system shall comply a) with the efficiency requirements provided for in the Act respecting energy efficiency and energy conservation standards for certain products (chapter N-1.01) and its regulations, as well as Federal regulations, or b) in the absence of the requirements described in Clause (a), with the requirements listed in Tables 5.2.12.1.-A to 5.2.12.1.-P. (See Notes A-5.2.12.1.(1), and A-5.2.12.1.(1), 6.2.2.1.(1), 7.2.3.1.(1) and 7.2.4.1.(1).) (See Note 6.2.2.4.)".
5.2.12.2.	Strike out the Article.
5.2.12.3.	Strike out the Article.
5.2.12.4.	Strike out the Article.
	Add the following Subsection: "**5.2.13. Commercial Cooking Ventilating System**".
	Add the following Article: "**5.2.13.1. Commercial Cooking Ventilating System** **1)** The make-up airflow introduced directly in the commercial cooking air exhaust system shall be less than 10% of the exhaust airflow. (See Note A-5.2.13.1.(1).) **2)** Commercial cooking exhaust air systems with a cumulative flow of more than 2360 L/s shall comply with one of the following requirements: a) at least 50% of the airflow rate necessary to offset the cooking exhaust rate shall come from available transfer air, in L/s, established using the following equation: $\text{Available transfer air } = \mathrm{D_a} - \mathrm{D_w} - \mathrm{D_e}$ where

	D_a = outdoor airflow entering the *building*, excluding the make-up outdoor airflow directly serving the kitchen, in L/s, D_w = airflow extracted from washrooms, in L/s, and D_e = outdoor airflow to offset other exhaust equipment, in L/s (see Note A-5.2.13.1.(2)(a)); b) at least 75% of the cooking exhaust rate shall come from an exhaust demand air system that shall i) detect cooking emissions (see Note A-5.2.13.1.(2)(b)(i)), and ii) reduce to at least 50% exhaust and make-up flows in the absence of cooking emission, or c) at least 40% of the sensible heat shall be recovered over at least 50% of the cooking exhaust rate by a heat-recovery unit designed for that purpose.”.
5.4.1.2.	Replace the Article by the following: “**5.4.1.2. Limitations** **1)** The performance path shall not take into consideration the energy performance a) of back-up HVAC systems, b) air distribution systems, c) air intake and outlet dampers, d) Piping for an HVAC system, e) space temperature control, and f) *airflow control areas*. (See Note A-5.4.1.2.(1) and 2).) **2)** The elements in Sentence (1) shall comply with Section 5.2. (See Note A-5.4.1.2.(1) and (2).)”.
5.5.1.1.	Replace the heading of the appropriate Article in Table 5.5.1.1. by the following: “**5.2.6.2. Requirements for Pumping Systems of HVAC Systems**”; Replace respectively, in numerical order, the headings, objectives and functional statements of the Articles concerned below by the following in Table 5.5.1.1: “**5.2.8.7. Ice- and Snow-Melting Heater Controls and Frost Protection Equipment** (1) [F95-OE1.1] (2) [F95-OE1.1]”; “**5.2.10.3. Refrigeration Systems** (1) [F95,F96,F100-OE1.1] (2) [F95,F96,F100-OE1.1]

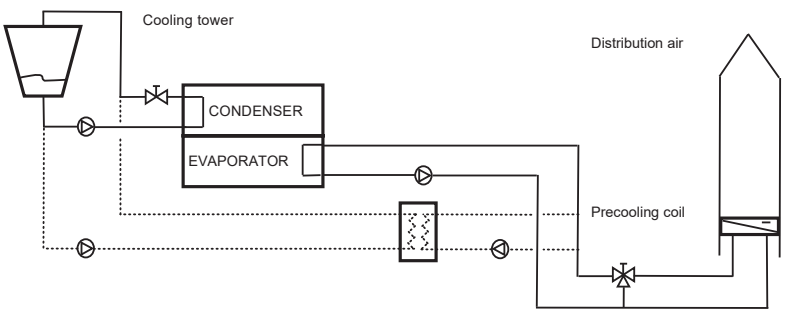
	(3) [F95,F96,F100-OE1.1] (4) [F95,F96,F100-OE1.1]"; Replace the attributions for the Article concerned below by the following in Table 5.5.1.1: "**5.2.2.3. Duct Sealing** (1) [F91,F99-OE1.1] (3) [F91,F99-OE1.1] (4) [F91,F99-OE1.1] (5) [F91,F99-OE1.1]"; "**5.2.2.4. Leakage Testing of Ducts** (1) [F91,F99-OE1.1] (2) [F91,F99-OE1.1] (3) [F91,F99-OE1.1]"; "**5.2.2.7. Outdoor Air Cooling** (1) [F95-OE1.1] (3) [F95-OE1.1] (4) [F95-OE1.1]"; "**5.2.3.1. Application** (2) [F95,F97-OE1.1] (4) [F95,F97-OE1.1] (5) [F95,F97-OE1.1] (6) [F95,F97-OE1.1]"; "**5.2.10.2. Swimming Pools** (1) [F95,F100-OE1.1] (2) [F95,F100-OE1.1] (3) [F95,F100-OE1.1]"; "**5.4.1.2. Limitations** (1) [F98,F99-OE1.1] (2) [F98,F99-OE1.1]"; Insert respectively, in numerical order, the following objectives and functional statements in Table 5.5.1.1.: "**5.2.3.3. Variable-Air-Volume Fan Systems** (4) [F95,F97-OE1.1] (5) [F95,F97-OE1.1]"; "**5.2.8.9. Control of Space Temperature by Reheating or Recooling**

	(4) [F95-OE1.1] (5) [F95-OE1.1]”; Insert, in numerical order, the following Article, objectives and functional statements in Table 5.5.1.1.: “**5.2.13.1. Commercial Cooking Ventilating System** (1) [F95-OE1.1] (2) [F95-OE1.1]”; Strike out respectively the following objectives and functional statements in Table 5.5.1.1: “**5.2.2.5. Duct and Plenum Insulation** (6) [F93-OE1.1] (8) [F92,F93-OE1.1] (9) [F93,F95,F99-OE1.1]”; “**5.2.2.8. Cooling by Direct Use of Outdoor Air (Air Economizer System)** (5) [F95-OE1.1]”; “**5.2.8.1. Temperature Controls** (2) [F95-OE1.1]”; “**5.2.8.2. Temperature Control within Dwelling Units** (2) [F95-OE1.1]”; “**5.2.10.4. Heat Recovery in Dwelling Units** (3) [F95,F100-OE1.1] (4) [F95,F100-OE1.1] (5) [F95,F100-OE1.1]”; Strike out the following Articles, objectives and functional statements in Table 5.5.1.1.: “**5.2.3.4. Demand Control Ventilation Systems** (1) [F95,F97-OE1.1]”; (2) [F95,F97-OE1.1]”; “**5.2.6.3. Pumping Power Demand** (1) [F95,F97,F98,F99-OE1.1]”; “**5.2.12.2. Heat Rejection Equipment** (2) [F95,F97,F98,F99-OE1.1] (3) [F95,F97-OE1.1]”; “**5.2.12.3. Field-Assembled Equipment and Components**

	(1) [F99-OE1.1]"; "**5.2.12.4. Service Water Heating Equipment Used for Space Heating** (1) [F98-OE1.1]".
Division B Notes to Part 5	
A-5.1.1.2.(2)	Strike out the Note.
	Add the following Note: "**A-5.1.1.2.(2) and (4) HVAC System and Process or Activities.** An HVAC system fully dedicated to a process or an activity described in Sentence 5.1.1.2.(2) is exempted from complying with Part 5. The Code provides provisions to the contrary, in particular for HVAC systems serving the following rooms, processes and activities that are not exempted from Part 5 requirements: • server rooms (Article 5.2.2.7.), • laboratories and vivariums (Subsection 5.2.3.), • hospitals (Article 5.2.2.7. and Subsection 5.2.3.), • swimming pools (Article 5.2.10.2.), • ice-making machines and food refrigeration equipment (Article 5.2.10.3.), and • commercial cooking exhaust equipment (Subsection 5.2.13.). In addition, Sentence 5.1.1.2.(4) provides that an HVAC system serving both a room that requires usual comfort conditions and a room in which a process calls for temperatures, airflows or humidity rates outside the normal range required cannot benefit from the exemption permitted in Sentence 5.1.1.2.(2). In compliance with the performance path, process and activity HVAC systems must be modeled since they have an impact on the heating, cooling and/or humidification load of rooms adjacent to the process or activity.".
A-5.1.1.3.(2)	Replace "primary system" in the Note by "HVAC systems".

A-5.2.2.3.(1)	Replace the Note by the following: "**A-5.2.2.3.(1) Duct Sealing.** Even if ANSI/SMACNA 006, "HVAC Duct Construction Standards – Metal and Flexible" is less restrictive for certain sealing classes, all air ducts and plenums must be sealed as a class A duct, i.e. at every transversal joints, along all the longitudinal assembly lines and where the ducts penetrate walls, as required by Sentence 5.2.2.3.(1). Sealing applies both to positive pressure ducts and negative pressure ducts.".
A-5.2.2.3.(4)	Strike out the Note.
A-5.2.2.4.(1)	Strike out the Note.
A-5.2.2.5.(2), 5.2.5.3.(8) and 6.2.3.1.(6)	Add the following paragraph at the end of the Note: "The minimum insulation thicknesses required may have to be increased to eliminate condensation on ducts or to protect against burns.".
A-5.2.2.5.(4)	Strike out the Note.
A-5.2.2.5.(8) and 5.2.5.3.(7)	Strike out the Note.
	Add the following Notes: "**A-5.2.2.7.(2)(d) Non-particle Filtration.** Contrary to particle filtration, non-particle filtration is generally used where the outdoor air is polluted or where the indoor air quality must be controlled, such as a medical environment where a molecular filter is used to remove ozone and nitrogen oxides. That type of air handler uses energy and the addition of an economizer system requires to design the air handler not for the minimum new air but for 100% of the supply flow. In that case, the energy gain obtained by not operating the mechanical cooling may cancel itself or even transform itself into greater energy consumption. **A-5.2.2.7.(2)(f) Heat-Recovery Unit in Coolers.** Where the cooler has a heat-recovery unit on its condenser, shutting down of the cooler for using the economizer system would cancel the heating savings due to recovery.

	A-5.2.2.7.(2)(g) Semi-conditioned Spaces During Operating Hours. Energy savings related to an economizer system depend mostly on the cooling needs of the spaces during heating. In most cases, a cooling setpoint of at least 26°C does not generate sufficient cooling needs to justify the cost for the installation of an economizer system. **A-5.2.2.7.(3) Cooling by the Use of Outdoor Air Integrated to the Mechanical Cooling.** Based on the outdoor air temperature and the cooling demand, the cooling load will be ensured only by the economizer system, by a combination of the economizer system and mechanical cooling or only by mechanical cooling. **A-5.2.2.7.(4) Water Economizer System where the HVAC System Includes Hydronic Loop Cooling and a Humidification System.** The humidification systems used simultaneously with an air economizer system may consume a lot of energy because the introduction of dry air in winter adds a significant humidification load. To prevent excessive energy consumption, the economizer system, where required, must be on the water system and not on the air system. That requirement is limited to hydronic loop mechanical cooling and not to direct expansion cooling.”.
A-5.2.2.8.(2)	Replace the Note by the following: “**A-5.2.2.8.(2) Outdoor Air Intake for Acceptable Indoor Air Quality.** Outdoor air requirements for acceptable indoor air quality are covered in Part 6 of Division B of the NBC. **Types of Shut-off Settings** Only the shut-off settings in Table 5.2.2.8.-A are permitted. Combining two types of settings or dividing one type of setting is not permitted.”.
	Add the following Notes: “**A-5.2.2.8.(3) Minimum Mechanical Cooling Stage Controlled Directly from Room Temperature.** When the direct expansion mechanical cooling activates in addition to the outdoor air cooling, the objective is not to reduce the supply temperature so as to create discomfort in the conditioned zone. That means that the mechanical cooling operates at a minimum of two stages, by the use of multiple compressors, by the use of only one two-stage compressor or by the use of a variable-speed compressor. Sentence 5.2.2.8.(3) applies to mechanical cooling directly controlled from room temperature rather than the supply temperature of the air handler. In the latter case, the requirements of Sentence 5.2.2.8.(4) apply. **A-5.2.2.8.(4) Minimum Mechanical Cooling Stage.** Sentence 5.2.2.8.(4) applies in particular to variable-air-volume HVAC systems controlled from the air handler supply air temperature. For example, where three mechanical cooling stages are required, the requirement may be complied with using a variable-speed compressor. In that case, the minimum displacement of the compressor must be less than or equal to 33% of the total cooling capacity.

	Another possibility is to use two compressors, the first stage uses a compressor with a 33% total cooling capacity, the second stage uses a compressor with 66% displacement and the third stage uses the combination of two compressors to reach 100% of the total cooling capacity. In that case, the cooling capacity provided by the first stage is equivalent to the minimum displacement of 33% of a variable-speed compressor.”.
A-5.2.2.8.(6)	Strike out the Note.
	Add the following Note: “**A-5.2.2.9. Water Economizer System.** The water economizer system reduces the mechanical cooling load by cooling the heat transfer fluid of the cooling system with outdoor air. The energy savings are made by reducing the compressor use time. There are two typical compliant configurations for the water economizer system, • evaporation cooling, also called “water precooling,” such as that shown in Figure A-5.2.2.9.-A, and • sensible heat transfer cooling, also called “air precooling,” such as that shown in Figure A-5.2.2.9.-B. The dotted lines represent the portion of the economizer system.  **Figure A-5.2.2.9.-A** **Evaporation cooling economizer system – water precooling by a water economizer system**

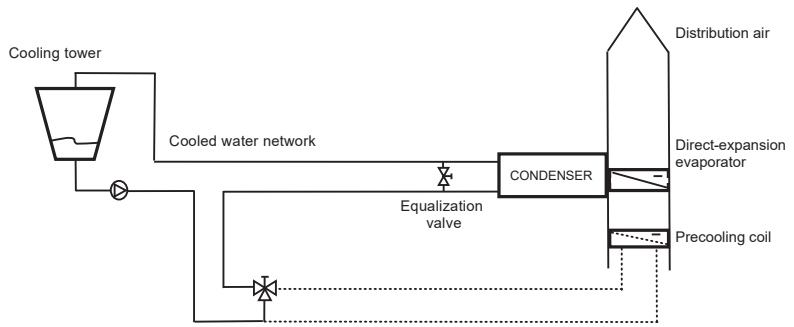


Figure A-5.2.2.9.-B

Sensible heat transfer cooling economizer system – air precooling by a water economizer system".

Add the following Notes:

"**A-5.2.3.1. and 5.2.6. Brake Horsepower, Rated Capacity and Power Demand.** The capacity of a fan varies depending on the location where it is measured on a "fan, motor, variable-speed drive" set.

The brake horsepower is measured directly on the fan, on its drive shaft. It is sometimes expressed by the fan manufacturer in bhp. The brake horsepower is the power necessary to drive the fan blades.

The rated capacity is measured on the fan motor and is indicated on its nameplate. The rated capacity is the brake horsepower to which the power necessary to offset losses due to the strap and the internal losses of the electric motor is added.

The power demand is measured at the circuit breaker of the electrical panel. It is the electric power necessary to supply the "fan, motor, variable-speed drive" set. The power demand is the rated capacity to which the power necessary to offset the losses due to the variable-speed drive is added, where applicable.

For a "fan, motor, variable-speed drive" set, the brake horsepower is always less than the rated capacity, that is itself always less than the power demand.

Figure A-5.2.3.1. and 5.2.6. shows the various locations where the capacity of a fan can be measured.

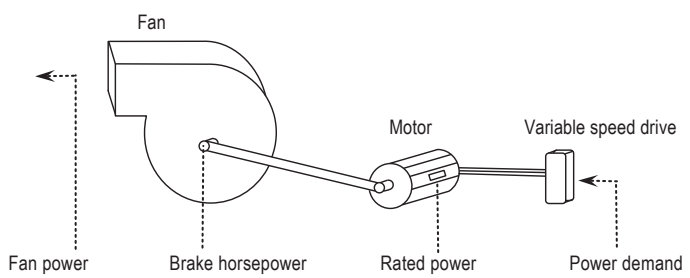


Figure A-5.2.3.1. and 5.2.6.

Power that may be measured on the “fan, motor, variable-speed drive” set

The pump capacities follow the same principles as those described above for fans, with the necessary modifications. For example, the power demand of a pump is also measured at the circuit breaker of an electrical panel. It is the electrical power necessary to supply the “turbine, motor, variable-speed drive” set.

A-5.2.3.1.(1) to (3) Application. Fans to take into consideration in the calculation of the total of the powers are those that

- belong to the same HVAC system. Figure A-5.2.3.1.(1) to (3) shows an example of an HVAC system with multiple fans. For example, if two HVAC systems have their own supply fans, their own heating and cooling coils and serve the same zone, they are considered to be two separate HVAC systems even if they serve the same zone. Two separate calculations must then be made to establish the total of the powers,
- operate when the two design conditions, heating and cooling, are met. The power limit of 4 kW applies to fans whose total rated capacity is the highest between the heating conditions and the cooling conditions, and
- carry heated or cooled air. The calculation must take into account all the supply fans, return fans, relief fans, and fans for series fan-terminal zone boxes.

Some fans may not be included in the calculation of the total of the power, such as the following:

- as mentioned in Clause 5.2.3.1.(3)(b), garage exhaust fans or server room transfer fans, where the spaces are not heated or cooled, and
- as mentioned in Sentence 5.2.3.1.(2), fans in parallel fan-terminal zone boxes where they do not operate at the cooling design conditions and the conditions are higher than the heating design conditions.

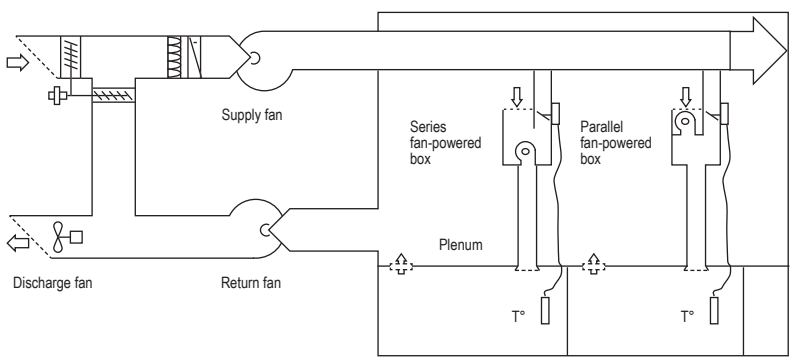


Figure A-5.2.3.1.(1) to (3)

Example of an HVAC system with multiple fans”.

A-5.2.3.1.(2)	Strike out the Note.
	Add the following Note: "**A-Table 5.2.3.1. Static Pressure Adjustments.** Multiple units and accessories in the ventilation system create a significant pressure loss and therefore require that the fan have a greater power to provide the flow required by the design conditions. The list of static pressure positive adjustments makes it possible to increase the limit of the allowed brake horsepower based on the accessories installed on the ventilation system. Certain adjustments are however negative and lower the power limit permitted.".
A-5.2.3.2.(1)	Replace the Note by the following: "**A-5.2.3.2.(1) Constant-Volume Fan Systems.** This type of system is found in particular in bypass variable-air-volume systems in which the airflow through the fan is not varied.".
	Add the following Note: "**A-5.2.3.2.(2) Maintenance of Pressure for Health or Safety Purposes.** Constant-volume systems are common in hospitals, vivariums and laboratories. If a room needs to be kept under negative pressure so as not to contaminate the other rooms, a control will open the exhaust or return duct damper of the said room and will close the damper of the other rooms. The fans of such a system may use the power limits of variable-air-volume fan systems.".
A-5.2.3.3.(1)	Strike out the Note.
	Add the following Notes: "**A-5.2.3.3. Variable-Air-Volume Fan Systems.** A fan that automatically varies the airflow based on static pressure is controlled from the sensors in each terminal zone box. Consequently, the following systems cannot be considered variable-air-volume fans and must use the limit of the constant-volume fan established in Article 5.2.3.2: • a constant-volume fan serving multiple zones and equipped with a bypass duct between its inlet and outlet (called "changeover bypass"), • a constant-volume fan serving multiple zones and equipped with terminal zone boxes bypassing supply air in the return plenum (called "bypass terminal unit"), and • a constant-volume fan for which a variable-speed drive is used only at airflow balancing.

	A-5.2.3.3.(2) Part-load Maximum Power. Generally, a forward curved fan with inlet vanes or a variable-speed motor fan meets the requirement. **A-5.2.3.3.(3) Location of Static Pressure Sensors.** In a variable-volume system, the location of a static pressure sensor is critical for the good operation of terminal zone boxes. The pressure upstream from the terminal zone box must be greater than the pressure loss caused by that same box; otherwise, the airflow at the outlet of the terminal zone box will be less than the specified airflow. A pressure too high upstream of the terminal zone box will generate noise and a higher energy use at the location of the fan. The location of a static pressure sensor is therefore a compromise between control and energy saving. To guarantee savings with respect to a variable-volume system, the Code requires that the sensor be located so that the static pressure setpoint be at a maximum of 300 Pa. That pressure is sufficient to carry sensor air to conditioned zones. Where the system includes multiple main branches and it is impossible to comply with the requirement in Subclause 5.2.3.3.(3)(b)(i), the use of a static pressure sensor will be necessary at each branch of the main duct. **A-5.2.3.3.(4) Automatic Reset of Static Pressure Setpoint.** Where the terminal zone boxes are equipped with direct digital controls centralized at the main control panel of the supply fan, the highest pressure among all the conditioned spaces of the system is the ideal pressure to be developed by the fan. The conditioned space with the highest pressure generally corresponds to the space where the terminal zone box damper is the most open. That pressure is ideal because it allows all the terminal zone boxes to have an inlet pressure sufficient to operate correctly and it allows the supply fan to develop the weakest pressure possible to minimize energy consumption. In that context, the static pressure setpoint must be constantly adjusted to follow the ideal pressure under the requirements of Sentence 5.2.3.3.(4).”.
A-5.2.3.4.(1)	Strike out the Note.
A-5.2.3.4.(2)	Strike out the Note.
A-5.2.5.3.(1)	Add the following at the end of the Note: “**Piping** The accessories connected to pipes include in particular strainers and valves.”.
	Add the following Note: “**A-5.2.5.3.(3)(c) Piping in which the Fluid Conveyed is not Heated or Cooled by Electricity or Fossil Fuel.** Natural gas or condensate pipes are examples of piping in which the fluid conveyed is not heated or cooled by electricity or fossil fuel.”.

A-5.2.6.2.(1)	Replace the Note by the following: "**A-5.2.6.2.(1) Requirements for Pumping Systems for HVAC Systems.** During part-load operation, a constant-flow pumping system is more energy consuming because it uses three-way valves to divert the fluid from coils, thermal beams or any other type of appliance. Flow may be varied by one of several methods such as variable-speed-driven pumps, staged multiple pumps or pumps riding their performance curves, (i.e. uncontrolled pumps).".
A-5.2.8.5.(1) and 5.2.11.1.(2)(e)	Strike out the Note.
A-5.2.8.8.(2)	Replace the Note by the following: "**A-5.2.8.8.(2) Reheating Supply Air for Humidity Control.** Sentence 5.2.8.8.(2) could apply to server rooms, operating rooms in health care institutions and museums. For those buildings, dehumidification is usually carried out by cooling mixture air under the dew point required to maintain humidity at the specified rate. However, that temperature may be too low in relation to the setpoint temperature in the space, so that reheating would be required at the cooling coil outlet to do so.".
	Add the following Note: "**A-5.2.8.8.(3) Reheating Supply Air by Recovered Energy.** The energy rejected by the mechanical cooling system may be used to heat supply air without increasing the energy consumption of the building.".
A-5.2.8.9.(4)	Strike out the Note.
	Add the following Notes: "**A-5.2.8.9.(4) and (5) Zones with Limited Flow of Reheated, Cooled or Mixed Air.** Simultaneous heating and cooling are permitted by Sentences 5.2.8.9.(4) and 5.2.8.9.(5) where the flow, during heating, cooling or mixture, is limited. The maximum limit has been established by the minimum opening of terminal zone boxes of variable-volume built-up systems. That minimum opening is necessary to ensure a differential pressure adequate for the control of the terminal zone box. The limits have been established at 20% for digital control systems and at 30% for other control systems (such as pneumatic control systems). **A-5.2.8.9.(6) Heat Recovery and Solar Energy.** The energy recovered at the site designates the heat recovered in the building to prevent energy consumption purchased from an energy supplier.

	Solar energy represents the thermal, chemical or electrical energy derived from the conversion of solar radiation. The conversion must be carried out on the site to prevent energy consumption purchased from an energy supplier.”.
A-5.2.10.1.(1)	Replace “of the exhaust/relief airstream, exhaust air recirculation, and the incoming ventilation airstream” in the Note by “of exhaust or relief air, exhaust air recirculation, and incoming ventilation air”; Add the following Sentence at the end of the Note: “Sentence 5.2.10.1.(1) allows the HVAC system to be equipped with only one heat-recovery equipment for a number of exhaust equipment of a same system. The quantity of sensible heat of 50 kW is the sensible heat content of the total quantity of exhaust. If the HVAC system is equipped with more than one exhaust air system, the exhaust air from each system should be added.”.
A-5.2.10.1.(4)	Strike out the Note.
A-5.2.10.2.(1)	Strike out the Note.
	Add the following Notes: “**A-5.2.10.2.(2) Heat Recovery from Exhaust Air from Swimming Pools.** Controlling humidity levels of the swimming pool with outdoor air is an energy consuming process and difficult to control in Québec’s climate. The purpose of Clause 5.2.10.2.(2)(a) is to limit to a minimum air renewal of the swimming pool. The heat-recovery requirement in Clause 5.2.10.2.(2)(b) applies to a swimming pool even if the quantity of sensible heat recovered is less than the 50 kW limit in Sentence 5.2.10.1.(1). **A-5.2.10.2.(3)(b) Heat Rejection from the Mechanical Dehumidification Equipment.** Heat rejection from the mechanical dehumidification equipment may be reused for heating swimming pool or shower water.”.
A-5.2.10.3.(1)	Strike out the Note.
	Add the following Notes: “**A-5.2.10.3.(1)(b) Heat Recovery from Grocery Store Refrigeration Systems.** The requirement covers in particular large surface grocery stores that often have a large number of food counters connected to a refrigeration system.

	A-5.2.10.3.(2)(a) Heat Recovery from Refrigeration Systems. The heat at the condenser may usually be calculated by multiplying the cooler refrigeration capacity by its heat rejection factor. **A-5.2.10.3.(2)(b) Heat Recovery.** Heat recovered from refrigeration equipment can be used for ice resurfacing or heating the soil beneath the ice's surface to prevent frost heave.”.
A-5.2.10.4.(1)	Strike out the last sentence of the first Sentence of the Note; Add the following Sentence at the end of the Note: “Supplementary exhaust fans such as kitchen hoods or bathroom fans need not comply with the heat- or energy-recovery requirements.”.
A-5.2.10.4.(2)	Strike out the Note.
	Add the following Note: “**A-5.2.10.4.(2)(a) Heat- or Energy-Recovery Ventilators.** CAN/CSA-C439, “Standard laboratory methods of test for rating the performance of heat/energy-recovery ventilators,” describes a laboratory test that determines the energy performance of a heat- or energy-recovery ventilator. Test results for many models are listed in HVI's “Certified Home Ventilating Products Directory.” The results also usually appear on a label on the equipment itself or in the manufacturer's published literature.”.
A-5.2.10.4.(5)	Strike out the Note.
A-5.2.11.1.(2)(d)	Replace “Setback” by “Off-hour”.
A-5.2.11.1.(2)(e)	Replace the Note by the following: “**A-5.2.11.1.(2)(e) Heat Pump Controls for Recovery from Off-hours.** The requirements of Clause 5.2.11.1.(2)(e) can be achieved through several methods: • installation of a separate exterior temperature sensor limiting or stopping the operation of the supplementary heating element where the heat pump capacity is sufficient to ensure heating load, • setting a gradual rise of the temperature setpoint so that, at the end of the off-hours, the heat pump limits or stops the use of electrical backup, or

	• installation of controls that “learn” when to start recovery based on stored data, such as a start-stop optimization controller equipped with a self-learning function.”.
	Add the following Note: “**A-5.2.11.2.(1) and (2) Airflow Control Area.** Large central HVAC systems often serve temperature-control zones occupied by different commercial tenants according to different schedules. Where one central system is present and only part of the zones is occupied, energy for conditioning the unoccupied zones is wasted. The purpose of Sentence 5.2.11.2.(1) is to force the designer to separate from other zones those that are not operated simultaneously. Zones thus grouped form an airflow control area that, according to Sentences 5.2.11.2.(2) to 5.2.11.2.(4), may not exceed 2300 m² and may not span more than one storey. Where the designer does not know the occupation schedule at the time of designing, an airflow control area for each commercial rental space is suggested.”.
A-5.2.11.2.(3)	Strike out the Note.
	Add the following Notes: “**A-5.2.11.2.(5) Control for Airflow Control Areas.** Each airflow control area must include controls that allow to consider the area as having a separate HVAC system. Each airflow control area can operate according to occupation schedules different from other areas. Control of each area may be carried out by • direct digital control systems installed on the terminal zone boxes, • terminal zone boxes “normally closed,” including a spring that closes the air supply damper where the terminal zone box actuator is no longer supplied with electricity, or • a motorized damper in the distribution duct. **A-5.2.11.2.(7) Stable Operation of Fans and Associated HVAC Systems.** Dividing a central HVAC system into several airflow control areas requires that the designer design the system so that it operates adequately at part-load, e.g. for the whole time the smallest temperature-control zone is the only one occupied. During different zone occupation periods, the operation of the principal fan and the HVAC heating and cooling equipment must be stable, adapted to the different part-loads and designed to frequently cycle between stop and start. **A-5.2.11.4.(1) Prevention of Heat Loss Between Boilers.** Some boilers have a bypass. Because those boilers are in operation, they need not comply with Sentence 5.2.11.4.(1).

	A-5.2.11.5.(1) Temperature Reset Methods. The 88 kW design capacity in Sentence 5.2.11.5.(1) applies to a system with a chilled water loop, a hot water loop or both. Different methods allow the reset of the supply hot water loop temperature. For example, since the heating load of a building varies depending on outdoor temperature, an acceptable method could be the installation of a device that reduces the heating loop temperature where the outdoor temperature increases. However, that method on its own is not reliable for resetting the cooling loop temperature because most cooling loads do not vary on the basis of outdoor temperature. Another method consists in taking into account the actual heating or cooling load by resetting the heating or cooling loop temperature so that the coil valve that has the higher demand is maintained at its maximum opening. A variant of that method consists in estimating the average load of the loop using the return temperature. **A-5.2.11.5.(2) Exemptions of HVAC Equipment and Systems.** Dehumidification systems that must operate continuously all year for health reasons, such as in a hospital, or for protecting art work, such as in a museum, are examples of systems that may use the exemption in Sentence 5.2.11.5.(2). However, a coil temperature ill-adapted to the loop reset may not be considered as an acceptable exemption. The designer must ensure that all equipment will operate once the loop temperature is reset. More specifically, equipment must be designed to operate correctly at the hottest temperature of a chilled water system and at the coldest temperature of the hot water system.”.
A-5.2.12.1.(1) and 6.2.2.1.(1)	Strike out the Note.
	Add the following Note: “**A-5.2.12.1.(1), 6.2.2.1.(1), 7.2.3.1.(1) and 7.2.4.1.(1) Performance Requirements and Levels.** **Performance Requirements** HVAC and service water heating equipment standards are reviewed and updated on a regular basis, whereas the “Energy Efficiency Regulations” are revised or updated to include new types of equipment at irregular intervals. The regulations follow a legislative protocol prior to becoming a federal requirement. This means that the publication of revisions to these documents does not always coincide with the publication of a new edition of the Code. As such, the performance requirement of

	any equipment or component in Tables 5.2.12.1.-A to 5.2.12.1.-P and 6.2.2.1. can change without notice between Code cycles. **Performance Levels** The federal “Energy Efficiency Act,” which was introduced in 1992, provides for the development and enforcement of regulations concerning minimum energy performance levels for energy-using products and products that affect energy use, as well as the labeling of energy-using products and the collection of data on energy use. The “Energy Efficiency Regulations,” which came into effect in 1995, establish energy efficiency standards for a wide range of energy-using products imported into Canada or manufactured in Canada with the objective of eliminating the least energy-efficient products from the Canadian market. They set test procedures and require that each product carry a verification mark from a product certification body accredited by the Standards Council of Canada, which certifies that the product's energy performance is in compliance with the Regulations' energy efficiency standard for that type of product. The Regulations are amended on a regular basis in accordance with the federal government's regulatory process; a summary of the current Regulations is available at www.nrcan.gc.ca/energy-efficiency/energy-efficiency-regulations/guide-canadas-energy-efficiency-regulations/6861. In Québec, the Act respecting energy efficiency and energy conservation standards for certain products (chapter N-1.01) and its regulation, the Regulation respecting energy efficiency and energy conservation standards for certain products (chapter N-1.01, r. 1), prohibits the manufacturing, offering, selling or leasing of an appliance or otherwise disposing of it by gratuitous or onerous title by way of a commercial transaction if the appliance does not conform to the applicable energy efficiency and energy conservation standards.”.
A-5.2.12.2.(1)	Strike out the Note.
	Add the following Notes: “**A-5.2.13.1.(1) Make-up Air for Exhaust of Air by Hood.** It is possible to offset hood air exhaust with outdoor air directly in the hood. However, several studies have shown that, where the percentage of outdoor air exceeds 10%, hood air exhaust significantly reduces contaminant capture which forces users to increase hood flow. That increase results in a higher consumption to ensure exhaust of air and offset with outdoor air. **A-5.2.13.1.(2)(a) Transfer air.** Available transfer air is air that would have been discharged otherwise or that has first circulated in a space other than the kitchen. **A-5.2.13.1.(2)(b)(i) On Demand Exhaust.** Cooking fumes may in particular be detected by smoke detectors, temperature detectors under the hood, cooktop temperature detectors or a combination of those detectors. **A-5.4.1.2.(1) and (2) Limitations.** The HVAC systems and equipment listed in Sentence 5.4.1.2.(1) are covered by the prescriptive requirements in

	• Sentence 5.1.1.3.(2) for back-up HVAC systems, • Articles 5.2.2.1. to 5.2.2.6. for air duct systems, • Subsection 5.2.4. for air intake and outlet dampers, • Subsection 5.2.5. for piping for an HVAC system, • Article 5.2.8.5. for space temperature control, and • Article 5.2.11.2. for airflow control areas.”.
Division B Part 6	Replace the heading of the Part by the following: “**Part 6** **Service Water Systems and Swimming Pools**”.
6.1.1.1.	Replace Sentence (1) by the following: “**1)** This Part applies a) to the systems used to heat *service water*, b) to the pumping systems that are part of *service water* systems, and c) to swimming pools.”.
6.1.1.2.	Insert “and except as provided in Sentence (2)” after “firefighting services” in Sentence (1); ——— Add the following Sentence: “**2)** This Part does not apply to existing parts of *service water* heating systems that are extended to serve *additions*.”.
6.2.2.1.	Replace Sentence (1) by the following: “**1)** Water heaters and pool heaters shall comply a) with the efficiency requirements provided for in the Act respecting energy efficiency and energy conservation standards for certain products (chapter N-1.01) and its regulations, as well as Federal regulations, or b) in the absence of the requirements described in Clause (a), with the requirements listed in Table 6.2.2.1. (See Notes A-6.2.2.1.(1), and A-5.2.12.1.(1), 6.2.2.1.(1), 7.2.3.1.(1) and 7.2.4.1.(1).)”.
6.2.2.2.	Replace Sentence (1) by the following: “**1)** Hot *service water* storage tanks shall be covered with insulation having a minimum thermal resistance of 2.22 m²×K/W”.

6.2.2.4.

Replace “22 kW” in Clause (1)(a) by “44 kW”;

Insert the following at the end of Sentence (1): “(See Note A-6.2.2.4.(1).)”;

Replace “in the applicable standards listed in Tables 5.2.12.1.-A to 5.2.12.1.-P and 6.2.2.1. or, where such equipment is not covered in these Tables, with the “Energy Efficiency Act” and the “Energy Efficiency Regulations.”” in Sentence (2) by “in Sentences 5.2.12.1.(1) and 6.2.1.1.(1)”.

6.2.2.5.

Replace “in the applicable standards listed in Tables 5.2.12.1.-A to 5.2.12.1.-P and 6.2.2.1. or, where such equipment is not covered in these Tables, with the “Energy Efficiency Act” and the “Energy Efficiency Regulations.”” in Sentence (1) by “in Sentences 5.2.12.1.(1) and 6.2.1.1.(1)”.

6.2.3.1.

Replace Sentence (1) by the following:

“**1)** All piping conveying hot *service water* in the following systems shall be insulated in accordance with Table 6.2.3.1. and Sentences (2) to (4):

a) circulating systems,

b) except as provided in Sentence (5), systems with a *storage-type service water heater*, and

c) systems equipped with electrical elements along pipes to maintain the temperature in the pipes.”;

Replace Sentence (5) by the following:

“**5)** In *service water* heating systems with a *storage-type service water heater*, non-circulating and equipped with *heat traps*, only the following piping sections shall be insulated in accordance with Table 6.2.3.1.:

a) hot water piping and cold water piping located between *heat traps* and the storage or expansion tank,

b) the piping forming the *heat* traps, and

c) the first 2.4 metres of the hot water piping located after the *heat* trap.

(See Note A-6.2.3.1.(5) and 6.2.3.2.(1).)”;

Replace Table 6.2.3.1. by the following:

“**Table 6.2.3.1.**
Minimum Thickness of Piping Insulation for Service Water Heating Systems
Forming Part of Sentences 6.2.3.1.(1) to (3), (5) and (6)

Location of Piping	Thermal Conductivity of Insulation		Nominal Pipe Diameter, in. (mm)	Minimum Thickness of Piping Insulation, mm
	Conductivity Range, W/m×°C	Mean Rating Temperature,°C		
	0.035 – 0.040	38	≤ 1 (≤ 25.4)	25.4

	<table><tr><td>*Conditioned space*</td><td></td><td></td><td>> 1 (> 25.4)</td><td>38.1</td></tr><tr><td rowspan="3">Unconditioned space or space outside of the *building envelope*</td><td rowspan="3">0.046 – 0.049</td><td rowspan="3">38</td><td>≤ 2 (≤ 51)</td><td>63.5</td></tr><tr><td>> 2 and ≤ 4 (> 51 and ≤ 102)</td><td>76.2</td></tr><tr><td>> 4 (> 102)</td><td>88.9</td></tr></table> ”.
	Add the following Articles: “**6.2.3.2. Heat Traps** **1)** A *storage-type service water heater* or a storage tank serving a non-circulating system shall include a *heat trap* on the hot water piping and cold water piping. (See Note A-6.2.3.1.(5) and 6.2.3.2.(1).) **6.2.3.3. Equipment for Protecting the Piping Against Freezing** **1)** The equipment for protecting the piping against freezing located outside shall be equipped with automatic controls to shut down the equipment a) where the outdoor temperature is more than 4.4°C, or b) where there is no risk that the fluid in the protected piping will freeze.”.
6.2.4.1.	Strike out the Article.
6.2.6.	Strike out the Subsection.
6.2.7.2.	Replace “have a nominal thermal transmittance of no more than 0.48 W/m²×ºC” in Sentence (2) by “shall have a thermal resistance of at least 2.08 (m²×ºC)/W”.
6.2.8.1.	Strike out the Article.
6.4.1.2.	Replace the Article by the following: “**6.4.1.2. Limitations** **1)** The performance path shall not take into consideration the energy performance of back-up *service water* heating systems.

	2) Back-up *service water* heating systems shall comply with Sentence 6.1.1.3.(2).”.
6.5.1.1.	Insert, in numerical order, the following Articles, objectives and functional statements in Table 6.5.1.1.: “**6.2.3.2. Heat Traps** (1) [F96-OE1.1]”; “**6.2.3.3. Equipment for Protecting the Piping Against Freezing** (1) [F95-OE1.1]”; ——— Strike out the following Articles, objectives and functional statements in Table 6.5.1.1.: “**6.2.4.1. Temperature Controls** (1) [F96-OE1.1]”; **“6.2.6.1. Showers** (1) [F96-OE1.1] (2) [F96-OE1.1]”; “**6.2.6.2. Lavatories** (1) [F96-OE1.1] (2) [F96-OE1.1]”; “**6.2.8.1. Size of Water Storage Tank** (1) [F97,F99-OE1.1] (2) [F97,F99-OE1.1]”.
Division B Notes to Part 6	Replace the heading of the Notes by the following: “**Notes to Part 6** **Service Water Systems and Swimming Pools**”.
	Add the following Note: “**A-6.2.2.4.(1) Combined Heating of Spaces and Service Water.** Systems designed to both heat space and heat service water meet respectively a seasonal load and a fixed load. In the summer, where only the hot service water fixed load must be satisfied, energy is wasted because the heating system is oversized in relation with the small hot service water load necessary. The purpose of Sentence 6.2.2.4.(1) is therefore to limit that practice. For example, if the system considered has a combined maximum input power of air heating and service water heating of 45 kW, Clause 6.2.2.4.(1)(b) must be complied with. To do so, the design service water heating load must be greater than half the power of the system, i.e. 22.5 kW.

	The requirement of Sentence (1) applies in particular to combined water heaters and to water heaters for which water is indirectly heated by a hot water system.”.
A-6.2.3.1.(1)	Strike out the Note.
	Add the following Note: “**A-6.2.3.1.(5) and 6.2.3.2.(1) Heat Traps.** ASHRAE/IES 90.1, “User’s Manual,” defines a heat trap as follows: “A heat trap is a device or arrangement of piping that keeps the buoyant hot water from circulating through a piping distribution system through natural convection. By restricting the flow from the storage tank, standby heat loss is minimized.

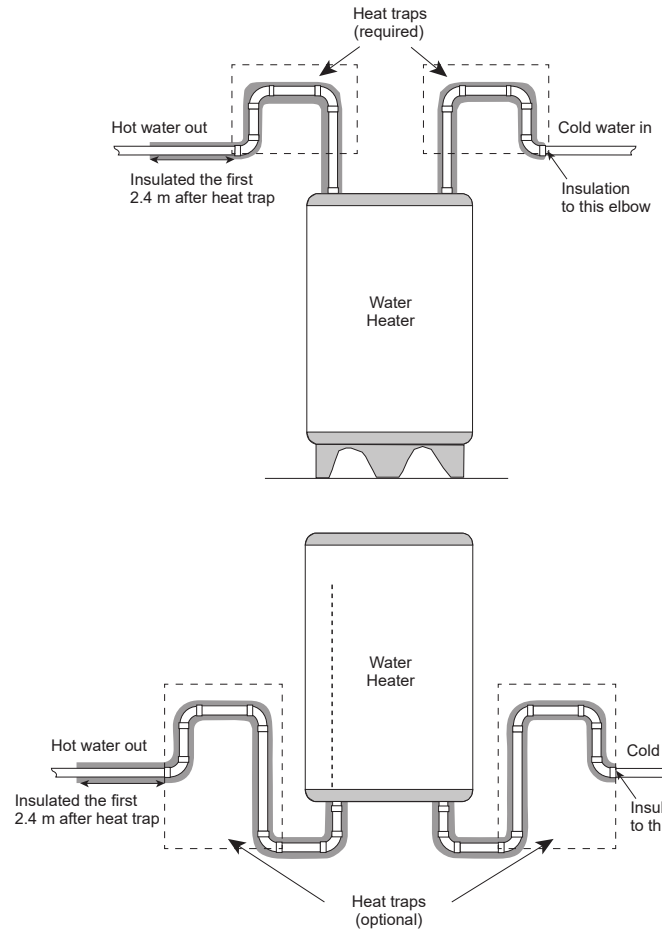


Figure A-6.2.3.1.(5) and 6.2.3.2.(1)

Heat Traps

“In all configurations heat traps can be a 360° loop of piping, a pre-manufactured device, or some arrangement of piping and elbows that forms an inverted "U" on the tank fittings. Tanks that have horizontal outlets need only a section of vertical pipe that turns downward after leaving the tank (an inverted “L”).”

Figure A-6.2.3.1.(5) and 6.2.3.2.(1) illustrates two examples of site-built heat traps.”.

A-6.2.4.1.(1)	Strike out the Note.
A-6.2.6.1.(1)	Strike out the Note.
A-6.2.6.1.(2) and 6.2.6.2.(2)	Strike out the Note.
A-6.2.8.1.	Strike out the Note.
A-6.2.8.2.(1)	Replace the Note by the following: "**A-6.2.8.2.(1) Sensors for Pressure Booster Systems.** Pressure booster systems should have one or more pressure sensors located near the fixtures that sets the system design pressure, or another type of sensor capable of estimating the pressure near the fixtures.".
Division B Part 7	Replace the Part by the following: "**Part 7** **Transformers and Electrical Motors** **Section 7.1. General** **7.1.1. General** **7.1.1.1. Scope** **1)** This Part is concerned with transformers and electrical motors for the application listed in Article 7.1.1.2. **7.1.1.2. Application** **1)** Except as provided in Sentence (2), this Part applies to all transformers and electrical motors that are connected to the *building's* electrical service, including those installed outside the *building*. **2)** This Part does not apply to existing transformers and electrical motors that are extended to serve *additions*. **7.1.1.3. Compliance** **1)** Compliance with this Part shall be achieved by following a) the prescriptive path described in Section 7.2., or

b) the performance path described in Section 7.4. (see Note A-3.1.1.3.(1)(c)).

7.1.1.4. Definitions

1) Words that appear in italics are defined in Article 1.4.1.2. of Division A.

Section 7.2. Prescriptive Path

7.2.1. Deleted

7.2.2. Deleted

7.2.3. Transformers

7.2.3.1. Transformer Selection

1) Transformers shall comply with the efficiency requirements provided for in the Act respecting energy efficiency and energy conservation standards for certain products (chapter N-1.01) and its regulations, as well as Federal regulations. (See Notes A-6.2.2.1.(1), and A-5.2.12.1.(1), 6.2.2.1.(1), 7.2.3.1.(1) and 7.2.4.1.(1).)

7.2.4. Electrical Motors

7.2.4.1. Efficiency

1) Permanently wired polyphase motors serving the *building* shall comply with the efficiency requirements provided for in the Act respecting energy efficiency and energy conservation standards for certain products (chapter N-1.01) and its regulations, as well as Federal regulations. (See Notes A-6.2.2.1.(1), and A-5.2.12.1.(1), 6.2.2.1.(1), 7.2.3.1.(1) and 7.2.4.1.(1).)

Section 7.3. Reserved

Section 7.4. Performance Path

(See Note A-1.1.2.1.)

7.4.1. General

7.4.1.1. Scope

1) Where transformers and electrical motors do not comply with the requirements of Section 7.2., they shall comply with Part 8.

Section 7.5. Objective and Functional Statements

7.5.1. Objective and Functional Statements

7.5.1.1. Attributions to Acceptable Solutions

1) For the purpose of compliance with this Code as required in Clause 1.2.1.1.(1)(b) of Division A, the objective and functional statements attributed to the acceptable solutions in this Part shall be the objective and functional statements listed in Table 7.5.1.1. (See Note A-1.1.3.1.(1).)

<table>
<tr><td></td><td>

Table 7.5.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 7
Forming Part of Sentence 7.5.1.1.(1)

<table>
<tr><th>Provision</th><th>Functional Statements and Objectives(1)</th></tr>
<tr><td colspan="2">7.2.3.1. Transformer Selection</td></tr>
<tr><td>(1)</td><td>[F97,F98-OE1.1]</td></tr>
<tr><td colspan="2">7.2.4.1. Efficiency</td></tr>
<tr><td>(1)</td><td>[F97,F98,F99-OE1.1]</td></tr>
</table>

Notes to Table 7.5.1.1.:
(1) See Parts 2 and 3 of Division A.”.
</td></tr>
<tr><td>Division B Notes to Part 7</td><td>Strike out the Notes to Part 7.</td></tr>
<tr><td>Division B Part 8</td><td></td></tr>
<tr><td>8.1.1.1.</td><td>Replace Sentence (1) by the following:
“1) Compliance with this Code is permitted to be achieved by applying the provisions of this Part. (See Note A-1.1.2.1.).”.</td></tr>
<tr><td>8.1.1.2.</td><td>Add the following line after “8.1.1.2. Application”:
“(See Note A-8.1.1.2.)”;

Replace Sentence (1) by the following:
“1) This Part applies only to buildings
a) whose function is known,
b) for which the building envelope is defined in the plans and specifications, and
c) except as provided in Sentence (2), for which sufficient information is known about their components, materials and assemblies that are covered by the scope of this Code.”;

Strike out “3.2.,” in Sentence (2).</td></tr>
</table>

8.4.1.	Add the following line after "**8.4.1. Compliance**": "(See Note A-8.4.1.)".
8.4.1.1.	Replace Sentences (1) to (3) by the following: "**1)** The performance path shall take into consideration the energy needs of the *building* components in accordance with the prescriptive requirements of Sections 3.2., 4.2., 5.2., 6.2. and 7.2. for the climate zone under consideration. **2)** Where the construction techniques, systems or *building* components used are more energy-efficient than those prescribed by the prescriptive requirements, the performance compliance calculations are permitted to take this increased performance level into account in the determination of the annual energy needs, provided it can be quantified and is not dependent on occupant behaviour. **3)** *Exterior lighting* must be excluded from the performance compliance calculations. **4)** The areas of *opaque building assemblies*, *fenestration* and doors shall be calculated in accordance with the requirements of Article 3.1.1.6.".
8.4.1.2.	Replace "Sentences (2) to (5)" in Sentence (1) by "Sentences (2) to (4)"; Replace Sentences (2) to (5) by the following: "**2)** The annual energy needs of the proposed *building* must not be greater than those of the reference *building* and must assessed as follows: $2200\ D_{Prop} + AEC \leq 2200\ D_{Ref} + BET$ where D_{Prop} = the maximum power demand of the electrical system determined during one year, from 1 December to 31 March inclusively, analyzed using time intervals no greater than 15 minutes unless the calculation engine only offers 60-minute intervals, for the proposed *building*, in kW; AEC = the *annual energy consumption* of the proposed *building*, corresponding to the sum of the annual electricity needs, in kW × h, and the annual fuel needs, in kW×h equivalents; D_{Ref} = the maximum power demand of the electrical system determined during one year, from 1 December to 31 March inclusively, analyzed using time intervals no greater than 15 minutes unless the calculation engine only offers 60-minute intervals, for the reference *building*, in kW; and BET = the *building energy target* of the reference *building* corresponding to the sum of the annual electricity needs, in kW×h, and the annual fuel needs, in kW×h equivalents. **3)** The number of cumulative hours during which heating or cooling needs are not met shall not exceed 300 h in a simulated year for both the proposed and reference *buildings.* (See Note A-8.4.1.2.(3) and (4).)

	4) The number of cumulative hours during which the heating or cooling needs of the proposed *building* are not met during a simulated year shall be less than or equal to the number of hours corresponding to the reference *building*. (See Note A-8.4.1.2.(3) and (4).)".
8.4.1.4.	Replace the Article by the following: "**8.4.1.4. Treatment of Additions** **1)** For the purpose of performance compliance calculations, the assessment of *additions* shall be based on the *addition* being considered by itself. **2)** Where the HVAC systems of the existing *building* are extended to serve the *addition*, they shall be modeled for the proposed *building* a) as if they met the prescriptive requirements of the Code, or b) using the characteristics of the existing system (see Note A-8.4.1.4.(2)(b)). **3)** Where the party wall between the existing *building* and the *addition* divides *conditioned spaces* that must be maintained at temperatures varying by more than 10°C at design conditions, the thermal exchanges between the *addition* and the existing *building* shall be considered in the modeling. (See Note A-8.4.1.4.(3).)".
8.4.2.	Add the following line after "**8.4.2. Compliance Calculations**": "(See Note A-8.4.2.)".
8.4.2.2.	Replace Sentences (1) to (5) by the following: "**1)** Except as provided in Article 8.4.3.9., only the programs that have not shown any major failure or limitation following tests provided for in ANSI/ASHRAE 140, "Standard Method of Test for the Evaluation of Building Energy Analysis Computer Programs," except Sections 7 and 8, may be used for the modeling provided for in this Part. (See Note A-8.4.2.2.(1).) **2)** The same program shall be used to determine the maximum power demand of the electrical system and the *annual energy consumption* of the proposed *building*, as well as the maximum power demand of the electrical system and the *building energy target* of the reference *building*. **3)** The programs shall a) consider the internal loads, in particular those due to occupants, activities and processes i) using actual values, when they are known, or ii) in the absence of actual values, using representative values (see Note A-8.4.3.8.(1)), and b) include the energy consumption of the systems that have an impact on the energy consumption of the *building*, including those of i) HVAC systems, ii) *interior lighting* devices,

	iii) *service water* heating equipment, and iv) elevators, moving walkways and escalators. (See Note A-8.4.2.2.(3).) **4)** The programs shall account for a) sensible and latent heat transfers due to the internal loads in Sentence (3) other than those of *interior lighting* devices, b) the sensible heat transfer due to *interior lighting* devices i) in their illumination space, and ii) in return air of HVAC systems, c) the dynamic evolution of the temperature in the spaces, d) the effect of thermal mass, and e) air leaks through the *building envelope*. **5)** The programs shall be performed for a one-year period (8760 h) using time intervals no greater than 1 h. **6)** Operating schedules and climatic data input in the programs shall use a time interval no greater than 1 h. **7)** The internal loads shall be adjusted for each time interval referred to in Sentence (5) based on the applicable operating schedules. (See Notes A-8.4.3.2.(1) and A-8.4.3.8.(1).) **8)** Energy consumption of backup equipment is permitted to be excluded from the energy model, provided it is equipped with controls that operate the equipment only when the backed-up equipment is not operating.”.
8.4.2.3.	Replace Sentence (1) by the following: “**1)** The programs shall use as input climatic data whose temperature, humidity and insolation, derived from climatic data, a) were shown to be good representations of the climate at the *building* site compared to the average of at least 10 years of measured data, and b) were collected at the weather station nearest to the *building* site.”; Replace “the energy model calculations shall be performed using” in Sentence (2) by “the programs shall consider as input”.
8.4.2.4.	Strike out the Article.
8.4.2.5.	Strike out the Article.

8.4.2.6.

Replace the words “energy model calculations” wherever they appear in Sentences (1) and (2) by “programs”;

Replace “solid *partitions* or solid *building* elements” in Sentence (2) by “walls”.

8.4.2.7.

Strike out the Article.

8.4.2.8.

Replace the Article by the following:

“**8.4.2.8. Building Envelope**

(See Note A-8.4.2.8.)

1) Programs shall account for heat transfers through the *building envelope*, due to solar radiation and indoor and outdoor temperature difference of the *building envelope*.

2) Programs shall account for the thermodynamic behaviour of *opaque building assemblies* and other assemblies such as floors and interior walls.

3) Programs shall account for heat transfers due to solar absorptance and transmittance and the orientation and optical characteristics of each surface.

4) Except as provided in Sentence 8.4.3.3.(6), the values of the *effective thermal resistance* of *opaque building assemblies* of the proposed *building* and the reference *building* shall be derated using the following equation, whether or not the proposed *building* envelope complies with the requirements of Sentences 3.2.1.2.(1) to (7) and (10), using the values in Tables 8.4.2.8.-A and 8.4.2.8.-B (See Note A-8.4.2.8.(4)):

$$RSI_{EDi} = \frac{1}{\frac{\sum_{j=1}^{m}(\Psi_j \times L_j) + \sum_{k=1}^{n}(\chi_k \times N_k)}{A_i} + \frac{1}{RSI_{Ei}}}$$

where

RSI_{EDi} = derated *effective thermal resistance* of *opaque building assembly* i of the proposed or reference building, in (m²×K)/W,

Ψ_j = *linear thermal transmittance* of the type j intersection calculated in accordance with Sentence 3.1.1.5.(7), in W/(m×K),

L_j = length of the type j intersection, in m,

m = total number of types of intersections,

χ_k = *point thermal transmittance* of the type k penetration calculated in accordance with Sentence 3.1.1.5.(7), in W/K,

N_k = number of type k point penetrations,

n = total number of types of penetrations,

A_i = area of *opaque building assembly* i, calculated in accordance with Article 3.1.1.6., in m², and

RSI_{Ei} = *effective thermal resistance* of the non-derated *opaque building assembly*, calculated in accordance with any of Sentences 3.1.1.5.(5) and (6), in (m²×K)/W.

Table 8.4.2.8.-A
Default Linear Thermal Transmittance of Certain Intersections
Forming Part of Sentence 8.4.2.8.(4)

Intersection	Maximum *Linear Thermal Transmittance*, Ψ, in W/(m×K) Intersection of the reference *building* and the proposed *building* that complies with the prescriptive requirements	Maximum *Linear Thermal Transmittance*, Ψ, in W/(m×K) Intersection of the proposed *building* that does not comply with the prescriptive requirements
Wall/roof	0.325	0.800
Wall/intermediate floor	0.300	0.850
Wall/projection(1)	0.500	1.000
Wall/*foundation*	0.450	0.850
Wall/opening or wall/wall, minor(2)	0.200	0.500
Wall/wall, major(3)	0.450	0.850

Notes to Table 8.4.2.8.-A:

(1) Projections include linear penetrations that fully go through or partially penetrate the *building* assembly, extending on the exterior side of the *building* assembly (e.g. a balcony).

(2) Minor intersections are intersections that generally result in moderate thermal loss.

(3) Major intersections are intersections that may result in more significant thermal loss.

Table 8.4.2.8.-B
Point Thermal Transmittance of Penetrations
Forming Part of Sentence 8.4.2.8.(4)

	Point Thermal Transmittance, in W/K Penetration of the reference *building* and the proposed *building* that complies with the prescriptive requirements	*Point Thermal Transmittance*, in W/K Penetration of the proposed *building* that does not comply with the prescriptive requirements
Any penetration	0.5	1.0

5) The derated *effective thermal resistance*, calculated in accordance with Sentence (4), may be determined for an entire *opaque building assembly*, provided that the adjacent *temperature-control zones* are maintained at temperatures that vary by not more than 10°C. (See Note A-8.4.2.8.(5).)".

8.4.2.9.

Replace the Article by the following:

"**8.4.2.9. Manually Operated Shading Devices**

1) The energy model shall not include the effect of manually operated shading devices such as blinds and shades.".

8.4.2.10.	Replace Sentences (1) to (5) by the following: "**1)** HVAC systems shall be modeled according to the established program conventions, without substituting their components with thermodynamically similar components or using approximated calculations. **2)** Programs shall account for the effect of HVAC systems on supply and return air temperature and on that of *conditioned spaces* including a) temperature rise of air due to heat from constant, variable or multiple speed fans, b) fan power as a function of modulation of supply airflow, c) temperature or humidity rise or drop of supply or return air due to sensible and latent heat transferred from a heat-recovery device, and d) temperature rise of the outdoor air due to preheaters. **3)** Programs shall account for the variation of efficiency and capacity of the HVAC systems as a function of part load of the systems. (See Note A-8.4.2.10.(3).) **4)** Where the program requires an individual efficiency rate of an equipment component of an HVAC system, the global efficiency rate of the equipment shall be adjusted accordingly before being entered into the program. (See Note A-8.4.2.10.(4).) **5)** Programs shall be able to assess the peak load according to the design conditions and to size accordingly the equipment and other components of the HVAC system.".
8.4.3.	Replace the heading by the following: "**8.4.3. Annual energy consumption and maximum power demand of the electrical system of the proposed building**".
8.4.3.1.	Replace Sentence (1) by the following: "**1)** The *annual energy consumption* and the maximum power demand of the electrical system of the proposed *building* must be calculated in accordance with this Subsection."; --- Replace "specifications" in Sentence (2) by "plans and specifications"; --- Replace Clauses (2)(d) and (2)(e) by the following: "d) *service water* heating system types, capacities and controls, e) electrical systems, and f) the delimitation of *temperature-control zones*."; --- Strike out Sentences (3) to (8).

8.4.3.2.	Replace the Article by the following: "**8.4.3.2. Operating Schedules** **1)** The operating schedules of the energy model shall be established a) using the planned operating schedules, where they are known, or b) in the absence of planned operating schedules, using operating schedules representative of the type of proposed *building* or functions of spaces. (See Note A-8.4.3.2.(1).)".
8.4.3.3.	Replace Sentences (2) to (4) by the following: "**2)** Where the modeler takes into account *fenestration* shading effects, the following conditions shall be complied with: a) the energy model shall include permanent shading devices, such as sun screens and reflective sills, and automated shading devices, b) the energy model shall include the surrounding shading effects from, for example, nearby *buildings* and landscaping elements, c) the energy model shall include the shading effects from the *building* itself, for example, caused by balconies, overhanging floors and the other wings of the *building*, and d) the solar heat gain and the visible solar transmittance coefficient of the *fenestration* of all the *building* shall be multiplied by an adjustment factor of 0.9. (See Note A-8.4.3.3.(2).) **3)** Where the modeler does not take into account *fenestration* shading effects, a) the solar heat gain coefficient and the visible solar transmittance coefficient of the *fenestration* of all the *building* shall be multiplied by an adjustment factor of 0.8 (see Note A-8.4.3.3.(3)(a)), and b) two adjacent outside surfaces whose azimuth or slope differ by not more than 45° may be modeled as a single surface. **4)** The air leakage rate of the total above-ground gross areas of walls and roofs shall be set to a constant value of 0.25 L/(s×m²). (See Note A-8.4.3.3.(4).) **5)** Where an *opaque building assembly* covers less than 5% of the total area of a wall or roof, the assembly may be excluded from the energy model, provided that the area is included in the adjacent *opaque building assembly* with a) an *effective thermal resistance* that differs by less than 20%, and b) an azimuth or slope that differs by not more than 45°. **6)** Where multiple *opaque building assemblies* have the same orientation, the energy model may use the same derated *effective thermal resistance* value for those assemblies, calculated as provided in Sentence 8.4.2.8.(4) using a) the following three values: i) the least performing *effective thermal resistance*, RSI_{Ei}, in (m²×K)/W, of the *opaque building assemblies*,

ii) the least performing *linear thermal transmittance*, Ψ, en W/(m×K), of the *opaque building assemblies* for each of the types of intersections, and

iii) the least performing *point thermal transmittance*, χ, in W/K, of the *opaque building assemblies* for each of the types of penetrations, or

b) the following three values:

i) the weighted *effective thermal resistance*, $RSI_{Eweighted}$, in (m²×K)/W, calculated using the following equation:

$$RSI_{Eweighted} = \frac{\sum_{i=1}^{n}(A_i)}{\sum_{i=1}^{n}\left(\frac{A_i}{RSI_{Ei}}\right)}$$

where

n = total number of *opaque building assemblies*,

A_i = area of *opaque building assembly* i, calculated in accordance with the requirements of Article 3.1.1.6., in m², and

RSI_{Ei} = *effective thermal resistance* of *opaque building assembly* i, in (m²×K)/W,

ii) the weighted *linear thermal transmittance* for each of the types j intersections, $\Psi_{weighted,j}$, in W/(m×K), calculated using the following equation:

$$\Psi_{weighted,j} = \frac{\sum_{i=1}^{n}(\Psi_i \times L_i)}{\sum_{i=1}^{n}(L_i)}$$

where

n = total number of *opaque building assemblies*,

Ψ_i = *linear thermal transmittance* of the type j intersection present on *opaque building assembly* i, in W/(m×K), and

L_i = length of the type j intersection occurring on *opaque building assembly* i, in m, and

iii) the weighted *point thermal transmittance* for each of the types j penetrations, $\chi_{weighted,j}$, in W/K, calculated using the following equation:

$$\chi_{weighted,j} = \frac{\sum_{i=1}^{n}(\chi_i \times N_i)}{\sum_{i=1}^{n}(N_i)}$$

where

n = total number of *opaque building assemblies*,

χ_i = *point thermal transmittance* of the type j penetration occurring on *opaque building assembly* i, in W/K, and

N_i = number of type j point penetrations occurring on the *opaque building assembly*.

7) Performance exchanges with *opaque building assemblies* in contact with the ground may be considered in the model on the following conditions:

a) the program shall not use methods based on regression analyses or on analytical calculations to calculate the annual heat transfer of *opaque building assemblies* in contact with the ground,

b) the program shall permit accurate modeling of the arrangement of the insulation and the properties of *opaque building assemblies* in contact with the ground, and

c) the calculation methods implemented by the programs shall be identical for the proposed and reference *buildings*.

(See Note A-8.4.3.3.(7).)

8) Where the *effective thermal resistance* of the opaque section of curtain walls has not been determined in accordance with Sentence 3.1.1.5.(6), the values in Sentence 3.3.1.3.(4) shall be used in the proposed *building*.".

8.4.3.4.

Replace Sentences (2) to (4) by the following:

"**2)** Where the proposed *building* contains controls based on space occupancy, personal controls or photocontrols, the lighting power connected to the control shall be multiplied by the factor for occupancy control, $F_{occ,i}$, the factor for personal control, $F_{pers,i}$, and the factor for photocontrol, F_{pho}, as determined in accordance with the following equations:

a) for the factor for occupancy control, $F_{occ,i}$:

$$F_{occ,i} = 1 - \left(C_{A,i} \times C_{occ,ctrl,i}\right)$$

where

$C_{A,i}$ = factor to account for the relative absence of occupants in the space determined using Table 8.4.3.4.-A,

$C_{occ,ctrl,i}$ = factor to account for the occupancy-sensing mechanism determined using Table 8.4.3.4.-B,

b) for the factor for personal control, $F_{pers,i}$:

$$F_{pers,i} = 1 - C_{pers,ctrl,i}$$

where

$C_{pers,ctrl,i}$ = factor to account for personal control determined using Table 8.4.3.4.-A, and

c) for the factor for photocontrol, $F_{pho,i}$:

$$F_{pho,i} = 1 - C_{pho,i}$$

where

$C_{pho,i}$ = factor to account for the reduction of photocontrol power determined in accordance with Sentence (3).

(See Note A-8.4.3.4.(2).)

Table 8.4.3.4.-A
Factors for Relative Absence of Occupants and Personal Control According to Space Type
Forming Part of Sentence 8.4.3.4.(2)

Space Types	Factors	
	Relative Absence of Occupants, $C_{A,i}$	Personal Control(1), $C_{pers,ctrl,i}$
Common Space Types		

Atrium	0	0 0.1 where C2
Audience seating area – permanent		
for auditorium	0.3	0
for convention centre	0.2	0
for gymnasium	0	0
for motion picture *theatre*	0	0
for penitentiary	0	0
for performing arts *theatre*	0	0
for religious *building*	0.3	0
for sports arena	0	0
other	0	0
Banking activity area and offices	0	0
Classroom/Lecture hall/Training room		
for penitentiary	0.5	0 0.1 where C2
other	0.5	0 0.1 where C2
Conference/Meeting/Multi-purpose room	0.5	0 0.1 where C2
Confinement cell	0	0
Copy/Print room	0.2	0
Corridor/Transition area		
for hospital	0	0 0.1 where C2
for manufacturing facility	0	0 0.1 where C2
for space designed to ANSI/IES RP-28, “Lighting and the Visual Environment for Senior Living” (and used primarily by residents)	0	0 0.1 where C2
other	0	0 0.1 where C2
Courtroom	0.2	0 0.1 where C2
Dining area		
for bar lounge/leisure dining	0	0 0.1 where C2
for cafeteria/fast food dining	0	0 0.1 where C2
for family dining	0	0 0.1 where C2

	for penitentiary	0	0 0.1 where C2
	for space designed to ANSI/IES RP-28, “Lighting and the Visual Environment for Senior Living” (and used primarily by residents)	0	0 0.1 where C2
	other	0	0 0.1 where C2
	Dressing/Fitting room for performing arts *theatre*	0.4	0
	Electrical/Mechanical room	0.9	0
	Emergency vehicle garage	0.5	0 0.1 where C2
	Food preparation area	0	0
	Guest room	0	0
	Laboratory		
	for classroom	0.4	0 0.1 where C2
	other	0	0
	Laundry/Washing area	0	0
	Loading dock – interior	0	0
	Lobby		
	for elevator	0	0 0.1 where C2
	for hotel	0	0 0.1 where C2
	for motion picture *theatre*	0	0 0.1 where C2
	for performing arts *theatre*	0	0 0.1 where C2
	for space designed to ANSI/IES RP-28, “Lighting and the Visual Environment for Senior Living” (and used primarily by residents)	0	0 0.1 where C2
	other	0	0 0.1 where C2
	Locker room	0.5	0
	Lounge/Break room		
	for health care facility	0	0
	other	0	0
	Office		
	enclosed	0.3	0 0.05 where C1 or C2
	open plan	0.2	0 0.05 where C1 or C2 0.25 where C3 0.3 where C4

Pharmacy area	0	0
Sales area	0	0
Seating area - general	0	0
Computer/Server room	0.7	0
Stairway, except stairwell	0	0
Stairwell	0	0
Storage garage - interior	0.4	0 0.1 where C2
Storage room	0.6	0
Vehicle maintenance area	0	0
Washroom for space designed to ANSI/IES RP-28, “Lighting and the Visual Environment for Senior Living” (and used primarily by residents) other	0.5 0.5	0 0
Workshop	0	0
Building-Specific Space Types		
Convention centre – exhibit space	0	0
Dormitory – living quarters	0	0
Fire station – sleeping quarters	0	0
Gymnasium/Fitness centre exercise area playing area	 0 0	 0.1 where C2 0.1 where C2
Health care facility exam/treatment room imaging room medical supply room nursery nurses’ station operating room patient room physical therapy room	 0.3 0 0.5 0 0 0.1 0.1 0.2	 0 0 0 0 0 0 0 0

	recovery room	0	0
	Library		
	reading area	0	0
	stacks	0	0
	Manufacturing facility		
	detailed manufacturing area	0	0
	equipment room	0.2	0
	extra high bay area (> 15 m floor-to-ceiling height)	0	0
	high bay area (7.5 m to 15 m floor-to-ceiling height)	0	0
	low bay area (< 7.5 m floor-to-ceiling height)	0	0
	Museum		
	general exhibition area	0.2	0
	restoration room	0.3	0
	Post office - sorting area	0	0
	Religious *building*		
	fellowship hall	0.3	0
	worship/pulpit/choir area	0.1	0
	Retail facility		
	dressing/fitting room	0.4	0
	mall concourse	0	0 0.1 where C2
	Space designed to ANSI/IES RP-28, “Lighting and the Visual Environment for Senior Living”		
	chapel (used primarily by residents)	0.5	0
	recreation room (used primarily by residents)	0.2	0
	Sports area – playing area		
	playing area with facilities for more than 5000 spectators	0	0
	playing area with facilities for more than 2000 spectators and not more than 5000 spectators	0	0

playing area with facilities for more than 200 spectators and not more than 2000 spectators	0	0
playing area with facilities for less than 200 spectators or without a facility for spectators	0	0
Transportation facility		
airport concourse	0	0
baggage/carousel area	0	0
terminal ticket counter	0	0
Warehouse – storage area		
medium to bulky palletized items	0.5	0
small hand-carried items[2]	0.5	0

Notes to Table 8.4.3.4.-A:

[1] Controls C1, C2, C3 and C4 are defined in Table 4.2.1.6.
[2] See Note A-Table 4.2.1.6.

Table 8.4.3.4.-B
Factor to Account for Occupancy-Sensing Mechanism, Cocc,ctrl,i
Forming Part of Sentence 8.4.3.4.(2)

Occupancy-Sensing Mechanism	$C_{occ,ctrl,i\,i}$
Automatic full off (full on)	0.67
Automatic full off (restricted to manual on or automatic partial on)	0.75
Automatic partial off (restricted to manual on)	0.34
Manual (on/off or bi-level)	0.30
None	0

Table 8.4.3.4.-C
Factor to Account for Reduction of Photocontrol Power, $C_{pho,i}$
Forming Part of Sentence 8.4.3.4.(3)

Photocontrol Mechanism	$C_{pho,i\,i}$
Bi-level photocontrol	0.1
Continuous dimming photocontrol	0.3
Multi-level photocontrol	0.2
None	0

3) The factor for photocontrol, $F_{pho,i}$, may be determined by

a) Table 8.4.3.4.-C, or

b) a program whose functions consist in performing detailed calculations of daylighting and the dynamic response of photocontrols.

4) The use of the factor for photocontrol, $F_{pho,i}$, is permitted to reduce the *installed interior lighting power*

a) where lighting devices are in a daylighted space and are connected to photocontrols, and

	b) where the setpoint of lighting devices connected to photocontrols is representative of the use of the space without task lighting. (See Note A-8.4.3.4.(4).)".
8.4.3.5.	Replace "a gas-fired" in Sentence (2) by "an electrical"; Replace Clause (2)(b) by the following: "b) has a constant efficiency of 100% independently from the load."; Replace "Forming Part of Sentences 8.4.3.5.(3) and 8.4.4.6.(2)" under the heading of Table 8.4.3.5. by the following: "Forming Part of Sentence 8.4.3.5.(3)"; Replace "a gas-fired" in Sentence (4) by "an electrical"; Replace Clause (4)(b) by the following: "b) has a constant efficiency of 100% independently from the load, and"; Insert "proposed" before "storage tank" in Clause (4)(c).
8.4.3.6.	Replace the Article by the following: "**8.4.3.6. HVAC Systems** **1)** The program shall provide that the exhaust airflow and outdoor air ventilation of each HVAC system are not less than the minimum outdoor airflow required for acceptable indoor air quality as prescribed by the NBC. (See Note A-8.4.3.6.(1).) **2)** Part-load operation of HVAC system's equipment of the proposed *building* shall be modeled a) from the equipment technical characteristics, where they are known and the program is able to model the part load of HVAC system's equipment, or b) in other cases i) in accordance with the performance curves under part load in Subsection 8.4.5., or ii) with the operating curves under default part load provided for in the programs provided that they are representative. (See Note A-8.4.3.6.(2).)

8.4.3.7.	Replace the Article by the following: "**8.4.3.7. Temperature-Control Zones** **1)** Each *temperature-control zone* of the proposed *building* shall be modeled in one of the following manners: a) heated, if only heating HVAC systems are provided or planned, b) cooled, if only cooling HVAC systems are provided or planned, or c) heated and cooled, if heating and cooling HVAC systems are provided or planned. **2)** Except as provided in Sentence (4), where the spaces served by the HVAC system are specified in the plans and specifications, each space shall be modeled as a single *temperature-control zone*. **3)** Except as provided in Sentence (4), where the spaces served by the HVAC system are not entirely specified in the plans and specifications, the spaces shall be modeled in several *temperature-control zones* delimited as follows: a) an indoor *temperature-control zone*, delimited at 4.5 m from the outdoor glazed facade, b) one or more peripheral *temperature-control zones* delimited between i) the indoor *temperature-control zone* in Clause (a), ii) the outdoor glazed facades, and iii) the location where the azimuth of an outdoor glazed facade varies by more than 45° in relation to another adjacent outdoor glazed facade, and c) *temperature-control zones* delimited by *storey*. (See Note A-8.4.3.7.(3).) **4)** The grouping of *temperature-control zones* in *thermal blocks* is permitted.".
8.4.3.8.	Replace the Article by the following: "**8.4.3.8. Internal and Service Water Heating Loads** **1)** The internal loads and the needs in *service water* used in calculating energy compliance shall be representative of the functions of the spaces or the type of proposed *building*. (See Note A-8.4.3.8.(1).)".
8.4.3.9.	Replace the Article by the following: "**8.4.3.9. Energy Recovered on Site and Renewable Energy Produced on Site** **1)** Where the proposed *building* uses technologies for recovering energy that is not required in Subsection 5.2.10., it is permitted to subtract that energy from the *annual energy consumption* if it is not intended for sale. (See Note A-8.4.3.9.(1) and (2).) **2)** Where the proposed *building* uses technologies for producing renewable energy on site, it is permitted to subtract that energy from the *annual energy consumption*, up to 5% of the *annual energy consumption*, if it is not intended for sale. (See Note A-8.4.3.9.(1) and (2).)

	3) Where the program in Article 8.4.2.2. does not have the function of modeling the technology in Sentences (1) and (2), it is permitted to quantify the energy recovered on site or the renewable energy produced on site by using another tool or another calculation method covering a one-year period (8760 h).”.
8.4.4.	Replace the heading by the following: “**8.4.4. Building energy target and maximum power demand of the electrical system of the reference building**”.
8.4.4.1.	Replace Sentence (1) by the following: “**1)** The *building energy target* and the maximum power demand of the electrical system of the reference *building* must be calculated based on the parameters described in this Subsection.”; Add “(See Note A-8.4.4.1.(2).)” at the end of Sentence (2); Insert “and Subsection 8.4.3.” after “this Subsection” in Sentence (4); Replace Clauses (4)(c) to (4)(e) by the following: “c) number, type and need for heating or cooling *thermal blocks* and *temperature-control zones*, d) shape and exterior dimensions, including contiguous ground level, e) orientation, f) air leakage rates, g) solar heat gain coefficient and visible solar transmittance coefficient of *fenestration*, h) *fenestration* shading effects due to surrounding elements and those from the *building* itself, i) insulation arrangement and *effective thermal resistance* of *opaque building assemblies* in contact with the ground, j) thermal mass of *building envelope*, k) operating schedules, l) setpoint temperatures and humidity of spaces, m) setpoint *service water* heating temperature, n) temperature of water from the public distribution network or a private source, o) plug loads, p) values associated to activities and processes, such as power, energy sources and heat produced, q) HVAC systems associated only to processes,

	r) densities of *installed interior lighting power* of *dwelling units*, s) factor for occupancy control determined in accordance with Clause 8.4.3.4.(2)(a), t) radiating and convective distribution of heat gains emitted by lighting, u) *interior lighting* for the functions, spaces or equipment referred to in Sentence 4.2.1.4.(4), v) occupancy densities, w) sensible heat and latent heat produced by occupants, x) location, orientation and dimensions of *fenestration* and doors, and y) thermal properties of ground, such as thermal conductivity, specific heat and density. (See Note A-8.4.4.1.(4).)"; Replace Sentences (5) to (7) by the following: "**5)** Climatic data used in compliance calculations for the proposed *building* shall be applied as being identical in the reference *building*. **6)** Where the proposed *building* uses an energy source, that energy source shall also be present for the same purposes in the modeling of the reference *building*. **7)** Where the proposed *building* uses more than one energy source, the power ratios between the energy sources and priority of use of those sources in the proposed *building* shall be modeled as being identical in the reference *building*. **8)** Except as provided in Sentence (9), the energy efficiency of the reference *building* equipment shall a) comply with Sentences 5.2.12.1.(1), 6.2.2.1.(1), 7.2.3.1.(1) and 7.2.4.1.(1), or b) in the absence of applicable values under Clause (a), be identical to that of the proposed *building's* corresponding equipment. (See Note A-8.4.4.1.(8) and (9).) **9)** The use, in modeling the reference *building*, of the minimum equipment energy efficiency provided for in the Energy Efficiency Act (S.C. 1992, c. 36) and its regulations, is permitted a) where that equipment is covered by the Energy Efficiency Act (S.C. 1992, c. 36) and its regulations, and b) where that equipment is not covered by the Act respecting energy efficiency and energy conservation standards for certain products (chapter N-1.01) and its regulations. (See Note A-8.4.4.1.(8) and (9).)".

8.4.4.2.	Strike out the Article.
8.4.4.3.	Replace Sentences (1) to (8) by the following: "**1)** The solar absorptance of *opaque building assemblies* shall be set at 0.7. **2)** Where, in the proposed *building*, a) the ratio in Sentence 3.2.1.4.(1) is greater than 40%, the ratio shall be set, in the reference *building*, at 40% of the gross wall area i) by proportionally reducing the area of each of the doors and each of the *fenestration* elements, excluding *skylights*, and ii) so that the relative opening proportion on each of the proposed *building* orientations is identical to that of the reference *building*, and b) the ratio in Sentence 3.2.1.4.(2) is greater than 3%, the ratio shall be set, in the reference *building*, at 3% of the gross roof area by proportionally reducing the area of each of the *skylights*. **3)** Permanent *fenestration* shading devices and projections shall not be modeled in the reference *building*. (See Note A-8.4.4.3.(3).) **4)** Where performance exchanges with *opaque building assemblies* in contact with the ground shall be considered in the proposed *building*, in accordance with Sentence 8.4.3.3.(7), those assemblies shall be modeled in the reference *building* so as to comply with the requirements of Subsection 3.2.3.".
8.4.4.4.	Replace Sentence (1) by the following: "**1)** The thermal characteristics of the reference *building's building envelope* is permitted to be modeled as being identical to those of lightweight construction having a weight of 55 kg/m² and a thermal capacity of 50 kJ/(m²×°C). (See Note A-8.4.4.4.(1).)".
8.4.4.5.	Replace Sentence (3) by the following: "**3)** Where controls based on space occupancy are provided in the proposed *building*, the lighting power related to that control in the reference *building* shall be multiplied by the same factor for occupancy control, $F_{occ,i}$, as determined in accordance with Article 8.4.3.4. for the appropriate occupancy-sensing mechanism."; --- Strike out Sentences (4) to (12).

8.4.4.6.	Replace the Article by the following: "**8.4.4.6. HVAC Systems and Service Water Heating Systems** **1)** The reference *building's* corresponding equipment shall be modeled in accordance with the requirements in Sentences 8.4.3.5.(2) to (5) a) where the heating equipment of the proposed *building* uses purchased energy, or b) where the cooling equipment of the proposed *building* uses purchased energy. **2)** Where the proposed *building* uses a heat pump for heating, the reference *building's* corresponding equipment shall a) be sized for the peak heating load of the heating system, in accordance with Sentence 8.4.2.10.(5), and b) use electricity as energy source and be modeled i) in a hydronic loop compliant with the requirements of Sentence 8.4.4.9.(2), where the heat pump is on a water loop, a water-source or ground-source, or ii) as equipment with an electric resistance in accordance with the requirements of Sentence 8.4.4.9.(4), in the case of an air-source heat pump. (See Note A-8.4.4.6.(2) and (3).) **3)** Where the proposed *building* uses a heat pump for cooling, the reference *building's* corresponding equipment shall be a chiller and shall a) be sized for the peak cooling load of the cooling system, in accordance with Sentence 8.4.2.10.(5), b) use electricity as energy source and be modeled as i) an air chiller, in accordance with Sentence 8.4.4.10.(2), where the heat pump is a water-source or ground-source heat pump, ii) a water chiller, in accordance with Sentence 8.4.4.10.(2), where the heat pump is a water-loop heat pump, or iii) a direct-expansion chiller, in accordance with Sentence 8.4.4.10.(3), where the heat pump is an air heat pump, and c) have a COP varying depending on the load. (See Note A-8.4.4.6.(2) and (3).) **4)** The capacity or flow of an equipment of the HVAC system of the reference *building* shall be proportionally adjusted according to the corresponding equipment sizing factor of the proposed *building's* equipment calculated based on the procedure described in ASHRAE/IES 90.1, "User's Manual" (see Note A-8.4.4.6.(4)). **5)** The performance characteristics of HVAC systems and *service water* heating devices shall be modeled in accordance with part-load performance curves in Subsection 8.4.5. **6)** The reference *building's* fans of the HVAC system shall a) comply with the requirements of Subsection 5.2.3., or

b) where Subsection 5.2.3. does not apply, have a “peak/flow power demand” identical to that of the proposed *building’s* corresponding fans.

7) The reference *building*’s HVAC systems shall comply with the requirements of Subsection 5.2.10.

8) Where the proposed *building* is provided with a commercial cooking ventilation system, the system referred to in Sentence 5.2.13.1.(2) shall be modeled in the reference *building* so that exhaust and compensation flows are reduced to 50% of the rated flows during half of the operating hours.

9) The equipment of the HVAC system modeled in the reference *building* shall be controlled in accordance with the requirements of Subsection 5.2.8.”.

8.4.4.7.

Replace Sentences (1) to (4) by the following:

“**1)** Each HVAC system of the proposed *building* shall have a corresponding HVAC system for the reference *building* determined in accordance with Sentences (2) to (4).

2) Except as stated otherwise in this Subsection, each air distribution system modeled in the proposed *building* shall be present in the modeling of the reference *building*. (See Note A-8.4.4.7.(2) and (3).)

3) Except as stated otherwise in this Subsection, each hydronic loop of the proposed *building* shall be present in the modeling of the reference *building*. (See Note A-8.4.4.7.(2) and (3).)

4) Each HVAC system of the proposed *building* shall be modeled using the reference *building’s* corresponding HVAC system, determined in accordance with Table 8.4.4.7.-A, the corresponding descriptions shown in Tables 8.4.4.7.-B to 8.4.4.7.-E.

Table 8.4.4.7.-A
HVAC System Selection for the Reference Building
Forming Part of Sentence 8.4.4.7.(4)

HVAC system of the proposed *building*			HVAC system of the reference *building*
Type of Dominating Cooling[1] supplied to one or a number of *Temperature-control* zones	Type of Dominating Heating[1] supplied to one or a number of *Temperature-control Zone*	Outdoor Air Supplied :	
Central system distributing cooled air	Central system distributing heating air or air heated by one or more terminal zone boxes	One *temperature-control zone*	S1a/S1b – Single-zone
		Several *temperature-control zones*	S2a/S2b – Multi-zone
	Forced convection terminal system	One *temperature-control zone*	S1a/S1b/S1c – Single-zone
		Several *temperature-control zones*	S2a/S2b/S2c – Multi-zone
	Single natural convection perimeter system	One *temperature-control zone*	S1a/S1b – Single-zone
		Several *temperature-control zones*	S2a/S2b – Multi-zone

Forced convection terminal system	Central system distributing heating air or air heated by one or more terminal zone boxes	One *temperature-control zone*	S1c – Single-zone
		Several *temperature-control zones*	S2c – Multi-zone
	Forced convection terminal system	One *temperature-control zone*	S3a – 100% outdoor air with local ventilation
		Several *temperature-control zones*	S3b – 100% outdoor air with local ventilation
	Single natural convection perimeter system	One *temperature-control zone*	S3a – 100% outdoor air with local ventilation
		Several *temperature-control zones*	S3b – 100% outdoor air with local ventilation
Induction terminal system(2)	All types of heating	One *temperature-control zone*	S1b – Single-zone
		Several *temperature-control zones*	S2b – Multi-zone
No cooling	Central system distributing heating air or air heated by one or more terminal zone boxes	One *temperature-control zone*	S1d – Single-zone
		Several *temperature-control zones*	S2d – Multi-zone
	Forced convection terminal system	One *temperature-control zone*	S3a – 100% outdoor air with local ventilation
		Several *temperature-control zones*	S3b – 100% outdoor air with local ventilation
	Single natural convection perimeter system	One *temperature-control zone*	S4a – 100% outdoor air without local ventilation
		Several *temperature-control zones*	S4b – 100% outdoor air without local ventilation

Notes to Table 8.4.4.7.-A:
(1) System that takes most of the heating or cooling load, as the case may be.
(2) See Note A-Table 8.4.4.7.-A.

Table 8.4.4.7.-B
S1a, S1b, S1c and S1d Systems – Single-zone, Single-sleeve, Constant Flow
Forming Part of Sentences 8.4.4.7.(4) and 8.4.4.18.(3)

Description	Constant-air-volume system that varies the supply temperature. Control of the system is provided by a zone thermostat. It may be a combined heating and conditioning system installed on the roof or an integrated system served by a chiller-*boiler* assembly.
Supply airflow	Constant, as defined in Article 8.4.4.18.

Supply air temperature	Variable according to the load of the *temperature-control zone*.
Supply fan	S1a – If the cooling system of the proposed *building* is direct-expansion, the supply fan must provide a static pressure of 325 Pa and have a combined energy efficiency of at least 40%.
	S1b – If the cooling system of the proposed *building* is hydronic, the supply fan must provide a static pressure of 500 Pa and have a combined energy efficiency of at least 50%.
	S1c and S1d – If cooling or heating of the zone is provided only by a forced or natural convection system, or if the proposed *building* does not have a cooling system, the supply fan must provide a static pressure of 200 Pa and have a combined energy efficiency of at least 40%.
	For S1a, S1b, S1c and S1d: – if the proposed *building* has a return fan, the reference *building* shall be modeled with a return fan providing a static pressure of 150 Pa and having an energy efficiency of at least 25%; – possibility of adjusting the reference static pressure in accordance with Sentence 8.4.4.18.(3).
Local fan	S1c –Fan providing the cooling or heating forced convection of the zone. The fan must provide a power of 0.6 W/L/s. Operates on demand when the system is operating.
Outdoor air	As described in Article 8.4.4.15. Where Article 5.2.2.7. applies, the supply is 100% of outdoor air controlled by a fixed dry bulb in accordance with Table 5.2.2.8.-A. The economizer system is integrated with the mechanical cooling in accordance with Article 5.2.2.7.(3).
Operating schedule	As described in Article 8.4.3.2.
Heating system	As described in Article 8.4.4.9.
Cooling system	As described in Article 8.4.4.10.

Table 8.4.4.7.-C
S2a, S2b, S2c and S2d Systems – Multi-zone, Single-sleeve, Variable Flow
Forming Part of Sentences 8.4.4.7.(4) and 8.4.4.18.(3)

Description	Variable-air-volume and constant supply temperature system. The airflow is determined by the zone variable-air-volume terminal zone boxes. It may be a combined heating and conditioning system installed on the roof or an integrated system served by a chiller-*boiler* assembly type.
Terminal zone boxes	If the proposed *building's temperature-control zone* is supplied by terminal zone boxes with fan, – refer to Sentence 8.4.4.17.(5) to size the minimum and maximum flow of the terminal zone box, – the terminal zone box fan must provide a combined power of 0.74 W/L/s.

	If the proposed *building's temperature-control zone* is supplied by terminal zone boxes without fan, – refer to Sentence 8.4.4.17.(4) to size the minimum and maximum flow of the terminal zone box, – if the terminal zone box is controlled by a direct digital control system, the static pressure setpoint shall be adjusted in accordance with Sentence 5.2.3.3.(5).
Supply airflow	Variable, maximum flow as defined in Article 8.4.4.18.
Supply air temperature	Variable according to outdoor temperature, – if the outdoor temperature is less than 13°C, the supply temperature is 18°C; – if the outdoor temperature is greater than 18°C, the supply temperature is 13°C; – where the outdoor temperature is between 13°C and 18°C, the supply temperature varies linearly between 18°C and 13°C.
Supply fan	S2a – If the proposed *building's* cooling system is direct-expansion, the supply fan must provide a static pressure of 750 Pa and have a combined energy efficiency of 45%; if the proposed *building* has a return fan, the reference *building* shall be modeled with a return fan providing a static pressure of 150 Pa and have an energy efficiency of at least 25%.
	S2b – If the proposed *building's* cooling system is hydronic, the supply fan must provide a static pressure of 1000 Pa and have a combined energy efficiency of 55%; if the proposed *building* has a return fan, the reference *building* shall be modeled with a return fan providing a static pressure of 250 Pa and have an energy efficiency of at least 45%.
	S2c and S2d – If the zone cooling or heating is provided only by a forced or natural convection system, or if the proposed *building* does not have a cooling system, the supply fan must provide a static pressure of 620 Pa and have a combined energy efficiency of 40%; if the proposed *building* has a return fan, the reference *building* shall be modeled with a return fan providing a static pressure of 150 Pa and have an energy efficiency of at least 25%.
	For S2a, S2b, S2c and S2d: – possibility of adjusting the reference static pressure as described in Sentence 8.4.4.18.(3), – part-load curve as described in Article 8.4.5.11., – the supply fan shall be modeled as a forward curved fan with inlet vanes.
Local fan	S2c – System fan providing the cooling or heating forced convection of the zone. The fan shall provide a power of 0.6 W/L/s. Operates on demand where the system is operating.
Outdoor air	As described in Article 8.4.4.15. Where Article 5.2.2.7. applies, the supply is 100% outdoor air controlled by a fixed dry bulb in accordance with Table 5.2.2.8.-A. The economizer system is integrated with the mechanical cooling in accordance with Article 5.2.2.7.(3).
Operating schedule	As described in Article 8.4.3.2.
Heating system	As described in Article 8.4.4.9.
Cooling system	As described in Article 8.4.4.10.

Table 8.4.4.7.-D
S3a, S3b Systems – 100% Outdoor Air with Local Ventilation for Heating
Forming Part of Sentences 8.4.4.7.(4) and 8.4.4.18.(3)

Description	System conveying 100% outdoor air to the *temperature-control zone*.
Outdoor airflow	Constant, as defined in Article 8.4.4.18.
Supply air temperature	Identical to that of the proposed *building*.
Supply fan (100% outdoor air)	Operates continually when the system is operating.
	S3a – If the supply fan supplies only that *temperature-control zone*, the supply fan must provide a static pressure of 150 Pa and have a combined energy efficiency (fan-motor-drive) of at least 20%, without return fan.
	S3b – If the supply fan supplies several *temperature-control zones*, the supply fan must provide a static pressure of 325 Pa and have a combined energy efficiency of at least 40%, without return fan.
	Possibility of adjusting the static pressure as described in Sentence 8.4.4.18.(3).
Local fan	Fan providing a power of 0.6 W/L/s. Operates on demand where the system is operating.
Outdoor air	As described in Article 8.4.4.15.
Operating schedule	As described in Article 8.4.3.2.
Heating system	As described in Article 8.4.4.9.
Cooling system	As described in Article 8.4.4.10.

Table 8.4.4.7.-E
S4a, S4b Systems – 100% Outdoor Air without Local Ventilation for Heating
Forming Part of Sentences 8.4.4.7.(4) and 8.4.4.18.(3)

Description	System conveying 100% outdoor air to the *temperature-control zone*.
Outdoor airflow	Constant, as described in Article 8.4.4.18.
Supply air temperature	Identical to that of the proposed *building*.
Supply fan (100% outdoor air)	Operates continually when the system is operating.
	S4a – If the supply fan supplies only that *temperature-control zone*, the supply fan must provide a static pressure of 150 Pa and have a combined energy efficiency (fan-motor-drive) of at least 20%, without return fan.
	S4b – If the supply fan supplies several *temperature-control zones*, the supply fan must provide a static pressure of 325 Pa and have a combined energy efficiency of at least 40%, without return fan.
	Possibility of adjusting the static pressure as described in Sentence 8.4.4.18.(3).
Outdoor air	As described in Article 8.4.4.15.
Operating schedule	As described in Article 8.4.3.2.

	<table><tr><td>Heating system</td><td>As described in Article 8.4.4.9.</td></tr><tr><td>Cooling system</td><td>As described in Article 8.4.4.10.</td></tr></table> ".
8.4.4.8.	Strike out the Article.
8.4.4.9.	Replace Sentences (1) to (8) by the following: "**1)** Where the proposed *building's* HVAC system has no heating capacity, the reference *building's* corresponding HVAC system shall have no heating capacity. **2)** Where, in the proposed *building*, the heating system is hydronic, the reference *building's* corresponding heating system shall be modeled using a hydronic loop on the following conditions: a) the heating system shall be i) a single-stage *boiler*, where the heating capacity is not more than 176 kW, ii) a two-stage *boiler*, the lowest stage operating first at 50%, where the heating capacity is more than 176 kW but not more than 352 kW, or iii) a modulating *boiler* between 25% and 100% of its capacity, where the heating capacity is more than 352 kW, b) the pumping system shall be modeled by a variable-flow pump on a single primary water loop, and that pump shall i) ride its performance curve, or ii) be variable-speed when the pumping system is referred to in Clause 5.2.6.1.(1)(a), c) the peak pumping flow rate shall be sized using the following parameters: i) the heating capacity of the *boiler*, ii) a heat transfer fluid supply temperature of 82°C, and iii) a heat transfer fluid return temperature of 54°C (see Note A-8.4.4.9.(2)(c), 8.4.4.10.(2)(d) and 8.4.4.11.(4)(b)), d) the peak pumping power demand shall be identical to the sum of the peak pumping power demands used for the proposed *building* heating loop (see Note A-8.4.4.9.(2)(d), 8.4.4.10.(2)(e) and 8.4.4.11.(4)(c)), and e) the hot water supply temperature shall be set to i) at least 82°C for an outside air temperature of not more than -16°C, and ii) not more than 60°C for an outside air temperature of at least 0°C. **3)** Where the heating system of the proposed *building* is a *furnace*, the reference *building's* corresponding heating system shall be a *furnace* and it shall be modeled as follows: a) where the heating capacity is not more than 66 kW, the *furnace* shall be modeled as a two-stage heating device of equal capacity, and

b) where the heating capacity is more than 66 kW, the *furnace* shall be modeled as a device whose number of heating stages is equal to its capacity divided by 66 kW, then rounded to the next whole number.

4) Where the heating system of the proposed *building* is an electric resistance, the reference *building's* corresponding heating system shall be an electric resistance having a constant efficiency of 100% independently of load.".

8.4.4.10.

Replace Sentences (1) to (9) by the following:

"**1)** Where the proposed *building's* HVAC system has no cooling capacity, the reference *building's* corresponding HVAC system shall have no cooling capacity.

2) Where the cooling system of the proposed *building's* is hydronic, the cooling system of the reference *building* shall be hydronic and shall be modeled according to the following conditions:

a) the number and type of chillers shall be determined using Table 8.4.4.10.,

b) a single primary chilled water loop shall be modeled with as many pumps as there are chillers defined in Clause (a),

c) the pumping system shall be modeled with variable flow, and its pumps shall

i) ride their performance curve, or

ii) be variable-speed where the pumping system is referred to in Clause 5.2.6.1.(1)(a),

d) the peak pumping flow shall be sized using the following parameters:

i) the total cooling capacity of the reference *building's* system,

ii) a heat transfer fluid supply temperature of 7°C, and

iii) a heat transfer fluid return temperature of 13°C (see Note A-8.4.4.9.(2)(c), 8.4.4.10.(2)(d) and 8.4.4.11.(4)(b)), and

e) the peak pumping power demand shall be identical to the sum of the peak pumping power demands used for the proposed *building's* cooling loop (see Note A-8.4.4.9.(2)(d), 8.4.4.10.(2)(e) and 8.4.4.11.(4)(c)).

Table 8.4.4.10.
Number and Type of Chillers
Forming Part of Sentence 8.4.4.10.(2)

Total Cooling Capacity	Number	Type
≤ 352 kW	1	Reciprocating, water-cooled
> 352 kW and ≤ 1055 kW	1	Scroll, water-cooled
> 1055 kW and ≤ 2110 kW	2, of equal cooling capacity	Scroll, water cooled
> 2110 kW	2 or more, of equal cooling capacity; the cooling capacity of each chiller shall be not more than 2813 kW	Centrifugal, water-cooled

3) Where the cooling system of the proposed *building* is a direct-expansion system, the reference *building's* cooling system shall be a direct-expansion system and that system shall be modeled as follows:

	a) where the cooling capacity of the system is not more than 66 kW, the system shall be modeled as a two-stage system of equal capacity, and b) where the cooling capacity is more than 66 kW, the system shall be modeled as a system whose number of stages is equal to its capacity divided by 66 kW, then rounded to the next whole number.”.
8.4.4.11.	Strike out “Where applicable,” in Sentence (1); Replace Sentences (4) to (7) by the following: “**4)** The cooling tower pumping system shall be modeled a) as a constant-speed system, b) with a flow rate sized using the following parameters: i) the cooling tower’s capacity, and ii) a rise of the heat transfer fluid temperature of 6°C (see Note A-8.4.4.9.(2)(c), 8.4.4.10.(2)(d) and 8.4.4.11.(4)(b)), and c) with a peak pumping power demand identical to the sum of the peak pumping power demands used for the proposed *building* loop (see Note A-8.4.4.9.(2)(d), 8.4.4.10.(2)(e) and 8.4.4.11.(4)(c)). **5)** The fan of each cooling tower cell shall be modeled as a constant-speed axial fan a) with a stop-start control that maintains the tower outlet water temperature at 29°C, and b) whose motor has a rated capacity equal to 1.5% of the cell cooling capacity, in kW.”.
8.4.4.12.	Strike out the Article.
8.4.4.13.	Strike out the Article.
8.4.4.14.	Replace the Article by the following: “**8.4.4.14. Pumps** **1)** Except as provided in Sentences 8.4.4.9.(2), 8.4.4.10.(2), 8.4.4.11.(4) and 8.4.4.20.(4), pumps shall be modeled in the reference *building* so that, for each pump, the ratio between the peak power demand and the peak pumping flow is identical to that of the proposed *building’s* corresponding pump. **2)** Where the pumping system is a variable-flow system, the pumps referred to in Sentence (1) shall be modeled in accordance with Article 8.4.5.10. as a) pumps that ride their performance curve, or

	b) pumps with variable speed drive, where the pumping system is referred to in Clause 5.2.6.1.(1)(a).”.
8.4.4.15.	Replace Sentence (2) by the following: “**2)** It is permitted to consider that the outdoor airflow of a *temperature-control zone* of the reference *building* is the outdoor airflow of the same *temperature-control zone* of the proposed *building* multiplied by 1.2 a) where the distribution air of the proposed *building* is circulated i) near the floor; ii) at a temperature less than that of the *temperature-control zone*, iii) unidirectionally, and iv) at low velocity, and b) where the return air of the proposed *building* is captured near the ceilings.”.
8.4.4.16.	Strike out the Article.
8.4.4.17.	Replace the Article by the following: “**8.4.4.17. Fans** **1)** Where the HVAC system of a *thermal block* of the proposed *building* includes a fan that exhausts air directly to the outside and meets the requirements of Sentences 5.2.3.1.(3) or 5.2.10.1.(3), its flow rate, power demand, operating schedule and part-load performance shall be modeled identically in the reference *building*. **2)** Constant-volume fans shall be modeled as airfoils without inlet vanes riding their performance curves, in accordance with Article 8.4.5.11. **3)** Variable-volume fans shall be modeled as forward curves with inlet vanes, in accordance with Article 8.4.5.11. **4)** The terminal zone boxes without fan of a variable-flow HVAC system shall be modeled taking into consideration a minimum flow as being the greater of a) 30% of the peak flow of the *temperature-control zone*, or b) the outdoor airflow required for acceptable indoor air quality in the *temperature-control zone* as prescribed by the NBC. **5)** The terminal zone boxes with fan of a variable-flow HVAC system shall be modeled as having a) a minimum flow equal to the outdoor airflow required for acceptable indoor air quality in the *temperature-control zone* as prescribed by the NBC, and b) a parallel fan i) whose maximum flow is set at 50% of the peak flow of the *temperature-control zone*, and ii) whose ratio between the peak power demand and the flow is 0.74 W/(L/s).

	6) Return or relief fans shall be modeled with a peak flow as being the greater of a) the supply fan peak flow less the outdoor airflow rate, and b) 90% of the supply fan peak flow.”.
8.4.4.18.	Replace the Article by the following: “**8.4.4.18. Air Supply System** **1)** The supply airflow rate provided by HVAC systems shall be modeled as being equal to the sum of the airflow rates supplied to each *temperature-control zones* calculated in accordance with Sentence (2). **2)** The supply airflow rate to a *temperature-control zone* shall be modeled as being the greatest of a) the airflow rate for heating, based on the peak heating load and a temperature difference of 21°C, b) the airflow rate for cooling, based on the peak cooling load and a temperature difference of 11°C, or c) the outdoor air ventilation rate supplied to the *temperature-control zone*, in accordance with Article 8.4.4.15. **3)** Where a fan of the proposed *building* is part of an HVAC system whose total fan power ratings is at least 4 kW, the static pressure of the reference *building's* corresponding fan is permitted to be adjusted using the following equation: $$P_{\text{Ref adjusted}} = P_{\text{Ref}} + \sum_{i=1}^{n} \frac{SPA_i \times D_{i,\text{Prop}}}{D_{vi,\text{Prop}}}$$ where $P_{\text{Ref adjusted}}$ = adjusted pressure of the fan in the reference *building*, in Pa, P_{Ref} = pressure of the fan in the reference *building* as established in Tables 8.4.4.7.-B to 8.4.4.7.-E, in Pa, SPA_i = static pressure adjustment due to the i^{th} equipment as established in Table 5.2.3.1., in Pa, n = number of equipment requiring static pressure adjustment, $D_{i,\text{Prop}}$ = flow through the i^{th} equipment of the proposed *building*, in L/s, and $D_{vi,\text{Prop}}$ = design flow rate of fan serving the i^{th} equipment of the proposed *building*, in L/s.”.
8.4.4.19.	Replace Sentences (1) to (3) by the following: “**1)** Where the proposed *building*'s HVAC system must be equipped with heat- or energy-recovery equipment under Sentence 5.2.10.1.(1), that equipment shall be modeled in the reference *building* to the following conditions: a) the static pressures of fans shall be adjusted according to Sentence 8.4.4.18.(3), and

	b) the heat-recovery efficiency shall be i) 60%, or ii) 65% for *dwelling units* located in a municipality whose number of heating degree-days under 18°C is 6000 or more. **2)** Where the proposed *building* has refrigeration systems referred to in Article 5.2.10.3., the reference *building's* refrigeration system shall be modeled to the following conditions: a) the operating and performance characteristics, capacity, part-load performance and pumping flows shall be identical to those of the proposed *building's* refrigeration system, b) peak load and demand schedules shall be identical to those of the proposed *building*, c) the heat-recovery equipment shall have i) the capacity to reject recovered heat to the hydronic heating systems, and ii) the same means to reject unrecovered heat as that of the proposed *building*, and d) the efficiency of the heat-recovery equipment shall be the smaller of the following values: i) 25% of the recovery efficiency, or ii) 80% of the space heating capacity and *service water* heating capacity. (See Note A-8.4.4.19.(2).) **3)** Where the proposed *building* has a pool referred to in Sentence 5.2.10.2.(1), the dehumidification equipment referred to in Sentence 5.2.10.2.(3) serving that *temperature-control zone* shall be modeled in the reference *building* as an electric air-cooled chiller a) sized for the peak dehumidification load, b) to the conditions described in Sentence 8.4.4.10.(2), c) having a COP varying according to the load, and d) equipped with a heat-recovery unit compliant with Sentence 5.2.10.2.(2).".
8.4.4.20.	Replace the article by the following: "**8.4.4.20. Service Water Heating System** **1)** The reference *building*'s *service water* heating system shall be modeled as being identical to that of the proposed *building* as regards the following characteristics: a) storage capacity, and b) power input. **2)** Where the proposed *building*'s *service water* heating system includes a storage tank, the *service water* setpoint temperature of the reference *building's* storage tank shall be identical to that of the proposed *building*.

	3) Where the proposed *building*'s *service water* heating system comprises multiple water heaters, the reference *building's service water* heating system shall be modeled with the same number of water heaters. **4)** Where the proposed *building*'s *service water* heating system is a recirculation system, the reference *building's* circulation pumps shall be modeled as a single pump with a) constant speed operation, and b) a total flow rate and pumping power, in W/(L/s), that are identical to that of the proposed *building*'s circulation pumps.".
	Add the following Article: "**8.4.4.21. Energy Recovered on Site and Renewable Energy Produced on Site** **1)** Except as provided in Sentence (2), where the proposed *building* uses energy recovered on site or renewable energy produced on site to serve an HVAC system or a *service water* heating system, the corresponding HVAC system or *service water* heating system modeled in the reference *building* shall a) be the same type as the proposed *building's* system, b) use the same primary supply energy source as the system used in the proposed *building*, and c) be sized to fully meet the load. **2)** Where no supply energy source is used in the proposed *building*, the reference *building* shall consist of a) an electric resistance sized for the peak heating load, where the energy recovered on site or the renewable energy produced on site is used for heating purposes, or b) an electric air-cooled chiller sized for the peak cooling load, where the energy recovered on site or the renewable energy produced on site is used for cooling purposes. **3)** Where the energy recovered on site or the renewable energy produced on site is electricity, that electricity shall not be accounted for in modeling the reference *building*.".
8.4.5.1.	Replace Sentence (1) by the following: "**1)** In the absence of equivalent functionalities of programs modeling the part-load operation of HVAC system's equipment or *service water* heating systems, the part-load performance curves for the same reference *building's* equipment shall be calculated in accordance with this Subsection. (See Note A-8.4.5.1.(1).)".
	Add the following Articles:

"**8.4.5.10. Pumps**

1) The power draw of pumps at part-load, $P_{partload}$, in kW, of the reference *building* shall be calculated

a) using the following equation, where the flow ratio at part-load conditions, $V_{partload}$, in L/s, to the flow rate at rated conditions, V_{rated}, in L/s, is less than the power coefficient d taken from Table 8.4.5.10.:

$$P_{partload} = P_{rated} \times e$$

where

P_{rated} = power draw at rated conditions, in kW, and

e = applicable power coefficient taken from Table 8.4.5.10., or

b) using the following equation, where the flow ratio at part-load conditions, $V_{partload}$, in L/s, to the flow rate at rated conditions, V_{rated}, in L/s, is not less than the power coefficient d taken from Table 8.4.5.10.:

$$P_{partload} = \left\{P_{rated} \times \left[a + \left(b \times \frac{V_{partload}}{V_{rated}}\right)\right]\right\} + \left[c \times \left(\frac{V_{partload}}{V_{rated}}\right)^2\right]$$

where

P_{rated} = power draw at rated conditions, in kW, and

a, b and c = applicable power coefficients taken from Table 8.4.5.10.

Table 8.4.5.10.
Capacity Coefficients Used in the Calculation of $P_{partload}$
Forming Part of Sentence 8.4.5.10.(1)

Type of Pump	Coefficients for Calculation of $P_{partload}$				
	a	b	c	d	e
Pump riding its curve	0.227143	1.178929	−0.41071	0.47	0.68
Pump with variable speed drive	0.00153028	0.00520806	1.0086242	0.2	0.04

8.4.5.11. Fans

1) The divided power ratio, P, to flow ratio, F, of the fans of the reference *building* at part-load shall be calculated

a) using the following equation, where the ratio of output capacity to rated power, P, is less than the power coefficient d taken from Table 8.4.5.11.:

$$F = e$$

where

F = ratio of outlet flow to rated flow, and

e = applicable power coefficient taken from Table 8.4.5.11., or

b) using the following equation, where the ratio of output capacity to rated power, P, is not less than the power coefficient d taken from Table 8.4.5.11.:

$$F = a + (b \times P) + (c \times P^2)$$

where

P = ratio of output capacity to rated power,

F = ratio of outlet flow to rated flow, and

a, b and c = applicable power coefficients taken from Table 8.4.5.11.

Table 8.4.5.11.
Capacity Coefficients Used in the Calculation of P/F
Forming Part of Sentence 8.4.5.11.(1)

Type of Fan	Coefficients				
	a	b	c	d	e
Airfoil without inlet vane riding its performance curve	0.227143	1.178929	−0.41071	0.47	0.68
Backward inclined fan without inlet vane riding its performance curve					
Airfoil with inlet vanes	0.584345	−0.57917	0.970238	0.35	0.50
Backward inclined fan with inlet vanes					
Forward curved fan with inlet vanes	0.339619	−0.84814	1.495671	0.25	0.22
Variable speed drive	0.00153028	0.00520806	1.0086242	0.20	0.04

”.

8.5.1.1.

Replace respectively, in numerical order, the headings, objectives and functional statements of the Articles concerned below by the following in Table 8.5.1.1:

“**8.4.2.9. Manually Operated Shading Devices**

(1) [F99-OE1.1]”;

“**8.4.3.2. Operating Schedules**

(1) [F99-OE1.1]”;

“**8.4.3.6. HVAC Systems**

(1) [F99-OE1.1]

(2) [F99-OE1.1]”;

	“**8.4.3.7. Temperature-Control Zones** (1) [F99-OE1.1] (2) [F99-OE1.1] (3) [F99-OE1.1] (4) [F99-OE1.1]”; “**8.4.3.8. Internal and Service Water Heating Loads** (1) [F99-OE1.1]”; “**8.4.3.9. Energy Recovered on Site and Renewable Energy Produced on Site** (1) [F99-OE1.1] (2) [F99-OE1.1] (3) [F99-OE1.1]”; “**8.4.4.6. HVAC Systems and Service Water Heating Systems** (1) [F99-OE1.1] (2) [F99-OE1.1] (3) [F99-OE1.1] (4) [F99-OE1.1] (5) [F99-OE1.1] (6) [F99-OE1.1] (7) [F99-OE1.1] (8) [F99-OE1.1] (9) [F99-OE1.1]”; “**8.4.4.14. Pumps** (1) [F99-OE1.1] (2) [F99-OE1.1]”; “**8.4.4.20. Service Water Heating Systems** (1) [F99-OE1.1] (2) [F99-OE1.1] (3) [F99-OE1.1]”; Replace the objectives and functional statements of the Articles concerned below by the following in Table 8.5.1.1: “**8.4.3.1. General** (2) [F99-OE1.1]”; “**8.4.4.3. Building Envelope Components** (1) [F99-OE1.1] (2) [F99-OE1.1]

	(3) [F99-OE1.1] (4) [F99-OE1.1]"; "**8.4.4.9. Heating System** (1) [F99-OE1.1] (2) [F99-OE1.1] (3) [F99-OE1.1] (4) [F99-OE1.1]"; "**8.4.4.10. Cooling System** (1) [F99-OE1.1] (2) [F99-OE1.1] (3) [F99-OE1.1]"; --- Insert, in numerical order, the following objectives and functional statements in Table 8.5.1.1.: "**8.4.2.2. Calculation Methods** (5) [F99-OE1.1] (6) [F99-OE1.1] (7) [F99-OE1.1]"; "**8.4.3.3. Building Envelope Components** (4) [F99-OE1.1] (5) [F99-OE1.1] (6) [F99-OE1.1] (7) [F99-OE1.1] (8) [F99-OE1.1]"; "**8.4.4.1. General** (8) [F99-OE1.1] (9) [F99-OE1.1]"; "**8.4.4.7. HVAC System Selection** (2) [F99-OE1.1]"; --- Insert, in numerical order, the following Articles, objectives and functional statements in Table 8.5.1.1.: "**8.4.4.21. Energy Recovered on Site and Renewable Energy Produced on Site** (1) [F99-OE1.1] (2) [F99-OE1.1] (3) [F99-OE1.1]"; "**8.4.5.10. Pumps**

	(1) [F99-OE1.1]"; "**8.4.5.11. Fans** (1) [F99-OE1.1]"; Strike out respectively the following objectives and functional statements in Table 8.5.1.1.: "**8.4.1.2. Determination of Compliance** (5) [F99-OE1.1]"; "**8.4.2.8. Building Envelope** (6) [F99-OE1.1] (7) [F99-OE1.1] (8) [F99-OE1.1] (9) [F99-OE1.1] (10) [F99-OE1.1]"; "**8.4.4.5. Lighting** (4) [F99-OE1.1] (5) [F99-OE1.1] (6) [F99-OE1.1] (7) [F99-OE1.1] (8) [F99-OE1.1] (9) [F99-OE1.1] (10) [F99-OE1.1] (11) [F99-OE1.1] (12) [F99-OE1.1]"; "**8.4.4.11. Cooling Tower Systems** (6) [F99-OE1.1] (7) [F99-OE1.1]"; "**8.4.4.18. Supply Air Systems** (4) [F99-OE1.1] (5) [F99-OE1.1] (6) [F99-OE1.1]"; Strike out the following Articles, objectives and functional statements in Table 8.5.1.1.: "**8.4.2.4. Thermal Mass** (1) [F99-OE1.1]";

	“**8.4.2.5. Space Temperature** (1) [F99-OE1.1]”; “**8.4.2.7. Internal and Service Water Heating Loads** (1) [F99-OE1.1] (2) [F99-OE1.1] (3) [F99-OE1.1] (4) [F99-OE1.1] (5) [F99-OE1.1]”; “**8.4.4.2. Operating Schedules, Internal Loads, Service Water Heating Loads and Set-point Temperature** (1) [F99-OE1.1] (2) [F99-OE1.1] (3) [F99-OE1.1]”; “**8.4.4.8. Equipment Oversizing** (1) [F99-OE1.1] (2) [F99-OE1.1]”; “**8.4.4.12. Cooling with Outside Air** (1) [F99-OE1.1]”; “**8.4.4.13. Heat Pumps** (1) [F99-OE1.1] (2) [F99-OE1.1]”; “**8.4.4.16. Space Temperature Control** (1) [F99-OE1.1] (2) [F99-OE1.1]”.
Division B Notes to Part 8	
	Add the following Notes: “**A-8.1.1.2. Application.** The provisions of Sentence 8.1.1.2.(2) make compulsory compliance of electrical or mechanical systems with the relevant prescriptive requirements of Sections 4.2., 5.2., 6.2. and 7.2., and any other applicable provision in Section 8.4. where they are not defined in the plans and specifications. That means that, if at the time of assessment of compliance with the Code using this Part, the information on the systems is insufficient or incomplete, the prescriptive requirements must be applied. For the purposes of energy simulations, the system concerned of the reference building will have to be identical to that of the proposed building. Thus, the energy performance compliance path allows to consider only the

	energy performance of systems and components defined in the plans and specifications. Because the envelope has a very significant impact on energy consumption, the thermal and geometric characteristics of the envelope are essential to assess compliance of the building. **A-8.4.1. Compliance.** The energy performance compliance path offers designers an alternative to the prescriptive requirements and trade-offs in Parts 3 to 7 of the Code. Those prescriptive requirements and trade-offs constitute compliance demonstration means relatively simple to apply, but offer less flexibility to designers who wish to design projects meeting the regulatory objectives without necessarily applying all the prescriptive requirements of the Code. For example, the energy performance compliance path allows the increase of the fenestration area of a building above the prescribed limit. In return, the designer may choose a heat-recovery unit with an efficiency greater than the minimum prescribed requirements that will make up for energy efficiency losses caused by the increase of the fenestration area. The objective is that the annual energy needs of the proposed building be lower than or equal to the annual energy needs of the reference building, determined according to the energy performance compliance path provided for in this Part. Contrary to the prescriptive requirements and trade-offs, the energy performance compliance path allows accounting the cross effects and interdependence of solutions implemented in the proposed building. For example, the importance of thermal gains of indoor lighting systems will have an impact on the sizing of the HVAC systems and their subsequent energy consumption. Similarly, the efficiency of a heating system will influence the choice of a designer to insulate more the building envelope in order to reach the annual energy needs of the reference building. **A-8.4.1.2.(3) and (4) Determination of Compliance.** The sizing of the HVAC systems of a building have a significant impact on energy consumption. In practice, it may be justified, depending on circumstances, to oversize or undersize the HVAC systems of a project. To achieve equivalence in the comparison, the same sizing rules must apply to the reference building and the proposed building. To prevent unjustified transfer of “energy credits” caused by an abusive undersizing of the HVAC systems of the proposed building, the HVAC systems of the proposed and reference buildings must meet the same thermal comfort needs of the spaces served. To that end, the Code does not permit considering a proposed building whose thermal discomfort hours exceed those of the reference building or considering that the proposed and reference buildings have more than 300 h of heat discomfort in a simulated year.”.
A-8.4.1.4.	Strike out the Note.

A-8.4.1.4.(2)(b)	Replace the Note by the following: "**A-8.4.1.4.(2)(b) Existing Equipment Characteristics.** Where the HVAC systems of the existing building serve the addition, the existing systems are modeled as they are, i.e. in accordance with the original plans and specifications, in accordance with the applicable regulatory requirements at the time of their installation or from on-site readings.".
	Add the following Notes: "**A-8.4.1.4.(3) Addition.** The party wall of the existing building will be modeled without heat gain or loss, unless the temperature difference between both sides of the wall is greater than 10°C, in which case heat exchanges between the addition and the existing building will be considered in the modeling. **A-8.4.2. Compliance Calculation.** The maximum power demand of the electrical system and the annual energy consumption are evaluated by an energy modeling software, also called energy simulation software. The software includes at least one program, also called calculation engine. The software often includes graphic interfaces facilitating data entry and result analysis. **A-8.4.2.2.(1) Major Program Deficiencies and Limitations.** The addenda of ANSI/ASHRAE 140, "Standard Method of Test for the Evaluation of Building Energy Analysis Computer Programs," allow it possible to verify whether a program has major deficiencies or limitations.".
A-8.4.2.2.(1)(g)	Strike out the Note.
	Add the following Note: "**A-8.4.2.2.(3) Internal Loads.** Normal internal loads include loads due to lighting, the presence of occupants, equipment directly used by occupants such as personal computers, automatic equipment such as computer servers, and other loads that do not consume energy such as food that must be kept in a freezer. Internal loads normally produce heat gains in the form of sensible heat, latent heat or radiant heat. Except for lighting, internal loads are not covered by the prescriptive paths of the Code. However, internal loads add cooling and/or heating loads to the building's HVAC systems and service water heating systems. For that reason, internal loads representative of the building type or space function must be included in the compliance calculations. It will make it possible to correctly evaluate part-load performance of the HVAC systems and service water heating systems, and, by extension, the energy consumption of the proposed and reference buildings. Sentence 8.4.4.1.(4) provides that the internal loads must be modeled identically in the proposed and reference building energy models; only the energy consumed by the equipment and systems regulated by the Code can be modeled differently in the proposed and reference buildings.

	Tables A-8.4.3.8.(1)-A and A-8.4.3.8.(1)-B provide default values that are generally representative of the internal loads based on building or space type. It must be evaluated whether expected internal loads are correctly represented by the default values. Generally, if the default values provided in Tables A-8.4.3.8.(1)-A and A-8.4.3.8.(1)-B appear too small compared to the expected internal loads, some commercial and/or industrial operations and/or processes will not be correctly represented. The following loads, often associated to processes and/or activities, are examples of loads that are not represented in the default values in Tables A-8.4.3.8.(1)-A and A-8.4.3.8.(1)-B: • manufacturing machinery in an industrial building, • medical imaging equipment in a hospital, • computer servers in a data centre of an office building, • swimming pool water heating in a recreation centre, • cooking appliances and refrigeration equipment in a commercial kitchen or restaurant. HVAC systems of processes and/or activities that require temperatures, airflows or a humidity rate that do not correspond to the usual comfort conditions are excluded from the prescriptive path; there is no requirement for their operation or efficiency. In the performance path, those HVAC systems must be modeled because they have an impact on the cooling or humidification heating load of zones adjacent to the process.”.
A-8.4.2.7.(1)	Strike out the Note.
	Add the following Notes: “**A-8.4.2.8. Modeling of Building Envelope Assemblies.** The programs generally permit modeling opaque building assemblies by a succession of materials in continuous layers. For example, a metal-frame wall construction could be modeled with three layers of materials representing the exterior cladding, the insulation and the interior finish. In order for the material assembly to have the value of the derated effective thermal resistance calculated in accordance with Sentence 8.4.2.8.(4), the thickness of the insulating layer will generally be adjusted by the program for each opaque building assembly of the proposed building having a different derated effective thermal resistance. Similarly, the thickness of the insulating layer will be adjusted by the program in the reference building to reach the value of the derated effective thermal resistance calculated from the values of the effective thermal resistance, the linear thermal transmittance and the point thermal transmittance required in Part 3. **A-8.4.2.8.(4) Calculation of Effective Thermal Resistance.** Sentence 8.4.2.8.(4) requires that the effective thermal resistance of the envelope of the proposed building and the effective thermal resistance of the envelope of the reference building be derated to consider heat losses. The penetrations and

	transitions of the proposed building shall be derated, whether or not they comply with the prescriptive requirements of Sentences 3.2.1.2.(1) to (7) and (10). Contrary to the trade-off path in Part 3, the compliant intersections of the proposed building shall be derated. The values of the compliant intersections of the proposed building shown in Tables 8.4.2.8.-A and 8.4.2.8.-B may be used. It is possible to use a value that better represents the intersections of the proposed building if that value was obtained in accordance with the requirements of Sentence 3.1.1.5.(7). The effective thermal resistance of opaque building assemblies of the reference building shall also be derated since that derating will have a different impact on the annual energy consumption of each of the buildings. **A-8.4.2.8.(5) Derated Effective Thermal Resistance According to Temperature-control Zones.** In order to facilitate modeling, the derated effective thermal resistance may be considered for each opaque building assembly, independently of the adjacent temperature-control zones, where they are maintained at a temperature differential of not more than 10°C. For example, in an apartment building, if several sections of walls have been simplified to be considered as only one wall and that wall is in contact with eight temperature-control zones representing eight dwelling units, then the effective thermal resistance may be derated globally for that wall. Thus, a single value of the derated thermal resistance is entered in the energy modeling for the eight zones. That single value of the effective thermal resistance for that wall considers all the partial or complete penetrations of the envelope and the transitions between the different constructive systems of the envelope. However, in the case of a mixed-use building including a grocery store on the first floor having six temperature-control zones maintained at 21°C and two grocery storage zones maintained at 4°C, the effective thermal resistance is derated separately for the section of wall in contact with the first six zones and for the section of wall in contact with the other two zones.”.
A-8.4.2.9.(2)	Strike out the Note.
	Add the following Notes: “**A-8.4.2.10.(3) Part-load Parameters.** The part-load of an HVAC system may vary in particular due to a change in climate conditions or in the fluid inlet temperature in the system. **A-8.4.2.10.(4) Independent Modeling of an HVAC System’s Equipment Components.** Generally, the modeling of an HVAC system in a program requires to enter the individual efficiency rates of some components of the systems, such as supply fans, cooling compressors and condensers. However, energy or efficiency indexes of some HVAC equipment such as the EER (energy-efficiency ratio), may include, for example, the efficiency rate of a supply fan. The energy efficiency rate of the component must be isolated from the EER of the equipment and entered in the program. Consequently, the equipment efficiency, measured, for example, by the EER, must be adjusted to reflect the separate processing of the components

	before entering that value in the program. It is possible to calculate the adjusted EER or to obtain it by contacting the equipment manufacturer.”.
A-8.4.3.2.(1)	Replace the first Sentence of the Note by the following: “Operating schedules generally account for the following elements: • the presence of occupants, • the operation of interior lighting, • the operation of receptacle equipment, • the operation of HVAC systems, • the operation of service water systems. Tables A-8.4.3.2.(1)-A to A-8.4.3.2.(1)-K contain default values of operating schedules of building parameters for simulation purposes. These schedules may be used with Table A-8.4.3.8.(1)-A or A-8.4.3.8.(1)-B if more accurate information is not available. If the building or space type is not listed in Table A-8.4.3.8.(1)-A or A-8.4.3.8.(1)-B, the schedule that most closely corresponds to the occupancy of the proposed building or space should be used.”.
A-8.4.3.2.(2)	Strike out the Note.
A-8.4.3.3.(2)	Replace the Note by the following: “**A-8.4.3.3.(2) Energy Modeling of the Proposed Building Considering the Fenestration Shading Effects.** Where the modeler considers the effect of shading on fenestration, the existing surrounding elements that have an impact on the building must be considered in the modeling. For example, the potential energy gain due to the sun breaker system is partly cancelled where a neighbouring immovable or structure casts its shadow on the proposed building. The 10% reduction of sun gain and visible sun transmittance coefficients of the fenestration considers the darkening due to dirt and dust present on the fenestration.”.
	Add the following Notes: “**A-8.4.3.3.(3)(a) Solar Heat Gain and Visible Sun Transmittance Coefficients of Fenestration.** The 20% reduction of solar heat gain and visible sun transmittance coefficients of the fenestration is explained by the darkening effect set at 10% due to dirt and dust on the fenestration and by the darkening effect set at 10% due to surrounding elements, the building itself and the permanent automated shading devices. Those adjusted coefficients allow the modeler to not model the shading in the program as provided in Sentence 8.4.3.3.(2).

	A-8.4.3.3.(4) Air Leakage Rate of the Building Envelope. The air leakage rate of 0.25 L/(s·m²), which is a typical infiltration rate at 5 Pa, is used in the energy consumption model and may not reflect the real value encountered under operating conditions. That rate is based on pressure differentials typically encountered under operating conditions. **A-8.4.3.3.(7) Modeling of Building Assemblies in Contact with the Ground.** The detailed calculation of the annual heat transfer of building assemblies in contact with the ground is complex and may require a significant investment of time. Indeed, the heat transfer with the ground varies in particular based on the geometry of the building, the depth of the foundations, the climate zone, and the arrangement of the materials composing the opaque building assemblies in contact with the ground. In addition, thermal conductivity of the ground, the most important parameter for quantifying the heat transfer with the ground, varies significantly based on several factors such as ground humidity rate, type of ground, ground temperature and ground density. The effect of frost, snow cover and depth of the groundwater may also have an influence on heat transfer. The calculation of heat transfer of the building assemblies in contact with the ground is treated in different manners in programs. Some programs implement detailed calculation methods while others use simplified methods to estimate the annual heat transfer of opaque building assemblies in contact with the ground. The purpose of Sentence 8.4.3.3.(7) is to prohibit performance exchanges with building assemblies in contact with the ground where simplified methods for calculating heat transfer with the ground are used by the program. Although simplified methods generally allow the definition of the properties of the insulation under the slab and those at the foundation wall level, those methods are not sufficiently accurate to quantify heat transfer with the ground. Such simplified methods are described in the “ASHRAE Handbook – Fundamentals”. Another example of a simplified method, defined from regression analyses and used in some programs, takes into account factors representing heat transfer through the floor and walls (factors F and C). For performance exchanges of building assemblies in contact with the ground to be considered in the performance path, Sentence 8.4.3.3.(7) requires that the program be capable to accurately represent the arrangement of the insulation and the properties of the building assemblies in contact with the ground such as dimensions, specific heat, density and thermal conductivity. Before considering modeling performance exchanges of building assemblies in contact with the ground, compliance of the calculation method used with Sentence 8.4.3.3.(7) must be verified. If it does not, as specified in Article 3.4.1.2., the prescriptive requirements of Subsection 3.2.3. apply to building assemblies in contact with the ground of the proposed building. In accordance with Clause 8.4.4.1.(4)(i), those assemblies will be modeled in the same manner as the reference building. **A-8.4.3.4.(2) Occupancy Control Factors.** As provided in Sentence 4.4.1.2.(2), the interior lighting controls in Subsection 4.2.2. are mandatory and cannot be exchanged. That means that the controls must be present in the plans and specifications and must be modeled in the same manner for both the proposed and reference buildings. It concerns in particular controls in Table 4.2.1.6., listed in the columns under “Type of Lighting Control”.

	Contrary to the occupancy control factors, personal control factors and photocontrol factors may reduce the power of the installed lighting power of the proposed building but will not reduce the interior lighting power of the reference building.”.
A-8.4.3.4.(4)	Replace “See Table A-8.4.3.2.(2)-B” by “See Tables A-8.4.3.8.(1)-A and A-8.4.3.8.(1)-B”.
A-8.4.3.6.(1)	Replace the Note by the following: “**A-8.4.3.6.(1) HVAC System.** The basic ventilation rates for the proposed building must be set to the minimum rates required by the applicable standards. The increase or reduction of outdoor air ventilation and exhaust rates are not means to comply with the energy performance compliance path.”.
	Add the following Notes: “**A-8.4.3.6.(2) Part-load HVAC System’s Equipment Operation.** HVAC system’s equipment rarely operates at full load. Consequently, the part-load efficiency must be adequately modeled. The designer must use available part-load performance curves of the proposed equipment, generally provided by the manufacturer, and must adapt those curves to the requirements of the programs. That adaptation is necessary since to model part-load equipment operation, each program includes its own mathematical models, generally in the form of a polynomial equation. Where the program does not have the function of modeling the part-load operation of an HVAC system’s equipment (for example, due to an atypical curve), Subsection 8.4.5. or the default curves of the programs may be used. **A-8.4.3.7.(3) Temperature-control Zone Delimitation.** Where the temperature-control zones and HVAC systems are not entirely stated in the plans, modeling of those zones in accordance with the requirements of Sentence 8.4.3.7.(3) is necessary. Those requirements must be applied, for example, in the case of a commercial building whose layout of rental suites is unknown at the time of modeling. **A-8.4.3.8.(1) Internal and Service Water Heating Loads and Illuminance Levels.** Tables A-8.4.3.8.(1)-A and A-8.4.3.8.(1)-B contain default values for internal and service water heating loads and their operating schedules for simulations purposes.

Table A-8.4.3.8.(1)-A
Modeling Guidance for Loads, Operating Schedules and Illuminance Levels by Building Type

Building Type	Occupant Density, m²/occupant	Peak Receptacle Load, W/m²	Service Water Heating Load, W/occupant	Operating Schedule from Note A-8.4.3.2.(1)	Illuminance Levels, in lx[1]
Automotive facility	20	5	90	E	400
Convention centre	8	2.5	30	C	300
Courthouse	15	5	60	A	400
Dining					
bar lounge/leisure	10	1	115	B	125
cafeteria/fast food	10	1	115	B	300
family	10	1	115	B	300
Dormitory	30	2.5	500	G	100

Exercise centre	10	1	90	B	350
Fire station	25	2.5	400	F	400
Gymnasium	10	1	90	B	500
Health care clinic	20	7.5	90	A	600
Hospital	20	7.5	90	H	350
Hotel/Motel	25	2.5	500	F	150
Library	20	2.5	90	C	500
Long-term care					
dwelling units	25	1.5	500	J	400
other	25	1.5	500	B	400
Manufacturing facility	30	10	90	A	450
Motion picture theatre	8	1	30	C	150
Multi-unit residential building	25	5	500	G	125
Museum	20	2.5	60	C	100
Office	25	7.5	90	A	400
Penitentiary	30	2.5	400	H	250
Performing arts theatre	8	1	30	C	250
Police station	25	7.5	90	H	400
Post office	25	7.5	90	A	400
Religious building	5	1	15	I	250
Retail area	30	2.5	40	C	450
School/University	8	5	60	D	400
Sports arena	10	1	90	B	400
Storage garage	1000	0	0	K	75
Town hall	25	7.5	90	D	400
Transportation facility	15	1	65	H	225
Warehouse	1500	1	300	A	150
Workshop	30	10	90	A	500

Notes to Table A-8.4.3.8.(1)-A:

(1) The values are weighted averages that correspond to typical overall illuminance levels recommended for the building types listed and include both general lighting and task lighting. They are based on recommendations published by the IES.

Table A-8.4.3.8.(1)-B
Modeling Guidance for Loads, Operating Schedules and Illuminance Levels by Space Type

Common Space Types					
Space Type	Occupant Density, m²/occupant	Peak Receptacle Load, W/m²	Service Water Heating Load, W/occupant	Operating Schedule(1) from Note A-8.4.3.2.(1)	Illuminance Levels, in lx(2)
Atrium (any height)	10	2.5	0	*	250
Audience seating area – permanent					
for auditorium	5	2.5	30	C	100
for convention centre	5	2.5	30	C	350
for gymnasium	5	0	30	B	350
for motion picture theatre	5	2.5	30	C	250
for penitentiary	5	2.5	30	C	250
for performing arts theatre	7.5	2.5	30	C	250
for religious building	5	1	15	I	150
for sports arena	5	0	30	B	150
other	5	1	15	*	100
Banking activity area and offices	25	5	60	A	400
Classroom/Lecture hall/Training room	7.5	5	65	D	400
Computer/Server room	100	200	90	* or H(3)	350
Conference/Meeting/Multi-purpose room	5	1	45	C	350
Confinement cell	25	0	325	G	400
Copy/Print room	100	60	90	A	400
Corridor/Transition area	100	0	0	*	150
Courtroom	5	2.5	30	A	400
Dining area for bar lounge/leisure dining	10	1	90	B	100

for cafeteria/fast food dining	10	1	120	B	200
for family dining	10	1	120	B	200
for penitentiary	10	1	120	B	200
for space designed to ANSI/IES RP-28, “Lighting and the Visual Environment for Senior Living” (and used primarily by residents)	10	1	120	B	200
other	10	1	120	B	200
Dressing/Fitting room for performing arts theatre	30	2.5	40	C	250
Electrical/Mechanical room	200	1	0	*	350
Emergency vehicle garage	25	2.5	325	H	350
Food preparation area	20	10	120	B	500
Guest room	25	2.5	600	F	200
Laboratory					
for classrooms	20	10	180	D	500
other	20	10	180	A	650
Laundry/Washing area	20	0	60	C	350
Loading dock – interior	500	0	0	H	200
Lobby					
for elevator	10	1	0	C	200
for hotel	10	2.5	30	H	250
for motion picture theatre	10	1	0	C	150
for performing arts theatre	10	1	0	C	200
for space designed to ANSI/IES RP-28, “Lighting and the Visual Environment for Senior Living” (and used primarily by residents)	10	2.5	30	B	150
Other	10	1	0	C	150
Locker room	10	2.5	0	*	100
Lounge/Break room					
for health care facility	10	1	60	B	150
other	10	1	60	B	150
Office	20	7.5	90	A	400
Pharmacy area	20	2.5	45	C	400
Sales area	30	2.5	40	C	500
Seating area - general	10	0	65	*	150
Stairway/Stairwell	200	0	0	*	150
Storage garage – interior	1000	0	0	K	75
Storage room					
≥ 5 m²	100	1	300	*	100
< 5 m²	100	0	0	*	100
Vehicle maintenance area	20	5	90	E	500
Washroom					
for space designed to ANSI/IES RP-28, “Lighting and the Visual Environment for Senior Living” (and used primarily by residents)	30	1	0	*	150
other	30	1	0	*	150
Workshop	30	10	90	A	500
Building-Specific Space Types					
Convention centre – exhibit space	10	2.5	30	C	500
Dormitory – living quarters	25	2.5	500	G	125
Dwelling unit	25	5	500	G	125
Fire station – living quarters	25	2.5	500	G	150
Gymnasium/Fitness centre					
exercise area	5	1	90	B	350
playing area	5	1.5	90	B	350
Health care facility					
exam/treatment room	20	10	90	C	600
imaging room	20	10	90	H	225

medical supply room	20	1	0	H	400
nursery	20	10	90	H	400
nurses' station	20	2.5	45	H	400
operating room	20	10	300	H	1000
patient room	20	10	90	H	400
physical therapy room	20	10	45	C	350
recovery room	20	10	180	H	250
Library					
reading area	20	1	90	C	500
stacks	20	0	90	C	500
Manufacturing facility					
detailed manufacturing area	30	10	90	A	600
equipment room	30	10	90	A	250
extra high bay area (> 15 m floor-to-ceiling height)	30	10	90	A	400
high bay area (7.5 m to 15 m floor-to-ceiling height)	30	10	90	A	400
low bay area (< 7.5 m floor-to-ceiling height)	30	10	90	A	400
Museum					
general exhibition area	5	2.5	60	C	250
restoration room	20	5	50	A	600
Post office – sorting area	20	7.5	90	A	400
Religious building					
fellowship hall	5	1	45	C	250
worship/pulpit/choir area	5	1	15	I	250
Retail facility					
dressing/fitting room	30	2.5	40	C	350
mall concourse	20	1	30	C	400
Space designed to ANSI/IES RP-28, "Lighting and the Visual Environment for Senior Living"					
chapel (used primarily by residents)	10	1	15	I	150
recreation room (used primarily by residents)	20	1	60	B	150
Sports arena– playing area					
playing area with facilities for more than 5000 spectators	5	1.5	90	B	1600
playing area with facilities for more than 2000 spectators but not more than 5000 spectators	5	1.5	90	B	1000
playing area with facilities for more than 200 spectators but not more than 2000 spectators	5	1.5	90	B	800
playing area with facilities for less than 200 spectators or without a facility for spectators	5	1.5	90	B	500
Transportation facility					
airport concourse	20	0	65	H	150
baggage/carousel area	20	2.5	65	H	250
terminal ticket counter	10	2.5	65	H	250
Warehouse – storage area					
medium to bulky palletized items	100	1	65	A	200
small hand-carried items[4]	50	1	65	A	300

	(1) An asterisk (*) in this column indicates that there is no recommended default schedule for the space type listed. In general, such space types will be simulated using a schedule that is similar to the adjacent spaces served: e.g. a corridor space serving an adjacent office space will be simulated using a schedule that is similar to that of the office space. (2) The values are weighted averages that correspond to typical overall illuminance levels recommended for the buildings/space types listed and include both general lighting and task lighting. They are based on recommendations published by the IES. (3) A computer/server room that serves a single building or a limited group of users would tend to have operating schedules matching those of that group or building. Computer/server rooms that serve as data centres operating independently of the building in which they are located would tend to operate continuously. (4) See Table A-4.2.1.6.”.
A-8.4.3.9.	Strike out the Note.
	Add the following Notes: “**A-8.4.3.9.(1) and (2) Energy Recovered on Site and Renewable Energy Produced on Site.** Sentence 8.4.3.9.(1) applies, for example, in the case of heat recovery from an exothermic process. Where heat-recovery technology is provided for in Subsection 5.2.10., the highest performance of the heat-recovery equipment planned in the proposed building is not permitted to be considered. In such a case, since that equipment must be modeled in the reference building under Article 8.4.4.19., the highest performance of that equipment in the proposed building will be considered by the program. Sentence 8.4.3.9.(2) applies, for example, for the production of electricity by a photovoltaic panel. **A-8.4.4.1.(2) Prescriptive Compliance.** The basic principle guiding the modeling of the reference building is that every component, device or system included in the building must comply with the applicable prescriptive requirements of Sections 3.2., 4.2., 5.2., 6.2. and 7.2. The requirements of Subsection 8.4.4. clarify the specific treatment of parameters some of which are not covered by the prescriptive requirements of the Code. **A-8.4.4.1.(4) Building Characteristics.** The characteristics in Sentence 8.4.4.1.(4) are two-fold. Some characteristics of the building do not have specific prescriptive requirements but have considerable influence on energy consumption: the shape of the building, its orientation, receptacle loads, heat from a process, the consumption of an HVAC system dedicated only to a process, etc. The modeler cannot take into account those characteristics to improve the performance of the proposed building; they must be modeled identically in the proposed and reference buildings. Other building characteristics, for example, the airtightness rate, have specific prescriptive requirements but their compliance is difficult to verify in the building once built. That is why the modeler is not permitted to use those characteristics to improve the performance of the proposed building. They must also be modeled identically in the proposed and the reference buildings.

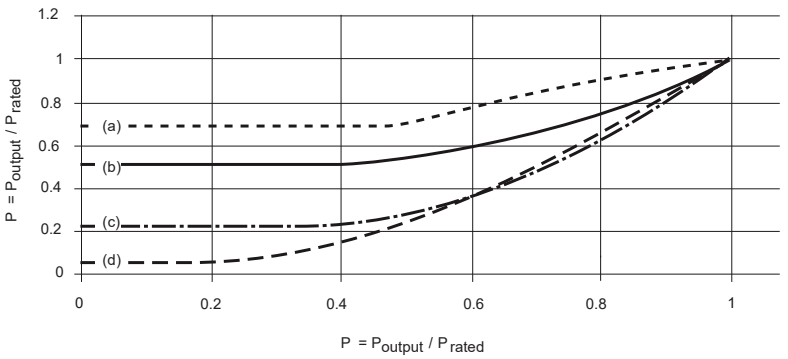
	Some indications to the contrary may be provided for in Subsections 8.4.3. and 8.4.4., in particular • for Clause (4)(i), Sentence 8.4.4.3.(4) (see Note A-8.4.3.3.(7)), • for Clause (4)(j), Sentence 8.4.4.4.(1), and • for Clause (4)(x), Sentence 8.4.4.3.(2). **A-8.4.4.1.(8) and (9) Equipment Energy Efficiency for Modeling the Reference Building.** The Energy Efficiency Act (S.C. 1992, c. 36) and its regulations fall under federal jurisdiction. The Act respecting energy efficiency and energy conservation standards for certain products (chapter N-1.01) and its regulations fall under Québec's jurisdiction. They provide minimum levels for some types of equipment. Where a minimum energy efficiency level for equipment is provided for in Québec legislation, Sentences 8.4.4.1.(8) and (9) provide for the use of that value for modeling the reference building. Where no minimum level is provided in Québec legislation, the energy efficiency of the equipment must be identical to that of the corresponding equipment in the proposed building, or that provided for in federal legislation.".
A-8.4.4.2.(1)	Strike out the Note.
A-8.4.4.2.(3)	Strike out the Note.
	Add the following Note: "**A-8.4.4.3.(3) Energy Modeling of the Reference Building Considering Fenestration Shading Effects.** Where the modeler takes into consideration fenestration shading effects in the proposed building, the permanent and automated shading devices are not modeled in the reference building. However, as provided in Sentence 8.4.4.3.(3), shading effects due to surrounding elements and to the building itself must be modeled in the same manner as the proposed building. As provided in Sentence 8.4.2.9.(1), manually-operated interior shading devices, such as blinds, must not be modeled in neither the proposed building nor the reference building.".
A-8.4.4.3.(8)	Strike out the Note.
A-8.4.4.4.(1)	Replace the Note by the following: "**A-8.4.4.4.(1) Thermal Mass.** Sentence 8.4.4.4.(1) allows the modeling of the thermal mass of the reference building by specifying the thermal characteristics of a lightweight assembly rather than considering a thermal mass identical to that of the proposed building. Where the reference building is modeled with a thermal mass

	different from that of the proposed building, the parameters determining thermal inertia of the elements of the reference building envelope, such as specific heat and the density of a constructive layer, must be adjusted in accordance with that Sentence to reflect a lightweight construction having an overall weight of 55 kg/m² and a heat capacity of 50 kJ/(m²×°C).”.
A-8.4.4.5.(3)	Strike out the Note.
A-8.4.4.5.(6)	Strike out the Note.
A-8.4.4.5.(7)	Strike out the Note.
A-8.4.4.5.(10)(b)	Strike out the Note.
A-8.4.4.5.(11)	Strike out the Note.
	Add the following Notes: “**A-8.4.4.6.(2) and (3) Types of Heat Pumps.** The following types of heat pumps are the most commonly used: Water-loop heat pump: a heat pump connected to an internal water loop used as a heat source and/or sink. The loop may include an auxiliary heat source (e.g. a boiler) and/or heat rejection device (e.g. a cooling tower). Water-source heat pump: a heat pump using as a heat source and/or sink • surface water (e.g. river, pond or lake), • groundwater, • a water loop directly carrying waste heat generated outside the building, or • a water loop indirectly carrying waste heat generated outside the building using a heat exchanger that separates the heat source and/or sink from an internal water loop. Ground-source heat pump: a heat pump using the ground as a heat source and/or sink through the use of a ground-heat exchanger in which circulates either a refrigerant supplied by the heat pump or a heat transfer fluid coming from an internal water loop. Air-source heat pump: a heat pump using the outside air as a heat source and/or sink.

	A-8.4.4.6.(4) Automatic Sizing of an HVAC System's Equipment. It is possible that, so as not to exceed the annual maximum number of discomfort hours provided for in Sentences 8.4.1.2.(3) and (4), the program requires oversizing or undersizing of the HVAC system's equipment for modeling purposes. If an equipment of the proposed building is undersized or oversized in comparison to the calculated peak heating or cooling loads, the reference building's corresponding equipment must be as well, according to the sizing factor of the proposed equipment. The sizing factor is calculated based on the procedure described in ASHRAE/IES 90.1, "User's Manual," and summarized here: 1. the calculation engine calculates (ideal) peak loads for the proposed equipment, 2. the sizing factor is obtained by dividing the capacity (or flow) of the proposed equipment (indicated in the plans and specifications) by the capacity (or flow) calculated in (1), 3. the calculation engine calculates (ideal) peak loads for the corresponding equipment of the reference building, and lastly 4. the sizing factor calculated in (2) is applied to the capacity (or flow) of the corresponding equipment of the reference building determined in (3). **A-8.4.4.7.(2) and (3) Modeling of Air Distribution and Hydronic Loop Systems.** The requirements of Sentences 8.4.4.7.(2) and (3) do not aim to represent accurately the number of fans and individual pumps of a project but rather seek to match the distribution principles used for a temperature-control zone of the proposed building to those of the reference building corresponding zone. **A-Table 8.4.4.7.-A HVAC System for the Proposed Building**. An example of the induction cooling system is an active chilled beam designed to recover ambient air from a room, cool it then return it to the room. Outdoor air, which comes in the chilled beam by the ventilation system, carries by induction the room ambient air that passes through a cooling coil.".
A-8.4.4.8.	Strike out the Note.
	Add the following Notes: "**A-8.4.4.9.(2)(c), 8.4.4.10.(2)(d) and 8.4.4.11.(4)(b) Pumping Flow.** Where the pumping flow rate, PFR, in L/min, is not calculated by the program, it may be evaluated using the following equation: $$\mathrm{PFR} = \frac{\mathrm{P} \times 60\,000}{\mathrm{Cp} \times \rho \times \Delta \mathrm{T}}$$ where P = power of the heating or cooling equipment, in kW, Cp = specific heat of the heat transfer fluid, in kJ/(kg×K),

	ΔT = difference between the supply and return temperature of the heat transfer fluid, in °C, and ρ = density for the heat transfer fluid, in kg/m³. The specific heat and the density vary based on the temperature and composition of the heat transfer fluid. Consequently, those two values will be different whether it is a hot or cool water loop, and will also vary based on the percentage of glycol in the heat transfer fluid. To take into account that reality, those values may be evaluated by considering the average temperature of the liquid circulating in the loop. For example, for a hot water loop with a supply at 82°C and a return at 54°C, the average will be 68°C. Water at a temperature of 68°C has a density of 978.87 kg/m³ and a specific heat of 4.19 kJ/(kg×K). **A-8.4.4.9.(2)(d), 8.4.4.10.(2)(e) and 8.4.4.11.(4)(c) Pumping Power Demand.** Where the pumping power demand, PPD, in W, is not defined by the program, it may be established using the following equation: $$PPD = \frac{PFR \times H \times \rho \times g}{60\,000 \times \eta}$$ where PFR = pumping flow rate, in L/min (see Note A-8.4.4.9.(2)(c), 8.4.4.10.(2)(d) and 8.4.4.11.(4)(b)), H = loss of pressure in the system, in m of pressure head, ρ = density of the liquid, in kg/m³, g = gravitational constant of 9.81 m/s², and η = combined efficiency turbine-motor-variable speed drive of pump. The reference building pump must have a power demand equivalent to the sum of the power demands of each hydronic loop pump of the proposed building.”.
A-8.4.4.13.	Strike out the Note.
A-8.4.4.13.(1)	Strike out the Note.
A-8.4.4.14.(2)	Strike out the Note.
A-8.4.4.17.(1)	Strike out the Note.
A-8.4.4.17.(2)	Strike out the Note.

	Add the following Note: "**A-8.4.4.19.(2) Heat Recovery from Ice-making Machines.** A water-cooled, double-bundle water chiller having a load profile corresponding to the load planned on the ice-making machine is adequate for the purposes of Part 8 and allows the modeling of heat recovery. The following documents may be helpful in setting a more detailed model using refrigeration equipment rather than a water chiller and modeling the ice sheet itself and its interaction with adjacent components and spaces: • Zmeureanu, R., E.M. Zelaya and D. Giguère. (2002). Simulation de la consommation d'énergie d'un aréna à l'aide du logiciel DOE-2.IE. ESim 2002 Conference, Montréal. • Ouzzane, M. et al. Cooling Load and Environmental Measurements in a Canadian Indoor Ice Rink. ASHRAE Transactions, Vol. 112, Pt. 2, Paper no. QC-06-008, pp. 538-545, 2006. • Sunyé, R. et al. ASHRAE Research Report 1289, Develop and Verify Methods For Determining Ice Sheet Cooling Loads, 2007. • Teyssedou, G., R. Zmeureanu, and D. Giguère. (2009). Thermal Response of the Concrete Slab of an Indoor Ice Rink. ASHRAE HVAC&R Research, Vol. 15, No. 3, May 2009. Since ice-making for rinks and curling rinks is often associated with resurfacing activities, which require a significant amount of heated service water, the energy models of the proposed and reference buildings should account for the load in accordance with Clause 8.4.4.1.(4)(b).".
A-8.4.4.20.(4)(a)	Strike out the Note.
A-8.4.4.20.(6)	Strike out the Note.
A-8.4.4.20.(7)	Strike out the Note.

	Add the following Note: "**A-8.4.5.1.(1) Fan Part-Load Curves.** Figure A-8.4.5.1.(1) illustrates the equations for fan power versus flow rate as a graph.  (a) air foil or backward inclined riding fan curve without inlet vanes following its performance curve (b) air foil or backward inclined with inlet vanes (c) forward curved with inlet vanes (d) variable speed drive **Figure A-8.4.5.1.(1)** **Fan part-load curves**".
Division B Climatic Data	
Table C-1	Strike out the Note to Table C-1; Strike out the column "Degree-Days Below 15°C" in Table C.
Division B Part 10	Strike out the Part.
Division C Part 2	

2.2.1.1.	Strike out Sentence (2).
2.2.2.1.	Replace Sentences (1) and (2) by the following: "**1)** The information available for verification purposes shall be provided to show that the proposed work will conform to this Code and indicate the compliance paths that were used. **2)** Plans shall be drawn to scale and shall indicate the nature and extent of the work and proposed function in sufficient detail to establish that, when completed, the work and the proposed function will conform to this Code.".
2.2.2.2.	Replace "inspection upon request" in Sentence (1) by "verification".
2.2.2.3.	Replace the portion before Clause (1)(a) by the following: "**1)** The following documentation on the *building envelope* shall be provided for verification purposes:"; Replace Clauses (1)(b) and (1)(c) by the following: "b) total *fenestration* and door area excluding *skylights*, c) total automatic sliding door, revolving door and fire shutter area,"; Replace Clauses (1)(h) to (1)(m) by the following: "h) ratio of total f*enestration* and door area excluding *skylights* to gross wall area, i) the *effective thermal resistance* of building assemblies other than *fenestration* and doors, and the calculation method used to determine the *effective thermal resistance*, j) *overall thermal transmittance* of i) *fenestration,* ii) doors with or without glazing forming part of the *building envelope*, and iii) access hatches, k) description and location of *air barrier assemblies* in *opaque building assemblies*, l) details on the reduction of thermal bridging required in Article 3.2.1.2. of Division B, m) where Sentence 3.2.1.3.(1) of Division B applies, the indoor design temperature, and n) where Sentence 3.2.1.3.(2) of Division B applies, the heating setpoint in winter months.";

	Add the following Sentence: "**2)** Where Section 3.3. of Division B is applied, calculation details shall be provided for verification purposes and shall contain the information necessary to ensure compliance with the requirements of that Section.".
2.2.2.4.	Replace the portion before Clause (1)(a) by the following: "**1)** The following documentation on the lighting systems shall be provided for verification purposes:"; Strike out Clause (1)(b); Replace Clauses (1)(c) to (1)(e) by the following: "c) method used to determine the *interior lighting power allowance* in each space assembly, d) where the *building* area method is used, for each space assembly, i) the *floor surface area*, in m², ii) the density of the *interior lighting power allowance*, in W/m², iii) the *interior lighting power allowance*, in kW, and iv) the *installed interior lighting power*, in kW, e) where the space-by-space method is used, for each space assembly, i) the *floor surface area*, in m², of each space, ii) the density of the *interior lighting power allowance*, in W/m², of each space, iii) the *interior lighting power allowance*, in kW, and iv) the *installed interior lighting power*, in kW,"; Strike out Clause (1)(f); Strike out "and justification for spaces exempted" in Clause (1)(g); Replace Clauses (1)(h) and (1)(i) by the following: "h) adjustment and additional *interior lighting* power used, i) list of functions, spaces and/or equipment that are not included in the calculation of the *installed interior lighting power* and their controls, j) lighting zone used to determine *exterior lighting* power allowances, k) list of installed photocontrols and controlled indoor spaces, l) for each exterior application, i) the *exterior lighting* power allowance, in kW, and ii) the installed *exterior lighting* power, in kW, and

	m) installed exterior automatic controls.”; Add the following Sentence: “**2)** Where Section 4.3. of Division B is applied, calculation details shall be provided for verification purposes and shall contain the information necessary to ensure compliance with the requirements of that Section.”.
2.2.2.5.	Replace Sentence (1) by the following: “**1)** The following documentation on the HVAC systems shall be provided for verification purposes: a) a description of each system, detailing its function, design details, performance characteristics and distribution arrangement, b) schematic and control diagrams and sequences of operation, c) start/stop and adjustment procedures, d) proposed temperature control devices in the spaces, e) details on heat-recovery equipment, if applicable, f) details on ice-making machines, if applicable, g) details on food refrigeration equipment, if applicable, h) details on commercial cooking equipment, if applicable, i) temperature setpoints of the spaces, j) thermal resistance of the installed duct and *plenum* insulation and that of piping insulation, and k) limits of *temperature-control zones*, if applicable.”.
2.2.2.6.	Replace the Article by the following: “**2.2.2.6. Documentation on Service Water Heating Systems** **1)** The following documentation on the *service water* heating shall be provided for verification purposes: a) a description of each system detailing its function, design details, performance characteristics and distribution arrangement, b) schematic and control diagrams and sequences of operation, c) start/stop and adjustment procedures, and d) thermal resistance of piping insulation.”.
2.2.2.7.	Replace the Article by the following: “**2.2.2.7. Documentation on Transformers and Electric Motors** **1)** Documentation on the performance characteristics of the transformers and electric motors in Part 7 shall be provided for verification purposes.”.

2.2.2.8.	Strike out Sentence (2); Replace Clauses (3)(c) to (3)(e) by the following: "c) the lighting systems data summary section of the report shall contain the documentation required in Article 2.2.2.4. for both the proposed *building* and the reference *building* and, if daylight calculations are made, the calculation method and the results, d) the HVAC systems data summary section of the report shall contain the documentation required in Article 2.2.2.5. for the proposed *building* and the reference *building*, e) the *service water* heating data summary section of the report shall contain the documentation required in Article 2.2.2.6. for the proposed *building* and the reference *building*, and"; Replace Subclauses (3)(f)(iv) and (3)(f)(v) by the following: " iv) the *building energy target* of the reference *building* (sum of all energy sources), in MJ, v) a breakdown of energy usage, per energy source, for the following *building* components and systems: space-heating equipment, space-cooling equipment, *interior lighting*, *service water* heating equipment, elevators and escalators, fans, pumps and other HVAC equipment, miscellaneous equipment and receptacle power equipment, and vi) the maximum power demand of the electrical system determined during one year, from 1 December to 31 March inclusively, analyzed using time intervals no greater than 15 minutes unless the calculation engine only offers 60-minute intervals, for the proposed *building* and the reference *building*, in kW."; Replace Sentence (4) by the following: "**4)** The climatic data and the modeling file of the proposed *building* and the reference *building* containing inputs for the programs shall be provided for verification purposes."; Replace Sentence (5) by the following: "**5)** If the annual energy needs of the proposed *building* are not greater than the annual energy needs of the reference *building*, the report must specify that the proposed *building* meets the requirements of the annual energy needs, as described in Article 8.4.1.2. and in this Code."; Replace Sentence (6) by the following: "**6)** The report shall indicate that the analysis was performed in accordance with Part 8 of Division B of the NECB.";

	Add the following Sentences at the end of the Article: "**10)** The report shall provide an explanation for each program error message and for each discrepancy between the results of the software and the range of values recommended in ANSI/ASHRAE 140, "Standard Method of Test for the Evaluation of Building Energy Analysis Computer Programs." **11)** The report shall specify any portion of energy that reduces the *annual energy consumption* of the proposed *building*, as a reduction due to renewable energy produced on site and/or a reduction due to energy recovered on site. **12)** The report shall indicate the program(s) used.".
2.3.1.	Replace the Subsection by the following: "**2.3.1. Approval of Alternative Solutions** **2.3.1.1. Conditions for Approval** **1)** The proposed alternative solutions shall be approved by the Board on the conditions it sets pursuant to section 127 of the Building Act (chapter B-1.1).".
Division C Notes to Part 2	Strike out the Notes.

3. The provisions of Chapter I.1 of the Construction Code (chapter B-1.1, r. 2), as they read before 13 July 2024, may be applied to construction work referred to in sections 1.1.2 and 1.1.3 of the Construction Code, provided that the work begins before 13 January 2025.

4. This Regulation comes into force on the forty-fifth day following the date of its publication in the *Gazette officielle du Québec*.

106854

Gouvernement du Québec

O.C. 856-2024, 22 May 2022

Act respecting municipal taxation
(chapter F-2.1)

Maximum taxable value of the land of any agricultural operation referred to in section 231.3.1 of the Act respecting municipal taxation —Amendment

Regulation to amend the Regulation respecting the maximum taxable value of the land of any agricultural operation referred to in section 231.3.1 of the Act respecting municipal taxation

WHEREAS, under the first paragraph of section 231.3.1 of the Act respecting municipal taxation (chapter F-2.1), for the purpose of computing any municipal property tax imposed on the whole territory of a municipality, the Government may, on the recommendation of the Minister of Agriculture, Fisheries and Food, determine by regulation, for the duration of a property assessment roll, the terms for establishing the maximum taxable value of the land of any agricultural operation that is registered in accordance with section 36.0.1 of the Act respecting the Ministère de l'Agriculture, des Pêcheries et de l'Alimentation (chapter M-14) and that is included in an agricultural zone established under the Act respecting the preservation of agricultural land and agricultural activities (chapter P-41.1);

WHEREAS, in accordance with sections 10, 12 and 13 of the Regulations Act (chapter R-18.1), a draft Regulation to amend the Regulation respecting the maximum taxable value of the land of any agricultural operation referred to in section 231.3.1 of the Act respecting municipal taxation was published in Part 2 of the *Gazette officielle du Québec*

of 24 April 2024 with a notice that it could be made by the Government on the expiry of 15 days following that publication;

WHEREAS it is expedient to make the Regulation to amend the Regulation respecting the maximum taxable value of the land of any agricultural operation referred to in section 231.3.1 of the Act respecting municipal taxation without amendment;

WHEREAS, under section 18 of the Regulations Act, a regulation may come into force on the date of its publication in the *Gazette officielle du Québec* where the authority that has made it is of the opinion that the urgency of the situation requires it, and the reason justifying such coming into force must be published with the regulation;

WHEREAS the Government is of the opinion that the urgency of the situation requires having the Regulation to amend the Regulation respecting the maximum taxable value of the land of any agricultural operation referred to in section 231.3.1 of the Act respecting municipal taxation come into force on the date of its publication in the *Gazette officielle du Québec* due to the following circumstances :

1° the value of farmland has significantly increased by 10%, 11% and 13.3% in 2021, 2022 and 2023, respectively;

2° the data required for establishing the maximum taxable values became known only recently;

3° the Regulation must come into force before 1 June 2024 because that is the deadline for publishing the notice indicating the maximum taxable value that will be applied for the assessment rolls that will be subject to the equilibration referred to in section 46.1 of the Act respecting municipal taxation and will come into force during the 3 years following that of the computation;

IT IS ORDERED, therefore, on the recommendation of the Minister of Agriculture, Fisheries and Food :

THAT the Regulation to amend the Regulation respecting the maximum taxable value of the land of any agricultural operation referred to in section 231.3.1 of the Act respecting municipal taxation, attached to this Order in Council, be made.

DOMINIQUE SAVOIE
Clerk of the Conseil exécutif

Regulation to amend the Regulation respecting the maximum taxable value of the land of any agricultural operation referred to in section 231.3.1 of the Act respecting municipal taxation

Act respecting municipal taxation
(chapter F-2.1, s. 231.3.1, 1st par.)

1. The Regulation respecting the maximum taxable value of the land of any agricultural operation referred to in section 231.3.1 of the Act respecting municipal taxation (chapter F-2.1, r. 14.1) is amended in section 2 by replacing the second paragraph by the following :

"Not later than 1 June of each year preceding the coming into force of the assessment role referred to in the first paragraph, the maximum taxable value applicable for that roll must be published in a notice in the *Gazette officielle du Québec*.".

2. The first notice, following the coming into force of this Regulation, indicating the maximum taxable value applicable for the assessment rolls referred to in the first paragraph of section 2 of the Regulation respecting the maximum taxable value of the land of any agricultural operation referred to in section 231.3.1 of the Act respecting municipal taxation, which assessment rolls come into force on 1 January 2025, must be published not later than 15 June 2024.

3. This Regulation comes into force the day of its publication in the *Gazette officielle du Québec*.

106858

Gouvernement du Québec

O.C. 888-2024, 22 May 2024

Act respecting collective agreement decrees
(chapter D-2)

Non-structural metalwork industry – Montréal — Amendment

Decree to amend the Decree respecting the non-structural metalwork industry in the Montréal region

WHEREAS, under section 17.01 of the Decree respecting the non-structural metalwork industry in the Montréal region (chapter D-2, r. 14), the Decree remains in force until 30 May 2022 and it is then automatically renewed from year to year thereafter, unless one of the contracting parties opposes its renewal in a written notice sent to the

Minister of Labour and to the other contracting parties during the month of February of year 2022 or during the month of February of any subsequent year;

WHEREAS, on 13 February 2024, the employer contracting party sent a written notice to the Minister of Labour asking the Minister to revoke the Decree and, on 14 February 2024, the notice was sent to the union contracting party;

WHEREAS, under the first paragraph of section 8 of the Act respecting collective agreement decrees (chapter D-2), the Government may, at any time, extend the term of the Decree;

WHEREAS it is expedient to make the Decree to amend the Decree respecting the non-structural metalwork industry in the Montréal region to extend the term of the Decree until 30 November 2025;

WHEREAS, under the third paragraph of section 8 of the Act respecting collective agreement decrees, Divisions III and IV of the Regulations Act (chapter R-18.1) do not apply to a decree extending the term of a decree, and such a decree comes into force on the date of its issue and must be published in the *Gazette officielle du Québec*;

IT IS ORDERED, therefore, on the recommendation of the Minister of Labour:

THAT the Decree to amend the Decree respecting the non-structural metalwork industry in the Montréal region, attached to this Order in Council, be made.

DOMINIQUE SAVOIE
Clerk of the Conseil exécutif

Decree to amend the Decree respecting the non-structural metalwork industry in the Montréal region

Act respecting collective agreement decrees
(chapter D-2, s. 8, 1st par.)

1. The Decree respecting the non-structural metalwork industry in the Montréal region (chapter D-2, r. 14) is amended by replacing section 17.01 by the following:

"**17.01.** The Decree remains in force until 30 November 2025.".

2. This Decree comes into force on the date of its issue by the Government.

106859

M.O., 2024

Order 2024-0008 of the Minister of the Environment, the Fight Against Climate Change, Wildlife and Parks dated 16 May 2024

Act respecting the conservation and development of wildlife
(chapter C-61.1)

Regulation to amend the Regulation respecting hunting

THE MINISTER OF THE ENVIRONMENT, THE FIGHT AGAINST CLIMATE CHANGE, WILDLIFE AND PARKS,

CONSIDERING subparagraph 2 of the first paragraph of section 163 of the Act respecting the conservation and development of wildlife (chapter C-61.1), which provides that the Minister may make regulations limiting the number of licences or leases of each class for a zone, territory or place the Minister specifies, and determining the number of licences or leases of each class that a person is authorized to issue under section 54 of the Act for that zone, territory or place;

CONSIDERING the first paragraph of section 164 of the Act, which provides among other things that a regulation made under subparagraph 2 of the first paragraph of section 163 is not subject to the publication requirements set out in section 8 of the Regulations Act (chapter R-18.1);

CONSIDERING the making of the Regulation respecting hunting (chapter C-61.1, r. 12);

CONSIDERING that it is expedient to amend one schedule and to revoke three schedules of the Regulation;

ORDERS AS FOLLOWS:

The Regulation to amend the Regulation respecting hunting, attached hereto, is hereby made.

Québec, 16 May 2024

BENOIT CHARETTE
Minister of the Environment, the Fight Against Climate Change, Wildlife and Parks

Regulation to amend the Regulation respecting hunting

Act respecting the conservation and development of wildlife
(chapter C-61.1, s. 163, 1st par., subpar. 2)

1. The Regulation respecting hunting (chapter C-61.1, r. 12) is amended by replacing Schedule II by the following:

"**SCHEDULE II**
(s.13)

NUMBER OF HUNTING LICENCES AVAILABLE PER YEAR ACCORDING TO AREAS, PARTS OF AREAS AND TERRITORY

1. A "White-tailed deer, female or male with antlers less than 7 cm, all areas except Area 20" hunting licence:

1° in areas:

	Area			**Number of licences**
a)	1	i.	the northern part of Area 1 shown on the plan in Schedule CCXVI	0
		ii.	the southern part of Area 1 shown on the plan in Schedule CCXVI	0
b)	2	i.	the northeastern part of Area 2 shown on the plan in Schedule IX	0
		ii.	the southwestern part of Area 2 shown on the plan in Schedule IX	130
c)	3	i.	except the western part shown on the plan in Schedule X	275
		ii.	the western part of Area 3 shown on the plan in Schedule X, excluding the territory referred to in Schedule CCI	2,750
d)	4			4,500
e)	5	i.	except the western part shown on the plan in Schedule XXXVIII	650
		ii.	the western part of Area 5 shown on the plan in Schedule XXXVIII	7,000
f)	6	i.	except the northern part shown on the plan in Schedule XXXIX	12,000
		ii.	the northern part of Area 6 shown on the plan in Schedule XXXIX	8,300
g)	7	i.	except the southern part shown on the plan in Schedule CXXXIV	4,000
		ii.	the southern part of Area 7 shown on the plan in Schedule CXXXIV	5,900
h)	8	i.	except the southern part of that area shown on the plan in Schedule XIII and except the eastern part of that area shown on the plan in Schedule CXXXV	4,500
		ii.	the eastern part of Area 8 shown on the plan in Schedule CXXXV	5,000
		iii.	the southern part of Area 8 shown on the plan in Schedule XIII	4,500

	Area			Number of licences
i)	9	i.	except the western part shown on the plan in Schedule CXXXII	150
		ii.	the western part of Area 9 shown on the plan in Schedule CXXXII, excluding the parts of the territories of the municipalities: Notre-Dame-de-Bonsecours, Notre-Dame-de-la-Paix, Fassett, Namur, Saint-Émile-de-Suffolk, Boileau, Grenville, Grenville-sur-la-Rouge, Amherst, Huberdeau, Arundel, Barkmere, Montcalm, Lac-des-Seize-Îles, Wentworth-Nord, Brownsburg-Chatham, Harrington that form part of that part of Area 9 shown on the plan in Schedule CXXXII	200
		iii.	the parts of the territories of the municipalities: Notre-Dame-de-Bonsecours, Notre-Dame-de-la-Paix, Fassett, Namur, Saint-Émile-de-Suffolk, Boileau, Grenville, Grenville-sur-la-Rouge, Amherst, Huberdeau, Arundel, Barkmere, Montcalm, Lac-des-Seize-Îles, Wentworth-Nord, Brownsburg-Chatham, Harrington that form part of the western part of Area 9 shown on the plan in Schedule CXXXII	350
j)	10	i.	the eastern part of Area 10 shown on the plan in Schedule XVI.1, excluding the parts of the territories of the municipalities: Notre-Dame-de-Bonsecours, Notre-Dame-de-la-Paix, Fassett, Namur, Saint-Émile-de-Suffolk, Boileau, Grenville, Grenville-sur-la-Rouge, Amherst, Huberdeau, Arundel, Barkmere, Montcalm, Lac-des-Seize-Îles, Wentworth-Nord, Brownsburg-Chatham, Harrington that form part of that part of area	1,250
		ii.	the parts of the territories of the municipalities: Notre-Dame-de-Bonsecours, Notre-Dame-de-la-Paix, Fassett, Namur, Saint-Émile-de-Suffolk, Boileau, Grenville, Grenville-sur-la-Rouge, Amherst, Huberdeau, Arundel, Barkmere, Montcalm, Lac-des-Seize-Îles, Wentworth-Nord, Brownsburg-Chatham, Harrington that form part of Area 10 shown on the plan in Schedule XVI.1	350
		iii.	the western part of Area 10 shown on the plan in Schedule XVI	2,500
k)	11	i.	except the western part shown on the plan in Schedule XV	1,000
		ii.	the western part of Area 11 shown on the plan in Schedule XV	0
l)	12			0
m)	13		the southwestern part of Area 13 shown on the plan in Schedule CXC	0
n)	15	i.	except the western part shown on the plan in Schedule CXXXIII	0
		ii.	he western part of Area 15 shown on the plan in Schedule CXXXIII	50
o)	26	i.	except the eastern part shown on the plan in Schedule CXCIII	0
		ii.	the eastern part of Area 26 shown on the plan in Schedule CXCIII	0
p)	27	i.	except the eastern part shown on the plan in Schedule XI	2,600
		ii.	the eastern part of Area 27 shown on the plan in Schedule XI	0
q)	28			0

2° in wildlife sanctuaries:

Wildlife sanctuary	Number of licences
La Vérendrye	15
Papineau-Labelle	100
Rouge-Matawin	10

3° in controlled zones:

Controlled zone	Number of licences
Bas-Saint-Laurent	0
Jaro, including the territory referred to in Schedule CCI	70

2. A "Female moose more than 1 year old" hunting licence:

1° in areas:

Area	Number of licences
1	9,000

2° in wildlife sanctuaries:

Wildlife sanctuary	Number of licences
Ashuapmushuan	48
Chic-Chocs	183
Laurentides	0
La Vérendrye	0
Mastigouche	77
Matane	500
Papineau-Labelle	0
Port-Daniel	8
Portneuf	0
Rouge-Matawin	5
Saint-Maurice	65

3° in controlled zones:

Controlled zone	Number of licences
Batiscan-Neilson	0
Buteux-Bas-Saguenay	0
Casault	150
Jaro, including the territory referred to in Schedule CCI	0
Lac-aux-Sables	0
Lavigne	0
Lesueur	0
Maganasipi	0
Martres (des)	0
Mazana	0
Mitchinamecus	0

Wildlife sanctuary	Number of licences
Normandie	0
Nymphes (des)	0
Petawaga	55
Rapides-des-Joachims	20
Rivière-Blanche (de la)	0
Saint-Patrice	30

3. Schedules CLXXXVIII, CXCIV and CC are revoked.

4. This Regulation comes into force on the fifteenth day following the date of its publication in the *Gazette officielle du Québec*.

106856

M.O., 2024

Order of the Minister of Finance dated 10 May 2024

Taxation Act
(chapter I-3)

Regulation to amend the Mandatory Transaction Disclosure Regulation

THE MINISTER OF FINANCE,

CONSIDERING the first paragraph of section 1079.8.1 of the Taxation Act (chapter I-3) providing among other things that the expression "specified transaction" carried out by a taxpayer or a partnership means a transaction whose form and substance of the facts specific to the taxpayer or the partnership are significantly similar to the form and the substance of the facts of a transaction determined by the Minister;

CONSIDERING the fourth paragraph of section 1079.8.1 of the Taxation Act providing that for the purposes of Book X.2 of Part I of the Act, in relation to a transaction determined by the Minister under the definition of "specified transaction" in the first paragraph of that section 1079.8.1, the Minister also determines which taxpayers will be required, in accordance with section 1079.8.6.2 of the Act, to disclose a specified transaction and which will be the partnerships whose members will be subject to that obligation, if applicable, as well as the day from which the obligation to disclose specified transactions will apply;

CONSIDERING section 1079.8.6.3 of the Taxation Act providing that an information return must be filed in respect of a transaction that an advisor or a promoter commercializes or promotes, if the form and the substance of the facts of the transaction are significantly similar to the form and the substance of the facts of a transaction determined by the Minister;

CONSIDERING paragraph 2 of section 12 of the Regulations Act (chapter R-18.1) providing that a proposed regulation may be made without having been published, if the authority making it is of the opinion that the proposed regulation is designed to establish, amend or revoke norms of a fiscal nature;

CONSIDERING section 13 of the Act providing that the reason justifying the absence of such publication must be published with the regulation;

CONSIDERING section 18 of the Act providing that a regulation may come into force on the date of its publication in the *Gazette officielle du Québec*, where the authority that has made it is of the opinion that the regulation establishes, amends or revokes norms of a fiscal nature, and the reason justifying such coming into force must be published with the regulation;

CONSIDERING the Minister's opinion that the regulation attached to this Ministerial Order is designed to establish, amend or repeal norms of a fiscal nature;

CONSIDERING that it is expedient to amend the Mandatory Transaction Disclosure Regulation (chapter I-3, r. 2) so that a transaction relating to avoidance of the deemed interest rule under section 462.12 of the Taxation Act through a stock dividend is a determined transaction;

CONSIDERING that it is expedient to make the Regulation to amend the Mandatory Transaction Disclosure Regulation;

ORDERS AS FOLLOWS:

THAT the Regulation to amend the Mandatory Transaction Disclosure Regulation, attached to this Ministerial Order, is hereby made.

Québec, 10 May 2024

ERIC GIRARD
Minister of Finance

Regulation to amend the Mandatory Transaction Disclosure Regulation

Taxation Act
(chapter I-3, s. 1079.8.1, 1st par., "specified transaction" and 4th par. and s. 1079.8.6.3)

1. Schedule A to the Mandatory Transaction Disclosure Regulation (chapter I-3, r. 2) is amended by adding the following transaction at the end:

"TRANSACTION 5
"AVOIDANCE OF DEEMED INTEREST RULE UNDER Section 462.12 OF THE ACT THROUGH A STOCK DIVIDEND

"A transaction that includes the following facts is hereby determined by the Minister:

(*a*) a stock dividend is declared, at a particular time in the course of the transaction, in respect of a share that an individual, subject to tax under Part I of the Act for a taxation year that includes the particular time, holds, directly or indirectly, in any manner whatever, in the capital stock of a corporation;

(*b*) the fair market value of the share or shares issued or to be issued as the stock dividend is greater than the amount by which the paid-up capital of the shares of the corporation is increased, by reason of the payment of the dividend; and

(*c*) subject to the second paragraph, in the course of the transaction, any of the following conditions is met:

i. the individual transfers, directly or indirectly, in any manner whatever, a share of the capital stock of the corporation that includes the right to receive the remaining property of the corporation on liquidation and a designated person, in respect of the individual, holds a share of the capital stock of the corporation;

ii. a designated person, in respect of the individual, acquires, directly or indirectly, in any manner whatever, a share of the capital stock of the corporation;

iii. a designated person, in respect of the individual, holds, directly or indirectly, in any manner whatever, a share of the capital stock of the corporation, other than a share of the single class of shares of the capital stock of the corporation that are issued and include the right to receive the remaining property of the corporation on liquidation, that gives the right to receive

(1) a discretionary dividend; or

(2) a dividend in an amount, when considered on an annual basis, that is not reasonable in the circumstances; or

iv. a designated person, in respect of the individual, holds, directly or indirectly, in any manner whatever, a share of a class of the capital stock of the corporation the terms or conditions of which have been modified through a change to the corporation's articles, the fulfilment of a suspensive condition or in any other manner, so that

(1) the right to receive a dividend of the corporation or to receive the remaining property of the corporation on liquidation is created; or

(2) the amount of the dividend declarable by the corporation in respect of the share or the proportion of the property of the corporation receivable on liquidation under the right given by the share, is increased.

For the purposes of subparagraph *c* of the first paragraph, subparagraphs i to iv of that subparagraph *c*, as applicable, apply to the designated person, in respect of the individual, only if the person is a specified shareholder of the corporation at any time in the course of the transaction.

A transaction referred to in the first paragraph is not a determined transaction as the result of the application of any of subparagraphs i to iv of subparagraph *c* of the first paragraph, if the conditions set out in paragraphs *a* to *c* of section 462.12.1 of the Act are met in respect of the designated person to which the relevant subparagraph of that subparagraph *c* applies.

For the purposes of this section,

(*a*) "designated person" has the meaning assigned by section 462.7 of the Act;

(*b*) "specified shareholder" has the meaning that would be assigned by section 21.17 of the Act if the reference in that section to "any other corporation that is related to the corporation" were read as a reference to "any other corporation, other than a small business corporation, that is related to the corporation", and section 21.18 of the Act were read without reference to its paragraphs *a* and *d*.

The individual referred to in subparagraph *a* of the first paragraph is required to disclose a specified transaction in relation to a transaction referred to in the first paragraph.

The obligation to disclose the specified transaction applies as of the day on which the stock dividend referred to in subparagraph *a* of the first paragraph is declared.".

2. This Regulation comes into force on the date of its publication in the *Gazette officielle du Québec*.

106845

Draft Regulations

Draft Regulation

Act respecting collective agreement decrees
(chapter D-2)

Automotive services industry
– Lanaudière-Laurentides regions
— Amendment

Notice is hereby given, in accordance with section 5 of the Act respecting collective agreement decrees (Chapter D-2), that the Minister has received an application by the contracting parties to amend the Decree respecting the automotive services industry in the Lanaudière-Laurentides regions (chapter D-2, r. 9) and that, in accordance with sections 10 and 11 of the Regulations Act (chapter R-18.1), the Decree to amend the Decree respecting the automotive services industry in the Lanaudière-Laurentides regions, appearing below, may be made by the Government on the expiry of 45 days following this publication.

The draft Decree increases the minimum hourly wage rates provided for in the Decree.

The regulatory impact analysis shows that the amendments will have a moderate impact on the enterprises subject to the Decree.

Further information on the draft Decree may be obtained by contacting Karine Lajeunesse, Policy Development Advisor, Direction des politiques du travail, Ministère du Travail, 425, rue Jacques-Parizeau, 5e étage, Québec (Québec) G1R 4Z1; telephone: 581 628-8934, extension 80211 or 1 888-628-8934, extension 80211 (toll free); email: karine.lajeunesse@travail.gouv.qc.ca.

Any person wishing to comment on the draft Decree is requested to submit written comments within the 45-day period to the Minister of Labour, 200, chemin Sainte-Foy, 6e étage, Québec (Québec) G1R 5S1; email: ministre@travail.gouv.qc.ca.

JEAN BOULET
Minister of Labour

Decree to amend the Decree respecting the automotive services industry in the Lanaudière-Laurentides regions

Act respecting collective agreement decrees
(chapter D-2, s. 2, s. 4, 1st par., s. 6, 1st par. and s. 6.1, 1st par.)

1. The Decree respecting the automotive services industry in the Lanaudière-Laurentides regions (chapter D-2, r. 9) is amended by replacing section 9.01 by the following:

"**9.01.** The minimum hourly wage rates are as follows:

TRADES	**As of (*insert the date of coming into force of this Decree*)**	**As of (*insert the date occurring 12 months after the date of coming into force of this Decree*)**	**As of (*insert the date occurring 24 months after the date of coming into force of this Decree*)**	**As of (*insert the date occurring 36 months after the date of coming into force of this Decree*)**
1. Apprentice				
1st grade	$20.11	$20.71	$21.28	$21.87
2nd grade	$21.03	$21.66	$22.26	$22.87
3rd grade	$23.43	$24.13	$24.80	$25.48
2. Journeyman				
A	$30.01	$30.91	$31.76	$32.63
B	$27.63	$28.46	$29.24	$30.05
C	$26.15	$26.93	$27.68	$28.44
D	$23.53	$24.24	$24.90	$25.59

TRADES	As of (*insert the date of coming into force of this Decree*)	As of (*insert the date occurring 12 months after the date of coming into force of this Decree*)	As of (*insert the date occurring 24 months after the date of coming into force of this Decree*)	As of (*insert the date occurring 36 months after the date of coming into force of this Decree*)
3. Parts clerk				
1st grade	$18.35	$18.90	$19.42	$19.95
2nd grade	$19.05	$19.62	$20.16	$20.72
3rd grade	$19.85	$20.45	$21.01	$21.59
4th grade	$20.75	$21.37	$21.96	$22.56
4th class	$21.76	$22.41	$23.03	$23.66
3rd class	$23.76	$24.47	$25.15	$25.84
2nd class	$24.20	$24.93	$25.61	$26.32
1st class	$25.35	$26.11	$26.83	$27.57
4. Messenger	$17.53	$18.06	$18.55	$19.06
5. Dismantler				
1st grade	$17.91	$18.45	$18.95	$19.48
2nd grade	$18.83	$19.39	$19.93	$20.48
3rd grade	$19.88	$20.48	$21.04	$21.62
6. Washer	$19.25	$19.83	$20.37	$20.93
7. Semi-skilled worker				
1st grade	$18.43	$18.98	$19.50	$20.04
2nd grade	$20.96	$21.59	$22.18	$22.79
3rd grade	$22.17	$22.84	$23.46	$24.11
8. Service attendant				
1st grade	$17.61	$18.14	$18.64	$19.15
2nd grade	$19.14	$19.71	$20.26	$20.81
3rd grade	$21.18	$21.82	$22.42	$23.03
4th grade	$22.25	$22.92	$23.55	$24.20

”.

2. The third paragraph of section 9.01.1 is replaced by the following:

“They are entitled to the following minimum hourly wage rates:

Service attendant	As of (*insert the date of coming into force of this Decree*)	As of (*insert the date occurring 12 months after the date of coming into force of this Decree*)	As of (*insert the date occurring 24 months after the date of coming into force of this Decree*)	As of (*insert the date occurring 36 months after the date of coming into force of this Decree*)
2nd class	$23.30	$24.00	$24.66	$25.34
1st class	$24.37	$25.10	$25.79	$26.50

”.

3. Section 13.01 is amended by replacing "11 March 2024" by "(*insert the date occurring 48 months after the date of coming into force of this Decree*)", and by replacing "September 2023" and "September" by "(*insert the month and year occurring six months before the date occurring 48 months after the date of coming into force of this Decree*)" and "(*insert the month occurring six months before the date occurring 48 months after the date of coming into force of this Decree*)" respectively.

4. This Decree comes into force on the date of its publication in the *Gazette officielle du Québec*.

106855

Draft Regulation

Act respecting collective agreement decrees
(chapter D-2)

Cartage industry – Québec
— Amendment

Notice is hereby given, under section 5 of the Act respecting collective agreement decrees (chapter D-2), that the Minister has received an application from the contracting parties to amend the Decree respecting the cartage industry in the Québec region (chapter D-2, r. 3) and that, under sections 10 and 11 of the Regulations Act (chapter R-18.1), the draft Decree to amend the Decree respecting the cartage industry in the Québec region, appearing below, may be made by the Government on the expiry of 45 days following this publication.

The draft Decree is intended, in particular, to increase the minimum hourly and per-kilometre rates, as well as the maximum weekly premium paid by employees and employers for the group insurance plan.

Study of the regulatory impact shows a non-negligible impact on the enterprises subject to the decree.

Further information on the draft Decree may be obtained by contacting Vincent Huot, labour development advisor, Direction des politiques du travail, Ministère du Travail, telephone: 581 628 8934, extension 81068 or 1 888 628 8934, extension 81068 (toll free); email: vincent.huot@travail.gouv.qc.ca; mail: 425, rue Jacques Parizeau, 5e étage, Québec (Québec) G1R 4Z1.

Any person wishing to comment on the draft Decree is requested to submit written comments within the 45-day period to the Minister of Labour; email: ministre@travail.gouv.qc.ca; mail: 200, chemin Sainte-Foy, 6e étage, Québec (Québec) G1R 5S1.

JEAN BOULET
Minister of Labour

Decree amending the Decree respecting the cartage industry in the Québec region

Act respecting collective agreement decrees
(chapter D-2, s. 2, 4, 1st par., s. 6, 1st par. and s. 6.1, 1st par.)

1. The Decree respecting the cartage industry in the Québec region (chapter D-2, r. 3) is amended, in section 1.01, by striking out paragraph 17.

2. Section 7.01 is amended by replacing the first and second paragraphs by the following:

"As of (*insert here the date of coming into force of this decree*), the minimum hourly rate is established as follows for each of the employment categories determined below:

Employment Category	Hiring rate	After 6 months	After 12 months	After 24 months
1. Helper	$15.75	$16.33	$17.11	$17.94
2. Labourer	$15.75	$16.33	$17.11	$17.94
3. Assistant-mechanic	$17.64	$19.17	$19.95	$21.47
4. Driver, class A	$15.75	$16.33	$17.11	$17.94
4.1. Driver, class B	$17.94	$18.54	$19.68	$20.63
5. Road-train driver	$20.12	$21.60	$22.38	$23.86
6. Truck driver	$19.14	$19.80	$20.57	$21.53
7. Tractor semi-trailer driver	$20.33	$21.05	$21.77	$22.73
8. Tank-truck driver	$20.33	$21.05	$21.77	$22.73
9. Tank-trailer driver	$20.88	$22.38	$23.11	$24.60
10. Float driver	$20.88	$22.38	$23.11	$24.60
11. Loading machinery operator	$17.64	$19.17	$19.95	$21.47
12. Dockman	$15.75	$16.33	$17.11	$17.94
13. Mechanic	$22.60	$24.17	$24.97	$26.53
14. Packer	$15.75	$16.33	$17.11	$17.94
15. Snow removal vehicle driver	$20.12	$21.60	$22.38	$23.86
16. Welder	$21.60	$23.10	$23.86	$25.36

The minimum hourly rates provided for in the first paragraph and section 7.02 are increased by 3.5% as of *(insert here the date occurring 12 months after the date of coming into force of this decree*) and by 3.5% as of (*insert here the date occurring 24 months after the date of coming into force of this decree*).".

3. Section 7.02 is replaced by the following:

"**7.02.** As of (*insert here the date of coming into force of this decree*), the minimum hourly rate for office clerks is the following:

Hiring rate	After 6 months	After 12 months	After 24 months
$17.94	$18.66	$19.59	$20.19

".

4. Section 7.03 is amended by replacing paragraph 2 by the following:

"(2) the rate received by a driver for each kilometre travelled is the following:

As of (*insert here the date of coming into force of this decree*)	**As of** (*insert here the date occurring 12 months after the date of coming into force of this decree*)	**As of** (*insert here the date occurring 24 months after the date of coming into force of this decree*)
$0.265	$0.270	$0.275;

".

5. Section 12.01 is amended by replacing 2022", wherever it occurs, by "(*insert here the year occurring 36 months after the date of coming into force of this decree*)".

6. Section 18.01 is amended

(1) by replacing the table in subparagraph B of paragraph 1 by the following:

"

Employment Category	**As of** (*insert here the date of coming into force of this decree*)	**As of** (*insert here the date occurring 12 months after the date of coming into force of this decree*)	**As of** (*insert here the date occurring 24 months after the date of coming into force of this decree*)
1. Helper	$20.61	$21.33	$22.08
2. Driver, class I	$21.05	$21.79	$22.55
3. Driver, class II	$21.21	$21.95	$22.72
4. Driver, class III	$22.12	$22.89	$23.70
5. Driver, class IV	$22.93	$23.73	$24.56
6. Welder	$20.80	$21.53	$22.28
7. Mechanic	$22.12	$22.89	$23.70
8. Serviceman	$20.36	$21.07	$21.81;

";

(2) by replacing the table in paragraph 2 by the following:

“

Employment Category	**As of** (*insert here the date of coming into force of this decree*)	**As of** (*insert here the date occurring 12 months after the date of coming into force of this decree*)	**As of** (*insert here the date occurring 24 months after the date of coming into force of this decree*)
1. Helper	$20.12	$20.83	$21.56
2. Driver, class I	$21.95	$22.72	$23.52
3. Driver, class II	$22.14	$22.92	$23.72
4. Driver, class III	$22.37	$23.15	$23.96
5. Chauffeur, classe IV	$23.20	$24.01	$24.85
6. Welder	$21.70	$22.46	$23.25
7. Mechanic	$22.36	$23.14	$23.95
8. Serviceman	$19.87	$20.57	$21.29;

”;

(3) by replacing the table in subparagraph B of paragraph 3 by the following:

“

Employment Category	**As of** (*insert here the date of coming into force of this decree*)	**As of** (*insert here the date occurring 12 months after the date of coming into force of this decree*)	**As of** (*insert here the date occurring 24 months after the date of coming into force of this decree*)
1. Helper	$22.78	$23.58	$24.40
2. Driver, class I	$23.24	$24.05	$24.89
3. Driver, class II	$23.43	$24.25	$25.10
4. Driver, class III	$24.28	$25.13	$26.01
5. Driver, class IV	$25.14	$26.02	$26.93
6. Welder	$22.99	$23.79	$24.63
7. Mechanic	$23.86	$24.69	$25.56
8. Serviceman	$22.53	$23.32	$24.13

”.

7. Section 26.01 is amended by replacing “$35”, wherever it occurs in the second paragraph, by “$80”.

8. Section 27.01 is amended by replacing “2022”, wherever it occurs, (*insert here the year occurring 36 months after the date of coming into force of this decree*)”.

9. This decree comes into force on the day of its publication in the *Gazette officielle du Québec*.

106861

Draft Regulation

Act respecting the conservation and development of wildlife
(chapter C-61.1)

Hunting activities
—Amendment

Notice is hereby given, in accordance with sections 10 and 11 of the Regulations Act (chapter R-18.1), that the Regulation to amend the Regulation respecting hunting activities, appearing below, may be made by the Government on the expiry of 45 days following this publication.

The draft Regulation sets out procedures for the registration of a white-tailed deer or a moose killed in a zone where the possession of a cervid is permitted under the draft Regulation to amend the Regulation respecting the possession and sale of an animal, published in the *Gazette officielle du Québec* on the same date.

Further information on the draft Regulation may be obtained by contacting Caïo Alcãntara-Vasconcelos, analyst, wildlife regulations, Direction des affaires législatives, Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs, 880, chemin Sainte-Foy, 2e étage, Québec (Québec) G1S 4X4; telephone: 418 627-8691, extension 707524; email: caio.alcantaravasconcelos@environnement.gouv.qc.ca.

Any person wishing to comment on the draft Regulation is requested to submit written comments within the 45-day period to Jacob Martin-Malus, Assistant Deputy Minister for Biodiversity, Wildlife and Parks, Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs, 880, chemin Sainte-Foy, local 2.40, 2e étage, Québec (Québec), G1S 4X4; email: dal@environnement.gouv.qc.ca.

BENOIT CHARETTE
Minister of the Environment, the Fight Against Climate Change, Wildlife and Parks

Regulation to amend the Regulation respecting hunting activities

Act respecting the conservation and development of wildlife
(chapter C-61.1, s. 162, par. 16)

1. The Regulation respecting hunting activities (chapter C-61.1, r. 1) is amended in section 21 by replacing the second paragraph by the following:

"However, a white-tailed deer or a moose killed in a zone A or B referred to in section 3.5 of the Regulation respecting the sale, importation, possession and disposal of an animal or wildlife by-product (chapter C-61.1, r. 23), as made by section 4 of the Regulation to amend the Regulation respecting the possession and sale of an animal, published as a draft in the *Gazette officielle du Québec* on the same date, must be registered by a person, partnership or association authorized by the Minister under section 56.1 of the Act respecting the conservation and development of wildlife (chapter C-61.1), in the zone where possession of the white-tailed deer or moose is permitted under the first or second paragraph of section 3.6 of the Regulation respecting the sale, importation, possession and disposal of an animal or wildlife by-product, as made by section 4 of the Regulation to amend the Regulation respecting the possession and sale of an animal, published as a draft in the *Gazette officielle du Québec* on the same date.

Where there is no person, partnership or association authorized by the Minister under section 56.1 of the Act respecting the conservation and development of wildlife in such a zone, the white-tailed deer or moose must be registered by the authorized person, partnership or association that is closest to the zone.".

2. This Regulation comes into force on the fifteenth day following the date of its publication in the *Gazette officielle du Québec*.

106849

Draft Regulation

Environment Quality Act
(chapter Q-2)

Act respecting certain measures enabling the enforcement of environmental and dam safety legislation
(chapter M-11.6)

Landfilling and incineration of residual materials
—Amendment

Notice is hereby given, in accordance with sections 10 and 11 of the Regulations Act (chapter R-18.1), that the Regulation to amend the Regulation respecting the landfilling and incineration of residual materials, appearing below, may be made by the Government on the expiry of 45 days following this publication.

The draft Regulation determines which operators of engineered landfills must accept inedible meat and the other residual materials referred to in the draft Regulation

to amend the Regulation respecting the possession and sale of an animal, published in the *Gazette officielle du Québec* on the same date, to avoid the propagation of the chronic wasting disease of cervids.

Further information on the draft Regulation may be obtained by contacting Caïo Alcântara-Vasconcelos, analyst, wildlife regulations, Direction des affaires législatives, Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs, 880, chemin Sainte-Foy, 2e étage, Québec (Québec) G1S 4X4; telephone: 418 627-8691, extension 707524; email: caio.alcantaravasconcelos@environnement.gouv.qc.ca.

Any person wishing to comment on the draft Regulation is requested to submit written comments within the 45-day period to Jacob Martin-Malus, Assistant Deputy Minister for Biodiversity, Wildlife and Parks, Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs, 880, chemin Sainte Foy, local 2.40, 2e étage, Québec (Québec) G1S 4X4; email: dal@environnement.gouv.qc.ca.

BENOIT CHARETTE
Minister of the Environment, the Fight Against Climate Change, Wildlife and Parks

Regulation to amend the Regulation respecting the landfilling and incineration of residual materials

Environment Quality Act
(chapter Q-2, s. 70, pars. 2 and 5)

Act respecting certain measures enabling the enforcement of environmental and dam safety legislation
(chapter M-11.6, s. 30, 1st par.)

1. The Regulation respecting the landfilling and incineration of residual materials (chapter Q-2, r. 19) is amended by replacing section 11 by the following:

"**11.** The operator of an engineered landfill must also accept

(1) inedible meat referred to in paragraph 5 of section 8 from the administrative region in which the landfill is situated; and

(2) inedible meat and other residual materials from the administrative region in which the landfill is situated in respect of meat and other residual materials subject to section 3.9 of the Regulation respecting the sale, importation, possession and disposal of an animal or wildlife by-product (chapter C-61.1, r. 23), as enacted by section 4 of the Regulation to amend the Regulation respecting the possession and sale of an animal, published as a draft in the *Gazette officielle du Québec* on the same date.

In cases where the meat and other residual materials referred to in the first paragraph are from an administrative region where there is no engineered landfill, the operator of the engineered landfill situated closest to the place where they are from is required to accept them.

For the purposes of this section, "Administrative region" means any region established by the Décret concernant la révision des limites des régions administratives du Québec (chapter D-11, r. 1).".

2. Section 149.3 is amended by inserting "and other residual materials" after "meat" in paragraph 1.

3. This Regulation comes into force on the fifteenth day following the date of its publication in the *Gazette officielle du Québec*.

106848

Draft Regulation

Act respecting the conservation and development of wildlife
(chapter C-61.1)

Possession and sale of an animal —Amendment

Notice is hereby given, in accordance with sections 10 and 11 of the Regulations Act (chapter R-18.1), that the Regulation to amend the Regulation respecting the possession and sale of an animal, appearing below, may be made by the Government on the expiry of 45 days following this publication.

The draft Regulation has three objectives. The first is to improve the regulation of the transportation and disposal of parts that pose a risk of spreading the chronic wasting disease of cervids. The second is to set out measures to govern caribou parts that pose a risk. Finally, the draft Regulation clarifies certain provisions of the Regulation respecting the possession and sale of an animal (chapitre C-61.1, r. 23), whose name will be changed to Regulation respecting the sale, importation, possession and disposal of an animal or wildlife by-product to preclude any misunderstandings and errors of application.

In the event that the disease is detected in Québec, the estimated cost for enterprises resulting from the draft Regulation is $406,278.92, with recurring costs of $12,635.00 per year.

Further information on the draft Regulation may be obtained by contacting Caïo Alcântara-Vasconcelos, analyst, wildlife regulations, Direction des affaires législatives, Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs, 880, chemin Sainte-Foy, 2e étage, Québec (Québec) G1S 4X4; telephone: 418 627-8691, extension 707524; email: Caio.Alcantara-Vasconcelos@environnement.gouv.qc.ca.

Any person wishing to comment on the draft Regulation is requested to submit written comments within the 45-day period to Jacob Martin-Malus, Assistant Deputy Minister for biodiversity, wildlife and parks, Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs, 880, chemin Sainte-Foy, local 2.40, 2e étage, Québec (Québec) G1S 4X4; email: dal@environnement.gouv.qc.ca.

BENOIT CHARETTE
Minister of the Environment, the Fight Against Climate Change, Wildlife and Parks

Regulation to amend the Regulation respecting the possession and sale of an animal

Act respecting the conservation and development of wildlife
(chapter C-61.1, s. 69, 1st par. and s. 162, pars. 14, 16 and 23)

1. The Regulation respecting the possession and sale of an animal (chapter C-61.1, r. 23) is amended by replacing the title by "Regulation respecting the sale, importation, possession and disposal of an animal or wildlife by-product".

2. The following is added before section 1:

"**DIVISION I**
GENERAL

0.1. For the purposes of this Regulation, reference to a cervid, a moose or a caribou also applies, wherever permitted by the context, to any part of the animal and its flesh.

0.2. For the purposes of this Regulation, a case of chronic wasting disease of cervids is deemed to have been detected on the date on which the information is made available to the public by an authority having jurisdiction in Québec, another Canadian province, Canada or a foreign state.

DIVISION II
SALE OF AN ANIMAL OR WILDLIFE BY-PRODUCT".

3. The following is inserted after section 2:

"**2.1.** The sale of urine or any other by-product of a cervid, except moose, is prohibited.

DIVISION III
IMPORTATION OF AN ANIMAL OR WILDLIFE BY-PRODUCT

2.2. Importation into Québec of urine or any other by-product of a cervid, except moose, is permitted to the extent that

(1) the by-product was collected from a cervid kept in captivity at a keeping facility;

(2) on the day of collection, there is no reasonable ground to believe that a cervid kept in captivity at the facility is carrying the chronic wasting disease of cervids;

(3) in the 6 years preceding the collection, large cervids over 12 months of age that died in captivity at the facility were subject to the analysis provided for in section 134.2 of the Regulation respecting animals in captivity (chapter C-61.1, r. 5.1) and that analysis was performed, as the case may be, by a laboratory and according to a method approved by the Canadian Food Inspection Agency or by a foreign laboratory using a method approved by a competent authority of the jurisdiction the cervid came from;

(4) in the 20 years preceding the collection, none of the cervids kept in captivity at the facility had been diagnosed with the chronic wasting disease of cervids;

(5) in addition to the conditions set out in subparagraphs 1 to 4, at least one of the following conditions was met:

(*a*) in the 6 years preceding the collection, no cervids kept in captivity at a keeping facility within a 45-km radius of the keeping facility where the cervid from which a by-product was collected was kept, or cervids living in the wild within a 100-km radius of that facility had been diagnosed with the chronic wasting disease of cervids;

(*b*) the perimeter elements of the keeping facility where the cervid from which a by-product was collected was kept prevented any contact between the cervids kept in captivity at the facility and cervids living in the wild;

(6) in cases where, in the 6 years preceding the collection, a cervid from a different facility was introduced in the facility, on the day the cervid was introduced in the facility, or in the 6 or 20 years prior as the case may be, that other facility met the conditions set out in subparagraphs 2 to 5.

The person importing the urine or by-product of a cervid in Québec must, at the earliest 45 business days and at the latest 10 business days prior to importing, send to the Minister a written notice containing the following documents and information:

(1) an attestation by an authorized person from the competent authority of the jurisdiction of origin of the by-product indicating that the conditions set out in the first paragraph are met;

(2) the scientific binomen of the species of the animal of which urine or a by-product was collected;

(3) the place from which the by-product is imported;

(4) the anticipated date of importation;

(5) the location where it arrives in Québec;

(6) the place of destination.

2.3. Importation into Québec of embryos, semen, ovum or velvet-covered antlers is permitted to the extent that the conditions set out in section 2.2 are met, with the necessary modifications.

DIVISION IV
POSSESSION OF AN ANIMAL".

4. Sections 3.1 to 4 are replaced by the following:

"**3.1.** Possession of a cervid that died outside Québec is prohibited.

This prohibition does not apply to

(1) the meat or quarters if the brain, eyes, tonsils, retropharyngeal lymph nodes, spinal column, skin and subcutaneous fat, internal organs and reproductive organs have been removed;

(2) the hide, tanned or with the fat removed, and the leather;

(3) the antlers without velvet;

(4) the skull, vertebral column bones, teeth or hooves free of soft tissue and disinfected;

(5) bones not referred to in subparagraph 4.

The first paragraph does not apply to a person who, within the scope of their functions, has in their possession a cervid having died outside Québec:

(1) for the purpose of activities authorized by a meat processing, preserving, storing, packaging or labelling licence delivered under the Safe Food for Canadians Act (S.C. 2012, c. 24);

(2) for scientific, diagnostic or educational purposes in a laboratory or a university-level educational institution;

(3) for the purpose of its salvaging and reclamation in accordance with section 3.8;

(4) for the purpose of its disposal in accordance with section 3.9;

(5) to transport the cervid to a facility for the purposes referred to in subparagraphs 1 to 4.

3.2. Despite the first paragraph of section 3.1, a Native person may have in their possession a caribou that died in Labrador, Ontario or on Baffin Island, Nunavut, south of the Arctic Circle.

Where a case of the chronic wasting disease of cervids has been detected in the 6 years preceding the death of a caribou in a sector identified in Schedule I, the possession by a Native person of a caribou having died in that sector is prohibited in the corresponding sector as determined by Schedule I, subject to the exceptions provided for in the second paragraph of section 3.1.

3.3. Possession of a cervid that died in captivity in Québec is prohibited, subject to the exceptions provided for in the second paragraph of section 3.1, unless:

(1) on the day of the cervid's death, there is no reasonable ground to believe that a cervid kept at that facility is carrying the chronic wasting disease of cervids;

(2) in the 6 years preceding the cervid's death, large cervids over 12 months of age that died in captivity at that facility were subject to the analysis provided for in section 134.2 of the Regulation respecting animals in captivity (chapter C-61.1, r. 5.1) and that analysis was performed by a laboratory and according to a method approved by the Canadian Food Inspection Agency;

(3) in the 20 years preceding the cervid's death, none of the cervids kept in captivity at the facility had been diagnosed with the chronic wasting disease of cervids;

(4) in addition to the conditions set out in subparagraphs 1 to 3, at least one of the following conditions is met:

(*a*) in the 6 years preceding the cervid's death, no cervids kept in captivity at a keeping facility within a 45-km radius of the keeping facility where the dead cervid was kept, or cervids living in the wild within a 100-km radius of that facility had been diagnosed with the chronic wasting disease of cervids;

(*b*) the perimeter elements of the keeping facility where the dead cervid was kept prevent any contact between the cervids kept in captivity at the facility and cervids living in the wild;

(5) in cases where, in the 6 years preceding the cervid's death, a cervid from a different facility was introduced in the facility, on the day the cervid was introduced in the facility, or in the 6 or 20 years prior as the case may be, that other facility met the conditions set out in subparagraphs 1 to 4.

The first paragraph does not apply to persons who, within the scope of their functions, have in their possession a cervid having died in captivity in Québec

(1) on the site of the facility where the cervid was kept in captivity;

(2) in a plant where cervid meat is prepared for human consumption or in a storage depot where it is stored for the purpose of marketing in the conditions prescribed by the Food Products Act (chapter P-29) and the regulations;

(3) for the purpose of activities authorized by a meat slaughtering, processing, preserving, storing, packaging and labelling licence delivered under the Safe Food for Canadians Act (S.C. 2012, c. 24);

(4) for scientific, diagnostic or educational purposes in a laboratory, veterinary establishment or university-level educational institution;

(5) for the purpose of its salvaging and reclamation in accordance with section 3.8;

(6) for the purpose of its disposal in accordance with section 3.9;

(7) to transport the cervid to a location for the purposes referred to in subparagraphs 2 to 6.

3.4. Possession of embryos, semen, ovum or velvet-covered antlers is prohibited unless they were collected from a cervid in captivity in a keeping facility to the extent that

(1) on the day of the collection, there is no reasonable ground to believe that a cervid kept at the same facility is carrying the chronic wasting disease of cervids;

(2) in the 6 years preceding the collection, large cervids over 12 months of age that died in captivity at that facility had been subject to the analysis provided for in section 134.2 of the Regulation respecting animals in captivity (chapter C-61.1, r. 5.1) and that analysis was performed by a laboratory and according to a method approved by the Canadian Food Inspection Agency or by a foreign laboratory using a method approved by a competent authority of the jurisdiction the cervid came from;

(3) in the 20 years preceding the collection, none of the cervids kept in captivity at the facility had been diagnosed with the chronic wasting disease of cervid;

(4) in addition to the conditions set out in paragraphs 1 to 3, at least one of the following conditions is met:

(*a*) in the 6 years preceding the collection, no cervids kept in captivity at a keeping facility within a 45-km radius of the keeping facility where the cervid from which a by-product was collected was kept, or cervids living in the wild within a 100-km radius of that facility had been diagnosed with the chronic wasting disease of cervids;

(*b*) the perimeter elements of the keeping facility where the cervid from which a by-product was collected was kept prevent any contact between the cervids kept in captivity at the facility and cervids living in the wild;

(5) in cases where, in the 6 years preceding the collection, a cervid from a different facility was introduced in the facility, on the day the cervid was introduced in the facility, or in the 6 or 20 years prior as the case may be, that other facility met the conditions set out in subparagraphs 1 to 4.

3.5. The zones below are defined as follows:

Zone A: the area within a 45-km radius of the site where a case of chronic wasting disease was detected in a cervid living in the wild or in captivity or, if detected on Anticosti Island, as the case may be, the entire surface area of Anticosti, for a period of 6 years following the detection;

Zone B: the area within a radius of between 45 km and 100 km of the site, other than Anticosti Island, where a case of chronic wasting disease was detected in a cervid living in the wild, for a period of 6 years following the detection;

Zone AB: an area composed of contiguous A and B zones.

For the purposes of the first paragraph, where the 6-year period following the detection ends between 1 September and 31 December, it is extended until 31 December of that year.

3.6. The possession of a cervid, other than a caribou and subject to the exceptions provided for in the second paragraph of section 3.1, that had lived in the wild and is dead within a zone A is allowed only in that zone and in any other zone A area that partly overlaps it.

The possession of a cervid, other than a caribou and subject to the exceptions provided for in the second paragraph of section 3.1, that had lived in the wild and is dead within a zone B is allowed only in the zone AB that comprises it and in any other AB zone that partly overlaps it.

Despite the first and second paragraphs, possession of such a cervid is also permitted outside the zones in which possession is permitted for the purpose of having the animal registered in accordance with the third paragraph of section 21 of the Regulation respecting hunting activities (chapter C-61.1, r. 1) as made by section 1 of the Regulation to amend the Regulation respecting hunting activities, a draft of which was published on the same date in the *Gazette officielle du Québec*.

Despite the first and second paragraphs, if in the zone where possession of the cervid is allowed no plants where cervid meat is prepared for human consumption in the conditions prescribed by the Food Products Act (chapter P-29) and the regulations accept the cervid, possession thereof is allowed outside that zone only for the purpose of travelling to the closest plant that accepts the cervid.

The first and second paragraphs do not apply to persons who, within the scope of their functions, have such a cervid in their possession

(1) in a plant where cervid meat is prepared for human consumption in the conditions prescribed by the Food Products Act (chapter P-29) and the regulations, for the purposes of the third paragraph;

(2) for scientific, diagnostic or educational purposes in a laboratory, veterinary establishment or university-level educational institution;

(3) for the purpose of the cervid's salvaging and reclamation in accordance with section 3.8;

(4) for the purpose of the cervid's disposal in accordance with section 3.9;

(5) to transport the cervid to a location for the purposes referred to in subparagraphs 1 to 4.

3.7. The possession of a caribou, subject to the exceptions provided for in the second paragraph of section 3.1, that had lived in the wild and is dead within one of the following zones is prohibited outside of that zone if a case of chronic wasting disease was detected in the zone in the 6 years preceding the caribou's death:

(1) the Fort George and Vieux Comptoir beaver reserves, Mistassini and Saguenay beaver reserves, for the portions situated north of the parallel of latitude 53°N, and the New Québec beaver reserve, except the portion situated north of the parallel of latitude 56°N and east of the meridian of longitude 67°30′W and the portion situated south of the parallel of latitude 56°N and east of the meridian of longitude 66°30′W;

(2) the New Québec beaver reserve, for the portion situated north of the parallel of latitude 56°N and east of the meridian of longitude 67°30′W and the portion situated south of the parallel of latitude 56°N and east of the meridian of longitude 66°30′W;

(3) the Rupert and Nottaway beaver reserves, for the portions situated east of the meridian of longitude 77°W, the Abitibi beaver reserve, for the portion situated east of the meridian of longitude 77°W and north of the parallel of latitude 48°30′N, the Roberval beaver reserve, for the portion situated north of the parallel of latitude 48°30′N, the Mistassini beaver reserve, for the portion situated south of the parallel of latitude 53°N, and the Bersimis beaver reserve;

(4) south of the Abitibi, Roberval, Bersimis and Saguenay beaver reserves, and the Abitibi and Roberval beaver reserves, for the portions situated south of the parallel of latitude 48°30′N;

(5) the Saguenay beaver reserve, for the portion situated south of the parallel of latitude 53°N, except Anticosti Island.

(6) the Rupert, Nottaway and Abitibi beaver reserves, for the portions situated west of the meridian of longitude 77°W.

For the purposes of this section, the beaver reserves are those established pursuant to the Regulation respecting beaver reserves (chapter C-61.1, r. 28).

The first paragraph does not apply to persons who, within the scope of their functions, have such a caribou in their possession

(1) for scientific, diagnostic or educational purposes in a laboratory, veterinary establishment or university-level educational institution;

(2) for the purpose of its salvaging and reclamation, in accordance with section 3.8;

(3) for the purpose of its disposal, in accordance with section 3.9;

(4) to transport the caribou to a location for the purposes referred to in paragraphs 1 to 3.

DIVISION V
DISPOSAL OF AN ANIMAL OR A WILDLIFE BY-PRODUCT

3.8. Only a dismembering plant operated in accordance with the Regulation respecting food (chapter P-29, r. 1) may proceed to the reclamation of a dead cervid.

A dismembering plant may only use a dead cervid to make rendered fat containing not more than 0.15% of insoluble impurities or a product derived from it, subject to the exceptions provided for in the second paragraph of section 3.1, in the following cases:

(1) where the cervid was in the possession of a person pursuant to the third paragraph of section 3.1;

(2) where possession of the cervid is not permitted under the first paragraph of section 3.3 or where it was in the possession of a person pursuant to the second paragraph of section 3.3;

(3) where the cervid, except a caribou, having lived in the wild died in a zone A or B;

(4) where before its death, the caribou had lived in the wild in one of the zones described in the first paragraph of section 3.7 and a case of chronic wasting disease of cervids was detected in that zone in the 6 years before the caribou's death.

In the cases referred to in the second paragraph, the salvager referred to in the Regulation respecting food may salvage and transport the cervid only for the purpose of such a reclamation at the dismembering plant.

3.9. Where a person is found in possession of a cervid or a cervid by-product whose sale or possession are prohibited, or the conditions for the importation of which are not met, the person must without delay dispose thereof or proceed to its reclamation in accordance with section 3.8.

A person having in their possession a cervid that, unless reclaimed in accordance with section 3.8, must be disposed of under the first paragraph, subject to the exceptions provided for in the second paragraph of section 3.1, or a person having a cervid in their possession within the scope of their functions under sections 3.1, 3.3, 3.6 or 3.7, or a person having in their possession a cervid that died in a zone identified in sections 3.2, 3.5 or 3.7 and who wishes to dispose of the cervid, must do so using one of the following methods:

(1) incineration, at a temperature equal to or greater than 850°C for the period of time necessary to reduce all organic material to ash in a facility compliant with the Environment Quality Act (chapter Q-2) and the regulations, and the ashes are transported to an engineered landfill compliant with the Environment Quality Act (chapter Q-2) and the regulations, or used to manufacture concrete or cement;

(2) alkaline hydrolysis at a temperature of 150°C and pressure of at least 400 kPa, in an alkaline solution of sodium hydroxide (NaOH) or potassium hydroxide (KOH) at a 1.5:1 ratio of weight of alkaline solution to the weight of anatomic waste, for at least 180 minutes per cycle;

(3) thermal hydrolysis, at a temperature of 180°C and a pressure of at least 1200 kPa for at least 40 minutes per cycle;

If no service of disposal corresponding to the methods described in the first paragraph is available within a 25-km radius of the place where disposal has become necessary, the person may proceed to the disposal by landfilling in an engineered landfill or by incineration in an incineration facility compliant with the Environment Quality Act (chapter Q-2) and the regulations, the ashes from which are moved to an engineered landfill or used to manufacture concrete or cement. If neither of those services for disposal is accessible, the person may proceed to the disposal by landfilling in another landfill subject to the Regulation respecting the landfilling and incineration of residual materials (chapter Q-2, r. 18).

Where possession is permitted under the first paragraph of section 3.3, the person must proceed to the disposal in accordance with the Regulation respecting food.

Despite the first and second paragraphs, where possession of a cervid is permitted under subparagraph 1 of the second paragraph of section 3.3, a person may also dispose of a cervid by landfilling at the farm if the landfilling is done in a fenced area inaccessible to coyotes, bears, wolves and cervids living in the wild and in compliance with the requirements of Regulation respecting food.

Where a person carries out the reclamation of a cervid carcass to make rendered fat in accordance with the second paragraph of section 3.8, the person must dispose of all other products and waste resulting from the processing using one of the methods listed in the first and second paragraphs of this section.

Despite the first and second paragraphs, in all cases, a person may also dispose of a cervid that had lived in the wild at the place where it died. Where hunters butcher their own meat, they may also dispose of a cervid that was living in the wild in their household garbage if the garbage is to be disposed of by landfilling or incineration in facilities that comply with the requirements of the Environment Quality Act and the regulations.

Despite the first and second paragraphs, in diagnostic laboratories, samples must first be decontaminated by autoclaving at 134°C and a pressure of three BAR (31 psi) for one hour before landfilling or incineration in facilities that comply with the requirements of the Environment Quality Act and the regulations.

DIVISION VI
PENAL

4. A person who

(1) contravenes sections 3, 3.1 or 3.3, the first paragraph of section 3.7, or sections 3.8 or 3.9; or

(2) fails to comply with the conditions set out in sections 2.2 or 2.3, the first paragraph of section 3.2, or sections 3.4 or 3.6,

is guilty of an offence.

5. The following Schedule is added at the end:

"**SCHEDULE I**
(Section 3.2)

PROHIBITED SECTORS FOLLOWING THE DETECTION OF A CASE OF CHRONIC WASTING DISEASE OF CERVIDS

Sector where a case of chronic wasting disease of cervids has been detected	**Sector where possession of a dead caribou is prohibited**
North of the parallel of latitude 54°N in Labrador	North of the parallel of latitude 56°N, for the portion situated west of the meridian of longitude 67°30′W, between the parallel of latitude 56°N and the parallel of latitude 54°N, for the portion situated west of the meridian of longitude 66°30′W, and south of the parallel of latitude 54°N
North of the parallel of latitude 49°N in Ontario	Everywhere in Quebec except the Rupert, Nottaway and Abitibi beaver reserves, for the portions situated west of the meridian of longitude 77°W
On Baffin Island in Nunavut	Everywhere in Québec

TRANSITIONAL AND FINAL

6. Until 14 July 2028, the analysis referred to in subparagraph 3 of sections 3.3 and 3.4 of the Regulation respecting the possession and sale of an animal, as made by section 5 of this Regulation, must have been carried out since 14 July 2022 on all cervids over 12 months of age that died in captivity at the facility concerned.

7. Sections 3.5 and 3.6 of the Regulation respecting the possession and sale of an animal, as made by section 5 of this Regulation, do not apply to cases of the chronic wasting disease of cervids detected before 1 January 2019.

8. This Regulation comes into force on the fifteenth day following the date of its publication in the *Gazette officielle du Québec*, except section 5 insofar as it makes sections 3.8 and 3.9 of the Regulation respecting the possession and sale of an animal, which comes into force on 1 September 2025.

106850

Draft Regulation

Act respecting collective agreement decrees
(chapter D-2)

Security guards
— Amendment

Notice is hereby given, in accordance with section 5 of the Act respecting collective agreement decrees (chapter D-2), that the Minister has received an application from the contracting parties to amend the Decree respecting security guards (chapter D-2, r. 1) and that, in accordance with sections 10 and 11 of the Regulations Act (chapter R-18.1), the draft Decree to amend the Decree respecting security guards, appearing below, may be made by the Government on the expiry of 45 days following this publication.

The draft Decree proposes to authorize staggered working hours if certain conditions are met, to review the provisions regarding the group registered retirement savings plan, in particular by increasing the employer's mandatory contribution to the plan, and to grant one additional day of leave with pay for an employee's wedding or entry into a de facto union. The draft Decree also amends the definition of "casual employee A-04" and clarifies certain notions or provisions in the Decree to facilitate their interpretation, in particular those relating to sick leave. Lastly, the draft Decree specifies the rules applicable to the renewal of an employee's uniform and to the returning of the uniform at the end of employment.

The regulatory impact analysis shows that the amendments proposed by the draft Decree may have a minor impact on enterprises subject to the Decree.

Further information on the draft Decree may be obtained by contacting Karine Lajeunesse, Direction des politiques du travail, Ministère du Travail, 425, rue Jacques-Parizeau, 5e étage, Québec (Québec) G1R 4Z1; telephone: 581 628-8934, extension 80211 or 1 888-628-8934, extension 80211 (toll free); email: karine.lajeunesse@travail.gouv.qc.ca.

Any person wishing to comment on the draft Decree is requested to submit written comments within the 45-day period to the Minister of Labour, 200, chemin Sainte-Foy, 6e étage, Québec (Québec) G1R 5S1; email: ministre@travail.gouv.qc.ca.

JEAN BOULET
Minister of Labour

Decree to amend the Decree respecting security guards

Act respecting collective agreement decrees
(chapter D-2, s. 4, 1st par., s. 6, 1st par. and s. 6.1, 1st par.)

1. The Decree respecting security guards (chapter D-2, r. 1) is amended in section 1.01

(1) by inserting the following after paragraph 2.2:

"(2.3) "parity committee": the Comité paritaire des agents de sécurité; ";

(2) by inserting the following after paragraph 3:

"(3.1) "funeral": religious or civil ceremony held to pay the last honours to a person whose death has been officially recognized;";

(3) by inserting the following after subparagraph *c* of paragraph 17:

"(*d*) to work during a pandemic while holding a licence issued by the Bureau de la sécurité privée, other than a regular licence.";

(4) by replacing "or on foot" in subparagraph *f* of paragraph 20 by ", on foot or on horseback".

2. Section 3.01.1 is replaced by the following:

"**3.01.1.** A collective agreement may provide for the staggering of working hours on a basis other than a weekly basis, provided the average number of working hours is equivalent to the number of hours of the standard workweek.

An employer may also stagger the working hours of employees on a basis other than a weekly basis if the following conditions are met:

(1) the purpose of the schedule is not to avoid the payment of overtime hours;

(2) the employer has obtained the agreement of the employees concerned;

(3) the schedule grants the employee another type of benefit to compensate for the loss of payment of overtime hours;

(4) the employer carries on activities in special conditions;

(5) the schedule concerns a specific contract;

(6) the average number of working hours is equivalent to the number of hours of the standard workweek;

(7) working hours are scheduled over a maximum period of 4 weeks;

(8) the duration of the schedule must not exceed 1 year;

(9) the employer has forwarded a written notice to the Parity Committee at least 60 days before the implementation of the schedule.

A staggered period may be changed or renewed by the employer on its expiry on the same conditions as those provided for in the previous paragraph.".

3. Sections 4.1.01 to 4.1.04 are replaced by the following:

"**4.1.01.** The parity committee administers a group registered retirement savings plan (collective RRSP) for the benefit of eligible employees.

The plan chosen by the parity committee is the Fonds de solidarité des travailleurs du Québec (F.T.Q.) (Fonds de solidarité FTQ), which acts as trustee in respect of the amounts entrusted to it by the committee parity.

4.1.02. An employee who has the status of regular A-01 employee or part-time A-02 employee is eligible for the collective RRSP to which the employer is required to contribute. Any other employee who wishes to contribute to the plan voluntarily is also eligible.

4.1.03. An employee who has reached 71 years of age or does not meet the eligibility criteria established by the trustee or by a law governing the trustee's activities is not eligible for the collective RRSP.

4.1.04. An eligible employee who wishes to receive benefits under the collective RRSP is required to become a member of the collective RRSP by completing the enrolment form for the plan chosen by the parity committee.

4.1.05. The employer must send each employee, upon their hiring, the information document and the enrolment form for the collective RRSP, which are provided by the trustee and approved by the Autorité des marchés financiers.

The documents are sent in paper or electronic format, as the employee chooses.

The employer also informs employees of the eligibility requirements for the collective RRSP, encourages them to quickly complete the enrolment form for the plan chosen by the parity committee, and assists them if needed.

The employer must keep proof that the documents were sent to the employee and that the employer's obligation to inform was fulfilled. In the absence of such proof, the employee is presumed to have completed the enrolment form on the date on which the employee acquired the status of regular A-01 employee or part-time A-02 employee.

4.1.06. The employer is required to contribute to the collective RRSP administered by the parity committee only for eligible employees who have the status of regular A-01 employee or part-time A-02 employee, as soon as those employees become members of the plan chosen by the parity committee.

The mandatory contribution of the employer is $0.20 per hour worked to an eligible employee referred to in the first paragraph. That mandatory contribution is paid on behalf of the employee as benefit.

If the presumption provided in the fourth paragraph of section 4.1.05 applies, the employer is required to retroactively pay to the parity committee the mandatory contributions owed as of the date on which the employee acquired the status of regular A-01 employee or part-time A-02 employee, as the case may be. The parity committee gives the amount so received to the trustee for the benefit of the employee.

4.1.07. The collective RRSP is made up of the mandatory contributions of the employer and the voluntary contributions of eligible employees.

4.1.08. An eligible employee is not required to contribute financially to the collective RRSP.

4.1.09. The employer must send to the parity committee, not later than the 15th day of each month, the employer's contribution to the group RRSP for the preceding month, along with any voluntary contribution by the employee, if applicable.

4.1.10. The employer must pay employees who are ineligible for the collective RRSP under section 4.1.03 an amount equivalent to the mandatory contribution provided for in the second paragraph of section 4.1.06 to compensate for the loss of that benefit.".

4. Section 5.01 is amended by replacing "4 December 2019" in the third paragraph by "(*insert the date of coming into force of this Decree*)".

5. Section 7.01 is amended

(1) by inserting "or following" after "preceding" in paragraph 2;

(2) in paragraph 4

(*a*) by replacing "1 day" by "2 days";

(*b*) by inserting ", and the day preceding or following that day" after "on his wedding day or day of the de facto union".

6. Section 7.02 is replaced by the following:

"**7.02.** Regular A-01 employees accumulate in leave, for an absence due to sickness or accident, an amount equal to 2% of their wages for hours worked during the reference year from 1 November to 31 October, including the compensation for holidays and P-4 and P-12 premiums. The employer must inform regular A-01 employees of the amount they have accumulated in leave, not later than the 30 November following the end of the reference year.

A regular A-01 employee who is absent during the year following the reference year for a reason provided for in the first paragraph receives the equivalent in wages of the number of hours scheduled for each day of absence up to the amount accumulated during the reference year. Two days of absence for a reason provided for in section 79.7 or 79.1 of the Act respecting labour standards (chapter N-1.1) are taken from the amount accumulated in leave.

Despite the second paragraph, a regular A-01 employee must have accumulated the equivalent in wages of a full day for that day to be paid. If that is not the case, the Act respecting labour standards applies to the employee. The same applies to an employee who has not acquired the status of regular A-01.

The balance of the amount accumulated in leave, if any, is paid to a regular A-01 employee not later than 10 December of the year immediately following the end of the year where the employee could have taken a day of leave with pay.

A regular A-01 employee whose employment ends is entitled to payment of the balance of the amount accumulated that the employee could have taken as leave with pay during the current year, but is not entitled to the percentage of the wages earned during the current year where employment ends.

Despite the foregoing, where there is a change in employer and the regular A-01 employee is hired on the same workplace by the new employer and the employee has performed an average of 30 hours of work between 1 November and the date of the end of employment, the balance of the amount accumulated in leave, if any, that the employee could have taken during the current year, as well as the percentage of the wages earned during the current year where the change in employer occurs, is paid by the former employer at the time of the employee's departure.".

7. Section 8.02 is amended by inserting the following after the fifth paragraph:

"During the annual renewal, the employee must return to the employer any used part of the uniform that the employee wishes to have replaced. An employee who fails to do so may not require new uniform parts.

At the time employment ends, the employee must return to the employer every part of the uniform and the equipment provided by the employer.".

8. Section 9.01 is amended by replacing "2 July 2022" and "2022" by "4 July 2027" and "2027" respectively.

9. This Decree comes into force on the date of its publication in the *Gazette officielle du Québec*.

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