BC Building Code
Revision Package 2015

VERSION 1.01

This package contains amendments to the *2012 British Columbia Building Code* up to December 19, 2014.
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Division A - Part 1 - Sentence 1.1.1.1.(1), (2)
Amended by: Reg 175/2014
Effective: 2014-12-19
Revision: 7
Page: 5

1.1.1.1. Application of this Code

1) This Code applies to any one or more of the following:

a) the design and construction of a new *building*,

b) the *occupancy* of any *building*,

c) a change in *occupancy* of any *building*,

d) an *alteration* of any *building*,

e) an addition to any *building*,

f) the demolition of any *building*,

g) the reconstruction of any *building* that has been damaged by fire, earthquake or other cause,

h) the correction of an *unsafe condition* in or about any *building*,

i) all parts of any *building* that are affected by a change in *occupancy*,

j) the work necessary to ensure safety in parts of a *building*

   i) that remain after a demolition,

   ii) that are affected by but that are not directly involved in *alterations*, or

   iii) that are affected by but not directly involved in additions,

k) except as permitted by the British Columbia Fire Code, the installation, replacement, or *alteration* of materials or equipment regulated by this Code,

l) the work necessary to ensure safety in a relocated *building* during and after relocation,

m) safety during construction of a *building*, including protection of the public,

n) the design, installation, extension, *alteration*, renewal or repair of *plumbing systems*, and

o) the *alteration*, rehabilitation and change of *occupancy* of heritage *buildings*.

2) This Code does not apply to <the following>:

a) *sewage*, water, electrical, telephone, rail or similar public infrastructure systems located in a *street* or a public transit right of way,

b) utility towers and poles, <and> television, radio <and> other communication aerials and towers, except for loads resulting from <their being> located on or attached to *buildings*,

c) mechanical or other equipment and *appliances* not specifically regulated in these regulations,

d) flood control and hydro electric dams and structures,

e) accessory *buildings* less than 10 m^2 in *building area* that do not create a hazard,

f) temporary *buildings* <including

   i) construction site offices,

   ii) seasonal storage *buildings*,

   iii) special events facilities,

   iv) emergency facilities, and

   v) similar structures with the permission of the *authority having jurisdiction*,>

g) factory built housing and components complying with CAN/CSA-Z240 MH Series standard, but this exemption does not extend to on site preparations (*foundations*, mountings), connection to services and installation of *appliances*, and

h) areas that are specifically exempted from provincial *building* regulations by <provincial or> federal <enactments.>

Division A - Part 1 - Sentence 1.2.1.1.(1)
Amended by: BC Reg 162/2013
Effective: 2013-04-03
Revision: 2
Page: 6

1.2.1.1. Compliance with this Code

1) Compliance with this Code shall be achieved by

a) complying with the applicable acceptable solutions in Division B (see Appendix A), or

b) <using alternative solutions, accepted by the *authority having jurisdiction* under Section 2.3. of Division C, that will achieve at least the minimum level of performance required by Division B in the areas defined by the objectives and functional statements attributed to the applicable acceptable solutions (see Appendix A).>

Division A - Part 1 - Sentence 1.4.1.2.(1)
Amended by: Reg 140/2014
Effective: 2014-12-19
Revision: 6
Page: 9

<*Building of new construction* means a new *building* constructed as a separate entity, or an addition to an existing *building* where the addition has no internal pedestrian connection with the existing *building*. (See Articles 3.8.2.1. and 3.8.4.1. of Division B.)>

Division A - Part 1 - Sentence 1.4.1.2.(1)
Amended by: Reg 175/2014
Effective: 2014-12-19
Revision: 7
Page: 10

<*Dangerous goods* means those products or substances that are regulated by the "Transportation of Dangerous Goods Regulations." (See Table 3.2.7.1. of Division B of the British Columbia Fire Code.)>

Division A - Part 1 - Sentence 1.4.1.2.(1)
Amended by: Reg 175/2014
Effective: 2014-12-19
Revision: 5
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<*Secondary suite* means a *dwelling unit* having a total floor space of not more than 90 m^2 in area,

- having a floor space less than 40% of the habitable floor space of the *building*,
- located within a *building* of *residential occupancy* containing only one other *dwelling unit*, and
- located in and part of a *building* which is a single real estate entity. (See A-9.37.1.1. in Appendix A of Division B.)>

Division A - Part 1 - Sentence 1.4.1.2.(1)
Amended by: Reg 140/2014
Effective: 2014-12-19
Revision: 6
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Storage garage means a *building* or part thereof intended <primarily> for the storage or parking of motor vehicles and containing no provision for the repair or servicing of such vehicles. (See Appendix A.)

Division A - Part 1 - Sentence 1.4.1.2.(1)
Amended by: Reg 140/2014
Effective: 2014-12-19
Revision: 6
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<*Storage-type service water heater* - **Deleted**>

Division A - Part 1 - Sentence 1.4.2.1.(1)
Amended by: Reg 173/2013
Effective: 2014-12-19
Revision: 5
Page: 17

1.4.2.1. Symbols and Other Abbreviations

1) The symbols and other abbreviations in this Code shall have the meanings assigned to them in this Article and Article 1.3.2.1. of Division B.

<HDD ..... heating degree-day(s)**>**

<HVAC ..... heating, ventilation and air-conditioning**>**

<K ..... degree(s) Kelvin**>**

<R ..... thermal resistance value (imperial unit)**>**

<RSI ..... thermal resistance value (metric unit)**>**

<U-value ..... overall thermal transmittance**>**

Division A - Part 1 - Sentence 1.5.1.1.(1) and Sentence 1.5.1.1.(2)
Amended by: Reg 173/2013
Effective: 2014-12-19
Revision: 5
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1.5.1.1. Application of Referenced Documents

1) **<**Except as provided in Sentence (2), the**>** provisions of documents referenced in this Code, and of any documents referenced within those documents, apply only to the extent that they relate to

a) *buildings*, and

b) the objectives and functional statements attributed to the applicable acceptable solutions in Division B where the documents are referenced.

(See Appendix A.)

2) **<**Where a provision of the Code references the British Columbia Fire Code, the NECB or Book II (Plumbing Systems) of this Code, the applicable objectives and functional statements shall be those found in the referenced document.**>**

Division A - Part 3 - Sentence 3.2.1.1.(1)
Amended by: Reg 162/2013
Effective: 2013-04-03
Revision: 2
Page: 28

3.2.1.1. Functional Statements

1) The objectives of this Code are achieved by measures, such as those described in the acceptable solutions in Division B, that are intended to allow the *building* or its elements to perform the following functions (see Appendix A):

F83 <To control the amount of water a plumbing fixture will use.

F84 To control the flow of water to a plumbing fixture or outlet.

F85 To minimize thermal loss or gain.

F86 To minimize the use of energy for building systems.>

Division A - Part 3 - Sentence 3.2.1.1.(1)
Amended by: Reg 173/2013
Effective: 2014-12-19
Revision: 5
Page: 28

3.2.1.1. Functional Statements

1) The objectives of this Code are achieved by measures, such as those described in the acceptable solutions in Division B, that are intended to allow the *building* or its elements to perform the following functions (see Appendix A):

F90 <To limit the amount of uncontrolled air leakage through the *building* envelope.

F91 To limit the amount of uncontrolled air leakage through system components.

F92 To limit the amount of uncontrolled thermal transfer through the *building* envelope.

F93 To limit the amount of uncontrolled thermal transfer through system components.

F95 To limit the unnecessary demand or consumption of energy for heating and cooling.

F96 To limit the unnecessary demand or consumption of energy for service water heating.

F98 To limit the inefficiency of equipment.

F99 To limit the inefficiency of systems.

F100 To limit the unnecessary rejection of reusable waste energy.>

Division B - Part 1 - Sentence 1.1.2.1.(1)
Amended by: Reg 173/2013
Effective: 2014-12-19
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Division B - Part 1 - Sentence 1.1.3.1.(1)
Amended by: Reg 140/2014
Effective: 2014-12-19
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Division B - Part 1 - Sentence 1.1.4.1.(1)
Amended by: Reg 175/2014
Effective: 2014-12-19
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Division B - Part 1 - Article 1.3.1.2 - Table 1.3.1.2.
Amended by: Reg 162/2013
Effective: 2013-04-03
Revision: 2

Amended by: Reg 167/2013
Effective: 2013-12-20
Revision: 3

Amended by: Reg 173/2013
Effective: 2014-12-19
Revision: 5

Amended by: Reg 140/2014
Effective: 2014-12-19
Revision: 6

Amended by: Reg 175/2014
Effective: 2014-12-19
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Previous Pages: 34 to 50 **Replacement Pages:** 34-52

Division B - Part 1 - Sentence 1.3.2.1.(1)
Amended by: Reg 173/2013
Effective: 2014-12-19
Revision: 5
Previous Pages: 51-52 **Replacement Pages:** 52.1-52.3

Part 1
General

Section 1.1. General

1.1.1. Application

1.1.1.1. Application

1) <Fire safety plans shall conform to the British Columbia Fire Code.>

1.1.2. Objectives and Functional Statements

1.1.2.1. 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 objectives and functional statements attributed to the acceptable solutions in Division B shall be the objectives and functional statements identified in Sections 3.9., 4.5., 5.11., 6.4., 7.2., 8.3., <9.38.> and 10.4. (See Appendix A.)

1.1.3. Climatic and Seismic Data

1.1.3.1. Climatic and Seismic Values

1) <Except as required by Sentence (3), the> climatic and seismic values required for the design of *buildings* under this Code shall be in conformance with the values established by the *authority having jurisdiction* or, in the absence of such data, with Sentence (2) and the climatic and seismic values in Appendix C. (See Appendix A.)

2) The outside winter design temperatures determined from Appendix C shall be those listed for the January 2.5% values. (See Appendix A.)

3) <The driving rain wind pressure (DRWP) values in Table A.1 of CSA A440S1, "Canadian Supplement to AAMA/WDMA/CSA 101/I.S.2/A440, NAFS - North American Fenestration Standard/Specification for Windows, Doors and Skylights," shall be used for selecting the performance grades of windows, doors and skylights, as required by Article 5.10.2.2. and Subsection 9.7.4.>

1.1.3.2. Depth of Frost Penetration

1) Depth of frost penetration shall be established on the basis of local experience.

1.1.4. Fire Safety Plan

1.1.4.1. Fire Safety Plan

1) <Fire safety plans shall conform to the British Columbia Fire Code.>

Section 1.2. Terms and Abbreviations

1.2.1. Definitions of Words and Phrases

1.2.1.1. Non-defined Terms

1) Words and phrases used in Division B that are not included in the list of definitions in Article 1.4.1.2. of Division A shall have the meanings that are commonly assigned to them in the context in which they are used, taking into account the specialized use of terms by the various trades and professions to which the terminology applies.

2) Where objectives and functional statements are referred to in Division B, they shall be the objectives and functional statements described in Parts 2 of Division A and 3 of Division A.

3) Where acceptable solutions are referred to in Division B, they shall be the provisions stated in Parts 3 <to 10>.

1.2.1.2. Defined Terms

1) The words and terms in italics in Division B shall have the meanings assigned to them in Article 1.4.1.2. of Division A.

1.2.2. Symbols and Other Abbreviations

1.2.2.1. Symbols and Other Abbreviations

1) The symbols and other abbreviations in Division B shall have the meanings assigned to them in Article 1.4.2.1. of Division A and Article 1.3.2.1.

Section 1.3. Referenced Documents and Organizations

1.3.1. Referenced Documents

1.3.1.1. Effective Date

1) Unless otherwise specified herein, the documents referenced in this Code shall include all amendments, revisions, reaffirmations, reapprovals, addenda and supplements effective to 30 September 2009.

1.3.1.2. Applicable Editions

1) Where documents are referenced in this Code, they shall be the editions designated in Table 1.3.1.2. (See Appendix A.)

Table 1.3.1.2.
Documents Referenced in the <Book I (General) of the British Columbia Building Code 2012>
Forming part of Sentence 1.3.1.2.(1)

Issuing Agency	Document Number(1)	Title of Document(2)	Code Reference
<AHAM	ANSI/AHAM RAC-1-1982	Room Air Conditioners	Table 9.36.3.10.>
<AHRI	ANSI/AHRI 210/240-2008	Performance Rating of Unitary Air-Conditioning and Air-Source Heat Pump Equipment	Table 9.36.3.10.
AHRI	ANSI/AHRI 1060-2005	Performance Rating of Air-to-Air Exchangers for Energy Recovery Ventilation	9.36.3.8.(4)
AHRI	BTS-2000	Efficiency of Commercial Space Heating Boilers	Table 9.36.3.10.>
<AISI>	<S201-07>	<North American Standard for Cold-Formed Steel Framing - Product Data>	<9.24.1.2.(1)>
ANSI	A208.1-<2009>	Particleboard	Table 5.10.1.1. <9.23.15.2.(3)> 9.29.9.1.(1) 9.30.2.2.(1)
<ANSI/CSA	ANSI Z21.10.3-2004/CSA 4.3-04	Gas Water Heaters – Volume III, Storage Water Heaters With Input Ratings Above 75,000 Btu Per Hour, Circulating and Instantaneous	Table 9.36.4.2.>
ANSI/CSA	ANSI Z21.56-2006/CSA 4.7-2006	Gas-Fired Pool Heaters	Table 9.36.4.2.
ANSI/CSA	ANSI Z83.8-2006/CSA 2.6-2006	Gas Unit Heaters, Gas Packaged Heaters, Gas Utility Heaters and Gas-Fired Duct Furnaces	Table 9.36.3.10.>
ANSI/ ASHRAE	62-2001	Ventilation for Acceptable Indoor Air Quality <(except Addendum n)>	6.2.2.1.(2)
<ANSI/ ASHRAE/ IESNA	90.1-2010	Energy Standard for Buildings Except Low-Rise Residential Buildings	10.2.1.1.(1)>
<ASHRAE	ANSI/ASHRAE 103-2007	Annual Fuel Utilization Efficiency of Residential Central Furnaces and Boilers	Table 9.36.3.10.>
<ASHRAE	ANSI/ASHRAE 140-2007	Evaluation of Building Energy Analysis Computer Programs	9.36.5.4.(8)>
ASME	B18.6.1-1981	Wood Screws (Inch Series)	Table 5.10.1.1. <9.23.3.1.(3)>

Table 1.3.1.2.
Documents Referenced in the <Book I (General) of the British Columbia Building Code 2012>
Forming part of Sentence 1.3.1.2.(1)

Issuing Agency	Document Number[1]	Title of Document[2]	Code Reference
<ASME/CSA	ASME A17.1-2010/CSA B44-10	Safety Code for Elevators and Escalators	3.2.6.7.(2) 3.2.5.1.(3) 3.5.4.2.(1) 3.8.3.10.(1) Table 4.1.5.11.>
<ASTM	A 123/A 123M-09	Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products	Table 5.10.1.1. Table 9.20.16.1.>
<ASTM	A 153/A 153M-09	Zinc Coating (Hot-Dip) on Iron and Steel Hardware	Table 5.10.1.1. Table 9.20.16.1.>
<ASTM	A 252-10	Welded and Seamless Steel Pipe Piles	4.2.3.8.(1)>
ASTM	A 283/A 283M-03	Low and Intermediate Tensile Strength Carbon Steel Plates	4.2.3.8.(1)
<ASTM	A 653/A 653M-11	Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process	Table 5.10.1.1. 9.3.3.2.(1)>
<ASTM	A 792/A 792M-10	Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process	9.3.3.2.(1)>
<ASTM	A 1008/A 1008M-11	Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, <Solution Hardened, and Bake Hardenable>	4.2.3.8.(1)>
<ASTM	A 1011/A 1011M-10	Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, <and Ultra-High Strength>	4.2.3.8.(1)>
<ASTM	C 4-04	Clay Drain Tile and Perforated Clay Drain Tile	Table 5.10.1.1. 9.14.3.1.(1)>
ASTM	C 27-98	Classification of Fireclay and High-Alumina Refractory Brick	9.21.3.4.(1)
<ASTM	C 73-10	Calcium Silicate Brick (Sand-Lime Brick)	Table 5.10.1.1. 9.20.2.1.(1)>
<ASTM	C 126-11	Ceramic Glazed Structural Clay Facing Tile, Facing Brick, and Solid Masonry Units	Table 5.10.1.1. 9.20.2.1.(1)>
<ASTM	C 177-10	Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus	9.36.2.2.(1)>
<ASTM	C 212-10	Structural Clay Facing Tile	Table 5.10.1.1. 9.20.2.1.(1)>
<ASTM	C 260/C 260M-10a	Air-Entraining Admixtures for Concrete	9.3.1.8.(1)>
<ASTM	C 411-11	Hot-Surface Performance of High-Temperature Thermal Insulation	3.6.5.4.(4) 3.6.5.5.(1) 9.33.6.4.(4) 9.33.8.2.(2)>
<ASTM	C 412M-11	Concrete Drain Tile (Metric)	Table 5.10.1.1. 9.14.3.1.(1)>
ASTM	C 444M-03	Perforated Concrete Pipe (Metric)	Table 5.10.1.1. 9.14.3.1.(1)
<ASTM	C 494/C 494M-11	Chemical Admixtures for Concrete	9.3.1.8.(1)>

Table 1.3.1.2.
Documents Referenced in the <Book I (General) of the British Columbia Building Code 2012>
Forming part of Sentence 1.3.1.2.(1)

Issuing Agency	Document Number[1]	Title of Document[2]	Code Reference
<ASTM	C 518-10	Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus	9.36.2.2.(1)>
<ASTM	C 553-11	Mineral Fiber Blanket Thermal Insulation for Commercial and Industrial Applications	Table 5.10.1.1.>
<ASTM	C 612-10	Mineral Fiber Block and Board Thermal Insulation	Table 5.10.1.1.>
<ASTM	C 700-11	Standard Specification for Vitrified Clay Pipe, Extra Strength, Standard Strength, and Perforated	Table 5.10.1.1. 9.14.3.1.(1)>
<ASTM	C 834-10	Latex Sealants	Table 5.10.1.1. 9.27.4.2.(2)>
<ASTM	C 920-11	Elastomeric Joint Sealants	Table 5.10.1.1. 9.27.4.2.(2)>
<ASTM	C 954-11	Steel Drill Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Steel Studs from 0.033 in. (0.84 mm) to 0.112 in. (2.84 mm) in Thickness	9.24.1.4.(1)>
<ASTM	C 991-08e1	Flexible Fibrous Glass Insulation for Metal Buildings	Table 5.10.1.1.>
ASTM	C 1002-<07>	Steel Self-Piercing Tapping Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs	Table 5.10.1.1. 9.24.1.4.(1) 9.29.5.7.(1)
ASTM	C 1177/C 1177M-<08>	Glass Mat Gypsum Substrate for Use as Sheathing	Table 5.10.1.1. <Table 9.23.17.2.A>
<ASTM	C 1178/C 1178M-11	Coated Glass Mat Water-Resistant Gypsum Backing Panel	Table 5.10.1.1. 9.29.5.2.(1)>
<ASTM>	<C 1184-05>	<Structural Silicone Sealants>	<Table 5.10.1.1. 9.27.4.2.(2)>
<ASTM	C 1311-10	Solvent Release Sealants	Table 5.10.1.1. 9.27.4.2.(2)>
<ASTM>	<C 1330-02>	<Cylindrical Sealant Backing for Use with Cold Liquid Applied Sealants>	<Table 5.10.1.1. 9.27.4.2.(3)>
<ASTM	C 1363-05	Thermal Performance of Building Materials and Envelope Assemblies by Means of a Hot Box Apparatus	9.36.2.2.(4)>
<ASTM	C 1396/C 1396M-11	Gypsum Board	3.1.5.12.(4) Table 5.10.1.1. Table 9.23.17.2.A 9.29.5.2.(1) Table 9.29.5.3.>
ASTM	D 323-<08>	Vapor Pressure of Petroleum Products (Reid Method)	<1.4.1.2.(1)[3]>
ASTM	D 2178-<04>	Asphalt Glass Felt Used in Roofing and Waterproofing	Table 5.10.1.1.
<ASTM	D 2898-10	Accelerated Weathering of Fire-Retardant-Treated Wood for Fire Testing	3.1.5.5.(5) 3.1.5.21.(1) 3.2.2.50.(3) 3.2.3.7.(4) 9.10.14.5.(3) 9.10.15.5.(3)>
ASTM	E 90-04	Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements	5.9.1.1.(1) 9.11.1.1.(1)

Table 1.3.1.2.
Documents Referenced in the <Book I (General) of the British Columbia Building Code 2012>
Forming part of Sentence 1.3.1.2.(1)

Issuing Agency	Document Number[1]	Title of Document[2]	Code Reference
<ASTM	E 96/E 96M-10	Water Vapor Transmission of Materials	5.5.1.2.(3) 9.25.4.2.(1) <9.25.5.1.(1)> 9.30.1.2.(1)>
ASTM	E 336-<05>	Measurement of Airborne Sound <Attenuation between Rooms in Buildings>	5.9.1.1.(1) 9.11.1.1.(1)
ASTM	E 413-<04>	Classification for Rating Sound Insulation	5.9.1.1.(1) 9.11.1.1.(1)
<ASTM	E 2190-10	Insulating Glass Unit Performance and Evaluation	Table 5.10.1.1. 9.6.1.2.(1)>
<ASTM	E 2357-11	Determining Air Leakage of Air Barrier Assemblies	9.36.2.9.(1)>
ASTM	F 476-84	Security of Swinging Door Assemblies	<9.7.5.2.(2)>
<ASTM	F 1667-05	Driven Fasteners: Nails, Spikes, and Staples	9.23.3.1.(1) 9.26.2.2.(1) 9.29.5.6.(1)>
<AWPA	M4-11	Care of Preservative-Treated Wood Products	4.2.3.2.(2) Table 5.10.1.1.>
<BC>	B.C. Reg. 263/2012	<British Columbia Fire Code 2012>	<1.1.1.1.(1)[3] 1.1.4.1.(1) 1.4.1.2.(1)[3] 2.1.1.2.(4)[3] 3.1.13.1.(1) 3.2.3.21.(1) 3.2.4.6.(1) 3.2.5.16.(1) 3.3.1.2.(1) 3.3.1.10.(1) 3.3.2.3.(1) 3.3.2.15.(1) 3.3.4.3.(4) 3.3.5.2.(1) 3.3.6.1.(1) 3.3.6.3.(1) 3.3.6.3.(2) 3.3.6.4.(1) 3.3.6.4.(2) 3.3.6.6.(1) 6.2.2.6.(1) 6.2.12.2.(3) 6.2.12.3.(1) 6.2.12.4.(1) 8.1.1.1.(3) 8.1.1.3.(1) 9.10.1.2.(1) 9.10.20.4.(1) 9.10.21.8.(1)>
<BC>	B.C. Reg. 264/2012	<Book II (Plumbing Systems) of the British Columbia Building Code 2012>	<2.1.1.2.(4)[3] 5.6.2.2.(2) 7.1.2.1.(1) 9.31.6.2.(1)>

Table 1.3.1.2.
Documents Referenced in the <Book I (General) of the British Columbia Building Code 2012>
Forming part of Sentence 1.3.1.2.(1)

Issuing Agency	Document Number[1]	Title of Document[2]	Code Reference
<BC>	<R.S.B.C. 1996, c. 17>	<Architects Act>	<1.4.1.2.(1)[3]>
<BC>	<B.C. Reg. 100/2004>	<Electrical Safety Regulation>	<3.3.6.2.(4) 3.6.1.2.(1) 3.6.2.1.(6) 3.6.2.7.(1) 6.2.1.4.(1) 9.31.6.2.(2) 9.33.5.2.(1) 9.34.1.1.(1)>
<BC>	<B.C. Reg. 101/2004>	<Elevating Devices Safety Regulation>	<3.5.2.1.(1) 3.5.2.1.(2)>
<BC>	<R.S.B.C. 1996, c. 116>	<Engineers and Geoscientists Act>	<1.4.1.2.(1)[3]>
<BC>	<B.C. Reg. 103/2004>	<Gas Safety Regulation>	<6.2.1.4.(1) 9.10.22.1.(1) 9.31.6.2.(2) 9.33.5.2.(1)>
<BC>	<R.S.B.C. 1996, c. 323>	<Local Government Act>	<2.2.1.1.(1)[4]>
<BC>	<R.S.B.C. 1996, c. 293>	<Mines Act>	<1.4.1.2.(1)[3]>
<BC>	<S.B.C. 2003, c. 39>	<Safety Standards Act>	<6.2.1.4.(1) 6.2.1.4.(2) 9.31.6.2.(2) 9.33.5.2.(1) 9.33.5.2.(2)>
<BC>	<B.C. Reg. 104/2004>	<Power Engineers, Boiler, Pressure Vessel and Refrigeration Safety Regulation>	<6.2.1.4.(1) 9.31.6.2.(2) 9.33.5.2.(1)>
<BNQ	BNQ 3624-115/2007	Polyethylene (PE) Pipe and Fittings – Flexible Pipes for Drainage – Characteristics and Test Methods	Table 5.10.1.1. 9.14.3.1.(1)>
<CCBFC	NRCC 38732	National Farm Building Code of Canada 1995	1.1.1.1.(4)[3]>
<CCBFC	NRCC 54435-2011	National Energy Code of Canada for Buildings	10.2.1.1.(1) 9.36.1.3.(1) 9.36.1.3.(4) 9.36.3.1.(2) 9.36.4.1.(2)>
CGSB	CAN/CGSB-1.501-M89	Method for Permeance of Coated Wallboard	5.5.1.2.(2) <9.25.4.2.(5)>
CGSB	CAN/CGSB-7.2-9<4>	Adjustable Steel Columns	9.17.3.4.(1)
CGSB	CAN/CGSB-10.3-92	Air Setting Refractory Mortar	9.21.3.4.(2) 9.21.3.9.(1) 9.22.2.2.(2)
CGSB	CAN/CGSB-11.3-M87	Hardboard	Table 5.10.1.1. <9.27.9.1.(2)> 9.29.7.1.(1) 9.30.2.2.(1)

Table 1.3.1.2.
Documents Referenced in the <Book I (General) of the British Columbia Building Code 2012>
Forming part of Sentence 1.3.1.2.(1)

Issuing Agency	Document Number[1]	Title of Document[2]	Code Reference
CGSB	CAN/CGSB-11.5-M87	Hardboard, Precoated, Factory Finished, for Exterior Cladding	Table 5.10.1.1. <9.27.9.1.(1)>
CGSB	CAN/CGSB-12.1-M90	Tempered or Laminated Safety Glass	3.3.1.19.(2) <3.4.6.15.(1) 3.4.6.15.(3)> Table 5.10.1.1. <9.6.1.2.(1) 9.6.1.4.(1)> 9.8.8.7.(1)
CGSB	CAN/CGSB-12.2-M91	Flat, Clear Sheet Glass	Table 5.10.1.1. <9.6.1.2.(1)>
CGSB	CAN/CGSB-12.3-M91	Flat, Clear Float Glass	Table 5.10.1.1. <9.6.1.2.(1)>
CGSB	CAN/CGSB-12.4-M91	Heat Absorbing Glass	Table 5.10.1.1. <9.6.1.2.(1)>
CGSB	CAN/CGSB-12.8-97	Insulating Glass Units	Table 5.10.1.1. <9.6.1.2.(1)>
CGSB	CAN/CGSB-12.10-M76	Glass, Light and Heat Reflecting	Table 5.10.1.1. <9.6.1.2.(1)>
CGSB	CAN/CGSB-12.11-M90	Wired Safety Glass	3.3.1.19.(2) <3.4.6.15.(1) 3.4.6.15.(3)> Table 5.10.1.1. <9.6.1.2.(1) 9.6.1.4.(1)> 9.8.8.7.(1)
CGSB	CAN/CGSB-12.20-M89	Structural Design of Glass for Buildings	4.3.6.1.(1) <9.6.1.3.(1)>
CGSB	CAN/CGSB-19.22-M89	Mildew-Resistant Sealing Compound for Tubs and Tiles	9.29.10.5.(1)
CGSB	CAN/CGSB-34.22-94	Asbestos-Cement Drain Pipe	Table 5.10.1.1. 9.14.3.1.(1)
CGSB	CAN/CGSB-37.1-M89	Chemical Emulsifier Type, Emulsified Asphalt for Dampproofing	Table 5.10.1.1. 9.13.2.2.(1)
CGSB	CAN/CGSB-37.2-M88	Emulsified Asphalt, Mineral-Colloid Type, Unfilled, for Dampproofing and Waterproofing and for Roof Coatings	Table 5.10.1.1. 9.13.2.2.(1) 9.13.3.2.(1)
CGSB	CAN/CGSB-37.3-M89	Application of Emulsified Asphalts for Dampproofing or Waterproofing	5.8.2.3.(1) Table 5.10.1.1. 9.13.2.3.(1) 9.13.3.3.(1)
CGSB	CAN/CGSB-37.4-M89	Fibrated, Cutback Asphalt, Lap Cement for Asphalt Roofing	Table 5.10.1.1. 9.26.2.1.(1)
CGSB	CAN/CGSB-37.5-M89	Cutback Asphalt Plastic, Cement	Table 5.10.1.1. 9.26.2.1.(1)
CGSB	37-GP-6Ma-1983	Asphalt, Cutback, Unfilled, for Dampproofing	5.8.2.2.(6) 5.8.2.2.(7) Table 5.10.1.1. 9.13.2.2.(1)

Table 1.3.1.2.
Documents Referenced in the <Book I (General) of the British Columbia Building Code 2012>
Forming part of Sentence 1.3.1.2.(1)

Issuing Agency	Document Number[1]	Title of Document[2]	Code Reference
CGSB	CAN/CGSB-37.8-M88	Asphalt, Cutback, Filled, for Roof Coating	Table 5.10.1.1. 9.26.2.1.(1)
CGSB	37-GP-9Ma-1983	Primer, Asphalt, Unfilled, for Asphalt Roofing, Dampproofing and Waterproofing	Table 5.10.1.1. 9.26.2.1.(1)
CGSB	37-GP-12Ma-1984	Application of Unfilled Cutback Asphalt for Dampproofing	5.8.2.3.(2) Table 5.10.1.1. 9.13.2.3.(1)
CGSB	CAN/CGSB-37.16-M89	Filled, Cutback Asphalt for Dampproofing and Waterproofing	Table 5.10.1.1. 9.13.2.2.(1) 9.13.3.2.(1)
CGSB	37-GP-18Ma-1985	Tar, Cutback, Unfilled, for Dampproofing	5.8.2.2.(6) 5.8.2.2.(7) Table 5.10.1.1. 9.13.2.2.(1)
CGSB	37-GP-21M-1985	Tar, Cutback, Fibrated, for Roof Coating	Table 5.10.1.1. 9.26.2.1.(1)
CGSB	CAN/CGSB-37.22-M89	Application of Unfilled, Cutback Tar Foundation Coating for Dampproofing	5.8.2.3.(2) Table 5.10.1.1. 9.13.2.3.(1)
CGSB	37-GP-36M-1976	Application of Filled Cutback Asphalts for Dampproofing and Waterproofing	5.8.2.3.(1) Table 5.10.1.1.
CGSB	37-GP-37M-1977	Application of Hot Asphalt for Dampproofing or Waterproofing	5.8.2.3.(1) Table 5.10.1.1.
CGSB	CAN/CGSB-37.50-M89	Hot-Applied, Rubberized Asphalt for Roofing and Waterproofing	Table 5.10.1.1. 9.26.2.1.(1)
CGSB	CAN/CGSB-37.51-M90	Application for Hot-Applied Rubberized Asphalt for Roofing and Waterproofing	<5.6.1.2.(1)> 5.8.2.3.(1) Table 5.10.1.1. 9.26.15.1.(1)
CGSB	37-GP-52M-1984	Roofing and Waterproofing Membrane, Sheet Applied, Elastomeric	Table 5.10.1.1. 9.26.2.1.(1)
CGSB	CAN/CGSB-37.54-95	Polyvinyl Chloride Roofing and Waterproofing Membrane	Table 5.10.1.1. 9.26.2.1.(1)
CGSB	37-GP-55M-1979	Application of Sheet Applied Flexible Polyvinyl Chloride Roofing Membrane	<5.6.1.2.(1)> Table 5.10.1.1. 9.26.16.1.(1)
CGSB	37-GP-56M-1985	Membrane, Modified, Bituminous, Prefabricated, and Reinforced for Roofing	Table 5.10.1.1. 9.26.2.1.(1)
CGSB	37-GP-64M-1977	Mat Reinforcing, Fibrous Glass, for Membrane Waterproofing Systems and Built-Up Roofing	Table 5.10.1.1.
CGSB	41-GP-6M-1983	Sheets, Thermosetting Polyester Plastics, Glass Fiber Reinforced	Table 5.10.1.1. 9.26.2.1.(1)
CGSB	CAN/CGSB-41.24-95	Rigid Vinyl Siding, Soffits and Fascia	Table 5.10.1.1. <9.27.12.1.(1)>
CGSB	CAN/CGSB-51.25-M87	Thermal Insulation, Phenolic, Faced	<Table 9.23.17.2.A> 9.25.2.2.(1)
CGSB	51-GP-27M-1979	Thermal Insulation, Polystyrene, Loose Fill	9.25.2.2.(1)

Table 1.3.1.2.
Documents Referenced in the <Book I (General) of the British Columbia Building Code 2012>
Forming part of Sentence 1.3.1.2.(1)

Issuing Agency	Document Number[1]	Title of Document[2]	Code Reference
CGSB	CAN/CGSB-51.32-M77	Sheathing, Membrane, Breather Type	Table 5.10.1.1. 9.20.13.9.(1) 9.26.2.1.(1) 9.27.3.2.(1)
CGSB	CAN/CGSB-51.33-M89	Vapour Barrier Sheet, Excluding Polyethylene, for Use in Building Construction	Table 5.10.1.1. <9.25.4.2.(4)>
CGSB	CAN/CGSB-51.34-M86	Vapour Barrier, Polyethylene Sheet for Use in Building Construction	Table 5.10.1.1. 9.13.2.2.(1) 9.18.6.2.(1) 9.25.3.2.(2) <9.25.3.6.(1) 9.25.4.2.(3)>
CGSB	CAN/CGSB-82.6-M86	Doors, Mirrored Glass, Sliding or Folding, Wardrobe	<9.6.1.2.(2)>
CGSB	CAN/CGSB-93.1-M85	Sheet, Aluminum Alloy, Prefinished, Residential	Table 5.10.1.1. <9.27.11.1.(4)>
CGSB	CAN/CGSB-93.2-M91	Prefinished Aluminum Siding, Soffits, and Fascia, for Residential Use	<3.2.3.6.(4)> Table 5.10.1.1. <9.10.14.5.(8) 9.10.14.5.(11) 9.10.15.5.(7) 9.10.15.5.(10) 9.27.11.1.(3)>
CGSB	CAN/CGSB-93.3-M91	Prefinished Galvanized and Aluminum-Zinc Alloy Steel Sheet for Residential Use	Table 5.10.1.1. <9.27.11.1.(2)>
CGSB	CAN/CGSB-93.4-92	Galvanized Steel and Aluminum-Zinc Alloy Coated Steel Siding, Soffits and Fascia, Prefinished, Residential	Table 5.10.1.1. <9.27.11.1.(1)>
<CGSB	CAN/CGSB-149.10-M86	Determination of the Airtightness of Building Envelopes by the Fan Depressurization Method	9.36.5.10.(11)>
CSA	CAN/CSA-6.19-01	Residential Carbon Monoxide Alarming Devices	6.2.4.1.(2) <9.32.4.2.(2) 9.32.4.2.(3)>
CSA	A23.1-<09>	Concrete Materials and Methods of Concrete Construction	4.2.3.6.(1) 4.2.3.9.(1) Table 5.10.1.1. <9.3.1.1.(1)> 9.3.1.1.(4) 9.3.1.3.(1) 9.3.1.4.(1)
CSA	<CAN/CSA->A23.3-04	Design of Concrete Structures	Table 4.1.8.9. 4.3.3.1.(1)
CSA	CAN/CSA-A82.1-M87	Burned Clay Brick (Solid Masonry Units Made from Clay or Shale)	Table 5.10.1.1. 9.20.2.1.(1)
CSA	A82.4-M1978	Structural Clay Load-Bearing Wall Tile	Table 5.10.1.1. 9.20.2.1.(1)
CSA	A82.5-M1978	Structural Clay Non-Load-Bearing Tile	Table 5.10.1.1. 9.20.2.1.(1)
CSA	CAN3-A82.8-M78	Hollow Clay Brick	Table 5.10.1.1. 9.20.2.1.(1)

Table 1.3.1.2.
Documents Referenced in the <Book I (General) of the British Columbia Building Code 2012>
Forming part of Sentence 1.3.1.2.(1)

Issuing Agency	Document Number[1]	Title of Document[2]	Code Reference
CSA	CAN/CSA-A82.27-M91	Gypsum Board	3.1.5.12.(4) Table 5.10.1.1. Table 9.23.17.2.A 9.29.5.2.(1)
CSA	A82.30-M1980	Interior Furring, Lathing and Gypsum Plastering	Table 5.10.1.1. 9.29.4.1.(1)
CSA	A82.31-M1980	Gypsum Board Application	<3.2.3.6.(4)> Table 5.10.1.1. 9.10.12.4.(3) <9.10.14.5.(8) 9.10.14.5.(11) 9.10.15.5.(7) 9.10.15.5.(10)> 9.29.5.1.(2)
CSA	CAN3-A93-M82	Natural Airflow Ventilators for Buildings	Table 5.10.1.1. 9.19.1.2.(5)
CSA	A123.1-<05/A123.5-05>	Asphalt Shingles Made From Organic Felt and Surfaced with Mineral Granules</Asphalt Shingles Made From Glass Felt and Surfaced with Mineral Granules>	Table 5.10.1.1. 9.26.2.1.(1)
CSA	<CAN/CSA-A123.2-03>	Asphalt-Coated Roofing Sheets	Table 5.10.1.1. 9.26.2.1.(1)
CSA	A123.3-<05>	Asphalt Saturated Organic Roofing Felt	Table 5.10.1.1. 9.26.2.1.(1)
CSA	CAN/CSA-A123.4-04	Asphalt for Constructing Built-Up Roof Coverings and Waterproofing Systems	Table 5.10.1.1. 9.13.2.2.(1) 9.13.3.2.(1) 9.26.2.1.(1)
<CSA>	<A123.17-05>	<Asphalt Glass Felt Used in Roofing and Waterproofing>	<Table 5.10.1.1. 9.26.2.1.(1)>
CSA	CAN3-A123.51-M85	Asphalt Shingle Application on Roof Slopes 1:3 and Steeper	<5.6.1.2.(1)> Table 5.10.1.1. 9.26.1.2.(1)
CSA	CAN3-A123.52-M85	Asphalt Shingle Application on Roof Slopes 1:6 to Less Than 1:3	<5.6.1.2.(1)> Table 5.10.1.1. 9.26.1.2.(1)
CSA	<CAN/CSA->A165.1-04	Concrete Block Masonry Units	Table 5.10.1.1. 9.15.2.2.(1) 9.17.5.1.(1) 9.20.2.1.(1) 9.20.2.6.(1)
CSA	<CAN/CSA->A165.2-04	Concrete Brick Masonry Units	Table 5.10.1.1. 9.20.2.1.(1)
CSA	<CAN/CSA->A165.3-04	Prefaced Concrete Masonry Units	Table 5.10.1.1. 9.20.2.1.(1)
CSA	CAN3-A165.4-M85	Autoclaved Cellular Units	Table 5.10.1.1. 9.20.2.1.(1)

Table 1.3.1.2.
Documents Referenced in the <Book I (General) of the British Columbia Building Code 2012>
Forming part of Sentence 1.3.1.2.(1)

Issuing Agency	Document Number[1]	Title of Document[2]	Code Reference
CSA	<CAN/CSA-> A179-04	Mortar and Grout for Unit Masonry	Table 5.10.1.1. 9.15.2.2.(3) 9.20.3.1.(1)
<CSA	CAN/CSA-A220 Series-06	Concrete Roof Tiles	Table 5.10.1.1. 9.26.2.1.(1) 9.26.17.1.(1)>
CSA	CAN/CSA-A324-M88	Clay Flue Liners	9.21.3.3.(1)
CSA	<CAN/CSA-> A371-04	Masonry Construction for Buildings	<5.6.1.2.(2)> Table 5.10.1.1. 9.15.2.2.(3) 9.20.3.2.(7) 9.20.15.2.(1)
CSA	CAN/CSA-A405-M87	Design and Construction of Masonry Chimneys and Fireplaces	9.21.3.5.(1) 9.22.1.4.(1) 9.22.5.2.(2)
<CSA>	<AAMA/WDMA/CSA 101/I.S.2/A440-08	NAFS – North American Fenestration Standard/ Specification for Windows, Doors, and Skylights	5.10.2.2.(1) 5.10.2.2.(3) 9.7.4.1.(1) 9.7.4.2.(1) 9.7.4.3.(2) 9.7.5.1.(1) 9.7.5.3.(1) 9.36.2.9.(3)>
<CSA	A440.2-09/A440.3-09	Fenestration Energy Performance/User Guide to CSA A440.2-09, Fenestration Energy Performance	9.36.2.2.(3)>
<CSA>	<A440S1-09>	<Canadian Supplement to AAMA/WDMA/CSA 101/I.S.2/ A440, NAFS – North American Fenestration Standard/ Specification for Windows, Doors, and Skylights, as updated by Update No. 1 (July 2013)>	<1.1.3.1.(3) 5.10.2.2.(1) 9.7.4.2.(1) 9.36.2.9.(3)>
<CSA	CAN/CSA-A660-10	Certification of Manufacturers of Steel Building Systems	4.3.4.3.(1)>
CSA	CAN/CSA-A3001-<08>	Cementitious Materials for Use in Concrete	Table 5.10.1.1. 9.3.1.2.(1) 9.28.2.1.(1)
CSA	CAN/CSA-B72-M87	Installation Code for Lightning Protection Systems	6.3.1.4.(1)
CSA	B111-1974	Wire Nails, Spikes and Staples	9.23.3.1.(1) 9.26.2.2.(1) 9.29.5.6.(1)
CSA	B139-04	Installation Code for Oil-Burning Equipment	6.2.1.4.(1) 9.31.6.2.(2) 9.33.5.2.(1)
<CSA	B140.12-03	Oil-Burning Equipment: Service Water Heaters for Domestic Hot Water, Space Heating, and Swimming Pools	Table 9.36.4.2.>
<CSA	CAN/CSA-B182.1-11	Plastic Drain and Sewer Pipe and Pipe Fittings	Table 5.10.1.1. 9.14.3.1.(1)>
<CSA	CAN/CSA-B211-00	Energy Efficiency of Oil-Fired Storage Tank Water Heaters	Table 9.36.4.2.>

Table 1.3.1.2.
Documents Referenced in the <Book I (General) of the British Columbia Building Code 2012>
Forming part of Sentence 1.3.1.2.(1)

Issuing Agency	Document Number[1]	Title of Document[2]	Code Reference
<CSA	B212-00	Energy Utilization Efficiencies of Oil-Fired Furnaces and Boilers	9.36.3.10.>
<CSA	CAN/CSA-B214-12	Installation Code for Hydronic Heating Systems	6.2.1.1.(1) 9.33.4.2.(1)>
<CSA	CAN/CSA-B355-09	Lifts for Persons with Physical Disabilities	3.8.3.10.(1)>
CSA	CAN/CSA-B365-01	Installation Code for Solid-Fuel-Burning Appliances and Equipment	6.2.1.4.(1) 6.2.1.4.(2) 9.22.10.2.(1) 9.31.6.2.(2) 9.33.5.2.(1) 9.33.5.2.(2) 9.33.5.3.(1)
<CSA	B415.1-10	Solid-Fuel-Burning Heating Appliances	Table 9.36.3.10.>
CSA	C22.1-09	Canadian Electrical Code, Part I	3.3.6.2.(4) 3.6.1.2.(1) 3.6.2.1.(6) 3.6.2.7.(1) 6.2.1.4.(1) 9.31.6.2.(2) 9.33.5.2.(1) 9.34.1.1.(1)
<CSA	C22.2 No. 0.3-09	Test Methods for Electrical Wires and Cables	3.1.4.3.(1) 3.1.4.3.(2) 3.1.5.18.(1) 3.1.5.18.(3) 9.34.1.5.(1)>
CSA	C22.2 No. 141-<10>	<Emergency Lighting Equipment>	3.2.7.4.(2) <3.4.5.1.(3) 9.9.11.3.(3) 9.9.12.3.(7)>
CSA	C22.2 No. 211.0-03	General Requirements and Methods of Testing for Nonmetallic Conduit	3.1.5.20.(1)
<CSA>	<CAN/CSA-C22.2 No. 262-04>	<Optical Fiber Cable and Communication Cable Raceway Systems>	<3.1.5.20.(1)>
<CSA	CAN/CSA-C191-04	Performance of Electric Storage Tank Water Heaters for Domestic Hot Water Service	Table 9.36.4.2.>
<CSA	CAN/CSA-C260-M90	Rating the Performance of Residential Mechanical Ventilating Equipment	9.32.3.5.(2) 9.32.3.5.(5) 9.32.3.6.(2)>
<CSA	CAN/CSA-C282-09	Emergency Electrical Power Supply for Buildings	3.2.7.5.(1)>
<CSA	CAN/CSA-C368.1-M90	Performance Standard for Room Air Conditioners	Table 9.36.3.10.>
<CSA	CAN/CSA-C439-09	Rating the Performance of Heat/Energy-Recovery Ventilators	9.36.3.8.(4) 9.36.3.9.(3)>
CSA	CAN/CSA-C448 Series-02	Design and Installation of Earth Energy Systems	9.33.5.2.(1)
<CSA	CAN/CSA-C656-05	Split-System and Single-Package Central Air Conditioners and Heat Pumps	Table 9.36.3.10.>

Table 1.3.1.2.
Documents Referenced in the <Book I (General) of the British Columbia Building Code 2012>
Forming part of Sentence 1.3.1.2.(1)

Issuing Agency	Document Number[1]	Title of Document[2]	Code Reference
<CSA	CAN/CSA-C745-03	Energy Efficiency of Electric Storage Tank Water Heaters and Heat Pump Water Heaters	Table 9.36.4.2.>
<CSA	CAN/CSA-C746-06	Rating Large and Single Packaged Vertical Air Conditioners and Heat Pumps	Table 9.36.3.10.>
<CSA	C748-94	Direct-Expansion (DX) Ground-Source Heat Pumps	Table 9.36.3.10.>
<CSA	CAN/CSA-C749-07	Performance of Dehumidifiers	Table 9.36.3.10.>
<CSA	CAN/CSA-C828-06	Thermostats Used with Individual Room Electric Space Heating Devices	9.36.3.6.(3)>
<CSA	CAN/CSA-C13256-1-01	Water-Source Heat Pumps - Testing and Rating for Performance - Part 1: Water-to-Air and Brine-to-Air Heat Pumps (Adopted ISO 13256-1:1998, with Canadian Deviations)	Table 9.36.3.10.>
<CSA	CAN/CSA-C13256-2-01	Water-Source Heat Pumps - Testing and Rating for Performance - Part 2: Water-to-Water and Brine-to-Water Heat Pumps (Adopted ISO 13256-2:1998, with Canadian Deviations)	Table 9.36.3.10.>
<CSA	F280-12	Determining the Required Capacity of Residential Space Heating and Cooling Appliances	9.33.5.1.(1)>
CSA	CAN/CSA-F326-M91	Residential Mechanical Ventilation Systems	9.32.3.1.(1)
<CSA	CAN/CSA-G30.18-09	Carbon Steel Bars for Concrete Reinforcement	9.3.1.1.(4)>
CSA	CAN/CSA-G40.21-04	<General Requirements for Rolled or Welded> Structural Quality Steel	4.2.3.8.(1) Table 5.10.1.1. 9.23.4.3.(2)
CSA	<CAN/CSA->G401-<07>	Corrugated Steel Pipe Products	Table 5.10.1.1. 9.14.3.1.(1)
CSA	<CAN/CSA->O80 Series-<08>	Wood Preservation	<3.1.4.5.(1)> 4.2.3.2.(1) 4.2.3.2.(2) Table 5.10.1.1.
<CSA>	<CAN/CSA-O80.1-08>	<Specification of Treated Wood>	<9.3.2.9.(5)>
<CSA>	<CAN/CSA-O80.2-08>	<Processing and Treatment>	<4.2.3.2.(1)>
<CSA>	<CAN/CSA-O80.3-08>	<Preservative Formulations>	<4.2.3.2.(1)>
CSA	O80.15-97	Preservative Treatment of Wood for Building Foundation Systems, Basements, and Crawl Spaces by Pressure Processes	4.2.3.2.(1)
CSA	O86-<09>	Engineering Design in Wood	Table 4.1.8.9. 4.3.1.1.(1)
CSA	O115-M1982	Hardwood and Decorative Plywood	Table 5.10.1.1. <9.27.8.1.(1)> 9.30.2.2.(1)
CSA	O118.1-<08>	Western Red Cedar Shakes and Shingles	Table 5.10.1.1. 9.26.2.1.(1) 9.27.7.1.(1)

Table 1.3.1.2.
Documents Referenced in the <Book I (General) of the British Columbia Building Code 2012>
Forming part of Sentence 1.3.1.2.(1)

Issuing Agency	Document Number[1]	Title of Document[2]	Code Reference
CSA	O118.2-<08>	Eastern White Cedar Shingles	Table 5.10.1.1. 9.26.2.1.(1) 9.27.7.1.(1)
CSA	O121-<08>	Douglas Fir Plywood	Table 5.10.1.1. <9.23.15.2.(1) 9.23.16.2.(1) Table 9.23.17.2.A 9.27.8.1.(1)> 9.30.2.2.(1) Table A-13 Table A-14 Table A-15
CSA	CAN/CSA-O122-<06>	Structural Glued-Laminated Timber	Table A-11 Table A-16
CSA	CAN/CSA-O132.2 Series-90	Wood Flush Doors	<9.7.4.3.(4)>
CSA	O141-05	Softwood Lumber	Table 5.10.1.1. 9.3.2.6.(1)
CSA	O151-<09>	Canadian Softwood Plywood	Table 5.10.1.1. <9.23.15.2.(1) 9.23.16.2.(1) Table 9.23.17.2.A 9.27.8.1.(1)> 9.30.2.2.(1) Table A-13 Table A-14 Table A-15
CSA	O153-	Poplar Plywood	Table 5.10.1.1. <9.23.15.2.(1) 9.23.16.2.(1) Table 9.23.17.2.A 9.27.8.1.(1)> 9.30.2.2.(1)
CSA	O177-<06>	Qualification Code for Manufacturers of Structural Glued-Laminated Timber	4.3.1.2.(1) Table A-11 Table A-16
CSA	CAN/CSA-O325-<07>	Construction Sheathing	Table 5.10.1.1. <Table 9.23.13.6. 9.23.15.2.(1) 9.23.15.4.(2) Table 9.23.15.5.B 9.23.16.2.(1) 9.23.16.3.(2) Table 9.23.16.7.B Table 9.23.17.2.B> 9.29.9.1.(2) 9.29.9.2.(5) Table A-13 Table A-14 Table A-15

Table 1.3.1.2.
Documents Referenced in the <Book I (General) of the British Columbia Building Code 2012>
Forming part of Sentence 1.3.1.2.(1)

Issuing Agency	Document Number[1]	Title of Document[2]	Code Reference
CSA	O437.0-93	OSB and Waferboard	Table 5.10.1.1. <9.23.15.2.(1) 9.23.15.4.(2) 9.23.16.2.(1) 9.23.16.3.(2) Table 9.23.17.2.A 9.27.10.1.(1)> 9.29.9.1.(2) 9.30.2.2.(1) Table A-13 Table A-14 Table A-15
<CSA	CAN/CSA-P.2-07	Measuring the Annual Fuel Utilization Efficiency of Residential Gas-Fired Furnaces and Boilers	Table 9.36.3.10.>
<CSA	CAN/CSA-P.3-04	Measuring Energy Consumption and Determining Efficiencies of Gas-Fired Storage Water Heaters	Table 9.36.4.2.>
<CSA	P.6-09	Measuring Thermal Efficiency of Gas-Fired Pool Heaters	Table 9.36.4.2.>
<CSA	CAN/CSA-P.7-10	Measuring Energy Loss of Gas-Fired Instantaneous Water Heaters	Table 9.36.4.2.>
<CSA	CAN/CSA-P.8-09	Thermal Efficiencies of Industrial and Commercial Gas-Fired Package Furnaces	Table 9.36.3.10.>
<CSA	CAN/CSA-P.9-11	Performance of Combined Space and Water Heating Systems (Combos)	Table 9.36.3.10. 9.36.3.10.(3) Table 9.36.4.2. Table 9.36.5.15.C.>
<CSA	P.10-07	Performance of Integrated Mechanical Systems for Residential Heating and Ventilation	9.36.3.9.(2) Table 9.36.3.10. Table 9.36.4.2. Table 9.36.5.15.C.>
<CSA	CAN/CSA-P.11-07	Measuring Efficiency and Energy Consumption of Gas-Fired Unit Heaters	Table 9.36.3.10.>
CSA	S16-<09>	Design of Steel Structures	Table 4.1.8.9. 4.3.4.1.(1)
CSA	CAN/CSA-S136-<07>	North American Specification for the Design of Cold-Formed Steel Structural Members (using the Appendix B provisions applicable to Canada)	Table 4.1.8.9. 4.3.4.2.(1)
CSA	<CAN/CSA->S157 <-05/S157.1-05>	Strength Design in Aluminum</Commentary on CSA S157-05, Strength Design in Aluminum>	4.3.5.1.(1)
CSA	S269.1-1975	Falsework for Construction Purposes	4.1.1.3.(4)
CSA	CAN/CSA-S269.2-M87	Access Scaffolding for Construction Purposes	4.1.1.3.(4)
CSA	CAN/CSA-S269.3-M92	Concrete Formwork	4.1.1.3.(4)
CSA	S304.1-04	Design of Masonry Structures	Table 4.1.8.9. 4.3.2.1.(1)
CSA	S307-	Load Test Procedure for Wood Roof Trusses for Houses and Small Buildings	<9.23.14.11.(5)>
<CSA>	<CAN/CSA-S350-M>	<Code of Practice for Safety in Demolition of Structures>	<8.1.1.3.>

Table 1.3.1.2.
Documents Referenced in the <Book I (General) of the British Columbia Building Code 2012>
Forming part of Sentence 1.3.1.2.(1)

Issuing Agency	Document Number[1]	Title of Document[2]	Code Reference
<CSA	S367-09	Air-, Cable-, and Frame-Supported Membrane Structures	4.4.1.1.(1)>
CSA	CAN/CSA-S406-92	Construction of Preserved Wood Foundations	9.15.2.4.(1) 9.16.5.1.(1)
CSA	S413-<07>	Parking Structures	4.4.2.1.(1)
<CSA	Z32-09	Electrical Safety and Essential Electrical Systems in Health Care Facilities	3.2.7.3.(4) 3.2.7.6.(1)>
CSA	CAN/CSA-Z240 MH Series	Mobile Homes	<1.1.1.1.(2)>
CSA	Z240.2.1-<09>	Structural Requirements for <Manufactured> Homes	9.12.2.2.(6) 9.15.1.3.(1)
CSA	Z240.10.1-<08>	Site Preparation, Foundation, and Anchorage of <Manufactured> Homes	9.15.1.3.(1) 9.23.6.3.(1)
CSA	CAN/CSA-Z317.2-01	Special Requirements for Heating, Ventilation, and Air Conditioning (HVAC) Systems in Health Care Facilities	6.2.1.1.(1)
<CSA	Z662-11/Z662.1-11	Oil and Gas Pipeline Systems/Commentary on CSA Z662-11	3.2.3.22.(1)>
<CSA	Z7396.1-09	Medical Gas Pipeline Systems – Part 1: Pipelines for Medical Gases and Vacuum	3.7.3.1.(1)>
<CTI	201(04)	Certification of Water-Cooling Tower Thermal Performance	Table 9.36.3.10.>
CWC	200<9>	Engineering Guide for Wood Frame Construction	9.4.1.1.(1) <9.23.13.1.(2) 9.23.13.2.(2) 9.23.13.3.(2)>
<DOE	10 CFR, Part 430-2011	Energy, Energy Conservation Program for Consumer Products	Table 9.36.4.2.>
<DOE	10 CFR, Part 431-2011	Energy, Energy Efficiency Program for Certain Commercial and Industrial Equipment	Table 9.36.4.2.>
<EPA	40 CFR, Part 60-2008	Protection of Environment, Standards of Performance for New Stationary Sources	Table 9.36.3.10.>
<EPA>	<625/R-92/016 (1994)>	<Radon Prevention in the Design and Construction of Schools and Other Large Buildings>	<6.2.1.1.(1)>
<HVI	HVI Publication 915-2009	Loudness Testing and Rating Procedure	9.32.3.5.(5)>
<HVI	HVI Publication 916-2009	Airflow Test Procedure	9.32.3.5.(2) 9.32.3.6.(2)>
<ICC	400-2007	Design and Construction of Log Structures	9.36.2.2.(5)>
<ISO>	<3864-1:2002>	<Graphical symbols – Safety colours and safety signs – Part 1: Design principles for safety signs in workplaces and public areas>	<3.4.5.1.(2) 9.9.11.3.(2)>
<ISO>	<7010:2003>	<Graphical symbols – Safety colours and safety signs – Safety signs used in workplaces and public areas>	<3.4.5.1.(2) 9.9.11.3.(2)>
ISO	8201:1987(E)	Acoustics – Audible emergency evacuation signal	<3.2.4.19.(2)>

Table 1.3.1.2.
Documents Referenced in the <Book I (General) of the British Columbia Building Code 2012>
Forming part of Sentence 1.3.1.2.(1)

Issuing Agency	Document Number[1]	Title of Document[2]	Code Reference
<NFPA	13-2013	Installation of Sprinkler Systems	2.2.7.1.(1)[4] 3.1.9.1.(4) 3.2.4.9.(2) 3.2.4.16.(1) 3.2.5.12.(1) 3.3.2.13.(3) 9.10.9.6.(11)>
<NFPA	13D-2010	Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes	3.2.4.1.(2) 3.2.5.12.(3) 9.10.18.2.(3)>
<NFPA	13R-2010	Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height	3.2.5.12.(2)>
<NFPA	14-2010	Installation of Standpipe and Hose Systems	2.2.7.1.(1)[4] 3.2.5.9.(1) 3.2.5.10.(1)>
<NFPA	20-2010	Installation of Stationary Pumps for Fire Protection	3.2.4.10.(4) 3.2.5.18.(1)>
<NFPA>	<68-2007>	<Explosion Protection by Deflagration Venting>	<3.3.6.4.(2)>
<NFPA	80-2010	Fire Doors and Other Opening Protectives	3.1.8.5.(2) 3.1.8.10.(2) 3.1.8.14.(1) 3.1.9.1.(5) 9.10.9.6.(13) 9.10.13.1.(1)>
NFPA	82-200<9>	Incinerators and Waste and Linen Handling Systems and Equipment	6.2.6.1.(1) 9.10.10.5.(2)
<NFPA	91-2010	Exhaust Systems for Air Conveying of Vapors, Gases, Mists, and Noncombustible Particulate Solids	6.2.12.3.(1)>
<NFPA	96-2011	Ventilation Control and Fire Protection of Commercial Cooking Operations	3.2.4.9.(2) 6.2.2.7.(1)>
<NFPA	101-2012	Life Safety Code	3.3.2.1.(2) 3.3.2.1.(3)>
<NFPA	211-2010	Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances	6.3.1.2.(2) 6.3.1.3.(1)>
<NFPA	214-2011	Water-Cooling Towers	6.2.3.14.(3)>
<NFRC	100-2010	Determining Fenestration Product U-factors	9.36.2.2.(3)>
<NFRC	200-2010	Determining Fenestration Product Solar Heat Gain Coefficient and Visible Transmittance at Normal Incidence	9.36.2.2.(3)>
<NLGA	2010	Standard Grading Rules for Canadian Lumber	9.3.2.1.(1) Table A-1>
SMACNA	<ANSI/SMACNA 006-2006>	HVAC Duct Construction Standards – Metal and Flexible	9.33.6.5.(2)
TC		Canadian Aviation Regulations – Part III	<4.1.5.13.(1)>
<TPIC	2011	Truss Design Procedures and Specifications for Light Metal Plate Connected Wood Trusses	9.23.14.11.(6)>

Table 1.3.1.2.
Documents Referenced in the <Book I (General) of the British Columbia Building Code 2012>
Forming part of Sentence 1.3.1.2.(1)

Issuing Agency	Document Number[1]	Title of Document[2]	Code Reference
UL	<ANSI/>UL 300<-2005>	<Fire Testing of> Fire Extinguishing Systems for Protection of <Commercial> Cooking <Equipment>	<6.2.2.7.(2)>
<UL	731-1995	Oil-Fired Unit Heaters	Table 9.36.3.10.>
ULC	CAN/ULC-S101-0<7>	Fire Endurance Tests of Building Construction and Materials	3.1.5.12.(3) 3.1.5.12.(4) 3.1.5.12.(6) 3.1.7.1.(1) 3.1.11.7.(1) 3.2.3.8.(1) 3.2.6.5.(6) <9.10.16.3.(1)>
<ULC	CAN/ULC-S102-10	Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies	3.1.5.21.(1) 3.1.12.1.(1) 3.2.2.50.(3)>
ULC	CAN/ULC-S102.2-0<7>	<Test for Surface Burning Characteristics of Flooring, Floor Coverings, and Miscellaneous Materials and Assemblies>	3.1.12.1.(2) 3.1.13.4.(1)
ULC	CAN/ULC-S102.3-0<7>	Fire Test of Light Diffusers and Lenses	3.1.13.4.(1)
<ULC	CAN/ULC-S102.4-10	Standard Method of Test for Fire and Smoke Characteristics of Electrical Wiring, Cables and Non-Metallic Raceways	3.1.5.18.(2) 3.1.5.20.(2)>
ULC	CAN4-S104-M80	Fire Tests of Door Assemblies	3.1.8.4.(1) 3.2.6.5.(3)
ULC	CAN4-S105-M85	Fire Door Frames Meeting the Performance Required by CAN4-S104	9.10.13.6.(1)
ULC	CAN4-S106-M80	Fire Tests of Window and Glass Block Assemblies	3.1.8.4.(1)
<ULC	CAN/ULC-S107-10	Fire Tests of Roof Coverings	3.1.15.1.(1)>
ULC	CAN/ULC-S109-03	Flame Tests of Flame-Resistant Fabrics and Films	3.1.6.5.(1) 3.1.16.1.(1) 3.6.5.2.(2) 3.6.5.3.(1) 9.33.6.3.(1)
ULC	CAN/ULC-S110-<07>	Test for Air Ducts	3.6.5.1.(2) 3.6.5.1.(5) 9.33.6.2.(2) 9.33.6.2.(4)
ULC	ULC-S111-<07>	Fire Tests for Air Filter Units	6.2.3.13.(1) <9.33.6.14.(1)>
<ULC	CAN/ULC-S112-10	Fire Test of Fire-Damper Assemblies	3.1.8.4.(1)>
<ULC	CAN/ULC-S112.1-10	Leakage Rated Dampers for Use in Smoke Control Systems	6.2.3.9.(3)>
<ULC>	<CAN/ULC-S113-07>	<Wood Core Doors Meeting the Performance Required by CAN/ULC-S104 for Twenty Minute Fire Rated Closure Assemblies>	<9.10.13.2.(1)>
ULC	CAN</ULC>-S114-<05>	Test for Determination of Non-Combustibility in Building Materials	1.4.1.2.(1)[3]

Table 1.3.1.2.
Documents Referenced in the <Book I (General) of the British Columbia Building Code 2012>
Forming part of Sentence 1.3.1.2.(1)

Issuing Agency	Document Number[1]	Title of Document[2]	Code Reference
<ULC	CAN/ULC-S115-11	Fire Tests of Firestop Systems	3.1.5.16.(3) 3.1.9.1.(1) 3.1.9.1.(2) 3.1.9.1.(3) 3.1.9.4.(4) 9.10.9.6.(2) 9.10.9.7.(3)>
ULC	CAN</ULC>-S124-<06>	Test for the Evaluation of Protective Coverings for Foamed Plastic	3.1.5.12.(2)
ULC	CAN/ULC-S126-<06>	Test for Fire Spread Under Roof-Deck Assemblies	3.1.14.1.(1)
ULC	CAN/ULC-S134-92	Fire Test of Exterior Wall Assemblies	3.1.5.5.(1) <3.2.2.50.(3) 3.2.3.7.(3) 9.10.14.5.(2) 9.10.15.5.(2) 9.10.15.5.(3)>
ULC	ULC-S135-04	Test Method for the Determination of Combustibility Parameters of Building Materials Using an Oxygen Consumption Calorimeter (Cone Calorimeter)	3.1.5.1.(2)
<ULC>	<CAN/ULC-S138-06>	<Test for Fire Growth of Insulated Building Panels in a Full-Scale Room Configuration>	<3.1.5.12.(7)>
<ULC>	<ULC-S139-00>	<Fire Test for Evaluation of Integrity of Electrical Cables>	<3.2.7.10.(2) 3.2.7.10.(3)>
<ULC>	<CAN/ULC-S143-09>	<Fire Tests for Non-Metallic Electrical and Optical Fibre Cable Raceway Systems>	<3.1.5.20.(1)>
ULC	<ULC->S505-1974	Fusible Links for Fire Protection Service	3.1.8.9.(1)
ULC	CAN/ULC-S524-<06>	Installation of Fire Alarm Systems	<3.1.8.12.(2) 3.1.8.12.(3)> 3.2.4.5.(1) <3.2.4.20.(4) 3.2.4.21.(7) 3.2.4.21.(12) 9.10.19.4.(3) 9.10.19.6.(2)>
<ULC	CAN/ULC-S531-02	Standard for Smoke Alarms	3.2.4.21.(1) 3.3.2.16.(4) 9.10.19.1.(1) 9.37.2.19.(1)>
ULC	CAN/ULC-S537-04	Verification of Fire Alarm Systems	3.2.4.5.(2)
ULC	CAN/ULC-S553-02	Installation of Smoke-Alarms	<3.2.4.21.(10) 9.10.19.3.(2)>
ULC	CAN/ULC-S561-03	Installation and Services for Fire Signal Receiving Centres and Systems	<3.2.4.8.(4)>
<ULC>	<CAN/ULC-S572-10>	<Photoluminescent and Self-Luminous Signs and Path Marking Systems>	<3.4.5.1.(3) 3.4.5.1.(4) 9.9.11.3.(3) 9.9.11.3.(4)>

Table 1.3.1.2.
Documents Referenced in the <Book I (General) of the British Columbia Building Code 2012>
Forming part of Sentence 1.3.1.2.(1)

Issuing Agency	Document Number(1)	Title of Document(2)	Code Reference
ULC	CAN/ULC-S610-M87	Factory-Built Fireplaces	9.22.8.1.(1)
ULC	ULC-S628-93	Fireplace Inserts	9.22.10.1.(1)
ULC	CAN/ULC-S629-M87	650°C Factory-Built Chimneys	9.33.10.2.(1)
ULC	CAN/ULC-S639-M87	Steel Liner Assemblies for Solid-Fuel Burning Masonry Fireplaces	9.22.2.3.(1)
<ULC	CAN/ULC-S701-11	Thermal Insulation, Polystyrene, Boards and Pipe Covering	Table 5.10.1.1. 9.15.4.1.(1) <Table 9.23.17.2.A.> 9.25.2.2.(1)>
ULC	CAN/ULC-S702-<09>	Mineral Fibre Thermal Insulation for Buildings	Table 5.10.1.1. <Table 9.23.17.2.A.> 9.25.2.2.(1)
<ULC	CAN/ULC-S703-09	Cellulose Fibre Insulation (CFI) for Buildings	Table 5.10.1.1. 9.25.2.2.(1)>
<ULC	CAN/ULC-S704-11	Thermal Insulation, Polyurethane and Polyisocyanurate, Boards, Faced	Table 5.10.1.1. Table 9.23.17.2.A. 9.25.2.2.(1)>
ULC	CAN/ULC-S705.1-01	Thermal Insulation – Spray Applied Rigid Polyurethane Foam, Medium Density – Material - Specification	Table 5.10.1.1. 9.25.2.2.(1)
ULC	CAN/ULC-S705.2-<05>	Thermal Insulation – Spray-Applied Rigid Polyurethane Foam, Medium Density <— Application>	5.3.1.3.(3) Table 5.10.1.1. 9.25.2.5.(1)
<ULC	CAN/ULC-S706-09	Standard for Wood Fibre Insulating Boards for Buildings	Table 5.10.1.1. 9.23.16.7.(3) Table 9.23.17.2.A 9.25.2.2.(1) 9.29.8.1.(1)>
<ULC	CAN/ULC-S710.1-05	Thermal Insulation – Bead-Applied One Component Polyurethane Air Sealant Foam, Part 1: Material Specification	9.36.2.10.(6)>
<ULC	CAN/ULC-S711.1-05	Thermal Insulation – Bead-Applied Two Component Polyurethane Air Sealant Foam, Part 1: Material Specification	9.36.2.10.(6)>
<ULC>	<CAN/ULC-S741-08>	<Air Barrier Materials - Specification>	<5.4.1.2.(1) 9.36.2.10.(1)>
<ULC	CAN/ULC-S742-11	Air Barrier Assemblies – Specification	9.36.2.9.(1)>
ULC	ULC/ORD-C199P-2002	Combustible Piping for Sprinkler Systems	<3.2.5.13.(2) 3.2.5.13.(5)>
ULC	ULC/ORD-C1254.6-1995	Fire Testing of Restaurant Cooking Area Fire Extinguishing System Units	<6.2.2.7.(2)>
<US Congress		National Appliance Energy Conservation Act of 1987	Table 9.36.4.2. Table 9.36.5.16.>

Notes to Table 1.3.1.2.:
(1) Some documents may have been reaffirmed or reapproved. Check with the applicable issuing agency for up-to-date information.
(2) Some titles have been abridged to omit superfluous wording.
(3) Code reference is in Division A.
(4) Code reference is in Division C.

1.3.2. Organizations

1.3.2.1. Abbreviations of Proper Names

1) The abbreviations of proper names in this Code shall have the meanings assigned to them in this Article (the appropriate addresses of the organizations are shown in brackets).

ACGIH ..... American Conference of Governmental Industrial Hygienists (1330 Kemper Meadow Drive, Cincinnati, Ohio 45240-1634 U.S.A.; www.acgih.org)

<AHAM ..... Association of Home Appliance Manufacturers (111 19th Street, NW, Suite 402, Washington, D.C. 20036 U.S.A.; www.aham.org)

AHRI ..... Air-Conditioning, Heating and Refrigeration Institute (2111 Wilson Boulevard, Suite 500, Arlington, Virginia 22201 U.S.A.; www.ahrinet.org)**>**

AISI ..... American Iron and Steel Institute (1140 Connecticut Avenue, NW, Suite 705, Washington, D.C. 20036 U.S.A.; www.steel.org)

ANSI ..... American National Standards Institute (25 West 43rd Street, 4th Floor, New York, New York 10036 U.S.A.; www.ansi.org)

ASCE ..... American Society of Civil Engineers (1801 Alexander Bell Drive, Reston, Virginia 20191 U.S.A.; www.asce.org)

ASHRAE ..... American Society of Heating, Refrigerating and Air-Conditioning Engineers (1791 Tullie Circle, N.E., Atlanta, Georgia 30329 U.S.A.; www.ashrae.org)

ASME ..... American Society of Mechanical Engineers (Three Park Avenue, New York, New York 10016-5990 U.S.A.; www.asme.org)

ASTM ..... American Society for Testing and Materials International (100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428–2959 U.S.A.; www.astm.org)

AWPA ..... American Wood Protection Association (P.O. Box 361784, Birmingham, Alabama 35236-1784 U.S.A.; www.awpa.com)

BIA ..... Brick Industry Association (1850 Centennial Park Drive, Suite 301, Reston, Virginia 20191 U.S.A.; www.bia.org)

BNQ ..... Bureau de normalisation du Québec (333, rue Franquet, Québec (Québec) G1P 4C7; www.bnq.qc.ca)

CAN ..... National Standard of Canada designation. (The number or name following the CAN designation represents the agency under whose auspices the standard is issued.CAN3 designates CSA, and CAN4 designates ULC.)

CCBFC ..... Canadian Commission on Building and Fire Codes (National Research Council of Canada, Ottawa, Ontario K1A 0R6; www.nationalcodes.ca)

CGSB ..... Canadian General Standards Board (Place du Portage, Phase III, 6B1, 11 Laurier Street, Gatineau, Quebec K1A 1G6; www.pwgsc.gc.ca/cgsb)

CHC ..... Canadian Hydronics Council (295 The West Mall, Suite 330, Toronto, Ontario M9C 4Z4; www.ciph.com)

CISC ..... Canadian Institute of Steel Construction (3760 14th Avenue, Suite 200, Markham, Ontario L3R 3T7; www.cisc.ca)

CMHC ..... Canada Mortgage and Housing Corporation (700 Montreal Road, Ottawa, Ontario K1A 0P7; www.cmhc.ca)

CRCA ..... Canadian Roofing Contractors' Association (2430 Don Reid Drive, Suite 100, Ottawa, Ontario K1H 1E1; www.roofingcanada.com)

CSA ..... Canadian Standards Association (5060 Spectrum Way, Suite 100, Mississauga, Ontario L4W 5N6; www.csa.ca)

<CTI ..... Cooling Technology Institute (P.O. Box 73383, Houston, Texas 77273-3383 U.S.A.; www.cti.org)**>**

CWC ..... Canadian Wood Council (99 Bank Street, Suite 400, Ottawa, Ontario K1P 6B9; www.cwc.ca)

<DOE ..... Department of Energy (1000 Independence Avenue, SW, Washington, D.C. 20585 U.S.A.; http://energy.gov)**>**

EC ..... Environment Canada (351 St. Joseph Boulevard, Vincent Massey Place, 8th Floor, Gatineau,

Quebec K1A 0H3; www.ec.gc.ca)

EPA ..... Environmental Protection Agency (1200 Pennsylvania Avenue NW, Washington, D.C. 20460 U.S.A.; www.epa.gov)

FPI ..... FPInnovations – Wood Products (formerly FCC – Forintek Canada Corporation) (319, rue Franquet, Québec (Québec) G1P 4R4; www.forintek.ca)

HC ..... Health Canada (Address Locator 0900C2, Ottawa, Ontario K1A 0K9; www.hc-sc.gc.ca)

HI ..... Hydronics Institute (35 Russo Place, Berkley Heights, New Jersey 07922 U.S.A.; www.gamanet.org)

HRAI ..... Heating, Refrigeration and Air Conditioning Institute of Canada (2800 Skymark Avenue, Building 1, Suite 201, Mississauga, Ontario L4W 5A6; www.hrai.ca)

HVI ..... Home Ventilating Institute (1000 N. Rand Road, Suite 214, Wauconda, Illinois 60084 U.S.A.; www.hvi.org)

<ICC ..... International Code Council (500 New Jersey Avenue, NW, 6th Floor, Washington, D.C. 20001 U.S.A.; www.iccsafe.org)**>**

ISO ..... International Organization for Standardization (Standards Council of Canada, 270 Albert Street, Suite 200, Ottawa, Ontario K1P 6N7; www.iso.org)

MSC ..... Meteorological Service of Canada [formerly AES - Atmospheric Environment Service] (Environment Canada, 4905 Dufferin Street, Toronto, Ontario M3H 5T4; www.msc-smc.ec.gc.ca)

NBC ..... National Building Code of Canada 2010 (see CCBFC)

NCMA ..... National Concrete Masonry Association (13750 Sunrise Valley Drive, Herndon, Virginia 20171-4662 U.S.A.; www.ncma.org)

<NECB ..... National Energy Code of Canada for Buildings 2011 (see CCBFC)**>**

NFPA ..... National Fire Protection Association (1 Batterymarch Park, Quincy, Massachusetts 02169-7471 U.S.A.; www.nfpa.org)

<NFRC ..... National Fenestration Rating Council (6305 Ivy Lane, Suite 140, Greenbelt, Maryland 20770 U.S.A.; www.nfrc.org)**>**

NIST ..... National Institute of Standards and Technology (100 Bureau Drive, Stop 1070, Gaithersburg, Maryland 20899-1070 U.S.A.; www.nist.gov)

NLGA ..... National Lumber Grades Authority (#302-960 Quayside Drive, New Westminster, British Columbia V3M 6G2; www.nlga.org)

NRC ..... National Research Council of Canada (Ottawa, Ontario K1A 0R6; www.nrc-cnrc.gc.ca)

NRCA ..... National Roofing Contractors Association (10255 W. Higgins Road, Suite 600, Rosemont, Illinois 60018-5607 U.S.A.; www.nrca.net)

NRC-IRC ..... Institute for Research in Construction (National Research Council of Canada, Ottawa, Ontario K1A 0R6; irc.nrc-cnrc.gc.ca)

NYCDH ..... New York City Department of Health and Mental Hygiene (Environmental and Occupational Disease Epidemiology, 253 Broadway, Suite 402, CN-34C, New York, New York 10007-2333 U.S.A.; www.nyc.gov/html/doh)

OMMAH ..... Ontario Ministry of Municipal Affairs and Housing (777 Bay Street, 2nd Floor, Toronto, Ontario M5G 2E5; www.ontario.ca/buildingcode)

SMACNA ..... Sheet Metal and Air Conditioning Contractors' National Association (4201 Lafayette Center Drive, Chantilly, Virginia 20151-1219 U.S.A.; www.smacna.org)

TC ..... Transport Canada (330 Sparks Street, Ottawa, Ontario K1A 0N5; www.tc.gc.ca)

TECA ..... Thermal Environmental Comfort Association (PO Box 73105, Evergreen RO Surrey, BC, V3R 0J2; www.teca.ca)

<TPIC ..... Truss Plate Institute of Canada (c/o MiTek Canada Inc., 100 Industrial Road, Bradford, Ontario L3Z 3G7; www.tpic.ca)**>**

TWC ..... Tarion Warranty Corporation (formerly Ontario New Home Warranty Program) (5150 Yonge Street, Concourse Level, Toronto, Ontario M2N 6L8; www.tarion.com)

UL ..... Underwriters Laboratories Inc. (333 Pfingsten Road, Northbrook, Illinois 60062-2096 U.S.A.; www.ul.com)

ULC ..... Underwriters' Laboratories of Canada (7 Underwriters Road, Toronto, Ontario M1R 3B4; www.ulc.ca)

WCLIB ..... West Coast Lumber Inspection Bureau (P.O. Box 23145, Portland, Oregon 97281 U.S.A.; www.wclib.org)

WWPA ..... Western Wood Products Association (522 SW Fifth Avenue, Suite 500, Portland, Oregon 97204-2122 U.S.A.; www.wwpa.org)

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Division B - Part 3 - Sentence 3.1.2.6.(1)
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3.1.2.6. Group A, Division 2, Low Occupant Load

1) A *suite* of Group A, Division 2 *Assembly occupancy*<, except a child or infant daycare facility,> is permitted to be classified as a Group D, *business and personal services occupancy* provided

a) the number of persons in the *suite* does not exceed 30, and

b) except as permitted by Sentence 3.1.2.7.(1), the *suite* is separated from the remainder of the *building* by a *fire separation* having a *fire-resistance rating* of not less than 1 hr.

2) The *fire separation* required by Sentence (1) need not have a *fire-resistance rating* where the *suite* is located in a *building* that is *sprinklered* throughout.

3) A permanent sign, with lettering not less than 50 mm high with a 12 mm stroke, indicating the lesser of the *occupant load* for the *suite* or 30 persons, shall be posted in a conspicuous location near the *suite's* principal entrance.

Division B - Part 3 - Sentence 3.1.2.8.
Amended by: Reg 175/2014
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3.1.2.8. Daycare Facilities for Children

(See Appendix A.)

1) A daycare facility for children shall be classified as a Group A, Division 2 *assembly occupancy*. (See also Article 3.3.2.16.)>

Division B - Part 3 - Sentence 3.1.5.18.(2)
Amended by: Reg 175/2014
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2) <Except as permitted in Sentences (3) and (4), optical fibre cables and electrical wires and cables with *combustible* insulation, jackets or sheathes that are used for the transmission of voice, sound or data and are not located in totally enclosed *noncombustible* raceways are permitted to be installed in a *plenum* in a *building* required to be of *noncombustible construction*, provided the wires and cables exhibit a horizontal flame distance of not more than 1.5 m, an average optical smoke density of not more than 0.15, and a peak optical smoke density of not more than 0.5 when tested in conformance with <CAN/ULC-S102.4, "Standard Method of Test for Fire and Smoke Characteristics of Electrical Wiring, Cables and Non-Metallic Raceways,"> (FT6 rating).

Division B - Part 3 - Sentence 3.1.5.20.(2)
Amended by: Reg 175/2014
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2) <Totally enclosed non-metallic raceways used in a *plenum* in a *building* required to be of *noncombustible construction* shall exhibit a horizontal flame distance of not more than 1.5 m, an average optical smoke density of not more than 0.15, and a peak optical smoke density of not more than 0.5 when tested in conformance with CAN/ULC-S102.4, "Fire and Smoke Characteristics of Electrical Wiring and Cables," (FT6 rating).>

Division B - Part 3 - Sentence 3.1.5.21.(1)
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1) On *buildings* required to be of *noncombustible construction*, decorative wood cladding is permitted to be used on the exterior marquee fascias of a *storey* having direct access to a *street* or access route, provided the cladding is *fire-retardant-treated wood* that has been conditioned in conformance with ASTM D 2898, "Accelerated Weathering of Fire-Retardant-Treated Wood for Fire Testing," before being tested in accordance with <CAN/ULC-S102, "Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies.">

Division B - Part 3 - Sentence 3.1.7.1.(3) and (4)
Added by: Reg 162/2013
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3) <A ceiling assembly is permitted to be assigned a *fire-resistance rating* on the basis of Assembly Number R1 in Table A-9.10.3.1.B.>

4) <A ceiling membrane is permitted to be assigned a *fire-resistance rating* on the basis of Assembly Number M1 or M2 in Table A-9.10.3.1.B.>

Division B - Part 3 - Sentence 3.1.8.4.(1)
Amended by: Reg 175/2014
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3.1.8.4. Determination of Ratings

1) Except as permitted by Sentences (2) and 3.1.8.14.(1), the *fire-protection rating* of a *closure* shall be determined based on the results of tests conducted in conformance with the appropriate provisions in

a) CAN4-S104-M, "Fire Tests of Door Assemblies,"

b) CAN4-S106-M, "Fire Tests of Window and Glass Block Assemblies," or

c) <CAN/ULC-S112, "Fire Test of Fire-Damper Assemblies."><

(See Articles 3.1.8.15. to 3.1.8.17. for additional requirements for *closures*.)

Division B - Part 3 - Article 3.1.9.5.
Amended by: Reg 162/2013
Effective: 2013-04-03
Revision: 2
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3.1.9.5. Openings for Ducts through a Membrane Ceiling

1) A membrane ceiling forming part of an assembly assigned a *fire-resistance rating* on the basis of Appendix D is permitted to be penetrated by openings leading into ducts within the ceiling space, provided

a) the ducts are sheet steel, and

b) the number of openings and their protection conform to the requirements of Appendix D <or Sentence 3.1.7.1.(4)>.

Division B - Part 3 - Sentence 3.1.12.1.(1)
Amended by: Reg 175/2014
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3.1.12.1. Determination of Ratings

1) Except as required by Sentence (2) and as permitted by Sentence (3), the *flame-spread rating* and smoke developed classification of a material, assembly, or structural member shall be determined on the basis of not less than three tests conducted in conformance with <CAN/ULC-S102, "Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies.">

Division B - Part 3 - Sentence 3.2.1.1.(7)
Amended by: Reg 163/2013
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7) The space above a *mezzanine* conforming to Sentence (3) is permitted to include an enclosed space whose area does not exceed 10% of the horizontal plane separating the *mezzanine* from the room or floor space in which the *mezzanine* is located provided the enclosed space does not obstruct visual communication between the open space above the *mezzanine* and the room in which it is located.
<(See Figure A-3.2.1.1.(3)-D in Appendix A.)**>**

Division B - Part 3 - Article 3.2.2.50.(3)(b)
Amended by: Reg 175/2014
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3.2.2.50. Group C, up to 6 Storeys, Sprinklered

1) <A *building* classified as Group C is permitted to conform to Sentence (2) provided

a) except as permitted by Sentences 3.2.2.7.(1) and 3.2.2.18.(2), the *building* is *sprinklered* throughout,

b) it is not more than 6 *storeys* in *building height*,

c) it has a maximum height of less than 18 m measured between *grade* and the uppermost floor level of the top *storey*, and

d) it has a *building area* not more than

i) 7 200 m^2 if 1 *storey* in *building height*,

ii) 3 600 m^2 if 2 *storeys* in *building height*,

iii) 2 400 m^2 if 3 *storeys* in *building height*,

iv) 1 800 m^2 if 4 *storeys* in *building height*,

v) 1 440 m^2 if 5 *storeys* in *building height*, or

vi) 1 200 m^2 if 6 *storeys* in *building height*.>

2) The *building* referred to in Sentence (1) is permitted to be of *combustible construction* or *noncombustible construction* used singly or in combination, and

a) except as permitted by Sentences (5) and (6), floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 1 h,

b) *mezzanines* shall have a *fire-resistance rating* not less than 1 h, and

c) *loadbearing* walls, columns and arches shall have a *fire-resistance rating* not less than that required for the supported assembly.

3) <Except as required in Sentence (4), a *building* referred to in> <Subclause (1) (d)(v) or (vi)> <shall have an exterior wall assembly

a) protected by *noncombustible* cladding

b) protected by cladding of *fire-retardant-treated wood* that has been conditioned in conformance with ASTM D 2898, "Accelerated Weathering of Fire-Retardant-Treated Wood for Fire Testing," before being tested in accordance with <CAN/ULC-S102, "Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies,"> or

c) the interior surfaces of which are protected by a thermal barrier conforming to Sentence 3.1.5.12.(3) and that satisfies the criteria of Sentences 3.1.5.5.(3) and (4) when subjected to testing in conformance with CAN/ULC-S134, "Fire Test of Exterior Wall Assemblies."

4) The solutions described in Clauses (3)(b) and Clause (c) are not permitted where an *exposing building face* is required by Article 3.2.3.7. to have *noncombustible* cladding.>

5) In a *building* that contains *dwelling units* that have more than one *storey*, subject to the requirements of Sentence 3.3.4.2.(3), the floor assemblies, including floors over *basements*, which are entirely contained within these *dwelling units*, shall have a *fire-resistance rating* not less than 1 h but need not be constructed as *fire separations*.

6) In a *building* in which there is no *dwelling unit* above another *dwelling unit*, the *fire-resistance rating* for floor assemblies entirely within the *dwelling unit* is waived.

Division B - Part 3 - Sentence 3.2.4.1.(4)(f)
Amended by: Reg 175/2014
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4) Except as permitted by Sentences (5) to (7) and Sentence 3.2.4.2.(4), a fire alarm system shall be installed in a *building* that is not *sprinklered* throughout and that contains

a) a *contained use area*,

b) an *impeded egress zone*,

c) more than 3 *storeys*, including the *storeys* below the *first storey*,

d) a total *occupant load* more than 300, other than in open air seating areas,

e) an *occupant load* more than 150 above or below the *first storey*, other than in open air seating areas,

f) a school, college, or child care facility, including a <daycare facility for children,> with an *occupant load* more than 40,

g) a licensed beverage establishment or a licensed restaurant, with an *occupant load* more than 150,

h) a *medium-hazard industrial occupancy* or a *low-hazard industrial occupancy* with an *occupant load* more than 75 above or below the *first storey*,

i) a *residential occupancy* with sleeping accommodation for more than 10 persons,

j) a *high-hazard industrial occupancy* with an *occupant load* more than 25, or

k) an *occupant load* more than 300 below an open air seating area.

Division B - Part 3 - Sentence 3.2.4.21.(1)
Amended by: Reg 175/2014
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3.2.4.21. Smoke Alarms

1) <Except as required by Sentence (4) and permitted by Sentence (7),> *smoke alarms* conforming to <CAN/ULC-S531, "Standard for Smoke-Alarms,"> shall be installed in each *dwelling unit* and, except for <*care*, *treatment* or *detention occupancies*> required to have a fire alarm system, in each sleeping room not within a *dwelling unit* <or *suite* of *care occupancy*>.

Division B - Part 3 - Sentence 3.2.4.22.(10)
Amended by: Reg 140/2014
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10) The voice communication system required by <Sentence (7)> shall meet the silencing and transmission requirements of Sentences (3) to (5).>

Division B - Part 3 - Sentence 3.2.5.7.(2)
Amended by: Reg 140/2014
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3.2.5.7. Water Supply

1) Every *building* shall be provided with an adequate water supply for firefighting. (See Appendix A.)

2) *Buildings* <that> are *sprinklered* throughout with a *sprinkler system* conforming to <Article 3.2.5.12.> or have a standpipe system conforming to Article 3.2.5.9. to to 3.2.5.11. need not comply with Sentence 3.2.5.7.(1).

Division B - Part 3 - Sentence 3.2.7.3.(1)(j)
Amended by: Reg 175/2014
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3.2.7.3. Emergency Lighting

1) Emergency lighting shall be provided to an average level of illumination not less than 10 lx at floor or tread level in

a) *exits*,

b) principal routes providing *access to exit* in open *floor areas* and in *service rooms*,

c) corridors used by the public,

d) corridors serving sleeping rooms <in a *treatment occupancy*>,

e) <corridors serving sleeping rooms in a *care occupancy*, except corridors serving sleeping rooms within individual *suites* of *care occupancy*,>

f) corridors serving classrooms,

g) underground *walkways*,

h) *public corridors*,

i) *floor areas* or parts thereof where the public may congregate

   i) in Group A, Division 1 *occupancies*, or

   ii) in Group A, Division 2 and 3 *occupancies* having an *occupant load* of 60 or more,

j) <*floor areas* or parts thereof where persons are cared for that are within daycare facilities, including daycare facilities for children, and>

k) food preparation areas in commercial kitchens.

Division B - Part 3 - Sentence 3.3.1.13.(3)
Amended by: Reg 162/2013
Effective: 2013-04-03
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3.3.1.13. Doors and Door Hardware

3) Except as permitted by Sentence (4), door release hardware shall be operable by one hand and the door shall be openable with not more than one releasing operation. (See also <Clause (10)(c)>.)

Division B - Part 3 - Sentence 3.3.1.13.(10)
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10) Door assemblies providing *access* shall

a) conform to Clauses (1)(a) and (1)(b),

b) have a clear and level area

   i) <for manual doors swinging into this area,> not less than 1 500 mm long by a width equal to the door assembly width plus not less than 600 mm clear space beside the latching jamb of the door,

   ii) <for manual doors swinging away from this area,> not less than 1 200 mm long by a width equal to the door assembly width plus not less than 300 mm clear space beside the latching jamb of the door,

   iii) for power operated sliding doors or power operated doors swinging away from <this> area, not less than 1 100 mm long by the width of the door assembly, and

   iv) for power operated doors swinging into <this> area, not less than 1 100 mm long plus the arc of the door swing by the width of the door assembly,

c) be operable by devices which do not require tight grasping, or twisting of the wrist, as the only means of operation,

d) operate when a force of not more than 38 N for exterior doors and not more than 22 N for interior doors is applied at the handle, push plate or latch-releasing device, except for locations where greater pressures are required to ensure proper building function, and

e) if equipped with a closer, have a closing period of not less than 3 seconds measured from the door in an open position of 70° to the doorway to a point 75 mm from the closed position measured from the leading edge of the latch side of the door.

(See Appendix Note A-3.8.)

Division B - Part 3 - Sentence 3.3.2.7.(1)
Amended by: Reg 175/2014
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3.3.2.7. Doors

1) A door equipped with a latching mechanism in an *access to exit* from a room or *suite* of *assembly occupancy* containing an *occupant load* more than 100 shall be equipped with a device that will release the latch and allow the door to swing wide open when a force not more than that specified in <Sentence 3.3.1.13.(10)(d)> is applied to the device in the direction of travel to the *exit*.

Division B - Part 3 - Article 3.3.2.16.
Added by: Reg 175/2014
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<3.3.2.16. Daycare Facilities with Children under 30 Months

(See Appendix A.)

1) A daycare facility for children where children under 30 months are accommodated shall be located
a) in a *building* that is *sprinklered* throughout, or
b) not more than 1 *storey* above or below a *storey* with an *exit* that opens directly to the exterior of the *building* at ground level.

2) A fire alarm system shall be installed in a *building* that contains a daycare facility described in Sentence (1) if
a) the *building* contains one or more other *suites*, or
b) the daycare facility shares an interior *means of egress*.

3) If a fire alarm system is required by Sentence (2) or Subsection 3.2.4. to be installed in a daycare facility described in Sentence (1), *smoke detectors* shall be installed in
a) each room of the daycare facility, and
b) each corridor serving as part of a *means of egress* from the daycare facility.

4) If a fire alarm system is not installed in a daycare facility described in Sentence (1), *smoke alarms* conforming to CAN/ULC-S531, "Standard for Smoke Alarms," shall be installed in
a) each room of the daycare facility, and
b) each corridor serving as part of a *means of egress* from the daycare facility.

5) *Smoke alarms* required by Sentence (4) shall
a) comply with Sentences 3.2.4.21.(6) and (10), and
b) if more than one *smoke alarm* is required, be wired so that the actuation of one of the required *smoke alarms* will cause all the required *smoke alarms* to sound.>

Division B - Part 3 - Sentence 3.4.5.1.(2), (3) and (4)
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3.4.5.1. Exit Signs

1) Every *exit* door shall have an *exit* sign placed over or adjacent to it if the *exit* serves
a) a *building* more than 2 *storeys* in *building height*,
b) a *building* having an *occupant load* of more than 150, or
c) a room or *floor area* that has a fire escape as part of a required *means of egress*.

2) Every *exit* sign shall
a) be visible on approach to the *exit*,
b) <consist of a green pictogram and a white or lightly tinted graphical symbol meeting the colour specifications referred to in ISO 3864-1, "Graphical symbols – Safety colours and safety signs – Part 1: Design principles for safety signs in workplaces and public areas," and>
c) <conform to the requirements of ISO 7010, "Graphical symbols – Safety colours and safety signs – Safety signs used in workplaces and public areas," for one or more of the following symbols (see Appendix A):
   i) E001 Emergency exit (left hand),
   ii) E002 Emergency exit (right hand),
   iii) E005 Direction, arrow (90° increments), safe condition, and
   iv) E006 Direction, 45° arrow (90° increments), safe condition.>

3) <Internally illuminated *exit* signs shall be continuously illuminated and
a) where illumination of the sign is powered by an electrical circuit, <conform to>CSA C22.2 No. 141, "Emergency Lighting Equipment," or
b) where illumination of the sign is not powered by an electrical circuit, <conform to>CAN/ULC-S572, "Photoluminescent and Self-Luminous Signs and Path Marking Systems."

4) Externally illuminated *exit* signs shall be continuously illuminated and <conform to>CAN/ULC-S572, "Photoluminescent and Self-Luminous Signs and Path Marking Systems." (See Appendix A.)

5) The circuitry serving lighting for externally and internally illuminated *exit* signs shall
a) serve no equipment other than emergency equipment, and
b) be connected to an emergency power supply as described in Article 3.2.7.4.

6) Where no *exit* is visible from a *public corridor*, from a corridor used by the public in a Group A or B *major occupancy*, or from principal routes serving an open *floor area* having an *occupant load* of more than 150, an *exit* sign conforming to Clauses (2)(b) and (c) with an arrow or pointer indicating the direction of egress shall be provided.>

7) Except for egress doorways described in Sentence 3.3.2.4.(4), an *exit* sign conforming to Sentences (2) < to (5)> shall be placed over or adjacent to every egress doorway from rooms with an *occupant load* of more than 60 in Group A, Division 1 *occupancies*, dance halls, licensed beverage establishments, and other similar *occupancies* that, when occupied, have lighting levels below that which would provide easy identification of the egress doorway.

Division B - Part 3 - Sentence 3.4.7.7.(1)
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3.4.7.7. Landings

1) Platforms for a fire escape shall be provided in conformance with the requirements for stair landings in <Articles 3.4.6.3. and 3.4.6.4.>

Division B - Part 3 - Sentence 3.7.2.2.(7)
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7) The number of water closets required for primary schools and <daycare facilities for children> shall be at least one for each 30 males and one for each 25 females.

Division B - Part 3 - Sentence 3.8.2.3.(1)(b)
Amended by: Reg 162/2013
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b) where off-street parking is provided for *persons with disabilities*, <*access*> from the parking area to an entrance conforming to Article 3.8.3.5. <that> serves the parking area unless the entrance in Clause (a) is located so as to conveniently serve both the parking area and the *street*,

Division B - Part 3 - Sentence 3.8.3.3.(2)
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2) Except as permitted <by> Sentences (3) and (5), handrails conforming to <Article 3.4.6.5.> shall be installed on both sides of ramps.

Division B - Part 3 - Sentence 3.8.3.5.(4)
Amended by: Reg 175/2014
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4) <Power operation that functions for passage in both directions shall be provided for all doors in an *accessible* path of travel at the exterior *accessible* entrances to

a) a hotel,

b) a Group B, Division 2 *major occupancy*,

c) a Group B, Division 3 *major occupancy*, and

d) any of the following that is more than 500 m^2 in area:

i) an *assembly occupancy*,

ii) a *business and personal services occupancy*, and

iii) a *mercantile occupancy*.>

Division B - Part 3 - Sentence 3.8.3.10.(1)(b)
Amended by: Reg 175/2014
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3.8.3.10. Floor Levels

1) Except for floors and levels specifically excluded in Subsection 3.8.2., floors and levels at different elevations shall be connected by

a) <a ramp conforming to Article 3.8.3.3.,

b) an elevator conforming to Appendix E of <ASME A17.1/CSA B44, "Safety Code for Elevators and Escalators,>"

c) an elevating device for persons with disabilities conforming to CAN/CSA-B355, "Lifts for Persons with Physical Disabilities," or

d) other means acceptable to the authority having jurisdiction.>

Division B - Part 3 - Sentence 3.8.4.1.(1)
Amended by: Reg 162/2013
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1) Except as provided in <Sentence (2)>, *access* as described in Article 3.8.4.2. to 3.8.4.8. shall be provided

a) <to additions to existing *buildings* where such additions have internal pedestrian connections with the existing *buildings*,

b) to existing parts of *buildings* to which additions described in Clause (a) are made, and

c) to the extent required by Article 3.8.4.5., to existing *buildings*

   i) where the *occupancy* is changed, or

   ii) that are altered or renovated.>

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2) This Subsection does not apply to
a) <*buildings of new construction*,
b) vertical additions of one *storey* not more than 600 m^2 in *floor area* regardless of *occupancy*, or
c) horizontal or vertical additions to *occupancies* described in Clauses 3.8.2.1.(2)(b) to (e).>

Division B - Part 3 - Sentence 3.8.5.1.(1)(a)
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a) the design and construction of one *storey* <*adaptable dwelling units*> in multiple unit *residential occupancy buildings* <that> employ interior corridors or exterior passageways for *access* to the *dwelling units*, and

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3.8.5.3. Building Access Requirements

1) Buildings containing <*adaptable dwelling units*> shall
a) conform to Article 3.8.2.27., and
b) provide *access* to all common facilities.

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b) $0.7(h/12)^{0.3}$ but not less than 0.7 for rough terrain, where rough terrain is suburban, urban or wooded terrain extending upwind from the *building* uninterrupted for at least 1 km or **<**20 times**>** **<**the height of the *building***>**, whichever is greater, h being the reference height above *grade* in metres for the surface or part of the surface (see Appendix A),

c) an intermediate value between the two exposures defined in Clauses (a) and (b) in cases where the site is less than 1 km or **<**20 times**>** **<**the height of the *building***>** from a change in terrain conditions, whichever is greater, provided an appropriate interpolation method is used (see Appendix A), or

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4.4.1.1. Design Basis for Air-Supported Structures

1) The structural design of *air-supported structures* shall conform to <CSA S367, "Air-, Cable-, and Frame-Supported Membrane Structures,"> using the loads stipulated in Section 4.1., in accordance with limit states design in Subsection 4.1.3.

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2) <Except as provided in <Article 4.1.8.18.,> the> structural loads referred to in Sentence (1) <and their related effects> shall include

a) *dead loads* transferred from structural elements,

b) wind, snow, rain, hydrostatic and earth pressures,

c) <earthquake effects for *post-disaster buildings*, depending on their intended function (see Appendix A),>

d) *live loads* due to use and *occupancy*, and

e) loads due to thermal or moisture-related expansion and contraction, deflection, deformation, creep, shrinkage, settlement, and differential movement.

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Amended by: Reg 175/2014
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Amended by: Reg 140/2014
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2) Where the substrate is cast-in-place concrete, and a drainage layer is installed between the *building* assembly and the *soil*, and the assembly will not be subject to hydrostatic pressure

a) materials and components installed to provide the required resistance to moisture transfer and whose installation is covered in the scope of the standards listed in Sentence (1), are permitted to be installed in conformance with the dampproofing requirements of the standards listed in Sentence (1), or

b) materials installed to provide the required resistance to moisture transfer and whose installation is covered in the scope of the standards listed below, shall be installed in conformance with the requirements of the respective standards:

i) CGSB 37-GP-12Ma, "Application of Unfilled Cutback Asphalt for Dampproofing," or

ii) CAN/CGSB-37.22-M, "Application of Unfilled, Cutback Tar Foundation Coating for Dampproofing."

(See A-5.8.2.2.(7) in Appendix A.)

Section 5.9. Sound Transmission

(See Appendix A and Part 10.)

(See Appendix A.)

5.9.1. Protection from Noise

5.9.1.1. Sound Transmission Class

1) Sound transmission class ratings shall be determined in accordance with ASTM E 413, "Classification for Rating Sound Insulation," using the results from measurements carried out in accordance with

a) ASTM E 90, "Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements," or

b) ASTM E 336, "Measurement of Airborne Sound Attenuation between Rooms in Buildings."

(See Appendix A.)

5.9.1.2. Required Protection from Noise

1) Except as provided in Sentence (2), a *dwelling unit* shall be separated from every other space in a *building* in which noise may be generated by construction providing a sound transmission class rating not less than 50, measured in accordance with the standards referenced in Sentence 5.9.1.1.(1). (See A-9.11.1.1.(1) in Appendix A.)

2) Construction separating a *dwelling unit* from an elevator hoistway or a refuse chute shall have a sound transmission class rating not less than 55, measured in accordance with the standards referenced in Sentence 5.9.1.1.(1).

Section 5.10. Standards

(See Appendix A and Part 10.)

5.10.1. Applicable Standards

5.10.1.1. Compliance with Applicable Standards

1) Except as provided in <Sentence (2)> and elsewhere in this Part, materials and components, and their installation, shall conform to the requirements of the applicable standards in Table 5.10.1.1. where those materials or components are

a) incorporated into environmental separators or assemblies exposed to the exterior, and

b) installed to fulfill the requirements of this Part.

(See Appendix A.)

2) The requirements for *flame-spread ratings* contained in thermal insulation standards shall be applied only as required in Part 3.

Table 5.10.1.1.
Standards Applicable to Environmental Separators and Assemblies Exposed to the Exterior
Forming part of Sentence 5.10.1.1.(1)

Issuing Agency	Document Number	Title of Document
ANSI	A208.1	Particleboard
ASME	B18.6.1	Wood Screws (Inch Series)
ASTM	A 123/A 123M	Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
ASTM	A 153/A 153M	Zinc Coating (Hot-Dip) on Iron and Steel Hardware
ASTM	A 653/A 653M	Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process
ASTM	C 4	Clay Drain Tile and Perforated Clay Drain Tile
<ASTM>	<C 73>	<Calcium Silicate Brick (Sand-Lime Brick)>
ASTM	C 126	Ceramic Glazed Structural Clay Facing Tile, Facing Brick, and Solid Masonry Units
ASTM	C 212	Structural Clay Facing Tile
ASTM	C 412M	Concrete Drain Tile (Metric)
ASTM	C 444M	Perforated Concrete Pipe (Metric)
<ASTM>	<C 553>	<Mineral Fiber Blanket Thermal Insulation for Commercial and Industrial Applications>
<ASTM>	<C 612>	<Mineral Fiber Block and Board Thermal Insulation>
<ASTM	C 700	Standard Specification for Vitrified Clay Pipe, Extra Strength, Standard Strength, and Perforated>
<ASTM>	<C 834[1]>	<Latex Sealants>
<ASTM>	<C 920[1]>	<Elastomeric Joint Sealants>
<ASTM>	<C 991>	<Flexible Fibrous Glass Insulation for Metal Buildings>
ASTM	C 1002	Steel Self-Piercing Tapping Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs
ASTM	C 1177/C 1177M	Glass Mat Gypsum Substrate for Use as Sheathing
ASTM	C 1178/C 1178M	<Coated> Glass Mat Water-Resistant Gypsum Backing Panel
<ASTM>	<C 1184[1]>	<Structural Silicone Sealants>
<ASTM>	<C 1311[1]>	<Solvent Release Sealants>
<ASTM>	<C 1330[1]>	<Cylindrical Sealant Backing for Use with Cold Liquid Applied Sealants>
ASTM	C 1396/C 1396M	Gypsum Board
ASTM	D 2178	Asphalt Glass Felt Used in Roofing and Waterproofing
<ASTM>	<E 2190>	<Insulating Glass Unit Performance and Evaluation>
AWPA	M4	Care of Preservative-Treated Wood Products
<BNQ	BNQ 3624-115	Polyethylene (PE) Pipe and Fittings – Flexible Pipes for Drainage – Characteristics and Test Methods >
CGSB	CAN/CGSB-11.3-M	Hardboard
CGSB	CAN/CGSB-11.5-M	Hardboard, Precoated, Factory Finished, for Exterior Cladding
CGSB	CAN/CGSB-12.1-M	Tempered or Laminated Safety Glass
CGSB	CAN/CGSB-12.2-M	Flat, Clear Sheet Glass
CGSB	CAN/CGSB-12.3-M	Flat, Clear Float Glass
CGSB	CAN/CGSB-12.4-M	Heat Absorbing Glass

Table 5.10.1.1.
Standards Applicable to Environmental Separators and Assemblies Exposed to the Exterior
Forming part of Sentence 5.10.1.1.(1)

Issuing Agency	Document Number	Title of Document
CGSB	CAN/CGSB-12.8	Insulating Glass Units
CGSB	CAN/CGSB-12.10-M	Glass, Light and Heat Reflecting
CGSB	CAN/CGSB-12.11-M	Wired Safety Glass
CGSB	CAN/CGSB-34.22	Asbestos-Cement Drain Pipe
CGSB	CAN/CGSB-37.1-M	Chemical Emulsifier Type, Emulsified Asphalt for Dampproofing
CGSB	CAN/CGSB-37.2-M	Emulsified Asphalt, Mineral-Colloid Type, Unfilled, for Dampproofing and Waterproofing and for Roof Coatings
CGSB	CAN/CGSB-37.3-M	Application of Emulsified Asphalts for Dampproofing or Waterproofing
CGSB	CAN/CGSB-37.4-M	Fibrated, Cutback Asphalt, Lap Cement for Asphalt Roofing
CGSB	CAN/CGSB-37.5-M	Cutback Asphalt Plastic, Cement
CGSB	37-GP-6Ma	Asphalt, Cutback, Unfilled, for Dampproofing
CGSB	CAN/CGSB-37.8-M	Asphalt, Cutback, Filled, for Roof Coating
CGSB	37-GP-9Ma	Primer, Asphalt, Unfilled, for Asphalt Roofing, Dampproofing and Waterproofing
CGSB	37-GP-12Ma	Application of Unfilled Cutback Asphalt for Dampproofing
CGSB	CAN/CGSB-37.16-M	Filled, Cutback Asphalt for Dampproofing and Waterproofing
CGSB	37-GP-18Ma	Tar, Cutback, Unfilled, for Dampproofing
CGSB	37-GP-21M	Tar, Cutback, Fibrated, for Roof Coating
CGSB	CAN/CGSB-37.22-M	Application of Unfilled, Cutback Tar Foundation Coating for Dampproofing
CGSB	37-GP-36M	Application of Filled Cutback Asphalts for Dampproofing and Waterproofing
CGSB	37-GP-37M	Application of Hot Asphalt for Dampproofing or Waterproofing
CGSB	CAN/CGSB-37.50-M	Hot-Applied, Rubberized Asphalt for Roofing and Waterproofing
CGSB	CAN/CGSB-37.51-M	Application for Hot-Applied Rubberized Asphalt for Roofing and Waterproofing
CGSB	37-GP-52M	Roofing and Waterproofing Membrane, Sheet Applied, Elastomeric
CGSB	CAN/CGSB-37.54	Polyvinyl Chloride Roofing and Waterproofing Membrane
CGSB	37-GP-55M	Application of Sheet Applied Flexible Polyvinyl Chloride Roofing Membrane
CGSB	37-GP-56M	Membrane, Modified, Bituminous, Prefabricated, and Reinforced for Roofing
CGSB	37-GP-64M	Mat Reinforcing, Fibrous Glass, for Membrane Waterproofing Systems and Built-Up Roofing
CGSB	41-GP-6M	Sheets, Thermosetting Polyester Plastics, Glass Fiber Reinforced
CGSB	CAN/CGSB-41.24	Rigid Vinyl Siding, Soffits and Fascia
CGSB	CAN/CGSB-51.32-M	Sheathing, Membrane, Breather Type
CGSB	CAN/CGSB-51.33-M	Vapour Barrier Sheet, Excluding Polyethylene, for Use in Building Construction
CGSB	CAN/CGSB-51.34-M	Vapour Barrier, Polyethylene Sheet for Use in Building Construction
CGSB	CAN/CGSB-93.1-M	Sheet, Aluminum Alloy, Prefinished, Residential
CGSB	CAN/CGSB-93.2-M	Prefinished Aluminum Siding, Soffits and Fascia, for Residential Use
CGSB	CAN/CGSB-93.3-M	Prefinished Galvanized and Aluminum-Zinc Alloy Steel Sheet for Residential Use
CGSB	CAN/CGSB-93.4	Galvanized Steel and Aluminum-Zinc Alloy Coated Steel Siding, Soffits and Fascia, Prefinished, Residential
CSA	A23.1	Concrete Materials and Methods of Concrete Construction
CSA	CAN/CSA-A82.1-M	Burned Clay Brick (Solid Masonry Units Made from Clay or Shale)
CSA	A82.4-M	Structural Clay Load-Bearing Wall Tile

Table 5.10.1.1.
Standards Applicable to Environmental Separators and Assemblies Exposed to the Exterior
Forming part of Sentence 5.10.1.1.(1)

Issuing Agency	Document Number	Title of Document
CSA	A82.5-M	Structural Clay Non-Load-Bearing Tile
CSA	CAN3-A82.8-M	Hollow Clay Brick
CSA	CAN/CSA-A82.27-M	Gypsum Board
CSA	A82.30-M	Interior Furring, Lathing and Gypsum Plastering
CSA	A82.31-M	Gypsum Board Application
CSA	CAN3-A93-M	Natural Airflow Ventilators for Buildings
CSA	<A123.1/A123.5>	Asphalt Shingles Made From Organic Felt and Surfaced with Mineral Granules</Asphalt Shingles Made From Glass Felt and Surfaced with Mineral Granules>
CSA	<CAN/CSA-A123.2>	Asphalt-Coated Roofing Sheets
CSA	A123.3	Asphalt Saturated Organic Roofing Felt
CSA	CAN/CSA-A123.4	Asphalt for Constructing Built-Up Roof Coverings and Waterproofing Systems
CSA	A123.17	Asphalt <Glass Felt Used in Roofing and Waterproofing>
CSA	CAN3-A123.51-M	Asphalt Shingle Application on Roof Slopes 1:3 and Steeper
CSA	CAN3-A123.52-M	Asphalt Shingle Application on Roof Slopes 1:6 to Less Than 1:3
CSA	<CAN/CSA-A165.1>	Concrete Block Masonry Units
CSA	<CAN/CSA-A165.2>	Concrete Brick Masonry Units
CSA	<CAN/CSA-A165.3>	Prefaced Concrete Masonry Units
CSA	CAN3-A165.4-M	Autoclaved Cellular Units
CSA	<CAN/CSA-A179>	Mortar and Grout for Unit Masonry
<CSA	CAN/CSA-A220 Series	Concrete Roof Tiles>
CSA	<CAN/CSA-A371>	Masonry Construction for Buildings
CSA	CAN/CSA-A3001	Cementitious Materials for Use in Concrete
CSA	CAN/CSA-B182.1	Plastic Drain and Sewer Pipe and Pipe Fittings
CSA	CAN/CSA-G40.21	<General Requirements for Rolled or Welded> Structural Quality Steel
CSA	<CAN/CSA-G401>	Corrugated Steel Pipe Products
CSA	<CAN/CSA-O80 Series>	Wood Preservation
CSA	O115-M	Hardwood and Decorative Plywood
CSA	O118.1	Western Red Cedar Shakes and Shingles
CSA	O118.2	Eastern White Cedar Shingles
CSA	O121	Douglas Fir Plywood
CSA	O141	Softwood Lumber
CSA	O151	Canadian Softwood Plywood
CSA	O153-M	Poplar Plywood
CSA	CAN/CSA-O325	Construction Sheathing
CSA	O437.0	OSB and Waferboard
ULC	CAN/ULC-S701	Thermal Insulation, Polystyrene, Boards and Pipe Covering

Table 5.10.1.1.
Standards Applicable to Environmental Separators and Assemblies Exposed to the Exterior
Forming part of Sentence 5.10.1.1.(1)

Issuing Agency	Document Number	Title of Document
ULC	CAN/ULC-S702	Mineral Fibre Thermal Insulation for Buildings
ULC	CAN/ULC-S703	Cellulose Fibre Insulation (CFI) for Buildings
ULC	CAN/ULC-S704	Thermal Insulation, Polyurethane and Polyisocyanurate, Boards, Faced
ULC	CAN/ULC-S705.1	Thermal Insulation – Spray Applied Rigid Polyurethane Foam, Medium Density – Material - Specification
ULC	CAN/ULC-S705.2	Thermal Insulation – Spray-Applied Rigid Polyurethane Foam, Medium Density <— Application>
<ULC	CAN/ULC-S706	Standard for Wood Fibre Insulating Boards for Buildings>

Notes to Table 5.10.1.1.:
(1) See Appendix A.

5.10.2. Windows, Doors and Skylights

5.10.2.1. <General

1) This Subsection applies to windows, doors and skylights, including their components, that separate
a) interior space from exterior space, or
b) environmentally dissimilar interior spaces.

2) For the purpose of this Subsection, the term “skylight” refers to unit skylights, roof windows and tubular daylighting devices.

3) Where a wired glass assembly is installed in a required *fire separation*, it need not conform to the requirements of this Subsection. (See Appendix A.)

5.10.2.2. Applicable Standards

(See Appendix A.)

1) Windows, doors and skylights shall conform to the requirements in
a) AAMA/WDMA/CSA 101/I.S.2/A440, “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, NAFS – North American Fenestration Standard/Specification for Windows, Doors, and Skylights.”

2) Performance grades for windows, doors and skylights shall be selected according to the Canadian Supplement referenced in Clause (1)(b) so as to be appropriate for the conditions and geographic location in which the window, door or skylight will be installed. <(See Sentence 1.1.3.1.(3).)>

3) Windows, doors and skylights shall conform to the performance grades selected in Sentence (2) when tested in accordance with the Harmonized Standard referenced in Clause (1)(a).

5.10.2.3. Structural Loads, Air Leakage and Water Penetration

1) Windows, doors, skylights and their components shall be designed and constructed in accordance with
a) Article 5.1.4.1., Section 5.4. and Section 5.6., or
b) Article 5.10.2.2., where they are covered in the scope of the standards listed in Sentence 5.10.2.2.(1).>

5.10.2.4. Heat Transfer

1) <Windows, doors and skylights shall meet the heat transfer performance requirements stated in Section 5.3. (See A-5.3.1.2. in Appendix A.)>

2) Except as provided in Sentence (3), all metal-framed glazed assemblies separating interior *conditioned space* from interior unconditioned space or exterior space shall incorporate a thermal break to minimize condensation.

3) Metal-framed glazed assemblies need not comply with Sentence (2) where these assemblies are

a) storm windows or doors, or

b) windows or doors that are required to have a *fire-protection rating*.

(See Appendix A.)

Section 5.11. Objectives and Functional Statements

(See Appendix A and Part 10.)

5.11.1. Objectives and Functional Statements

5.11.1.1. 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 objectives and functional statements attributed to the acceptable solutions in this Part shall be the objectives and functional statements listed in Table 5.11.1.1. (See A-1.1.2.1.(1) in Appendix A.)

Table 5.11.1.1.

Table 5.11.1.1. is located in Volume 2, Attribution Tables.

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Division B - Part 6 - Sentence 6.2.1.4.(1)
Amended by: Reg 175/2014
Effective: 2014-12-19
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1) Except as provided in Articles 6.2.1.5. and 6.2.1.6., the installation of heating and air-conditioning equipment, including mechanical refrigeration equipment, and including provisions for mounting, clearances and air supply, shall conform to the requirements of

a) <CAN/CSA-B139, "Installation Code for Oil Burning Equipment,"> for the installation of oil burning equipment,

b) <the BC Safety Standards Act and the following of its regulations:

i) the Gas Safety Regulation for the installation of natural gas and propane burning equipment,

ii) the Electrical Safety Regulation, and

iii) the Power Engineers, Boiler, Pressure Vessel and Refrigeration Safety Regulation for the installation of boilers, pressure vessels, pressure piping and mechanical refrigeration, and

c) CAN/CSA B365, "Installation Code for Solid-Fuel Burning Appliances and Equipment," for the installation of solid-fuel-burning equipment>.

2) <For the purposes of Clause (1)(c), section 3.1 of CAN/CSA-B365, "Installation Code for Solid-Fuel-Burning Appliances and Equipment." shall be read as though that section included the following paragraph:

a) an alternative safety approach under which a solid-fuelburning boiler is accepted for use under section 10 of the Safety Standards Act.>

Division B - Part 6 - Sentence 6.2.2.1.(3)
Amended by: Reg 140/2014
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3) <Self-contained mechanical ventilation systems serving only one *dwelling unit* shall comply with
a) this Part, or
b) Subsection 9.32.3.>

Division B - Part 6 - Sentence 6.2.2.6.(1)
Amended by: Reg 175/2014
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1) <Except as provided in Subsection 6.2.12., systems> serving spaces that contain hazardous gases, dusts or liquids shall be designed, constructed and installed to conform to the requirements of the applicable provincial or territorial regulations or municipal bylaws or, in the absence of such regulations or bylaws, to good engineering practice such as that described in the publications of the National Fire Protection Association and in the British Columbia Fire Code. (See Appendix A.)

Division B - Part 6 - Sentence 6.2.3.9.(3)(c)
Amended by: Reg 175/2014
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6.2.3.9. Interconnection of Systems

1) In a <*care* or> *residential occupancy*, air from one *suite* shall not be circulated to any other *suite* or to a *public corridor*.

2) Except as permitted by Sentences (3) and 6.2.3.8.(6), air duct systems serving *storage garages* shall not be directly interconnected with other parts of the *building*.

3) *Exhaust ducts* referred to in Sentence 6.2.3.8.(10) may exhaust through an enclosed *storage garage* prior to exhausting to the outdoors, provided

a) the *storage garage*'s exhaust system runs continuously,

b) the capacity of the *storage garage*'s exhaust system is equal to or exceeds the volume of the exhaust entering the garage, and

c) a leakage rate 1 smoke/*fire damper* rated in accordance with <CAN/ULC-S112.1, "Leakage Rated Dampers for Use in Smoke Control Systems,"> is provided near the duct outlet location in the *storage garage* to prevent air from the *storage garage* from entering the exhaust ductwork system in the event the *building*'s exhaust fan is shut down.

Division B - Part 8 - Sentence 8.2.1.3.(1)
Amended by: Reg 140/2014
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8.2.1.3. Fencing, Boarding or Barricades

1) When a construction or demolition activity may constitute a hazard to the public and is located <2 m or more> from a *public way*, a strongly constructed fence, boarding or barricade not less than 1.8 m high shall be erected between the site and the *public way* or open sides of a construction site.

2) Barricades shall have a reasonably smooth surface facing the *public way* and shall be without openings, except those required for access.

3) Access openings through barricades shall be equipped with gates that shall be

a) kept closed and locked when the site is unattended, and

b) maintained in place until completion of the construction or demolition activity.

Division B - Part 9 - Sentence 9.3.1.1.(4)
Amended by: Reg 175/2014
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4) For flat insulating concrete form walls not exceeding 2 *storeys* <in *building height*> and having a maximum floor to floor height of 3 m, in *buildings* of light-frame construction containing only a single *dwelling unit*, the concrete and reinforcing shall comply with Part 4 or

a) the concrete shall conform to CSA A23.1, "Concrete Materials and Methods of Concrete Construction," with a maximum aggregate size of 19 mm, and

b) the reinforcing shall

i) conform to <CAN/CSA-G30.18, "Carbon Steel Bars for Concrete Reinforcement,">

ii) have a minimum specified yield strength of 400 MPa, and

iii) be lapped a minimum of 450 mm for 10M bars and 650 mm for 15M bars (see also Articles 9.15.4.5. and 9.20.17.2. to 9.20.17.4.).

Division B - Part 9 - Sentence 9.3.1.8.(1)
Amended by: Reg 175/2014
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9.3.1.8. Admixtures

1) Admixtures shall conform to <ASTM C 260/C260M, "Air-Entraining Admixtures for Concrete,"> or ASTM C 494/C 494M, "Chemical Admixtures for Concrete," as applicable.

Division B - Part 9 - Sentence 9.3.2.1.(1)
Amended by: Reg 175/2014
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9.3.2.1. Grade Marking

1) Lumber for joists, rafters, trusses and beams and for the uses listed in Table 9.3.2.1. shall be identified by a grade stamp to indicate its grade as determined by <NLGA 2010, "Standard Grading Rules for Canadian Lumber."> (See Appendix A.)

Division B - Part 9 - Sentence 9.4.2.1.(1), Heading to Article 9.4.2.2.
Amended by: Reg 175/2014
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9.4.2.1. Application

1) This Subsection applies to light-frame constructions whose wall, floor and roof planes are generally comprised of frames of small repetitive structural members, and where

a) the roof and wall planes are clad, sheathed or braced on at least one side,

b) the small repetitive structural members are spaced not more than 600 mm o.c.,

c) the clear span of any structural member does not exceed 12.2 m,

d) the maximum deflection of the structural roof members conforms to Article 9.4.3.1.,

e) the maximum total roof area, notwithstanding any separation of adjoining *buildings* by *firewalls*, is 4 550 m^2, and

f) for flat roofs, there are no significant obstructions on the roof, such as parapet walls, spaced closer than the distance calculated by

$$D_o = 10\,(H_o - 0.8S_s/\gamma)$$

where

D_o = minimum distance between obstructions, m,

H_o = height of the obstruction above the roof, m,

S_s = ground snow load, kPa, and

Υ = unit weight of snow, kN/m^3.

9.4.2.2. Specified Snow Loads

<(See Appendix A.>

Division B - Part 9 - Article 9.7.2.2.
Amended by: Reg 173/2013
Effective: 2014-12-19
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9.7.2.2. <Other Requirements for Windows, Doors and Skylights

1) Minimum sizes of doorways and doors within an *accessible* path of travel shall conform to Section 9.5.

2) The protection of window and door openings to protect persons from falling through them shall conform to Article 9.8.8.1.

3) Properties of windows and doors within *exits* shall conform to Section 9.9.

4) Windows and doors installed to provide the required *means of egress* from bedrooms shall conform to Subsection 9.9.10.

5) The location and protection of windows, doors and skylights in order to control the spread of fire shall conform to Subsection 9.10.12.

6) Doors between *dwelling units* and attached garages shall conform to Article 9.10.13.15.

7) The surface flame-spread rating for doors and skylights shall conform to Article 9.10.17.1.

8) Windows and doors installed to provide the required access to a *building* for firefighting purposes shall conform to Subsection 9.10.20.

9) Windows and skylights installed to provide required non-heating season ventilation shall conform to Article 9.32.2.2.

10) Windows, doors and skylights shall conform to the energy efficiency requirements in Section 9.36.>

Division B - Part 9 - Sentence 9.7.4.3.(1)
Amended by: Reg 140/2014
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9.7.4.3. <Performance Requirements>

1) <Performance grades for windows, doors and skylights shall be selected according to the Canadian Supplement referenced in Clause 9.7.4.2.(1)(b) so as to be appropriate for the conditions and geographic location in which the window, door or skylight will be installed. <(See Sentence 1.1.3.1.(3).)>

2) Windows, doors and skylights shall conform to the performance grades selected in Sentence (1) when tested in accordance with the Harmonized Standard referenced in Clause 9.7.4.2.(1)(a).

3) The minimum level of performance required for windows, doors and skylights shall be that of the Performance Class R.>

4) Reserved.

Division B - Part 9 - Sentence 9.9.6.7.(2)
Amended by: Reg 162/2013
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9.9.6.7. Door Latching, Locking and Opening Mechanisms

1) Principal entrance doors, *exit* doors and doors to *suites*, including exterior doors of *dwelling units*, and other doors in an *access to exit* shall

a) be openable from the inside or in travelling to an *exit* without requiring keys, special devices or specialized knowledge of the door-opening mechanism, or

b) in the case of *exit* doors, be controlled by electromagnetic locking mechanisms in accordance with Sentence 3.4.6.16.(4).

2) Except for doors serving a single *dwelling unit* and doors to accessory *buildings* and to garages serving a single *dwelling unit*, door release hardware on doors in a *means of egress* shall be operable with one hand and the door shall be openable with not more than one releasing operation. (See also <Clause 3.3.1.13.(10)(c)> and A-3.3.1.13.(4) in Appendix A.)

3) Door release hardware on doors in a *means of egress* shall be installed not more than 1 200 mm above the finished floor.

4) Except for hotels and motels, a door opening onto a *public corridor* that provides *access to exit* from *suites* shall be designed not to lock automatically if it is equipped with an automatic self-closing device. (See A-3.3.4.5.(1) in Appendix A.)

Division B - Part 9 - Article 9.10.2.2.(2)(c)
Amended by: Reg 140/2014
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9.10.2.2. Custodial, Convalescent and Residential Care Homes

1) Children's custodial homes and convalescent homes for ambulatory occupants living as a single housekeeping unit in a *dwelling unit* with sleeping accommodation for not more than 10 persons are permitted to be classified as <Group C, *residential occupancies*.>

2) A care facility accepted for residential use pursuant to provincial legislation is permitted to be classified as a *residential occupancy* provided

a) the occupants live <as a single housekeeping unit in a *dwelling unit*> with sleeping accommodation for not more than 10 persons,

b) interconnected *smoke alarms* are installed in each sleeping room in addition to the requirements of Article 9.10.19.2.,

c) emergency lighting is provided in conformance with <Article 9.9.12.3.>, and

d) the *building* is *sprinklered* throughout.

Division B - Part 9 - Sentence 9.10.9.7.(2)
Amended by: Reg 140/2014
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9.10.9.7. Combustible Drain, Waste and Vent Piping

(See A-3.1.9. in Appendix A.)

1) Except as permitted in Sentences (2) to (6), *combustible* piping shall not be used in any part of a drain, waste and vent piping system where any part of that system partly or wholly penetrates a *fire separation* required to have a *fire-resistance rating* or penetrates a membrane that contributes to the required *fire-resistance rating* of an assembly.

2) *Combustible* drain, waste and vent piping not located in a vertical shaft is permitted to penetrate a *fire separation* required to have a *fire-resistance rating* or a membrane that forms part of an assembly required to have a *fire-resistance rating* provided the piping is sealed at the penetration by a <*fire stop*> that has an F rating not less than the *fire-resistance rating* required for the *fire separation*.

3) The rating referred to in Sentence (2) shall be based on CAN/ULC-S115, "Fire Tests of Firestop Systems," with a pressure differential of 50 Pa between the exposed and unexposed sides, with the higher pressure on the exposed side.

4) *Combustible* drain piping is permitted to penetrate a horizontal *fire separation* or a membrane that contributes to the required *fire-resistance rating* of a horizontal *fire separation*, provided it leads directly from a *noncombustible* watercloset through a concrete floor slab.

5) *Combustible* drain, waste and vent piping is permitted on one side of a vertical *fire separation* provided it is not located in a vertical shaft.

6) In *buildings* containing 2 *dwelling units* only, *combustible* drain, waste and vent piping is permitted on one side of a horizontal *fire separation*.

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9.10.14.3. Limiting Distance and Fire Department Response

1) Except <as provided in Sentence (2) and except> for the purpose of applying Sentences 9.10.14.4.(2)<, (3), (8) and (9), and Sentences 9.10.14.5.(3), (8) and (12)>, a *limiting distance* equal to half the actual *limiting distance* shall be used as input to the requirements of this Subsection, where

a) <the time from receipt of notification of a fire by the fire department until the first fire department vehicle arrives at the *building* exceeds 10 min in 10% or more of all calls to the *building*,> and

b) <any *storey* in> the *building* is not *sprinklered*.

<(See A-3.2.3. and A-3.2.3.1.(8) in Appendix A.)>

2) <Except for the purpose of applying Sentences 9.10.14.4.(2), (3), (8) and (9) and Sentences 9.10.14.5.(3), (8) and (12), a *limiting distance* equal to half the actual *limiting distance* shall be used as input to the requirements of this Subsection, where

a) a *building* for which a *building* permit was applied for before December 20, 2014 is or is proposed to be located in a subdivision for which a subdivision plan was registered in a land title office before December 20, 2013,

b) there is no fire department or the fire department is not organized, trained and equipped to meet the needs of the community, and

c) the *building* is not *sprinklered*.>

Division B - Part 9 - Sentence 9.10.14.5.(3)
Amended by: Reg 140/2014
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3) <Except as provided in Sentences (4) to (8) and permitted by Sentence (9),> cladding on *exposing building faces* and on exterior walls located above *exposing building faces* <of *buildings* or *fire compartments* where the maximum permitted area of *unprotected openings* is more than 25% but not more than 50% of the *exposing building face* need not be *noncombustible*>, where

a) <the *limiting distance* is greater than 5.0 m,>

b) the *limiting distance* is <greater than 2.5 m where the area and width-to-height ratio of the *exposing building face* conform to Table 9.10.14.5.B,>

c) <the *building* or *fire compartment* is *sprinklered*,>

d) <the cladding>

   i) <conforms to Subsections 9.27.6., 9.27.7., 9.27.8. or 9.27.9.>,

   ii) <is installed without furring members, or on furring not more than 25 mm thick, over gypsum sheathing at least 12.7 mm thick or over masonry, and>

   iii) <after conditioning in conformance with ASTM D 2898, "Accelerated Weathering of Fire-Retardant-Treated Wood for Fire Testing," has a *flame-spread rating* not greater than 25 when tested in accordance with Sentence 3.1.12.1.(2), or>

e) the cladding

   i) conforms to <Subsection 9.27.12.>,

   ii) is installed <with or> without furring members over a <gypsum sheathing> at least 12.7 mm thick or over masonry,

   iii) has a *flame-spread rating* not greater than 25 when tested in accordance with Sentence 3.1.12.1.(2), and

   iv) does not exceed 2 mm in thickness exclusive of fasteners, joints and local reinforcements.

Division B - Part 9 - Sentence 9.10.15.1.(1)
Amended by: Reg 175/2014
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9.10.15.1. Application

1) <This Subsection applies to

a) *buildings* that contain only *dwelling units* and have no *dwelling unit* above another *dwelling unit*, and

b) accessory *buildings* that serve a *building* described in Clause (a).>

Division B - Part 9 - Sentence 9.10.15.3.(1) and (2)
Amended by: Reg 162/2013
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9.10.15.3. Limiting Distance <and Fire Department Response>

1) Except <as provided in Sentence (2) and except> for the purpose of applying <Sentences 9.10.15.2.(2), 9.10.15.4.(3) and 9.10.15.5.(12),> a *limiting distance* equal to half the actual *limiting distance* shall be used as input to the requirements of this Subsection, where

a) <the time from receipt of notification of a fire by the fire department until the first fire department vehicle arrives at the *building* exceeds 10 min in 10% or more of all calls to the *building*,> and

b) <any *storey* in> the *building* is not *sprinklered*.

<(See A-3.2.3. and A-3.2.3.1.(8) in Appendix A.)>

2) <Except for the purpose of applying Sentences 9.10.15.2.(2), Sentence 9.10.15.4.(3) and 9.10.15.5.(12), a *limiting distance* equal to half the actual *limiting distance* shall be used as input to the requirements of this Subsection, where

a) a *building* for which a building permit was applied for before December 20, 2014 is or is proposed to be located in a subdivision for which a subdivision plan was registered in a land title office before December 20, 2013,

b) there is no fire department or the fire department is not organized, trained and equipped to meet the needs of the community, and

c) the *building* is not sprinklered.>

Division B - Part 9 - Sentence 9.10.15.5.(2)(b)(i)
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Division B - Part 9 - Sentence 9.10.15.5.(3)(a)
Amended by: Reg 175/2014
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2) <Except as provided in Sentences (4) and (5),> where the *limiting distance* is less than 0.6 m, the *exposing building face* and exterior walls located above the *exposing building face* that enclose an *attic or roof space* <shall have a *fire-resistance rating* of not less than 45 min, and>

a) <the cladding shall be metal or *noncombustible* cladding installed in accordance with Section 9.20., 9.27. or 9.28. (see A-9.10.14.5.(1) in Appendix A),>

b) <the cladding shall>

i) conform to <Subsection 9.27.12.>,

ii) be installed without furring members over gypsum sheathing at least 12.7 mm thick or over masonry,

iii) have a *flame-spread rating* not greater than 25 when tested in accordance with Sentence 3.1.12.1.(2), and

iv) not exceed 2 mm in thickness exclusive of fasteners, joints and local reinforcements, or

c) <the wall assembly shall comply with Sentences 3.1.5.5.(3) and (4) when tested in conformance with CAN/ULC-S134, "Fire Test of Exterior Wall Assemblies.">

3) <Except as provided in Sentence (4), where the *limiting distance* is equal to or greater than 0.6 m and less than 1.2 m, the *exposing building face* and any exterior wall located above the *exposing building face* that encloses an *attic or roof space* shall have a *fire-resistance rating* of not less than 45 min, and

a) the cladding shall be metal or *noncombustible* cladding installed in accordance with Section 9.20., <9.27.> or 9.28. (see A-9.10.14.5.(1) in Appendix A),

b) the cladding shall

i) conform to Subsection 9.27.6., 9.27.7., 9.27.8., 9.27.9., or 9.27.10.,

ii) be installed without furring members, or on furring not more than 25 mm thick, over gypsum sheathing at least 12.7 mm thick or over masonry, and

iii) after conditioning in conformance with ASTM D 2898, "Accelerated Weathering of Fire-Retardant-Treated Wood for Fire Testing," have a *flame-spread rating* not greater than 25 when tested in accordance with Sentence 3.1.12.1.(2),

c) the cladding shall

i) conform to Subsection 9.27.12.,

ii) be installed with or without furring members over gypsum sheathing at least 12.7 mm thick or over masonry,

iii) have a *flame-spread rating* not greater than 25 when tested in accordance with Sentence 3.1.12.1.(2), and

iv) not exceed 2 mm in thickness exclusive of fasteners, joints and local reinforcements, or

d) the wall assembly shall comply with Sentences 3.1.5.5.(3) and (4) when tested in conformance with CAN/ULC-S134, "Fire Test of Exterior Wall Assemblies.">

Division B - Part 9 - Sentence 9.10.19.1.(1)
Amended by: Reg 175/2014
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9.10.19.1. Required Smoke Alarms

1) *Smoke alarms* conforming to <CAN/ULC-S531, "Standard for Smoke Alarms,"> shall be installed in

a) each *dwelling unit*, and

b) each sleeping room not within a *dwelling unit*.

Division B - Part 9 - Sentence 9.12.2.2.(1)
Amended by: Reg 140/2014
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9.12.2.2. Minimum Depth of Foundations

1) Except as provided in <Sentences (4) to (7)>, the minimum depth of *foundations* below finished ground level shall conform to Table 9.12.2.2.

Division B - Part 9 - Section 9.13.4.
Amended by: Reg 175/2014
Effective: 2014-12-19
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9.13.4. <Soil Gas Control

(See Appendix A.)

9.13.4.1. Application and Scope

1) This Subsection applies to

a) wall, roof and floor assemblies separating *conditioned space* from the ground, and

b) the rough-in of a radon vent pipe to allow the future protection of *conditioned space* that is separated from the ground by a wall, roof or floor assembly.

2) This Subsection addresses the leakage of *soil* gas from the ground into the *building*.

9.13.4.2. Protection from Soil Gas Ingress

1) All wall, roof and floor assemblies separating *conditioned space* from the ground shall be protected by an *air barrier system* conforming to Subsection 9.25.3.

2) Except as permitted by Sentence (4), unless the space between the *air barrier system* and the ground is designed to be accessible for the future installation of a subfloor depressurization system, *dwelling units* and *buildings* containing *residential occupancies* shall be provided with the rough-in for a subfloor depressurization system conforming to Article 9.13.4.3.

3) Except as permitted by Sentence (4) or (5), where *buildings* are used for *occupancies* other than those described in Sentence (2), and are intended to be occupied on average for greater than 4 hours within a 24 hour period, protection from radon ingress and the means to address high radon concentrations in the future shall conform to

a) Article 9.13.4.3., or

b) Part 5 and 6 (see Article 5.4.1.1. and 6.2.1.1.).

(See Appendix A.)

4) *Buildings* in locations classified as Radon Area 2 by Table C-3 in Appendix C need not conform to Sentences (2) and (3).

5) *Buildings* described in Clause 9.16.2.1.(2)(b) need not conform to Sentence (3).

9.13.4.3. Rough-in for a Subfloor Depressurization System

(See Appendix A.)

1) Floors-on-ground shall be provided with a rough-in for subfloor depressurization consisting of

a) a gas-permeable layer and a radon vent pipe, as described in Sentence (2), or

b) a gas-permeable layer consisting of coarse clean granular material and a radon vent pipe, as described in Sentence (3).

2) Where a rough-in referred to in Clause (1)(a) is provided, the rough-in shall include

a) a gas-permeable layer installed in the space between the *air barrier system* and the ground to allow the depressurization of that space, and

b) a radon vent pipe that

i) has one or more inlets that allow for the effective depressurization of the gas-permeable layer (see A-9.13.4.3.(2)(b)(i) and (3)(b)(i) in Appendix A),

ii) terminates outside the *building* in a manner that does not constitute a hazard, and

iii) is clearly labelled “RADON VENT PIPE.”

3) Where a rough-in referred to in Clause (1)(b) is provided, the rough-in shall include

a) a gas-permeable layer, consisting of not less than 100 mm of clean granular material containing not more than 10% of material that will pass a 4 mm sieve, installed below the floor-on-ground, and

b) a radon vent pipe not less than 100 mm in diameter that is constructed so as to be air-tight and installed through the floor-on-ground such that

i) it opens into each contiguous area of the granular layer required by Clause (a) and not less than 100 mm of granular material projects beyond the terminus of the pipe measured along its axis (see A-9.13.4.3.(2)(b)(i) and (3)(b)(i) in Appendix A),

ii) it terminates not less than 1 m above and not less than 3.5 m in any other direction from any air inlet, door or openable window,

iii) it terminates not less than 2 m above and not less than 3.5 m in any other direction from a roof that supports an *occupancy*,

iv) it terminates not less than 1.8 m from a property line,

v) it is shielded from the weather in accordance with Sentence 6.2.3.12.(3),

vi) it is protected from frost closure by insulating the pipe or by some other manner, if subject to frost closure,

vii) the accumulation of moisture in the pipe is prevented, and

viii) it is clearly labelled “RADON VENT PIPE” every 1.2 m and at every change in direction.

(See Appendix A.)

Division B - Part 9 - Sentence 9.14.3.1.(1)
Amended by: Reg 175/2014
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9.14.3.1. Material Standards

1) Drain tile and drain pipe for *foundation* drainage shall conform to

a) ASTM C 4, “Clay Drain Tile and Perforated Clay Drain Tile,”

b) ASTM C 412M, “Concrete Drain Tile (Metric),”

c) ASTM C 444M, “Perforated Concrete Pipe (Metric),”

d) <ASTM C 700, “Standard Specification for Vitrified Clay Pipe, Extra Strength, Standard Strength, and Perforated,”>

e) CAN/CGSB-34.22, “Asbestos-Cement Drain Pipe,”

f) CAN/CSA-B182.1, “Plastic Drain and Sewer Pipe and Pipe Fittings,”

g) CAN/CSA-G401, “Corrugated Steel Pipe Products,” or

h) <BNQ 3624-115, “Polyethylene (PE) Pipe and Fittings – Flexible Pipes for Drainage – Characteristics and Test Methods.”>

Division B - Part 9 - Article 9.15.3.4. - Table 9.15.3.4.
Amended by: Reg 175/2014
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Table 9.15.3.4.
<Minimum Footing Sizes
Forming part of Sentence 9.15.3.4.(1)

No. of Floors Supported	Minimum Width of Strip Footings, mm (in.)		Minimum Footing Area for Columns Spaced 3 m o.c.,(1) m^2
	Supporting Exterior Walls(2)	Supporting Interior Walls(3)	
1	250	200	0.4
2	350	350	0.75
3	450	500	1.0>

Notes to Table 9.15.3.4.:
(1) See Sentence 9.15.3.7.(1).
(2) See Sentence 9.15.3.5.(1).
(3) See Sentence 9.15.3.6.(1).

Division B - Part 9 - Article 9.16.2.1.
Amended by: Reg 175/2014
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9.16.2.1. <Required Installation of Material Beneath Floors-on-Ground

1) Except as provided in Sentence (2), a drainage layer shall be installed below floors-on-ground. (See Appendix A.)

2) The drainage layer required in Sentence (1) need not be installed below

a) slabs in garages, carports or accessory *buildings*, or

b) *buildings* of *industrial occupancy* where the nature of the process contained therein permits or requires the use of large openings in the *building* envelope even during the winter.>

Division B - Part 9 - Sentence 9.16.2.2.(4)
Amended by: Reg 175/2014
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9.16.2.2. Support of Floors

1) Material that is susceptible to changes in volume due to variations in moisture content or chemical-microbiological oxidation shall not be used as *fill* beneath floors-on-ground in a concentration that will damage the *building* to a degree that would adversely affect its stability or the performance of assemblies. (See also Article 9.4.4.4. and A-9.4.4.4.(1) in Appendix A.)

2) Material that is susceptible to changes in volume due to freezing shall not be used as *fill* beneath floors-on-ground that will be subjected to freezing temperatures. (See also Article 9.4.4.4. and A-9.4.4.4.(1) in Appendix A.)

3) Except as provided in Sentence (4), *fill* beneath floors-on-ground shall be compacted.

4) *Fill* beneath floors-on-ground need not be compacted where the material is <coarse clean granular material> containing not more than 10% of material that will pass a 4 mm sieve.

Division B - Part 9 - Sentence 9.19.2.1.(1)
Amended by: Reg 140/2014
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9.19.2.1. Access

1) <Every *attic or roof space* shall be provided with an access hatch where the open space in the *attic or roof space* measures

a) 3 m^2 or more in area,

b) 1 m or more in length or width, and

c) 600 mm or more in height over at least the area described in Clauses (a) and (b).

(See Appendix A.)>

2) The hatch required in Sentence (1) shall be not less than 550 mm by 900 mm except that, where the hatch serves not more than one *dwelling unit*, the hatch may be reduced to 0.32 m^2 in area with no dimension less than <500 mm.>

3) Hatchways to *attic or roof spaces* shall be fitted with doors or covers.

Division B - Part 9 - Article 9.23.3.1.
Amended by: Reg 140/2014
Effective: 2014-12-19
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9.23.3.1. Standards for Nails and Screws

1) <Except as provided in Sentence (2) and unless otherwise indicated, nails specified in this Section shall be common steel wire nails or common spiral nails conforming to

a) ASTM F 1667, "Driven Fasteners: Nails, Spikes, and Staples," or

b) CSA B111, "Wire Nails, Spikes and Staples."**>**

2) Nails used to comply with Table 9.23.3.4. shall have a diameter not less than that stated in Table 9.23.3.1. (See Appendix A.)

Table 9.23.3.1.
Diameter of Nails
Forming part of Sentence 9.23.3.1.(2)

Minimum Length of Nails, mm	Diameter of Nails, mm
57	2.87
63	3.25
76	3.66
82	3.66
101 or greater	4.88

3) Wood screws specified in this Section shall conform to ASME B18.6.1, "Wood Screws (Inch Series)." (See Appendix A.)**>**

Division B - Part 9 - Sentence 9.23.6.1.(3)
Amended by: Reg 162/2013
Effective: 2013-04-03
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3) <For *buildings* with 2 or more floors supported by frame walls that are in areas where the seismic spectral response acceleration, $S_a(0.2)$, is equal to or greater than 0.70 but not greater than 1.2 or the 1-in-50 hourly wind pressure is equal to or greater than 0.80 kPa but not greater than 1.20 kPa, anchorage shall be provided by fastening the sill plate to the *foundation* with not less than two anchor bolts per *braced wall panel*, where all anchor bolts used are

a) not less than 15.9 mm in diameter, located within 0.5 m of the end of the *foundation*, and spaced not more than 2.4 m o.c, or

b) not less than 12.7 mm in diameter, located within 0.5 m of the end of the *foundation*, and spaced not more than 1.7 m o.c.>

Division B - Part 9 - Subclause 9.23.13.1.(2)(a)(ii)
Amended by: Reg 140/2014
Effective: 2014-12-19
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9.23.13.1. Requirements for Low to Moderate Wind and Seismic Forces

(See Appendix A.)

1) This Article applies in locations where the seismic spectral response acceleration, $S_a(0.2)$, is not more than 0.70 and the 1-in-50 hourly wind pressure is less than 0.80 kPa.

2) Bracing to resist lateral loads shall be designed and constructed as follows:

a) exterior walls shall be

i) clad with panel-type cladding in accordance with Section 9.27.,

ii) sheathed with plywood, OSB, waferboard, fibreboard, gypsum board or diagonal lumber sheathing complying with <Subsection 9.23.17.> and fastened in accordance with Table 9.23.3.5.A, or

iii) finished on the interior with a panel-type material in accordance with the requirements of Section 9.29., or

b) in accordance with

i) Articles 9.23.13.4. to 9.23.13.7.,

ii) Part 4, or

iii) good engineering practice such as that provided in CWC 2009, “Engineering Guide for Wood Frame Construction.”

Division B - Part 9 - Sentence 9.23.13.7.(7)
Amended by: Reg 140/2014
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7) Where the length of required *braced wall panels* of an exterior wall is reduced as described in Sentence (6), the ratio of the length of *braced wall panels* in the respective upper *braced wall bands* to the length of *braced wall panels* in the reduced exterior *braced wall band* shall not exceed 2.>

Division B - Part 9 - Sentence 9.23.16.5.(2)
Amended by: Reg 140/2014
Effective: 2014-12-19
Revision: 6
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9.23.16.5. Lumber Roof Sheathing

1) Lumber roof sheathing shall not be more than 286 mm wide and shall be applied so that all ends are supported with end joints staggered.

2) <Lumber roof sheathing shall be installed diagonally, where
a) the seismic spectral response acceleration, $S_a(0.2)$, is greater than 0.70 but not greater than 1.2, <or>
b) the 1-in-50 hourly wind pressure is equal to or greater than 0.80 kPa but less than 1.20 kPa.

3) Lumber roof sheathing shall be designed according to Part 4, where
a) the seismic spectral response acceleration, $S_a(0.2)$, is greater than 1.2, or
b) the 1-in-50 hourly wind pressure is equal to or greater than 1.20 kPa.>

Division B - Part 9 - Sentence 9.23.16.7.(3)
Amended by: Reg 140/2014
Effective: 2014-12-19
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9.23.16.7. Thickness or Rating

1) The thickness or rating of roof sheathing on a flat roof used as a walking deck shall conform to either Table 9.23.15.5.A or Table 9.23.15.5.B for subfloors.

2) The thickness or rating of roof sheathing on a roof not used as a walking deck shall conform to either Table 9.23.16.7.A or Table 9.23.16.7.B

3) Asphalt-coated or asphalt-impregnated fibreboard not less than 11.1 mm thick conforming to <CAN/ULC-S706, "Wood Fibre Insulating Boards for Buildings,"> is permitted to be used as a roof sheathing over supports spaced not more than 400 mm o.c. provided the roofing consists of
a) a continuous sheet of galvanized steel not less than 0.33 mm in thickness, or
b) a continuous sheet of aluminum not less than 0.61 mm in thickness.

4) All edges of sheathing described in Sentence (3) shall be supported by blocking or framing.

Division B - Part 9 - Sentence 9.25.1.1.(2)
Amended by: Reg 173/2013
Effective: 2014-12-19
Revision: 5
Page: 426

9.25.1.1. <Scope and> Application

1) This Section is concerned with heat, air and water vapour transfer and measures to control condensation.

2) <All walls, ceilings and floors separating *conditioned space* from unconditioned space, the exterior air or the ground shall be

a) provided with

i) thermal insulation conforming to Subsection 9.25.2. and Section 9.36.,

ii) an air barrier conforming to Subsection 9.25.3. and Section 9.36.,

iii) a vapour barrier conforming to Subsection 9.25.4., and

b) constructed in such a way that the properties and relative position of all materials conform to Subsection 9.25.5.>

3) Insulation and sealing of heating and ventilating ducts shall conform to <Sections 9.32., 9.33. and 9.36.>

Division B - Part 9 - Sentence 9.25.2.1.(1) and Sentence 9.25.2.2.(1)
Amended by: Reg 175/2014
Effective: 2014-12-19
Revision: 7
Page: 426

9.25.2.1. Required Insulation

1) All walls, ceilings and floors separating heated space from unheated space, the exterior air or the exterior *soil* shall be provided with sufficient thermal insulation to prevent moisture condensation on their room side during the winter and to ensure comfortable conditions for the occupants. (See A-9.1.1.1.(1) in Appendix A.)

9.25.2.2. Insulation Materials

1) Except as required in Sentence (2), thermal insulation shall conform to the requirements of

a) CAN/CGSB-51.25-M, "Thermal Insulation, Phenolic, Faced,"

b) CGSB 51-GP-27M, "Thermal Insulation, Polystyrene, Loose Fill,"

c) CAN/ULC-S701, "Thermal Insulation, Polystyrene, Boards and Pipe Covering,"

d) CAN/ULC-S702, "Mineral Fibre Thermal Insulation for Buildings,"

e) CAN/ULC-S703, "Cellulose Fibre Insulation (CFI) for Buildings,"

f) CAN/ULC-S704, "Thermal Insulation, Polyurethane and Polyisocyanurate, Boards, Faced,"

g) CAN/ULC-S705.1, "Thermal Insulation – Spray Applied Rigid Polyurethane Foam, Medium Density – Material - Specification," or

h) <CAN/ULC-S706, "Wood Fibre Insulating Boards for Buildings.">

2) The *flame-spread ratings* requirements contained in the standards listed in Sentence (1) shall not apply. (See Appendix A.)

3) Insulation in contact with the ground shall be inert to the action of *soil* and water and shall be such that its insulative properties are not significantly reduced by moisture.

Division B - Part 9 - Sentence 9.26.2.1.(1)(q)
Amended by: Reg 175/2014
Effective: 2014-12-19
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q) <CAN/CSA-A220 Series, "Concrete Roof Tiles,">

Division B - Part 9 - Sentence 9.26.2.2.(1)
Amended by: Reg 140/2014
Effective: 2014-12-19
Revision: 6
Page: 431

9.26.2.2. Nails

1) <Nails used for roofing shall be corrosion-resistant roofing or shingle nails conforming to
a) ASTM F1667, "Driven Fasteners: Nails, Spikes, and Staples," or
b) CSA B111, "Wire Nails, Spikes and Staples.">

Division B - Part 9 - Sentence 9.26.17.1.(1)
Amended by: Reg 175/2014
Effective: 2014-12-19
Revision: 7
Page: 439

9.26.17.1. Installation

1) <Except as provided in Sentence 9.23.16.1.(1),> concrete roof tiles shall be installed according to <CAN/CSA-A220 Series, "Concrete Roof Tiles."> (See Appendix A.)

Division B - Part 9 - Sentence 9.29.5.6.(1)
Amended by: Reg 140/2014
Effective: 2014-12-19
Revision: 6
Page: 454

9.29.5.6. <Nails

1) Nails for fastening gypsum board to wood supports shall conform to
a) ASTM F1667, "Driven Fasteners: Nails, Spikes, and Staples," or
b) CSA B111, "Wire Nails, Spikes and Staples."**>**

Division B - Part 9 - Sentence 9.29.8.1.(1)
Amended by: Reg 175/2014
Effective: 2014-12-19
Revision: 7
Page: 456

9.29.8.1. Material Standard

1) Insulating fibreboard shall conform to <CAN/ULC-S706, "Wood Fibre Insulating Boards for Buildings.">

Division B - Part 9 - Sentence 9.31.1.1.(4)
Amended by: Reg 173/2013
Effective: 2014-12-19
Revision: 5
Page: 460

9.31.1.1. Application

1) This Section applies to the plumbing facilities and *plumbing systems* within *dwelling units*.

2) In *occupancies* other than *dwelling units*, plumbing facilities, grab bars, floor drains, and floor and wall finishes around urinals shall conform to Subsection 3.7.2. (See also Article 3.7.2.10. regarding *accessible* plumbing facilities.)

3) Medical gas piping systems shall conform to Subsection 3.7.3.

4) <Systems used for service water heating shall conform to the energy efficiency requirements in Section 9.36.>

Division B - Part 9 - Sentence 9.31.6.2.(2)
Amended by: Reg 140/2014
Effective: 2014-12-19
Revision: 6

Division B - Part 9 - Sentence 9.32.1.1.(4)
Amended by: Reg 173/2013
Effective: 2014-12-19
Revision: 5

Division B - Part 9 - Sentence 9.32.2.1.(1)(b)
Amended by: Reg 175/2014
Effective: 2014-12-19
Revision: 7

Division B - Part 9 - Section 9.32.3.
Amended by: Reg 175/2014
Effective: 2014-12-19
Revision: 7

Division B - Part 9 - Sentence 9.32.4.1.(1)
Amended by: Reg 140/2014
Effective: 2014-12-19
Revision: 6

Division B - Part 9 - Sentence 9.32.4.1.(1),(2) and (3)
Amended by: Reg 175/2014
Effective: 2014-12-19
Revision: 7

Division B - Part 9 - Article 9.33.1.1.(3)
Amended by: Reg 173/2013
Effective: 2014-12-19
Revision: 5

Division B - Part 9 - Sentence 9.33.5.2.(2)
Amended by: Reg 162/2013
Effective: 2013-04-03
Revision: 2

Division B - Part 9 - Sentence 9.33.5.2.(1) and (2)
Amended by: Reg 140/2014
Effective: 2014-12-19
Revision: 6

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9.31.2. General

9.31.2.1. General

1) The construction, extension, *alteration*, renewal or repair of *plumbing systems* and sewage disposal systems shall conform to Part 7.

9.31.2.2. Corrosion Protection

1) Metal pipes in contact with cinders or other corrosive material shall be protected by a heavy coating of bitumen or other corrosion protection.

9.31.2.3. Grab Bars

1) When provided, grab bars shall be capable of resisting a load of not less than 1.3 kN applied vertically or horizontally.

9.31.3. Water Supply and Distribution

9.31.3.1. Required Water Supply

1) Every *dwelling unit* shall be supplied with potable water.

9.31.3.2. Required Connections

1) Where a piped water supply is available, piping for hot and cold water shall be connected to every kitchen sink, lavatory, bathtub, shower, slop sink and laundry area.

2) Piping for cold water shall be run to every water closet.

9.31.4. Required Facilities

9.31.4.1. Required Fixtures

1) A kitchen sink, lavatory, bathtub or shower, and water closet shall be provided for every *dwelling unit* where a piped water supply is available.

9.31.4.2. Hot Water Supply

1) Where a piped water supply is available a hot water supply shall be provided in every *dwelling unit*.

9.31.4.3. Floor Drains

1) Where gravity drainage to a sewer, drainage ditch or dry well is possible, a floor drain shall be installed in a *basement* forming part of a *dwelling unit*.

2) A floor drain shall be provided in a garbage room, incinerator room or *boiler* room serving more than one *dwelling unit*.

9.31.5. Sewage Disposal

9.31.5.1. Building Sewer

1) Wastes from every plumbing fixture shall be piped to the *building* sewer.

9.31.5.2. Discharge of Sewage

1) *Building* sewers shall discharge into a public sewage system where such system is available.

2) Where a public sewage system is not available, the *building* sewer shall discharge into a *private sewage disposal system*.

9.31.6. Service Water Heating Facilities

9.31.6.1. Hot Water Supply

1) Where hot water is required to be supplied in accordance with Article 9.31.4.2., equipment shall

a) <provide an adequate supply of hot water, and

b) be installed in conformance with Part 7.>

9.31.6.2. Equipment and Installation

1) *Service water heaters* shall conform to appropriate provincial or territorial requirements or, in the absence of such requirements, to Book II (Plumbing Systems) of this Code.

2) The installation of *service water heaters*, including provisions for mounting, clearances and air supply, shall conform to the requirements of

a) <CSA B139, "Installation Code for Oil-Burning Equipment,">

b) <the Safety Standards Act and the following of its regulations:

i) the Gas Safety Regulation for the installation of natural gas- and propane- burning *service water heaters*,

ii) the Electrical Safety Regulation,

iii) the Power Engineers, Boiler, Pressure Vessel and Refrigeration Safety Regulation, and>

c) <CAN/CSA-B365, "Installation Code for Solid-Fuel-Burning Appliances and Equipment.">

3) Where the *building* is in a location where the spectral response acceleration, $S_a(0.2)$, is greater than 0.55, *service water heaters* shall be secured to the structure to prevent overturning. (See Appendix A.)

9.31.6.3. Corrosion-Resistant Coating

1) Where storage tanks for *service water heaters* are of steel, they shall be coated with zinc, vitreous enamel (glass lined), hydraulic cement or other corrosion-resistant material.

9.31.6.4. Fuel-Burning Heaters

1) Fuel-burning *service water heaters* shall be connected to a *chimney flue* conforming to Section 9.21.

9.31.6.5. Heating Coils

1) Heating coils of *service water heaters* shall not be installed in a *flue* or in the combustion chamber of a *boiler* or *furnace* heating a *building*.

Section 9.32. Ventilation

9.32.1. General

9.32.1.1. Application

1) This Section applies to the ventilation of rooms and spaces in *residential occupancies* <by natural ventilation and to self-contained mechanical ventilation systems serving only one *dwelling unit*.>

2) Mechanical ventilation systems other than self-contained systems serving single *dwelling units* shall conform to Part 6.

3) A *storage garage* for more than 5 motor vehicles shall be ventilated in accordance with Part 6.

4) <Systems used for ventilation shall conform to the energy efficiency requirements in Section 9.36.>

9.32.1.2. Required Ventilation

1) <Every *dwelling unit* shall incorporate

a) provisions for non-heating-season ventilation in accordance with Subsection 9.32.2., and

b) if supplied with electrical power, provisions for heating season ventilation in accordance with Subsection 9.32.3.>

9.32.2. Non-Heating-Season Ventilation

9.32.2.1. Required Ventilation

1) Rooms or spaces in *dwelling units* shall be ventilated during the non-heating season by

a) natural ventilation in accordance with Article 9.32.2.2., or

b) a mechanical ventilation system conforming to <Subsection 9.32.3.>

2) Where a habitable room or space is not provided with natural ventilation as described in <Clause (1)(a), mechanical ventilation shall be provided to exhaust inside air from, or to introduce outside air to,> that room or space at the rate of

a) one-half air change per hour if the room or space is mechanically cooled during the non-heating season, or

b) one air change per hour if it is not mechanically cooled during the non-heating season.

9.32.2.2. Non-Heating-Season Natural Ventilation

1) The unobstructed openable ventilation area to the outdoors for rooms and spaces in residential *buildings* ventilated by natural means shall conform to Table 9.32.2.2.

Table 9.32.2.2.
Natural Ventilation Area
Forming part of Sentence 9.32.2.2.(1)

Location		Minimum Unobstructed Area
Within a *dwelling unit*	Bathrooms or water-closet rooms	0.09 m^2
	Unfinished *basement* space	0.2% of the *floor area*
	Dining rooms, living rooms, bedrooms, kitchens, combined rooms, dens, recreation rooms and all other finished rooms	0.28 m^2 per room or combination room
Other than within a *dwelling unit*	Bathrooms or water-closet rooms	0.09 m^2 per water closet
	Sleeping areas	0.14 m^2 per occupant
	Laundry rooms, kitchens, recreation rooms	4% of the *floor area*
	Corridors, storage rooms and other similar public rooms or spaces	2% of the *floor area*
	Unfinished *basement* space not used on a shared basis	0.2% of the *floor area*

2) Where a vestibule opens directly off a living or dining room within a *dwelling unit*, ventilation to the outdoors for such rooms may be through the vestibule.

3) Openings for natural ventilation other than windows shall provide protection from the weather and insects.

4) Screening shall be of corrosion-resistant material.

9.32.2.3. Reserved

9.32.3 <Heating-Season (Mechanical) Ventilation

(See Appendix A.)

9.32.3.1. Required Ventilation

1) Every *dwelling unit* that is supplied with electrical power shall be provided with a mechanical ventilation system that conforms to

a) CAN/CSA-F326-M, "Residential Mechanical Ventilation Systems," or

b) this Subsection.

9.32.3.2. Design and Installation

1) Aspects of a mechanical ventilation system not specifically addressed in this Subsection shall be designed, constructed and installed in accordance with good practice such as that described in the ASHRAE Handbook and standards, the HRAI Digest, the HRAI Residential Mechanical Ventilation Manual, the TECA Ventilation Guidelines, the Hydronics Institute Manuals and the SMACNA manuals.

2) Exhaust fans and supply fans shall be installed in accordance with this Subsection and the manufacturer's instructions.

3) The mechanical components of a mechanical ventilation system shall be installed so as to be accessible for inspection, maintenance, repair, and cleaning.

9.32.3.3. Mechanical Ventilation System Components

1) A mechanical ventilation system shall include

a) a principal ventilation system that

i) provides supply air in accordance with Article 9.32.3.4., and

ii) includes an exhaust fan that conforms with Article 9.32.3.5.,

b) the kitchen and bathroom exhaust fans that are required by Article 9.32.3.6., and

c) if the *building* includes a heated crawl space, the components that are required by Article 9.32.3.7.

9.32.3.4. Principal Ventilation System Supply Air

(See Appendix A.)

1) Except as provided in Sentence (6), a principal ventilation system shall mechanically provide supply air in accordance with Sentence (2), (3), (4) or (5).

2) Where the principal ventilation system is a ducted forced-air heating system, the ducted forced-air heating system shall

a) provide supply air through the ducting to

i) each bedroom, and

ii) each floor level without a bedroom,

b) draw supply air from an outdoor inlet that is connected to the furnace cabinet by ducting

i) that is no more than 4.5 m in length, and

ii) unless a flow control device is used, that intersects the return air *plenum* at a point from which the ducting to the furnace cabinet is no less than 3 m in length,

c) draw supply air through ducting that is

i) rigid ducting with an equivalent diameter of at least 100 mm, or

ii) flexible ducting with an equivalent diameter of at least 125 mm, and

d) have a furnace air circulating fan set to run continuously.

3) Where the principal ventilation system is a ducted forced-air heating system used in combination with a heat-recovery ventilator,

a) the ducted forced-air heating system shall conform to Sentence (2),

b) the heat-recovery ventilator shall draw supply air from an outdoor inlet into the return air *plenum* of the ducted forced-air heating system, and

c) the heat-recovery ventilator shall draw exhaust air, through dedicated ducting,

i) from one or more indoor inlets, at least one of which is located at least 2 m above the floor of the uppermost floor level, and

ii) at the capacity rating of the heat-recovery ventilator, which shall be no less than the air-flow rate specified in Table 9.32.3.5.

4) Where the principal ventilation system is a heat-recovery ventilator, the heat-recovery ventilator shall

a) provide supply air through dedicated ducting to

i) each bedroom, and

ii) each floor level without a bedroom, and

b) draw exhaust air, through dedicated ducting,

i) from one or more indoor inlets, at least one of which is located at least 2 m above the floor of the uppermost floor level, and

ii) at the capacity rating of the heat-recovery ventilator, which shall be no less than the air-flow rate specified in Table 9.32.3.5.

5) Where the principal ventilation system is a ducted central-recirculation ventilation system, the ducted central-recirculation ventilation system shall

a) draw supply air from an outdoor inlet connected upstream of the fan, and

b) draw air from

i) each bedroom and deliver it to a common area, or

ii) a common area and deliver it to each bedroom.

6) A principal ventilation system need not conform to Sentence (1) if the principal ventilation system

a) services a *dwelling unit* that

i) is located where the January design temperature, on a 2.5% basis determined in conformance with Article 1.1.3.1., is greater than –10°C,

ii) has only 1 *storey* and a *floor area* within the *building* envelope of less than 168 m^2 (see Appendix A), and

iii) does not have a ducted forced-air heating system, and

b) provides supply air passively from outdoors through dedicated inlets that

i) are located in each bedroom and at least one common area,

ii) are located at least 1 800 mm above the floor, and

iii) have an unobstructed vent area of not less than 100 mm^2.

9.32.3.5. Principal Ventilation System Exhaust Fan

1) A principal ventilation system exhaust fan shall
a) run continuously, and
b) provide at least the air-flow rate specified in Table 9.32.3.5.

Table 9.32.3.5.
Principal Ventilation System Exhaust Fan Minimum Air-flow Rate
Forming part of Sentence 9.32.3.5.(1)

Floor Area, m^2	Minimum Air-flow Rate, L/s				
	Number of Bedrooms				
	0–1	2–3	4–5	6–7	>7
< 140	14	21	28	35	42
140–280	21	28	35	42	49
281–420	28	35	42	49	56
421–560	35	42	49	56	64
561–700	42	49	56	64	71
> 700	49	56	64	71	78

2) For the purposes of Sentence (1), the capacity rating of the principal ventilation system exhaust fan shall be determined, based on air-flow performance at 50 pa of external static pressure, in accordance with
a) HVI Publication 916, "Airflow Test Procedure," or
b) CAN/CSA-C260-M, "Rating the Performance of Residential Mechanical Ventilating Equipment."

3) The principal ventilation system exhaust fan shall be
a) designed to run continuously, and
b) controlled by a dedicated switch that
   i) has 2 settings, on and off,
   ii) is located where it will be accessible for the purposes of servicing the exhaust fan but not likely to be turned off inadvertently, and
   iii) is clearly marked "PRINCIPAL VENTILATION EXHAUST FAN."

4) If the principal ventilation system exhaust fan is designed to run at multiple air-flow rates,
a) the air-flow rate of the fan shall be controlled by a switch other than the switch described in Clause (3)(b), and
b) the lowest air-flow rate shall not be less than the air-flow rate specified in Table 9.32.3.5.

5) The sound rating of the principal ventilation system exhaust fan shall not exceed 1.0 sone when running continuously at the air-flow rate specified in Table 9.32.3.5. as determined in accordance with
a) HVI Publication 915, "Loudness Testing and Rating Procedure," or
b) CAN/CSA-C260-M, "Rating the Performance of Residential Mechanical Ventilating Equipment."

9.32.3.6. Kitchen and Bathroom Exhaust Fans

1) An exhaust fan that provides at least the air-flow rate specified in Table 9.32.3.6. shall be installed in
a) every kitchen, and
b) every bathroom or water-closet room, unless the bathroom or water-closet room is served by the principal ventilation system exhaust fan that complies with Article 9.32.3.5.

2) For the purposes of Sentence (1), the capacity rating of the exhaust fan shall be determined, based on air-flow performance at 50 pa of external static pressure, in accordance with
a) HVI Publication 916, "Airflow Test Procedure," or
b) CAN/CSA-C260-M, "Rating the Performance of Residential Mechanical Ventilating Equipment."

Table 9.32.3.6.
Kitchen/Bathroom Exhaust Fan Minimum Air-flow Rate
Forming part of Sentence 9.32.3.6.(1)

Room	Minimum Exhaust Fan Air-flow Rate, L/s	
	Intermittent	Continuous
Kitchen	47	N/A
Bathroom	23	9

9.32.3.7. Heated Crawl Space Ventilation

1) Where a crawl space is heated by a ducted forced-air heating system, the crawl space shall be connected to the floor space above the crawl space by at least one air-transfer grille for each 30 m^2 of crawl space area.

2) Where a crawl space is heated other than by a ducted forced-air heating system, the crawl space shall

a) be connected to

i) the floor space above the crawl space by at least one air-transfer grille for every 30 m^2 of crawl space area, and

ii) the principal ventilation system by a supply air outlet or an exhaust air inlet,

b) be connected to the floor space above the crawl space by at least 2 air-transfer grilles for every 30 m^2 of crawl space area, or

c) be connected to

i) the floor space above the crawl space by at least one air-transfer grille for every 30 m^2 of crawl space area, and

ii) the outdoors by a dedicated exhaust fan that complies with Sentence (4).

3) An air-transfer grille required by Sentence (1) or (2) shall have an unobstructed vent area of not less than 25 cm^2.

4) Where a dedicated exhaust fan is installed in accordance with Subclause (2)(c)(ii), the dedicated exhaust fan shall

a) provide an air-flow rate of at least 23 L/s, and

b) be controlled by

i) a humidity control device, or

ii) an adjustable time control device that is capable of providing not less than 8 total hours of ventilation per 24 hour period.

5) Where a crawl space is divided into 2 or more compartments, each heated compartment shall conform to Sentence (1) or (2).

9.32.3.8. Air Ducts

1) *Exhaust ducts* shall discharge to the outdoors.

2) *Exhaust ducts* that are downstream of an exhaust fan shall have no connections to other fans or ducts.

3) *Exhaust ducts*, and *supply ducts* that conduct heated or cooled air, shall

a) be sized in accordance with the requirements of the manufacturer of the fans to which they are connected, and

b) have an equivalent diameter not less than that specified by Table 9.32.3.8.(3).

Table 9.32.3.8.(3)
Maximum Equivalent Duct Length(1), m
Forming part of Sentence 9.32.3.8.(3)

Flexible Duct						
Equivalent Diameter, mm (Cross Section Area for Rectangular Ducts, cm^2)	Fan Capacity, L/s					
	25	40	50	60	70	80
125 (123)	32	15	—	—	—	—
150 (177)	46	40	28	18	13	—
175 (240)	46	46	46	46	46	24
200 (314)	46	46	46	46	46	46

Table 9.32.3.8.(3)
Maximum Equivalent Duct Length(1), m
Forming part of Sentence 9.32.3.8.(3)

Rigid Duct						
Equivalent Diameter, mm (Cross Section Area for Rectangular Ducts, cm^2)	Fan Capacity, L/s					
	25	40	50	60	70	80
100 (79)	32	15	—	—	—	—
125 (123)	46	40	28	18	13	—
150 (177)	46	46	46	42	34	24
175 (240)	46	46	46	46	46	46

Notes to Table 9.32.3.8.(3):
(1) The equivalent length of a duct is the length of the duct plus 10 m for the exterior hood and 3 m for each 90° elbow.

4) Where an *exhaust duct* passes through or is located adjacent to a space that is not *conditioned space*, the duct shall conform to Article 9.36.3.2., except that in no case shall such a duct be insulated to less than RSI 0.75.

5) Where a principal ventilation system *supply duct* passes through or is located adjacent to a *conditioned space*, the duct shall be

a) insulated to not less than RSI 0.75, and

b) provided with an effective vapour barrier.

6) Where a kitchen exhaust fan grille is installed within 1.2 m horizontally of a *cooktop*, the exhaust fan duct shall

a) be constructed of a material that is noncombustible, corrosion-resistant, and cleanable, and

b) be equipped with a grease filter at the intake end.

7) All joints in *exhaust ducts*, and in *supply ducts* that conduct conditioned air, shall be sealed against air leakage with

a) sealants or gaskets made from liquids, mastics or heat-applied materials,

b) mastic with embedded fabric,

c) foil-faced butyl tape, or

d) aluminum foil tape.

8) *Supply ducts* for a mechanical ventilation system shall not be used to provide combustion or dilution air to fuel-burning appliances.

9.32.3.9. Outdoor Inlets and Outlets

1) Outdoor air inlets and exhaust outlets shall be shielded from the weather, birds and rodents by using hoods incorporating a screen of corrosion-resistant material with openings of 6 to 12 mm.

9.32.3.10. Interior Distribution

1) Interior doors shall be undercut by a minimum of 12 mm above the finished floor or the rooms shall be provided with an air-transfer grille with an unobstructed vent area that is not less than 100 cm^2.>

9.32.4. Additional Protection Against Depressurization

9.32.4.1. Protection Requirements

1) <Additional> make-up air for the actual *appliance* exhaust rate shall be provided for any *appliance* <that> discharges air to the exterior at an installed rate exceeding 0.5 air change per hour when it is located within a *dwelling unit* that

a) contains a vented appliance that is subject to back drafting (Naturally Aspirating Fuel Fired Vented Appliance) (See Appendix A.), or

b) is located <in an area classified as Radon Area 1 by Table C-3 in Appendix C> and incorporates no soil gas mitigation system.

2) <Where additional make-up air is required for appliances described in Sentence (1), it shall be provided by a supply fan rated to deliver outdoor air at the rate of the installed exhaust appliance.>

3) The supply fan as required in <Sentence (2)> shall be interconnected with the exhaust fan for which make-up air is required.

4) The outdoor air required by Sentence (3) shall be
a) tempered to at least 1°C before being introduced to a normally unoccupied area of the *dwelling unit*, or
b) tempered to at least 12°C before being introduced to occupied areas either by passive transfer grille or directly from outside.

9.32.4.2. Carbon Monoxide Alarms

(See Appendix A.)

1) This Article applies to every *building* that contains a *residential occupancy* and that also contains
a) a fuel-burning *appliance*, or
b) a *storage garage*.

2) Carbon monoxide (CO) alarms required by this Article shall
a) conform to CAN/CSA-6.19, "Residential Carbon Monoxide Alarming Devices,"
b) be equipped with an integral alarm that satisfies the audibility requirements of CAN/CSA-6.19, "Residential Carbon Monoxide Alarming Devices,"
c) have no disconnect switch between the overcurrent device and the CO alarm, where the CO alarm is powered by the *dwelling unit's* electrical system, and
d) be mechanically fixed at a height recommended by the <manufacturer's instructions>.

3) <Where a room contains a solid-fuel-burning *appliance*,> a CO alarm conforming to CAN/CSA-6.19, "Residential Carbon Monoxide Alarming Devices," shall be mechanically fixed
a) <at a height recommended by the manufacturer's instructions where those instructions specifically mention solid-fuel-burning *appliances*, or>
b) <in the absence of specific instructions related to solid-fuel-burning *appliances*, on or near the ceiling.>

4) Where a fuel-burning *appliance* is installed in a *suite* of *residential occupancy*, a CO alarm shall be installed
a) inside each bedroom, or
b) outside each bedroom, within 5 m of each bedroom door, measured following corridors and doorways.

5) Where a fuel-burning *appliance* is installed in a *service room* that is not in a *suite* of *residential occupancy*, a CO alarm shall be installed
a) in the *service room*, and
b) for every *suite* of *residential occupancy* that shares a wall or floor/ceiling assembly with that *service room*, either
   i) inside each bedroom, or
   ii) outside each bedroom, within 5 m of each bedroom door, measured following corridors and doorways.

6) For each *suite* of *residential occupancy* that shares a wall or floor/ceiling assembly with a *storage garage* or that is adjacent to an attic or crawl space to which the *storage garage* is also adjacent, a CO alarm shall be installed
a) inside each bedroom, or
b) outside each bedroom, within 5 m of each bedroom door, measured following corridors and doorways.

Section 9.33. Heating and Air-conditioning

9.33.1. General

9.33.1.1. Application

1) <This Section applies to the design and installation of heating systems, including requirements for combustion air and air-conditioning systems serving only one *dwelling unit*.>

2) The design and installation of heating systems, including requirements for combustion air, and air-conditioning systems other than those <described in Sentence (1)> shall conform to Part 6. (See Appendix A and Subsection 9.10.10.)

3) <Systems used for heating and air-conditioning shall conform to the energy efficiency requirements in Section 9.36.>

9.33.2. Required Heating Systems

9.33.2.1. Required Heating Systems

1) Residential *buildings* intended for use in the winter months on a continuing basis shall be equipped with heating facilities conforming to this Section.

9.33.3. Design Temperatures

9.33.3.1. Indoor Design Temperatures

1) At the outside winter design temperature, required heating facilities shall be capable of maintaining an indoor air temperature of not less than

a) 22°C in all living spaces,

b) 18°C in unfinished *basements*, <and>

c) <Reserved.>

d) 15°C in heated crawl spaces.

9.33.3.2. Outdoor Design Temperatures

1) The outdoor conditions to be used in designing heating and air-conditioning systems shall be determined in conformance with Article 1.1.3.1.

9.33.4. General Requirements for Heating and Air-conditioning Systems

9.33.4.1. Design of Heating and Air-conditioning Systems

1) Heating and air-conditioning systems, including ducting, and mechanical heating and refrigeration equipment, shall be designed, constructed and installed to conform to the relevant provincial or territorial regulations or municipal bylaws or, in the absence of such regulations or bylaws, with good practice such as that described in the ASHRAE Handbooks and Standards, the HRAI Digest, <the CHC Handbook on Hydronic Heating Systems,> the Hydronics Institute Manuals and the SMACNA Manuals. (See also Subsection 9.32.3. for the design of systems that also provide ventilation.)

9.33.4.2. <Installation of Hydronic Heating Systems

1) The installation of a hydronic heating system shall conform to applicable provincial or territorial regulations or municipal bylaws or, in the absence of such regulations or bylaws, to CAN/CSA-B214, "Installation Code for Hydronic Heating Systems."

9.33.4.3. Reserved.

1) Reserved.>

9.33.4.4. Access

1) Equipment forming part of a heating or air-conditioning system, with the exception of embedded pipes or ducts, shall be installed with provision for access for inspection, maintenance, repair and cleaning.

9.33.4.5. Protection from Freezing

1) Equipment forming part of a heating or air-conditioning system that may be adversely affected by freezing temperatures and that is located in an unheated area shall be protected from freezing.

9.33.4.6. Expansion, Contraction and System Pressure

1) Heating and cooling systems shall be designed to allow for expansion and contraction of the heat transfer fluid and to maintain the system pressure within the rated working pressure limits of all components of the system.

9.33.4.7. Structural Movement

1) Mechanical systems and equipment shall be designed and installed to accommodate the maximum amount of structural movement provided for in the construction of the *building*.

2) Where the *building* is in a location where the spectral response acceleration, $S_a(0.2)$, is greater than 0.55, heating and air-conditioning equipment with fuel or power connections shall be secured to the structure to resist overturning and displacement. (See A-9.31.6.2.(3) in Appendix A.)

9.33.4.8. Asbestos

1) Asbestos shall not be used in air distribution systems or equipment in a form or in a location where asbestos fibres could enter the air supply or return systems.

9.33.4.9. Contaminant Transfer

1) Systems serving garages, and systems serving other occupied parts of a *dwelling unit* but located in or running through a garage, shall be designed and constructed in a manner such that means are not provided for the transfer of contaminants from the garage into other spaces in the *dwelling unit*.

9.33.5. Heating and Air-conditioning Appliances

9.33.5.1. Capacity of Heating Appliances

1) The required capacity of heating *appliances* located in a *dwelling unit* and serving only that *dwelling unit*, shall be determined in accordance with <CSA F280, "Determining the Required Capacity of Residential Space Heating and Cooling Appliances,"> except that the design temperatures shall conform to Subsection 9.33.3.

9.33.5.2. Appliance Installation Standards

1) Except as provided in Articles 9.33.5.3. and 9.33.5.4., the installation of heating and air-conditioning equipment, including mechanical refrigeration equipment, and including provisions for mounting, clearances and air supply, shall conform to <the requirements of>

a) <CAN/CSA-B139, "Installation Code for Oil-Burning Equipment,"> for the installation of oil-burning equipment

b) <the Safety Standards Act and the following of its regulations:

i) the Gas Safety Regulation, for the installation of natural gas- and propane-burning equipment,

ii) the Electrical Safety Regulation, and

iii) the Power Engineers, Boiler, Pressure Vessel and Refrigeration Safety Regulation, for the installation of boilers, pressure vessels, pressure piping and mechanical refrigeration,

c) CAN/CSA-B365, "Installation Code for Solid-Fuel- Burning Appliances and Equipment," and

d) CAN/CSA-C448, "Design and Installation of Earth Energy Systems.">

(See also Sentence 9.33.5.3.(1).)

<2) For the purposes of Clause (1)(c), section 3.1 of CAN/CSA-<B365>, "Installation Code for Solid-Fuel-Burning Appliances and Equipment," shall be read as though that section included the following paragraph:

a) an alternative safety approach under which a solid-fuel-burning boiler is accepted for use under section 10 of the Safety Standards Act.>

9.33.5.3. Design, Construction and Installation Standard for Solid-Fuel-Burning Appliances
(See Appendix A.)

1) The design, construction and installation, including the provision of combustion air, of solid-fuel-burning *appliances* and equipment, including *stoves*, <*cooktops*, ovens> and *space heaters*, shall conform to CAN/CSA-B365, "Installation Code for Solid-Fuel-Burning Appliances and Equipment."

9.33.5.4. Fireplaces

1) Fireplaces shall conform to Section 9.22.

9.33.6. Air Duct Systems

9.33.6.1. Application

1) The design, construction and installation of air duct distribution systems serving heating systems in which the rated heat input does not exceed 120 kW shall conform to this Subsection.

2) Air duct distribution systems in which the rated heat input exceeds 120 kW shall conform to Part 6 and Subsection 3.6.5.

9.33.6.2. Materials in Air Duct Systems

1) Except as provided in Sentences (2) to (6) and in Article 3.6.4.3., all ducts, duct connectors, associated fittings and *plenums* used in air duct systems shall be constructed of steel, aluminum alloy, copper, clay, asbestos-cement or similar *noncombustible* material.

2) Ducts, associated fittings and *plenums* are permitted to contain *combustible* material provided they

a) conform to the appropriate requirements for Class 1 duct materials in CAN/ULC-S110, "Test for Air Ducts,"

b) conform to Article 3.1.5.15. and Subsection 3.1.9.,

c) are not used in vertical runs serving more than 2 *storeys*, and

d) are not used in air duct systems in which the air temperature may exceed 120°C.

3) Duct sealants shall have a *flame-spread rating* of not more than 25 and a smoke developed classification of not more than 50.

4) Duct connectors that contain *combustible* materials and that are used between ducts and air outlet units shall

a) conform to the appropriate requirements for Class 1 air duct materials in CAN/ULC-S110, "Test for Air Ducts,"

b) be limited to 4 m in length,

c) be used only in horizontal runs, and

d) not penetrate required *fire separations*.

5) *Combustible* ducts that are part of a duct system carrying only ventilation air and that are contained entirely within a *dwelling unit* need not comply with the requirements of Sentences (1) to (4).

6) Except as provided in Sentences 9.33.6.13.(2) and (3), ducts that are part of a return-air duct system and that are contained entirely within a *dwelling unit* need not comply with the requirements of Sentences (1) to (4).

7) Materials referred to in Sentences (1) to (6), when used in a location where they may be subjected to excessive moisture, shall

a) have no appreciable loss of strength when wet, and

b) be corrosion-resistant.

9.33.6.3. Tape

1) Tape used for sealing duct joints in air ducts, *plenums* and other parts of air duct systems shall meet the flame-resistance requirements for fabric in CAN/ULC-S109, "Flame Tests of Flame-Resistant Fabrics and Films."

9.33.6.4. Coverings, Linings, Adhesives and Insulation

1) Coverings, linings and associated adhesives and insulation of air ducts, *plenums* and other parts of air duct systems shall be of *noncombustible* material when exposed to heated air or radiation from heat sources that would result in the exposed surface exceeding a temperature of 120°C.

2) Except as provided in Sentence (3), when *combustible* coverings and linings, including associated adhesives and insulation, are used, they shall have

a) a *flame-spread rating* of not more than 25 on any exposed surface or any surface that would be exposed by cutting through the material in any direction, and

b) a smoke developed classification of not more than 50.

3) The outer covering of ducts, *plenums* and other parts of air duct systems used within an assembly of *combustible construction* are permitted to have

a) an exposed surface *flame-spread rating* of not more than 75, and

b) a smoke developed classification greater than 50.

4) *Combustible* coverings and linings described in Sentences (2) and (3) shall not flame, glow, smoulder or smoke when tested in accordance with the method of test in ASTM C 411, "Hot-Surface Performance of High-Temperature Thermal Insulation," at the maximum temperature to which the coverings and linings are to be exposed in service.

5) Except as provided in Sentence (6), foamed plastic insulation shall not be used as part of an air duct or for insulating an air duct.

6) Foamed plastic insulation is permitted to be used in a ceiling space that acts as a return air *plenum* provided the foamed plastic insulation is protected from exposure to the *plenum* in accordance with Sentence 3.1.5.12.(2).

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Division B - Part 9 - Section 9.36, Sentence 9.36.1.2.(1)
Amended by: Reg 175/2014
Effective: 2014-12-19
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Section 9.36. Energy Efficiency

9.36.1. General

9.36.1.1. Scope

1) This Section is concerned with the energy used by *buildings* as a result of

a) the design and construction of the *building* envelope, and

b) the design and construction or specification of systems and equipment for

i) heating, ventilating or air-conditioning, and

ii) service water heating.

(See Appendix A.)

9.36.1.2. Definitions

1) For the purpose of this Section, the term "common space" shall mean all spaces required to be *conditioned spaces* <by Article 9.33.2.1.> that are not within a *suite* but shall not include crawl spaces and *vertical service spaces*. (See A-9.36.1.3.(3) in Appendix A.)

2) For the purpose of this Section, the term "overall thermal transmittance," or U-value, shall mean the rate, in W/(m^2·K), at which heat is transferred through a *building* assembly that is subject to temperature differences. (See Appendix A.)

3) For the purpose of this Section, the term "effective thermal resistance," or RSI value, shall mean the inverse of the overall thermal transmittance of an assembly, in (m^2·K)/W. (See Appendix A.)

4) For the purpose of this Section, the term "fenestration" shall mean all *building* envelope assemblies, including their frames, that transfer visible light, such as windows, clerestories, skylights, translucent wall panels, glass block assemblies, transoms, sidelights, sliding, overhead or swinging glass doors, and glazed inserts in doors, etc. (See Appendix A.)

Division B - Part 9 - Table 9.36.2.8.A., Table 9.36.2.8.B.
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Division B - Part 9 - Sentence 9.36.2.19.(3)(a)
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Revision: 2

Division B - Part 9 - Articles 9.36.2.3., 9.36.2.6., 9.36.2.7., 9.36.2.8., 9.36.3.11., 9.36.4.3., 9.36.5.11., Tables 9.36.2.7.A., 9.36.4.2.
Amended by: Reg 173/2013
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Revision: 5

Division B - Part 9 - Section 9.37.
Amended by: Reg 173/2013
Effective: 2014-12-19
Revision: 5

Division B - Part 9 - Sentence 9.37.2.21.(1)
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Revision: 6

Division B - Part 9 - Section 9.38.
Amended by: Reg 173/2013
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Revision: 5

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9.36.1.3. Compliance and Application

(See Appendix A.)

1) Except as provided in Sentences (2) to (5), *buildings* shall comply with
a) the prescriptive or trade-off requirements in Subsections 9.36.2. to 9.36.4.,
b) the performance requirements in Subsection 9.36.5., or
c) the NECB.

2) Subsections 9.36.2. to 9.36.4. apply to
a) *buildings* of *residential occupancy* to which Part 9 applies,
b) *buildings* containing *business and personal services*, *mercantile* or *low-hazard industrial occupancies* to which Part 9 applies whose combined total *floor area* does not exceed 300 m^2, excluding parking garages that serve *residential occupancies*, and
c) *buildings* containing a mix of the *residential* and non-*residential occupancies* described in Clauses (a) and (b).

3) Subsection 9.36.5. applies only to
a) houses with or without a *secondary suite*, and
b) *buildings* containing only *dwelling units* and common spaces whose total *floor area* does not exceed 20% of the total *floor area* of the *building*.

(See Appendix A.)

4) *Buildings* containing non-*residential occupancies* whose combined total *floor area* exceeds 300 m^2 or *medium-hazard industrial occupancies* shall comply with the NECB.

5) <The following are exempted from the requirements of this Section:
a) *buildings* or portions of *buildings* that are not *conditioned spaces*, and
b) residential *buildings* that are not intended for use in the winter months on a continuing basis.

(See Appendix A.)>

9.36.2. Building Envelope

9.36.2.1. Scope and Application

1) Except as provided in Sentence (2), this Subsection is concerned with the loss of energy due to heat transfer and air leakage through materials, components and assemblies, including their interfaces, forming part of the *building* envelope where it separates *conditioned space* from unconditioned space, the exterior air or the ground.

2) The requirements of this Subsection also apply to components of a *building* envelope assembly that separate a *conditioned space* from an adjoining *storage garage*, even if the *storage garage* is intended to be heated. (See Appendix A and A-9.36.1.3.(5) in Appendix A.)

3) Except for skylight shafts addressed in <Sentence 9.36.2.6.(4)>, for the purpose of this Subsection, 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.

4) The properties, performance and installation of windows, doors and skylights shall also conform to Section 9.7.

5) The properties, location and installation of thermal insulation, *air barrier systems*, *vapour barriers*, and materials with low air or vapour permeance shall also conform to Section 9.25.

9.36.2.2. Determination of Thermal Characteristics of Materials, Components and Assemblies

1) The thermal characteristics of materials shall be determined by calculation or by testing in accordance with the applicable product standards listed in the Code or, in the absence of such standards or where such standards do not address the determination of thermal resistance, in accordance with
a) ASTM C 177, “Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus,” or
b) ASTM C 518, “Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.”

(See Table A-9.36.2.4.(1)D. in Appendix A for the thermal characteristics of commonly used materials.)

2) Calculations and tests performed in accordance with Sentence (1) shall be carried out at an average temperature of 24±2°C and under a temperature differential of 22±2°C.

3) The thermal characteristics of windows, doors and skylights shall be determined by calculation or testing in accordance with

a) CSA A440.2/A440.3, "Fenestration Energy Performance/User Guide to CSA A440.2-09, Fenestration Energy Performance" for the reference sizes listed therein, or

b) NFRC 100, "Determining Fenestration Product U-factors" and NFRC 200, "Determining Fenestration Product Solar Heat Gain Coefficient and Visible Transmittance at Normal Incidence" for the reference sizes listed therein.

(See Appendix A.)

4) The effective thermal resistance of opaque *building* assemblies shall be determined from

a) calculations conforming to Article 9.36.2.4., or

b) laboratory tests performed in accordance with ASTM C 1363, "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 –35±1°C.

5) The thermal characteristics of log walls shall be determined by calculation in accordance with Section 305 of ICC 400, "Design and Construction of Log Structures." (See Appendix A.)

9.36.2.3. Calculation of Ceiling, Wall, Fenestration and Door Areas

1) The gross <roof-ceiling assembly area> shall be calculated as the sum of the interior surface areas of insulated <roof-ceiling assemblies> and of skylight openings.

2) Except as permitted by Sentence (3), the gross wall area shall be calculated as the sum of the interior surface areas of all exterior *building* envelope assemblies above the finished ground level that are inclined 60° or more from the horizontal, including

a) *rim joists*,

b) fenestration and opaque portions of doors,

c) insulated walls extending from finished ground level to the interior side of the insulated <roof-ceiling assembly,> and

d) the exposed areas of below-ground *building* envelope assemblies, where fenestration or doors are located below the plane of the adjacent finished ground.

(See Appendix A.)

3) Where a *building* of *residential occupancy* contains more than 2 *dwelling units*, the gross wall area enclosing *conditioned space* shall be permitted to include the interior surface areas of walls that enclose a *suite*, measured from the top surface of the lowest floor to the underside of the highest ceiling in the *suite*. (See Appendix A.)

4) Fenestration and door areas shall be the actual sizes of windows, doors and skylights including all related frame and sash members.

5) The fenestration area made of flat panes that are not all in the same plane or curved panes shall be measured along the surface of the glass. (See Appendix A.)

9.36.2.4. Calculation of Effective Thermal Resistance of Assemblies

1) In calculating the effective thermal resistance of assemblies for the purpose of comparison with the requirements of Articles 9.36.2.6. and 9.36.2.8., the thermal bridging effect of closely spaced, repetitive structural members, such as studs and joists, and of ancillary members, such as lintels, sills and plates, shall be accounted for. (See Appendix A.)

2) Minor penetrations through assemblies, such as pipes, ducts, equipment with through-the-wall venting, packaged terminal air conditioners or heat pumps, shelf angles, anchors and ties and associated fasteners, and minor structural members that must partially or completely penetrate the *building* envelope to perform their intended function need not be taken into account in the calculation of the effective thermal resistance of that assembly.

3) Major structural penetrations, such as balcony and canopy slabs, beams, columns and ornamentation or appendages that must completely penetrate the *building* envelope to perform their intended function, need not be taken into account in the calculation of the effective thermal resistance of the penetrated assembly, provided

a) the insulation is installed tight against the outline of the penetration, and

b) the sum of the areas of all such major structural penetrations is limited to a maximum of 2% of the gross wall area calculated as described in Sentence 9.36.2.3.(2).

(See Appendix A.)

4) Where a component of the *building* envelope is protected by an enclosed unconditioned space, such as a sun porch, enclosed veranda, vestibule or attached garage, the required effective thermal resistance of the *building* envelope component between the *building* and the unconditioned enclosure is permitted to be reduced by 0.16 (m^2·K)/W. (See Appendix A.)

9.36.2.5. Continuity of Insulation

1) Except as provided in Sentences (2) to (9) and in Sentence 9.36.2.4.(3) regarding balcony and canopy slabs, and except for clearances around components required for fire safety reasons, interior *building* components that meet *building* envelope components and major structural members that partly penetrate the *building* envelope shall not break the continuity of the insulation and shall not decrease the effective thermal resistance at their projected area to less than that required in Articles 9.36.2.6. and 9.36.2.8. (See Appendix A.)

2) Where an interior wall, *foundation* wall, *firewall*, *party wall* or structural element penetrates an exterior wall or insulated roof or ceiling and breaks the continuity of the plane of insulation, the penetrating element shall be insulated

a) on both of its sides, inward or outward from the *building* envelope, for a distance equal to 4 times its uninsulated thickness to an effective thermal resistance not less than that required for exterior walls as stated in Table 9.36.2.6.A. or 9.36.2.6.B.,

b) within the plane of insulation of the penetrated element to an effective thermal resistance not less than 60% of that required for the penetrated element, or

c) within itself to an effective thermal resistance not less than that required for the penetrated element.

(See Appendix A.)

3) Where a masonry fireplace or flue penetrates an exterior wall and breaks the continuity of the plane of insulation, it shall be insulated within the plane of insulation of the wall or within itself to an effective thermal resistance not less than 55% of that required for the exterior wall as stated in Table 9.36.2.6.A. or 9.36.2.6.B. (See Appendix A.)

4) Where an ornamentation or appendage penetrates an exterior wall and breaks the continuity of the plane of insulation, the penetrating element shall be insulated

a) on both of its sides, inward or outward from the *building* envelope, for a distance equal to 4 times the insulated thickness of the exterior wall to an effective thermal resistance not less than that required for the wall as stated in Table 9.36.2.6.A. or 9.36.2.6.B.,

b) within the plane of insulation of the wall to an effective thermal resistance not less than 55% of that required for the exterior wall, or

c) within the penetrating element to an effective thermal resistance not less than that required for the exterior wall.

5) Except as provided in Sentences (8) and (9), where two planes of insulation are separated by a *building* envelope assembly and cannot be physically joined, one of the planes of insulation shall be extended for a distance equal to at least 4 times the thickness of the assembly separating the two planes. (See Appendix A.)

6) Where mechanical, plumbing or electrical system components, such as pipes, ducts, conduits, cabinets, chases, panels or recessed heaters, are placed within and parallel to a wall assembly required to be insulated, the effective thermal resistance of that wall at the projected area of the system component shall be not less than that required by Tables 9.36.2.6.A., 9.36.2.6.B., 9.36.2.8.A. and 9.36.2.8.B. (See Appendix A.)

7) Except as permitted by Article 9.36.2.11., where mechanical ducts, plumbing pipes, conduits for electrical services or communication cables are placed within the insulated portion of a floor or ceiling assembly, the effective thermal resistance of the assembly at the projected area of the ducts, pipes, conduits or cables shall be not less than 2.78 (m^2·K)/W.

8) Joints and junctions between walls and other *building* envelope components shall be insulated in a manner that provides an effective thermal resistance that is no less than the lower of the minimum values required for the respective adjoining components. (See Appendix A.)

9) Sentence (1) does not apply where the continuity of the insulation is interrupted

a) between the insulation in the *foundation* wall and that of the floor slab,

b) by an integral perimeter footing of a slab-on-grade (see Sentences 9.25.2.3.(5) and 9.36.2.8.(8)), or

c) at the horizontal portion of a *foundation* wall that supports masonry veneer and is insulated on the exterior.

9.36.2.6. Thermal Characteristics of Above-ground Opaque Building Assemblies

1) Except as provided in Sentences (2) and 9.36.2.8.(3) and Articles 9.36.2.5. and 9.36.2.11., the effective thermal resistance of above-ground opaque *building* assemblies or portions thereof shall be not less than that shown for the applicable **<**heating degree-day**>** category in

a) Table 9.36.2.6.A., where the ventilation system does not include heat-recovery equipment, or

b) Table 9.36.2.6.B., where the ventilation system includes heat-recovery equipment conforming to Article 9.36.3.9.

(See Appendix A.)

Table 9.36.2.6.A.
Effective Thermal Resistance of Above-ground Opaque Assemblies in Buildings without a Heat-Recovery Ventilator
Forming part of Sentence 9.36.2.6.(1)

Above-ground Opaque *Building* Assembly	Heating Degree-Days 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), $(m^2 \cdot K)/W$					
Ceilings below attics	6.91	8.67	8.67	10.43	10.43	10.43
Cathedral ceilings and flat roofs	4.67	4.67	4.67	5.02	5.02	5.02
Walls(2)	2.78	3.08	3.08	3.08	3.85	3.85
Floors over unheated spaces	4.67	4.67	4.67	5.02	5.02	5.02

Notes to Table 9.36.2.6.A.:
(1) See Article 1.1.3.1.
(2) See Sentence 9.36.2.8.(3) for requirements concerning the above-ground portion of *foundation* walls.

Table 9.36.2.6.B.
Effective Thermal Resistance of Above-ground Opaque Assemblies in Buildings with a Heat-Recovery Ventilator
Forming part of Sentence 9.36.2.6.(1)

Above-ground Opaque *Building* Assembly	Heating Degree-Days 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), $(m^2 \cdot K)/W$					
Ceilings below attics	6.91	6.91	8.67	8.67	10.43	10.43
Cathedral ceilings and flat roofs	4.67	4.67	4.67	5.02	5.02	5.02
Walls(2)	2.78	2.97	2.97	2.97	3.08	3.08
Floors over unheated spaces	4.67	4.67	4.67	5.02	5.02	5.02

Notes to Table 9.36.2.6.B.:
(1) See Article 1.1.3.1.
(2) See Sentence 9.36.2.8.(3) for requirements concerning the above-ground portion of *foundation* walls.

2) The effective thermal resistance of *rim joists* shall be not less than that required for above-ground walls in Table 9.36.2.6.A. or 9.36.2.6.B., as applicable.

3) A reduction in the effective thermal resistance of ceiling assemblies in attics under sloped roofs is permitted for a length no greater than 1 200 mm but only to the extent imposed by the roof slope and minimum venting clearance, provided the nominal thermal resistance of the insulation directly above the exterior wall is not less than 3.52 $(m^2 \cdot K)/W$. (See Appendix A.)

4) Except for tubular daylighting devices, the minimum effective thermal resistance values for walls stated in Tables 9.36.2.6.A. and 9.36.2.6.B. shall also apply to shafts for skylights.

9.36.2.7. Thermal Characteristics of Fenestration, Doors and Skylights

1) Except as provided in Sentences (2) to (8) and Article 9.36.2.11., fenestration and doors shall have an overall thermal transmittance (U-value) not greater than the values listed in Table 9.36.2.7.A. for the applicable <heating degree-day> category. (See Appendix A.)

Table 9.36.2.7.A.
Required Thermal Characteristics of Fenestration and Doors
Forming Part of Sentence 9.36.2.7.(1)

Components	Thermal Characteristics(1)	Heating Degree-Days of *Building* Location,(2) 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
Fenestration(3) and doors	Max. U-value, W/(m²·K)	1.80	1.80	1.60	1.60	1.40	1.40

Notes to Table 9.36.2.7.A.:
(1) See Appendix A.
(2) See Article 1.1.3.1.
(3) Except skylights (see Sentence (2)) and glass block assemblies (see Sentence (4)).

2) Skylights shall have an overall thermal transmittance not greater than the values listed in Table 9.36.2.7.B for the applicable <heating degree-day> category. (See Appendix A.)

Table 9.36.2.7.B
Overall Thermal Transmittance of Skylights
Forming part of Sentence 9.36.2.7.(2)

Component	Heating Degree-Days 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, W/(m²·K)					
Skylights	2.90	2.90	2.70	2.70	2.40	2.40

Notes to Table 9.36.2.7.B:
(1) See Article 1.1.3.1.

3) Except for site-assembled or site-glazed factory-made fenestration products, curtain wall construction, and site-built windows and glazed doors that are tested in accordance with Sentence 9.36.2.2.(3), site-built windows and glazed doors need not comply with Sentence (1), provided they are constructed in accordance with one of the options presented in Table 9.36.2.7.C for the applicable climate zone. (See Appendix A.)

Table 9.36.2.7.C
Compliance Options for Site-built Windows and Glazed Portion of Doors
Forming part of Sentence 9.36.2.7.(3)

Component	Description of Component	Compliance Options							
		Climate Zones 4 and 5			Climate Zones 6 and 7A			Climate Zones 7B and 8	
		≤ 3999 HDD			4000 to 5999 HDD			≥ 6000 HDD	
		1	2	3	1	2	3	1	2
Frame	non-metallic	✓	✓	—	✓	✓	—	✓	✓
	thermally broken metallic	—	—	✓	—	—	✓	—	—
Glazing	double	—	✓	—	—	—	—	—	—
	triple	✓	—	✓	✓	✓	✓	✓	✓
	argon-filled	—	✓	—	✓	—	✓	—	✓
Low-e coating	none		—	—	—	—	—	—	—
	number of panes with ≤ 0.10	—	≥ 1	—	—	—	—	≥ 2	—
	number of panes with ≤ 0.20	—	—	2	≥ 1	2	≥ 2	—	≥ 2
Spacer	size, mm	12.7	—	12.7	≥ 12.7	12.7	≥ 12.7	≥ 12.7	≥ 12.7
	non-metallic	—	✓	—	—	—	—	—	—

4) Glass block assemblies separating *conditioned space* from unconditioned space or the exterior shall have
a) an overall thermal transmittance of not more than 2.9 W/(m²·K), and
b) a total aggregate area of not more than 1.85 m².

5) One door separating a *conditioned space* from an unconditioned space or the exterior is permitted to have an overall thermal transmittance up to 2.6 W/(m²·K).

6) Storm windows and doors need not comply with Sentence (1).

7) Vehicular access doors separating a *conditioned space* from an unconditioned space or the exterior shall have a nominal thermal resistance of not less than 1.1 (m²·K)/W.

8) Access hatches separating a *conditioned space* from an unconditioned space shall be insulated to a nominal thermal resistance of not less than 2.6 (m²·K)/W.

9.36.2.8. Thermal Characteristics of Building Assemblies Below-Grade or in Contact with the Ground

1) Except as provided in Sentence (2) and Article 9.36.2.5., the effective thermal resistance of *building* assemblies that are below-*grade* or in contact with the ground shall be not less than that shown for the applicable <heating degree-day> category in
a) Table 9.36.2.8.A., where the ventilation system does not include heat-recovery equipment, or
b) Table 9.36.2.8.B., where the ventilation system includes heat-recovery equipment conforming to Article 9.36.3.9.

(See Appendix A.)

Table 9.36.2.8.A.
Effective Thermal Resistance of Assemblies Below-Grade or in Contact with the Ground in Buildings without a Heat-Recovery Ventilator
Forming part of Sentences 9.36.2.8.(1) to (9)

Building Assembly Below-*Grade* or in Contact with the Ground[1]	Heating Degree-Days of *Building* Location,[2] 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), (m²·K)/W					
Foundation walls	1.99	2.98	2.98	3.46	3.46	3.97
Unheated floors[3] below frost line[4][5]	uninsulated	uninsulated	uninsulated	uninsulated	uninsulated	uninsulated
above frost line[5]	1.96[7]	1.96	1.96	1.96	1.96	1.96
Heated and unheated floors on permafrost	n/a	n/a	n/a	n/a	4.44	4.44
Heated floors[6]	2.32	2.32	2.32	2.84	2.84	2.84
Slabs-on-grade with an integral footing[6]	1.96[7]	1.96	1.96	3.72	3.72	4.59

Notes to Table 9.36.2.8.A.:
(1) See Appendix A.
(2) See Article 1.1.3.1.
(3) Does not apply to below-grade floors over heated crawl spaces.
(4) Typically applies to floors-on-ground in full-height *basements*.
(5) Refers to undisturbed frost line before house is constructed.
(6) See Sentence 9.25.2.3.(5) for requirement on placement of insulation. The design of slabs-on-grade with an integral footing is addressed in Part 4 (see Article 9.16.1.2.).
(7) In Zone 4, insulation placed under a slab-on-grade or unheated floor is not required to extend more than 1.2 m inward from the perimeter of the slab or floor, and insulation is not required to be placed under footings.

Table 9.36.2.8.B.
Effective Thermal Resistance of Assemblies Below-Grade or in Contact with the Ground in Buildings with a Heat-Recovery Ventilator
Forming part of Sentences 9.36.2.8.(1) to (9)

Building Assembly Below-*Grade* or in Contact with the Ground[1]	Heating Degree-Days of *Building* Location,[2] 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), (m^2·K)/W					
Foundation walls	1.99	2.98	2.98	2.98	2.98	2.98
Unheated floors[3] below frost line[4][5]	uninsulated	uninsulated	uninsulated	uninsulated	uninsulated	uninsulated
above frost line[5]	1.96[7]	1.96	1.96	1.96	1.96	1.96
Heated and unheated floors on permafrost	n/a	n/a	n/a	n/a	4.44	4.44
Heated floors[6]	2.32	2.32	2.32	2.84	2.84	2.84
Slabs-on-grade with an integral footing[6]	1.96[7]	1.96	1.96	2.84	2.84	3.72

Notes to Table 9.36.2.8.B.:
(1) See Appendix A.
(2) See Article 1.1.3.1.
(3) Does not apply to below-grade floors over heated crawl spaces.
(4) Typically applies to floors-on-ground in full-height *basements*.
(5) Refers to undisturbed frost line before house is constructed.
(6) See Sentence 9.25.2.3.(5) for requirement on placement of insulation. The design of slabs-on-grade with an integral footing is addressed in Part 4 (see Article 9.16.1.2.).
(7) In Zone 4, insulation placed under a slab-on-grade or unheated floor is not required to extend more than 1.2 m inward from the perimeter of the slab or floor, and insulation is not required to be placed under footings.

2) Where an entire floor assembly falls into two of the categories listed in Tables 9.36.2.8.A. and 9.36.2.8.B., the more stringent value shall apply. (See Appendix A.)

3) Where the top of a section of *foundation* wall is on average less than 600 mm above the adjoining ground level, the above-ground portion of that section of wall shall be insulated to the effective thermal resistance required in Table 9.36.2.8.A. or 9.36.2.8.B.

4) Unheated floors-on-ground that are above the frost line and have no embedded heating pipes, cables or ducts shall be insulated to the effective thermal resistance required in Table 9.36.2.8.A. or 9.36.2.8.B.

a) on the exterior of the *foundation* wall down to the footing, or

b) on the interior of the *foundation* wall and, as applicable,

i) beneath the slab for a distance not less than 1.2 m horizontally or vertically down from its perimeter with a thermal break along the edge of the slab that meets at least 50% of the required thermal resistance,

ii) on top of the slab for a distance not less than 1.2 m horizontally from its perimeter, or

iii) within the wooden sleepers below the floor for a distance not less than 1.2 m horizontally from its perimeter.

(See Appendix A.)

5) Except as provided in Sentence (6), floors-on-ground with embedded heating ducts, cables or pipes shall be insulated to the effective thermal resistance required in Table 9.36.2.8.A. or 9.36.2.8.B. under their full bottom surface including the edges.

6) Where only a portion of a floor-on-ground has embedded heating ducts, cables or pipes, that heated portion shall be insulated to the effective thermal resistance required in Table 9.36.2.8.A. or 9.36.2.8.B. under its full bottom surface to 1.2 m beyond its perimeter including exterior edges if applicable.

7) In addition to the requirements stated in Sentences (5) and (6), heated floors-on-ground shall be insulated to the effective thermal resistance required in Table 9.36.2.8.A. or 9.36.2.8.B. vertically

a) around their perimeter, or

b) on the outside of the *foundation* wall, extending down to the level of the bottom of the floor.

8) Floors on permafrost shall be insulated to the effective thermal resistance required in Table 9.36.2.8.A. or 9.36.2.8.B. under the entire slab and around all edges, and under the integral perimeter footing.

9) Slabs-on-grade with an integral perimeter footing shall

a) be insulated to the effective thermal resistance required in Table 9.36.2.8.A. or 9.36.2.8.B. under the entire slab and around all edges, but not under the integral perimeter footing, and

b) be constructed with skirt insulation having the same effective thermal resistance as the insulation installed under the slab.

(See Appendix A.) (See also Sentences 9.25.2.3.(5) and 9.36.2.5.(8).)

10) Junctions between below-*grade* assemblies shall be protected from the ingress of *soil* gas in conformance with Subsection 9.25.3.

9.36.2.9. Airtightness

1) The leakage of air into and out of *conditioned spaces* shall be controlled by constructing

a) a continuous *air barrier system* in accordance with Sentences (2) to (6), Subsection 9.25.3. and Article 9.36.2.10.,

b) a continuous *air barrier system* in accordance with Sentences (2) to (6) and Subsection 9.25.3. and a *building* assembly having an air leakage rate not greater than 0.20 L/(s·m^2) (Type A4) when tested in accordance with CAN/ULC-S742, "Air Barrier Assemblies – Specification," at a pressure differential of 75 Pa, or

c) a continuous *air barrier system* in accordance with Sentences (2) to (6) and Subsection 9.25.3. and a *building* assembly having an air leakage rate not greater than 0.20 L/(s·m^2) when tested in accordance with ASTM E 2357, "Determining Air Leakage of Air Barrier Assemblies."

(See Appendix A.)

2) An *air barrier system* installed to meet the requirements of Sentence (1) shall be continuous

a) across construction, control and expansion joints,

b) across junctions between different *building* materials and assemblies, and

c) around penetrations through all *building* assemblies.

3) Windows, doors and skylights and their components shall comply with the minimum air leakage requirements stated in

a) AAMA/WDMA/CSA 101/I.S.2/A440, "NAFS – North American Fenestration Standard/Specification for Windows, Doors, and Skylights" (Harmonized Standard), and

b) CSA A440S1, "Canadian Supplement to AAMA/WDMA/CSA 101/I.S.2/A440, NAFS – North American Fenestration Standard/Specification for Windows, Doors, and Skylights" (Canadian Supplement).

4) Vehicular access doors that separate heated garages from unconditioned spaces or the exterior shall be weatherstripped around their perimeter to prevent air leakage.

5) Fireplaces shall be equipped with doors, enclosures or devices to restrict air movement through the *chimney* when the fireplace is not in use. (See Appendix A.)

6) Where the airtight material used in the *air barrier system* is installed toward the exterior of the *building* envelope, its location and properties shall conform to Subsection 9.25.5. (See Appendix A.)

9.36.2.10. Construction of Air Barrier Details

1) Materials intended to provide the principal resistance to air leakage shall conform to CAN/ULC-S741, "Air Barrier Materials - Specification." (See A-9.25.5.1.(1) in Appendix A for air leakage characteristics and water vapour permeance values for a number of common materials.)

2) Materials referred to in Sentence (1) shall be

a) compatible with adjoining materials, and

b) free of holes and cracks.

(See A-9.36.2.10.(5)(b) in Appendix A.)

3) Where the *air barrier system* consists of rigid panel-type material, all joints shall be sealed. (See A-9.36.2.10.(5)(b) in Appendix A.)

4) Where the *air barrier system* consists of timber logs, all joints shall be sealed to resist airflow through gaps between logs that have shifted due to in-service conditions such as shrinkage and settling.

5) Where the *air barrier system* consists of flexible sheet material, all joints shall be
a) lapped not less than 50 mm,
b) sealed (see Appendix A), and
c) structurally supported.

6) Sealant material used for the purpose of creating a continuous *air barrier system* shall
a) be a non-hardening type, or
b) conform to
   i) Subsection 9.27.4.,
   ii) CAN/ULC-S710.1, "Thermal Insulation – Bead-Applied One Component Polyurethane Air Sealant Foam, Part 1: Material Specification," or
   iii) CAN/ULC-S711.1, "Thermal Insulation – Bead-Applied Two Component Polyurethane Air Sealant Foam, Part 1: Material Specification."

7) Penetrations by electrical wiring, outlets, switches or recessed light fixtures through the plane of airtightness shall be constructed airtight
a) where the component is designed to provide a seal against air leakage, by sealing the component to the air barrier material (see Appendix A), or
b) where the component is not designed to provide a seal against air leakage, by covering the component with an air barrier material and sealing it to the adjacent air barrier material.

8) The joints between the *foundation* wall and the sill plate, between the sill plate and *rim joist*, between the *rim joist* and the subfloor material, and between the subfloor material and the bottom plate of the wall above shall be constructed airtight by
a) sealing all joints and junctions between the structural components, or
b) covering the structural components with an air barrier material and sealing it to the adjacent air barrier material.

9) The interfaces between windows, doors and skylights and wall/ceiling assemblies shall be constructed airtight by sealing all joints and junctions between the air barrier material in the wall and the window, door or skylight frame. (See Appendix A.) (See also Subsection 9.7.6.)

10) Cantilevered floors and floors over unheated spaces or over the exterior shall be constructed airtight by one of the following methods or a combination thereof:
a) sealing all joints and junctions between the structural components, or
b) covering the structural components with an air barrier material and sealing it to the adjacent air barrier material.

11) Interior walls that meet exterior walls or ceilings whose plane of airtightness is on the interior of the *building* envelope and knee walls that separate *conditioned space* from unconditioned space shall be constructed airtight by
a) sealing all junctions between the structural components,
b) covering the structural components with an air barrier material and sealing it to the adjacent air barrier material, or
c) maintaining the continuity of the *air barrier system* above or through the interior wall or below or through the knee wall, as applicable.

12) Steel-lined *chimneys* that penetrate the *building* envelope shall be constructed airtight by blocking the void between required clearances for metal *chimneys* and surrounding construction with sheet metal and sealant capable of withstanding high temperatures.

13) *Masonry or concrete chimneys* that penetrate the *building* envelope shall be constructed airtight by mechanically fastening a metal flange or steel stud that extends not less than 75 mm out from the *chimney* and sealing the air barrier material to it with a sealant capable of withstanding high temperatures.

14) Ducts that penetrate the *building* envelope shall be constructed airtight by sealing the penetration through the *building* envelope. (See Appendix A.)

15) Plumbing vent stack pipes that penetrate the *building* envelope shall be constructed airtight by
a) sealing the air barrier material to the vent stack pipe with a compatible sealant or sheathing tape, or
b) installing a rubber gasket or prefabricated roof flashing at the penetration of the plane of airtightness then sealing it and mechanically fastening it to the top plate.

16) Where a *party wall* meets the plane of airtightness, that junction shall be constructed airtight by sealing any voids within the *party wall* at the perimeter to the adjacent air barrier material and by

a) sealing all junctions between the structural components, or

b) covering the structural components with an air barrier material and sealing it to the adjacent air barrier material.

17) Where the concrete in a flat insulating concrete form wall acts as the air barrier, the continuity of the plane of airtightness shall be maintained between the concrete and adjacent air barrier materials.

9.36.2.11. Trade-off Options for Above-ground Building Envelope Components and Assemblies

(See Appendix A.)

1) Subject to the limitations stated in Sentences (6) to (8), the trade-off options described in Sentences (2) to (4) apply only to above-ground *building* envelope components and assemblies, or portions thereof, of a single *building*.

2) The effective thermal resistance of one or more above-ground opaque *building* envelope assemblies is permitted to be less than that required in Article 9.36.2.6., provided

a) the total areas of all proposed and reference assemblies are equal,

b) the effective thermal resistance of one or more other proposed above-ground opaque *building* envelope assembly areas is increased to more than that required by Article 9.36.2.6., and

c) the sum of the areas of all traded above-ground opaque *building* envelope assemblies divided by their respective effective thermal resistance is less than or equal to what it would be if all assemblies complied with Article 9.36.2.6.

(See Appendix A and A-9.36.2.11.(2) and (3) in Appendix A.)

3) The effective thermal resistance of one or more windows, as calculated in accordance with Sentence (5), is permitted to be less than that required in Article 9.36.2.7., provided

a) the total areas of all traded windows are equal,

b) the traded windows are located in the same orientation,

c) the effective thermal resistance of one or more other windows is increased to more than that required by Article 9.36.2.7., and

d) the sum of the areas of all traded windows divided by their respective effective thermal resistance is less than or equal to what it would be if all windows complied with Article 9.36.2.7.

(See Appendix A and A-9.36.2.11.(2) and (3) in Appendix A.)

4) The effective thermal resistance of one or more portions of floor insulation or ceiling insulation in attics under sloped roofs in *buildings* that are one *storey* in *building height* is permitted to be less than that required in Article 9.36.2.6., provided

a) the total area of fenestration, excluding skylights, and doors does not exceed 15% of the above-ground gross wall area as calculated in accordance with Article 9.36.2.3.,

b) the floor-to-ceiling height measured from the top of the subfloor to the underside of the finished ceiling of the *storey* does not exceed 2.34 m,

c) the distance measured from the top of the subfloor to the underside of the bottom chord of the truss or joist of the roof is not more than 2.39 m, and

d) the difference between the sum of the proposed areas of ceilings or floors divided by their respective proposed effective thermal resistance and the sum of the reference areas of ceilings or floors divided by their respective thermal resistance required in Article 9.36.2.6. is not more than the difference between 17% fenestration and door area and the proposed fenestration and door areas divided by the required effective thermal resistance values for windows and doors in Article 9.36.2.7.

(See Appendix A and A-9.36.2.11.(2) and (3) in Appendix A.)

5) <The effective thermal resistance of windows shall be determined using the following equation: RSI = 1/U.>

6) The reduction in effective thermal resistance of above-ground opaque *building* envelope assemblies permitted by Sentences (2) and (4) shall result in an RSI value that is not less than

a) 55% of that required in Article 9.36.2.6. for above-ground walls and joist-type roofs (see Appendix A), and

b) 60% of that required in Article 9.36.2.6. for other opaque assemblies.

7) The effective thermal resistances of above-ground opaque assemblies with embedded heating cables, pipes or membranes are not permitted to be traded.

8) The effective thermal resistances of doors and access hatches described in Sentences 9.36.2.7.(3) to (7) are not permitted to be traded.

9.36.3. HVAC Requirements

9.36.3.1. Scope and Application

1) This Subsection is concerned with the efficient use of energy by systems and equipment used for heating, ventilating and air-conditioning (HVAC).

2) Where HVAC systems, equipment or techniques other than those described in this Subsection are used, the *building* shall be designed and constructed in accordance with the energy efficiency requirements of the NECB.

9.36.3.2. Equipment and Ducts

1) HVAC systems shall be sized in accordance with good practice as described in Sections 9.32. and 9.33. (See Appendix A.)

2) Ducts shall be designed and installed in accordance with Sections 9.32. and 9.33. (See Appendix A.)

3) Except for *exhaust ducts* leading directly to the exterior, ducts and *plenums* carrying conditioned air and located outside the plane of insulation shall

a) except as provided in Sentence (4), have all joints sealed against air infiltration and exfiltration with

i) sealants or gaskets made from liquids, mastics or heat-applied materials,

ii) mastic with embedded fabric, or

iii) foil-faced butyl tape, and

b) except as provided in Sentence (5), be insulated to the same level as required in Subsection 9.36.2. for exterior above-ground walls.

4) Fabric-backed tape with rubber adhesives shall not be used as a primary sealant to meet the requirements of Clause (3)(a).

5) The underside of rectangular ducts installed under an insulated floor over an unconditioned space is permitted to be insulated to a lower level than required in Sentence (3) but not to less than 2.11 ($m^2 \cdot K$)/W, provided both sides of such ducts are insulated to a compensating higher thermal resistance so that the resulting heat loss does not exceed that of ducts complying with Sentence (3). (See Appendix A.)

9.36.3.3. Air Intake and Outlet Dampers

1) Except as provided in Sentences (3) and (4), every duct or opening intended to discharge air to the outdoors shall be equipped with

a) a motorized damper, or

b) a gravity- or spring-operated backflow damper.

2) Except as provided in Sentences (3) and (4) and except in locations with fewer than 3500 heating degree-days as listed in Appendix C, every outdoor air intake duct or opening shall be equipped with a motorized damper that remains in the "open" position if the damper fails.

3) Where other regulations are in effect that do not permit dampers, air intakes and outlets need not comply with Sentences (1) and (2).

4) Air intakes and outlets serving HVAC systems that are required to operate continuously need not comply with Sentences (1) and (2). (See Appendix A.)

9.36.3.4. Piping for Heating and Cooling Systems

1) Piping for heating and cooling systems shall be designed and installed in accordance with Subsection 9.33.8. (See Appendix A.)

2) Except for high-temperature refrigerant piping, all piping forming part of a heating or air-conditioning system shall be located

a) inside the plane of insulation, or

b) within or outside the plane of insulation, provided the piping is insulated to a thermal resistance not less than that required in Subsection 9.36.2. for exterior above-ground walls.

(See Appendix A.)

9.36.3.5. Equipment for Heating and Air-conditioning Systems

1) Equipment for heating and air-conditioning systems shall be located

a) inside the plane of insulation, or

b) outdoors or in an unconditioned space, provided the equipment is designated by the manufacturer for such installation.

(See Appendix A.)

9.36.3.6. Temperature Controls

1) Except for manually fuelled solid-fuel-fired *appliances*, the supply of heating and cooling energy to each *dwelling unit*, *suite* or common space shall be controlled by thermostatic controls that activate the appropriate supply when the temperature in a *conditioned space* fluctuates ±0.5°C from the set-point temperature for that space.

2) Where heating and cooling systems are controlled by separate thermostatic controls, means shall be provided to prevent these controls from simultaneously calling for heating and cooling.

3) Space temperature control devices used to control unitary electric resistance space heaters shall conform to CAN/CSA-C828, "Thermostats Used with Individual Room Electric Space Heating Devices."

4) Controls required by Sentence (1) shall be designed such that lowering the set-point temperature on the thermostat for the heating system will not cause cooling energy to be expended to reach the lowered setting, and raising the set-point temperature on the thermostat for the cooling system will not cause heating energy to be expended to reach the raised setting.

5) Automatic devices or manually operated dampers, valves or switches shall be provided, as appropriate for the heating system used, to allow the heating of each zone to be adjusted.

6) Heat pumps equipped with supplementary heaters shall incorporate controls to prevent supplementary heater operation when the heating load can be met by the heat pump alone, except during defrost cycles.

7) Heat pumps with a programmable thermostat shall be equipped with setback controls that will temporarily suppress electrical back-up or adaptive anticipation of the recovery point, in order to prevent the activation of supplementary heat during the heat pump's recovery. (See Appendix A.)

9.36.3.7. Humidification

1) Where an HVAC system is equipped with a means for adding moisture to maintain specific humidity levels, an automatic humidity control device shall be provided.

9.36.3.8. Heat Recovery from Dehumidification in Spaces with an Indoor Pool or Hot Tub

(See Appendix A.)

1) Except as provided in Sentences (2) and (3), spaces containing an indoor pool or hot tub shall be equipped with air exhaust systems conforming to Sentence (4) at design conditions. (See also Article 9.25.4.2.)

2) Spaces containing an indoor pool need not comply with Sentence (1), provided a stationary mechanical or desiccant dehumidification system is installed that provides at least 80% of the dehumidification that would result from compliance with Sentence (1).

3) Spaces containing an indoor pool or hot tub having a total water surface area of less than 10 m^2 need not comply with Sentence (1), provided they are equipped with a cover having a nominal thermal resistance not less than 2.1 $(m^2 \cdot K)/W$.

4) Heat-recovery systems used to meet the requirements of Sentence (1) shall

a) be capable of recovering at least 40% of the sensible heat from exhausted air when tested in accordance with ANSI/AHRI 1060, "Performance Rating of Air-to-Air Exchangers for Energy Recovery Ventilation,"(see Appendix A), or

b) have a sensible-heat-recovery efficiency complying with Sentence 9.36.3.9.(3) when tested in accordance with CAN/CSA-C439, "Rating the Performance of Heat/Energy-Recovery Ventilators."

5) The sensible heat, in kW, referred to in Clause (4)(a), which is the sensible heat content of the total quantity of exhausted air, shall be calculated as follows:

$$\text{Sensible Heat} = 0.00123 \cdot Q \cdot (T_e - T_o)$$

where

T_e = temperature of exhausted air before heat recovery, in °C,

T_o = outdoor 2.5% January design temperature as listed in Appendix C, in °C, and

Q = rated capacity of exhaust system at normal temperature of exhausted air, in L/s.

9.36.3.9. Heat Recovery from Ventilation Systems

1) This Article applies where a self-contained mechanical ventilation system is installed whose principal exhaust component is equipped with heat-recovery capability. (See Appendix A.)

2) Where an integrated mechanical system (IMS) with a heat-recovery ventilator provides the principal exhaust ventilation, the IMS shall

a) be tested in accordance with CSA P.10, "Performance of Integrated Mechanical Systems for Residential Heating and Ventilation," and

b) have a minimum overall thermal performance factor conforming to Table 9.36.3.10.

3) When tested in conformance with the low-temperature thermal and ventilation test methods described in CAN/CSA-C439, "Rating the Performance of Heat/Energy-Recovery Ventilators" heat-recovery ventilators described in Sentence (1) shall have a sensible heat-recovery efficiency of

a) at least 60% at an outside air test temperature of 0°C for locations with a 2.5% January design temperature greater than or equal to –10°C, and

b) at least 60% at an outside air test temperature of 0°C and at least 55% at an outside air test temperature of –25°C for locations with a 2.5% January design temperature less than –10°C.

(See Appendix A.)

4) The requirements of Sentence (3) shall be met using a principal ventilation rate not less than that required in Section 9.32. (See A-9.36.3.9.(3) in Appendix A.)

9.36.3.10. Equipment Efficiency

1) HVAC equipment and components shall comply with the performance requirements stated in Table 9.36.3.10. (See Appendix A.)

Table 9.36.3.10.
HVAC Equipment Performance Requirements
Forming part of Sentences 9.36.3.9.(2) and 9.36.3.10.(1)

Component or Equipment	Heating or Cooling Capacity, kW	Standard	Minimum Performance(1)
Air-Cooled Unitary Air Conditioners and Heat Pumps – Electrically Operated			
Split system	≤ 19	CAN/CSA-C656	SEER = 14.5
			EER = 11.5
			HSPF = 7.1 (region 5 in standard)
Single-package system	≤ 19	CAN/CSA-C656 (including General Instruction No. 2)	SEER = 14
			EER = 11
			HSPF = 7.0 (region 5 in standard)
All systems	> 19	CAN/CSA-C746	See Level 2 in standard
Water-Cooled Unitary Air Conditioners and Heat Pumps – Electrically Operated			
Ground-source and water-source heat pumps			
open loop	< 40	CAN/CSA-C13256-1	$COP_c \geq 4.75$, $COP_h \geq 3.6$
closed loop			$COP_c \geq 3.93$, $COP_h \geq 3.1$
Water-to-water heat pumps			
open loop	< 40	CAN/CSA-C13256-2	$COP_c \geq 5.60$, $COP_h \geq 3.4$
closed loop			$COP_c \geq 4.21$, $COP_h \geq 2.8$
Internal water-loop heat pumps	< 5	CAN/CSA-C13256-1	$COP_c \geq 3.28$, $COP_h \geq 4.2$
	≥ 5 and ≤ 40		$COP_c \geq 3.52$, $COP_h \geq 4.2$
Water-cooled air conditioners – all types	< 19	ANSI/AHRI 210/240 or CTI 201	COP = 3.54, ICOP = 3.60

Table 9.36.3.10.
HVAC Equipment Performance Requirements
Forming part of Sentences 9.36.3.9.(2) and 9.36.3.10.(1)

Direct-Expansion Ground-Source Heat Pumps – Electrically Operated			
Direct-expansion ground-source heat pumps	≤ 21	CSA C748	EER = 13.0
			COP_h = 3.1
Room Air Conditioners and Room Air Conditioner Heat Pumps			
Room air conditioners with reverse cycle			
with louvered sides	< 10.55	ANSI/AHAM RAC-1	EER = 8.5
without louvered sides			EER = 8.0
Room air conditioners without reverse cycle and with louvered sides	< 1.8	CAN/CSA-C368.1	EER = 10.7
	≥ 1.8 and < 2.3		EER = 10.7
	≥ 2.3 and < 4.1		EER = 10.8
	≥ 4.1 and < 5.9		EER = 10.7
	≥ 5.9		EER = 9.4
Room air conditioner heat pumps with louvered sides	< 5.9		EER = 9.9
	≥ 5.9		EER = 9.5
Room air conditioners without louvered sides and without reverse cycle	< 1.8		EER = 9.9
	≥ 1.8 and < 2.3		EER = 9.9
	≥ 2.3 and < 4.1		EER = 9.4
	≥ 4.1 and < 5.9		EER = 9.4
	≥ 5.9		EER = 9.4
Room air conditioner heat pumps without louvered sides	< 4.1		EER = 9.2
	≥ 4.1		EER = 8.8
Room air conditioner, casement only	All capacities		EER = 9.5
Room air conditioner, casement slider	All capacities		EER = 9.5
Boilers			
Electric *boilers*	≤ 88	—	Must be equipped with automatic water temperature control[2]
Gas-fired *boilers*[3]	≤ 88	CAN/CSA-P.2	AFUE ≥ 90%
	> 88 and ≤ 117.23	AHRI BTS	E_t ≥ 83%
Oil-fired *boilers*	≤ 88	CSA B212 or ANSI/ASHRAE 103	AFUE ≥ 85%
Warm-Air Furnaces, Combination Warm-Air Furnace/Air-conditioning Units, Duct Furnaces and Unit Heaters			
Gas-fired warm-air *furnaces*[3]	≤ 65.9	CAN/CSA-P.2	AFUE ≥ 92%
	> 65.9 and ≤ 117.23	CAN/CSA-P.8	E_t ≥ 78.5%
Gas-fired duct *furnaces*[3]	≤ 117.23	ANSI Z83.8/CSA 2.6	E_t ≥ 81%
Gas-fired *unit heaters*[3]	≤ 117.23	CAN/CSA-P.11	E_t ≥ 82%
Oil-fired warm-air *furnaces*	≤ 66	CSA B212	AFUE ≥ 85%
Oil-fired duct *furnaces* and *unit heaters*	—	UL 731	E_c ≥ 80%
Combined space- and water-heating systems (combos)	≤ 87.9 if *boiler*-based	CAN/CSA-P.9[4]	TPF = 0.65
	≤ 73.2 if based on *service water heater*		
Integrated mechanical systems	—	CSA-P.9	OTPF = 0.78

Table 9.36.3.10.
HVAC Equipment Performance Requirements
Forming part of Sentences 9.36.3.9.(2) and 9.36.3.10.(1)

Other			
Gas-fired fireplaces and *stoves*(3)	—	—	(5)
Solid-fuel-burning space-heating equipment	—	EPA 40 CFR, Part 60, Subpart AAA or CSA B415.1(6)	See standard(7)
Dehumidifiers	≤ 87.5 L/day	CAN/CSA-C749	See standard(7)

Notes to Table 9.36.3.10.:

(1) The symbols and abbreviations that appear in this column have the following meanings:AFUE= annual fuel utilization efficiency
COP = coefficient of performance, in W/W (COP_c = in cooling mode and COP_h = in heating mode)
E_c = combustion efficiency, in %
EER = energy efficiency ratio, in (Btu/h)/W (no metric equivalent)
E_t = thermal efficiency
FE = fireplace efficiency
HSPF = heating season performance factor, in watt-hours
ICOP = integrated coefficient of performance, in W/W
OTPF = overall thermal performance factor
SEER = seasonal energy efficiency ratio, in (Btu/h)/W (no metric equivalent)
TPF = thermal performance factor

(2) No standard addresses the performance efficiency of electric *boilers*; however, their efficiency typically approaches 100%.
(3) Includes propane.
(4) See the exception stated in Sentence (3).
(5) See Sentence (2).
(6) Minimum performance values are omitted from the Table in cases where the referenced standard itself contains such requirements.
(7) CSA B415.1-10, "Solid-Fuel-Burning Heating Appliances" does not apply to *stoves* with an oven whose volume is greater than 0.028 m^3 and automatically fuelled *appliances*.

2) Natural gas and propane fireplaces shall be
a) direct-vent (sealed), and
b) pilot-on-demand, interrupted or intermittent ignition systems without a standing pilot light.

3) The heat source component of combined space- and service water heating systems that are not within the scope of CAN/CSA-P.9, "Performance of Combined Space and Water Heating Systems (Combos)" shall meet the performance requirements stated in Table 9.36.3.10. for the applicable equipment type. (See Appendix A.)

9.36.3.11. Solar Thermal Systems

1) Space-heating systems that use solar thermal technology shall conform to the manufacturer's design requirements and installation procedures.

2) Service water heating systems that use solar thermal technology shall be installed in accordance with <Book II (Plumbing Systems) of this Code>.

3) Hot water storage tanks associated with the systems referred to in Sentence (2) shall be installed in a *conditioned space*.

9.36.4. Service Water Heating Systems

9.36.4.1. Scope and Application

1) This Subsection is concerned with the efficient use of energy by systems used to heat service water for household use as well as for indoor pools and hot tubs.

2) Where service water heating equipment or techniques other than those described in this Subsection are used, the *building* shall be designed and constructed in accordance with the energy efficiency requirements of the NECB.

9.36.4.2. Equipment Efficiency

1) *Service water heaters*, *boilers*, pool heaters and storage tanks shall comply with the performance requirements stated in Table 9.36.4.2. (See Appendix A.)

2) Hot service water storage tanks not listed in Table 9.36.4.2. shall be covered with insulation having a minimum thermal resistance of 1.8 (m^2·K)/W.

Table 9.36.4.2.
Service Water Heating Equipment Performance Standards
Forming part of Sentences 9.36.4.2.(1) and (2)

Storage-Type Service Water Heaters			
Component	Input(1)	Standard	Performance Requirement(2)
Electric	≤ 12 kW (50 L to 270 L capacity)	CAN/CSA-C191	SL ≤ 25 + 0.20V (top inlet)
			SL ≤ 40 + 0.20V (bottom inlet)
	≤ 12 kW (> 270 L and ≤ 454 L capacity)		SL ≤ (0.472V) – 38.5 (top inlet)
			SL ≤ (0.472V) – 33.5 (bottom inlet)
	>12 kW (> 75 L capacity)	ANSI Z21.10.3/CSA 4.3 and DOE 10 CFR, Part 431, Subpart G	$S = 0.30 + 27/V_m$
Heat pump water heaters	≤ 24 A and ≤ 250 V	CAN/CSA-C745	EF ≥ 2.0
Gas-fired(3)	< 22 kW	CAN/CSA-P.3	EF ≥ 0.67 – 0.0005V
	≥ 22 kW	ANSI Z21.10.3/CSA 4.3	E_t ≥ 80% and standby loss ≤ rated input(4)/(800 + 16.57·√V)
Oil-fired	≤ 30.5 kW	CAN/CSA-B211	EF ≥ 0.59 – 0.0005V
	> 30.5 kW	ANSI Z21.10.3/CSA 4.3 and DOE 10 CFR, Part 431, Subpart G	E_t ≥ 78% and standby loss ≤ rated input(4)/(800 + 16.57·√V)
Tankless Service Water Heaters			
Component	Input(1)	Standard	Performance Requirement(2)
Gas-fired(3)	≤ 73.2 kW	CAN/CSA-P.7	EF ≥ 0.8
	> 73.2 kW	ANSI Z21.10.3/CSA 4.3 and DOE 10 CFR, Part 431, Subpart G	E_t ≥ 80%
Oil-fired	≤ 61.5 kW(5)	DOE 10 CFR, Part 430, Subpart B, Appendix E	EF ≥ 0.59 – 0.0019Vm
	Other	ANSI Z21.10.3/CSA 4.3 and DOE 10 CFR, Part 431, Subpart G	E_t ≥ 80%
Electric	—	—	(6)
Combined space- and water-heating systems (combos)	≤ 87.9 kW if boiler-based	CAN/CSA-P.9	TPF = 0.65
	≤ 73.2 kW if based on service water heater		
Integrated mechanical systems	—	CSA P.10	OTPF = 0.78
Pool Heaters			
Component	Input(1)	Standard	Performance Requirement(2)
Gas-fired(3)	< 117.2 kW	ANSI Z21.56/CSA 4.7 or CSA P.6	E_t ≥ 82%
Oil-fired	—	CSA B140.12	E_t ≥ 75%

Notes to Table 9.36.4.2.:

(1) 1 kW = 3 412 Btu/h

(2) The symbols and abbreviations used in this column have the following meanings:

EF = energy factor, in %/h
E_t = thermal efficiency with 38.9°C water temperature difference
OTPF = overall thermal performance factor
S = standby loss, in %/h (percentage heat content of stored water per hour)
SL = standby loss, in W
TPF = thermal performance factor
V = storage volume, in L, as specified by the manufacturer
V_m = measured storage volume, in US gallons

(3) Includes propane.
(4) Rated input is measured in watts.
(5) Consistent with the US Congress National Appliance Energy Conservation Act of 1987.
(6) No standard addresses the performance efficiency of electric tankless *service water heaters*; however, their efficiency typically approaches 100%.

3) Except for components that are required to be installed outdoors, service water heating equipment shall be installed in a *conditioned space*. (See Appendix A.)

9.36.4.3. Solar Domestic Hot Water Systems

1) Service water heating systems that use solar thermal technology shall conform to the manufacturer's design requirements and installation procedures.

2) Service water heating systems that use solar thermal technology shall be installed in accordance with <Book II (Plumbing Systems) of this Code.>

3) Hot water storage tanks associated with the systems referred to in Sentence (2) shall be installed in a *conditioned space*.

9.36.4.4. Piping

1) The first 2 m of outlet piping downstream and of inlet piping upstream leading from a storage tank or heating vessel shall be covered with piping insulation that is at least 12 mm thick.

2) All piping forming part of a continuously operating recirculating service water heating system shall be covered with piping insulation that is at least 12 mm thick.

3) Where piping forming part of the service water heating system is located outside the *building* envelope or in an unconditioned space, it shall be insulated to a thermal resistance not less than the effective thermal resistance required for the exterior above-ground walls.

9.36.4.5. Controls

1) Service water heating systems with storage tanks shall be equipped with automatic temperature controls capable of adjustment between the minimum and maximum temperature settings permitted for the intended use.

9.36.4.6. Indoor Swimming Pool Equipment Controls

1) Heaters for indoor swimming pools shall be equipped with
a) a thermostat, and
b) a readily accessible and clearly labeled device that allows the heater to be shut off without adjusting the thermostat setting.

2) Pumps and heaters for indoor swimming pools shall be equipped with time switches or other types of controls that can be set to automatically turn off the pumps and heaters when their operation is not required. (See Appendix A.)

9.36.5. Energy Performance Compliance

9.36.5.1. Scope and Application

1) This Subsection is concerned with modeling the energy performance of components, systems and assemblies, including heat gains from internal loads described in Sentence 9.36.5.4.(4), that are addressed in the scope of the prescriptive requirements in Subsections 9.36.2. to 9.36.4. and that are installed in *buildings* described in Sentence 9.36.1.3.(3).

2) Internal loads other than those described in Sentence 9.36.5.4.(4) shall be excluded from the performance compliance calculations as they relate to
a) the lighting of unconditioned spaces,
b) exterior lighting, and
c) the ventilation of unconditioned spaces.

9.36.5.2. Definitions

(See Appendix A.)

1) For the purpose of this Subsection, the term "reference house" shall mean a hypothetical replica of the proposed house design using the same energy sources for the same functions and having the same environmental requirements, *occupancy*, climatic data and operating schedules, but made to comply with all applicable prescriptive requirements of Subsections 9.36.2. to 9.36.4.

2) For the purpose of this Subsection, the term "annual energy consumption" shall mean the annual sum of service water heating and space-conditioning energy consumption of the proposed house design, as calculated in accordance with this Subsection.

3) For the purpose of this Subsection, the term "house energy target" shall mean the annual energy consumption of the reference house, as calculated in accordance with this Subsection.

4) For the purpose of this Subsection, the term "principal ventilation rate" shall mean the normal operating exhaust capacity of the principal ventilation fan as required by Article 9.32.3.3.

9.36.5.3. Compliance

1) The performance compliance calculations shall determine

a) the annual energy consumption of the proposed house, and

b) the house energy target of a reference house.

2) The annual energy consumption of the proposed house shall not exceed the house energy target of the reference house. (See Appendix A.)

3) In establishing the house energy target, *building* components, systems and assemblies shall be accounted for in accordance with the prescriptive requirements of Subsections 9.36.2. to 9.36.4. for the climate zone under consideration.

4) In establishing the annual energy consumption, *building* components, systems and assemblies that are addressed in the scope of the prescriptive requirements of Subsections 9.36.2. to 9.36.4. shall be accounted for for the climate zone under consideration.

5) Where the construction techniques or *building* components, systems or assemblies 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 consumption, provided it can be quantified and is not dependent on occupant interaction.

6) Both the proposed and reference houses shall be modeled using the same climatic data, *soil* conditions, operating schedules in Article 9.36.5.4. and temperature set-points.

9.36.5.4. Calculation Methods

1) Except as provided in Sentence (2), the energy model calculations shall account for the annual energy consumption of systems and equipment required for

a) space heating,

b) ventilation,

c) service water heating, and

d) where installed, space cooling.

(See Appendix A.)

2) Redundant or back-up equipment for the systems and equipment listed in Sentence (1) is permitted to be excluded from the energy model, provided it is equipped with controls and is not required to meet the space-conditioning load of the house. (See Appendix A.)

3) The schedules used in the energy model shall

a) be based on a time interval not greater than one hour, where the energy model evaluates the performance of the house over hourly intervals, or

b) be applied in an hourly-bin model then averaged, where the energy model does not evaluate the performance of the house over hourly intervals.

4) The energy model calculations shall account for the loads due to heat gains from occupants, lighting and miscellaneous equipment using the default schedule provided in Table 9.36.5.4. for every day of the year and such loads shall be

a) multiplied by the following adjustment factors, as applicable:

i) 1 for a house with or without a *secondary suite*,

ii) 0.625 for each *suite* in a residential *building* containing 2 *suites*,

iii) 0.606 for each *suite* in a residential *building* containing 3 *suites*, or

iv) 0.598 for each *suite* in a residential *building* containing more than 3 *suites*, and

b) increased for each hour by 3.58 W per square metre of *floor area* in common spaces, if applicable.

Table 9.36.5.4.
Default Schedule for Internal Heat Gain Loads(1)
Forming part of Sentence 9.36.5.4.(4)

Average Load, in W, Before Noon											
12 a.m.	1 a.m.	2 a.m.	3 a.m.	4 a.m.	5 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.
786	552	549	523	521	547	634	726	847	880	906	986
Average Load, in W, After Noon											
12 p.m.	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.	8 p.m.	9 p.m.	10 p.m.	11 p.m.
992	934	898	911	924	1 089	1 410	1 588	1 568	1 483	1 194	952

Notes to Table 9.36.5.4.:

(1) The schedule indicates at what time of day the heat gains from internal loads and hot water draws are present; it does not account for heat gains from exterior lighting and from lighting of unconditioned spaces.

5) The energy model calculations shall account for the following space-heating temperature set-points:

a) 21°C in all living spaces above the *basement*,

b) 19°C in *basements* and common spaces, and

c) 15°C in crawl spaces intended to be *conditioned spaces*.

6) The energy model calculations shall account for a space-cooling temperature set-point of 25°C in all *conditioned spaces* served by the cooling system.

7) The energy model calculations shall account for a thermostatic control that responds to fluctuations of ±0.5°C from the temperature set-point. (See Appendix A.)

8) If a computer program is used to carry out the compliance calculations, the calculation methods employed in the energy model shall

a) be used for both the reference and proposed houses, and

b) be tested in accordance with ANSI/ASHRAE 140, “Evaluation of Building Energy Analysis Computer Programs” with variations in the computer program from the range recommended therein reported in accordance with Division C.

9) The proposed and reference houses shall both be modeled using the same approach and assumptions, except where *building* components or energy efficiency features are permitted by this Subsection to be different.

10) The energy model calculations shall account for the effect of airtightness in accordance with Sentence 9.36.5.10. (10) or (11), as applicable.

11) The energy model calculations shall account for heat transfer through elements separating *conditioned space* from unconditioned space, the exterior or the ground.

9.36.5.5. Climatic Data

1) To calculate the effect of heating and cooling consumption, the energy model calculations shall be performed using climatic data measured at time intervals no greater than one hour for one year (8 760 hours) based on the average of at least 10 years of measured data collected at the weather station nearest to the region in which the proposed house is located. (See Appendix A.)

2) For urban regions with several climatic data sets and for locations for which climatic data are not available, the energy model calculations shall be performed using climatic data that best represent the climate at the *building* site.

3) The energy model calculations shall account for ground reflectance by

a) increasing ground reflectance due to snow cover in a ratio of 30% without snow cover and 70% with snow cover, or

b) taking into account changes in ground reflectance throughout the heating season.

9.36.5.6. Building Envelope Calculations

1) For each hour of the year, the energy model calculations shall account for heat transfer through wall assemblies, roof-ceiling assemblies, including attics where applicable, and exposed floor assemblies due to the thermal characteristics of the particular assembly and thermal bridging.

2) The following *building* envelope assemblies and components shall be addressed in the energy model calculations:

a) above-ground walls and roof-ceiling assemblies,

b) floors and walls in contact with the ground, and

c) doors, windows and skylights.

(See Subsection 9.36.2.)

3) For each wall assembly, fenestration component, roof-ceiling assembly and exposed floor assembly, the energy model calculations shall account for

a) the area of the interior side of the insulated surface,

b) emissivity, and

c) the effective thermal resistance or overall thermal transmittance, as applicable.

4) The energy model calculations shall account for the effect that each assembly in contact with the ground has on below-*grade* heat transfer due to

a) the geometry of the *foundation*,

b) *soil* conditions (see A-1.1.3.1.(1) in Appendix A), and

c) the configuration of the insulation.

5) The energy model calculations shall account for heat transfer through fenestration separating *conditioned spaces* from the outdoors, including skylights, while accounting for both temperature difference and transmission of solar radiation based on

a) orientation as a function of azimuth and tilt of the surface,

b) area of frame opening and glazed area,

c) overall thermal transmittance, and

d) solar heat gain coefficient.

6) Where the energy model calculations account for the effect of thermal mass, the contents of the house shall be excluded. (See Appendix A.)

7) The energy model calculations shall account for the presence of thermally active walls, floors and ceilings with embedded conditioning systems that form part of the *building* envelope.

8) Where skylights are installed in the roof, the gross roof area shall be determined in accordance with Sentence 9.36.2.3.(3).

9) Skylights shall be considered to have no shading.

10) The energy model calculations shall account for the effects of exterior permanent and fixed shading only on solar heat gain from fenestration.

11) The ratio of fenestration area to opaque area of doors shall be the same for the proposed and reference houses. (See Appendix A.)

9.36.5.7. HVAC System Calculations

1) The energy model calculations shall account for the energy consumption of each heating, ventilating and, where installed, cooling system for each hour of the year. (See Appendix A.)

2) Each heating system and, where installed, cooling system shall be accounted for separately in the energy model calculations.

3) *Conditioned spaces* in both the reference and proposed houses shall be modeled as being

a) heated, where only heating systems are provided in the proposed house,

b) cooled, where only cooling systems are provided in the proposed house, or

c) heated and cooled, where complete heating and cooling systems are provided in the proposed house.

4) The performance requirements stated in Table 9.36.3.10. shall be used in the energy model calculations.

5) Where duct and piping losses are accounted for in the energy model calculations, they shall be included for both the proposed and reference houses and calculated the same way for both houses. (See Appendix A.)

6) The same time periods shall be used in the simulation of the operation of the ventilation system for both the proposed and reference houses.

7) During the heating season, any solar and internal heat gains that cause an increase in space temperature beyond 5.5°C above the setpoint shall be

a) excluded from the energy model calculations, or

b) calculated as being vented from the house.

8) The energy model calculations shall account for the part-load performance of equipment, including electrical consumption.

9) The energy model calculations shall account for the heat-recovery efficiency of heat-recovery ventilators using a minimum of 2 data test points derived from testing in accordance with Clause 9.36.3.9.(3)(a) or (b), as applicable.

9.36.5.8. Service Water Heating System Calculations

1) The energy model calculations shall account for the energy consumption of all service water heating systems.

2) The performance requirements stated in Table 9.36.4.2. shall be used in the energy model calculations.

3) Where piping or standby losses are accounted for in the energy model calculations, they shall be included for both the proposed and reference houses, including their effect on space heating and cooling, and calculated the same way for both houses.

4) The energy model calculations shall use a supply cold water temperature, in °C, that is

a) equal to –0.002 (HDD) + 20.3, where HDD < 7 999,

b) equal to 4.3, where HDD ≥ 8 000, or

c) determined based on the ground and air temperatures in the climatic data file.

5) The energy model calculations shall use a service water delivery temperature of 55˚C. (See Appendix A.)

6) The energy model calculations shall take into account the service water heating use schedule presented in Table 9.36.5.8. using a load of

a) 225 L/ day for houses with or without a *secondary suite*, or

b) 140 L/day per *dwelling unit* for other types of residential *buildings*.

Table 9.36.5.8.
Default Schedule of Service Water Heating Use
Forming part of Sentence 9.36.5.8.(6)

Type of Small Residential Building	Distribution of Hourly Draws on Service Water Heating, L/h											
Houses with or without a *secondary suite* (225 L/day/house)	12 a.m.	1 a.m.	2 a.m.	3 a.m.	4 a.m.	5 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.
	0	0	0	0	0	0	0	5	20	30	55	27.5
	12 p.m.	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.	8 p.m.	9 p.m.	10 p.m.	11 p.m.
	7.5	2.5	5	12.5	22.5	15	15	5	2.5	0	0	0
Dwelling units in other types of residential *buildings* (140 L/day/ *dwelling unit*)	12 a.m.	1 a.m.	2 a.m.	3 a.m.	4 a.m.	5 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.
	0	0	0	0	0	0	0	3.1	12.4	18.7	34.2	17.1
	12 p.m.	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.	8 p.m.	9 p.m.	10 p.m.	11 p.m.
	4.7	1.6	3.1	7.8	14	9.3	9.3	3.1	1.6	0	0	0

9.36.5.9. General Requirements for Modeling the Proposed House

1) Except where permitted by Articles 9.36.5.10. to 9.36.5.12., the energy model calculations for the proposed house shall be consistent with the proposed construction specifications for that house with regard to

a) fenestration and opaque *building* envelope assembly type, effective thermal resistance and areas,

b) HVAC system types and capacities, and

c) service water heating system types and capacities.

(See Appendix A.)

9.36.5.10. Modeling Building Envelope of Proposed House

1) Except as provided in Sentences (2) and (3), the energy model calculations for the proposed house shall be consistent with the proposed construction specifications for that house with regard to

a) the area of the above-ground portion of *foundation* walls,

b) the effective thermal resistance of above-ground walls, ceilings below attics, roof assemblies and *rim joists*,

c) the maximum overall thermal transmittance of doors, as calculated in accordance with Sentence 9.36.2.2.(3),

d) the effective thermal resistance of below-ground walls and slabs-on-ground,

e) exterior walls, roof-ceiling assembly, doors, walls, exposed floors, and floors in contact with the ground,

f) distribution, orientation and area of fenestration and doors, as calculated in accordance with Article 9.36.2.3.,

g) solar heat gain coefficient and overall thermal transmittance of fenestration, as calculated in accordance with Sentence 9.36.2.2.(3),

h) configuration of insulation in assemblies in contact with the ground, and

i) effective thermal resistance of *foundation* walls.

2) Except for penetrations, slab-on-ground edge insulation and assemblies with embedded heating pipes, where a *building* envelope component or assembly covers less than 2% of the total area of the assembly type to which it belongs, its thermal characteristics are not required to be calculated as belonging to a distinct assembly, provided the area of the component or assembly is included in an adjacent assembly having the same orientation (See Appendix A.)

3) *Building* envelope assemblies with the same thermal characteristics and orientation are not required to be calculated as distinct assemblies, provided their area is included in an adjacent assembly.

4) *Building* envelope assemblies and components separating *conditioned space* from enclosed unconditioned space shall have a solar heat gain coefficient equal to 0.

5) Except as stated in Sentence 9.36.5.6.(9), the energy model calculations for the proposed house shall account for the effects of exterior permanent and fixed shading devices, including fins, overhangs, and light shelves, on solar heat gain.

6) Where thermal mass is included in the energy model calculations for the proposed house, it shall be set as

a) the specified mass up to the inside edge of insulation in exterior walls, the mass of interior walls, the mass up to the centre-line of *party walls*, and the mass of floors, as applicable,

b) the specified mass of the *building* envelope assembly, where the energy model calculations include a transient analysis of thermal transfer of the entire *building* envelope assembly, or

c) a default value of 0.060 MJ/m^2·°C.

7) Exterior walls, roofs and exposed floors shall have an solar absorptance of 0.4.

8) The orientation of the *foundation* of the proposed house as constructed shall be within 22.5° of the orientation used in the energy model calculations.

9) The airtightness value used in the energy model calculations for the proposed house shall be

a) 3.2 air changes per hour at 50 Pa pressure differential, where the construction complies with Section 9.25.,

b) 2.5 air changes per hour at 50 Pa pressure differential, where it can be shown that the *air barrier system* is constructed in accordance with Subsection 9.25.3. and Articles 9.36.2.9. and 9.36.2.10., or

c) where airtightness is tested in accordance with Sentence (11),

   i) the number of air changes per hour at 50 Pa pressure differential, and

   ii) the equivalent leakage area (see Appendix A).

10) A design airtightness shall be assigned for use in the energy model calculations until the actual airtightness has been measured in accordance with Sentence (11).

11) Where measured airtightness is used in the energy model calculations, it shall be determined in accordance with CAN/CGSB-149.10, "Determination of the Airtightness of Building Envelopes by the Fan Depressurization Method"

a) as written, or

b) excluding Clause 6.1.6, which allows intentional openings for mechanical equipment to be left unsealed.

(See Appendix A.)

12) Where airtightness is determined in accordance with Sentence (11) using air changes per hour, the result obtained at an air pressure differential of 50 Pa shall be used in the energy model calculations.

13) Where airtightness is determined in accordance with Clause (11)(b), its rate shall be adjusted in the energy model calculations to account for air leakage through mechanical equipment.

9.36.5.11. Modeling HVAC System of Proposed House

1) Where multiple HVAC systems serve a single space, the energy model calculations for the proposed house shall call each system in the order of priority established by the system control in the proposed house.

2) Where a heat pump is included in the proposed house, the energy model calculations shall include
a) the effect of the source temperature on the heat pump's efficiency, and
b) the temperature at which the heat pump shuts down.

3) Permanent supplementary heating systems that are operated by a thermostat or automatic control shall be included in the energy model calculations for the proposed house.

4) The performance characteristics of the heat-recovery ventilation system of the proposed house shall be as specified at not less than the principal ventilation rate required for a system designed in accordance with Section 9.32.

5) The ventilation system shall be modeled as operating 8 hours a day at the principal ventilation rate.

6) <[Reserved.]>

7) The energy model calculations may include duct and piping losses, taking into account the properties of the specified duct and piping insulation of the proposed house.

8) The energy model calculations shall include a heating system and, where installed, a cooling system sized according to the specifications for the proposed house.

9) The energy model calculations shall include the effect of part-load performance of equipment using
a) the same modeled part-load performance data used for the reference house as per Clause 9.36.5.15.(6)(a),
b) the default part-load performance characteristics stated in Clause 9.36.5.15.(6)(b), or
c) measured data for the specified equipment.

(See Appendix A.)

10) Where a heat-recovery ventilator is installed in the proposed house, the energy model calculations shall only account for the recovery of sensible heat using the efficiency ratings in Sentence 9.36.3.9.(3). (See Appendix A.)

11) Except as provided in Sentence (12), where a forced-air system is installed in the proposed house, the energy model calculations shall assume the circulation fan operates when the heating, cooling or principal ventilation system is operating. (See Appendix A.)

12) Where a forced-air system is installed in the proposed house and where the principal ventilation system in the proposed house is a separate, fully ducted ventilation system, the energy model calculations shall assume the circulation fan operates only when the heating or cooling system is operating.

13) Where the proposed house contains multiple HVAC systems, the circulation fan power shall be the sum of the circulation fan power capacity of each system.

14) The ventilation fan power consumption shall be modeled
a) as being 2.32 W/L/s for each ventilation fan on the exhaust side and, where applicable, on the supply side, or
b) as specified, where a heat-recovery ventilator is used.

15) Where a forced-air system is installed in the proposed house, the energy model calculations shall determine the flow rate, in L/s, of the circulation fan in the reference house by multiplying the capacity, in W, of the heating system in the proposed house by
a) 0.0604 for heat pumps, and
b) <0.0251> for all other types of heating systems.

16) Where a forced-air system is installed in the proposed house, the energy model calculations shall determine the minimum electricity requirement, in W, of the circulation fan by multiplying the flow rate, in L/s, of the circulation fan in the reference house, determined in accordance with Sentence (15), by a factor of 2.30.

17) Where a forced-air system is installed in the proposed house, the flow rate of the circulation fan shall be modeled as being the larger of
a) the flow rate of the circulation fan of the reference house, determined in accordance with Sentence (15), or
b) the flow rate of the circulation fan for the forced-air system specified in the design for the proposed house.

18) Except as provided in Sentence (19), where a forced-air system is installed in the proposed house, the power capacity of the circulation fan shall be modeled as specified in the design for the proposed house.

19) Where the design for the proposed house specifies a forced-air system with a circulation fan flow rate that is lower than that of the flow rate of the circulation fan in the reference house, as determined in accordance with Sentence (15), the electricity capacity, in W, of the circulation fan shall be modeled as being the larger of
a) the electricity capacity specified for the circulation fan in the proposed forced-air system, or
b) the minimum circulation fan electricity capacity determined in accordance with Sentence (16).

20) For natural gas-, oil-, propane- and wood-burning heating systems, the energy model calculations shall set the auxiliary electricity requirements, including that of combustion fans, to those specified for the proposed house.

9.36.5.12. Modeling Service Water Heating System of Proposed House

1) The service water heating system used in the energy model calculations shall be sized as specified in the design for the proposed house.

2) The energy model calculations may include

a) piping losses, and

b) drain-water heat recovery, provided the calculation of the heat recovered is based on the efficiency of the drain-water heat-recovery unit specified for the proposed house and the energy savings are determined using a drain-water

i) inlet temperature to the recovery system of 36°C,

ii) flow rate of 9.5 L/min, and

iii) flow that is available for recovery 15 min/day for a house and 10 min/day per *suite* for a multi-unit residential *building* with more than 2 *suites*.

(See Appendix A.)

9.36.5.13. General Requirements for Modeling the Reference House

1) Except as provided in Sentence (2) and Articles 9.36.5.14. to 9.36.5.16., the energy model calculations for the reference house shall be consistent with the prescriptive requirements of Subsections 9.36.2. to 9.36.4. with regard to

a) fenestration and opaque *building* envelope assembly types and areas,

b) HVAC system types and capacities, and

c) service water heating system types and capacities.

(See A-9.36.5.9.(1) in Appendix A.)

2) The energy model calculations for the reference house shall include the same values as those used for the proposed house with regard to

a) *floor area*,

b) heated volume, and

c) number and types of rooms.

9.36.5.14. Modeling Building Envelope of Reference House

1) The energy model calculations for the reference house shall include the same values as those used for the proposed house with regard to

a) the gross area of above-ground portion of *foundation* walls,

b) *soil* conditions,

c) the orientation of the *foundation*, and

d) the ratio of fenestration area to opaque area of doors.

2) The energy model calculations for the reference house shall use the following set values:

a) 0.060 $MJ/m^2 \cdot °C$ for thermal mass,

b) a solar absorptance of 0.4 for the exterior walls, roofs and exposed floors,

c) 0.26 for the solar heat gain coefficient of fenestration, and

d) 2.5 air changes per hour at 50 Pa pressure differential for airtightness.

3) The effective thermal resistance and overall thermal transmittance values, as applicable, used in the energy model calculations for the reference house shall be determined for the applicable heating degree-day zone in accordance with

a) Table 9.36.2.6.A. for walls, ceilings below attics, roof assemblies and *rim joists*,

b) Table 9.36.2.7.A. for doors, and

c) Table 9.36.2.8.A. for below-*grade* walls and slabs-on-ground.

4) Except as provided in Sentences (5) and (6), the exterior walls, roof-ceiling assembly, doors, walls, exposed floors, and floors of the reference house that are in contact with the ground shall have the same area as those of the proposed house.

5) The area and orientation of fenestration and doors of the reference house shall be modeled as being equally distributed on all sides of the house.

6) The gross wall area and the area of fenestration and doors of the reference house shall be determined in accordance with Article 9.36.2.3.

7) Windows and other glazed components in the reference house shall have a maximum overall thermal transmittance as required in Table 9.36.2.7.A. for the applicable heating degree-day category.

8) The configuration of insulation in assemblies of the reference house that are in contact with the ground shall be modeled as conforming to Article 9.36.2.8.

9) *Foundation* walls shall be modeled using the applicable effective thermal resistance values in Table 9.36.2.8.A. and as conforming to Sentence 9.36.2.8.(2).

10) The fenestration and door area to gross wall area ratio (FDWR) of the reference house shall be

a) for houses containing 1 or 2 *dwelling units*,

   i) as per the proposed house, where its FDWR is between 17% and 22%,

   ii) 17%, where the FDWR of the proposed house is less than 17%, or

   iii) 22%, where the FDWR of the proposed house is greater than 22%, and

b) for *buildings* of *residential occupancy* containing more than 2 *dwelling units*,

   i) the FDWR determined in Clause (a) for the areas determined in accordance with Sentence 9.36.2.3.(2) and, where the FDWR determined in accordance with the calculation in Sentence 9.36.2.3.(3) only does not exceed 40%, or

   ii) 40% of the gross wall area enclosing *conditioned space* where the area of fenestration and doors is greater than 40% of the gross wall area enclosing *conditioned space* determined in accordance with Sentence 9.36.2.3.(2).

(See Appendix A.)

9.36.5.15. Modeling HVAC System of Reference House

1) Where multiple HVAC systems serve a single space, the energy model calculations for the reference house shall use the same order of priority as that used for the proposed house. (See Sentence 9.36.5.11.(1).)

2) The energy model calculations for the reference house shall include the same features as those used for the proposed house with regard to

a) the principal heating and cooling energy sources, which are gas, electricity, oil, propane, wood or a heat pump,

b) the primary and secondary energy sources, which are gas, electricity, oil, propane, wood or a heat pump, and

c) the ventilation rate (see Sentence 9.36.5.11.(6)).

3) Except as required in Sentence 9.36.3.8.(1), the reference house shall be modeled without a heat-recovery ventilator.

4) The ventilation system shall be modeled as operating 8 hours a day.

5) The heating system and, where installed, the cooling system shall be sized in accordance with Article 9.33.5.1. with regard to total heat output capacity and nominal cooling capacity. (See Appendix A.)

6) The part-load performance of HVAC equipment in the reference house shall be calculated using

a) modeled part-load performance characteristics, where applicable, or

b) the performance values for each type of system multiplied by an adjustment factor from Table 9.36.5.15.A, 9.36.5.15.B or 9.36.5.15.C as follows:

   i) for *furnaces*, by multiplying the *furnace* steady-state efficiency by the adjustment factor given in Table 9.36.5.15.A,

   ii) for heat pumps and air conditioners, by multiplying the heat pump steady-state coefficient of performance by the adjustment factor given in Table 9.36.5.15.B, and

   iii) for *boilers*, combination space-heating and service water heating systems, and integrated mechanical systems, by multiplying the net-full-load heating efficiency by the adjustment factor given in Table 9.36.5.15.C

(See Appendix A.)

Table 9.36.5.15.A
Part-Load Adjustment Factors for Furnaces
Forming part of Subclause (6)(b)(i)

Fuel Source	Type of Equipment	Capacity	Part-Load Ratio		
			0.15	0.4	1.0
			Adjustment Factors		
Gas	Warm-air *furnaces*	≤ 65.9 kW	1.03	1.02	1.0
		> 65.9 kW	0.91	0.97	1.0
	Duct *furnaces* and *unit heaters*	All capacities	0.91	0.97	1.0
Oil	All types	All capacities	0.95	0.98	1.0

Table 9.36.5.15.B
Part-Load Adjustment Factors for Heat Pumps and Air Conditioners
Forming part of Subclause (b)(ii)

Type of Equipment	Part-Load Ratio		
	0.15	0.4	1.0
	Adjustment Factors		
Air-source heat pumps and air conditioners	0.72	0.86	1.0
Water-source heat pumps	0.93	0.98	1.0
Ground-source heat pumps	0.93	0.98	1.0

Table 9.36.5.15.C
Part-Load Adjustment Factors for Boilers, Combination Systems and Integrated Mechanical Systems
Forming part of Subclause (b)(iii)

Fuel Source	Type of Equipment	Part-Load Ratio		
		0.15	0.4	1.0
		Adjustment Factors		
Gas	*Boiler*	1.03	1.02	1.0
	Integrated mechanical systems(1) within the scope of CSA P.10(2)	N/A	N/A	N/A
	Combination space- and service water heating systems within the scope of CAN/CSA-P.9(2)	N/A	N/A	N/A
	Combination space- and service water heating systems not within the scope of CAN/CSA-P.9	Same as gas *boiler*		
Oil	*Boiler*	1.03	1.02	1.0
	Combination space- and service water heating systems within the scope of CAN/CSA-P.9(2)	N/A	N/A	N/A
	Combination space- and service water heating systems not within the scope of CAN/CSA-P.9	Same as oil *boiler*		

Notes to Table 9.36.5.15.C:
(1) Integrated mechanical systems perform all three functions of space-heating, water-heating and heat-recovery ventilation.
(2) The part-load characteristics of these types of systems shall not be accounted for in the energy model calculations.

7) The performance of the HVAC equipment in the reference house shall be modeled
a) as conforming to Table 9.36.3.10. for the corresponding type, fuel source and capacity of equipment in the proposed house, or
b) where the HVAC equipment for the proposed house is not addressed in Table 9.36.3.10., as a gas warm-air *furnace* with a minimum performance rating of 92% annual fuel utilization efficiency.

8) Where a heat-recovery ventilator is installed in the reference house, the energy model calculations shall only account for the recovery of sensible heat using the efficiency ratings in Sentence 9.36.3.9.(3). (See Appendix A.)

9) The energy model calculations shall assume all ventilation and circulation fans required to be modeled in the reference house are equipped with permanent-split capacitor (PSC) motors.

10) Where a forced-air system is installed in the reference house, the energy model calculations shall assume the circulation fan operates when the heating, cooling or principal ventilation system is called for.

11) Where the reference house contains multiple HVAC systems, the circulation fan power shall be the sum of the circulation fan power capacity of each system.

12) The principal ventilation flow rate, in L/s, prescribed in Section 9.32. shall be multiplied by 2.32 W/L/s to determine the ventilation fan power capacity, in W, to be used in the energy model calculations for each fan on the exhaust side and, where applicable, on the supply side.

13) Where a heat-recovery ventilator is required in the reference house in accordance with Article 9.36.3.8., the ventilation flow rate, in L/s, in the zone served by the pool or hot tub shall be multiplied by 4.18 W/L/s to determine the heat-recovery ventilator power, in W, to be used in the energy model calculations.

14) Where a forced-air system is installed in the reference house, the system's capacity, in W, shall be multiplied by one of the following factors to determine the circulation fan flow rate, in L/s:

a) 0.0604 for heat pumps, and

b) **<**0.0251**>** for all other types of heating systems.

15) Where a forced-air system is installed in the reference house, the circulation fan flow rate, in L/s, shall be multiplied by 2.30 W/L/s to determine the circulation fan power capacity, in W.

16) For natural gas-, oil-, propane- and wood-burning heating systems, the energy model calculations shall set the auxiliary electricity capacity, including that of combustion fans, to 208 W during operation.

9.36.5.16. Modeling Service Water Heating System of Reference House

1) The energy source of the reference house's service water heating system, which is gas, electricity, oil, propane, wood or a heat pump, shall be the same as that for the system in the proposed house.

2) The service water heating system in the reference house shall be sized in accordance with Subsection 9.31.6. with regard to output capacity.

3) Except as required by Table 9.36.5.16., the performance of the service water heating equipment in the reference house shall be modeled as conforming to Table 9.36.4.2. for the energy source, capacity and type of service water heating equipment in the proposed house.

Table 9.36.5.16.
Performance of Service Water Heating (SWH) Equipment in the Reference House
Forming part of Sentence 9.36.5.16.(3)

Type of SWH Equipment in Proposed House	Input for Proposed SWH Equipment	Type of SWH Equipment to be Used for Reference House	Input for Reference SWH Equipment
Gas-fired tankless *service water heater*	≤ 73.2 kW	Gas-fired storage type	≤ 22 kW
	> 73.2 kW		> 22 kW
Oil-fired tankless *service water heater*	≤ 61.5 kW(1)	Oil-fired storage type	≤ 30.5 kW(1)
	Other		> 30.5 kW
Not listed in Table 9.36.4.2.	—	Gas-fired storage type	≥ 22 kW (E_t ≥ 80%)

Notes to Table 9.36.5.16.:

(1) Consistent with the US Congress National Appliance Energy Conservation Act of 1987.

Section 9.37. <Secondary Suites

9.37.1. General

9.37.1.1. Application

1) This Section applies to construction of a *secondary suite* and *alterations* to an existing building to accommodate a *secondary suite*. (See Appendix A.)

9.37.1.2. Construction Requirements

1) Construction of a *secondary suite* <and> *alterations* to an existing *building* to accommodate a *secondary suite* shall conform to the requirements in this Part except as provided in this Section. (See Appendix A.)

9.37.2. Specific Requirements

9.37.2.1. Heights of Rooms or Spaces

1) The minimum height of rooms or spaces in a *secondary suite* over the required minimum area as indicated in Table 9.5.3.1. shall be not less than 2.0 m.

2) It shall be possible to travel from the required area of one room to the required areas of all other rooms within a *secondary suite* without reduction of the room height as required in Sentence (1).

9.37.2.2. Solid Blocking

1) Solid blocking may be omitted for doors described in Sentence 9.7.5.2.(9) where the interior wall finish adjacent the door is in place prior to the construction of a *secondary suite*.

9.37.2.3. Exit Stairs

1) *Exit* stairs within or serving a *building* that contains a *secondary suite* shall have a minimum width, measured between wall faces or guards, of not less than 860 mm. (See Appendix A.)

9.37.2.4. Dimensions of Landings

1) Landings for exterior stairs serving both *suites* in a *building* containing a *secondary suite* need not exceed 900 mm in length.

9.37.2.5. Handrails and Guards

1) Handrails and *guards* shall conform to the requirements of Subsections 9.8.7. and 9.8.8. as if serving only one *dwelling unit*.

9.37.2.6. Means of Egress

1) The width of every *public corridor* and *exit* corridor that serves a *building* that contains a *secondary suite* shall be not less than 860 mm. (See Appendix A.)

9.37.2.7. Fire Separations for Exits

1) Except as permitted by Sentence (2), every *exit* other than an *exit* doorway shall be separated from adjacent *floor areas* by a *fire separation*

a) having a *fire-resistance rating* of 45 min, or

b) having a *fire-resistance rating* of not less than 30 min where the *dwelling units* are equipped with *smoke alarms* as referenced in Article 9.37.2.19.

2) A <*fire-resistance rating*> is not required for a *fire separation* that separates an *exit* from adjacent *floor areas* where the *building* is *sprinklered*.

9.37.2.8. Openings Near Unenclosed Exit Stairs and Ramps

1) Where an unenclosed exterior *exit* stair or ramp provides the only *means of egress* from a *dwelling unit* in a *building* that contains a *secondary suite* and the stair is exposed to the hazards of fire from *unprotected openings* in the exterior wall of another *fire compartment*, the openings shall be protected in conformance with Articles 9.10.13.5. to 9.10.13.7. (See Appendix A.)

9.37.2.9. Doors in a Means of Egress

1) Every *exit* door or door that opens into or is located within a *public corridor* or other *facility* that provides *access* to *exit* from a *suite* shall

a) be not less than 1980 mm high,

b) have a clear opening width of not less than 800 mm, and

c) be permitted to swing inward.

9.37.2.10. Travel Limit to Exits or Egress Doors

1) In a *building* that contains a *secondary suite*, the travel limit from a floor level in a *dwelling unit* to an *exit* or egress door may exceed 1 *storey* provided the floor level within the *dwelling unit* is served by an operable window conforming to Article 9.9.10.1.

9.37.2.11. Shared Egress Facilities

1) Except as provided in Article 9.9.7.3., where an egress door from a *dwelling unit* opens onto a *public corridor* or exterior passageway, it shall be possible from the location where the egress door opens onto the *public corridor* or exterior passageway to go in opposite directions to 2 separate *exits* unless the *dwelling unit* is served by a second and separate *means of egress* or an opening window conforming to Article 9.9.10.1.

2) Each *dwelling unit* shall be provided with a second and separate *means of egress* or an opening window conforming to Article 9.9.10.1. where the egress door from either *dwelling unit* opens onto

a) an *exit* stairway that serves both *suites*,

b) a *public corridor* serving both *suites* and served by a single *exit* stairway,

c) an exterior passageway serving both *suites* and served by a single *exit* stairway, or

d) a balcony serving both *suites* and served by a single *exit* stairway.

9.37.2.12. Exit Signs

1) *Exit* signs are not required within a *building* that contains a *secondary suite*.

9.37.2.13. Structural Fire Resistance

1) Table 9.10.8.1., Fire-Resistance Ratings for Structural Members and Assemblies, does not apply to a *building* that contains a *secondary suite*.

9.37.2.14. Combustible Drain, Waste and Vent Piping

(See Appendix A.)

1) *Combustible* drain, waste and vent piping is permitted to be located within or penetrate a *fire separation* required to have a *fire-resistance rating* provided

a) except for the permitted penetration in Clause (b), the *combustible* piping is located within an assembly protected by a membrane of a minimum 12.7 mm gypsum board,

b) the permitted penetration through the gypsum board membrane is limited in size to the diameter of the penetrating pipe, and

c) the *combustible* piping does not penetrate the gypsum board protection membrane on the underside of a horizontal *fire separation*.

2) *Combustible* drain, waste and vent piping enclosed in an assembly or protected as described in Sentence (1) is permitted on both sides of a *fire separation*.

(See Appendix A.)

9.37.2.15. Separation of Residential Suites

1) *Dwelling units* in a *building* that contains a *secondary suite* shall be separated from each other by

a) a *fire separation* conforming to Article 9.10.9.14.,

b) a *fire separation* having a *fire-resistance rating* of not less than 30 min. where the *dwelling units* are equipped with *smoke alarms* conforming to Article 9.37.2.19., or

c) a *fire separation* having no required *fire-resistance rating* where the *building* is *sprinklered*.

<(See Appendix A and Appendix Note A-9.37.2.17. of Appendix A.)>

9.37.2.16. Separation of Public Corridors

1) A *public corridor* serving a *building* that contains a *secondary suite* shall be separated from the *suites* by

a) a *fire separation* conforming to Article 9.10.9.15.,

b) a *fire separation* having a *fire-resistance rating* of not less than 30 <min> where the *dwelling units* are equipped with *smoke alarms* conforming to Article 9.37.2.19., or

c) a *fire separation* having no required *fire resistance rating* where the *building* is *sprinklered*.

(See Appendix A.)

9.37.2.17. Air Ducts and Fire Dampers

<(See Appendix A.)>

1) Where a heating or ventilation duct system serves more than one *suite*, the system shall be designed and installed to prevent the circulation of smoke upon a signal from a duct-type *smoke detector*.

2) Ducts penetrating *fire separations* need not be equipped with *fire dampers* in conformance with Article 3.1.8.9. provided they are *noncombustible* with all openings in the duct system serving only one *fire compartment*.

9.37.2.18. Exposing Building Face of Houses

1) Except as required by Article 9.10.15.3., in *buildings* that contain a *secondary suite*, the requirements of Article 9.10.14.5. do not apply provided

a) the *exposing building face* has a *fire-resistance rating* of not less than 45 min where the *limiting distance* is less than 1.2 m, and

b) the *exposing building face* is clad with *noncombustible* material where the *limiting distance* is less than 0.6 m.

2) Window openings in the *exposing building face* referred to in Sentence (1) shall

a) not be permitted where the *limiting distance* is less than 1.2 m and

b) be limited in conformance with the requirements for *unprotected openings* in Article 9.10.14.4. where the *limiting distance* is 1.2 m or greater.

9.37.2.19. Smoke Alarms

<(See Appendix A.)>

1) Except as permitted by Sentence (3), an additional *smoke alarm* of photo-electric type conforming to CAN/ULC-S531, "Standard for Smoke Alarms," shall be installed in each *suite*.

2) *Smoke alarms* required in Sentence (1) shall be wired so that the activation of the additional alarm in one *suite* will cause the additional alarm in the other *suite* to sound.

3) An additional interconnected *smoke alarm* is not required to be installed in each *suite* provided

a) the *fire separations* required in <Articles 9.37.2.15. and 9.37.2.16.> have a *fire resistance rating* of 45 min or greater, or

b) the *building* is *sprinklered*.

9.37.2.20. Sound Control

1) The assemblies separating the residential *suites* need not comply with the sound control requirements of Subsection 9.11.2. (See Appendix A.)

9.37.2.21. Attic Space Access

1) An attic space access hatchway not less than 0.32 m^2 in an area with no dimension less than <500 mm> may serve both *suites* in a *building* that contains a *secondary suite*.

9.37.2.22. Garages and Carports

1) Section 9.35. is applicable to garages and carports serving a *building* that contains a *secondary suite*.

Section 9.38. Objectives and Functional Statements

9.38.1. Objectives and Functional Statements

9.38.1.1. 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 objectives and functional statements attributed to the acceptable solutions in this Part shall be the objectives and functional statements listed in Table 9.38.1.1. (See A-1.1.2.1.(1) in Appendix A.)

Table 9.38.1.1.

Table 9.38.1.1. is located in Volume 2, Attribution Tables.

Division B - Part 10 - Article 10.2.1.1.
Amended by: Reg 173/2013
Effective: 2014-12-19
Revision: 5

Division B - Part 10 - Article 10.2.1.1.
Amended by: Reg 175/2014
Effective: 2014-12-19
Revision: 7

Division B - Part 10 - Tables 10.2.1.1.A. and 10.2.1.1.B
Repealed by: Reg 173/2013
Effective: 2014-12-19
Revision: 5

Division B - Part 10 - Article 10.3.1.2.
Amended by: Reg 162/2013
Effective: 2013-04-03
Revision: 2

Remove Previous Pages: 519-522 **Replacement Pages:** 519-522

Part 10
Energy and Water Efficiency

Section 10.1. General

10.1.1. Application

10.1.1.1. Scope

1) The scope of this Part shall be as described in Subsection 1.3.3. of Division A.

10.1.1.2. Application

1) The application of this Part shall be as described in Subsection 1.3.3. of Division A.

10.1.2. Definitions

10.1.2.1. Defined Terms

1) Words that appear in italics are defined in Article 1.4.1.2..

Section 10.2. Energy Efficiency

10.2.1. Design and Installation

10.2.1.1. Design and Installation

1) <Except as provided in Sentence (2), all *buildings* shall be designed and constructed to conform to

a) ANSI/ASHRAE/IESNA 90.1, "Energy Standard for Buildings Except Low-Rise Residential Buildings" or

b) the NECB.>

2) <This Section does not apply to *buildings* described in Sentence 1.3.3.3.(1) of Division A.>

Section 10.3. Water Efficiency

10.3.1. Design and Installation

10.3.1.1. Fixture Fitting Maximum Flow Rates

1) The flow rates of fittings that supply water to plumbing fixtures must not exceed the maximum flow rate at the test pressures listed for that fitting in Table 10.3.1.1.

Table 10.3.1.1.
Maximum Flow Rate
Forming part of Sentence 10.3.1.1.(1)

Fittings	Maximum Flow (L/min)	Test Pressure (kPa)
Lavatory Faucet	8.3	415
Kitchen Faucet	8.3	415
Shower Head	9.5	550

10.3.1.2. Fixture Efficiency

1) Except as required by Sentence (2), the flush cycle for the installation of a water closet or urinal must not exceed the flush cycle listed for that fixture in Table 10.3.1.2.(1)

Table 10.3.1.2.(1)
Maximum Flush Cycle
Forming part of Sentence 10.3.1.2.(1)

Fixture	L
Water Closet (Tank Type)	6.0
Water Closet (Direct Flush)	6.0
Urinal (Tank Type)	1.9
Urinal (Direct Flush)	1.9

2) <The flush cycle for the installation of a water closet or urinal in a Group C *residential occupancy* must not exceed the flush cycle listed for that fixture in Table 10.3.1.2.(2).>

Table 10.3.1.2.(2)
<Maximum Flush Cycle
Forming part of Sentence 10.3.1.2.(1)

Fixture	L
Water Closet (Tank Type)	4.8(1)
Water Closet (Direct Flush)	4.8
Urinal (Tank Type)	1.9
Urinal (Direct Flush)	1.9

Notes to Table 10.3.1.2.(2):
(1) A water closet with a dual flush cycle of 4.1 L or less and 6.0 L complies with this requirement.

3) The water supply to urinal flush tanks equipped for automatic flushing shall be controlled with a timing device in order to limit operation to the period during which the building is normally occupied.>

Section 10.4. Objectives and Functional Statements

10.4.1. Objectives and Functional Statements

10.4.1.1. Attribution to Acceptable Solutions

1) For the purposes of compliance with this Code as required in Clause 1.2.1.1.(1)(b) of Division A of Division A, the objectives and functional statements attributed to the acceptable solutions in this Part shall be the objectives and functional statements listed in Table 10.4.1.1. (See Appendix Note A-1.1.1.2.(1) of Division A in Appendix A)

Table 10.4.1.1.

Table 10.4.1.1. is located in Volume 1, Attribution Tables.

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Division C - Part 2 - Section 2.2
Amended by: Reg 140/2014
Effective: 2014-12-19
Revision: 6
Page: 534

2.2.8. <Drawings, Specifications and Calculations for Energy Performance Compliance

2.2.8.1. Application

1) This Subsection applies only to houses with or without a *secondary suite* and to *buildings* containing only *dwelling units* and common spaces whose total *floor area* does not exceed 20% of the total *floor area* of the *building* that are modeled in accordance with Subsection 9.36.5. of Division B to demonstrate compliance with the energy efficiency objectives of Subsections 9.36.2. to 9.36.4. of Division B. (See Appendix A.) (See also Sentence 9.36.1.2.(1) of Division B and A-9.36.1.3.(3) in Appendix A of Division B.)

2.2.8.2. Information Required on Drawings and Specifications

1) Except as provided in Sentences (2), (3) and (4), the drawings and specifications for the proposed house shall include

a) the effective thermal resistance values and respective areas of all opaque *building* envelope assemblies, including all above-ground and below-ground roof/ceiling, wall, and floor assemblies,

b) the overall thermal transmittance (U-value), solar heat gain coefficient and respective areas of all fenestration and door components,

c) the ratio of total vertical fenestration and door area to gross wall area,

d) the performance rating, energy source, and types of all equipment required for space-heating and -cooling and service water heating,

e) the design basis for the ventilation rates,

f) where a test is used to determine the airtightness of a house, the measured airtightness of the *building* envelope in air changes per hour, and

g) any additional features used in the energy model calculations that account for a significant difference in house energy performance.

2) The effective thermal resistance values and respective areas of opaque *building* envelope assemblies that cover less than 2% of the total area of their respective assembly type need not be provided in the drawings and specifications required in Sentence (1).

3) Where part-load characteristics are used in the modeling of the HVAC equipment, they need not be provided in the drawings and specifications required in Sentence (1).

4) The features of the proposed house that differ from those of the reference house shall be detailed in the specifications required in Sentence (1).

2.2.8.3. House Performance Compliance Calculation Report

1) A house performance compliance calculation report shall be provided in accordance with Sentence (2) for each proposed house design.

2) In addition to the drawings and specifications required in Article 2.2.8.2., the house performance compliance calculation report shall include

a) a project information section containing

i) the name or identifier of the project,

ii) a description of the project,

iii) the address of the project,

iv) the name and version of the calculation tool,

v) the geographic region in which the proposed house is to be built, and

vi) the identifier for the climatic data set used for analysis,

b) a summary of the characteristics of the *building* envelope, HVAC system and service water heating system reflecting the information provided in Article 2.2.8.2.,

c) an energy performance data summary containing

   i) the annual energy consumption of all energy sources calculated for the proposed house (see Appendix A), and

   ii) the house energy target of all energy sources calculated for the reference house,

d) where a software program is used to determine compliance,

   i) the name of the software program(s), and

   ii) a list of any adaptations made by the user to the software relating to input or output values, and

e) a statement that the calculation was performed in compliance with Subsection 9.36.5. of Division B.**>**

Division C - Part 2 - Sentence 2.3.1.2(1)
Amended by: Reg 162/2013
Effective: 2013-04-03
Revision: 2
Page: 535

1) <The *authority having jurisdiction*, may require a person requesting the use of an alternative solution to provide documentation to demonstrate that the proposed alternative solution will achieve at least the level of performance required by Clause 1.2.1.1.(1)(b) of Division A.>

Division C - Part 2 - Sentence 2.3.1.2(2)
Amended by: Reg 140/2014
Effective: 2014-12-19
Revision: 6
Page: 535

2) The documentation referred to in Sentence (1) shall include

a) a Code analysis outlining the analytical methods and rationales used to determine that <the> proposed alternative solution will achieve at least the level of performance required by Clause 1.2.1.1.(1)(b) of Division A, and

b) <information concerning any special maintenance or operational requirements, including any *building* component commissioning requirements, that are necessary for the alternative solution to achieve compliance with the Code after the *building* is constructed.>

Division C - Part 2 - Schedules A and B
Amended by: Reg 140/2014
Effective: 2014-12-19
Revision: 6
Page: 537

Remove Page: 537-542 **Replacement Page:** 537-542

BRITISH COLUMBIA BUILDING CODE 2012

SCHEDULE A

Forming Part of Sentence 2.2.7.2.(1), Div. C of the British Columbia Building Code

Building Permit No.
(for *authority having jurisdiction's* use)

CONFIRMATION OF COMMITMENT BY OWNER AND COORDINATING REGISTERED PROFESSIONAL

Notes: (i) This letter must be submitted before issuance of a *building* permit.
(ii) This letter is endorsed by: Architectural Institute of B.C., Association of Professional Engineers and Geoscientists of B.C., Building Officials' Association of B.C., and Union of B.C. Municipalities.
(iii) In this letter the words in italics have the same meaning as in the British Columbia Building Code.

Re: Design and *Field Review* of Construction
by a *Coordinating Registered Professional*

To: The *authority having jurisdiction*

_____
Name of Jurisdiction (Print)

Re: _____
Name of Project (Print)

_____
Address of Project (Print)

_____
(Professional's Seal and Signature)

_____
Date

The undersigned has retained _____ as a *coordinating registered professional* to coordinate the design work and *field reviews* of the *registered professionals of record* required[1] for this project. The *coordinating registered professional* shall coordinate the design work and *field reviews* of the *registered professionals of record* required for the project in order to ascertain that the design will substantially comply with the B.C. Building Code and other applicable enactments respecting safety and that the construction of the project will substantially comply with the B.C. Building Code and other applicable enactments respecting safety, not including the construction safety aspects.

''*field reviews*'' are defined in the British Columbia Building Code to mean those reviews of the work
(a) at a project site of a development to which a *building* permit relates, and
(b) where applicable, at fabrication locations where *building* components are fabricated for use at the project site
that a *registered professional of record* in his or her professional discretion considers necessary to ascertain whether the work substantially complies in all material respects with the plans and supporting documents prepared by the *registered professional of record* for which the *building* permit is issued.

The owner and the *coordinating registered professional* have read Subsection 2.2.7, Division C of the British Columbia Building Code. The owner and the *coordinating registered professional* each acknowledge their responsibility to notify the addressee of this letter of the date the *coordinating registered professional* ceases to be retained by the owner before the date the *coordinating registered professional* ceases to be retained or, if that is not possible, then as soon as possible. The *coordinating registered professional* acknowledges the responsibility to notify the addressee of this letter of the date a *registered professional of record* ceases to be retained before the date the *registered professional of record* ceases to be retained or, if that is not possible, then as soon as possible.

[1]It is the responsibility of the *coordinating registered professional* to ascertain which *registered professionals of record* are required, and to initial each Schedule B.

BRITISH COLUMBIA BUILDING CODE

BRITISH COLUMBIA BUILDING CODE 2012

Schedule A – *Continued*

Building Permit No.
(for *authority having jurisdiction's* use)

Project Address

The owner and the *coordinating registered professional* understand that where the *coordinating registered professional* or a *registered professional of record* ceases to be retained at any time during construction, work on the above project will cease until such time as

(a) a new *coordinating registered professional* or *registered professional of record*, as the case may be, is retained, and
(b) a new letter in the form set out in Schedule A or in the form set out in Schedules B, as the case may be, is filed with the *authority having jurisdiction*.

The undersigned *coordinating registered professional* certifies that he or she is a *registered professional* as defined in the British Columbia Building Code, and agrees to coordinate the design work and *field reviews* of the *registered professionals of record* required for the project as outlined in the attached Schedules B including coordination and integration of functional testing of fire protection and life safety systems. (See A-2.2.7.3 in Appendix A.)

Coordinating Registered Professional

Coordinating Registered Professional's Name (Print)

Address (Print)

Phone No.

(Professional's Seal and Signature)

Date

Owner

Owner's Name (Print)

Address (Print)

Name of Agent or Signing Officer if applicable (Print)

Date

Owner's or Owner's appointed agent's Signature. (If owner is a corporation the signature of a signing officer must be given here. If the signature is that of the agent, a copy of the document that appoints the agent must be attached.)

BRITISH COLUMBIA BUILDING CODE

(If the *Coordinating Registered Professional* is a member of a firm, complete the following.)

I am a member of the firm_____
and I sign this letter on behalf of the firm. (Print name of firm)

This letter must be signed by the owner or the owner's appointed agent and by the *coordinating registered professional*. An agent's letter of appointment must be attached. If the owner is a corporation, the letter must be signed by a signing officer of the corporation and the signing officer must set forth his or her position in the corporation.

The British Columbia Building Code defines a *registered professional* to mean

(a) a person who is registered or licensed to practise as an architect under the Architects Act, or
(b) a person who is registered or licensed to practise as a professional engineer under the Engineers and Geoscientists Act.

BRITISH COLUMBIA BUILDING CODE 2012

SCHEDULE B

Forming Part of Subsection 2.2.7, Div. C of the British Columbia Building Code

_____
Building Permit No.
(for *authority having jurisdiction's* use)

ASSURANCE OF PROFESSIONAL DESIGN AND COMMITMENT FOR FIELD REVIEW

Notes: (i) This letter must be submitted prior to the commencement of construction activities of the components identified below. A separate letter must be submitted by each *registered professional of record*.
(ii) This letter is endorsed by: Architectural Institute of B.C., Association of Professional Engineers and Geoscientists of B.C., Building Officials' Association of B.C., and Union of B.C. Municipalities.
(iii) In this letter the words in italics have the same meaning as in the British Columbia Building Code.

To: The *authority having jurisdiction*

_____
Name of Jurisdiction (Print)

Re: _____
Name of Project (Print)

_____
Address of Project (Print)

The undersigned hereby gives assurance that the design of the
(Initial those of the items listed below that apply to this *registered professional of record*. All the disciplines will not necessarily be employed on every project.)

_____ **ARCHITECTURAL**
_____ **STRUCTURAL**
_____ **MECHANICAL**
_____ **PLUMBING**
_____ **FIRE SUPPRESSION SYSTEMS**
_____ **ELECTRICAL**
_____ **GEOTECHNICAL — temporary**
_____ **GEOTECHNICAL — permanent**

(Professional's Seal and Signature)

_____
Date

components of the plans and supporting documents prepared by this *registered professional of record* in support of the application for the *building* permit as outlined below substantially comply with the B.C. Building Code and other applicable enactments respecting safety except for construction safety aspects.

The undersigned hereby undertakes to be responsible for *field reviews* of the above referenced components during construction, as indicated on the "SUMMARY OF DESIGN AND FIELD REVIEW REQUIREMENTS" below.

_____
CRP's Initials

BRITISH COLUMBIA BUILDING CODE

BRITISH COLUMBIA BUILDING CODE 2012

Schedule B - *Continued*

Building Permit No.
(for *authority having jurisdiction's* use)

Project Address

Discipline

The undersigned also undertakes to notify the *authority having jurisdiction* in writing as soon as possible if the undersigned's contract for *field review* is terminated at any time during construction.

I certify that I am a *registered professional* as defined in the British Columbia Building Code.

Registered Professional of Record's Name (Print)

Address (Print)

Phone No.

(Professional's Seal and Signature)

Date

(If the *Registered Professional of Record* is a member of a firm, complete the following.)

I am a member of the firm _____
and I sign this letter on behalf of the firm. (Print name of firm)

Note: The above letter must be signed by a *registered professional of record,* who is a *registered professional* . The British Columbia Building Code defines a *registered professional* to mean

(a) a person who is registered or licensed to practise as an architect under the Architects Act, or
(b) a person who is registered or licensed to practise as a professional engineer under the Engineers and Geoscientists Act.

CRP's Initials

BRITISH COLUMBIA BUILDING CODE

Schedule B - *Continued*

_____
Building Permit No.
(for *authority having jurisdiction's* use)

_____
Project Address

_____
Discipline

SUMMARY OF DESIGN AND FIELD REVIEW REQUIREMENTS

(Initial applicable discipline below and cross out and initial only those items not applicable to the project.)

_____ **ARCHITECTURAL**

1.1 Fire resisting assemblies
1.2 *Fire separations* and their continuity
1.3 *Closures*, including tightness and operation
1.4 Egress systems, including *access to exit* within *suites* and *floor areas*
1.5 Performance and physical safety features (guardrails, handrails, etc.)
1.6 Structural capacity of architectural components, including anchorage and seismic restraint
1.7 Sound control
1.8 Landscaping, screening and site grading
1.9 Provisions for fire fighting access
1.10 *Access* requirements for *persons with disabilities*
1.11 Elevating devices
1.12 Functional testing of architecturally related fire emergency systems and devices
1.13 Development Permit and conditions therein
1.14 Interior signage, including acceptable materials, dimensions and locations
1.15 Review of all applicable shop drawings
1.16 Interior and exterior finishes
1.17 Dampproofing and/or waterproofing of walls and slabs below *grade*
1.18 Roofing and flashings
1.19 Wall cladding systems
1.20 Condensation control and cavity ventilation
1.21 Exterior glazing
1.22 Integration of building envelope components
1.23 Environmental separation requirements (Part 5)
1.24 Building Envelope, Part 10/ASHRAE or NECB Requirements

(Professional's Seal and Signature)

_____
Date

_____ **STRUCTURAL**

2.1 Structural capacity of structural components of the *building*, including anchorage and seismic restraint
2.2 Structural aspects of *deep foundations*
2.3 Review of all applicable shop drawings
2.4 Structural aspects of unbonded post-tensioned concrete design and construction

_____ **MECHANICAL**

3.1 HVAC systems and devices, including high *building* requirements where applicable
3.2 *Fire dampers* at required *fire separations*
3.3 Continuity of *fire separations* at HVAC penetrations
3.4 Functional testing of mechanically related fire emergency systems and devices
3.5 Maintenance manuals for mechanical systems
3.6 Structural capacity of mechanical components, including anchorage and seismic restraint
3.7 Review of all applicable shop drawings
3.8 Mechanical Systems, Part 10/ASHRAE or NECB Requirements

_____
CRP's Initials

BRITISH COLUMBIA BUILDING CODE

BRITISH COLUMBIA BUILDING CODE 2012

Schedule B - *Continued*

_____
Building Permit No.
(for *authority having jurisdiction's* use)

_____
Project Address

_____
Discipline

_____ PLUMBING
4.1 Roof *drainage systems*
4.2 Site and foundation *drainage systems*
4.3 *Plumbing systems* and devices
4.4 Continuity of *fire separations* at plumbing penetrations
4.5 Functional testing of plumbing related fire emergency systems and devices
4.6 Maintenance manuals for *plumbing systems*
4.7 Structural capacity of plumbing components, including anchorage and seismic restraint
4.8 Review of all applicable shop drawings
4.9 Plumbing Systems, Part 10/ASHRAE or NECB Requirements

_____ FIRE SUPPRESSION SYSTEMS
5.1 Suppression system classification for type of *occupancy*
5.2 Design coverage, including concealed or special areas
5.3 Compatibility and location of electrical supervision, ancillary alarm and control devices
5.4 Evaluation of the capacity of city (municipal) water supply versus system demands and domestic demand, including pumping devices where necessary
5.5 Qualification of welder, quality of welds and material
5.6 Review of all applicable shop drawings
5.7 Acceptance testing for "Contractor's Material and Test Certificate" as per NFPA Standards
5.8 Maintenance program and manual for suppression systems
5.9 Structural capacity of sprinkler components, including anchorage and seismic restraint
5.10 For partial systems — confirm sprinklers are installed in all areas where required
5.11 Fire Department connections and hydrant locations
5.12 Fire hose standpipes
5.13 Freeze protection measures for fire suppression systems
5.14 Functional testing of fire suppression systems and devices

_____ ELECTRICAL
6.1 Electrical systems and devices, including high building requirements where applicable
6.2 Continuity of *fire separations* at electrical penetrations
6.3 Functional testing of electrical related fire emergency systems and devices
6.4 Electrical systems and devices maintenance manuals
6.5 Structural capacity of electrical components, including anchorage and seismic restraint
6.6 Clearances from *buildings* of all electrical utility equipment
6.7 Fire protection of wiring for emergency systems
6.8 Review of all applicable shop drawings
6.9 Electrical Systems, Part 10/ASHRAE or NECB requirements

_____ GEOTECHNICAL — Temporary
7.1 *Excavation*
7.2 Shoring
7.3 Underpinning
7.4 Temporary construction dewatering

_____ GEOTECHNICAL — Permanent
8.1 Bearing capacity of the soil
8.2 Geotechnical aspects of deep *foundations*
8.3 Compaction of engineered fill
8.4 Structural considerations of soil, including slope stability and seismic loading
8.5 Backfill
8.6 Permanent dewatering
8.7 Permanent underpinning

(Professional's Seal and Signature)

_____
Date

_____
CRP's Initials

BRITISH COLUMBIA BUILDING CODE

Division A - Appendix A - Appnote A-1.1.1.1.(3)
Amended by: Reg 140/2014
Effective: 2014-12-19
Revision: 6
Page: 547

Division A - Appendix A - Appnote A-1.1.1.2.(1)
Amended by: Reg 162/2013
Effective: 2014-04-04
Revision: 2
Page: 552

Division A - Appendix A - Appnote A-1.1.1.2.(1)
Amended by: Reg 175/2014
Effective: 2014-12-19
Revision: 7
Page: 547

Remove Pages: 547 to 552 **Insert Pages:** 547 to 552

Appendix A
Explanatory Material

This Appendix is included for explanatory purposes only and does not form part of the requirements. The numbers that introduce each Appendix Note correspond to the applicable requirements in this Division.

<A-1.1.1.1.(3) Factory-Built Houses Portions of the CSA-Z240 series of standards on mobile homes resemble a building code. These portions contain requirements in many of the areas where the British Columbia Building Code also has requirements and frequently the requirements are different. Other portions of the Z240 standards deal with special requirements for mobile homes related to the fact that these houses are intended to be periodically moved over roads. The British Columbia Building Code considers mobile homes certified to the Z240 standard as acceptable housing and they are permitted under Clause 1.1.1.1.(2)(g).**>**

<A-1.1.1.2.(1)> Application to Existing Buildings This Code is most often applied to existing or relocated buildings when an owner wishes to rehabilitate a building, change its use, or build an addition, or when an enforcement authority decrees that a building or class of buildings be altered for reasons of public safety. It is not intended that the British Columbia Building Code be used to enforce the retrospective application of new requirements to existing buildings or existing portions of relocated buildings, unless specifically required by local regulations or bylaws. For example, although the British Columbia Fire Code could be interpreted to require the installation of fire alarm, standpipe and hose, and automatic sprinkler systems in an existing building for which there were no requirements at the time of construction, it is the intent that the British Columbia Fire Code should not be applied in this manner to these buildings unless the authority having jurisdiction has determined that there is an inherent threat to occupant safety and has issued an order to eliminate the unsafe condition, or where substantial changes or additions are being made to an existing building or the occupancy has been changed. (See also Appendix Note A-1.1.1.1.(1) of Division A of the British Columbia Fire Code.)

Relocated buildings that have been in use in another location for a number of years can be considered as existing buildings, in part, and the same analytical process can be applied as for existing buildings. It should be noted, however, that a change in occupancy may affect some requirements (e.g., loads and fire separations) and relocation to an area with different wind, snow or earthquake loads will require the application of current code requirements. Depending on the construction of the building and the changes in load, structural modifications may be required. Similarly, parts of a relocated or existing building that are reconstructed, such as foundations and basements, or parts being modified are required to be built to current codes.

Whatever the reason, Code application to existing or relocated buildings requires careful consideration of the level of safety needed for that building. This consideration involves an analytical process similar to that required to assess alternative design proposals for new construction. See Clause 1.2.1.1.(1)(b) and its Appendix Note for information on achieving compliance with the Code using alternative solutions.

In developing Code requirements for new buildings, consideration has been given to the cost they impose on a design in relation to the perceived benefits in terms of safety. The former is definable; the latter difficult to establish on a quantitative basis. In applying the Code requirements to an existing building, the benefits derived are the same as in new buildings. On the other hand, the increased cost of implementing in an existing building a design solution that would normally be intended for a new building may be prohibitive.

The successful application of Code requirements to existing construction becomes a matter of balancing the cost of implementing a requirement with the relative importance of that requirement to the overall Code objectives. The degree to which any particular requirement can be relaxed without affecting the intended level of safety of the Code requires considerable judgment on the part of both the designer and the authority having jurisdiction.

Further information on the application of Code requirements to existing or relocated buildings may be found in the following publications:

- User's Guide - NBC 1995, Fire Protection, Occupant Safety and Accessibility (Part 3)
- Guidelines for Application of Part 3 of the National Building Code of Canada to Existing Buildings
- "Commentary L, Application of NBC Part 4 of Division B for the Structural Evaluation and Upgrading of Existing Buildings" of the User's Guide - NBC 2010, Structural Commentaries (Part 4 of Division B)
- User's Guide - NBC 1995, Application of Part 9 to Existing Buildings
- CBD 230, "Applying Building Codes to Existing Buildings"

These publications can be ordered through Client Services, Institute for Research in Construction, National Research Council of Canada, Ottawa, Ontario K1A 0R6, or through the Web site at **<**www.nationalcodes.nrc.gc.ca**>**.

Heritage Buildings

Many local governments have identified conservation of selected heritage properties, or protection of the heritage character of certain areas, as being community planning objectives. The Province's planning objectives and growth strategy encourage and support local government in this effort. The key is to find ways to make restoration and rehabilitation of heritage buildings economically viable for the properties' owners.

It is generally recognized that the present British Columbia Building Code was primarily written for new construction and provides for a performance level that is significantly higher than what exists with many older buildings. To apply present Code provisions to existing buildings is, in many cases, impractical and with heritage buildings may compromise historic appearances or authenticity. Therefore, the Table of Alternate Compliance Methods for Heritage Buildings was developed to provide alternate methods for complying with the performance level intended by the Code. The use of sprinklers is advocated as one of the primary methods in assuring this performance level for heritage buildings. Sprinkler systems not only control the fire, which aids evacuation, but also provides the added benefit of protecting the building from possible destruction by fire.

The Table of Alternative Compliance Methods for Heritage Buildings represents some of the ways that restoration and rehabilitation of heritage buildings can be facilitated without compromising the objectives of the Code. Only buildings which have been identified by the provincial or a local government are included in the definition of "heritage building." For these buildings, conservation is also a public objective. Heritage buildings often offer unique problems and opportunities, and each situation must be assessed individually.

<The use of the Alternate Compliance Methods in Table A-1.1.1.2.(1) is not mandatory, and an owner may choose

- to apply acceptable solutions in Division B,
- to apply alternate solutions under Clause 1.2.1.1.(1)(b),
- to apply alternate compliance methods in Table A-1.1.1.2., or
- to combine these options.>

Table A-1.1.1.2.(1)
Alternate Compliance Methods for Heritage Buildings

No.	Code Requirement in Division B	Alternate Compliance Method
1	**Fire Separations** Sentence 3.1.3.1.(1) and Table 3.1.3.1. of Division B, Subsection 9.10.9. of Division B 2 h fire separation required between some major occupancies.	Except for F1 occupancies, 1 h fire separation is acceptable, provided the building is sprinklered.
2	**Fire Separations** Sentence 3.1.3.1.(1) and Table 3.1.3.1. of Division B, Subsection 9.10.9. of Division B 1 h fire separation required between some major occupancies.	1/2 h fire separation is acceptable if the building is sprinklered.
3	**Noncombustible Construction** Subsection 3.1.5. of Division B and Article 9.10.6.1. of Division B All materials used in noncombustible construction must be noncombustible unless otherwise permitted.	1. Roofs may be of combustible construction provided the building is sprinklered. 2. Up to 10% gross floor area to a maximum of 10% of any one floor area may be of combustible construction provided the building is sprinklered.
4	**Fire-resistance Rating** Sentence 3.1.7.1.(1), Article 9.10.3.1. of Division B Where a material, assembly of materials or structural member is required to have a fire resistance rating it shall be tested in accordance with CAN/ULC-S101	A fire-resistance rating may also be used based on: (a) HUD No. 8 Guideline on Fire Ratings of Archaic Materials and Assemblies., (b) Fire Endurance of Protected Steel Columns and Beams, DBR Technical Paper No. 194., (c) Fire Endurance of Unit Masonry Walls, DBR Technical Paper No. 207., (d) Fire Endurance of Light-Framed and Miscellaneous Assemblies, DBR Technical Paper No. 222.
5	**Rating of Supporting Construction** Article 3.1.7.5. of Division B, Article 9.10.8.3. of Division B Supporting assemblies to have fire resistance rating at least equivalent to that of the supported floor.	Heavy timber construction is permitted to have a fire resistance rating less than would be required by the Code provided the building: (a) is sprinklered, and (b) does not exceed 6 storeys in building height.
6	**Continuity Of Fire Separations** Sentence 3.1.8.3.(1) and Sentence 3.1.8.3.(2), Article 9.10.9.2. of Division B Fire separations are required to be continuous above the ceiling space.	Fire separations are not required to be continuous above a ceiling space where (a) the ceiling space is non-combustible construction, (b) both fire compartments are sprinklered, or (c) the ceiling has a minimum rating of 30 minutes.

Table A-1.1.1.2.(1)
Alternate Compliance Methods for Heritage Buildings

No.	Code Requirement in Division B	Alternate Compliance Method
7	**Wired Glass** Sentences 3.1.8.5.(1) and 3.1.8.14.(2), Articles 9.10.13.1. of Division B and 9.10.13.5. of Division B 6 mm wired glass in steel frame required in fire separations.	For fixed transoms or sidelights, 6 mm wired glass fixed to a wood frame of at least 50 mm thickness with steel stops is permitted in a required fire separation.
8	**Mezzanines** Sentences 3.2.1.1.(3) to Sentence 3.2.1.1.(6), Article 9.10.4.1. of Division B Mezzanines enclosing more than 10% above the horizontal plane are considered as storey in building height.	Enclosed mezzanines may be up to 40% of the storey in which they occur and not be considered a storey in building height if the building is sprinklered.
9	**Building Height** Articles 3.2.2.20. of Division B to <Article 3.2.2.8. of Division B> Noncombustible construction required for buildings over 3 storeys in building height.	Buildings may be of combustible construction up to 6 storeys provided: (a) the building is sprinklered, (b) the building contains Group C, D, E, F2 or F3 occupancies, and (c) floor assemblies not required to exceed 1 h fire separation requirements may be of heavy timber construction.
10	**Spatial Separation** Subsection 3.2.3. of Division B, Subsection 9.10.14. of Division B The area of unprotected opening shall not exceed the limits in Tables 3.2.3.1.A of Division B to <Table 3.2.3.1.E of Division B>	The area of unprotected opening is not limited provided: (a) the limiting distance is a minimum 1 m, (b) the building has a supervised sprinkler system in conformance with <Sentence 3.2.4.10.(3)>, and (c) the sprinkler system is connected to the fire department in conformance with <Sentence 3.2.4.8.(4)>.
11	**Construction of Exposing Building Face** Article 3.2.3.7. of Division B, Article 9.10.14.5. of Division B The exposing building face is required to have a fire resistance rating and/or be of noncombustible construction.	Exposing building face is not required to have a fire resistance rating if the building is sprinklered. Also, the exposing building face is not required to be of noncombustible construction if it is protected by an exterior sprinkler system conforming to NFPA 13.
12	**Roof Covering Rating** Sentence 3.1.15.2.(1) Class A, B or C roof covering in conformance with CAN/ULC-S107 required.	For existing roofs not covered by a Class A, B or C roofing a manually operated deluge system in accordance with NFPA 13 is permitted.
13	**Smoke Alarms** Sentence 3.2.4.20.(5), <Sentence 3.2.4.21.(6), Sentence 9.10.19.4.(1)> Smoke alarms are required to be connected to an electric circuit.	Smoke alarms may be battery operated in single family homes only.
14	**Interconnected Floor Space** Subsection 3.2.8. of Division B, <Sentence 9.10.1.3.(6)>	1. Open stairs in buildings of maximum 4 storeys in building height need not comply with Subsection 3.2.8., provided (a) the building contains a Group C or D occupancy, (b) the building is sprinklered with fast-response sprinklers, (c) corridors opening into the interconnected floor space are separated from the interconnected floor space by a fire separation with the rating required for the corridor, and (d) smoke detectors are installed in the rooms opening into the interconnected floor space and the smoke detectors are connected to the fire alarm system.

Table A-1.1.1.2.(1)
Alternate Compliance Methods for Heritage Buildings

No.	Code Requirement in Division B	Alternate Compliance Method
14	**Interconnected Floor Space (cont'd)** Subsection 3.2.8. of Division B, <Sentence 9.10.1.3.(6)>	2. Open stairs in buildings of maximum 3 storeys in building height, or first 2 storeys and basement, need not comply with Subsection 3.2.8. of Division B, provided: (a) the building contains a Group C or D occupancy, (b) the building is sprinklered with fast response sprinklers, (c) smoke detectors are installed in the rooms opening into the interconnected floor space and the smoke detectors are connected to the fire alarm system, and (d) at least one means of egress is not through the interconnected floor space.
15	**Separation of Suites** Article 3.3.1.1. of Division B, Article 9.10.9.13. of Division B, Article 9.10.9.14. of Division B Suites are required to be separated from adjoining suites by 3/4 h or 1 h rated fire separations.	Existing fire separations of 1/2 h, such as wood lath and plaster in good condition, are acceptable in sprinklered buildings not exceeding 6 storeys in building height.
16	**Corridor fire separation** Article 3.3.1.4. of Division B, Article 9.10.9.15. of Division B Public corridors are required to be separated from the remainder of the building by a fire separation having a fire resistance rating of at least 3/4 h.	Existing corridors with 1/2 h fire resistance ratings, such as wood lath and plaster in good condition, are acceptable in residential occupancies provided the building: (a) does not exceed 6 storeys in building height, and (b) is fully sprinklered with fast response sprinklers.
17	**Corridor Width** Article 3.3.1.9. of Division B and Subsection 3.4.3. of Division B, Article 9.9.3.3. of Division B Public corridors and exit corridors are permitted to have a minimum width of 1 100 mm.	Public corridors and exit corridors are permitted with a minimum width of 800 mm provided: (a) the occupant load of the building is maximum 20 people, and (b) the building does not exceed 3 storeys in building height.
18	**Door Swing** Article 3.3.1.10. of Division B and <Article 3.4.6.2. of Division B>, Article 9.9.6.5. of Division B Doors required to swing in the direction of exit travel.	2nd egress door from a room is not required to swing in the direction of exit travel provided: (a) the building is sprinklered and the system is supervised in conformance with <Sentence 3.2.4.10.(3)>, and (b) the occupant load of the building is maximum 100 people.
19	**Stairs, Ramps, Handrails and Guards** Article 3.3.1.14. of Division B, Article 3.3.1.16. of Division B, Article 3.3.1.18. of Division B, Articles 3.4.6.4. of Division B to 3.4.6.6. of Division B, Section 9.8. of Division B	Existing conditions that do not comply fully with the requirements are permitted if they are acceptable to the authority having jurisdiction.
20	**Transparent Doors and Panels** Article 3.3.1.19. of Division B, <Article 9.6.1.4. of Division B> Glass in doors and sidelights are required to be protected by guards and to be safety glass.	Existing glass or transparent panels that do not comply fully with the requirements are permitted if sufficiently discernible or guards are provided in hazardous situations.

Table A-1.1.1.2.(1)
Alternate Compliance Methods for Heritage Buildings

No.	Code Requirement in Division B	Alternate Compliance Method
21	**Dead-end Corridors** Sentence 3.3.1.9.(7), Article 9.9.7.3. of Division B Dead-end corridors are permitted to a maximum length of 6 m.	1. Dead-end corridors are permitted to a maximum length of 10 m in Group C occupancies provided: (a) the building is sprinklered with fast response sprinklers, and (b) smoke detectors are installed in the corridor system. 2. Dead-end corridors are permitted to a maximum of 15 m in length in Group D, E, F2 and F3 occupancies provided: (a) the building is sprinklered with fast response sprinklers, and (b) smoke detectors are installed in the corridor system.
22	**Exits** Article 3.4.2.1. of Division B, Article 9.9.8.2. of Division B Floor areas shall be served by not fewer than 2 exits except as permitted by Sentence 3.4.2.1.(2).	Floor areas may be served by a single exit within the limits of Sentence 3.4.2.1.(2) provided: (a) the building does not exceed 3 storeys in building height, (b) the building is sprinklered with fast response sprinklers, and (c) all floor areas are protected by a system of smoke detectors connected to a fire alarm system.
23	**Reduction of Exit Width** Sentence 3.4.3.3.(2), Article 9.9.6.1. of Division B Swinging doors in their swing shall not reduce the effective width of exit stairs and landings to less than 750 mm.	Existing swinging doors in their swing are permitted to reduce the effective width of exit stairs and landings to a minimum of 550 mm provided: (a) they serve Group C or D occupancies, (b) the building does not exceed 4 storeys in building height, and (c) the building is sprinklered.
24	**Fire Separation of Exits** Article 3.4.4.1. of Division B, Subsection 9.9.4. of Division B Exits are required to be separated from the remainder of the floor area by a fire separation having a fire-resistance rating of not less than 3/4 h.	1. Buildings of 3 storeys or less may have exits that are separated by a fire separation that does not have a fire-resistance rating provided: (a) the building is sprinklered with fast response sprinklers, and (b) the sprinkler system is supervised in accordance with Sentence 3.2.4.9.(2). 2. Buildings not exceeding 6 storeys in building height may have exits that are separated by a 3/4 h fire separation provided the building is sprinklered.
25	**Exits Through Lobbies** Article 3.4.4.2. of Division B, Article 9.9.8.5. of Division B Rooms adjacent to the lobby are required to be separated by a fire separation.	Rooms adjacent to the lobby are not required to be separated by a fire separation provided: (a) the floor area is sprinklered with fast response sprinklers, and (b) smoke detectors are installed in the adjacent rooms.
26	**Rooms Opening into Exit** Sentence 3.4.4.4.(7), Article 9.9.5.9. of Division B Service rooms and ancillary rooms are not permitted to open directly into an exit.	Service rooms and ancillary rooms may open directly into an exit provided: (a) the room is sprinklered with fast response sprinklers, and (b) weatherstripping is installed on the door to prevent the passage of smoke.

Table A-1.1.1.2.(1)
Alternate Compliance Methods for Heritage Buildings

No.	Code Requirement in Division B	Alternate Compliance Method
27	**Illumination of Exit Signs** Sentence 3.4.5.1.(2)< to 3.4.5.1.(4), Sentence 9.9.11.3.(2) to (6)> Exit signs are required to be illuminated continuously while the building is occupied.	Where exit signage may compromise historic appearances, or authenticity of displays, exit signs may be installed to light only on an emergency condition, such as by the fire alarm system or due to power failure.
28	**Clearance from Exit Doors** <Sentence 3.4.6.11.(1)>, Article 9.9.6.6. of Division B Stair risers shall not be closer than 300 mm from an exit door.	Except as permitted in Sentences 3.4.6.10.(2) or 9.9.6.6.(2), existing exit doors shall not extend beyond the first riser.
29	**Fire Escapes** Subsection 3.4.7. of Division B, Sentence 9.9.2.1.(2) Fire escapes are required to conform to Subsection 3.4.7. of Division B	Existing fire escapes that do not completely conform to Subsection 3.4.7. of Division B. are acceptable provided: (a) the fire escapes are acceptable and (b) the building is sprinklered.
30	**Fire Escape Construction** Article 3.4.7.2. of Division B, Sentence 9.9.2.1.(2)	Existing combustible fire escapes are permitted if the building is permitted to be of combustible construction by Part 3 of Division B, Part 9 of Division B or by these Compliance Tables.
31	**Protection of Fire Escapes** Article 3.4.7.4. of Division B, Sentence 9.9.2.1.(2) Openings in the exterior wall adjacent to the fire escape are required to be protected by closures.	Existing openings in the exterior wall adjacent to the fire escape are not required to be protected by closures provided: (a) the building is sprinklered, and (b) a sprinkler head is located within 1.5 m of the opening required to be protected by Article 3.4.7.4. of Division B
32	**Vertical Service Space** Article 3.6.3.1. of Division B Vertical service spaces are required to be separated from the adjacent floor area by a rated fire separation.	Existing vertical service spaces that do not completely conform to the rated fire separation requirements are acceptable provided the vertical service spaces are sprinklered.
33	**Height and Area of Rooms** Subsection 3.7.1. of Division B, Section 9.5. of Division B The height and area of rooms are required to comply to minimum dimension requirements.	Existing rooms are not required to comply to the minimum dimension requirements of Subsection 3.7.1. of Division B or Section 9.5. of Division B
34	**Washroom Requirements** Subsection 3.7.2. of Division B, Section 9.31. of Division B Buildings are required to be provided with a minimum number of washroom fixtures.	Existing facilities are not required to completely comply to the requirements of Subsection 3.7.2. of Division B or Section 9.31. of Division B provided it is acceptable to the authority having jurisdiction.
35	**Access for Persons with Disabilities** Section 3.8. of Division B	Article 3.8.4.5. of Division B shall apply to existing buildings.
36	**Seismic Anchorage of Exterior Decoration** Subsection 4.1.8. of Division B	Existing exterior decorations are not required to fully comply to the anchorage requirements of Subsection 4.1.8. of Division B provided: (a) adequate means of protection is provided, or (b) there is no exposure to the public.
37	**Mechanical Systems** Part 6 of Division B and Part 7 of Division B	Existing mechanical systems in buildings are not required to fully comply to the requirements of Parts 6 of Division B or 7 of Division B provided: (a) it is not an unsafe condition and (b) it is acceptable to the authority having jurisdiction.

Division A - Appendix A - Appnote A-1.2.1.2.(1)
Added by: Reg 140/2014
Effective: 2014-12-19
Revision: 6
Page: 554

<A-1.2.1.2.(1) Responsibility of Owner Sentence 1.1.1.1.(1) is not intended to imply that a person who becomes the owner of a building must bring the entire building into compliance with the Code. The Code applies only in the cases and to the extent specified by Article 1.1.1.1., and the owner of a building is therefore made responsible for ensuring the building complies with the Code by Sentence 1.2.1.2.(1) only in the cases and to the extent specified by Article 1.1.1.1. If none of the provisions in Sentence 1.1.1.1.(1) apply to the building, the owner is not required to make any changes to the building.**>**

Division A - Appendix A - Appnote A-1.4.1.2.(1)
Amended by: Reg 140/2014
Effective: 2014-12-19
Revision: 6
Page: 555

Storage Garage

<Entrances at which vehicles stop for a short time beneath an unenclosed canopy to pick up and drop off passengers are not considered as storage garages. As a subsidiary use, storage garages may also contain space for parking or storing other vehicles (bicycles, boats, etc.).>

Division A - Appendix A - Appnote A-2.2.1.1.(1)
Amended by: Reg 173/2013
Effective: 2014-12-19
Revision: 5
Page: 556

A-2.2.1.1.(1) Objectives

Listing of objectives

<Any gaps in the numbering sequence of the objectives are due to the fact that there is a master list of objectives covering the four principal National Code Documents—the National Building Code, the National Fire Code, the National Plumbing Code, and the National Energy Code for Buildings—but not all objectives are pertinent to all Codes.>

Division A - Appendix A - Appnote A-3.2.1.1.(1)
Amended by: Reg 173/2013
Effective: 2014-12-19
Revision: 5
Page: 556

A-3.2.1.1.(1) Functional Statements Listing of functional statements

The numbered functional statements are grouped according to functions that deal with closely related subjects. For example, the first group deals with fire risks, the second group deals with emergency egress and response, etc. There may be gaps in the numbering sequence for the following reasons:

- Each group has unused numbers which allows for the possible future creation of additional functional statements within any one group.
- There is a master list of functional statements covering <the four principal National Code Documents—the National Building Code, the National Fire Code, the National Plumbing Code and the National Energy Code for Buildings — >

Division B - Appendix A - Table A-1.3.1.2.(1)
Amended by: Reg 173/2013
Effective: 2014-12-19
Revision: 5
Page: 558

Division B - Appendix A - Table A-3.1.2.1.(1)
Amended by: Reg 175/2014
Effective: 2014-12-19
Revision: 7
Page: 557-565

Division B - Appendix A - Appnote A-1.-3.1.2.1.(1)
Amended by: Reg 175/2014
Effective: 2014-12-19
Revision: 7
Page: 566

Previous pages: 557 to 566 **Replacement pages:** REP 557 to REP 566.1

Appendix A
Explanatory Material

This Appendix is included for explanatory purposes only and does not form part of the requirements. The numbers that introduce each Appendix Note correspond to the applicable requirements in this Division.

A-1.1.2.1.(1) Objectives and Functional Statements Attributed to Acceptable Solutions The objectives and functional statements attributed to each Code provision are shown in Tables at the end of each Part in Division B.

Many provisions in Division B serve as modifiers of or pointers to other provisions, or serve other clarification or explanatory purposes. In most cases, no objectives and functional statements have been attributed to such provisions, which therefore do not appear in the above-mentioned tables.

For provisions that serve as modifiers of or pointers to other referenced provisions and that do not have any objectives and functional statements attributed to them, the objectives and functional statements that should be used are those attributed to the provisions they reference.

A-1.1.3.1.(1) Climatic and Seismic Values Climatic values for municipalities not listed in Appendix C may be obtained by writing to the Meteorological Service of Canada, Environment Canada, 4905 Dufferin Street, Toronto, Ontario M3H 5T4.

Seismic values for municipalities not listed in Appendix C may be obtained through the Natural Resources Canada Web site at www.EarthquakesCanada.ca, or by writing to the Geological Survey of Canada at 7 Observatory Crescent, Ottawa, Ontario K1A 0Y3, or at P.O. Box 6000, Sidney, B.C. V8L 4B2.

A-1.1.3.1.(2) Winter Design Temperatures The 2.5% values referred to in Sentence 1.1.3.1.(2) are the least restrictive temperatures that can be used. A designer may choose to use the 1% values given in Appendix C, which are in excess of the Code minimums but are considered acceptable.

A-1.3.1.2.(1) Applicable Editions Where documents are referenced in Appendices A, B and C of this Code, they shall be the editions designated in Table A-1.3.1.2.(1)

Table A-1.3.1.2.(1)
Documents Referenced in Appendices A, B and C of Book I (General) of the British Columbia Building Code 2012
Forming part of Appendix Note A-1.3.1.2.(1)

Issuing Agency	Document Number[1]	Title of Document[2]	Code Reference
ASCE	SEI/ASCE 8-02	Design of Cold-Formed Stainless Steel Structural Members	A-4.3.4.2.(1)
ANSI/ ASHRAE	62-2001	Ventilation for Acceptable Indoor Air Quality (except Addendum n)	A-9.25.5.2.
ANSI/UL	199	Standard for Safety of Automatic Sprinklers for Fire-Protection Service	A-3.2.5.12.(8)
ANSI/UL	1626	Standard for Safety of Residential Sprinklers for Fire-Protection Service	A-3.2.5.12.(8)
<ASHRAE	2009	ASHRAE Handbook - Fundamentals	A-9.36.2.4.(1) Table A-9.36.2.4.(1)D.>
ASME	B18.6.1-1981	Wood Screws (Inch Series)	<9.23.3.1.(3)>
<ASME/CSA	ASME A17.1-2010/ CSA B44-10	Safety Code for Elevators and Escalators	A-3.5.2.1.(1)>
ASTM	A 390-06	Zinc-Coated (Galvanized) Steel Poultry Fence Fabric (Hexagonal and Straight Line)	Table A-9.10.3.1.B
ASTM	C 516-08	Vermiculite Loose Fill Thermal Insulation	A-9.25.2.4.(5)
<ASTM	C 1193-11a	Use of Joint Sealants	A-Table 5.10.1.1. A-9.27.4.2.(1)>
ASTM	C 1299-03	Selection of Liquid-Applied Sealants	A-Table 5.10.1.1. A-9.27.4.2.(1)

Table A-1.3.1.2.(1)
Documents Referenced in Appendices A, B and C of Book I (General) of the British Columbia Building Code 2012
Forming part of Appendix Note A-1.3.1.2.(1)

Issuing Agency	Document Number[1]	Title of Document[2]	Code Reference
<ASTM	C 1472-10	Calculating Movement and Other Effects When Establishing Sealant Joint Width	A-Table 5.10.1.1. A-9.27.4.2.(1)>
ASTM	D 1037-06a	Evaluating Properties of Wood-Base Fiber and Particle Panel Materials	A-9.23.15.2.(4)
ASTM	D 1143/D 1143M-07e1	Deep Foundations Under Static Axial Compressive Load	A-4.2.7.2.(2)
ASTM	E 336-05	Measurement of Airborne Sound Attenuation between Rooms in Buildings	A-9.11.1.1.(1)
ASTM	E 492-09	Laboratory Measurement of Impact Sound Transmission Through Floor-Ceiling Assemblies Using The Tapping Machine	A-9.11.1.1.(1)
ASTM	E 597-95	Determining a Single Number Rating of Airborne Sound Insulation for Use in Multi-Unit Building Specifications	A-9.11.1.1.(1)
ASTM	E 736-00	Cohesion/Adhesion of Sprayed Fire-Resistive Materials Applied to Structural Members	Table A-9.10.3.1.B
<ASTM	E 1007-11e1	Field Measurement of Tapping Machine Impact Sound Transmission Through Floor-Ceiling Assemblies and Associated Support Structures	A-9.11.1.1.(1)>
<ASME	E 2357-11	Determining Air Leakage of Air Barrier Assemblies	A-9.36.2.9.(1)>
ASTM	F 476-84	Security of Swinging Door Assemblies	A-9.7.5.2.(2)
BC		Book II (Plumbing Systems) of the British Columbia Building Code 2012	A-2.2.1.1.(1)[3] A-3.2.1.1.(1)[3] A-4.1.6.4.(3) A-9.36.5.8.(5) Appendix C
BC	B.C. Reg. 100/2004	Electrical Safety Regulation	A-3.2.4.21.(6)(a) A-9.34.2. A-9.35.2.2.(1)
BC	B.C. Reg. 101/2004	Elevating Devices Safety Regulation	A-3.5.2.1.(1)
<BC	S.B.C. 1998, c. 43	Strata Property Act	A-9.37.1.1.>
CCBFC	NRCC 35951	Guidelines for Application of Part 3 of the National Building Code of Canada to Existing Buildings	A-1.1.1.2.(1)[3]
<CCBFC	NRCC 38730	Model National Energy Code of Canada for Houses 1997	A-9.36.3.10.(1) A-9.36.4.2.(1)>
CCBFC	NRCC 38732	National Farm Building Code of Canada 1995	A-1.4.1.2.(1)[3] A-Table 4.1.2.1. A-5.1.2.1.(1)
CCBFC	NRCC 40383	User's Guide – NBC 1995, Fire Protection, Occupant Safety and Accessibility (Part 3)	A-1.1.1.2.(1)[3]
CCBFC	NRCC 43963	User's Guide – NBC 1995, Application of Part 9 to Existing Buildings	A-1.1.1.2.(1)[3]

Table A-1.3.1.2.(1)
Documents Referenced in Appendices A, B and C of Book I (General) of the British Columbia Building Code 2012
Forming part of Appendix Note A-1.3.1.2.(1)

Issuing Agency	Document Number[1]	Title of Document[2]	Code Reference
CCBFC	NRCC 48192	User's Guide – NBC 2005, Structural Commentaries (Part 4 of Division B)	A-1.1.1.2.(1) A-4.1.1.3.(1) A-4.1.1.3.(2) A-3.2.5.12.(8) A-4.1.3.4.(1) A-4.1.3.5.(1) A-4.1.3.5.(3) A-Table 4.1.8.5. A-Table 4.1.8.6. A-5.1.4.2. Appendix C
CCBFC	NRCC 53303	National Fire Code of Canada 2010	A-1.1.1.2.(1)[3] A-2.2.1.1.(1)[3] A-3.1.2.3.(1) A-3.2.1.1.(1)[3] A-3.2.4.7.(2) A-3.2.7.8.(3) A-3.3. A-3.3.1.2.(1) A-3.3.1.7.(1) A-3.3.3.1.(1) A-3.3.6.1.(1) B-3.2.6.

Table A-1.3.1.2.(1)
Documents Referenced in Appendices A, B and C of Book I (General) of the British Columbia Building Code 2012
Forming part of Appendix Note A-1.3.1.2.(1)

Issuing Agency	Document Number[1]	Title of Document[2]	Code Reference
CCBFC	NRCC 53543	User's Guide – NBC 2010, Structural Commentaries (Part 4 of Division B)	A-1.1.1.2.(1)[3] A-4.1.1.3.(1) A-4.1.1.3.(2) A-4.1.2.1. A-4.1.2.1.(1) A-4.1.3. A-4.1.3.2.(2) A-4.1.3.2.(4) A-4.1.3.2.(5) A-4.1.3.3.(2) A-4.1.3.4.(1) A-4.1.3.5.(1) A-4.1.3.5.(3) A-4.1.3.6.(1) A-4.1.3.6.(2) A-4.1.3.6.(3) A-4.1.5.8. A-4.1.5.17. A-4.1.6.2. A-4.1.6.2.(4)(b) A-4.1.6.3.(2) A-4.1.6.4.(1) A-4.1.7.1.(1) to (3) A-4.1.7.1.(5)(a) to (c) A-4.1.7.1.(5)(d) A-4.1.7.1.(6)(a) A-4.1.7.1.(6)(c) A-4.1.7.1.(6)(d) and 4.1.7.2.(1)(b) A-4.1.7.2.(1) and (2) A-4.1.7.3.(1) A-4.1.8.2.(1) A-4.1.8.3.(4) A-4.1.8.3.(6) A-4.1.8.3.(7)(b) and (c) A-4.1.8.3.(8) A-4.1.8.4.(3) and Table 4.1.8.4.A. A-Table 4.1.8.5. A-Table 4.1.8.6. A-4.1.8.7.(1) A-4.1.8.9.(4) A-4.1.8.9.(5) A-4.1.8.11.(3) A-4.1.8.12.(1)(a) A-4.1.8.12.(1)(b) A-4.1.8.12.(3) A-4.1.8.12.(4)(a) A-4.1.8.13.(4) A-4.1.8.15.(1) A-4.1.8.15.(3) A-4.1.8.15.(4) A-4.1.8.15.(5) A-4.1.8.15.(6) A-4.1.8.15.(7) A-4.1.8.16.(1) A-4.1.8.16.(3)(a) A-4.1.8.16.(4) A-4.1.8.16.(5)(a) A-4.1.8.16.(7) A-4.1.8.17.(1) A-4.1.8.18. A-4.2.4.1.(3) A-4.2.4.1.(5) A-4.2.5.1.(1) A-4.2.6.1.(1) A-4.2.7.2.(1) A-5.1.4.2. Appendix C

Table A-1.3.1.2.(1)
Documents Referenced in Appendices A, B and C of Book I (General) of the British Columbia Building Code 2012
Forming part of Appendix Note A-1.3.1.2.(1)

Issuing Agency	Document Number[1]	Title of Document[2]	Code Reference
<CCBFC	NRCC 54435	National Energy Code of Canada for Buildings 2011	A-9.36.1.3. A-9.36.2.4.(1) A-9.36.3.10.(1) A-9.36.4.2.(1) A-9.36.5.2.>
CGSB	CAN/CGSB-7.2-94	Adjustable Steel Columns	A-9.17.3.4.
CGSB	CAN/CGSB-12.20-M89	Structural Design of Glass for Buildings	A-9.6.1.3.(1)
CGSB	CAN/CGSB-71.26-M88	Adhesive for Field-Gluing Plywood to Lumber Framing for Floor Systems	Table A-9.23.4.2.(2)C
CGSB	CAN/CGSB-82.6-M86	Doors, Mirrored Glass, Sliding or Folding, Wardrobe	A-9.6.1.2.(2)
CGSB	CAN/CGSB-93.1-M85	Sheet, Aluminum Alloy, Prefinished, Residential	A-9.27.11.1.(3) and (4)
CGSB	CAN/CGSB-93.2-M91	Prefinished Aluminum Siding, Soffits, and Fascia, for Residential Use	A-9.27.11.1.(3) and (4)
<CGSB	CAN/CGSB-149.10-M86	Determination of the Airtightness of Building Envelopes by the Fan Depressurization Method	A-9.36.5.10.(11)>
CISC	2009	Crane-Supporting Steel Structures: Design Guide	A-4.1.3.2.(2)
CMHC	1993	Testing of Fresh Air Mixing Devices	A-9.32.3.4.
CMHC	1988	Air Permeance of Building Materials	A-5.4.1.2.(1) and (2) Table A-9.25.5.1.(1)
CMHC/HC	2007	Radon: A Guide for Canadian Homeowners	A-5.4.1.1. A-6.2.1.1. A-9.13.4.3.
CSA	CAN/CSA-A23.3-04	Design of Concrete Structures	A-4.1.3.2.(4) A-4.3.3.1.(1)
<CSA	A23.4-09	Precast Concrete – Materials and Construction	A-4.3.3.1.(1)>
CSA	A82.31-M1980	Gypsum Board Application	Table A-9.10.3.1.A Table A-9.10.3.1.B
CSA	CAN/CSA-A370-04	Connectors for Masonry	A-9.21.4.5.(2)
CSA	AAMA/WDMA/CSA 101/I.S.2/A440-08	NAFS – North American Fenestration Standard/ Specification for Windows, Doors, and Skylights	A-5.3.1.2. A-9.7.4.2.(1)
CSA	A440S1-09	Canadian Supplement to AAMA/WDMA/CSA 101/I.S.2/ A440, NAFS – North American Fenestration Standard/ Specification for Windows, Doors, and Skylights<, as updated by Update No. 1 (July 2013)>	A-5.10.2.2. A-9.7.4.2.(1)
<CSA	A440.2-09/A440.3-09	Fenestration Energy Performance/User Guide to CSA A440.2-09, Fenestration Energy Performance	A-Table 9.36.2.7.A.>
CSA	B111-1974	Wire Nails, Spikes and Staples	A-Table 9.23.3.5.B.
<CSA	CAN/CSA-B214-07	Installation Code for Hydronic Heating Systems	A-9.36.3.4.(1)>
CSA	CAN/CSA-B365-01	Installation Code for Solid-Fuel-Burning Appliances and Equipment	A-9.33.5.3.
<CSA	CAN/CSA-C439-09	Rating the Performance of Heat/Energy-Recovery Ventilators	A-9.36.3.9.(3)>
<CSA	F280-12	Determining the Required Capacity of Residential Space Heating and Cooling Appliances	A-9.36.3.2.(1) A-9.36.5.15.(5)>

Table A-1.3.1.2.(1)
Documents Referenced in Appendices A, B and C of Book I (General) of the British Columbia Building Code 2012
Forming part of Appendix Note A-1.3.1.2.(1)

Issuing Agency	Document Number[1]	Title of Document[2]	Code Reference
CSA	CAN/CSA-F326-M91	Residential Mechanical Ventilation Systems	A-9.32.3. A-9.32.3.1.(1) A-9.32.3.5. A-9.32.3.7. A-9.32.3.8. A-9.33.6.13.
CSA	O86-09	Engineering Design in Wood	A-9.15.2.4.(1) A-9.23.4.2.
<CSA	O112.9-10	Evaluation of Adhesives for Structural Wood Products (Exterior Exposure)	Table A-9.10.3.1.B>
<CSA	O112.10-08	Evaluation of Adhesives for Structural Wood Products (Limited Moisture Exposure)	Table A-9.10.3.1.B>
CSA	O141-05	Softwood Lumber	A-9.3.2.1.(1)
CSA	O437.0-93	OSB and Waferboard	A-9.23.15.4.(2)
CSA	CAN/CSA-S6-06	Canadian Highway Bridge Design Code	A-Table 4.1.5.3. A-Table 4.1.5.9.
CSA	S16-09	Design of Steel Structures	A-4.1.5.11. A-4.3.4.1.(1)
CSA	S304.1-04	Design of Masonry Structures	A-5.1.4.1.(5)(b) and (c)
CSA	CAN/CSA-S406-92	Construction of Preserved Wood Foundations	A-9.15.2.4.(1)
<CSA	Z32-09	Electrical Safety and Essential Electrical Systems in Health Care Facilities	A-3.2.7.6.(1)>
CSA	CAN/CSA-Z240 MH Series-09	Manufactured Homes	A-1.1.1.1.(3)[3]
CSA	Z240.2.1-09	Structural Requirements for Manufactured Homes	A-1.1.1.1.(3)[3]
CSA	Z240.10.1-08	Site Preparation, Foundation, and Anchorage of Manufactured Homes	A-1.1.1.1.(3)[3]
CWC	1997	Introduction to Wood Building Technology	A-9.27.3.8.(4)
CWC	2000	Wood Reference Handbook	Table A-9.27.3.8.(4)
CWC	2009	The Span Book	A-9.23.4.2.
CWC	2009	Engineering Guide for Wood Frame Construction	A-9.4.1.1. A-9.23.13.1.
EC	CEPA 1988	Canadian Environmental Protection Act, Section 8, Part 1	A-6.2.1.7.(2)
EPA	625/R-92/016 (1994)	Radon Prevention in the Design and Construction of Schools and Other Large Buildings	A-5.4.1.1.
FM Approvals	2008	Approval Standard for Suppression Mode [Early Suppression – Fast Response (ESFR)] Automatic Sprinklers	A-3.2.5.12.(7)
FPI	Project 43-10C-024 (1988)	Deflection Serviceability Criteria for Residential Floors	A-9.23.4.2.(2)
HC	2004	Fungal Contamination in Public Buildings: Health Effects and Investigation Methods	A-5.5.1.1.
HC	2008	Guide for Radon Measurements in Public Buildings (Schools, Hospitals, Care Facilities, Detention Centres)	A-5.4.1.1. A-6.2.1.1.
HC	2008	Guide for Radon Measurements in Residential Dwellings (Homes)	A-9.13.4.3.

Table A-1.3.1.2.(1)
Documents Referenced in Appendices A, B and C of Book I (General) of the British Columbia Building Code 2012
Forming part of Appendix Note A-1.3.1.2.(1)

Issuing Agency	Document Number[1]	Title of Document[2]	Code Reference
<HRAI	SAR-G1	HRAI Digest 2005	A-9.36.3.2.(1) A-9.36.3.2.(2) A-9.36.3.4.(1)>
<HVI	HVI Publication 911-2012	Certified Home Ventilating Products Directory	A-9.36.3.9.(3)>
<ICC	400-2007	Design and Construction of Log Structures	A-9.36.2.2.(5)>
ISO	7010:2003	Graphical symbols – Safety colours and safety signs – Safety signs used in workplaces and public areas	A-3.4.5.1.(2)(c)
ISO	7731:2003(E)	Ergonomics – Danger signals for public and work areas – Auditory danger signals	A-3.2.4.22.(1)(b)
ISO	8201:1987(E)	Acoustics – Audible emergency evacuation signal	A-3.2.4.19.(2)
<NFPA	2010 Edition	Fire Protection Guide to Hazardous Materials	A-6.2.2.6.(1)>
NFPA	FPH 2008-2008	Fire Protection Handbook	A-3.2.2.2.(1) A-3.6.2.7.(5)
<NFPA	13-2013	Installation of Sprinkler Systems	A-3.2.4.10.(3)(f) A-3.2.5.12.(1) A-3.2.5.12.(6) A-3.2.5.12.(7) A-3.2.5.13.(1) A-3.2.8.2.(3)>
<NFPA	13D-2010	Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes	A-3.2.5.12.(6) A-3.2.5.12.(7) A-3.2.5.13.(1)>
<NFPA	13R-2010	Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height	A-3.2.5.12.(6) A-3.2.5.12.(7) A-3.2.5.13.(1)>
<NFPA	20-2010	Installation of Stationary Pumps for Fire Protection	A-3.2.4.10.(3)(f)>
<NFPA	30-2012	Flammable and Combustible Liquids Code	A-6.2.2.6.(1)>
<NFPA	30A-2012	Motor Fuel Dispensing Facilities and Repair Garages	A-6.2.2.6.(1)>
<NFPA	32-2011	Drycleaning Plants	A-6.2.2.6.(1)>
<NFPA	33-2011	Spray Application Using Flammable or Combustible Materials	A-6.2.2.6.(1)>
<NFPA	34-2011	Dipping and Coating Processes Using Flammable or Combustible Liquids	A-6.2.2.6.(1)>
<NFPA	35-2011	Manufacture of Organic Coatings	A-6.2.2.6.(1)>
NFPA	36-2009	Solvent Extraction Plants	A-6.2.2.6.(1)
<NFPA	40-2011	Storage and Handling of Cellulose Nitrate Film	A-6.2.2.6.(1)>
NFPA	51-2007	Design and Installation of Oxygen-Fuel Gas Systems for Welding, Cutting, and Allied Processes	A-6.2.2.6.(1)
<NFPA	51A-2012	Acetylene Cylinder Charging Plants	A-6.2.2.6.(1)>
<NFPA	55-2010	Compressed Gases and Cryogenic Fluids Code	A-6.2.2.6.(1)>
NFPA	61-2008	Prevention of Fires and Dust Explosions in Agricultural and Food Processing Facilities	A-6.2.2.6.(1)

Table A-1.3.1.2.(1)
Documents Referenced in Appendices A, B and C of Book I (General) of the British Columbia Building Code 2012
Forming part of Appendix Note A-1.3.1.2.(1)

Issuing Agency	Document Number[1]	Title of Document[2]	Code Reference
NFPA	68-2007	Explosion Protection by Deflagration Venting	A-3.6.2.7.(5) A-6.2.2.6.(1)
NFPA	69-2008	Explosion Prevention Systems	A-3.6.2.7.(5) A-6.2.2.6.(1)
<NFPA	72-2010	National Fire Alarm and Signaling Code	A-3.2.4.22.(2)>
<NFPA	80-2010	Fire Doors and Other Opening Protectives	A-3.1.8.1.(2) A-3.2.8.2.(3)>
<NFPA	80A-2012	Protection of Buildings from Exterior Fire Exposures	A-3>
<NFPA	85-2011	Boiler and Combustion Systems Hazards Code	A-6.2.2.6.(1)>
<NFPA	86-2011	Ovens and Furnaces	A-6.2.2.6.(1)>
<NFPA	88A-2011	Parking Structures	A-6.2.2.6.(1)>
<NFPA	91-2010	Exhaust Systems for Air Conveying of Vapors, Gases, Mists, and Noncombustible Particulate Solids	A-6.2.2.6.(1)>
<NFPA	96-2011	Ventilation Control and Fire Protection of Commercial Cooking Operations	A-3.3.1.2.(2) A-6.2.2.6.(1) A-9.10.1.4.(1)>
<NFPA	101-2012	Life Safety Code	A-3.3.2.1.(2)>
<NFPA	204-2012	Smoke and Heat Venting	A-6.2.2.6.(1)>
<NFPA	303-2011	Marinas and Boatyards	A-6.2.2.6.(1)>
<NFPA	307-2011	Construction and Fire Protection of Marine Terminals, Piers, and Wharves	A-6.2.2.6.(1)>
<NFPA	409-2011	Aircraft Hangars	A-6.2.2.6.(1)>
NFPA	415-2008	Airport Terminal Buildings, Fueling, Ramp Drainage, Loading Walkways	A-6.2.2.6.(1)
<NFPA	484-2012	Combustible Metals	A-6.2.2.6.(1)>
NFPA	654-2006	Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids	A-6.2.2.6.(1)
<NFPA	655-2012	Prevention of Sulfur Fires and Explosions	A-6.2.2.6.(1)>
<NFPA	664-2012	Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities	A-6.2.2.6.(1)>
NFPA	1142-2007	Standard on Water Supplies for Suburban and Rural Fire Fighting	A-3.2.5.7.(1)
<NFPA	1710-2010	Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments	A-3.2.3.1.(8)>
<NLGA	2010	Standard Grading Rules for Canadian Lumber	A-9.3.2.1.(1) A-9.3.2.8.(1) A-9.23.10.4.(1)>
<NLGA	SPS-1-2011	Fingerjoined Structural Lumber	Table A-9.10.3.1.A A-9.23.10.4.(1)>

Table A-1.3.1.2.(1)
Documents Referenced in Appendices A, B and C of Book I (General) of the British Columbia Building Code 2012
Forming part of Appendix Note A-1.3.1.2.(1)

Issuing Agency	Document Number[1]	Title of Document[2]	Code Reference
<NLGA	SPS-3-2011	Fingerjoined 'Vertical Stud Use Only' Lumber	Table A-9.10.3.1.A A-9.23.10.4.(1)>
NRCA	2005	The NRCA Waterproofing Manual	A-5.6.2.1.
<NRCA	2011	The NRCA Roofing Manual: Membrane Roof Systems	A-5.6.2.1.>
NRC-IRC	CBD 222	Airtight Houses and Carbon Monoxide Poisoning	A-9.33.1.1.(2)
NRC-IRC	CBD 230	Applying Building Codes to Existing Buildings	A-1.1.1.2.(1)[3]
NRC-IRC	CBD 231	Moisture Problems in Houses	A-9.25.3.1.(1)
NRC-IRC	1988	Performance and Acceptability of Wood Floors – Forintek Studies	A-9.23.4.2.(2)
NYCDOHMH	2008	Guidelines on Assessment and Remediation of Fungi in Indoor Environments	A-5.5.1.1.
OMMAH	2006	2006 Building Code Compendium, Volume 2, Supplementary Standard SB-7, Guards for Housing and Small Buildings	A-9.8.8.2.
<SMACNA	ANSI/SMACNA 006-2006	HVAC Duct Construction Standards – Metal and Flexible	A-9.36.3.2.(2)>
<SMACNA	7th Edition	Architectural Sheet Metal Manual	A-5.6.2.1.>
TC	SOR/2008-34	Transportation of Dangerous Goods Regulations (TDGR)	A-3.3.1.2.(1)
TWC	1993	Details of Air Barrier Systems for Houses	Table A-9.25.5.1.(1)
TWC	1995	High-Rise Residential Construction Guide	A-5.6.2.1.
ULC	CAN/ULC-S101-07	Fire Endurance Tests of Building Construction and Materials	A-3.1.5.12.(2)(e) A-9.10.3.1.B B-3.2.6.5.(6)(b)
ULC	CAN/ULC-S112-M90	Fire Test of Fire-Damper Assemblies	Table B-3.2.6.6.(1)C
ULC	CAN/ULC-S113-07	Wood Core Doors Meeting the Performance Required by CAN/ULC-S104 for Twenty Minute Fire Rated Closure Assemblies	A-9.10.9.3.(2) A-9.10.13.2.(1)
ULC	CAN/ULC-S124-06	Test for the Evaluation of Protective Coverings for Foamed Plastic	A-3.1.5.12.(2)(e)
ULC	ULC-S332-93	Burglary Resisting Glazing Material	A-9.7.5.2.(1)
ULC	CAN/ULC-S524-06	Installation of Fire Alarm Systems	A-3.2.4.19.(8) A-3.2.4.21.(7)
ULC	CAN/ULC-S526-07	Visible Signal Devices for Fire Alarm Systems, Including Accessories	A-3.2.4.20.(2)
ULC	CAN/ULC-S572-10	Photoluminescent and Self-Luminous Signs and Path Marking Systems	A-3.4.5.1.(4)
<ULC	CAN/ULC-S701-11	Thermal Insulation, Polystyrene, Boards and Pipe Covering	Table A-9.36.2.4.(1)D.>
<ULC	CAN/ULC-S702-09	Mineral Fibre Thermal Insulation for Buildings	A-5.10.1.1.(1) Table A-9.36.2.4.(1)D.>
<ULC	CAN/ULC-S703-09	Cellulose Fibre Insulation (CFI) for Buildings	Table A-9.36.2.4.(1)D.>
<ULC	CAN/ULC-S704-11	Thermal Insulation, Polyurethane and Polyisocyanurate, Boards, Faced	Table A-9.36.2.4.(1)D.>

Table A-1.3.1.2.(1)
Documents Referenced in Appendices A, B and C of Book I (General) of the British Columbia Building Code 2012
Forming part of Appendix Note A-1.3.1.2.(1)

Issuing Agency	Document Number[1]	Title of Document[2]	Code Reference
<ULC	CAN/ULC-S705.1-01	Thermal Insulation – Spray Applied Rigid Polyurethane Foam, Medium Density – Material - Specification	Table A-9.36.2.4.(1)D.>
<ULC	CAN/ULC-S712.1-10	Thermal Insulation - Light Density, Open Cell Spray Applied Semi-Rigid Polyurethane Foam - Material Specification	A-9.36.2.4.(1)D.>
<ULC	CAN/ULC-S741-08	Air Barrier Materials – Specification	A-9.36.2.9.(1)>
<ULC	CAN/ULC-S742-11	Air Barrier Assemblies – Specification	A-9.36.2.9.(1) A-9.36.2.10.(5)(b)>
<ULC	CAN/ULC-S770-09	Determination of Long-Term Thermal Resistance of Closed-Cell Thermal Insulating Foams	Table A-9.36.2.4.(1)D.>
WCLIB	No. 17 (2004)	Standard Grading Rules	A-Table 9.3.2.1.
<WWPA	2011	Western Lumber Grading Rules	A-Table 9.3.2.1.>

Notes to Table A-1.3.1.2.(1):
(1) Some documents may have been reaffirmed or reapproved. Check with the applicable issuing agency for up-to-date information.
(2) Some titles have been abridged to omit superfluous wording.
(3) Code reference is in Division A.

A-3 Application of Part 3 In applying the requirements of this Part, it is intended that they be applied with discretion to buildings of unusual configuration that do not clearly conform to the specific requirements, or to buildings in which processes are carried out which make compliance with particular requirements in this Part impracticable. The definition of "building" as it applies to this Code is general and encompasses most structures, including those which would not normally be considered as buildings in the layman's sense. This occurs more often in industrial uses, particularly those involving manufacturing facilities and equipment that require specialized design that may make it impracticable to follow the specific requirements of this Part. Steel mills, aluminum plants, refining, power generation and liquid storage facilities are examples. A water tank or an oil refinery, for example, has no floor area, so it is obvious that requirements for exits from floor areas would not apply. Requirements for structural fire protection in large steel mills and pulp and paper mills, particularly in certain portions, may not be practicable to achieve in terms of the construction normally used and the operations for which the space is to be used. In other portions of the same building, however, it may be quite reasonable to require that the provisions of this Part be applied (e.g., the office portions). Similarly, areas of industrial occupancy which may be occupied only periodically by service staff, such as equipment penthouses, normally would not need to have the same type of exit facility as floor areas occupied on a continuing basis. It is expected that judgment will be exercised in evaluating the application of a requirement in those cases when extenuating circumstances require special consideration, provided the occupants' safety is not endangered.

The provisions in this Part for fire protection features installed in buildings are intended to provide a minimum acceptable level of public safety. It is intended that all fire protection features of a building, whether required or not, will be designed in conformance with good fire protection engineering practice and will meet the appropriate installation requirements in relevant standards. Good design is necessary to ensure that the level of public safety established by the Code requirements will not be reduced by a voluntary installation.

Firefighting Assumptions

The requirements of this Part are based on the assumption that firefighting capabilities are available in the event of a fire emergency. These firefighting capabilities may take the form of a paid or volunteer public fire department or in some cases a private fire brigade. If these firefighting capabilities are not available, additional fire safety measures may be required.

Firefighting capability can vary from municipality to municipality. Generally, larger municipalities have greater firefighting capability than smaller ones. Similarly, older, well established municipalities may have better firefighting facilities than newly formed or rapidly growing ones. The level of municipal fire protection considered to be adequate will normally depend on both the size of the municipality (i.e., the number of buildings to be protected) and the size of buildings within that municipality. Since larger buildings tend to be located in larger municipalities, they are generally, but not always, favoured with a higher level of municipal protection.

Although it is reasonable to consider that some level of municipal firefighting capability was assumed in developing the fire safety provisions in Part 3, this was not done on a consistent or defined basis. The requirements in the Code, while developed in the light of commonly prevailing municipal fire protection levels, do not attempt to relate the size of building to the level of municipal protection.

The responsibility for controlling the maximum size of building to be permitted in a municipality in relation to local firefighting capability rests with the municipality. If a proposed building is too large, either in terms of floor area or building height, to receive reasonable protection from the municipal fire department, fire protection requirements in addition to those prescribed in this Code, may be necessary to compensate for this deficiency. Automatic sprinkler protection may be one option to be considered.

Alternatively, the municipality may, in light of its firefighting capability, elect to introduce zoning restrictions to ensure that the maximum building size is related to available municipal fire protection facilities. This is, by necessity, a somewhat arbitrary decision and should be made in consultation with the local firefighting service, who should have an appreciation of their capability to fight fires.

The requirements of Subsection 3.2.3. are intended to prevent fire spread from thermal radiation assuming there is adequate firefighting available. It has been found that periods of from 10 to 30 minutes usually elapse between the outbreak of fire in a building that is not protected with an automatic sprinkler system and the attainment of high radiation levels. During this period, the specified spatial separations should prove adequate to inhibit ignition of an exposed building face or the interior of an adjacent building by radiation. Subsequently, however, reduction of the fire intensity by firefighting and the protective wetting of the exposed building face will often be necessary as supplementary measures to inhibit fire spread.

In the case of a building that is sprinklered throughout, the automatic sprinkler system should control the fire to an extent that radiation to neighbouring buildings should be minimal. Although there will be some radiation effect on a sprinklered building from a fire in a neighbouring building, the internal sprinkler system should control any fires that might be ignited in the building and thereby minimize the possibility of the fire spreading into the exposed building. NFPA 80A, "Protection of Buildings from Exterior Fire Exposures," provides additional information on the possibility of fire spread at building exteriors.

The water supply requirements for fire protection installations depend on the requirements of any automatic sprinkler installations and also on the number of fire streams that may be needed at any fire, having regard to the length of time the streams will have to be used. Both these factors are largely influenced by the conditions at the building to be equipped, and the quantity and pressure of water needed for the protection of both the interior and exterior of the building must be ascertained before the water supply is decided upon. Acceptable water supplies may be a public waterworks system that has adequate pressure and discharge capacity, automatic fire pumps, pressure tanks, manually controlled fire pumps in combination with pressure tanks, gravity tanks, and manually controlled fire pumps operated by remote control devices at each hose station.

A-3.1.2. Use Classification The purpose of classification is to determine which requirements apply. This Code requires classification in accordance with every major occupancy for which the building is used or intended to be used. Where necessary, an application clause has been inserted in this Part to explain how to choose between the alternative requirements which multiple occupancy classification may present.

A-3.1.2.1.(1) Major Occupancy Classification The following are examples of the major occupancy classifications described in Table 3.1.2.1.

Group A, Division 1

Motion picture theatres
Opera houses
Television studios admitting a viewing audience
Theatres, including experimental theatres

Group A, Division 2

Art galleries
Auditoria
Bowling alleys
Churches and similar places of worship
Clubs, nonresidential
Community halls
Courtrooms
Dance halls
<Daycare facilities for children>
Exhibition halls (other than classified in Group E)

Division B - Appendix A - Appnote A-3.1.2.8.
Amended by: Reg 175/2014
Effective: 2014-12-19
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<A-3.1.2.8. Daycare Facilities for Children A daycare facility for children is typically occupied for a period of less than 24 hours each day (i.e., is not a residential facility). The term "daycare" is not meant to exclude facilities that provide short term care during the night for a period of less than 24 hours each day. (See also A-3.3.2.16.)**>**

Division B - Appendix A - Appnote A-3.1.9.1.(1)(b) and (1)(c)
Amended by: Reg 162/2013
Effective: 2013-04-03
Revision: 2
Page: 571

<A-3.1.9.1.(1)(b) Cast in Place Penetration The intention behind the term “cast in place” is to reinforce that there are to be no gaps between the building service or penetrating item and the membrane or assembly it penetrates. The term “cast in place” describes a typical means of fire stopping for a service penetration through a concrete slab or wall.**>**

<A-3.1.9.1.(1)(c) Tightly Fitted Penetrations The intention behind the term “tightly fitted” is to reinforce that there are to be no substantial gaps between the building service or penetrating item and the membrane or assembly it penetrates.**>**

Division B - Appendix A - Appnote A-3.2.5.7.(1)
Amended by: Reg 140/2014
Effective: 2014-12-19
Revision: 6
Page: 583

A-3.2.5.7.(1) Water Supply The intent of Sentence 3.2.5.7.(1) is that an adequate water supply for firefighting be readily available and of sufficient volume and pressure to enable emergency response personnel to control fire growth so as to enable the safe evacuation of occupants and the conduct of search and rescue operations, prevent the fire from spreading to adjacent buildings, and provide a limited measure of property protection.

The water supply requirements for buildings containing internal fire suppression systems, including sprinkler systems and standpipe systems, are contained in specific standards referenced in the Code. Compliance with the referenced standard, including any variations made by this Code, <is deemed to satisfy the intent of Sentence 3.2.5.7.(1)>. However, it will be necessary to verify that an adequate source of water is available at the building site to meet the required quantities and pressures.

For a building with no internal fire suppression system, the determination of the minimum requirements applicable to the water supply for firefighting is relevant mainly to building sites not serviced by municipal water supply systems. For building sites serviced by municipal water supply systems, where the water supply duration is not a concern, water supply flow rates at minimum pressures is the main focus of this provision. However, where municipal water supply capacities are limited, it may be necessary for buildings to have supplemental water supplies on site or readily available.

The sources of water supply for firefighting purposes may be natural or developed. Natural sources may include ponds, lakes, rivers, streams, bays, creeks, and springs. Developed sources may include aboveground tanks, elevated gravity tanks, cisterns, swimming pools, wells, reservoirs, aqueducts, artesian wells, tankers, hydrants served by a public or private water system, and canals. Consideration should be given to ensuring that water sources will be accessible to fire department equipment under all climatic conditions.

The volume of on-site water supply is dependent on the building size, construction, occupancy, exposure and environmental impact potential, and should be sufficient to allow at least 30 minutes of fire department hose stream use.

For the purposes of calculating adequate water supply requirements for fire fighting the following documents may be useful:

- Insurance Services Office (ISO), “Needed Fire Flow Guide”
- <NFPA 1142, “Standard on Water Supplies for Suburban and Rural Fire Fighting,”> and
- American Water Works Association “Distribution Requirements for Fire Protection.”

Division B - Appendix A - Appnote A-3.3.2.16.
Amended by: Reg 175/2014
Effective: 2014-12-19
Revision: 7
Page: 588

<A-3.3.2.16. Daycare Facilities with Children under 30 Months These daycare facilities are subject to additional requirements to address the unique profile of the occupants. (See also A-3.1.2.8.)**>**

Division B - Appendix A - Appnote A-3.4.5.1.(2)(c)
Amended by: Reg 140/2014
Effective: 2014-12-19
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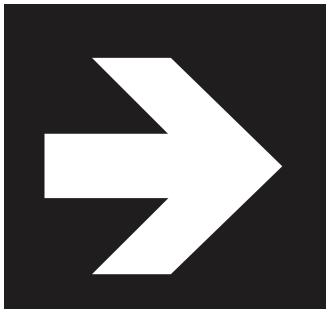
Page: 591

A-3.4.5.1.(2)(c) Graphical Symbols for Exit Signs ISO 7010, "Graphical symbols – Safety colours and safety signs – Safety signs used in workplaces and public areas," identifies the following internationally recognized symbols for use at required exits.

GG00175A

Figure A-3.4.5.1.(2)(c)-A
<"E001 Emergency exit (left hand)" symbol from ISO 7010>



GG00174A

Figure A-3.4.5.1.(2)(c)-B
<"E005 Direction, arrow (90° increments), safe condition" symbol from ISO 7010>

Division B - Appendix A - Appnote A-3.4.5.1.(3) and (4)
Amended by: Reg 140/2014
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<A-3.4.5.1.(3) Internally Illuminated Signs Photoluminescent signs are not internally illuminated and therefore must conform to Sentence 3.4.5.1.(4).**>**

<A-3.4.5.1.(4) Externally Illuminated Signs An external lighting source is required to properly charge photoluminescent signs. In addition to being continuously illuminated as required by Sentence 3.4.5.1.(4), these types of signs must also be lit in conformance with the charging requirements stated in CAN/ULC-S572.**>**

Division B - Appendix A - Appnote A-3.8.1.1., A-3.8.1.2., A-3.8.1.4.(1) and A-3.8.2.1.
Amended by: Reg 162/2013
Effective: 2013-04-03
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Page: 594

<A-3.8.1.1. BC Deleted>

<A-3.8.1.2. BC Deleted>

<A-3.8.1.4.(1) BC Deleted>

<A-3.8.2.1. BC Deleted>

Division B - Appendix A - Appnote A-3.8.2.2.
Amended by: Reg 162/2013
Effective: 2013-04-03
Revision: 2
Page: 595

<A-3.8.2.2. BC Deleted>

Division B - Appendix A - Appnote A-3.8.2.2.(1), A-3.8.3.1.(1) to (3) and A-3.8.3.1.(4)
Amended by: Reg 162/2013
Effective: 2013-04-03
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Page: 596

<A-3.8.2.2.(1) BC Deleted>

<A-3.8.3.1.(1) to (3) BC Deleted>

<A-3.8.3.1.(4) BC Deleted>

Division B - Appendix A - Appnote A-3.8.3.3.(1) and A-3.8.3.3.(2)
Amended by: Reg 162/2013
Effective: 2013-04-03
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Page: 597

<A-3.8.3.3.(1) BC Deleted>

<A-3.8.3.3.(2) BC Deleted>

Division B - Appendix A - Appnote A-3.8.3.3.(3), A-3.8.3.3.(8), A-3.8.3.3.(9), A-3.8.3.3.(10) and A-3.8.3.4.(1)(b)
Amended by: Reg 162/2013
Effective: 2013-04-03
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Page: 598

<A-3.8.3.3.(3) BC Deleted>

<A-3.8.3.3.(8) BC Deleted>

<A-3.8.3.3.(9) BC Deleted>

<A-3.8.3.3.(10) BC Deleted>

<A-3.8.3.4.(1)(b) BC Deleted>

Division B - Appendix A - Appnote A-3.8.3.4.(1)(c)
Amended by: Reg 162/2013
Effective: 2013-04-03
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Page: 599

A-3.8.3.4.(1)(c) BC Deleted>

Division B - Appendix A - Appnote A-3.8.3.7.
Amended by: Reg 162/2013
Effective: 2013-04-03
Revision: 2
Page: 599-600

<A-3.8.3.7. BC Deleted>

Division B - Appendix A - Appnote A-3.8.3.8.(1)(b)(iii) and A-3.8.3.8.(1)(b)(iv)
Amended by: Reg 162/2013
Effective: 2013-04-03
Revision: 2
Page: 601

<A-3.8.3.8.(1)(b)(iii) BC Deleted

A-3.8.3.8.(1)(b)(iv) BC Deleted>

Division B - Appendix A - Appnote A-3.8.3.8.(1)(d)(i), A-3.8.3.9.(1) and A-3.8.3.11.(1)(d)
Amended by: Reg 162/2013
Effective: 2013-04-03
Revision: 2
Page: 602

<A-3.8.3.8.(1)(d)(i) BC Deleted

A-3.8.3.9.(1) BC Deleted>

<A-3.8.3.11.(1)(d) BC Deleted>

Division B - Appendix A - Appnote A-3.8.3.12.
Amended by: Reg 162/2013
Effective: 2013-04-03
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Page: 603

<A-3.8.3.12. BC Deleted>

Division B - Appendix A - Appnotes A-3.8.3.13.(1)(b), A-3.8.3.13.(1)(f), A-3.8.3.14.(1)
Amended by: Reg 162/2013
Effective: 2013-04-03
Revision: 2
Page: 604

<A-3.8.3.13.(1)(b) BC Deleted>

<A-3.8.3.13.(1)(f) BC Deleted>

<A-3.8.3.14.(1) BC Deleted>

Division B - Appendix A - Appnote A-4.1.5.8.
Amended by: Reg 175/2014
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A-4.1.5.8. Tributary Area Information on tributary area can be found in the Commentary <entitled Live Loads> in the User's Guide – NBC 2010, Structural Commentaries (Part 4 of Division B).>

Division B - Appendix A - Appnote A-6.2.2.6.(1)
Amended by: Reg 175/2014
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A-6.2.2.6.(1) NFPA Publications Pertaining to the Heating, Ventilating and Air-Conditioning of Spaces Containing Hazardous Gases, Dusts or Liquids

NFPA 30, "Flammable and Combustible Liquids Code"

NFPA 30A, "Motor Fuel Dispensing Facilities and Repair Garages"

NFPA 32, "Drycleaning Plants"

NFPA 33, "Spray Application Using Flammable or Combustible Materials"

NFPA 34, "Dipping and Coating Processes Using Flammable or Combustible Liquids"

NFPA 35, "Manufacture of Organic Coatings"

NFPA 36, "Solvent Extraction Plants"

NFPA 40, "Storage and Handling of Cellulose Nitrate Film"

NFPA 51, "Design and Installation of Oxygen-Fuel Gas Systems for Welding, Cutting, and Allied Processes"

NFPA 51A, "Acetylene Cylinder Charging Plants"

<NFPA 55, "Compressed Gases and Cryogenic Fluids Code">

NFPA 61, "Prevention of Fires and Dust Explosions in Agricultural and Food Processing Facilities"

NFPA 68, "Explosion Protection by Deflagration Venting"

NFPA 69, "Explosion Prevention Systems"

NFPA 85, "Boiler and Combustion Systems Hazards Code"

NFPA 86, "Ovens and Furnaces"

NFPA 88A, "Parking Structures"

NFPA 91, "Exhaust Systems for Air Conveying of Vapors, Gases, Mists, and Noncombustible Particulate Solids"

NFPA 96, "Ventilation Control and Fire Protection of Commercial Cooking Operations"

NFPA 204, "Smoke and Heat Venting"

NFPA 303, "Marinas and Boatyards"

NFPA 307, "Construction and Fire Protection of Marine Terminals, Piers, and Wharves"

NFPA 409, "Aircraft Hangars"

NFPA 415, "Airport Terminal Buildings, Fueling, Ramp Drainage, Loading Walkways"

NFPA 484, "Combustible Metals"

NFPA 654, "Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids"

NFPA 655, "Prevention of Sulfur Fires and Explosions"

NFPA 664, "Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities"

NFPA "Fire Protection Guide to Hazardous Materials"

Division B - Appendix A - Appnote A-9.1.1.1.(1)
Amended by: Reg 175/2014
Effective: 2014-12-19
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A-9.1.1.1.(1) Application of Part 9 to Seasonally and Intermittently Occupied Buildings The British Columbia Building Code does not provide separate requirements which would apply to seasonally or intermittently occupied buildings. Without compromising the basic health and safety provisions, however, various requirements in Part 9 recognize that leniency may be appropriate in some circumstances. With greater use of "cottages" through the winter months, the proliferation of seasonally occupied multiple-dwelling buildings and the increasing installation of modern conveniences in these buildings, the number and extent of possible exceptions is reduced.

<Energy Efficiency

Clause 9.36.1.3.(5)(b) exempts seasonally occupied residential buildings such as summer cottages from the requirements of Section 9.36. Cottages intended for continuous or regular winter use such as ski cabins are required to conform to Section 9.36.

Thermal Insulation

Article 9.25.2.1. specifies that insulation is to be installed in walls, ceilings and floors that separate heated space from unheated space. Cottages intended for use only in the summer and which, therefore, have no space heating appliances, would not be required to be insulated. Should a heating system be installed at some later date, insulation should also be installed at that time in accordance with Article 9.25.1.1. and the insulation tables in Section 9.36. However, if the building were not intended for continuous or regular winter use, it may still be exempted from the remainder of the energy efficiency requirements in Section 9.36.

Air Barrier Systems and Vapour Barriers

Articles 9.25.3.1. and 9.25.4.1. require the installation of air barrier systems and vapour barriers only where insulation is installed. Dwellings with no heating system would thus be exempt from these requirements. In some cases, seasonally occupied buildings that are conditioned may be required to conform to the air and vapour barrier requirements of Section 9.25, but not to the air barrier and other requirements of Section 9.36.**>**

Interior Wall and Ceiling Finishes

The choice of interior wall and ceiling finishes has implications for fire safety. Where a dwelling is a detached building, there are no fire resistance requirements for the walls or ceilings within the dwelling. The exposed surfaces of walls and ceilings are required to have a flame-spread rating not greater than 150 (Subsection 9.10.17.). There is, therefore, considerable flexibility, even in continuously occupied dwellings, with respect to the materials used to finish these walls. Except where waterproof finishes are required (Subsection 9.29.2.), ceilings and walls may be left unfinished. Where two units adjoin, however, additional fire resistance requirements may apply to interior loadbearing walls, floors and the shared wall (Article 9.10.8.3., and Subsections 9.10.9. and 9.10.11.).

Plumbing and Electrical Facilities

Plumbing fixtures are required only where a piped water supply is available (Subsection 9.31.4.), and electrical facilities only where electrical services are available (Article 9.34.1.2.).

Division B - Appendix A - Appnote A-9.3.2.1.(1)
Amended by: Reg 175/2014
Effective: 2014-12-19
Revision: 7
Page: 623

A-9.3.2.1.(1) Grade Marking of Lumber Lumber is generally grouped for marketing into the species combinations contained in Table A-9.3.2.1.(1)A. The maximum allowable spans for those combinations are listed in the span tables for joists, rafters and beams. Some species of lumber are also marketed individually. Since the allowable span for the northern species combination is based on the weakest species in the combination, the use of the span for this combination is permitted for any individual species not included in the Spruce-Pine-Fir, Douglas Fir-Larch and Hemlock-Fir combinations.

Facsimiles of typical grade marks of lumber associations and grading agencies accredited by the Canadian Lumber Standards (CLS) Accreditation Board to grade mark lumber in Canada are shown in Table A-9.3.2.1.(1)B. Accreditation by the CLS Accreditation Board applies to the inspection, grading and grade marking of lumber, including mill supervisory service, in accordance with CSA O141, "Softwood Lumber."

The grade mark of a CLS accredited agency on a piece of lumber indicates its assigned grade, species or species combination, moisture condition at the time of surfacing, the responsible grader or mill of origin and the CLS accredited agency under whose supervision the grading and marking was done.

Table A-9.3.2.1.(1)A
Species Designations and Abbreviations
Forming part of Appendix Note A-9.3.2.1.(1)

Commercial Designation of Species or Species Combination	Abbreviation Permitted on Grade Stamps	Species Included
Douglas Fir – Larch	D Fir – L (N)	Douglas Fir, Western Larch
Hemlock – Fir	Hem – Fir (N)	Western Hemlock, Amabilis Fir
Spruce – Pine – Fir	S – P – F or Spruce – Pine – Fir	White Spruce, Engelmann Spruce, Black Spruce, Red Spruce, Lodgepole Pine, Jack Pine, Alpine Fir, Balsam Fir
Northern Species	North Species	Any Canadian softwood covered by <NLGA 2010, "Standard Grading Rules for Canadian Lumber">

Canadian lumber is graded to the <NLGA 2010, "Standard Grading Rules for Canadian Lumber,"> published by the National Lumber Grades Authority. The NLGA rules specify standard grade names and grade name abbreviations for use in grade marks to provide positive identification of lumber grades. In a similar fashion, standard species names or standard species abbreviations, symbols or marks are provided in the rules for use in grade marks.

Grade marks denote the moisture content of lumber at the time of surfacing. "S-Dry" in the mark indicates the lumber was surfaced at a moisture content not exceeding 19%. "MC 15" indicates a moisture content not exceeding 15%. "S-GRN" in the grade mark signifies that the lumber was surfaced at a moisture content higher than 19% at a size to allow for natural shrinkage during seasoning.

Each mill or grader is assigned a permanent number. The point of origin of lumber is identified in the grade mark by use of a mill or grader number or by the mill name or abbreviation. The CLS certified agency under whose supervision the lumber was grade marked is identified in the mark by the registered symbol of the agency.

Table A-9.3.2.1.(1)B
Facsimiles of Grade Marks Used by Canadian Lumber Manufacturing Associations and Agencies Authorized to Grade Mark Lumber in Canada
Forming part of Appendix Note A-9.3.2.1.(1)

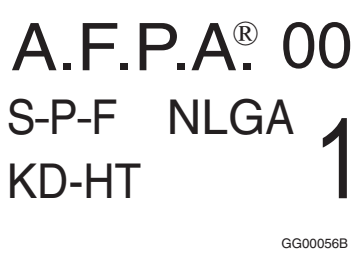
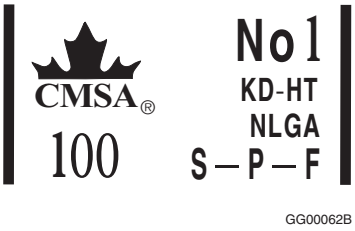
Facsimiles of Grade Mark	Association or Agency
	Alberta Forest Products Association 500–10709 Jasper Avenue Edmonton, Alberta T5J 3N3 www.albertaforestproducts.ca
	Canadian Mill Services Association #200, 601–6th Street New Westminster, British Columbia V3L 3C1 www.canserve.org
	Canadian Softwood Inspection Agency Inc. 1047–250A Street Aldergrove, British Columbia V4W 2S8
	Central Forest Products Association Inc. c/o Reimer & Co., Chartered Accountants PO Box 146 Swan River, Manitoba R0L 1Z0

Table A-9.3.2.1.(1)B
Facsimiles of Grade Marks Used by Canadian Lumber Manufacturing Associations and Agencies Authorized to Grade Mark Lumber in Canada
Forming part of Appendix Note A-9.3.2.1.(1)

Facsimiles of Grade Mark	Association or Agency
COFI® KD-HT 91 1 NLGA S-P-F ILMA® KD-HT 25 1 NLGA D FIR - L(N) GG00057B	Council of Forest Industries Southern Region: 360–1855 Kirschner Road Kelowna, British Columbia V1Y 4N7 Northern Region: 400–1488 Fourth Avenue Prince George, British Columbia V2L 4Y2 www.cofi.org
5 ® No. 2 KD-HT S-P-F NLGA GG00064B	Macdonald Inspection Services Ltd. 842 Eland Drive Campbell River, British Columbia V9W 6Y8 www.gradestamp.com
M L® B | S-P-F No.1 KD-HT 99 NLGA GG00065B	Maritime Lumber Bureau PO Box 459 Amherst, Nova Scotia B4H 4A1 www.mlb.ca
N L P A® | NLGA S-P-F NO.1 000 KD HT GG00066B	Newfoundland & Labrador Lumber Producers Association PO Box 8 Glovertown, Newfoundland A0G 2L0 www3.nf.sympatico.ca/nllpa

Table A-9.3.2.1.(1)B
Facsimiles of Grade Marks Used by Canadian Lumber Manufacturing Associations and Agencies Authorized to Grade Mark Lumber in Canada
Forming part of Appendix Note A-9.3.2.1.(1)

Facsimiles of Grade Mark	Association or Agency
10 CONST S-P-F S-GRN NLGA GG00067B	Northwest Territories Forest Industries Association PO Box 220 Fort Smith, Northwest Territories X0E 0P0
CL®A 100 1 NLGA S-P-F KD-HT GG00059B	Ontario Forest Industries Association (Home of CLA Grading and Inspection) 20 Toronto StreetSuite 950 Toronto, Ontario M5C 2B8 www.ofia.com
O.L.M.A.® 09 1 KD-HT NLGA S—P—F GG00068B	Ontario Lumber Manufacturers' Association PO Box 97530 Toronto, Ontario M1C 4Z1 www.olma.ca
PLIB® NO. 1 KD - HT S-P-F 00 NLGA RULES GG00069B	Pacific Lumber Inspection Bureau 1010 S. 336th Street Suite 300 Federal Way, Washington 98003 USA British Columbia Division: PO Box 19118 Fourth Avenue Postal Outlet Vancouver, British Columbia V6K 4R8 www.plib.org
® S-P-F KD-HT 1 477 NLGA GG00070B	Quebec Forest Industry Council (Conseil de l'industrie forestière du Québec) 1175, avenue Lavigerie Bureau 200 Sainte-Foy (Québec) G1V 4P1 www.qfic.gc.ca

Division B - Appendix A - Appnote A-9.3.2.8.(1)
Amended by: Reg 175/2014
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A-9.3.2.8.(1) Non-Standard Lumber <NLGA 2010, "Standard Grading Rules for Canadian Lumber,"> permits lumber to be dressed to sizes below the standard sizes (38 × 89, 38 × 140, 38 × 184, etc.) provided the grade stamp shows the reduced size. This Sentence permits the use of the span tables for such lumber, provided the size indicated on the stamp is not less than 95% of the corresponding standard size. Allowable spans in the tables must be reduced a full 5% even if the undersize is less than the 5% permitted.

Division B - Appendix A - Appnote A-9.4.2.2.
Amended by: Reg 175/2014
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<A-9.4.2.2.> Application of Simplified Part 9 Snow Loads The simplified specified snow loads described in Article 9.4.2.2. may be used where the structure is of the configuration that is typical of traditional wood-frame residential construction and its performance. This places limits on the spacing of joists, rafters and trusses, the spans of these members and supporting members, deflection under load, overall dimensions of the roof and the configuration of the roof. It assumes considerable redundancy in the structure.

Because very large buildings may be constructed under Part 9 by constructing firewalls to break up the building area, it is possible to have Part 9 buildings with very large roofs. The simplified specified snow loads may not be used when the total roof area of the overall structure exceeds 4 550 m^2. Thus, the simplified specified snow load calculation may be used for typical townhouse construction but would not be appropriate for much larger commercial or industrial buildings, for example.

The simplified specified snow loads are also not designed to take into account roof configurations that seriously exacerbate snow accumulation. This does not pertain to typical projections above a sloped roof, such as dormers, nor does it pertain to buildings with higher and lower roofs. Although two-level roofs generally lead to drift loading, smaller light-frame buildings constructed according to Part 9 have not failed under these loads. Consequently, the simplified calculation may be used in these cases. Rather, this limitation on application of the simplified calculation pertains to roofs with high parapets or significant other projections above the roof, such as elevator penthouses, mechanical rooms or larger equipment that would effectively collect snow and preclude its blowing off the roof.

The reference to Article 9.4.3.1. invokes, for roof assemblies other than common lumber trusses, the same performance criteria for deflection.

Division B - Appendix A - Appnote A-9.7.4.2.(1)
Amended by: Reg 140/2014
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A-9.7.4.2.(1) Standards Referenced for Windows, Doors and Skylights

Canadian Requirements in the Harmonized Standard

In addition to referencing the Canadian Supplement, CSA A440S1, "Canadian Supplement to AAMA/WDMA/CSA 101/I.S.2/A440, NAFS – North American Fenestration Standard/Specification for Windows, Doors, and Skylights," the Harmonized Standard, AAMA/WDMA/CSA 101/I.S.2/A440, "NAFS – North American Fenestration Standard/Specification for Windows, Doors, and Skylights," contains some Canada-specific test criteria.

Standards Referenced for Excluded Products

Clause 1.1, General, of the Harmonized Standard defines the limits to the application of the standard with respect to various types of fenestration products. A list of exceptions to the application statement identifies a number of standards that apply to excluded products. Compliance with those standards is not required by the Code; the references are provided for information purposes only.

Label Indicating Performance and Compliance with Standard

The Canadian Supplement requires that a product's performance ratings be indicated on a label according to the designation requirements in the Harmonized Standard and that the label include

- design pressure, where applicable,
- negative design pressure, where applicable,
- water penetration test pressure, and
- the Canadian air infiltration and exfiltration levels.

It should be noted that, for a product to carry a label in Canada, it must meet all of the applicable requirements of both the Harmonized Standard and the Canadian Supplement, including the forced entry requirements.

Water Penetration Resistance

For the various performance grades listed in the Harmonized Standard, the corresponding water penetration resistance test pressures are a percentage of the design pressure. For R-class products, water penetration resistance test pressures are 15% of design pressure. In Canada, driving rain wind pressures (DRWP) have been determined for the locations listed in Appendix C of the Code.

To achieve equivalent levels of water penetration resistance for all locations, the Canadian Supplement includes a provision for calculating specified DRWP at the building site considering building exposure. Specified DRWP values are, in some cases, greater than 15% of design pressure and, in other cases, less than 15% of design pressure. For a fenestration product to comply with the Code, it must be able to resist the structural and water penetration loads at the building site. Reliance on a percentage of design pressure for water penetration resistance in the selection of an acceptable fenestration product will not always be adequate. Design pressure values are reported on a secondary designator, which is required by the Canadian Supplement to be affixed to the window. **<**The DRWP given in the Canadian Supplement must be used for all products covered in the scope of the Harmonized Standard, as required by Sentence 1.1.3.1.(3).**>**

Uniform Load Structural Test

The Harmonized Standard specifies that fenestration products be tested at 150% of design pressure for wind (specified wind load) and that skylights and roof windows be tested at 200% of design pressure for snow (specified snow load). With the change in the NBC 2005 to a 1-in-50 return period for wind load, a factor of 1.4 rather than 1.5 is now applied for wind. The NBC has traditionally applied a factor of 1.5 rather than 2.0 for snow. Incorporating these lower load factors into the Code requirements for fenestration would better reflect acceptable minimum performance levels; however, this has not been done in order to avoid adding complexity to the Code, to recognize the benefits of Canada-US harmonization, and to recognize that differentiation of products that meet the Canadian versus the US requirements would add complexity for manufacturers, designers, specifiers and regulatory officials.

Condensation Resistance

The Harmonized Standard identifies three test procedures that can be used to determine the condensation resistance of windows and doors. Only the physical test procedure given in CSA A440.2, which is referenced in Table 9.7.3.3., can be used to establish Temperature Index (I) values. Computer simulation tools can also be used to estimate the relative condensation resistance of windows, but these methods employ different expressions of performance known as Condensation Resistance Factors (CR). I and CR values are not interchangeable.

Where removable multiple glazing panels (RMGP) are installed on the inside of a window, care should be taken to hermetically seal the RMGP against the leakage of moisture-laden air from the interior into the cavity on the exterior of the RMGP because the moisture transported by the air could lead to significant condensation on the interior surface of the outside glazing.

Basement Windows

Clause 8.4.2, Basement Windows, of the Harmonized Standard refers to products that are intended to meet Code requirements for ventilation and emergency egress. The minimum test size of 800 mm x 360 mm (total area of 0.288 m^2) specified in the standard will not provide the minimum openable area required by the Code for bedrooms (i.e. 0.35 m^2 with no dimension less than 380 mm) and the means to provide minimum open area identified in the standard is inconsistent with the requirements of the Code (see Subsection 9.9.10. for bedroom windows). The minimum test size specified in the standard will also not provide the minimum ventilation area of 0.28 m^2 required for non-heating-season natural ventilation (see Article 9.32.2.2.).

Greenhouse Windows

Greenhouse-type windows feature a sloped, roof-like top portion, which is subjected to the same snow loads as roofs. The Canadian Supplement only applies the snow load calculation to skylights, which do not include greenhouse windows according to the definition for skylights given in the Canadian Supplement and the Harmonized Standard. Where such windows are used, it is recommended that snow loads on the top portion of the window be taken into account.>

Division B - Appendix A - Figure A-9.8.8.6.(2)-B
Amended by: Reg 140/2014
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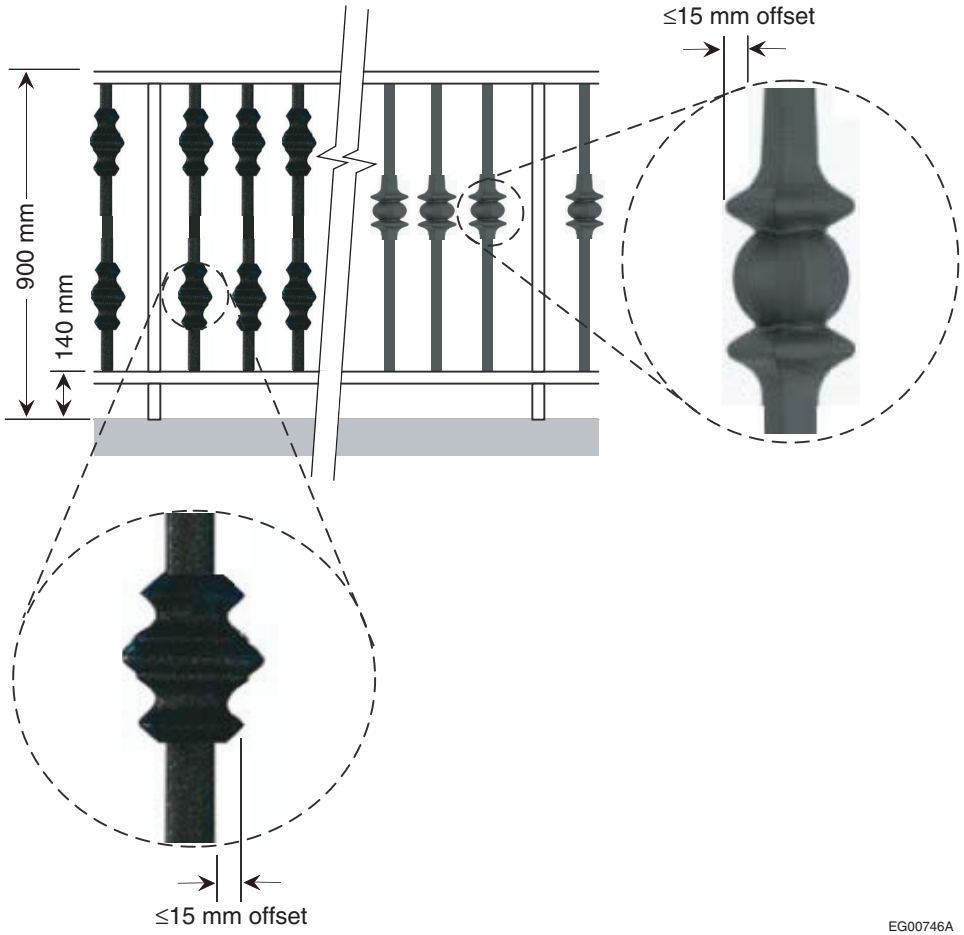

Figure A-9.8.8.6.(2)-B
Examples of maximum horizontal offset of protrusions in guards as described in Clause 9.8.8.6.(2)(b)

Division B - Appendix A - Appnote A-9.10.3.1.
Amended by: Reg 175/2014
Effective: 2014-12-19
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Notes to Table A-9.10.3.1.B:

(12) <Except where assemblies with wood I-joists are tested according to CAN/ULC-S101, "Fire Endurance Tests of Building Construction and Materials," the fire-resistance rating values apply only to I-joists that have been fabricated with a phenolic-based structural wood adhesive complying with CSA O112.10, "Evaluation of Adhesives for Structural Wood Products (Limited Moisture Exposure)." For I-joists with flanges made of laminated veneer lumber (LVL), the fire-resistance rating values apply only where the adhesive used in the LVL fabrication is a phenolic-based structural wood adhesive complying with CSA O112.9, "Evaluation of Adhesives for Structural Wood Products (Exterior Exposure).">

Division B - Appendix A - Figure A-9.10.15.4.(2)-C
Amended by: Reg 140/2014
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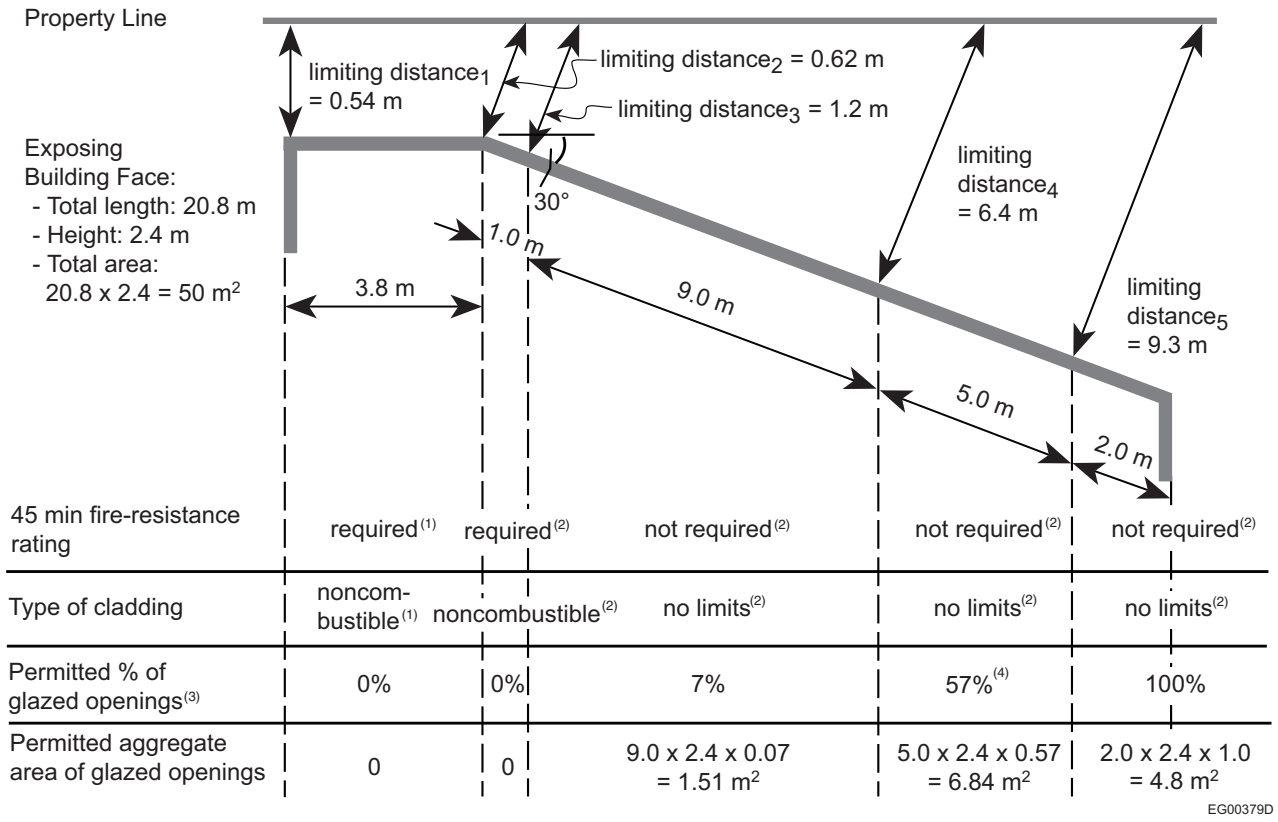

Figure A-9.10.15.4.(2)-C
Example of determination of criteria for the exposing building face of a skewed wall of a house with a different arbitrary division of the wall

Notes to A-9.10.15.4.(2)-C:

(1) See Sentence 9.10.15.5.(2).
(2) See Sentence 9.10.15.5.(3).
(3) See Table 9.10.15.4.
(4) To simplify the calculations, choose the column for the lesser limiting distance nearest to the actual limiting distance. Interpolation for limiting distance is also acceptable and may result in a slightly larger permitted area of glazed openings. Interpolation can only be used for limiting distances greater than 1.2 m.

Division B - Appendix A - Appnote A-9.10.22.
Amended by: Reg 140/2014
Effective: 2014-12-19
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A-9.10.22. Clearances from Gas, Propane and Electric Cooktops <The British Columbia Electrical Safety Regulation,> and <the British Columbia Gas Safety Regulation,> referenced in Article 9.10.22.1., address clearances directly above, in front of, behind and beside the appliance. Where side clearances are zero, the standards do not address clearances to building elements located both above the level of the <cooktop elements or burners> and to the side of the appliance. Through reference to <the Electrical Safety Regulation and the Gas Safety Regulation> and the requirements in Articles 9.10.22.2. and 9.10.22.3., the British Columbia Building Code (BCBC) addresses all clearances. Where clearances are addressed by the BCBC and <the Electrical Safety Regulation or the Gas Safety Regulation,> conformance with all relevant criteria is achieved by compliance with the most stringent criteria.

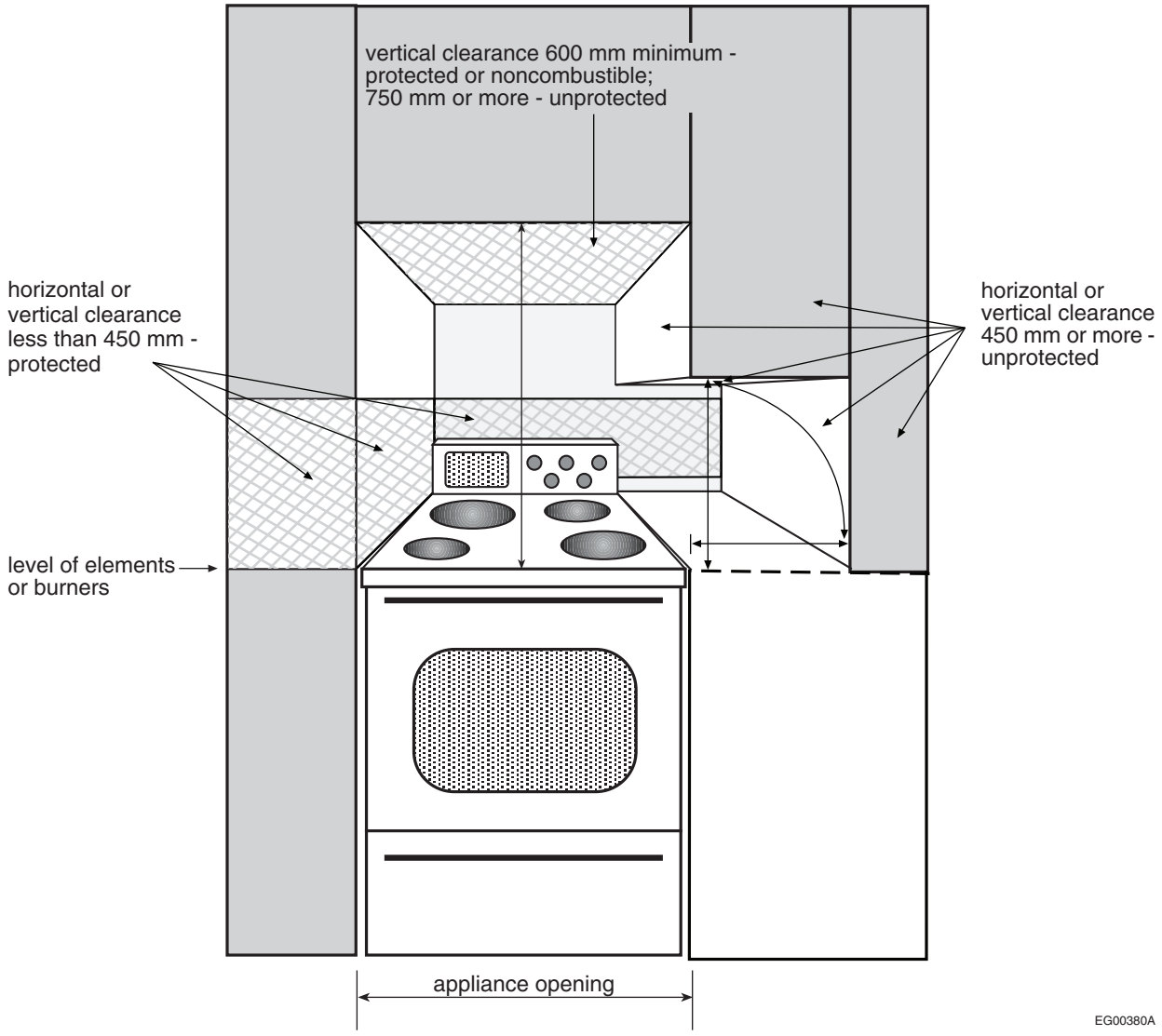

Figure A-9.10.22.
Clearances from <cooktops> to walls and cabinetry

Division B - Appendix A - Appnote A-9.13.4.
Amended by: Reg 175/2014
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A-9.13.4. Soil Gas Control Outdoor air entering a dwelling through above-grade leaks in the building envelope normally improves the indoor air quality in the dwelling by reducing the concentrations of pollutants and water vapour. It is only undesirable because it cannot be controlled. On the other hand, air entering a dwelling through below-grade leaks in the envelope may increase the water vapour content of the indoor air and may also bring in a number of pollutants picked up from the soil. This mixture of air, water vapour and pollutants is sometimes referred to as "soil gas." One pollutant often found in soil gas is radon.

<Sentence 9.13.4.2.(1), which requires the installation of an air barrier system, addresses the protection from all soil gases, while the remainder of Article 9.13.4.2. along with Article 9.13.4.3., which require the provision of the means to depressurize the space between the air barrier **<**system**>** and the ground, specifically address the capability to mitigate high radon concentrations in the future, should this become necessary.**>**

Radon is a colourless, odourless, radioactive gas that occurs naturally as a result of the decay of radium. It is found to varying degrees as a component of soil gas in all regions of Canada and is known to enter dwelling units by infiltration into basements and crawl spaces. The presence of radon in sufficient quantity can lead to an increased risk of lung cancer.

The potential for high levels of radon infiltration is very difficult to evaluate prior to construction and thus a radon problem may only become apparent once the building is completed and occupied. Therefore various sections of Part 9 require the application of certain radon exclusion measures in all dwellings. These measures are

- low in cost,
- difficult to retrofit, and
- desirable for other benefits they provide.

<The principal method of resisting the ingress of all soil gases, a resistance which is required for many buildings (see Sentence 9.13.4.2.(1)), is to seal the interface between the soil and the occupied space, so far as is reasonably practicable. Sections 9.18. and 9.25. contain requirements for air and soil gas barriers in assemblies in contact with ground, including those in crawl spaces. Providing control joints to reduce cracking of foundation walls and airtight covers for sump pits (see Section 9.14.) are other measures that can help achieve this objective. The requirements provided in Subsection 9.25.3. are explained in Appendix Notes A-9.25.3.4. and 9.25.3.6. and A-9.25.3.6.(2) and (3).

The principal method of excluding radon is to ensure that the pressure difference across the ground/space interface is positive (i.e., towards the outside) so that the inward flow of radon through any remaining leaks will be minimized. The requirements provided in Article 9.13.4.3. are explained in Appendix Note A-9.13.4.3.**>**

Division B - Appendix A - Appnote A-9.13.4.3.
Amended by: Reg 175/2014
Effective: 2014-12-19
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A-9.13.4.3.

<Providing Performance Criteria for the Depressurization of the Space Between the Air Barrier System and the Ground

Article 9.13.4.3. contains two sets of requirements: Sentence (2) describes the criteria for subfloor depressurization <systems> using performance-oriented language, while Sentence (3) describes one particular acceptable solution using more prescriptive language.

In some cases, subfloor depressurization requires a solution other than the one described in Sentence (3), for example, where compactable fill is installed under slab-on-grade construction.>

<Completion of a Subfloor Depressurization System

The completion of a subfloor depressurization system may be necessary to reduce the radon concentration to a level below the guideline specified by Health Canada. In this case, to complete the system, the radon vent pipe is mechanically assisted to enable effective depressurization of the space between the air barrier system and the ground. An electrically powered fan is typically installed somewhere along the radon vent pipe.

Further information on protection from radon ingress can be found in the following Health Canada publications:

- "Radon: A Guide for Canadian Homeowners" (CMHC/HC), and
- "Guide for Radon Measurements in Residential Dwellings (Homes)."**>**

Division B - Appendix A - Appnote A-9.13.4.3.(2)(b)(i) and (3)(b)(i)
Amended by: Reg 175/2014
Effective: 2014-12-19
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A-9.13.4.3.(2)(b)(i) and (3)(b)(i) Effective Depressurization To allow effective depressurization of the space between the air barrier <system> and the ground, the extraction opening (the pipe) should not be blocked and should be arranged such that air can be extracted from the entire space between the air barrier <system> and the ground. This will ensure that the extraction system can maintain negative pressure underneath the entire floor (or in heated crawl spaces underneath the air barrier). The arrangement and location of the extraction system inlet(s) may have design implications where the footing layout separates part of the space underneath the floor.

Division B - Appendix A - Appnote A-9.13.4.3.(3)(b)
Amended by: Reg 175/2014
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<A-9.13.4.3.(3)(b) Vent Terminals To prevent soil gases from entering a building through air intakes, windows, and other openings in the building envelope, radon vent pipe terminations should be installed in a similar manner to plumbing vent terminals. (See A-2.5.6.5.(4) in Appendix A of Division B to Book II of the Code.)>

Division B - Appendix A - Appnote A-9.16.2.1.(1)
Amended by: Reg 175/2014
Effective: 2014-12-19
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<A-9.16.2.1.(1) Drainage Layer Beneath Floors-on-Ground A drainage layer required by Sentence 9.16.2.1.(1) shall also be gas-permeable and conform to Article 9.13.4.3. in buildings to which that Article applies.**>**

Division B - Appendix A - Appnote A-9.19.2.1.(1)
Amended by: Reg 140/2014
Effective: 2014-12-19
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<A-9.19.2.1.(1) Access to Attic or Roof Space The term "open space" refers to the space between the insulation and the roof sheathing. Sentence 9.19.2.1.(1) requires the installation of an access hatch where the open space in the attic or roof is large enough to allow visual inspection. Although the dimensions of an uninsulated attic or roof space may meet the size that triggers the requirement for an access hatch to be installed, most of that space will actually be filled with insulation and may therefore not be easily inspected, particularly in smaller buildings or under low-sloped roofs. (See also Article 9.36.2.6.)**>**

Division B - Appendix A - Appnote A-9.23.3.1.(2) and (3)
Amended by: Reg 140/2014
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<A-9.23.3.1.(2) Alternative Nail Sizes Where power nails or nails with smaller diameters than required by Table 9.23.3.4. are used to connect framing, the following equations can be used to determine the required spacing or required number of nails.

The maximum spacing can be reduced using the following equation:

$$S_{adj} = S_{table} \bullet (D_{red}/D_{table})^2$$

where

S_{adj} = adjusted nail spacing ≥ 20 x nail diameter,

S_{table} = nail spacing required by Table 9.23.3.4.,

D_{red} = smaller nail diameter than required by Table 9.23.3.1., and

D_{table} = nail diameter required by Table 9.23.3.1.

The number of nails can be increased using the following equation:

$$N_{adj} = N_{table} \bullet (D_{table}/D_{red})^2$$

where

N_{adj} = adjusted number of nails,

N_{table} = number of nails required by Table 9.23.3.4.,

D_{table} = nail diameter required by Table 9.23.3.1., and

D_{red} = smaller nail diameter than required by Table 9.23.3.1.

Note that nails should be spaced sufficiently far apart—preferably no less than 55 mm apart—to avoid splitting of framing lumber.**>**

<A-9.23.3.1.(3) Standard for Screws The requirement that wood screws conform to ASME B18.6.1, "Wood Screws (Inch Series)," is not intended to preclude the use of Robertson head screws. The requirement is intended to specify the mechanical properties of the fastener, not to restrict the means of driving the fastener.**>**

Division B - Appendix A - Appnote A-Table 9.23.4.3.
Amended by: Reg 175/2014
Effective: 2014-12-19
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A-Table 9.23.4.3. Spans for Steel Beams <The spans provided in Table 9.23.4.3. reflect a balance of engineering and acceptable proven performance.> The spans have been calculated based on the following assumptions:

- simply supported beam spans
- laterally supported top flange
- yield strength 350 MPa
- deflection limit L/360
- <live load: first floor = 1.9 kPa; second floor = 1.4 kPa
- dead load = 1.5 kPa (0.5 kPa floor + 1.0 kPa partition)>

<The calculation used to establish the specified maximum beam spans also applies a revised live load reduction factor to account for the lower probability of a full live load being applied over the supported area in Part 9 buildings.>

Division B - Appendix A - Appnote A-9.23.10.4.(1)
Amended by: Reg 175/2014
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A-9.23.10.4.(1) Fingerjoined Lumber <NLGA 2010, "Standard Grading Rules for Canadian Lumber,"> referenced in Article 9.3.2.1., refers to two special product standards, SPS-1, "Fingerjoined Structural Lumber," and SPS-3, "Fingerjoined 'Vertical Stud Use Only' Lumber," produced by NLGA. Material identified as conforming to these standards is considered to meet the requirements in this Sentence for joining with a structural adhesive. Lumber fingerjoined in accordance with SPS-3 should be used as a vertical end-loaded member in compression only, where sustained bending or tension-loading conditions are not present, and where the moisture content of the wood will not exceed 19%. Fingerjoined lumber may not be visually regraded or remanufactured into a higher stress grade even if the quality of the lumber containing fingerjoints would otherwise warrant such regrading.

Division B - Appendix A - Appnote A-9.27.2.2. and A-9.27.3.1.
Amended by: Reg 162/2013
Effective: 2013-04-03
Revision: 2
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A-9.27.2.2. Required Levels of Protection from Precipitation Precursors to Part 9 and all editions of the NBC containing a Part 9 applying to housing and small buildings included a performance-based provision requiring that cladding provide protection from the weather for inboard materials. Industry requested that Part 9 provide additional guidance to assist in determining the minimum levels of protection from precipitation to be provided by cladding assemblies. As with all requirements in the NBC, the new requirements in Article 9.27.2.2. describe the minimum cladding assembly configuration. Designers must still consider local accepted good practice, demonstrated performance and the specific conditions to which a particular wall will be exposed when designing or selecting a cladding assembly.

Capillary Breaks

The properties that are necessary for a material or assembly to provide a capillary break, and quantitative values for those properties, have not been defined. Among the material properties that need to be addressed are water absorption and susceptibility to moisture-related deterioration. Among the assembly characteristics to be considered are bridging of spaces by water droplets, venting and drainage.

Clause 9.27.2.2.(1)(a) describes the capillary break configuration typical of open rainscreen construction. The minimum <9.5 mm> will avoid bridging of the space by water droplets and allow some construction tolerance.

Clause 9.27.2.2.(1)(b) describes a variation on the typical open rainscreen configuration. Products used to provide the capillary break include a variety of non-moisture-susceptible, open-mesh materials.

Clause 9.27.2.2.(1)(c) describes a configuration that is typical of that provided by horizontal vinyl and metal siding, without contoured insulating backing. The air space behind the cladding components and the loose installation reduce the likelihood of moisture becoming trapped and promote drying by airflow.

Clause 9.27.2.2.(1)(d) recognizes the demonstrated performance of masonry cavity walls and masonry veneer walls.

Moisture Index

The moisture index (MI) for a particular location reflects both the wetting and drying characteristics of the climate and depends on

- annual rainfall, and
- the temperature and relative humidity of the outdoor ambient air. MI values are derived from detailed research and calculations.

Due to a lack of definitive data, the MI values identified in Sentence 9.27.2.2.(5), which trigger exceptions to or additional precipitation protection, are based on expert opinion. Designers should consider local experience and demonstrated performance when selecting materials and assemblies for protection from precipitation. For further information on MI, see Appendix C.

A-9.27.3.1. Second Plane of Protection As specified in Sentence 9.27.3.1.(1), the second plane of protection consists of a drainage plane with an appropriate material serving as the inner boundary and flashing to dissipate rainwater or meltwater to the exterior.

Drainage Plane

Except for masonry walls, the simplest configuration of a drainage plane is merely a vertical interface between materials that will allow gravity to draw the moisture down to the flashing to allow it to dissipate to the exterior. It does not necessarily need to be constructed as a clear drainage space (air space).

For masonry walls, an open rainscreen assembly is required; that is, an assembly with first and second planes of protection where the drainage plane is constructed as a drained and vented air space. Such construction also constitutes best practice for walls other than masonry walls.

Section 9.20. requires drainage spaces of 25 mm for masonry veneer walls and 50 mm for cavity walls. In other than masonry walls, the drainage space in an open rainscreen assembly should be at least <9.5 mm> deep. Drainage holes must be designed in conjunction with the flashing.

Sheathing Membrane

The sheathing membrane described in Article 9.27.3.2. is not a waterproof material. When installed to serve as the inner boundary of the second plane of protection, and when that plane of protection includes a drainage space at least <9.5 mm> deep, the performance of the identified sheathing membrane has been demonstrated to be adequate. This is because the material is expected to have to handle only a very small quantity of water that penetrates the first plane of protection.

If the <9.5 mm> drainage space is reduced or interrupted, the drainage capacity and the capillary break provided by the space will be reduced. In these cases, the material selected to serve as the inner boundary may need to be upgraded to provide greater water resistance in order to protect moisture-susceptible materials in the backing wall.

Appropriate Level of Protection

It is recognized that many cladding assemblies with no space or with discontinuous space behind the cladding, and with the sheathing membrane material identified in Article 9.27.3.2., have provided acceptable performance with a range of precipitation loads imposed on them. Vinyl and metal strip siding, and shake and shingle cladding, for example, are installed with discontinuous drained spaces, and have demonstrated acceptable performance in most conditions. Lapped wood and composite strip sidings, depending on their profiles, may or may not provide discontinuous spaces, and generally provide little drainage. Cladding assemblies with limited drainage capability that use a sheathing membrane meeting the minimum requirements are not recommended where they may be exposed to high precipitation loads or where the level of protection provided by the cladding is unknown or questionable. Local practice with demonstrated performance should be considered. (See also Article 9.27.2.2. and Appendix Note A-9.27.2.2.)

Division B - Appendix A - Appnote A-9.32.3.
Amended by: Reg 175/2014
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<A-9.32.3. Heating-Season (Mechanical) Ventilation While ventilation strategies can have a significant impact on energy performance, ventilation is primarily a health and safety issue. Inadequate ventilation can lead to mold, high concentrations of CO_2, and other indoor air pollutants, which can lead to adverse health outcomes. Previous editions of the British Columbia Building Code relied on ventilation through the building envelope in combination with a principal exhaust fan. However, with the increased attention on the continuity of the air barrier system in buildings, builders can no longer rely on uncontrolled ventilation through the building envelope. In most buildings, mechanical systems will be required to provide adequate ventilation for occupants.

As described in Article 9.32.3.3., every dwelling unit must include a principal ventilation system. A principal ventilation system is the combination of an exhaust fan and a supply fan (or passive supply in some instances: see Sentence 9.32.3.4.(6)).

The principal ventilation system exhaust fan is separate from the requirements for a fan in every bathroom and kitchen. While a bathroom fan may be used to satisfy both the requirements for the principal ventilation exhaust fan and the requirements for a bathroom fan, the requirements for each must be met. If the fan provides this combined function of the principal ventilation exhaust fan and the bathroom fan, it will also need to have controls that conform to Sentences 9.32.3.5.(3) and (4). Unlike other bathroom fans, the principal ventilation exhaust fan is required to run continuously and should not have a control switch in a location where it may be turned off inadvertently.**>**

Please remove pages 787 to 792 and replace with REP 785 to REP 792.38.

Division B - Appendix A - Appnote A-9.32.3.8.(1)(a)
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Division B - Appendix A - Appnote A-9.32.4.1.(1)(a)
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Repealed by: Reg 173/2013
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Division B - Appendix A - Appnote A-9.32.3.4.(6)(a)(ii)
Added by: Reg 175/2014
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Division B - Appendix A - Appendix Notes A-9.36.1.1.(1), A-9.36.1.2.(2), A-9.36.1.2.(3), A-9.36.1.2.(4), A-9.36.1.3., A-9.36.1.3.(3), A-9.36.1.3.(5), A-9.36.2.1.(2), A-9.36.2.2.(3), A-9.36.2.2.(5), A-9.36.2.3.(2) and (3), A-9.36.2.3.(5), A-9.36.2.4.(1), A-9.36.2.4.(3), A-9.36.2.4.(4), A-9.36.2.5.(1), A-9.36.2.5.(2), A-9.36.2.5.(3), A-9.36.2.5.(5), A-9.36.2.5.(6), A-9.36.2.5.(8), A-9.36.2.6.(1), A-9.36.2.6.(3), A-9.36.2.7.(1) and (2), A-Table 9.36.2.7.A., A-9.36.2.7.(3), A-9.36.2.8.(1), A-Tables 9.36.2.8.A. and B., A-9.36.2.8.(2), A-9.36.2.8.(4), A-9.36.2.8.(9), A-9.36.2.9.(1), A-9.36.2.9.(5), A-9.36.2.9.(6), A-9.36.2.10.(5)(b), A-9.36.2.10.(7)(a), A-9.36.2.10.(9), A-9.36.2.10.(14), A-9.36.2.11., A-9.36.2.11.(2), A-9.36.2.11.(2) and (3), A-9.36.2.11.(3), A-9.36.2.11.(4), A-9.36.2.11.(6)(a), A-9.36.3.2.(1), A-9.36.3.2.(2), A-9.36.3.2.(5), A-9.36.3.3.(4), A-9.36.3.4.(1), A-9.36.3.4.(2), A-9.36.3.5.(1), A-9.36.3.6.(7), A-9.36.3.8., A-9.36.3.8.(4)(a), A-9.36.3.9.(1), A-9.36.3.9.(3), A-9.36.3.10.(1), A-9.36.3.10.(3), A-9.36.4.2.(1), A-9.36.4.2.(3), A-9.36.4.6.(2), A-9.36.5.2., A-9.36.5.3.(2), A-9.36.5.4.(1), A-9.36.5.4.(2), A-9.36.5.4.(7), A-9.36.5.5.(1), A-9.36.5.6.(6), A-9.36.5.6.(11), A-9.36.5.7.(1), A-9.36.5.7.(5), A-9.36.5.8.(5), A-9.36.5.9.(1), A-9.36.5.10.(2), A-9.36.5.10.(9)(c)(ii), A-9.36.5.10.(11), A-9.36.5.11.(9), A-9.36.5.11.(10), A-9.36.5.11.(11), A-9.36.5.12.(2), A-9.36.5.14.(10), A-9.36.5.15.(5), A-9.36.5.15.(6) and A-9.36.5.15.(8)
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Division B - Appendix A - Appendix Note A-9.36.1.3.(5)
Enacted by: Reg 175/2014
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Division B - Appendix A - Appendix Note A-9.36.3.2.(1)
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Division B - Appendix A - Appendix Note A-9.36.5.15.(5)
Enacted by: Reg 175/2014
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<A-9.32.3.4.(6)(a)(ii) Floor Area Calculation for Passive Supply Air Distribution The floor area to be calculated for Subclause 9.32.3.4.(6)(a)(ii) does not include sun porches, enclosed verandas, vestibules, attached garages, or other spaces that are outside the building envelope and do not require ventilation supply air.>

<A-9.32.3.8.(1)(a) Deleted>

<A-9.32.4.1.(1)(a) Naturally Aspirating Fuel-Fired Vented Appliance (NAFFVA) NAFFVA, typically appliances with draft hoods, are subject to back drafting when a negative pressure condition occurs in the dwelling. The following tables describe the conditions under which Clause 9.32.4.1.(1)(a) applies:

Table A-9.32.4.1.(1)(a)A.
Vent Safety — Natural Gas and Propane

Fuel Type	Natural Gas and Propane			
Vent Type	Power Vent(3)	Direct Vent(3)	Thermal Buoyancy Chimney(2)	
Appliance Type	Furnace Boiler HWT Fireplace	HWT Fireplace Heater	Mid-Efficient F/A Furnace or Boiler(5)	Drafthood Boiler HWT(4)
Special Conditions				Located in Air-Barriered Room(1)
Classification	Non-NAFFVA		NAFFVA	Non-NAFFVA
9.32.4.1.(1)(a) Applies	No		Yes	No

Notes to Table A-9.32.4.1.(1)(a)A.:

(1) Mechanical room must be air-barriered from remainder of house with no access from within house. Room must be lined with panel products with sealed joints and all pipe and wire penetrations sealed. Effectively, the room must be finished before equipment is installed and holes drilled for pipes and wires. This option is not available for forced air furnaces as it is not possible to effectively seal the ducts.

(2) Thermal buoyancy chimneys must be within the heated envelope of the house to provide acceptable venting performance.

(3) Any power vented appliance with pressurized vent (1 pipe) or sealed combustion (2 pipe) or direct vent appliance (fireplace, heater or HWT) are non-NAFFVA.

(4) Mid-efficient (draft induced) appliances are considered NAFFVA with the exception of a boiler or HWT located in an air-barriered room.

(5) This category applies only to
   a) mid-efficient forced air furnaces equipped with induced draft fans and exhaust proving switch, and
   b) boilers equipped with induced draft fans and exhaust proving switch.

Table A-9.32.4.1.(1)(a)B.
Vent Safety — Oil and Solid Fuel

Fuel Type	Oil			Solid		
Vent Type	Thermal Buoyancy Chimney(2)		Direct Vent	Thermal Buoyancy Chimney(2)		Any
Appliance Type	Boiler HWT(4)	F/A Furnace Boiler HWT(3), (4)	F/A Furnace Boiler HWT	Boiler	F/A Furnace Boiler HWT Fireplace Heat Stove	Outside Boiler
Special Conditions	Located in Air-Barriered Room(1)			Located in Air-Barriered Room(1)		
Classification	Non-NAFFVA	NAFFVA	Non-NAFFVA	Non-NAFFVA	NAFFVA	N/A
9.32.4.1.(1)(a) Applies	No	Yes	No	No	Yes	No>

Notes to Table A-9.32.4.1.(1)(a)B.:

(1) Mechanical room must be air-barriered from remainder of house with no access from within house. Room must be lined with panel products with sealed joints and all pipe and wire penetrations sealed. Effectively, the room must be finished before equipment is installed and holes drilled for pipes and wires. This option is not available for forced air furnaces as it is not possible to effectively seal the ducts.

(2) Thermal buoyancy chimneys must be within the heated envelope of the house to provide acceptable venting performance.

(3) Oil-fired HWT, boilers and furnaces equipped with blocked vent switches.

(4) Sealed combustion kits can be added to oil-fired appliances but they switch to interior combustion air if intake is blocked and rely on barometrically dampered thermal buoyancy chimneys so they are considered NAFFVA.

A-9.32.4.2. Carbon Monoxide Alarms Carbon monoxide (CO) is a colourless, odourless gas that can build up to lethal concentrations in an enclosed space without the occupants being aware of it. Thus, where an enclosed space incorporates or is near a potential source of CO, it is prudent to provide some means of detecting its presence.

Dwelling units have two common potential sources of CO:

- fuel-fired space- or water-heating equipment within the dwelling unit or in adjacent spaces within the building, and
- attached storage garages.

Most fuel-fired heating appliances do not normally produce CO and, even if they do, it is normally conveyed outside the building by the appliance's venting system. Nevertheless, appliances can malfunction and venting systems can fail. Therefore, the provision of appropriately placed CO alarms can improve safety in the dwelling unit is a relatively low-cost back-up safety measure.

Similarly, although Article 9.10.9.16. requires that the walls and floor/ceiling assemblies separating attached garages from dwelling units incorporate an air barrier system, there have been several instances of CO from garages being drawn into houses, which indicates that a fully gas-tight barrier is difficult to achieve. When the attached storage garage is located at or below the elevation of the living space, winter season stack action will generate a continuous pressure between the garage and the dwelling unit. This pressure is capable of transferring potentially contaminated air into the house. The use of exhaust fans in the dwelling unit may further increase this risk.

A-9.33.5.3. Design, Construction and Installation Standard for Solid-Fuel-Burning Appliances CAN/CSA-B365 is essentially an installation standard, and covers such issues as accessibility, air for combustion and ventilation, chimney and venting, mounting and floor protection, wall and ceiling clearances, installation of ducts, pipes, thimbles and manifolds, and control and safety devices. But the standard also includes a requirement that solid-fuel-burning appliances and equipment satisfy the requirements of one of a series of standards, depending on the appliance or equipment, therefore also making it a design and construction standard. It is required that cooktops and ovens as well as stoves, central furnaces and other space heaters be designed and built in conformity with the relevant referenced standard.

A-9.33.6.13. Return Air System It is a common practice to introduce outdoor air to the house by means of an outdoor air duct connected to the return air plenum of a forced air furnace. This is an effective method and is a component of one method of satisfying the mechanical ventilation requirements of Subsection 9.32.3. However, some caution is required. If the proportion of cold outside to warm return air is too high, the resulting mixed air temperature could lead to excessive condensation in the furnace heat exchanger and possible premature failure of the heat exchanger. CAN/CSA-F326-M, "Residential Mechanical Ventilation Systems," requires that this mixed air temperature not be below 15.5°C when the outdoor temperature is at the January 2.5% value. It is also important that the outdoor air and the return air mix thoroughly before reaching the heat exchanger. Appendix Note A-9.32.3. provides some guidance on this.

A-9.33.10.2.(1) Factory-Built Chimneys Under the provisions of Article 1.2.1.1. of Division A, certain solid-fuel-burning appliances may be connected to factory-built chimneys other than those specified in Sentence 9.33.10.2.(1) if tests show that the use of such a chimney will provide an equivalent level of safety.

A-9.34.2. Lighting Outlets The <British Columbia Electrical Safety Regulation> contains requirements relating to lighting that are similar to those in the British Columbia Building Code. The Electrical <Safety Regulation> requirements, however, apply only to residential occupancies, whereas many of the requirements in the <Code> apply to all Part 9 buildings. Code users must therefore be careful to ensure that all applicable provisions of the <British Columbia Building Code> are followed, irrespective of the limitations in the Electrical <Safety Regulation>.

<A-9.35.2.2.(1) Garage Floor Sources of ignition, such as electrical wiring and appliances, can set off an explosion if exposed to gases or vapours such as those that can be released in garages. This provision applies where the frequency and concentration of such releases are low. Where the garage can accommodate more than 3 vehicles, and where wiring is installed within 50 mm of the garage floor, the British Columbia Electrical Safety Regulation, pursuant to the Safety Standards Act should be consulted as it specifies more stringent criteria for wiring.

The capacity of the garage is based on standard-size passenger vehicles such as cars, mini-vans and sport utility vehicles, and half-ton trucks. In a typical configuration, the capacity of the garage is defined by the width of the garage doors—generally single or double width—which correlates to the number of parking bays.

In many constructions, floor areas adjacent to the garage are either above the garage floor level or separated from it by a foundation wall. Where the foundation wall is cast-in-place concrete and rises at least 50 mm above the garage floor, it can serve as the airtight curb. Where the foundation wall is block or preserved wood, extra measures may be needed to provide airtightness. In many instances, the construction will be required to be airtight to conform with Sentence 9.25.3.1.(1), and in any case, must comply with Sentences 9.10.9.16.(4) and (5).

Where the space adjacent to the garage is at the same level as the garage, a 50 mm curb or partition is not needed if the wall complies with Sentences 9.10.9.16.(4) and (5), and there is no connecting door. Where there is a connecting door, if the garage floor is not sloped towards the exterior, it must be raised at least 50 mm off the floor or be installed so it closes against the curb. This requirement does not preclude the installation of a ramp leading from the garage floor up to the door.

In some instances, access to the basement is via a stair from the garage. In such cases, a curb must be installed at the edge of the stair well and must be sealed to the foundation wall, curb or partition between the garage and adjacent spaces.

See Figure A-9.35.2.2.(1).

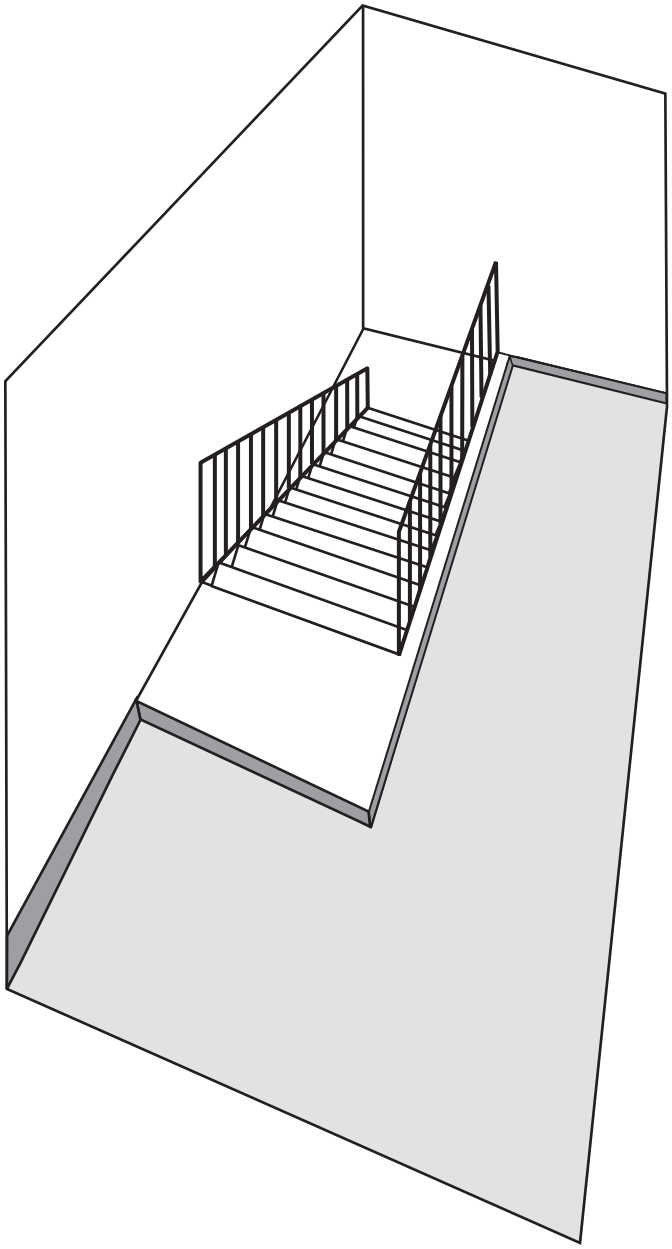


Figure A-9.35.2.2.(1)
Curb around garage floor at stairs>

A-9.36.1.1.(1) Energy Used by the Building

Table A-9.36.1.1.(1)

Energy used by the building	=	space-heating energy lost and gained through building envelope
	+	losses due to inefficiencies of heating equipment
	+	energy necessary to heat outdoor air to ventilate the building
	+	energy used to heat service water

A-9.36.1.2.(2) Overall Thermal Transmittance The U-value represents the amount of heat transferred through a unit area in a unit of time induced under steady-state conditions by a unit temperature difference between the environments on its two faces. The U-value reflects the capacity of all elements to transfer heat through the thickness of the assembly, as well as, for instance, through air films on both faces of above-ground components. Where heat is not transferred homogeneously across the area being considered, the thermal transmittance of each component is determined: for example, the thermal transmittance values of the glazing and the frame of a window are combined to determine the overall thermal transmittance (U-value) of the window.

A-9.36.1.2.(3) Conversion of Metric Values to Imperial Values To convert a metric RSI value to an imperial R-value, use 1 (m2·K)/W = 5.678263 h · ft^2 · °F/Btu. "R-value," or simply the prefix "R" (e.g. R20 insulation), is often used in the housing industry to refer to the imperial equivalent of "RSI value." Note that R-values in Section 9.36. are provided for information purposes only; the stated metric RSI values are in fact the legally binding requirements.

A-9.36.1.2.(4) Fenestration The term "fenestration" is intentionally used in Articles 9.36.2.3. (prescriptive provisions) and 9.36.2.11. (trade-off provisions), and in Subsection 9.36.5. (performance provisions) as opposed to the terms "window," "door" and "skylight," which are used in the prescriptive provisions in Subsections 9.36.2. to 9.36.4. that address these components individually. The term "fenestration" is sometimes used in conjunction with the term "doors" depending on the context and the intent of the requirement.

A-9.36.1.3. Compliance Options According to Building Type and Size Table A-9.36.1.3. describes the types and sizes of Part 9 buildings to which Section 9.36. and the NECB apply.

Table A-9.36.1.3.
Energy Efficiency Compliance Options for Part 9 Buildings

Building Types and Sizes	Energy Efficiency Compliance Options		
	9.36.2.to 9.36.4. (Prescriptive)	9.36.5. (Performance)	NECB
• houses with or without a secondary suite • buildings containing only dwelling units with common spaces ≤ 20% of building's total floor area(1)	✓	✓	✓
• Group C occupancies • buildings containing Group D, E or F3 occupancies whose combined total floor area ≤ 300 m^2 (excluding parking garages that serve residential occupancies) • buildings with a mix of Group C and Group D, E or F3 occupancies where the non-residential portion's combined total floor area ≤ 300 m^2 (excluding parking garages that serve residential occupancies)	✓	X	✓
• buildings containing Group D, E or F3 occupancies whose combined total floor area > 300 m^2 • buildings containing F2 occupancies of any size	X	X	✓

Notes to Table A-9.36.1.3.:
(1) The walls that enclose a common space are excluded from the calculation of floor area of that common space.

A-9.36.1.3.(3) Houses and Common Spaces

Houses

For the purpose of Sentence 9.36.1.3.(3), the term "houses" includes detached houses, semi-detached houses, duplexes, triplexes, townhouses, row houses and boarding houses.

Common spaces

The walls that enclose a common space are excluded from the calculation of floor area of that common space.

<A-9.36.1.3.(5) Exemptions Examples of buildings and spaces that are exempted from the requirements of Section 9.36. include

- seasonally occupied buildings,
- storage and parking garages,
- service buildings and service rooms,
- unconditioned buildings such as storage warehouses, and
- unconditioned spaces in buildings.

However, note that, where a building envelope assembly of an exempted building is adjacent to a conditioned space, this assembly must meet the requirements of Section 9.36.**>**

A-9.36.2.1.(2) Wall or Floor between a Garage and a Conditioned Space A wall or a floor between a conditioned space and a residential garage must be airtight and insulated because, even if the garage is equipped with space-heating equipment, it may in fact be kept unheated most of the time.

A-9.36.2.2.(3) Calculation Tools The thermal characteristics of windows, doors and skylights can be calculated using software tools such as THERM and WINDOW.

A-9.36.2.2.(5) Calculating Effective Thermal Resistance of Log Walls ICC 400, "Design and Construction of Log Structures," defines log wall thickness as the "average cross sectional area divided by the stack height." This approach equalizes all log profiles regardless of their size or shape by eliminating the need to vary, average or round out log thickness measurements, which would otherwise be necessary to determine applicable profile factors for different log shapes. The ICC 400 standard lists R-values for log walls, including the exterior and interior air film coefficients, based on wall thickness and wood species' specific gravity.

A-9.36.2.3.(2) and (3) Calculating Gross Wall Area Where the structure of the lowest floor and rim joist assembly is above the finished ground level or where the above-grade portion of foundation walls separates conditioned space from unconditioned space, they should be included in the calculation of gross wall area. Figure A-9.36.2.3.(2) and (3) shows the intended measurements for the most common type of housing construction.

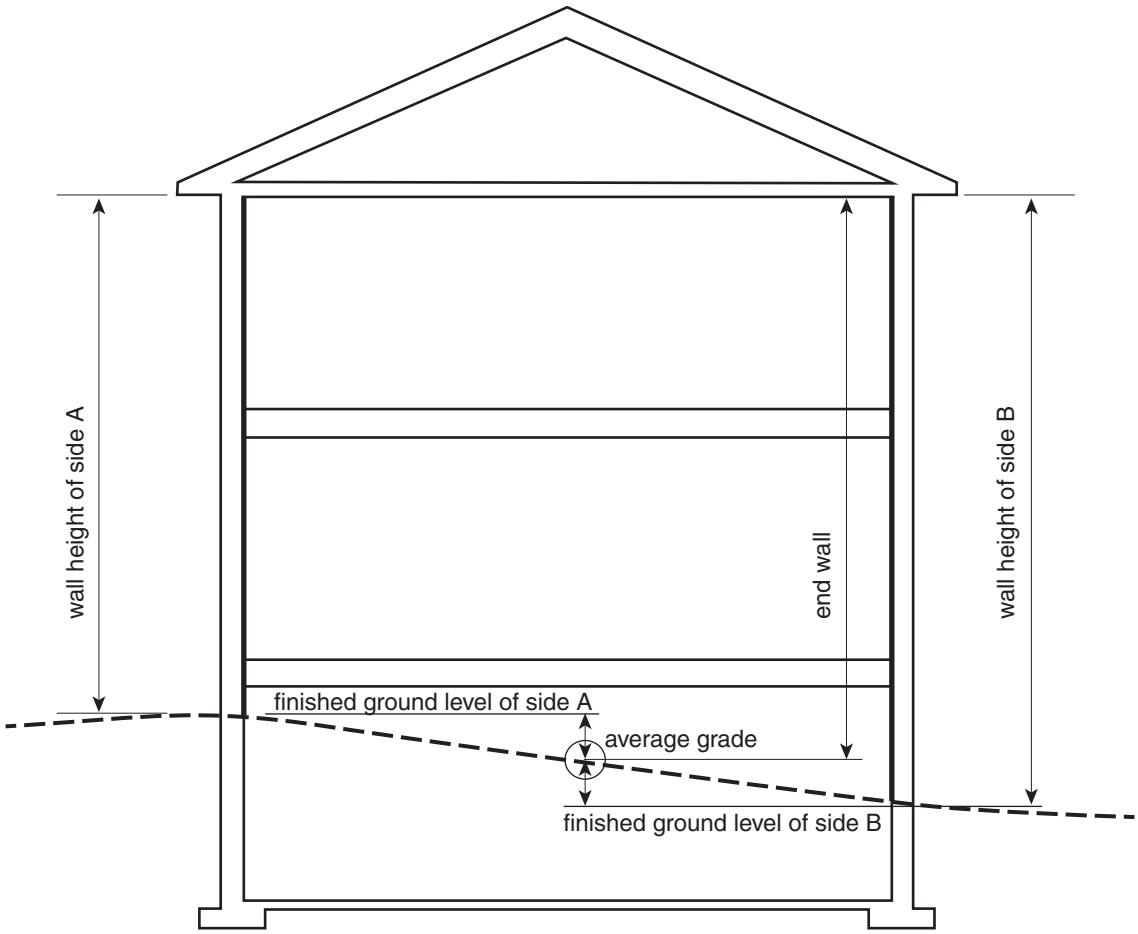


Figure A-9.36.2.3.(2) and (3)
Example of interior wall height to be used in the calculation of gross wall area

A-9.36.2.3.(5) Areas of Other Fenestration Figure A-9.36.2.3.(5) illustrates how to measure the area of glass panes as described in Sentence 9.36.2.3.(5).

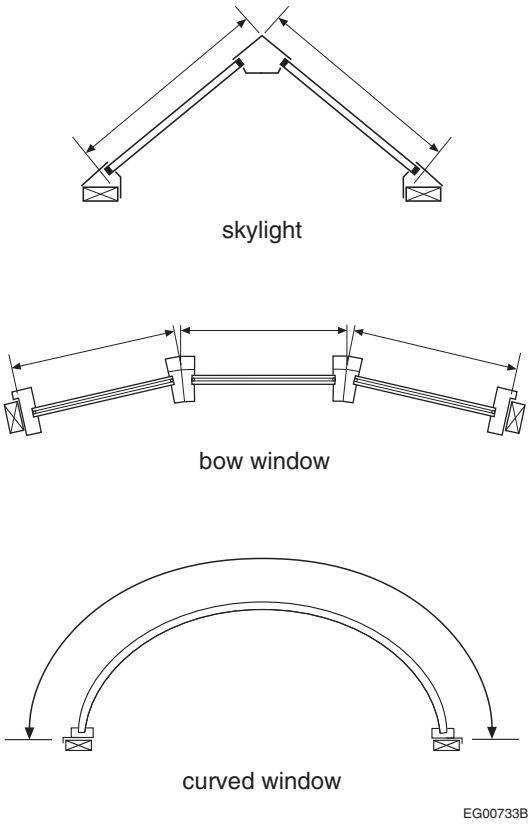


Figure A-9.36.2.3.(5)
Measuring the area of glazing that is not in the same plane

A-9.36.2.4.(1) Calculating the Effective Thermal Resistance of Building Envelope Assemblies The general theory of heat transfer is based on the concept of the thermal transmittance through an element over a given surface area under the temperature difference across the element (see Sentence 9.36.1.2.(2)). As such, the NECB requires all building envelope assemblies and components to comply with the maximum U-values (overall thermal transmittance) stated therein. However, the requirements in Subsection 9.36.2. are stated in RSI values (effective thermal resistance values), which are the reciprocal of U-values.

To calculate effective thermal resistance, Section 9.36. requires that contributions from all portions of an assembly—including heat flow through studs and insulation—be taken into account because the same insulation product (nominal insulation value) can produce different effective thermal resistance values in different framing configurations. The resulting effective thermal resistance of an assembly also depends on the thermal properties and thickness of the building materials used and their respective location.

The following paragraphs provide the calculations to determine the effective thermal resistance values for certain assemblies and the thermal characteristics of common building materials. The Tables in Appendix Notes A-9.36.2.6.(1) and A-9.36.2.8.(1) confirm the compliance of common building assemblies.

Calculating the Effective Thermal Resistance of an Assembly with Continuous Insulation: Isothermal-Planes Method

To calculate the effective thermal resistance of a building envelope assembly containing only continuous materials—for example, a fully insulated floor slab—simply add up the RSI values for each material. This procedure is described as the "isothermal-planes method" in the ASHRAE 2009, "ASHRAE Handbook – Fundamentals."

Calculating the Effective Thermal Resistance of a Wood-frame Assembly: Isothermal-Planes and Parallel-Path Flow Methods

To calculate the effective thermal resistance of a building envelope assembly containing wood framing, RSI_{eff}, add up the results of the following calculations:

(a) calculate the effective thermal resistance of all layers with continuous materials using the isothermal-planes method, and
(b) calculate the effective thermal resistance of the framing portion, $RSI_{parallel}$, using the following equation, which is taken from the parallel-path flow method described in the ASHRAE 2009, "ASHRAE Handbook – Fundamentals.":

$$RSI_{parallel} = \frac{100}{\frac{\%\ \text{area of framing}}{RSI_F} + \frac{\%\ \text{area of cavity}}{RSI_C}}$$

where

RSI_F = thermal resistance of the framing member obtained from Table A-9.36.2.4.(1)D.,

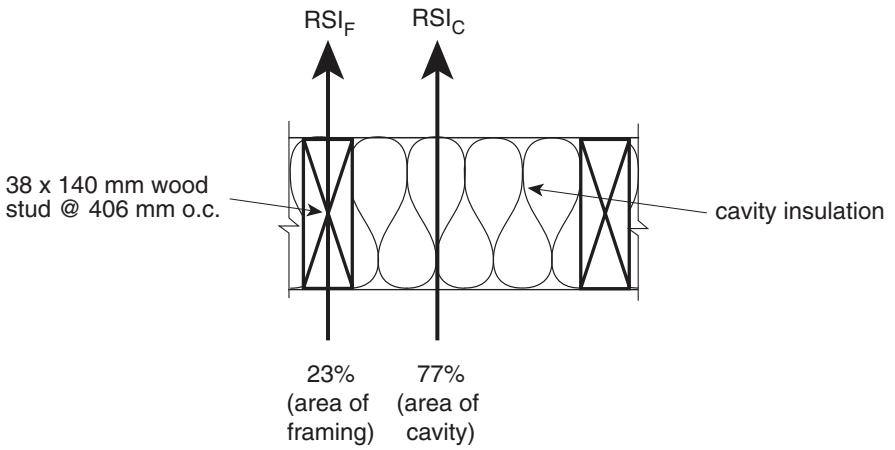
RSI_C = thermal resistance of the cavity (usually filled with insulation) obtained from Table A-9.36.2.4.(1)D.,

% area of framing = value between 0 and 100 obtained from Table A-9.36.2.4.(1)A. or by calculation, and

% area of cavity = value between 0 and 100 obtained from Table A-9.36.2.4.(1)A. or by calculation.

When the values in Table A-9.36.2.4.(1)D. are used in the calculation of effective thermal resistance of assemblies, they must not be rounded; only the final result, RSI_{eff}, can be rounded to the nearest significant digit.

Example of Calculation of RSIeff for a Typical 38 x 140 mm Wood-frame Wall Assembly Using the Isothermal-Planes and Parallel-Path Flow Methods



1. Determine the thermal resistance of each continuous material layer incorporated in the assembly using Table A-9.36.2.4.(1)D.
2. Calculate the thermal resistance of a section of framing and adjacent cavity portion, $RSI_{parallel}$, using the parallel-path flow method as follows:
   (i) along a line that goes through the framing, which is designated RSI_F, and
   (ii) along a line that goes through the cavity (usually filled with insulation), which is designated RSI_C.

   Look up the % area of framing and cavity for a typical 38 x 140 mm wood-frame wall assembly with studs 400 mm o.c. using Table A-9.36.2.4.(1)A.:
   % area of framing = 23%, and
   % area of cavity = 77%

   Then, combine the sums of RSI_F and RSI_C in proportion to the relative areas of framing and insulation to calculate the value of $RSI_{parallel}$ (thermal resistance of the framing portion):

$$\mathrm{RSI_{parallel}} = \frac{100}{\left(\frac{23}{1.19}\right) + \left(\frac{77}{3.34}\right)} = 2.36\left(\mathrm{m^2 \cdot K}\right)/\mathrm{W} \qquad \left(\mathrm{U\text{–}value} = 0.42\mathrm{W}/\left(\mathrm{m^2 \cdot K}\right)\right)$$

3. Add up the values obtained in steps 1 and 2 to determine the effective thermal resistance of the wall assembly, RSI_{eff}.

Layers in 38 x 140 mm Wood-frame Wall Assembly with Studs Spaced 400 mm o.c.:			RSI, (m²·K)/W
Outside air film			0.03
Metal siding			0.11
Sheathing paper			—
Gypsum sheathing (12.7 mm)			0.08
Stud (140 mm x 0.0085 RSI/mm)	RSI_F = 1.19	% area of framing = 23%	$RSI_{parallel}$ = 2.36 (U-value = 0.42 W/(m²·K))
Insulation (140 mm thick; RSI 3.34)	RSI_C = 3.34	% area of cavity = 77%	
Polyethylene (vapour barrier)			—
Gypsum (12.7 mm)			0.08
Interior air film			0.12
			RSI_{eff} = 2.78 (m²·K)/W (U-value = 0.36 W/(m²·K))

Table A-9.36.2.4.(1)A.
Framing and Cavity Percentages for Typical Wood-frame Assemblies(1)

Wood-frame Assemblies		Frame Spacing, mm o.c.									
		304		406		488		610		1220	
		% Area Framing	% Area Cavity	% Area Framing	% Area Cavity	% Area Framing	% Area Cavity	% Area Framing	% Area Cavity	% Area Framing	% Area Cavity
Floors	lumber joists	–	–	13	87	11.5	88.5	10	90	–	–
	I-joists and truss	–	–	9	91	7.5	92.5	6	94	–	–
Roofs/ Ceilings	ceilings with typical trusses	–	–	14	86	12.5	87.5	11	89	–	–
	ceilings with raised heel trusses	–	–	10	90	8.5	91.5	7	93	–	–
	roofs with lumber rafters and ceilings with lumber joists	–	–	13	87	11.5	88.5	10	90	–	–
	roofs with I-joist rafters and ceilings with I-joists	–	–	9	91	7.5	92.5	6	94	–	–
	roofs with structural insulated panels (SIPs)	–	–	–	–	–	–	–	–	9	91
Walls	typical wood-frame	24.5	75.5	23	77	21.5	78.5	20	80	–	–
	advanced wood-frame with double top plate(2)	–	–	19	81	17.5	82.5	16	84	–	–
	SIPs	–	–	–	–	–	–	–	–	14	86
	basement wood-frame inside concrete foundation wall	–	–	16	84	14.5	85.5	13	87	–	–

Notes to Table A-9.36.2.4.(1)A.:

(1) The framing percentages given in this Table account not just for the repetitive framing components but also for common framing practices, such as lintels, double top plates, cripple studs, etc., and include an allowance for typical mixes of studs, lintels and plates. The values listed represent the percentage of wall area taken up by framing and are based on the net wall area (i.e. gross wall area minus fenestration and door area). If the actual % areas of framing and cavity are known, those should be used rather than the ones in this Table. Rim joists are not accounted for in this Table because they are addressed separately in Sentence 9.36.2.6.(2).

(2) "Advanced framing" refers to a variety of framing techniques designed to reduce the thermal bridging and therefore increase the energy efficiency of a building. Some advanced framing solutions require that some framing components be insulated or eliminated; in such cases, it may be appropriate to calculate the actual % area of framing. Note that using an advanced framing technique may require additional engineering of the framing system.

The framing percentage values listed in this Table for advanced framing are based on constructions with insulated lintels or framing designed without lintels, corners with one or two studs, no cripple or jack studs, and double top plates.

Calculating the Effective Thermal Resistance of a Steel-frame Assembly

The parallel-path flow method described above for wood-frame assemblies involves simple one-dimensional heat flow calculations based on two assumptions:

- that the heat flow through the thermal bridge (the stud) is parallel to the heat flow through the insulation, and
- that the temperature at each plane is constant.

Tests performed on steel-frame walls have shown that neither of these assumptions properly represents the highly two-dimensional heat flow that actually occurs. The difference between what is assumed and what actually occurs is even more significant in steel-frame assemblies. The results achieved using the calculation method below compare well with those achieved from actual tests. The method provides a good approximation if a thermal resistance value of 0.0000161 ($m^2 \cdot K$)/W per mm (or a conductivity of 62 (W·m)/($m^2 \cdot °C$)) is used (this value is associated with galvanized steel with a carbon content of 0.14%).

To calculate the effective thermal resistance of a building envelope assembly consisting of steel framing, RSI_{eff}, use the following equation:

$$RSI_{eff} = K_1 \cdot RSI_{T1} + K_2 \cdot RSI_{T3}$$

where

RSI_{T1} = effective thermal resistance of building envelope assembly determined using parallel-path flow method for wood-frame assemblies (use framing and cavity percentages in Table A-9.36.2.4.(1)C.),

RSI_{T3} = RSI_{T2} + thermal resistance values of all other components except steel studs and insulation where RSI_{T2} = effective thermal resistance of steel studs and insulation determined using parallel-path flow method for wood-frame assemblies,

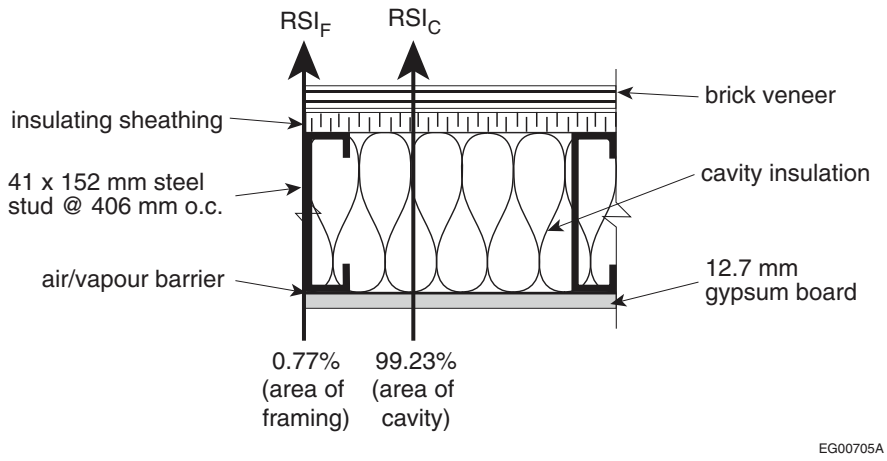
K_1 = applicable value from Table A-9.36.2.4.(1)B., and

K_2 = applicable value from Table A-9.36.2.4.(1)B.

Table A-9.36.2.4.(1)B.
Values for K_1 and K_2

Framing Spacing, mm	K_1	K_2
< 500 without insulating sheathing	0.33	0.67
< 500 with insulating sheathing	0.40	0.60
≥ 500	0.50	0.50

Example of Calculation of RSIeff for a 41 x 152 mm Steel-frame Wall Assembly with Studs 406 mm o.c.



1. Calculate RSI$_{T1}$

Materials in Assembly		RSI$_F$ (thermal resistance through framing)	RSI$_C$ (thermal resistance through cavity)
Outside air film		0.03	0.03
Brick veneer		0.07	0.07
Air space (25 mm thick)		0.18	0.18
Extruded polystyrene (38 mm thick x RSI 0.035/mm)		1.33	1.33
Steel stud (152 mm thick x RSI 0.0000161/mm)		0.0023	—
Insulation (152 mm thick; RSI 3.52 (R20) batts)		—	3.52
Polyethylene (vapour barrier)		—	—
Gypsum (12.7 mm thick)		0.08	0.08
Interior air film		0.12	0.12
	Total	1.81	5.33
% area framing and cavity from Table A-9.36.2.4.(1)C.		0.77%	99.23%

$$\mathrm{RSI_{T1}} = \frac{100}{\left(\frac{0.77}{1.81}\right) + \left(\frac{99.23}{5.33}\right)} = 5.25\ \left(\mathrm{m^2 \cdot K}\right)/\mathrm{W}$$

(U-value = 0.19 W/(m²·K))

2. Calculate RSI_{T2}

Materials in Assembly		RSI_F (thermal resistance through framing)	RSI_C (thermal resistance through cavity)
Steel stud (152 mm thick x RSI 0.0000161/mm)		0.0023	—
Insulation (152 mm thick; RSI 3.52 (R20) batts)		—	3.52
	Total	0.0023	3.52
% area framing and cavity from Table A-9.36.2.4.(1)C.		0.77%	99.23%

$$\mathrm{RSI_{T2}} = \frac{100}{\left(\frac{0.77}{0.0023}\right) + \left(\frac{99.23}{3.52}\right)} = 0.27\ \left(\mathrm{m^2 \cdot K}\right)/\mathrm{W}$$

(U-value = 3.69 W/(m²·K))

3. Calculate RSI_{T3}

Materials in Assembly	RSI through Assembly
Outside air film	0.03
Brick veneer	0.07
Air space (25 mm thick)	0.18
Extruded polystyrene (38 mm thick x RSI 0.035/mm)	1.33
RSI_{T2}	0.27
Polyethylene (vapour barrier)	—
Gypsum (12.7 mm thick)	0.08
Interior air film	0.12
	RSI_{T3} = 2.08 (m²·K)/W (U-value = 0.48 W/(m²·K))

4. Calculate RSI_{eff}

$RSI_{eff} = (K_1 \cdot RSI_{T1}) + (K_2 \cdot RSI_{T3}) = (0.40 \cdot 5.25) + (0.60 \cdot 2.08) = 3.35$ (m²·K)/W (U-value = 0.30 W/(m²·K))

Table A-9.36.2.4.(1)C.
Framing and Cavity Percentages for Typical Steel-frame Assemblies(1)

Steel-frame Assemblies	Frame Spacing, mm o.c.							
	< 500		≥ 500		< 2100		≥ 2100	
	% Area Framing	% Area Cavity	% Area Framing	% Area Cavity	% Area Framing	% Area Cavity	% Area Framing	% Area Cavity
Roofs, ceilings, floors	0.43	99.57	0.33	99.67	—	—	—	—
Above-grade walls and strapping	0.77	99.23	0.67	99.33	—	—	—	—
Below-grade walls and strapping	0.57	99.43	0.33	99.67	—	—	—	—
Sheet steel wall	—	—	—	—	0.08	99.92	0.06	99.94

Notes to Table A-9.36.2.4.(1)C.:

(1) The framing percentages given in this Table are based on common framing practices and not simply on the width of the studs and cavity. They are based on 18-gauge (1.2 mm) steel; however, test results indicate that, for the range of thicknesses normally used in light-steel framing, the actual thickness has very little effect on the effective thermal resistance. If the actual % areas of framing and cavity are known, those should be used rather than the ones in this Table.

Table A-9.36.2.4.(1)D.
Thermal Resistance Values of Common Building Materials[1]

Air Films	Thickness of Material	Thermal Resistance (RSI), $(m^2 \cdot K)/W$ per mm	Thermal Resistance (RSI), $(m^2 \cdot K)/W$ for thickness listed
Exterior:			
ceiling, floors and walls wind 6.7 m/s (winter)	—	—	0.03
Interior:			
ceiling (heat flow up)	—	—	0.11
floor (heat flow down)	—	—	0.16
walls (heat flow horizontal)	—	—	0.12
Air Cavities[2][3]	Thickness of Air Space	Thermal Resistance (RSI), $(m^2 \cdot K)/W$ per mm	Thermal Resistance (RSI), $(m^2 \cdot K)/W$ for thickness listed
Ceiling (heat flow up) faced with non-reflective material[4]	13 mm	—	0.15
	20 mm	—	0.15
	40 mm	—	0.16
	90 mm	—	0.16
Floors (heat flow down) faced with non-reflective material[4]	13 mm	—	0.16
	20 mm	—	0.18
	40 mm	—	0.20
	90 mm	—	0.22
Walls (heat flow horizontal) faced with non-reflective material[4]	13 mm	—	0.16
	20 mm	—	0.18
	40 mm	—	0.18
	90 mm	—	0.18
Cladding Materials	Thickness of Material	Thermal Resistance (RSI), $(m^2 \cdot K)/W$ per mm	Thermal Resistance (RSI), $(m^2 \cdot K)/W$ for thickness listed
Brick:			
fired clay (2400 kg/m^2)	100 mm	0.0007	0.07
concrete: sand and gravel, or stone (2400 kg/m^2)	100 mm	0.0004	0.04
Cement/lime, mortar, and stucco	—	0.0009	—
Wood shingles:			
400 mm, 190 mm exposure	—	—	0.15
400 mm, 300 mm exposure (double exposure)	—	—	0.21
insulating backer board	8 mm	—	0.25
Siding:			
Metal or vinyl siding over sheathing:			
hollow-backed	—	—	0.11
insulating-board-backed	9.5 mm nominal	—	0.32
foiled-backed	9.5 mm nominal	—	0.52

Table A-9.36.2.4.(1)D.
Thermal Resistance Values of Common Building Materials(1)

Cladding Materials	Thickness of Material	Thermal Resistance (RSI), $(m^2 \cdot K)/W$ per mm	Thermal Resistance (RSI), $(m^2 \cdot K)/W$ for thickness listed
Wood:			
bevel, 200 mm, lapped	13 mm	—	0.14
bevel, 250 mm, lapped	20 mm	—	0.18
drop, 200 mm	20 mm	—	0.14
hardboard	11 mm	—	0.12
plywood, lapped	9.5 mm	—	0.10
Stone:			
quartzitic and sandstone (2240 kg/m^3)	—	0.0003	—
calcitic, dolomitic, limestone, marble, and granite (2240 kg/m^3)	—	0.0004	—
Fibre-cement: single-faced, cellulose fibre-reinforced cement	6.35 mm	0.003	0.023
	8 mm	0.003	0.026
Roofing Materials(5)	Thickness of Material	Thermal Resistance (RSI), $(m^2 \cdot K)/W$ per mm	Thermal Resistance (RSI), $(m^2 \cdot K)/W$ for thickness listed
Asphalt roll roofing	—	—	0.03
Asphalt/tar	—	0.0014	—
Built-up roofing	10 mm	—	0.06
Crushed stone	—	0.0006	—
Metal deck	—	—	negligible
Shingle:			
asphalt	—	—	0.08
wood	—	—	0.17
Slate	13 mm	—	0.01
Sheathing Materials	Thickness of Material	Thermal Resistance (RSI), $(m^2 \cdot K)/W$ per mm	Thermal Resistance (RSI), $(m^2 \cdot K)/W$ for thickness listed
Gypsum sheathing	12.7 mm	0.0063	0.08
Insulating fibreboard	—	0.016	—
Particleboard:			
low density (593 kg/m^3)	—	0.0098	—
medium density (800 kg/m^3)	—	0.0077	—
high density (993 kg/m^3)	—	0.0059	—
Plywood – generic softwood	9.5 mm	0.0087	0.083
	11 mm		0.096
	12.5 mm		0.109
	15.5 mm		0.135
	18.5 mm		0.161

Table A-9.36.2.4.(1)D.
Thermal Resistance Values of Common Building Materials(1)

Sheathing Materials	Thickness of Material	Thermal Resistance (RSI), $(m^2 \cdot K)/W$ per mm	Thermal Resistance (RSI), $(m^2 \cdot K)/W$ for thickness listed
Plywood – Douglas fir	9.5 mm	0.0111	0.105
	11 mm		0.122
	12.5 mm		0.139
	15.5 mm		0.172
	18.5 mm		0.205
Sheet materials:			
permeable felt	—	—	0.011
seal, 2 layers of mopped (0.73 kg/m^3)	—	—	0.210
seal, plastic film	—	—	negligible
Waferboard (705 kg/m^3)	—	0.0095	—
Oriented strandboard (OSB)	9.5 mm	0.0098	0.093
	11 mm		0.108
Insulation Materials(6)	Thickness of Material	Thermal Resistance (RSI), $(m^2 \cdot K)/W$ per mm	Thermal Resistance (RSI), $(m^2 \cdot K)/W$ for thickness listed
Blanket and batt: rock or glass mineral fibre (CAN/ULC-S702)			
R12	89/92 mm	—	2.11
R14	89/92 mm	—	2.46
R19(7) (R20 compressed)	140 mm	—	3.34
R20	152 mm	—	3.52
R22	140/152 mm	—	3.87
R22.5	152 mm	—	3.96
R24	140/152 mm	—	4.23
R28	178/216 mm	—	4.93
R31	241 mm	—	5.46
R35	267 mm	—	6.16
R40	279/300 mm	—	7.04
Boards and slabs:			
Roof board	—	0.018	—
Building board or ceiling tile, lay-in panel	—	0.016	—
Polyisocyanurate/polyurethane-faced sheathing: Types 1, 2 and 3 (CAN/ULC-S704)			
permeably faced	25 mm	0.03818	0.97
	50 mm	0.0360	1.80
impermeably faced	25 mm	0.03937	1.00
	50 mm	0.0374	1.87
Expanded polystyrene (CAN/ULC-S701)(8)			
Type 1	25 mm	0.026	0.65
Type 2	25 mm	0.028	0.71
Type 3	25 mm	0.030	0.76

Table A-9.36.2.4.(1)D.
Thermal Resistance Values of Common Building Materials(1)

Insulation Materials(6)	Thickness of Material	Thermal Resistance (RSI), (m^2·K)/W per mm	Thermal Resistance (RSI), (m^2·K)/W for thickness listed
Extruded polystyrene: Types 2, 3 and 4 (CAN/ULC-S701)	25 mm	0.035	0.88
	50 mm	0.0336	1.68
Semi-rigid glass fibre wall/roof insulation (48 kg/m^3)	25 mm	0.0298	0.757
Semi-rigid rock wool wall insulation (56 kg/m^3)	25 mm	0.0277	0.704
Loose-fill insulation			
Cellulose (CAN/ULC-S703)	—	0.025	—
Glass fibre loose fill insulation for attics (CAN/ULC-S702)	112 to 565 mm	0.01875	—
Glass fibre loose fill insulation for walls (CAN/ULC-S702)	89 mm	0.02865	2.55
	140 mm	0.0289	4.05
	152 mm	0.030	4.23
Perlite	—	0.019	—
Vermiculite	—	0.015	—
Spray-applied insulation			
Sprayed polyurethane foam			
medium density (CAN/ULC-S705.1)	25 mm	0.036	0.90
	50 mm	0.036	1.80
light density (CAN/ULC-S712.1)	25 mm	0.026	0.65
Sprayed cellulosic fibre (CAN/ULC-S703)	settled thickness	0.024	—
Spray-applied glass-fibre insulation (CAN/ULC-S702)			
density: 16 kg/m^3	89 mm	0.025	2.30
	140 mm	0.025	3.53
density: 28.8 kg/m^3	89 mm	0.029	2.64
	140 mm	0.029	4.06
Structural Materials	Thickness of Material	Thermal Resistance (RSI), (m^2·K)/W per mm	Thermal Resistance (RSI), (m^2·K)/W for thickness listed
Concrete			
Low-density aggregate			
expanded shale, clay, slate or slags, cinders (1 600 kg/m^3)	—	0.0013	—
perlite, vermiculite, and polystyrene bead (480 kg/m^3)	—	0.0063	—
Normal-density aggregate			
sand and gravel or stone aggregate (2 400 kg/m^3)	—	0.0004	—

Table A-9.36.2.4.(1)D.
Thermal Resistance Values of Common Building Materials[1]

Structural Materials	Thickness of Material	Thermal Resistance (RSI), $(m^2 \cdot K)/W$ per mm	Thermal Resistance (RSI), $(m^2 \cdot K)/W$ for thickness listed
Hardwood[9][10]			
Ash	—	0.0063	—
Birch	—	0.0055	—
Maple	—	0.0063	—
Oak	—	0.0056	—
Softwood[9][10]			
Amabilis fir	—	0.0080	—
California redwood	—	0.0089	—
Douglas fir-larch	—	0.0069	—
Eastern white cedar	—	0.0099	—
Eastern white pine	—	0.0092	—
Hemlock-fir	—	0.0084	—
Lodgepole pine	—	0.0082	—
Red pine	—	0.0077	—
Western hemlock	—	0.0074	—
Western red cedar	—	0.0102	—
White spruce	—	0.0097	—
Yellow cyprus-cedar	—	0.0077	—
Wood, structural framing, spruce-pine-fir[11]	—	0.0085	—
Steel, galvanized sheet, 0.14% carbon content	—	0.0000161	—
Concrete Blocks	Thickness of Material	Thermal Resistance (RSI), $(m^2 \cdot K)/W$ per mm	Thermal Resistance (RSI), $(m^2 \cdot K)/W$ for thickness listed
Limestone aggregate with 2 cores			
cores filled with perlite	190 mm	—	0.37
	290 mm	—	0.65
Light-weight units (expanded shale, clay, slate or slag aggregate) with 2 or 3 cores			
no insulation in cores	90 mm	—	0.24
	140 mm	—	0.30
	190 mm	—	0.32
	240 mm	—	0.33
	290 mm	—	0.41
cores filled with perlite	140 mm	—	0.74
	190 mm	—	0.99
	290 mm	—	1.35
cores filled with vermiculite	140 mm	—	0.58
	190 mm	—	0.81
	240 mm	—	0.98
	290 mm	—	1.06

Table A-9.36.2.4.(1)D.
Thermal Resistance Values of Common Building Materials(1)

Concrete Blocks	Thickness of Material	Thermal Resistance (RSI), $(m^2 \cdot K)/W$ per mm	Thermal Resistance (RSI), $(m^2 \cdot K)/W$ for thickness listed
cores filled with molded EPS beads	190 mm	—	0.85
molded EPS inserts in cores	190 mm	—	0.62
Medium-weight units (combination of normal- and low-mass aggregate) with 2 or 3 cores			
no insulation in cores	190 mm	—	0.26
cores filled with molded EPS beads	190 mm	—	0.56
molded EPS inserts in cores	190 mm	—	0.47
cores filled with perlite	190 mm	—	0.53
cores filled with vermiculite	190 mm	—	0.58
Normal-weight units (sand and gravel aggregate) with 2 or 3 cores			
no insulation in cores	90 mm	—	0.17
	140 mm	—	0.19
	190 mm	—	0.21
	240 mm	—	0.24
	290 mm	—	0.26
cores filled with perlite	190 mm	—	0.35
cores filled with vermiculite	140 mm	—	0.40
	190 mm	—	0.51
	240 mm	—	0.61
	290 mm	—	0.69
Hollow Clay Bricks	Thickness of Material	Thermal Resistance (RSI), $(m^2 \cdot K)/W$ per mm	Thermal Resistance (RSI), $(m^2 \cdot K)/W$ for thickness listed
Multi-cored without insulation in cores	90 mm	—	0.27
Rectangular 2-core			
no insulation in cores	140 mm	—	0.39
	190 mm	—	0.41
	290 mm	—	0.47
cores filled with vermiculite	140 mm	—	0.65
	190 mm	—	0.86
	290 mm	—	1.29
Rectangular 3-core			
no insulation in cores	90 mm	—	0.35
	140 mm	—	0.38
	190 mm	—	0.41
	240 mm	—	0.43
	290 mm	—	0.45

Table A-9.36.2.4.(1)D.
Thermal Resistance Values of Common Building Materials(1)

Hollow Clay Bricks	Thickness of Material	Thermal Resistance (RSI), $(m^2 \cdot K)/W$ per mm	Thermal Resistance (RSI), $(m^2 \cdot K)/W$ for thickness listed
cores filled with vermiculite	140 mm	—	0.68
	190 mm	—	0.86
	240 mm	—	1.06
	290 mm	—	1.19
Interior Finish Materials(12)	Thickness of Material	Thermal Resistance (RSI), $(m^2 \cdot K)/W$ per mm	Thermal Resistance (RSI), $(m^2 \cdot K)/W$ for thickness listed
Gypsum board	—	0.0061	—
Hardboard – medium-density (800 kg/m^3)	—	0.0095	—
Interior finish (plank, tile) board	—	0.0198	—
Particleboard			
low-density (590 kg/m^3)	—	0.0098	—
medium-density (800 kg/m^3)	—	0.0074	—
high-density (1 000 kg/m^3)	—	0.0059	—
underlay	15.9 mm	—	0.140
Plywood	—	0.0087	—
Flooring material			
Carpet and fibrous pad	—	—	0.370
Carpet and rubber pad	—	—	0.220
Cork tile	3.2 mm	—	0.049
Hardwood flooring	19 mm	—	0.120
Terrazzo	25 mm	—	0.014
Tile (linoleum, vinyl, rubber)	—	—	0.009
Tile (ceramic)	9.5 mm	—	0.005
Wood subfloor	19 mm	—	0.170
Plastering			
Cement plaster: sand aggregate	—	0.0014	—
Gypsum plaster			
low-density aggregate	—	0.0044	—
sand aggregate	—	0.0012	—

Notes to Table A-9.36.2.4.(1)D.:

(1) The thermal resistance values given in Table A-9.36.2.4.(1)D. are generic values for the materials listed or minimum acceptable values taken from the standards listed. Values published by manufacturers for their proprietary materials may differ slightly but are permitted to be used, provided they were obtained in accordance with the test methods referenced in Article 9.36.2.2. For materials not listed in the Table or where the listed value does not reflect the thickness of the product, the thermal resistance value has to be calculated by dividing the material's thickness, in m, by its conductivity, in W/(m·K), which can be found in the manufacturer's literature.

(2) RSI values can be interpolated for air cavity sizes that fall between 13 and 90 mm, and they can be moderately extrapolated for air cavities measuring more than 90 mm. However, air cavities measuring less than 13 mm cannot be included in the calculation of effective thermal resistance of the assembly.

(3) Where strapping is installed, use the RSI value for an air layer of equivalent thickness.

(4) Reflective insulation material may contribute a thermal property value depending on its location and installation within an assembly. Where a value is obtained through evaluation carried out in accordance with Clause 9.36.2.2.(4)(b), it may be included in the calculation of the thermal resistance or transmittance of the specific assembly.

(5) Materials installed towards the exterior of a vented air space cannot be included in the calculation of effective thermal resistance of the assembly.
(6) All types of cellular foam plastic insulation manufactured to be able to retain a blowing agent, other than air, for a period longer than 180 days shall be tested for long-term thermal resistance (LTTR) in accordance with CAN/ULC-S770, "Determination of Long-Term Thermal Resistance of Closed-Cell Thermal Insulating Foams." This LTTR value shall be input as the design thermal resistance value for the purpose of energy calculations in Section 9.36. Product standards contain a baseline LTTR for a thickness of 50 mm, from which the LTTR for other thicknesses can be calculated.
(7) An RSI 3.52 (R20) batt compressed into a 140 mm cavity has a thermal resistance value of 3.34 (R19); if installed uncompressed in a 152 mm cavity (e.g. in a metal stud assembly), it will retain its full thermal resistance value of 3.52 (m^2·K)/W.
(8) Expanded polystyrene insulation is not manufactured to be able to retain a blowing agent; it is therefore not necessary to test its LTTR. See (9).
(9) The thermal resistance values for wood species are based on a moisture content (MC) of 12%. In Canada, equilibrium moisture content for wood in buildings ranges from 8-14%. The difference between the thermal properties of wood species with 12% MC and those with 14% MC is negligible.
(10) For wood species not listed in the Table, the RSI value of a wood species of equal or greater density (or specific gravity (relative density)) can be used since the thermal resistance of wood is directly related to its density (higher density wood has a lower thermal resistance).
(11) 0.0085 is considered a common value for structural softwood (see also ASHRAE 2009, "ASHRAE Handbook – Fundamentals").
(12) Materials installed towards the interior of a conditioned air space cannot be included in the calculation of effective thermal resistance of the assembly.

A-9.36.2.4.(3) Calculating Thermal Resistance of Major Structural Penetrations Projecting slabs contribute a large area to the 2% exclusion so calculation and analysis of the heat loss through the area they penetrate should be carried out; where construction features only occasional penetrations by beams or joists, the heat loss is less critical to the overall energy performance of a building. Although the 2% exemption is based on gross wall area, it applies to penetrations through any building envelope assembly.

A-9.36.2.4.(4) Credit for Unheated Spaces Protecting the Building Envelope The reduction in RSI afforded by Sentence 9.36.2.4.(4) is intended to provide a simple credit under the prescriptive path for any unheated space that protects a component of the building envelope. The credited value is conservative because it cannot take into account the construction of the enclosure surrounding the unheated space, which may or may not comply with the Code; as such, too many variables, such as its size or airtightness, may negate any higher credit that could be allowed.

There may be simulation tools that can be used under the performance path to provide a better assessment of the effect of an indirectly heated space; these tools may be used to calculate the credit more accurately when an unheated space is designed to provide significantly better protection than the worst-case situation assumed here. Vented spaces, such as attic and roof spaces or crawl spaces, are considered as exterior spaces; the RSI-value credit allowed in Sentence 9.36.2.4.(4) can therefore not be applied in the calculation of the effective thermal resistance of assemblies separating conditioned spaces from vented spaces.

A-9.36.2.5.(1) Continuity of Insulation Sentence 9.36.2.5.(1) is intended to apply to building components such as partitions, 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 because the method for calculating the effective thermal resistance of such assemblies, which is described in Appendix Note A-9.36.2.4.(1), takes their presence into consideration.

The rest of Article 9.36.2.5. contains exceptions to Sentence (1): Sentences (2) to (8) introduce relaxations for various construction details while Sentence (9) allows a complete exemption to the requirements in Sentence (1) for three specific construction details. Balcony and canopy slabs are also exempt from the requirements in Sentence (1) because their presence is permitted to be disregarded when calculating the overall effective thermal resistance of walls they penetrate.

A-9.36.2.5.(2) Thermal Bridging Sentence 9.36.2.5.(2) aims to minimize thermal bridging within the building envelope, which occurs when building elements conduct more heat than the insulated portion of the building envelope, which can lead to significant heat loss through the thermal bridge. The most typical case to which Clause 9.36.2.5.(2)(a) applies is that of a firewall that must completely penetrate the building envelope (see Figure A-9.36.2.5.(2)-A). Figures A-9.36.2.5.(2)-B and A-9.36.2.5.(2)-C illustrate the insulation options presented in Clauses 9.36.2.5.(2)(b) and (c).

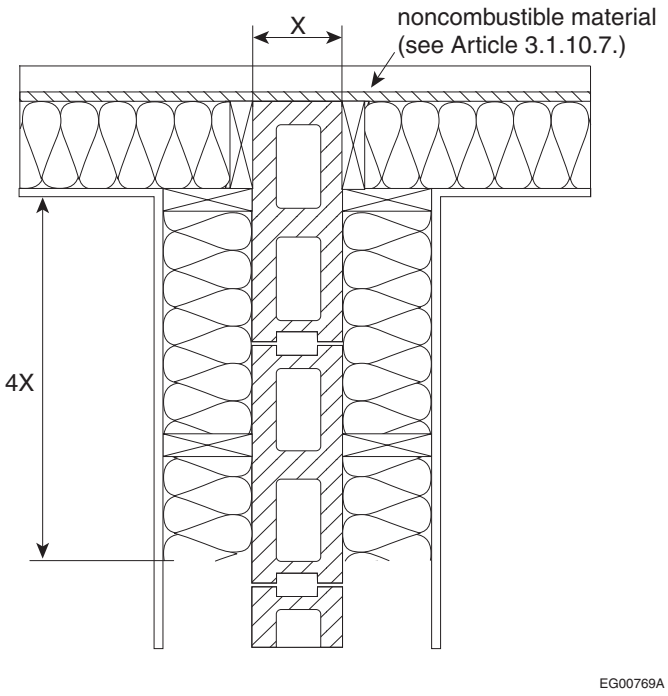


Figure A-9.36.2.5.(2)-A
Penetrating element insulated on both sides

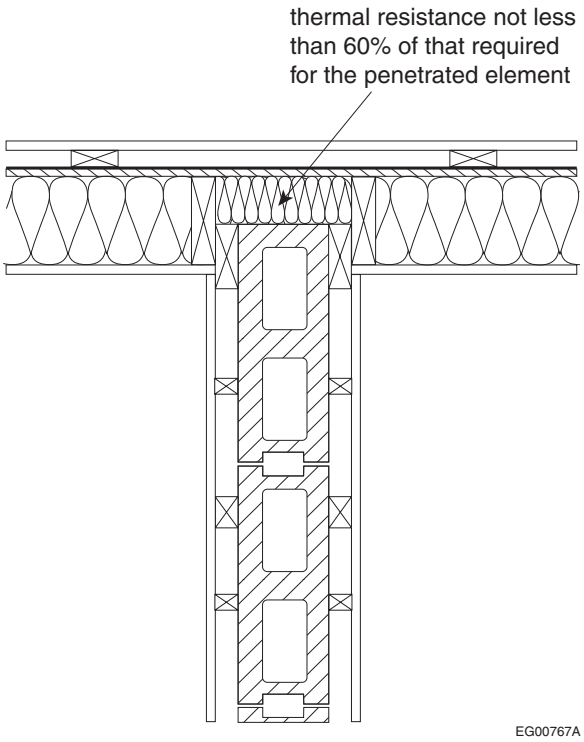


Figure A-9.36.2.5.(2)-B
Penetrating element insulated within exterior wall

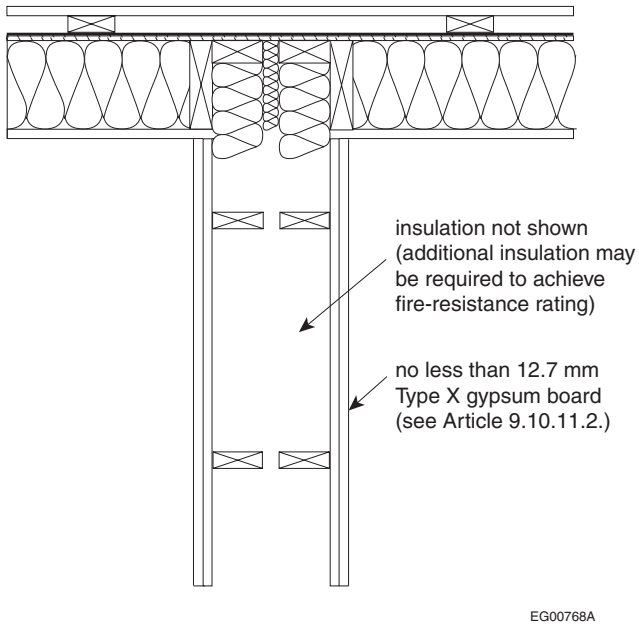


Figure A-9.36.2.5.(2)-C
Penetrating element insulated within itself

A-9.36.2.5.(3) Insulation of Masonry Fireplaces The two insulation options for masonry fireplaces and flues presented in Sentence 9.36.2.5.(3) are consistent with those presented in Sentences 9.36.2.5.(2) and (4) with the exception of the option to insulate the sides of the penetrating element to 4 times the thickness of the penetrated wall, which would not be an energy-efficient option in cases where the penetration by the fireplace or flue is several feet wide.Figures A-9.36.2.5.(3)-A and A-9.36.2.5.(3)-B illustrate the options for achieving a continuously insulated exterior wall where it is penetrated by a masonry fireplace or flue.

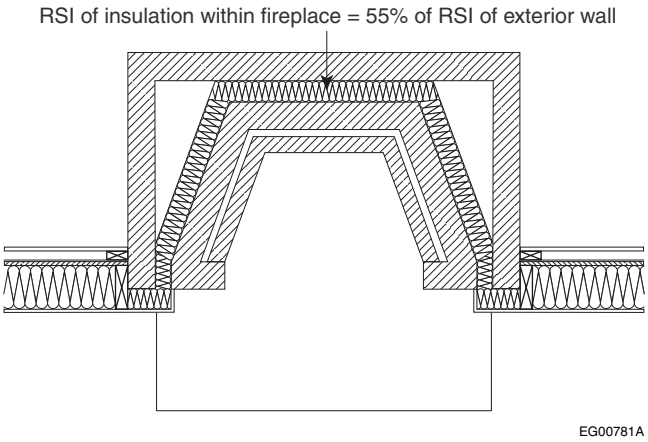


Figure A-9.36.2.5.(3)-A
Masonry fireplace insulated within itself

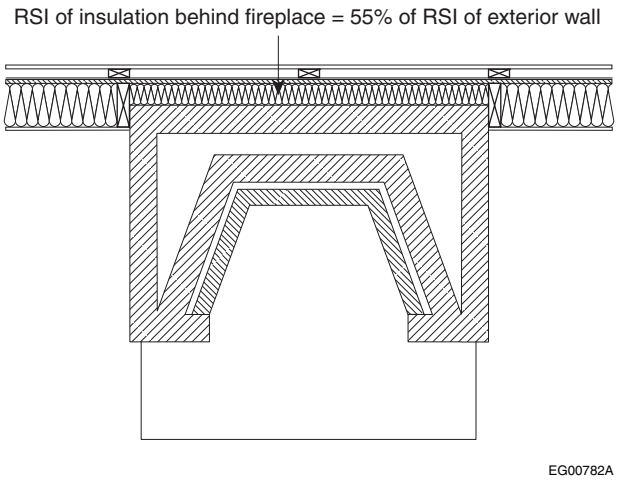


Figure A-9.36.2.5.(3)-B
Masonry fireplace insulated within plane of insulation of exterior wall

A-9.36.2.5.(5) Maintaining Continuity of Insulation An example to which Sentence 9.36.2.5.(5) does not apply is that of a foundation wall that is insulated on the inside and the insulation continues through the joist cavity and into the wall assembly. An example to which Sentence (5) does apply is a foundation wall that is insulated on the outside below grade and on the inside above grade, in which case the distance separating the two planes of insulation is the thickness of the foundation wall.

In the configuration described in Sentence (5), the top of the foundation wall might also be required to be insulated to reduce the effect of thermal bridging through it. Insulation is not required to be overlapped as stated in Sentence (5) in cases where the joist cavities on top of the foundation wall are filled with insulation.

For cast-in-place concrete foundation walls, Sentence (5) ensures that the continuity of the insulation is maintained at every section across the wall.

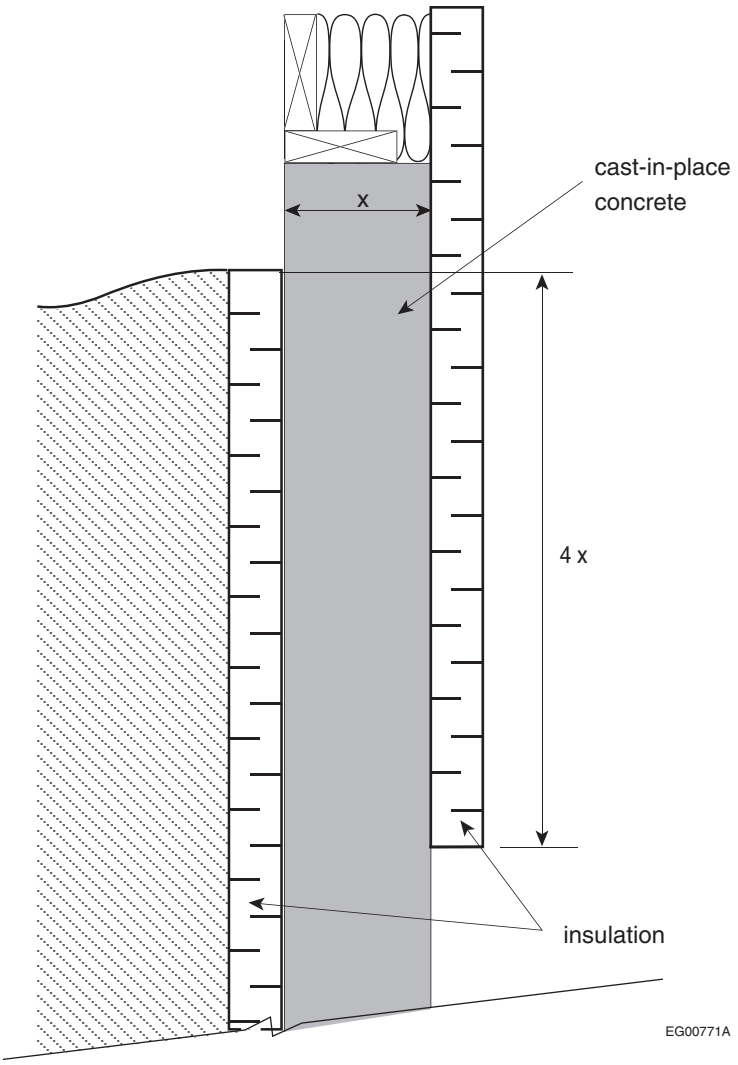


Figure A-9.36.2.5.(5)-A
Application of Sentence 9.36.2.5.(5) to a cast-in-place concrete foundation wall

In the case of hollow-core masonry walls, the effect of convection in the cores needs to be addressed. The cores of the block course that coincide with the respective lowest and highest ends of each plane of insulation should be filled with grout, mortar or insulation to reduce convection within the cores, which could short-circuit the insulation's function.

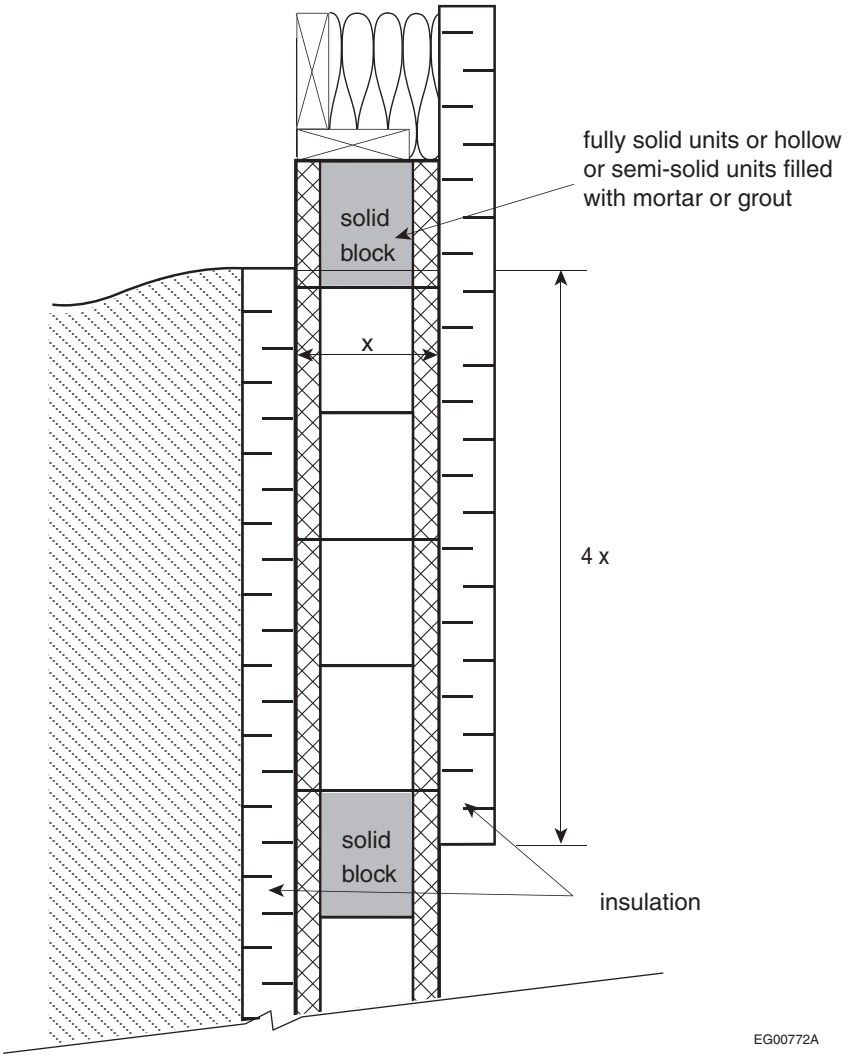


Figure A-9.36.2.5.(5)-B
Application of Sentence 9.36.2.5.(5) to a hollow-core masonry foundation wall

A-9.36.2.5.(6) Effective Thermal Resistance at Projected Area Sentence 9.36.2.5.(6) does not apply to components that completely penetrate the building envelope, such as air intake or exhaust ducts. However, it does apply to components that are installed within or partially within the building envelope but that don't penetrate to the outdoors, and to any piece of equipment that is merely recessed into the wall.

A-9.36.2.5.(8) Effective Thermal Resistance at Joints in the Building Envelope Sentence 9.36.2.5.(8) calls for continuity of the effective thermal resistance at the junction between two components of the building envelope, such as a wall with another wall, a wall with a roof, or a wall with a window. For example, where the gap is between a door frame (required U-value 1.8 = RSI value 0.56) and the rough framing members (required RSI value 2.93), it would have to be insulated to the RSI value of the door as a minimum. However, completely filling the gap with insulation may not be necessary as this may in fact compromise the rainscreen principle where required. Care should therefore be taken when installing insulation between windows, doors and walls.

A-9.36.2.6.(1) Thermal Characteristics of Above-ground Opaque Building Assemblies

Building Envelope Insulation and Ventilation Options

Although the Code does not present any formal trade-off options between the building envelope requirements and the ventilation or water-heating requirements, Tables 9.36.2.6.A. and 9.36.2.6.B. recognize that the same level of energy performance can be achieved through two different combinations of building envelope insulation levels and different ventilation strategies. The insulation values in Table 9.36.2.6.A. are based on mechanical ventilation solutions without heat recovery, while those in Table 9.36.2.6.B. are based on a heat recovery ventilator (HRV) that operates for at least 8 hours a day throughout the year at the minimum required ventilation capacity. The operation of the HRV affords a reduction in the RSI values for some assemblies, most notably for walls and rim joists.

Nominal Insulation Values for Above-ground Walls

Tables A-9.36.2.6.(1)A. and A-9.36.2.6.(1)B. are provided to help Code users assess the compliance of above-ground walls with Table 9.36.2.6.A. or 9.36.2.6.B. Table A-9.36.2.6.(1)A. presents the minimum nominal thermal resistance to be made up in a given wall assembly for it to achieve the applicable RSI value required by Table 9.36.2.6.A. or 9.36.2.6.B. The amount of additional materials needed to meet the prescribed RSI value can then be estimated using the thermal resistance values listed in Table A-9.36.2.4.(1)D. for the rest of the building materials in the assembly, any finishing materials, sheathing or insulation, if applicable, and the interior and exterior air films. See the example given in Note (4) of Table A-9.36.2.6.(1)A.

Note that the wall assemblies described in Table A-9.36.2.6.(1)A. do not necessarily address other building envelope requirements (see Section 9.25.).

Table A-9.36.2.6.(1)A.
Minimum Nominal Thermal Resistance (RSI) to be Made up by Insulation, Sheathing or Other Materials and Air Films in Above-ground Wall Assemblies

Description of Framing or Material	Thermal Resistance of Insulated Assembly			Minimum Effective Thermal Resistance Required by Article 9.36.2.6. for Above-ground Wall Assemblies, (m^2·K)/W			
	Nominal, (m^2·K)/W (ft^2·°F·h/Btu)		Effective, (m^2·K)/W	2.78	2.97	3.08	3.85
	Insulation in Framing Cavity	Continuous Materials	Entire Assembly	Minimum Nominal Thermal Resistance,[1] in (m^2·K)/W, to be Made up by Insulation, Sheathing[2] or Other Materials and Air Film Coefficients			
38 x 140 mm wood at 406 mm o.c.	3.34 (R19)[3]	None	2.36	0.42[5]	0.61	0.72	1.49
		1.32 (R7.5)	3.68	—	—	—	0.17
	3.87 (R22)	None	2.55	0.23	0.42	0.54	1.30
		0.88 (R5)	3.43	—	—	—	0.42
	4.23 (R24)	None	2.66	0.12	0.30	0.42	1.18
38 x 140 mm wood at 610 mm o.c.	3.34 (R19)[3]	None	2.45	0.33	0.52	0.63	1.40
		0.88 (R5)	3.33	—	—	—	0.52
		1.32 (R7.5)	3.77	—	—	—	0.08
	3.87 (R22)	None	2.67	0.11	0.30	0.42	1.18
	4.23 (R24)	None	2.80	—	0.17	0.28	1.05
38 x 89 mm wood at 406 mm o.c.	2.11 (R12)	0.88 (R5)	2.37	0.40	0.59	0.71	1.47
		1.32 (R7.5)	2.81	—	0.15	0.27	1.03
		1.76 (R10)	3.25	—	—	—	0.59
	2.46 (R14)	0.88 (R5)	2.50	0.28	0.47	0.58	1.35
		1.76 (R10)	3.38	—	—	—	0.47
38 x 89 mm wood at 610 mm o.c.	2.11 (R12)	0.88 (R5)	2.43	0.35	0.54	0.65	1.42
		1.32 (R7.5)	2.87	—	0.10	0.21	0.98
	2.46 (R14)	1.76 (R10)	3.46	—	—	—	0.39
Insulating concrete form (ICF), 150 mm thick[4]	n/a	3.52 (R20)	3.58	—	—	—	0.27
		3.73 (R21.2)	3.79	—	—	—	0.06
Concrete block masonry: lightweight, 190 mm thick	n/a	1.76 (R10)	2.08	0.70	0.89	1.00	1.77
		2.64 (R15)	2.96	—	0.01	0.12	0.89
		3.52 (R20)	3.84	—	—	—	0.01
Concrete block masonry: normal-weight, 190 mm thick	n/a	1.76 (R10)	1.97	0.81	1.00	1.11	1.88
		2.64 (R15)	2.85	—	0.12	0.23	1.00
		3.52 (R20)	3.73	—	—	—	0.12

Notes to Table A-9.36.2.6.(1)A.:

(1) A dash (—) means that no additional materials are needed in order to meet the minimum required effective thermal resistance for the assembly in question; however, sheathing may be required for fastening of cladding or lateral bracing.

(2) Where insulating sheathing is installed towards the exterior of the assembly, low permeance requirements addressed in Article 9.25.5.2. must be taken into consideration.

(3) When RSI 3.52 (R20) insulation batts are installed in 140 mm wood framing, they undergo some compression, which reduces their original RSI value to 3.34 (m^2·K)/W (R19). However, when they are installed in 152 mm metal framing, R20 batts retain their original thermal resistance value.

(4) There are many types of ICF designs with different form thicknesses and tie configurations. Where ICF systems incorporate metal ties, thermal bridging should be accounted for. Where permanent wood blocking (bucks) for windows and doors is not covered by the same interior and exterior levels of insulation, it shall be accounted for in the calculation of effective thermal resistance.

(5) Example: To determine what additional materials would be needed to make up 0.42 (m^2·K)/W, the RSI values of the other components in the wall assembly are added up as follows:

interior air film coefficient (walls): 0.12 (m2·K)/W
12.7 mm gypsum board interior finish: 0.08 (m2·K)/W
12.7 mm gypsum board exterior sheathing: 0.08 (m2·K)/W
metal or vinyl siding: 0.11 (m2·K)/W
exterior air film coefficient (walls): 0.03 (m2·K)/W
RSI of other components in assembly: 0.12 + 0.08 + 0.08 + 0.11 + 0.03 = 0.42 (m2·K)/W

Result: no additional materials are needed to meet the effective thermal resistance required for this particular wall assembly.

Table A-9.36.2.6.(1)B. can be used to determine the total effective thermal resistance (RSI) value of the framing/cavity portion of a number of typical above-ground wall assemblies as well as some atypical ones not covered in Table A-9.36.2.6.(1)A. Additional configurations and assembly types are listed in EnergyStar tables available online at http://ENERGYSTARforNewHomesStandard.NRCan.gc.ca.

Select the applicable stud/joist size and spacing and the RSI/R-value of the insulation to obtain the resultant effective RSI value for that frame configuration. If the RSI/R-value of the insulation product to be installed falls between two RSI/R-values listed in the Table, the lower value must be used. Once the effective RSI value of the framing/cavity portion is known, add up the nominal RSI values of all other materials in the assembly (see Table A-9.36.2.4.(1)D.) to obtain the total effective RSI value for the entire assembly. See the calculation examples in Appendix Note A-9.36.2.4.(1) for further guidance.

Table A-9.36.2.6.(1)B.
Effective Thermal Resistance (RSI) Values of the Framing/Cavity Portion of Above-Ground Wall Assemblies

Nominal Thermal Resistance of Cavity Insulation		Size, mm, and Spacing, mm o.c., of Above-ground Wood-frame Wall Assembly							
		38 x 89				38 x 140			
		304	406	488	610	304	406	488	610
RSI, (m^2·K)/W	R, ft^2·°F·h/Btu	Effective Thermal Resistance of Framing/Cavity Portion,(1) (m^2·K)/W							
1.94	11	1.40	1.43	1.45	1.48	—	—	—	—
2.11	12	1.47	1.49	1.52	1.55	—	—	—	—
2.29	13	1.53	1.56	1.59	1.63	—	—	—	—
2.47	14	1.59	1.62	1.66	1.70	1.95	1.98	2.01	2.03
2.64	15	1.64	1.68	1.72	1.76	2.03	2.06	2.09	2.12
2.82	16	1.69	1.73	1.78	1.82	2.11	2.14	2.18	2.21
2.99	17	1.74	1.78	1.83	1.88	2.18	2.22	2.26	2.30
3.17	18	1.78	1.83	1.88	1.94	2.25	2.29	2.33	2.38
3.34	19	1.82	1.87	1.93	1.98	2.32	2.36	2.41	2.45
3.52	20	1.86	1.91	1.97	2.03	2.38	2.43	2.48	2.53
3.70	21	—	—	—	—	2.44	2.49	2.55	2.60
3.87	22	—	—	—	—	2.49	2.55	2.61	2.67
4.05	23	—	—	—	—	2.55	2.61	2.67	2.74
4.23	24	—	—	—	—	2.60	2.66	2.73	2.80
4.40	25	—	—	—	—	2.65	2.72	2.78	2.86
4.58	26	—	—	—	—	2.70	2.77	2.84	2.92
4.76	27	—	—	—	—	2.74	2.82	2.89	2.98
4.93	28	—	—	—	—	2.79	2.86	2.94	3.03

Table A-9.36.2.6.(1)B.
Effective Thermal Resistance (RSI) Values of the Framing/Cavity Portion of Above-Ground Wall Assemblies

Nominal Thermal Resistance of Cavity Insulation		Size, mm, and Spacing, mm o.c., of Above-ground Wood-frame Wall Assembly							
		38 x 89				38 x 140			
		304	406	488	610	304	406	488	610
RSI, $(m^2 \cdot K)/W$	R, $ft^2 \cdot °F \cdot h/Btu$	Effective Thermal Resistance of Framing/Cavity Portion,(1) $(m^2 \cdot K)/W$							
5.11	29	—	—	—	—	2.83	2.91	2.99	3.08
5.28	30	—	—	—	—	2.87	2.95	3.04	3.13

Notes to Table A-9.36.2.6.(1)B.:

(1) These RSI values are valid where the cavity is completely filled with insulation and they do not account for air space in the cavity. A dash (—) means that it is not feasible to install the cavity insulation listed within the frame configuration in question.

A-9.36.2.6.(3) Reduced Effective Thermal Resistance Near the Eaves of Sloped Roofs Minimum thermal resistance values for attic-type roofs are significantly higher than those for walls. The exemption in Sentence 9.36.2.6.(3) recognizes that the effective thermal resistance of a ceiling below an attic near its perimeter will be affected by roof slope, truss design and required ventilation of the attic space. It is assumed that the thickness of the insulation will be increased as the roof slope increases until there is enough space to allow for the installation of the full thickness of insulation required.

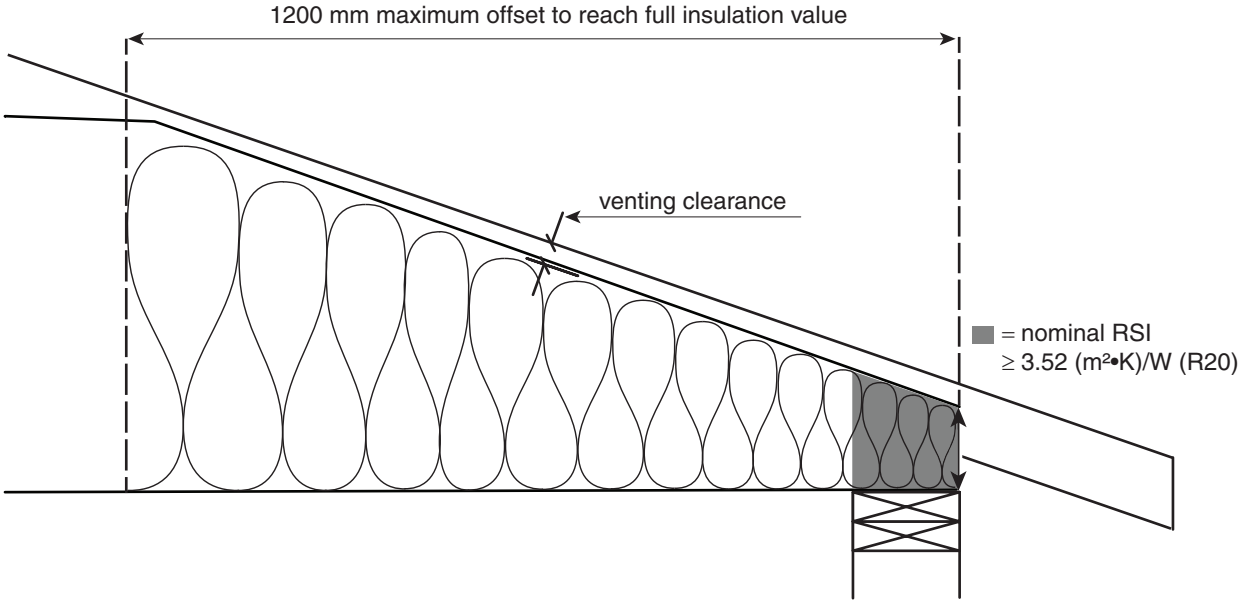


Figure A-9.36.2.6.(3)
Area of ceiling assemblies in attics permitted to have reduced thermal resistance

A-9.36.2.7.(1) and (2) Design of Windows, Glazed Doors and Skylights The design of windows, glazed doors and skylights involves many variables that impact their energy performance and their compliance with the Code's energy efficiency requirements, such as the type of framing material, number of glass layers, type and position of low-emissivity (low-e) coating, type and size of spacer between glass layers, type of gas used to fill the glass unit, and additionally for glazed doors, type of materials used to construct the door slab.

Here are a few examples of common window and glazed door constructions:

- a U-value of about 1.8 is typically achieved using argon-filled glazing units with a low-e coating and energy-efficient spacer materials installed in a frame chosen mostly for aesthetic reasons;
- a U-value of about 1.6 is typically achieved using triple glazing but may be achieved using double glazing with an optimized gas, spacer and coating configuration installed in an insulated frame;
- a U-value of about 1.4 is typically achieved using triple glazing and multiple low-e coatings.

U-values and Energy Ratings (ER) for manufactured windows, glazed doors and skylights are obtained through testing in accordance with the standards referenced in Sentence 9.36.2.2.(3). The U-value and/or ER number for a proprietary product that has been tested can be found in the manufacturer's literature or on a label affixed to the product.

A-Table 9.36.2.7.A. Thermal Characteristics of Windows and Doors Energy Ratings, also known as ER numbers, are based on CSA A440.2/A440.3CSA A440.2/A440.3, "Fenestration Energy Performance/User Guide to CSA A440.2-09, Fenestration Energy Performance."

They are derived from a formula that measures the overall performance of windows or doors based on solar heat gain, heat loss and air leakage through frames, spacers and glass. The ER formula produces a single unitless ER number between 0 and 50 for each of the specified sample sizes found in CSA A440.2/A440.3 (the number only applies to the product at the sample size and not to a particular proprietary window or door). The higher the ER number, the more energy-efficient the product. Note that the ER formula does not apply to sloped glazing so skylights do not have an ER value.

The maximum U-values specified in Table 9.36.2.7.A. are based on the following assumptions:

- that of moderate solar gain for each window and glazed door,
- that houses have a mix of picture and sash windows, each of which performs differently from an energy-efficiency perspective, and
- that fenestration area to gross wall area ratios typically vary between 8% and 25%.

A-9.36.2.7.(3) Site-built Windows Site-built windows are often installed in custom-built homes or in unique configurations for which manufactured units are not available. The airtightness requirements in Section 9.7. also apply to site-built windows.

A-9.36.2.8.(1) Nominal Insulation Values for Walls Below-Grade or in Contact with the Ground Tables A-9.36.2.8.(1)A., A-9.36.2.8.(1)B. and A-9.36.2.8.(1)C. are provided to help Code users assess the compliance of walls that are below-grade or in contact with the ground with Table 9.36.2.8.A. or 9.36.2.8.B. Table A-9.36.2.8.(1)A. presents the minimum nominal thermal resistance to be made up in a given wall assembly for it to achieve the applicable RSI value required by Table 9.36.2.8.A. or 9.36.2.8.B. The amount of additional materials needed to meet the prescribed RSI value can then be estimated using the thermal resistance values listed in Table A-9.36.2.4.(1) D. for the rest of the building materials in the assembly, any finishing materials, sheathing or insulation, if applicable, and the interior air film. For example, an RSI value of 0.20 (m^2·K)/W needed to achieve the minimum RSI for a given assembly could be made up by installing 12.7 mm gypsum board, which has an RSI value of 0.0775 (m^2·K)/W, and by taking into account the air film coefficient on the interior side of the wall, which is 0.12 (m^2·K)/W.

Note that the wall assemblies described in Table A-9.36.2.8.(1)A. do not necessarily address other structural or building envelope requirements (see Section 9.25.).

Table A-9.36.2.8.(1)A.
Minimum Nominal Thermal Resistance (RSI) to be Made up by Insulation, Sheathing or Other Materials and Air Films in Wall Assemblies Below-Grade or in Contact with the Ground

Description of Framing or Material	Size and Spacing of Wood Framing	Thermal Resistance of Insulated Assembly			Minimum Effective Thermal Resistance Required by Article 9.36.2.8. for Wall Assemblies Below-Grade or in Contact with the Ground, (m^2·K)/W			
		Nominal, (m^2·K)/W (ft^2·°F·h/Btu)		Effective, (m2·K)/W	1.99	2.98	3.46	3.97
		Insulation in Framing Cavity	Continuous Materials	Entire Assembly	Minimum Nominal Thermal Resistance,[1] in (m^2·K)/W, to be Made up by Insulation, Sheathing[2] or Other Materials and Air Film Coefficients			
200 mm cast-in-place concrete	38 x 89 mm, 610 mm o.c.	2.11 (R12)	None	1.79	0.20	1.19	1.67	2.18
			1.41 (R8)	3.20	—	—	0.26	0.77
		2.46 (R14)	1.76 (R10)	3.75	—	—	—	0.22
	38 x 140 mm, 610 mm o.c.	3.34 (R19)[3]	None	2.78	—	0.20	0.68	1.19
		4.23 (R24)	None	3.26	—	—	0.20	0.71
	None	n/a	1.76 (R10)	1.84	0.15	1.14	1.62	2.13
			2.64 (R15)	2.72	—	0.26	0.74	1.25
			3.52 (R20)[3]	3.60	—	—	—	0.37

Table A-9.36.2.8.(1)A.
Minimum Nominal Thermal Resistance (RSI) to be Made up by Insulation, Sheathing or Other Materials and Air Films in Wall Assemblies Below-Grade or in Contact with the Ground

Description of Framing or Material	Size and Spacing of Wood Framing	Thermal Resistance of Insulated Assembly			Minimum Effective Thermal Resistance Required by Article 9.36.2.8. for Wall Assemblies Below-Grade or in Contact with the Ground, (m^2·K)/W			
		Nominal, (m^2·K)/W (ft^2·°F·h/Btu)		Effective, (m2·K)/W	1.99	2.98	3.46	3.97
		Insulation in Framing Cavity	Continuous Materials	Entire Assembly	Minimum Nominal Thermal Resistance,[1] in (m^2·K)/W, to be Made up by Insulation, Sheathing[2] or Other Materials and Air Film Coefficients			
190 mm concrete block masonry: normal-weight, no insulation in cores	38 x 89 mm, 610 mm o.c.	2.11 (R12)	None	1.92	0.07	1.06	1.54	2.05
			1.41 (R8)	3.33	—	—	0.13	0.64
			2.11 (R12)	4.03	—	—	—	—
	38 x 140 mm, 610 mm o.c.	3.34 (R19)[3]	None	2.91	—	0.07	0.55	1.06
		4.23 (R24)	None	3.39	—	—	0.07	0.58
	None	n/a	1.76 (R10)	1.97	0.02	1.01	1.49	2.00
			2.64 (R15)	2.85	—	0.13	0.61	1.12
			3.52 (R20)[3]	3.73	—	—	—	0.24
190 mm concrete block masonry: light-weight, no insulation in cores	38 x 89 mm, 610 mm o.c.	2.11 (R12)	None	2.03	—	0.95	1.43	1.94
			1.41 (R8)	3.44	—	—	0.02	0.53
			2.11 (R12)	4.14	—	—	—	—
	38 x 140 mm, 610 mm o.c.	3.34 (R19)[3]	None	3.02	—	—	0.44	0.95
		4.23 (R24)	None	3.50	—	—	—	0.47
	None	n/a	1.76 (R10)	2.08	—	0.90	1.38	1.89
			2.64 (R15)	2.96	—	0.02	0.50	1.01
			3.52 (R20)	3.84	—	—	—	0.13
Insulating concrete form (ICF):[4]150 mm concrete	n/a	n/a	3.52 (R20)[3]	3.58	—	—	—	0.39
			3.73 (R21.2)	3.79	—	—	—	0.18
Pressure-treated wood frame	38 x 140 mm, 203 mm o.c.	3.34 (R19)[3]	None	2.33	—	0.65	1.13	1.64
		4.23 (R24)	None	2.62	—	0.36	0.84	1.35
	38 x 186 mm, 203 mm o.c.	4.93 (R28)	None	2.81	—	0.17	0.65	1.16
	38 x 235 mm, 203 mm o.c.	5.28 (R31)	None	3.86	—	—	—	0.11
	38 x 140 mm, 406 mm o.c.	3.34 (R19)[3]	None	2.59	—	0.39	0.87	1.38
		4.23 (R24)	None	3.00	—	—	0.46	0.97
	38 x 186 mm, 406 mm o.c.	4.93 (R28)	None	3.85	—	—	—	0.12
	38 x 235 mm, 406 mm o.c.	5.28 (R31)	None	4.11	—	—	—	—

Notes to Table A-9.36.2.8.(1)A.:

(1) A dash (—) means that no additional materials are needed in order to meet the minimum required effective thermal resistance for the assembly in question; however, sheathing may be required for fastening of cladding or lateral bracing.

(2) Wood-based sheathing ≥ 11 mm thick generally has a thermal resistance of 0.11 (m^2·K)/W (R0.62). However, thicker sheathing may be required for structural stability or fastening of cladding. Note that thinner R0.62 wood-based sheathing products are also available (see Table A-9.36.2.4.(1)D.).

(3) When RSI 3.52 (R20) insulation batts are installed in 140 mm wood framing, they undergo some compression, which reduces their original RSI value to 3.34 (m^2·K)/W (R19). However, when they are installed in 152 mm metal framing or in a wood frame that is offset from the back-up wall, R20 batts retain their original thermal resistance value.

(4) There are many types of ICF designs with different form thicknesses and tie configurations. Where ICF systems incorporate metal ties, thermal bridging should be accounted for.

Tables A-9.36.2.8.(1)B. and A-9.36.2.8.(1)C. can be used to determine the total effective thermal resistance (RSI) value of the framing/cavity portion of a number of typical below-grade wall assemblies as well as some atypical ones not covered in Table A-9.36.2.8.(1)A. Additional configurations and assembly types are listed in EnergyStar tables available online at http://ENERGYSTARforNewHomesStandard.NRCan.gc.ca.

Select the applicable stud/joist size and spacing and the RSI/R-value of the insulation to obtain the resultant effective RSI value for that frame configuration. If the RSI/R-value of the insulation product to be installed falls between two RSI/R-values listed in the Table, the lower value must be used. Once the effective RSI value of the framing/cavity portion is known, add up the nominal RSI values of all other materials in the assembly (see Table A-9.36.2.4.(1)D.) to obtain the total effective RSI value of the entire assembly. See the calculation examples in Appendix Note A-9.36.2.4.(1) for further guidance.

Table A-9.36.2.8.(1)B.
Effective Thermal Resistance (RSI) Values of the Framing/Cavity Portion of Pressure-treated Foundation Wall Assemblies

Nominal Thermal Resistance of Cavity Insulation		Size, mm, and Spacing, mm o.c., of Pressure-treated Wood-frame Foundation Wall Assembly					
		38 x 185			38 x 235		
		203	304	406	203	304	406
RSI, (m^2·K)/W	R, ft^2·°F·h/Btu	Effective Thermal Resistance of Framing/Cavity Portion,(1) (m^2·K)/W					
2.11	12	1.95	1.98	2.00	2.08	2.09	2.09
2.29	13	2.06	2.10	2.13	2.21	2.23	2.24
2.47	14	2.17	2.23	2.26	2.34	2.36	2.38
2.64	15	2.27	2.33	2.38	2.45	2.49	2.51
2.82	16	2.36	2.45	2.50	2.57	2.62	2.65
2.99	17	2.45	2.55	2.61	2.67	2.73	2.77
3.17	18	2.54	2.65	2.72	2.78	2.85	2.90
3.34	19	2.62	2.75	2.83	2.88	2.96	3.02
3.52	20	2.71	2.84	2.93	2.98	3.07	3.14
3.70	21	2.79	2.94	3.04	3.07	3.18	3.26
3.87	22	2.86	3.02	3.13	3.16	3.28	3.37
4.05	23	2.93	3.11	3.23	3.25	3.39	3.48
4.23	24	3.00	3.20	3.32	3.34	3.49	3.59
4.40	25	3.07	3.27	3.41	3.41	3.58	3.69
4.58	26	3.13	3.35	3.50	3.50	3.68	3.79
4.76	27	3.19	3.43	3.59	3.57	3.77	3.90
4.93	28	3.25	3.50	3.67	3.65	3.85	3.99
5.11	29	3.31	3.57	3.75	3.72	3.94	4.09
5.28	30	3.36	3.64	3.83	3.79	4.02	4.18
5.46	31	3.42	3.71	3.90	3.86	4.11	4.27

Notes to Table A-9.36.2.8.(1)B.:

(1) These RSI values are valid where the cavity is completely filled with insulation and they do not account for air space in the cavity.

Table A-9.36.2.8.(1)C.
Effective Thermal Resistance (RSI) Values of the Framing/Cavity Portion of Below-Grade Interior Non-loadbearing Wood-frame Wall Assemblies

Nominal Thermal Resistance of Cavity Insulation		Size, mm, and Spacing, mm o.c., of Below-Grade Interior Non-loadbearing Wood-frame Wall Assembly							
		38 x 89				38 x 140			
		203	304	406	610	203	304	406	610
RSI, $(m^2 \cdot K)/W$	R, $ft^2 \cdot °F \cdot h/Btu$	Effective Thermal Resistance of Framing/Cavity Portion,(1) $(m^2 \cdot K)/W$							
0.00	0	0.22	0.21	0.20	0.20	—	—	—	—
1.41	8	1.17	1.21	1.24	1.27	—	—	—	—
1.94	11	1.41	1.50	1.55	1.61	—	—	—	—
2.11	12	1.48	1.57	1.64	1.71	—	—	—	—
2.29	13	1.54	1.65	1.73	1.81	—	—	—	—
2.47	14	1.60	1.73	1.81	1.91	—	—	—	—
2.64	15	1.65	1.79	1.89	1.99	—	—	—	—
2.82	16	1.70	1.86	1.96	2.08	2.12	2.24	2.31	2.39
2.99	17	1.75	1.92	2.03	2.16	2.19	2.32	2.41	2.50
3.17	18	1.80	1.97	2.10	2.24	2.27	2.41	2.50	2.61
3.34	19	1.84	2.03	2.16	2.31	2.33	2.49	2.59	2.70
3.52	20	1.88	2.08	2.22	2.39	2.39	2.57	2.68	2.81
3.70	21	1.91	2.13	2.28	2.46	2.46	2.64	2.77	2.90
3.87	22	1.95	2.17	2.33	2.52	2.51	2.71	2.84	2.99
4.05	23	1.98	2.22	2.39	2.59	2.57	2.78	2.93	3.09
4.23	24	2.01	2.26	2.44	2.65	2.62	2.85	3.00	3.18
4.40	25	—	—	—	—	2.67	2.91	3.07	3.26
4.58	26	—	—	—	—	2.72	2.97	3.15	3.34
4.76	27	—	—	—	—	2.77	3.03	3.22	3.42
4.93	28	—	—	—	—	2.81	3.09	3.28	3.50

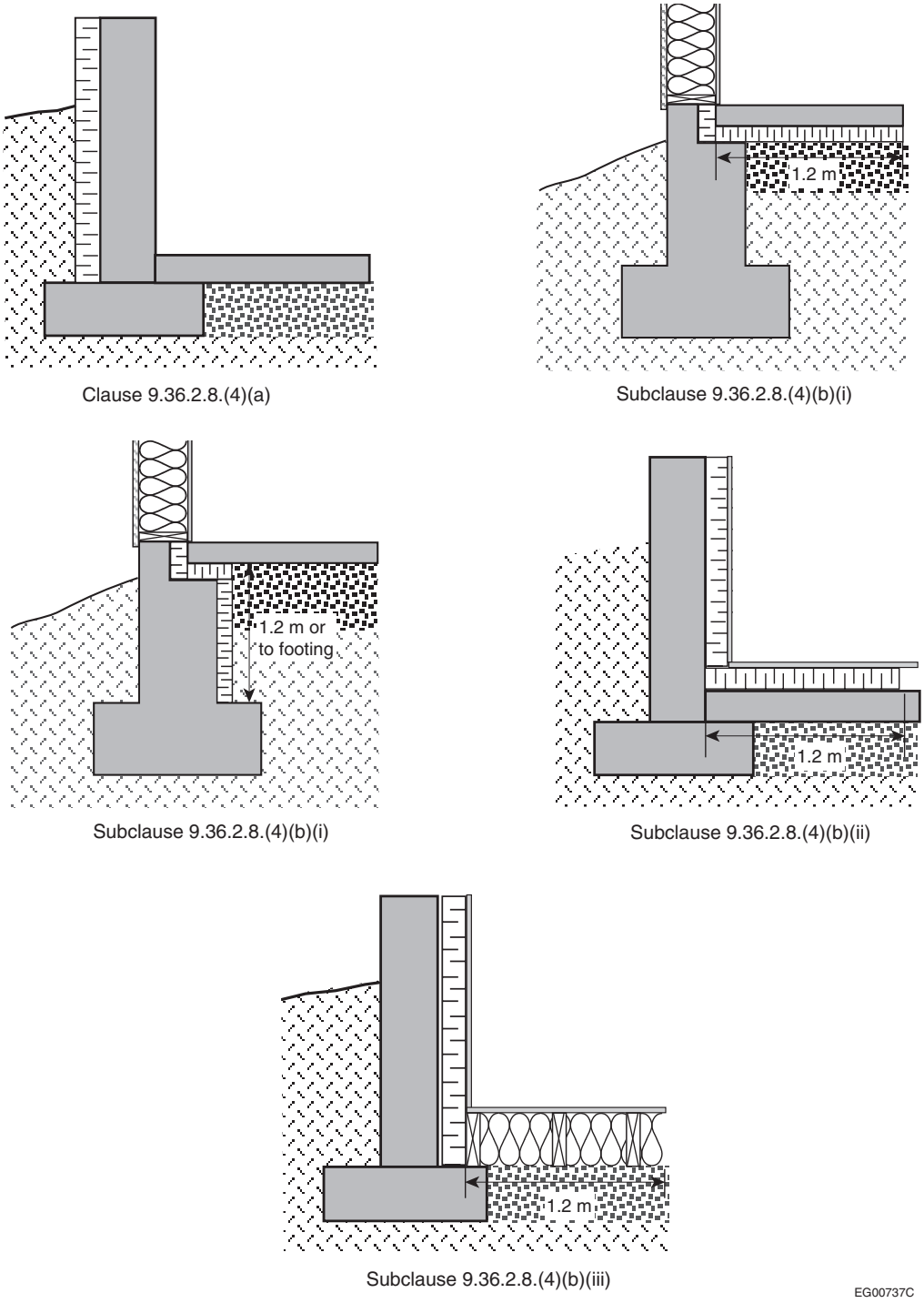
Notes to Table A-9.36.2.8.(1)C.:

(1) These RSI values are valid where the cavity is completely filled with insulation and they do not account for air space in the cavity. A dash (—) means that it is not feasible to install the cavity insulation listed within the frame configuration in question.

A-Tables 9.36.2.8.A. and B. Multiple Applicable Requirements In cases where a single floor assembly is made up of several types of the floor assemblies listed in Tables 9.36.2.8.A. and 9.36.2.8.B., each portion of that floor must comply with its respective applicable RSI value. For example, in the case of a walkout basement, the portion of floor that is above the frost line—i.e. the walkout portion—should be insulated in accordance with the values listed in the applicable Table whereas the portion below the frost line can remain uninsulated.

A-9.36.2.8.(2) Combination Floor Assemblies An example of a floor assembly to which Sentence 9.36.2.8.(2) would apply is a heated slab-on-grade with an integral footing.

A-9.36.2.8.(4) Unheated Floors-on-ground Above the Frost Line Figure A-9.36.2.8.(4) illustrates the insulation options for unheated floors-on-ground that are above the frost line.



Clause 9.36.2.8.(4)(a)

Subclause 9.36.2.8.(4)(b)(i)

Subclause 9.36.2.8.(4)(b)(i)

Subclause 9.36.2.8.(4)(b)(ii)

Subclause 9.36.2.8.(4)(b)(iii)

Figure A-9.36.2.8.(4)
Options for insulating unheated floors-on-ground

A-9.36.2.8.(9) Skirt Insulation "Skirt insulation" refers to insulation installed on the exterior perimeter of the foundation and extended outward horizontally or at a slope away from the foundation. In cold climates, skirt insulation is typically extended 600 to 1000 mm out from the vertical foundation wall over the footings to reduce heat loss from the house into the ground and to reduce the chance of frost forming under the footings.

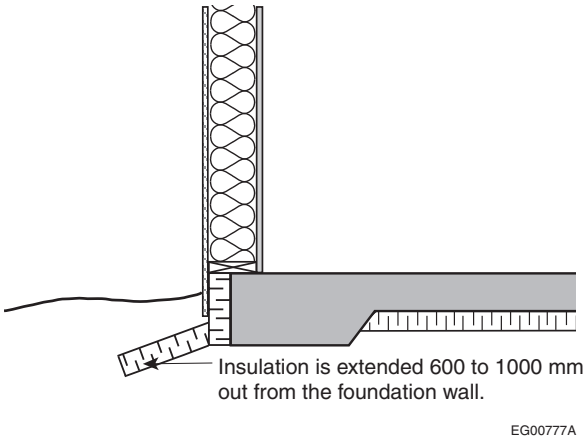


Figure A-9.36.2.8.(9)
Skirt insulation

A-9.36.2.9.(1) Controlling air leakage

Airtightness Options

Sentence 9.36.2.9.(1) presents three options for achieving an airtight building envelope: one prescriptive option (Clause (a)) and two testing options (Clauses (b) and (c)).

Air Barrier System Approaches

For an air barrier system to be effective, all critical junctions and penetrations addressed in Articles 9.36.2.9. and 9.36.2.10. must be sealed using either an interior or exterior air barrier approach or a combination of both.

The following are examples of typical materials and techniques used to construct an interior air barrier system:

- airtight-drywall approach
- sealed polyethylene approach
- joint sealant method
- rigid panel material (i.e. extruded polystyrene)
- spray-applied foams
- paint or parging on concrete masonry walls or cast-in-place concrete

Where the air barrier and vapour barrier functions are provided by the same layer, it must be installed toward the warm (in winter) side of the assembly or, in the case of mass walls such as those made of cast-in place concrete, provide resistance to air leakage through much of the thickness of the assembly. Where these functions are provided by separate elements, the vapour barrier is required to be installed toward the interior of the assembly while the airtight element can be installed toward the interior or exterior depending on its vapour permeance.

The following are examples of typical materials and techniques used to construct an exterior air barrier system:

- rigid panel material (i.e. extruded polystyrene)
- house wraps
- peel-and-stick membranes
- liquid-applied membranes

When designing an exterior air barrier system, consideration should be given to the strength of the vapour barrier and expected relative humidity levels as well as to the climatic conditions at the building's location and the properties of adjoining materials.

A-9.36.2.9.(5) Making Fireplaces Airtight Besides fireplace doors, other means to reduce air leakage through fireplaces are available; for example, installing a glass-enclosed fireplace.

A-9.36.2.9.(6) Exterior Air Barrier Design Considerations Any airtight assembly—whether interior or exterior—will control air leakage for the purpose of energy efficiency. However, the materials selected and their location in the assembly can have a significant impact on their effectiveness with regard to moisture control and the resistance to deterioration of the entire building envelope.

A-9.36.2.10.(5)(b) Sealing the Air Barrier System with Sheathing Tape One method of sealing air barrier materials at joints and junctions is to apply sheathing tape that has an acceptable air leakage characteristic, is compatible with the air barrier material and resistant to the mechanisms of deterioration to which the air barrier material will be exposed. Where an assembly tested to CAN/ULC-S742, "Air Barrier Assemblies – Specification," includes sheathing tape as a component, the sheathing tape will have been tested for compatibility and resistance to deterioration and will be referenced in the manufacturer's literature as acceptable for use with that air barrier assembly.

A-9.36.2.10.(7)(a) Components Designed to Provide a Seal at Penetrations An example of the component referred to in Clause 9.36.2.10.(7)(a) is a plastic surround for electrical outlet boxes that has a flange to which sealant can be applied or that has an integrated seal.

A-9.36.2.10.(9) Sealing the Air Barrier around Windows, Doors and Skylights A continuous seal between windows, doors and skylights and adjacent air barrier materials can be achieved by various means including applying exterior sealant, interior sealant, low-expansion foam or sheathing tape in combination with drywall, polyethylene, a closed-cell backer rod, or a wood liner.

A-9.36.2.10.(14) Sealing Duct Penetrations Article 9.32.3.11. requires that joints in all ventilation system ducting be sealed with mastic, metal foil duct tape or sealants specified by the manufacturer. Sentence 9.36.2.10.(14) requires that penetrations made by ducts through ceilings or walls be sealed with appropriate sealant materials and techniques to prevent air leakage. Mechanical fastening of the duct at the penetration may further reduce the likelihood of air leakage through the penetration.

A-9.36.2.11. Concept of Trade-offs The trade-off options presented in Sentences 9.36.2.11.(2) to (4) afford some degree of flexibility in the design and construction of energy-efficient features in houses and buildings as they allow a builder/designer to install one or more assemblies with a lower RSI value than that required in Articles 9.36.2.1. to 9.36.2.7. as long as the discrepancy in RSI value is made up by other assemblies and that the total area of the traded assemblies remains the same.

Limitations to Using Trade-off Options

In some cases, the energy-conserving impact of requirements cannot be easily quantified and allowing trade-offs would be unenforceable: this is the case, for instance, for airtightness requirements (Article 9.36.2.10.). In other cases, no credit can be given for improving energy performance where the Code permits reduced performance: for example, the Code allows insulation to be reduced at the eaves under a sloped roof so no credit can be given for installing raised heel trusses to accommodate the full insulation value otherwise required by the Code; in other words, the increased RSI value that would be achieved with the raised truss cannot be traded.

Furthermore, the trade-off calculations only address conductive heat loss through the building envelope and are therefore limited in their effectiveness at keeping the calculated energy performance of a building in line with its actual energy performance, which includes solar heat gains. The limitations stated in Sentence 9.36.2.11.(6) address this by ensuring that the thermal resistances are relatively evenly distributed across all building assemblies.

Terms Used in Trade-off Provisions

For the purposes of Article 9.36.2.11., the term "reference" (e.g. reference assembly) refers to a building element that complies with the prescriptive requirements of Articles 9.36.2.1. to 9.36.2.7., whereas the term "proposed" refers to a building element whose RSI value can be traded in accordance with Sentence 9.36.2.11.(2), (3) or (4), as applicable.

A-9.36.2.11.(2) Trading RSI Values of Above-Ground Opaque Building Envelope Assemblies Sentence 9.36.2.11.(2) applies where a designer wants to use a wall or ceiling assembly with a lower effective thermal resistance than required by Subsection 9.36.2. in one building envelope area and an assembly with a compensating higher effective thermal resistance in another building envelope area to achieve the same energy performance through the combined total areas as would be achieved by complying with Subsection 9.36.2.

Table A-9.36.2.11.(2)
Example

A designer wants to reduce the insulation in 40 m² of wall area in the proposed design from the required effective RSI value of 3.27 (R24 batts in a 38 x 140 mm frame, 406 mm o.c.) to a value of 2.93 (R20 batts). The proposed design has 200 m² of attic space where more insulation could be added to compensate for the lower RSI value in the 40 m² of wall.					
Assemblies Being Traded	Area of Each Assembly (A)	Reference Design Values		Proposed Design Values	
		RSI values (R)	A/R Values	RSI values (R)	A/R Values
Attic	200 m²	8.66 (m²·K)/W	23.09 W/K	8.66 (m²·K)/W	23.09 W/K
Wall	40 m²	3.27 (m²·K)/W	12.23 W/K	2.93 (m²·K)/W	13.65 W/K
		Total A/R value: 35.32 W/K		Total A/R value: 36.74 W/K	
The increased total A/R value for the attic and wall assemblies of the proposed design, which is caused by less insulation in the wall, now has to be compensated for by an increase in attic insulation while keeping the respective areas of the building assemblies constant. To determine the RSI value to be made up by insulation in the attic (i.e. increase in effective thermal resistance of attic assembly), first calculate the difference between the two total A/R values:					
36.74 W/K – 35.32 W/K = 1.42 W/K					
Then, subtract this residual A/R value from the A/R value required for the attic insulation:					
23.09 W/K – 1.42 W/K = 21.67 W/K					
Adding this decreased A/R value for the proposed attic to the increased A/R value for the proposed wall now gives a total A/R value that is less than or equal to that of the reference design:					
21.67 W/K + 13.65 W/K = 35.32 W/K					
To determine the RSI value to be made up by insulation in the attic of the proposed design, divide the area of the attic by the decreased A/R value required for the attic of the proposed design (21.67 W/K):					
200 m²/21.67 W/K = 9.23 (m²·K)/W (R52.4)					
Assemblies Being Traded	Area of Each Assembly (A)	Reference Design Values		Proposed Design Trade-off Values	
		RSI values (R)	A/R Values	RSI values (R)	A/R Values
Attic	200 m²	8.66 (m²·K)/W	23.09 W/K	9.23 (m²·K)/W	21.67 W/K
Wall	40 m²	3.27 (m²·K)/W	12.23 W/K	2.93 (m²·K)/W	13.65 W/K
		Total A/R value: 35.32 W/K		Total A/R value: 35.32 W/K	

A-9.36.2.11.(2) and (3) Calculating Trade-off Values To trade effective thermal resistance values between above-ground building envelope components or assemblies, the ratios of area and effective thermal resistance of all such components or assemblies for the reference case (in which all components and assemblies comply with Article 9.36.2.6.) and the proposed case (in which the effective thermal resistance values of some areas are traded) must be added up and compared using the following equation:

$$\sum_{i=1}^{n} \frac{A_{ir}}{R_{ir}} \geq \sum_{i=1}^{n} \frac{A_{ip}}{R_{ip}}$$

where

R_{ir} = effective thermal resistance of assembly i of the reference case,

A_{ir} = area of assembly i of the reference case,

R_{ip} = effective thermal resistance of assembly i of the proposed case,

A_{ip} = area of assembly i of the proposed case,

n = total number of above-ground components or assemblies, and

i = 1, 2, 3, …, n.

The sum of the areas of the above-ground assemblies being traded in the proposed case (A_{ip}) must remain the same as the sum of the areas of the corresponding above-ground assemblies in the reference case (A_{ir}). Only the trade-off option described in Sentence 9.36.2.11. (4) allows a credit for a reduction in window area where the window to gross wall area ratio is less than 17%.

A-9.36.2.11.(3) Trading R-values of Windows Sentence 9.36.2.11.(3) applies where a designer wants to install one or more windows having a U-value above the maximum permitted by Article 9.36.2.7. and reduce the U-value of other windows to achieve the same overall energy performance through the combined total area of all windows as would be achieved by complying with Article 9.36.2.7. (Note that R-values, not U-values as are typically used in relation to windows, are used in this Appendix Note.)

Table A-9.36.2.11.(3)
Example

<table>
<tr><td colspan="4">A designer wants to install a large stained glass window on the south side of the proposed house as well as other windows for a total 12 m² in area. The designer wants the stained glass window to have a U-value of 2.7 W/(m²·K) (R-value 0.37 (m²·K)/W), which is higher than the maximum permitted by Subsection 9.7.3. for condensation resistance, and proposes to compensate for its reduced energy performance by reducing the U-value of the remaining windows on that side, which total 10 m².</td></tr>
<tr><td rowspan="2">Assemblies on South Side</td><td rowspan="2">Total Area of Assemblies (A)</td><td colspan="2">Reference Design Values</td></tr>
<tr><td>R-value (R)</td><td>A/R Value</td></tr>
<tr><td>Windows</td><td>12 m²</td><td>0.56 (m²·K)/W</td><td>21.54 W/K</td></tr>
<tr><td></td><td></td><td colspan="2">Total A/R value: 21.54 W/K</td></tr>
<tr><td rowspan="2">Assemblies Being Traded on South Side</td><td rowspan="2">Total Area of Assemblies (A)</td><td>Proposed Design Values</td><td></td></tr>
<tr><td>R-value (R)</td><td>A/R Values</td></tr>
<tr><td>Stained glass window</td><td>2 m²</td><td>0.37 (m²·K)/W</td><td>5.41 W/K</td></tr>
<tr><td>Other windows</td><td>10 m²</td><td>0.56 (m²·K)/W</td><td>17.86 W/K</td></tr>
<tr><td></td><td></td><td colspan="2">Total A/R value: 23.27 W/K</td></tr>
<tr><td colspan="4">The increased total A/R value for the window assemblies on the south side of the proposed house, which is due to the stained glass window, now has to be compensated for by better windows (i.e. with a lower U-value than the maximum allowed) while keeping the total area of windows in the house constant (12 m²). To determine the R-value required to be made up by the rest of the windows on the south side, first calculate the difference between the two total A/R values:</td></tr>
<tr><td colspan="4">23.27 W/K – 21.54 W/K = 1.73 W/K</td></tr>
<tr><td colspan="4">This value (1.73 W/K) now has to be subtracted from the A/R value for the 10 m² of windows to determine the compensating energy performance needed:</td></tr>
<tr><td colspan="4">17.86 W/K – 1.73 W/K = 16.13 W/K</td></tr>
<tr><td colspan="4">Adding this decreased A/R value for the windows to the increased A/R value for the stained glass window will now give a total A/R value that is less than or equal to that of the reference design:</td></tr>
<tr><td colspan="4">16.13 W/K + 5.41 W/K = 21.54 W/K</td></tr>
<tr><td colspan="4">To determine the R-value to be made up by the rest of the windows on the south side of the proposed house, divide the area of the remaining windows by the decreased A/R value for the 10 m² of windows:</td></tr>
<tr><td colspan="4">10 m²/16.13 W/K = 0.62 (m²·K)/W (or a U-value of 1.6 W/(m²·K))</td></tr>
<tr><td rowspan="2">Assemblies Being Traded on South Side</td><td rowspan="2">Total Area of Assemblies (A)</td><td colspan="2">Proposed Design Trade-off Values</td></tr>
<tr><td>R-values (R)</td><td>A/R Values</td></tr>
<tr><td>Stained glass window</td><td>2 m²</td><td>0.37 (m²·K)/W</td><td>5.41 W/K</td></tr>
<tr><td>Other windows</td><td>10 m²</td><td>0.62 (m²·K)/W</td><td>16.13 W/K</td></tr>
<tr><td></td><td></td><td colspan="2">Total A/R value: 21.54 W/K</td></tr>
</table>

A-9.36.2.11.(4) RSI Values of Insulation in Attics under Sloped Roofs

Trade-off Option for Buildings with Low Ceilings

The trade-off option presented in Sentence 9.36.2.11.(4) relating to buildings with a low floor-to-ceiling height and a relatively low window and door area to wall area ratio recognizes the proven energy performance of single-section factory-constructed buildings, which have very low sloped roofs in order to comply with transportation height limitations. This option is provided to avoid unnecessarily imposing performance modeling costs. It is unlikely to be applied to site-constructed buildings or to factory-constructed buildings that are not subject to stringent transportation height restrictions because low ceilings are not the preferred choice, and the cost of cutting framing and interior finish panel products to size would exceed the cost of meeting the prescriptive attic and floor insulation levels.

Trade-off Calculation

The trade-off option presented in Sentence 9.36.2.11.(4) allows the trading of a credit based on the difference between the reference (prescriptive) and actual (proposed) window and door area. This credit can be used to reduce the required effective thermal resistance of all ceiling or floor assemblies (attics).

$$\frac{(A_{w,r\ (17\%)} - A_{w,p\ (max.\ 15\%)})}{R_{w,r}} \geq \sum_{i=1}^{n} \frac{A_{i,c/f,r}}{R_{i,c/f,r}} - \sum_{i=1}^{n} \frac{A_{i,c/f,p}}{R_{i,c/f,p}}$$

where

$R_{i,c/f,r}$ = effective thermal resistance of ceiling/floor assembly i of the reference case,

$A_{i,c/f,r}$ = area of ceiling/floor assembly i of the reference case,

$R_{i,c/f,p}$ = effective thermal resistance of ceiling/floor assembly i of the proposed case,

$A_{i,c/f,p}$ = area of ceiling/floor assembly i of the proposed case,

$A_{w,r\ (17\%)}$ = area of windows constituting 17% of gross wall area (see Article 9.36.2.3.),

$R_{w,r}$ = effective thermal resistance of windows (see Article 9.36.2.7.),

$A_{w,p\ (max.15\%)}$ = area of windows constituting 15% or less of gross wall area (see Article 9.36.2.3.),

n = total number of ceiling/floor assemblies, and

i = 1, 2, 3,…, n.

The sum of $A_{i,c/f,p}$ must equal the sum of $A_{i,c/f,r}$. The sum of the areas of all other building envelope assemblies must remain the same in both the proposed and reference cases.

Trading Window Area for Reduced Attic Insulation

Sentence 9.36.2.11.(4) applies where a proposed design has a fenestration and door area to gross wall area ratio (FDWR) of 15% or less. The resulting reduction in energy loss due to the fact that there are fewer windows is traded for a reduction in R-value for a specific area in the attic where it is impossible to install the required insulation level due to roof slope.

Table A-9.36.2.11.(4)
Example

A designer wants to use a FDWR of 12% in the proposed design in order to be able to install less insulation in the 100 m² of attic space.			
Assemblies Being Traded	Area of Each Assembly (A)	Reference Design Values (FDWR 17%)	
		RSI values (R)	A/R Values
Attic	100 m²	8.67 (m²·K)/W	11.5 W/K
Windows	25 m²	0.63 (m²·K)/W	39.7 W/K
		Total A/R value: 51.2 W/K	
Assemblies Being Traded	Area of Each Assembly (A)	Proposed Design Values (FDWR 12%)	
		RSI values (R)	A/R Values
Attic	100 m²	8.67 (m²·K)/W	11.5 W/K
Windows	18 m²	0.63 (m²·K)/W	28.6 W/K
		Total A/R value: 40.1 W/K	
To determine the reduction in RSI value permitted for the attic insulation in the proposed design, first calculate the difference between the two A/R values:			
51.2 W/K – 40.1 W/K = 11.1 W/K			
This residual A/R value can now be used as a credit towards the A/R value of the attic insulation in the proposed design:			
11.1 W/K + 11.5 W/K = 22.6 W/K			
Adding this increased A/R value for the proposed attic to the A/R value for the proposed window area will now give a total A/R value that is less than or equal to that of the reference design:			
22.6 W/K + 28.6 W/K = 51.2 W/K			
To determine the new RSI value of the attic insulation, divide the area of the attic by its new increased A/R value:			

Table A-9.36.2.11.(4)
Example

100 m^2/22.6 W/K = 4.42 (m^2·K)/W			
Because Clause 9.36.2.11.(6)(b) limits the reduction of a traded RSI value for opaque building envelope assemblies—in this case, an attic—to 60% of the minimum RSI value permitted by Article 9.36.2.6., this new RSI value of 4.42 (m^2·K)/W for the attic is too low (60% x 8.67 = 5.20 (m^2·K)/W). Therefore, the full potential trade-off for this example cannot be used.			
Assemblies Being Traded	Area of Each Assembly (A)	Proposed Design Trade-off Values (FDWR 12%)	
		RSI values (R)	A/R Values
Attic	100 m^2	5.20 (m^2·K)/W	19.2 W/K
Windows	18 m^2	0.63 (m^2·K)/W	28.6 W/K
		Total A/R value: 47.8 W/K (< 51.2 W/K)	

A-9.36.2.11.(6)(a) Reduction in Thermal Resistance of Ceilings in Buildings with Low Ceilings Sentence 9.36.2.11.(4) allows insulation in attics under sloped roofs to be reduced to less than the prescriptive level required for the exterior walls, which may be less than 55% of the required values for the attic insulation.

A-9.36.3.2.(1) Load Calculations Subsection 9.33.5. requires that heating systems serving single dwelling units be sized in accordance with <CSA F280, "Determining the Required Capacity of Residential Space Heating and Cooling Appliances"> The HRAI Digest is also a useful source of information on the sizing of HVAC systems for residential buildings.

A-9.36.3.2.(2) Design and Installation of Ducts The following publications contain useful information on this subject:

- the ASHRAE Handbooks
- the HRAI Digest
- the ANSI/SMACNA 006, "HVAC Duct Construction Standards – Metal and Flexible"

A-9.36.3.2.(5) Increasing the Insulation on Sides of Ducts Table A-9.36.3.2.(5) can be used to determine the level of insulation needed on the sides of ducts that are 127 mm deep to compensate for a reduced level of insulation on their underside.

Table A-9.36.3.2.(5)
RSI Required on Sides of Ducts where RSI on Underside is Reduced

RSI Required for Exterior Walls,(1) (m^2·K)/W	RSI(2) on Underside of 127 mm Deep Duct, (m^2·K)/W	Width of Duct, mm						
		304	356	406	457	483	508	533
		RSI Required on Sides of Ducts, (m^2·K)/W						
2.78	2.11	4.47	4.98	5.61	6.43	6.94	n/a	n/a
	2.29	3.74	3.97	4.23	4.52	4.69	4.86	5.05
	2.64	2.97	3.00	3.03	3.07	3.09	3.10	3.12
2.96	2.11	5.70	6.75	8.25	n/a	n/a	n/a	n/a
	2.29	4.56	5.02	5.58	6.27	6.68	n/a	n/a
	2.64	3.46	3.57	3.67	3.78	3.84	3.90	3.97
3.08	2.29	5.26	5.96	6.88	n/a	n/a	n/a	n/a
	2.64	3.85	4.02	4.20	4.40	4.50	4.62	4.73
3.85	3.43	4.67	4.84	5.03	5.23	5.34	5.45	5.56

Notes to Table A-9.36.3.2.(5):

(1) See Article 9.36.2.6.

(2) See Appendix Note A-9.36.1.2.(3) for the formula to convert metric RSI values to imperial R values.

A-9.36.3.3.(4) Exemption The exemption in Sentence 9.36.3.3.(4) typically applies to heat-recovery ventilators and ventilation systems that are designed to run or are capable of running continuously for specific applications. See also .

A-9.36.3.4.(1) Piping for Heating and Cooling Systems CAN/CSA-B214, "Installation Code for Hydronic Heating Systems," the ASHRAE Handbooks, the HRAI Digest, and publications of the Hydronics Institute are useful sources of information on the design and installation of piping for heating and cooling systems.

A-9.36.3.4.(2) High-Temperature Refrigerant Piping Piping for heat pumps is an example of high-temperature refrigerant piping.

A-9.36.3.5.(1) Location of Heating and Air-conditioning Equipment Locating certain types of equipment for heating and air-conditioning systems—for example, heat-recovery ventilators or furnaces—outdoors or in an unconditioned space may result in lower efficiencies and higher heat loss. Where components of a system are intended to be installed outside— for example, portions of heat pump systems and wood-fired boilers—efficiency losses, if any, have already been accounted for in their design.

A-9.36.3.6.(7) Heat Pump Controls for Recovery from Setback The requirements of Sentence 9.36.3.6.(7) can be achieved through several methods:

- installation of a separate exterior temperature sensor,
- setting a gradual rise of the control point,
- installation of controls that "learn" when to start recovery based on stored data.

A-9.36.3.8. Application Article 9.36.3.8. is intended to apply to any vessel containing open water in an indoor setting, not only swimming pools and hot tubs; however, it does not apply to bathtubs. In the context of this Article, the terms "hot tub" and "spa" are interchangeable.

A-9.36.3.8.(4)(a) Heat Recovery from Dehumidification in Spaces with an Indoor Pool or Hot Tub Sentence 9.36.3.8.(4) is not intended to require that all air exhausted from a swimming pool or hot tub area pass through a heat-recovery unit, only sufficient air to recover 40% of the total sensible heat. Most heat-recovery units can recover more than 40% of the sensible heat from the exhausted air, but because it may not be cost-effective to reclaim heat from all exhaust systems, the overall recovery requirement is set at 40%.

A-9.36.3.9.(1) Heat Recovery in Dwelling Units Whereas Section 9.32. addresses the effectiveness of mechanical ventilation systems in dwelling units from a health and safety perspective, Section 9.36. is concerned with their functioning from an energy efficiency perspective.

The requirements of Subsection 9.32.3. can be met using one of several types of ventilation equipment, among them heat-recovery ventilators (HRVs), which are typically the system of choice in cases where heat recovery from the exhaust component of the ventilation system is required. As such, Article 9.36.3.9. should be read in conjunction with the provisions in Subsection 9.32.3. that deal with HRVs.

A-9.36.3.9.(3) Efficiency of Heat-Recovery Ventilators (HRVs) HRVs are required to be tested in conformance with CAN/CSA-C439, "Rating the Performance of Heat/Energy-Recovery Ventilators," under different conditions to obtain a rating: to be rated for colder locations, HRVs must be tested at two different temperatures, as stated in Clause 9.36.3.9.(3)(b), whereas their rating for locations in mild climates relies only on the 0°C test temperature, as stated in Clause 9.36.3.9.(3)(a).

The performance of an HRV product and its compliance with Sentence 9.36.3.9.(3) can be verified using the sensible heat recovery at the 0°C and/or –25°C test station (i.e. location where the temperature is measured) published in the manufacturer's literature or in product directories, such as HVI's Certified Home Ventilating Products Directory.

The rating of HRVs also depends on the flow rate used during testing. Therefore, the minimum flow rate required in Section 9.32. needs to be taken into consideration when selecting an HRV product.

A-9.36.3.10.(1) Unit and Packaged Equipment The minimum performance values stated in Table 9.36.3.10. were developed based on values and technologies found in the Model National Energy Code of Canada for Houses 1997, the NECB, federal, provincial and territorial energy efficiency regulations as well as in applicable standards on equipment typically installed in housing and small buildings.

In some cases—after a review of current industry practices (industry sales figures)—the performance requirements were increased from regulated minimums where it could be shown that the cost and availability of the equipment are acceptable. Some of the performance requirements are based on anticipated efficiency improvements in the energy efficiency regulations and revisions to standards.

A-9.36.3.10.(3) Multiple Component Manufacturers Where components from more than one manufacturer are used as parts of a heating, ventilating or air-conditioning system, the system should be designed in accordance with good practice using component efficiency data provided by the component manufacturers to achieve the overall efficiency required by Article 9.36.3.10.

A-9.36.4.2.(1) Unit and Packaged Equipment The minimum performance values stated in Table 9.36.4.2. were developed based on values and technologies found in the Model National Energy Code of Canada for Houses 1997, the NECB, federal, provincial and territorial energy efficiency acts as well as in applicable standards on equipment typically installed in housing and small buildings.

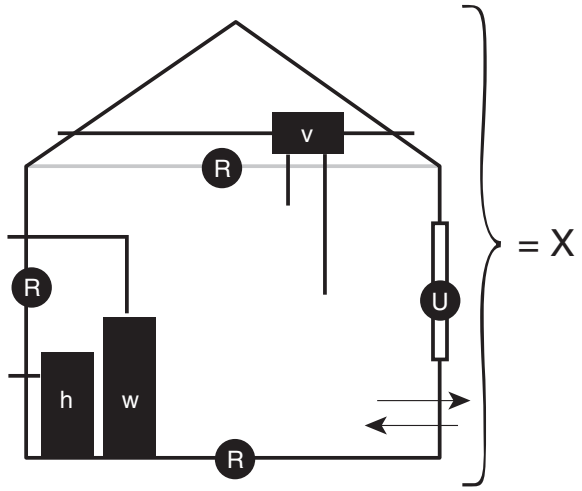
In some cases—after a review of current industry practices (industry sales figures)—the performance requirements were increased from regulated minimums where it could be shown that the cost and availability of the equipment are acceptable.

A-9.36.4.2.(3) Exception Components of solar hot water systems and heat pump systems are examples of service water heating equipment that is required to be installed outdoors.

A-9.36.4.6.(2) Required Operation of Pump The water in indoor pools is pumped through filtration equipment at rates that will help prevent the build-up of harmful bacteria and algae based on water volume and temperature, frequency of pool use, number of swimmers, etc.

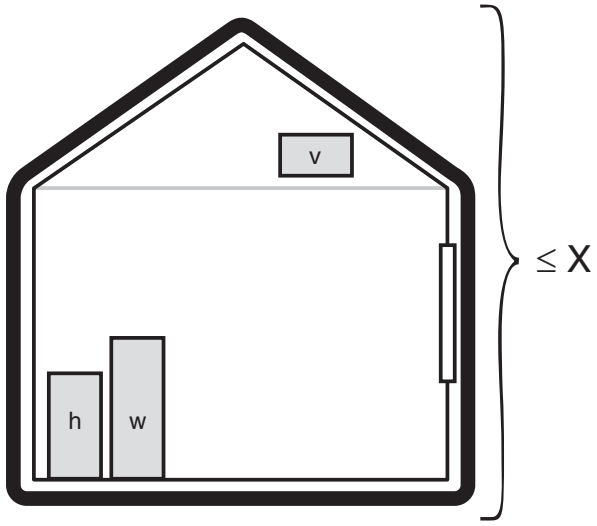
A-9.36.5.2. Use of Terms "Building" and "House" Although the word "house" is used in the terms "proposed house" and "reference house," it is intended to include other types of residential buildings addressed by Subsection 9.36.5. The terms "proposed building" and "reference building" used in the NECB apply to other types of buildings.

A-9.36.5.3.(2) Concept of Comparing Performance Comparing the performance of a reference house to that of a proposed house is one way to benchmark the performance of a proposed house in relation to Code requirements. There are other ways to benchmark energy consumption models: for example, by setting a quantitative energy target or using a benchmark design. In the performance compliance option presented in Subsection 9.36.5., the user must demonstrate that their design results in a similar level of performance to that of the prescriptive requirements— an approach that is consistent with the concept of objective-based codes.



Reference House: complies with prescriptive requirements in Subsections 9.36.2. to 9.36.4.

X = calculated house energy target of reference house



Proposed House: complies with objectives of Subsections 9.36.2. to 9.36.4. using performance compliance option

EG00773A

Figure A-9.36.5.3.(2)
Energy consumption of proposed house versus that of reference house

A-9.36.5.4.(1) Calculation Procedure It is important to characterize actual heat transfer pathways such as areas of fenestration, walls, floors, ceilings, etc. An accurate geometric model of a house, including volume, captures such information, but modeling can be carried out with other calculations.

A-9.36.5.4.(2) Space-Conditioning Load Supplementary heating systems form part of the principal heating system and must be able to meet the space-conditioning load of the house.

A-9.36.5.4.(7) Thermostatic Control The thermostat's response to temperature fluctuations described in Sentence 9.36.5.4.(7) represents a thermostat deadband of ±0.5°C.

A-9.36.5.5.(1) Source of Climatic Data Climatic data sources include the Canadian Weather Year for Energy Calculations (CWEC) and the Canadian Weather Energy and Engineering Data Sets (CWEEDS). The CWEC represent average heating and cooling degree-days which impact heating and cooling loads in buildings. The CWEC follow the ASHRAE WYEC2 format and were derived from the CWEEDS of hourly weather information for Canada from the 1953-1995 period of record. The CWEC are available from Environment Canada at http://climate.weatheroffice.gc.ca/prods_servs/index_e.html.

Where climatic data for a target location are not available, climatic data for a representative alternative location should be selected based on the following considerations: same climatic zone, same geographic area or characteristics, heating degree-days (HDD) of the alternative location are within 10% of the target location's HDD, and the January 1% heating design criteria of the alternative location is within 2°C of the target location's same criteria (see Appendix C). Where several alternative locations are representative of the climatic conditions at the target location, their proximity to the target location should also be a consideration.

A-9.36.5.6.(6) Contents of the House In the context of Subsection 9.36.5., "contents of the house" refers to cabinets, furniture and other elements that are not part of the building structure and whose removal or replacement would not require a building permit.

A-9.36.5.6.(11) Application Sentence 9.36.5.6.(11) is not intended to apply to the fenestration area to wall area ratio.

A-9.36.5.7.(1) Consumption of HVAC systems The energy consumption of HVAC systems typically includes the distribution system and the effect of controls.

A-9.36.5.7.(5) Zoned Air Handlers Zoned air handler systems may also have duct and piping losses.

A-9.36.5.8.(5) Water Delivery Temperature A value of 55˚C is used in the energy model calculations; Article 2.2.10.7. of Division B of <Book II (Plumbing Systems) of this Code> contains different requirements relating to water delivery temperature.

A-9.36.5.9.(1) Modeling the Proposed House

Completeness of the Energy Model Calculations

The specifications for a building typically include the following inputs and variables, among others, which are needed for modeling:

- space-heating and domestic hot water (DHW) systems
- air-, ground- and water-source heat pumps
- central air-conditioning systems
- primary and secondary DHW systems
- efficiencies of heating and cooling equipment
- solar gain through windows facing each cardinal direction
- sloped glazing, including skylights
- overhangs, taking into account the hourly position of the sun with respect to each window and overhang on a typical day each month
- the various levels of thermal mass
- slab-on-grade, crawl space (open, ventilated or closed), basement and walkout foundations, taking into account dimensions, thermal resistance and placement of insulation, soil conductivity, depth of water table, and weather/climate, and
- heat transfer between the three zones of the house, i.e. the attic, main floor and foundation

Opaque Building Envelope Assemblies

In the context of Sentence 9.36.5.9.(1), the term "opaque building envelope assembly" includes above-ground assemblies and those that are in contact with the ground.

A-9.36.5.10.(2) Assembly Type Sentence 9.36.5.10.(2) sets a limit on the size of building envelope assemblies that have to be considered separately in the energy model calculations. In this context, assembly type is intended to mean either walls, roof, fenestration, exposed floors, or foundation walls and is intended to include the respective assembly type areas of the entire building.

A-9.36.5.10.(9)(c)(ii) Equivalent Leakage Area (ELA) The ELA is the size of an imaginary hole through which the same amount of air would pass that passes through all of the unintended openings in the building envelope if the pressure across all those openings were equal. This value is needed in the calculation because it is a good indicator of the airtightness of the house: a leaky house will have a large ELA and a very tight house will have a small ELA. For example, an energy-efficient house might have an ELA as low as 200 cm^2 whereas a very leaky house can have an ELA of more than 3000 cm^2.

A-9.36.5.10.(11) Timing of the Airtightness Test The blower door test described in CAN/CGSB-149.10, "Determination of the Airtightness of Building Envelopes by the Fan Depressurization Method," should be carried out once the building is substantially completed. Sufficient time should be allotted before completion to allow for subsequent air sealing in the event the desired airtightness is not achieved. Interim testing while the air barrier is still accessible for service can also be helpful.

A-9.36.5.11.(9) Part-Load Performance of Equipment

Measured Data

Where available, the measured part-load performance data are provided by the equipment manufacturer.

Modeled Part-Load Performance Data

Part-load performance ratings differ depending on the equipment. The intent of Sentence 9.36.5.11.(9) is to indicate that the same modeled data source should be used for both the proposed and reference houses.

A-9.36.5.11.(10) Sensible Heat Recovery

Treatment of Humidity in the Calculations

The calculations using sensible heat do not take latent heat (humidity) into account.

Energy-Recovery Ventilators

Energy-recovery ventilators can be used in lieu of heat-recovery ventilators.

A-9.36.5.11.(11) Circulation Fans Sentences 9.36.5.11.(12) to (19) calculate the energy consumption of the circulation fan. The results are intended to be used in energy model calculations only and are not intended to address the performance of the ventilation system. The actual sizing of ventilation systems must comply with Section 9.32.

A-9.36.5.12.(2) Assumptions Relating to Drain-Water Heat Recovery Energy savings associated with drain water heat recovery depend on the duration of showers and the vertical drop in the drain pipe. Similar to the service water heating load distribution, the length of showers depends on occupant behaviour. The values provided in Sentence 9.36.5.12.(2) are intended to be used in the energy model calculations only and take into consideration the loads stated in Table 9.36.5.8. The efficiency of a drain-water heat-recovery unit must be modelled using the same physical configuration intended for installation.

A-9.36.5.14.(10) Above-Ground Gross Wall Area The determination of above-ground gross wall area is consistent with the prescriptive requirements of Article 9.36.2.3. in that it is based on the measurement of the distance between interior grade and the uppermost ceiling and on interior areas of insulated wall assemblies.

A-9.36.5.15.(5) Sizing of Heating and Cooling Systems The intent of Sentence 9.36.5.15.(5) is that the cooling system be sized only for the portion of the house that is cooled.

Article 9.33.5.1. references <CSA F280, "Determining the Required Capacity of Residential Space Heating and Cooling Appliances"> which contains a number of different methods for determining the capacity of heating appliances. The intent of Sentence 9.36.5.15.(5) is that the equipment be sized according to the methods for total heat output capacity and nominal cooling capacity without being oversized.

A-9.36.5.15.(6) Default Settings The default settings in energy performance modeling software for houses are an appropriate source of part-load performance values of equipment.

A-9.36.5.15.(8) Treatment of Humidity in the Calculations The calculations using sensible heat do not take latent heat (humidity) into account.

A-9.37.1.1. Application It is intended that Section 9.37. apply to the construction of a secondary suite, whether as an addition to an existing building or as part of the construction of a new building. This Section may also be used as a standard for assessing an existing additional dwelling unit located in a single family dwelling building (house), but is not intended to be applied as a retroactive code to these existing units.

It is intended that the definition reflects that a secondary suite is an additional dwelling unit of limited size located within a house. Many of the changes in Section 9.37. are premised on the condition of the limited size of the secondary suite, which may directly or indirectly relate to issues such as occupant load, travel distance and egress dimensions.

In order for an additional dwelling unit to be considered a secondary suite, the following criteria must apply:

- There is only one secondary suite permitted in the building.
- It must be located in a building containing only residential occupancy.

- The secondary suite is located in or is part of a building containing only one other dwelling unit.
- The area of the secondary suite cannot exceed 90 m^2 of finished living area. (This does not include the areas used for common storage, common laundry facilities or common areas used for egress.)
- The area of the secondary suite cannot exceed 40% of the total living floor space (area) of the building it is located in. (The living floor area of the building does not include attached storage garages.)
- The secondary suite cannot be subdivided from the building it is part of under the Strata Property Act. This means that both dwelling units are registered under the same title.

A-9.37.1.2. Construction Requirements The requirements of Part 9 of the British Columbia Building Code apply to the construction of a secondary suite and the alterations to a building to incorporate a secondary suite, except those specifically referenced in Subsection 9.37.2.

A secondary suite may be constructed in a building that has been in existence for many years and that may not comply with current code requirements. As it may not be feasible to comply with the current Code, discretion should be used provided it does not substantially reduce the level of safety intended by the Code.

For example, existing stairs may not comply with current rise or run requirements; winders may not have the 150 mm tread at the narrow end; guards may be a few millimeters lower than now required.

In some cases, existing sidelights or windows may not comply with the Code's safety or security requirements. Acceptable safety requirements can be achieved by applying decals, rails or safety films.

Insulation requirements may not comply with the current Code; window and door glazing may not be insulated or installed in thermally broken frames.

Fire stops are required to be installed in new additions and in exposed existing locations, but it is not intended either that existing finishes be removed to check for the presence of fire stops or that new fire stops be installed.

Doors required to have a 20 min fire-protection rating, or to be 45 mm solid core wood, may be mounted in existing door frames that are less than 38 mm in thickness if it would require substantial framing alterations to accommodate a 38 mm thick frame.

It is not the intent to retroactively apply the current Code to all existing features in order to permit the construction of a secondary suite in an existing building.

A-9.37.2.3.(1) Exit Stairs Existing internal and external stairs that formerly served one dwelling unit may now serve both the existing dwelling unit and the new secondary suite. It is not the intent to apply all current Code exit stair requirements in order to permit the construction of a secondary suite in an existing building.

A-9.37.2.6. Means of Egress The additional occupant load created by a secondary suite does not warrant increasing the width of a public corridor, common exit stair or landing used by both dwelling units. The stairs, corridors and landings formerly serving one dwelling unit are likely to be of adequate size to accommodate the occupant load of both suites.

A-9.37.2.8. Openings near Unenclosed Exit Stairs and Ramps Unprotected door or window openings in other fire compartments adjacent to exit stairs and ramps should be protected from the other suite to provide safe passage to a safe area. Normally such protection as required by Part 9 would extend both vertically and horizontally beyond the adjacent openings. This is considered excessive due to required fire safety measures and the relatively short travel distances in this type of building. The application of current Part 9 requirements would in many cases require the protection of all openings in entire faces of dwelling units, which could be very restrictive. Authorities should exercise judgment with regard to deciding which openings are close enough to the exit facility to pose a problem during the early stages of a fire and require appropriate opening protection. Those openings that directly pass the means of egress are required to be protected.

A-9.37.2.14. Combustible Drain, Waste and Vent Piping Exposed combustible drain, waste and vent piping that penetrates a fire separation is required to be protected as described. This protection is not required for exposed fixture traps and arms serving fixtures within the suite provided they are not exposed from the underside of a horizontal fire separation. The intent is not to require removal of existing combustible piping which, as a result of the creation of a secondary suite, may now be on both sides of a rated fire separation. Rather, the intent is to protect this piping where it is exposed.

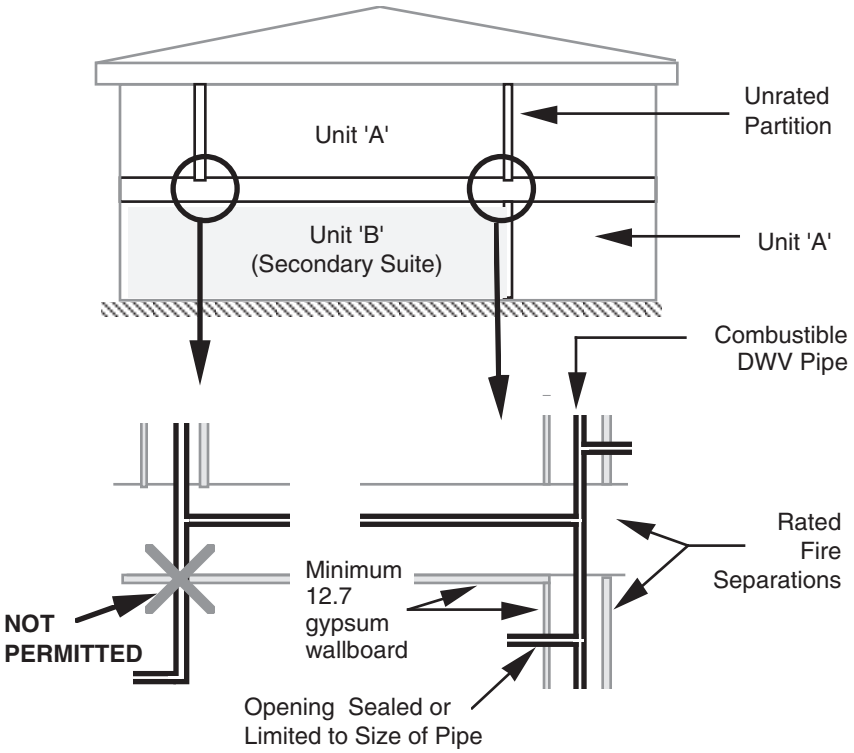


Figure A-9.37.2.14.
Combustible Drain, Waste and Vent Pipe

A-9.37.2.15. and 16. Separation of Residential Suites and Public Corridors Two options are permitted for the separation of residential suites required by Article 9.10.9.14. and the separation of suites and public corridors required by Article 9.10.9.15.

One option is to separate the suites with a fire separation having a fire-resistance rating of 30 minutes and provide in each suite an additional smoke alarm interconnected with the smoke alarm in the other suite (described in Article 9.37.2.19.). A 30 min fire-resistance rating can be achieved with 12.7 mm Type X gypsum board on framing 400 mm o.c. for vertical assemblies, and 12.7 mm Type X or 15.9 mm gypsum board on frame floor/ceiling assemblies. This is often typical construction in modern single dwelling houses. This option will provide an equivalent level of life safety as the occupants of the building will be made aware of the hazard by an automatic detection system in the early stages allowing them early evacuation.

The second option is to provide an automatic sprinkler system conforming to an NFPA standard throughout the building (i.e. both suites and common areas). With this provision, no fire-resistance rating is required, but the suites must still be separated by a fire separation. Automatic sprinkler systems are a recognized alternative to fire-resistance ratings as a sprinkler system should control the fire at its early stage, preventing its propagation.

A-9.37.2.17. Air Ducts and Fire Dampers In order to prevent the migration of smoke from one suite to another during a fire, heating or ventilation systems incorporating ducts that serve both suites are permitted only if there is a mechanism to prevent smoke being circulated from one unit to the other. It is preferable for the secondary suite to have its own heating system independent of the rest of the building.

A-9.37.2.19. Smoke Alarms This Article requires an interconnected photoelectric smoke alarm in each suite where fire separations having a fire resistance rating of 30 min are used. The purpose of these interconnected alarms is to provide early warning to both suites in the event of a fire in one suite. Photoelectric type alarms are required as they are less prone to nuisance false alarms such as can occur during cooking, but careful consideration is still required as to their location.

It is important to note that these alarms are additional to the requirements of Subsection 9.10.19. and that each suite is still required to be provided with alarms in conformance with Subsection 9.10.19.

The additional smoke alarm should not be interconnected to the other smoke alarm(s) located within the same suite.

This additional smoke alarm system is not required when the fire-resistance ratings required in Articles 9.10.9.14. and 9.10.9.15. are not reduced, or when the building is sprinklered.

A-9.37.2.20. Sound Control Meeting the Code's level of sound transmission for secondary suites may be difficult and expensive, particularly in an existing building. As there is single ownership of both dwelling units, this requirement is not mandatory but designers are encouraged to take the subject into consideration where feasible.

A-10.2.1.1.(3) Alternatives to Prescribed Insulation Requirements Computer modelling can provide options to the requirements of Table 10.2.1.1.A by considering factors other than insulation that impact energy efficiency and greenhouse gas emissions. These include items such as higher fenestration efficiency, more efficient Heating, Ventilating, Air Conditioning (HVAC) systems, renewable energy systems and reduced envelope air leakage from what is required or is common practice. The Natural Resources Canada EnerGuide Rating System program uses Hot2000 Version 10 for modelling. It can be downloaded at:
http://canmetenergy.nrcan.gc.ca/software-tools/hot2000/84.
The Ministry of Energy, Mines and Petroleum Resources can provide assistance in determining options to the prescriptive insulation requirements of Table 10.2.1.1.A.

Division B - Table D-1.1.2.
Amended by: Reg 175/2014
Effective: 2014-12-19
Revision: 7
Page: 824

Table D-1.1.2.
Documents Referenced in Appendix D Fire-Performance Ratings
Forming part of Sentence (1)

Issuing Agency	Document Number(1)	Title of Document(2)	Reference
<ASTM	C 330/C 330M-09	Lightweight Aggregates for Structural Concrete	D-1.4.3.(2)>
<ASTM	C 1396/C 1396M-11	Gypsum Board	D-1.5.1. Table D-3.1.1.A.>
<NFPA	80-2010	Fire Doors and Other Opening Protectives	D-5.2.1.(1) D-5.2.1.(2)>

Notes to Table D-1.1.2.:
(1) Some documents may have been reaffirmed or reapproved. Check with the applicable issuing agency for up-to-date information.
(2) Some titles have been abridged to omit superfluous wording.

Division B - Table D-1.1.2.
Amended by: Reg 175/2014
Effective: 2014-12-19
Revision: 7
Page: 825

Table D-1.1.2.
Documents Referenced in Appendix D Fire-Performance Ratings
Forming part of Sentence (1)

Issuing Agency	Document Number(1)	Title of Document(2)	Reference
<ULC	CAN/ULC-S102-10	Test for Surface Burning Characteristics of Building Materials and Assemblies	D-1.1.1.(5)>
<ULC	CAN/ULC-S102.2-10	Test for Surface Burning Characteristics of Flooring, Floor Coverings, and Miscellaneous Materials and Assemblies	D-1.1.1.(5) Table D-3.1.1.B.>
<ULC	CAN/ULC-S703-09	Cellulose Fibre Insultion (CFI) for Buildings	D-2.3.4.(5)
<ULC	CAN/ULC-S706-09	Standard for Wood Fibre Insulating Boards for Buildings	Table D-3.1.1.A.>

Notes to Table D-1.1.2.:
(1) Some documents may have been reaffirmed or reapproved. Check with the applicable issuing agency for up-to-date information.
(2) Some titles have been abridged to omit superfluous wording.

Division B - Appendix D-1.4.3.(2)
Amended by: Reg 175/2014
Effective: 2014-12-19
Revision: 7
Page: 826

D-1.4.3. Description of Aggregates

1) The descriptions of the aggregates in Type S and Type N concretes apply to the coarse aggregates only. Coarse aggregate for this purpose means that retained on a 5 mm sieve using the method of grading aggregates described in CSA A23.1/A23.2, "Concrete Materials and Methods of Concrete Construction/Test Methods and Standard Practices for Concrete."

2) Increasing the proportion of sand as fine aggregate in low density concretes requires increased thicknesses of material to produce equivalent fire-resistance ratings. Low density aggregates for Type L and Types L-S concretes used in loadbearing components shall conform to <ASTM C 330/C 330M, "Lightweight Aggregates for Structural Concrete."**>**

3) Non-loadbearing low density components of vermiculite and perlite concrete, in the absence of other test evidence, shall be rated on the basis of the values shown for Type L concrete.

Attribution Tables - Table 3.9.1.1.
Amended by: Reg 175/2014
Effective: 2014-12-19
Revision: 7
Previous pages: 867 to 928 **Replacement pages:** 867 to 928

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
3.1.3.1. Separation of Major Occupancies	
(1)	[F03-OS1.2]
	[F03-OP1.2]
(2)	[F03-OS1.2]
(3)	[F02,F03,F06-OS1.2] [F10,F05-OS1.5]
	[F02,F03,F06-OP1.2]
3.1.3.2. Prohibition of Occupancy Combinations	
(1)	[F02,F03-OS1.2] [F10-OS1.5]
(2)	[F02,F03-OS1.2]
3.1.4.1. Combustible Materials Permitted	
(2)	[F02-OS1.2]
	[F02-OP1.2]
3.1.4.2. Protection of Foamed Plastics	
(1)	[F01-OS1.1] [F02-OS1.2]
	[F01-OP1.1] [F02-OP1.2]
3.1.4.3. Wires and Cables	
(1)	[F02-OS1.2]
	[F02-OP1.2]
(2)	[F02-OS1.2]
	[F02-OP1.2]
3.1.4.5. Fire-Retardant-Treated Wood	
(1)	[F02-OS1.2]
	[F02-OP1.2]
3.1.5.1. Noncombustible Materials	
(1)	[F02-OS1.2]
	[F02-OP1.2]
3.1.5.5. Combustible Components for Exterior Walls	
(2)	[F03,F02-OP3.1]
3.1.5.18. Wires and Cables	
(2)	[F02-OS1.2]
	[F02-OP1.2]
(3)	[F02-OS1.2]
	[F02-OP1.2]
3.1.6.2. Restrictions	
(1)	[F10,F12,F36-OS3.7]
	[F20-OS2.2]
(2)	[F10,F36-OS3.7] Applies to portion of Code text: "An *air-supported structure* shall not be used for Groups B, C, … *major occupancies* or for classrooms."
	[F01,F02,F36-OS1.5] Applies to portion of Code text: "An *air-supported structure* shall not be used for … Group F, Division 1 *major occupancies* …"

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(3)	[F10-OS3.7]
3.1.6.3. Clearance to Other Structures	
(2)	(a) [F03-OS1.2]
	(b) [F10-OS3.7]
	(a) [F03-OP3.1]
3.1.6.4. Clearance to Flammable Material	
(1)	[F01-OS1.1] [F03-OS1.2]
	[F01-OP1.1] [F03-OP1.2]
3.1.6.5. Flame Resistance	
(1)	[F02-OS1.2]
3.1.6.6. Emergency Air Supply	
(1)	[F20-OS3.7]
3.1.6.7. Electrical Systems	
(1)	[F34-OP1.2]
	[F34-OS3.3]
	[F34-OS1.1]
(2)	[F81-OP1.1]
	[F81-OS1.1]
3.1.7.1. Determination of Ratings	
(1)	[F03-OS1.2] [F04-OS1.3]
	[F03-OP1.2] [F04-OP1.3]
3.1.7.5. Rating of Supporting Construction	
(1)	[F04-OS1.3]
	[F04-OP1.3]
(3)	[F04-OS1.3]
	[F04-OP1.3]
3.1.8.1. General Requirements	
(1)	(a) [F03-OS1.2]
	(a) [F03-OP1.2]
(2)	[F03-OS1.2] Applies to the requirement that openings in *fire separations* be protected with *closures*, shafts or other means.
	[F03-OP1.2] Applies to the requirement that openings in *fire separations* be protected with *closures*, shafts or other means.
3.1.8.2. Combustible Construction Support	
(1)	[F04-OS1.2]
	[F04-OP1.2]
3.1.8.3. Continuity of Fire Separations	
(1)	[F03-OS1.2]
	[F03-OP1.2]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F03-OS1.2]
	[F03-OP1.2]
(3)	(a) [F03-OS1.2]
	(a) [F03-OP1.2]
	(b) [F03-OS1.2]
	(b) [F03-OP1.2]
(4)	[F03-OS1.2]
	[F03-OP1.2]
3.1.8.4. Determination of Ratings	
(1)	[F03-OS1.2]
	[F03-OP1.2]
(2)	[F03-OS1.2]
	[F03-OP1.2]
3.1.8.5. Installation of Closures	
(2)	[F03-OS1.2]
	[F03-OP1.2]
(3)	[F81-OS1.2]
	[F81-OP1.2]
(4)	[F81-OP1.2]
	[F81-OS1.2]
3.1.8.6. Maximum Openings	
(1)	[F03-OS1.2]
	[F03-OP1.2]
(2)	[F03-OS1.2]
	[F03-OP1.2]
3.1.8.7. Fire Dampers	
(1)	[F03-OS1.2]
	[F03-OP1.2]
3.1.8.9. Installation of Fire Dampers	
(1)	[F03-OS1.2]
	[F03-OP1.2]
(2)	[F03-OS1.2]
	[F03-OP1.2]
(3)	[F04-OS1.2]
	[F04-OP1.2]
(4)	[F03-OS1.2]
	[F03-OP1.2]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(5)	[F82-OS1.2] Applies to portion of Code text: "A tightly fitted access door shall be installed for each *fire damper* to provide access for the inspection of the damper …"
	[F82-OP1.2] Applies to portion of Code text: "A tightly fitted access door shall be installed for each *fire damper* to provide access for the inspection of the damper …"
	[F82-OH1.2] Applies to portion of Code text: "A tightly fitted access door shall be installed for each *fire damper* to provide access for … the resetting of the release device."
3.1.8.10. Twenty-Minute Closures	
(3)	[F03-OS1.2]
	[F03-OP1.2]
3.1.8.11. Self-closing Devices	
(1)	[F03-OS1.2]
	[F03-OP1.2]
3.1.8.12. Hold-Open Devices	
(1)	[F03-OS1.2]
(2)	[F03-OS1.2]
	[F03-OP1.2]
(3)	[F03-OS1.2]
	[F03-OP1.2]
(4)	[F03-OS1.2]
	[F03-OP1.2]
3.1.8.13. Door Latches	
(1)	[F03-OS1.2]
	[F03-OP1.2]
3.1.8.14. Wired Glass and Glass Block	
(3)	[F04-OS1.2] Applies to portion of Code text: "Glass blocks permitted by Sentence (1) shall be … reinforced with steel reinforcement in each horizontal joint."
	[F04-OP1.2] Applies to portion of Code text: "Glass blocks permitted by Sentence (1) shall be … reinforced with steel reinforcement in each horizontal joint."
3.1.8.15. Temperature Rise Limit for Doors	
(1)	[F03,F31-OS1.2] [F05-OS1.5]
	[F03-OP1.2]
3.1.8.16. Area Limits for Wired Glass and Glass Block	
(1)	[F05-OS1.5] [F31-OS1.2]
	[F30-OS3.1]
(2)	[F05-OS1.5] [F31-OS1.2]
3.1.9.1. Fire Stops	
(1)	[F03-OS1.2] [F04-OS1.3]
	[F03-OP1.2] [F04-OP1.3]
(2)	[F03-OS1.2]
	[F03-OP3.1]
	[F03-OP1.2]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(3)	[F03-OS1.2] [F04-OS1.3]
	[F03-OP1.2] [F04-OP1.3]
3.1.9.2. Combustibility of Service Penetrations	
(1)	[F03-OS1.2] [F02,F04-OS1.3] Applies to portion of Code text: "Except as permitted by Articles 3.1.9.3. and 3.1.9.4., pipes, ducts, electrical outlet boxes, totally enclosed raceways or other similar service equipment that penetrate an assembly required to have a *fire-resistance rating* shall be *noncombustible* …"
	[F03-OP1.2] [F02,F04-OP1.3] Applies to portion of Code text: "Except as permitted by Articles 3.1.9.3. and 3.1.9.4., pipes, ducts, electrical outlet boxes, totally enclosed raceways or other similar service equipment that penetrate an assembly required to have a *fire-resistance rating* shall be *noncombustible* …"
3.1.9.3. Penetration by Wires, Cables and Outlet Boxes	
(6)	[F03-OS1.2]
	[F03-OP1.2]
3.1.9.4. Combustible Piping Penetrations	
(3)	[F03-OS1.2] [F02,F04-OS1.3]
	[F03-OP1.2] [F02,F04-OP1.3]
3.1.9.5. Openings through a Membrane Ceiling	
(1)	[F04-OS1.3]
	[F04-OP1.3]
3.1.10.1. Prevention of Firewall Collapse	
(1)	[F04-OP1.2]
	[F04-OS1.2]
	[F04-OP3.1]
(2)	[F03,F04-OP1.2]
	[F03,F04-OS1.2]
	[F03,F04-OP3.1]
(4)	[F04-OS1.2]
	[F04-OP1.2]
	[F04-OP3.1]
3.1.10.2. Rating of Firewalls	
(1)	[F03-OS1.2] Applies to portion of Code text: "A *firewall* that separates a *building* or *buildings* with *floor areas* containing a Group E or a Group F, Division 1 or 2 *major occupancy* shall be constructed as a *fire separation* of *noncombustible construction* having a *fire-resistance rating* not less than 4 h …"
	[F03-OP1.2] Applies to portion of Code text: "A *firewall* that separates a *building* or *buildings* with *floor areas* containing a Group E or a Group F, Division 1 or 2 *major occupancy* shall be constructed as a *fire separation* of *noncombustible construction* having a *fire-resistance rating* not less than 4 h …"
	[F03-OP3.1] Applies to portion of Code text: "A *firewall* that separates a *building* or *buildings* with *floor areas* containing a Group E or a Group F, Division 1 or 2 *major occupancy* shall be constructed as a *fire separation* of *noncombustible construction* having a *fire-resistance rating* not less than 4 h …"
(2)	[F03-OS1.2]
	[F03-OP1.2]
	[F03-OP3.1]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(3)	[F80,F04-OP1.2]
	[F80,F04-OS1.2]
	[F80,F04-OP1.3]
(4)	[F80,F04-OP1.2]
	[F80,F04-OS1.2]
	[F80,F04-OP3.1]
3.1.10.3. Continuity of Firewalls	
(1)	[F03-OS1.2] Applies to portion of Code text: "A *firewall* shall extend from the ground continuously through, or adjacent to, all *storeys* of a *building* or *buildings* so separated …"
	[F03-OP1.2] Applies to portion of Code text: "A *firewall* shall extend from the ground continuously through, or adjacent to, all *storeys* of a *building* or *buildings* so separated …"
	[F03-OP3.1] Applies to portion of Code text: "A *firewall* shall extend from the ground continuously through, or adjacent to, all *storeys* of a *building* or *buildings* so separated …"
3.1.10.4. Parapets	
(1)	[F03-OP1.2]
	[F03-OS1.2]
	[F03-OP3.1]
3.1.10.5. Maximum Openings	
(1)	[F03-OP1.2] Applies to portion of Code text: "… the aggregate width of openings shall be not more than 25% of the entire length of the *firewall*."
	[F03-OS1.2] Applies to portion of Code text: "… the aggregate width of openings shall be not more than 25% of the entire length of the *firewall*."
	[F03-OP3.1] Applies to portion of Code text: "… the aggregate width of openings shall be not more than 25% of the entire length of the *firewall*."
3.1.10.7. Combustible Projections	
(1)	[F03-OP1.2] Applies to portion of Code text: "*Combustible* material shall not extend across the end of a *firewall* …"
	[F03-OS1.2] Applies to portion of Code text: "*Combustible* material shall not extend across the end of a *firewall* …"
	[F03-OP3.1] Applies to portion of Code text: "*Combustible* material shall not extend across the end of a *firewall*…"
(2)	[F03-OS1.2]
	[F03-OP1.2]
	[F03-OP3.1]
3.1.11.1. Separation of Concealed Spaces	
(1)	[F03-OS1.2]
	[F03-OP1.2]
3.1.11.2. Fire Blocks in Wall Assemblies	
(1)	[F03-OS1.2]
	[F03-OP1.2]
3.1.11.3. Fire Blocks between Nailing and Supporting Elements	
(1)	[F03-OS1.2]
	[F03-OP1.2]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F03-OS1.2]
	[F03-OP1.2]
3.1.11.4. Fire Blocks between Vertical and Horizontal Spaces	
(1)	[F03-OS1.2]
	[F03-OP1.2]
3.1.11.5. Fire Blocks in Horizontal Concealed Spaces	
(1)	[F03,F04-OS1.2]
	[F03,F04-OP1.2]
(2)	[F03,F04-OS1.2]
	[F03,F04-OP1.2]
3.1.11.6. Fire Blocks in Crawl Spaces	
(1)	[F03,F04-OS1.2]
	[F03,F04-OP1.2]
3.1.11.7. Fire Block Materials	
(1)	[F04-OS1.2]
	[F04-OP1.2]
(5)	[F04-OP1.2]
	[F04-OS1.2]
(6)	[F03-OP1.2]
	[F03-OS1.2]
3.1.12.1. Determination of Ratings	
(1)	[F02-OS1.2]
	[F02-OP1.2]
(2)	[F02-OS1.2]
	[F02-OP1.2]
3.1.13.2. Flame-Spread Rating	
(1)	[F02-OS1.2]
	[F02-OP1.2]
3.1.13.5. Skylights	
(1)	[F02-OS1.5]
3.1.13.6. Corridors	
(1)	[F02-OS1.2,OS1.5]
(5)	[F02-OS1.2,OS1.5]
3.1.13.7. High Buildings	
(1)	[F02-OS1.2]
	[F02-OP1.2]
3.1.13.9. Underground Walkways	
(1)	[F02-OS1.2]
	[F02-OP3.1]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
3.1.13.10. Exterior Exit Passageway	
(1)	[F02-OS1.5]
3.1.13.11. Elevator Cars	
(1)	[F02-OS1.2]
	[F02-OP1.2]
(2)	[F02-OS1.2]
	[F02-OP1.2]
3.1.14.1. Fire-Retardant-Treated Wood Roof Systems	
(1)	[F02-OS1.2]
	[F02-OP1.2]
(2)	[F02-OS1.3,OS1.2]
	[F02-OP1.3]
3.1.14.2. Metal Roof Deck Assemblies	
(1)	[F02-OS1.2]
	[F02-OP1.2]
3.1.15.1. Roof Covering Classification	
(1)	[F02-OS1.2]
	[F02-OP1.2]
	[F02-OP3.1]
3.1.15.2. Roof Coverings	
(1)	[F02-OS1.2]
	[F02-OP1.2]
	[F02-OP3.1]
3.1.16.1. Fabric Canopies and Marquees	
(1)	[F02-OS1.2,OS1.5]
	[F02-OP1.2]
3.1.17.1. Occupant Load Determination	
(1)	[F10-OS3.7]
	[F72-OH2.1] [F71-OH2.3]
(2)	[F10-OS3.7]
	[F72-OH2.1] [F71-OH2.3]
(4)	[F10-OS3.7]
	[F72-OH2.1] [F71-OH2.3]
3.2.1.2. Storage Garage Considered as a Separate Building	
(1)	[F03-OS1.2]
	[F03-OP1.2]
(2)	[F03-OS1.2]
	[F03-OP1.2]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(3)	[F03-OS1.2]
	[F03-OP1.2]
3.2.1.4. Floor Assembly over Basement	
(1)	[F03-OS1.2] [F04-OS1.3]
	[F03-OP1.2] [F04-OP1.3]
(2)	[F04-OS1.2,OS1.3]
	[F04-OP1.2,OP1.3]
3.2.1.5. Fire Containment in Basements	
(1)	[F02-OS1.2,OS1.3]
	[F02-OP1.2,OP1.3]
3.2.2.2. Special and Unusual Structures	
(1)	[F02,F03,F04-OS1.2,OS1.3]
	[F02,F03,F04-OP1.2,OP1.3]
3.2.2.6. Multiple Major Occupancies	
(1)	[F02,F03,F04-OS1.2,OS1.3]
	[F02,F03,F04-OP1.2,OP1.3]
3.2.2.10. Streets	
(1)	[F12-OS1.2,OS1.5]
	[F12-OP1.2]
3.2.2.15. Storeys below Ground	
(2)	(a) [F02,F04-OS1.2,OS1.3]
	(a) [F02,F04-OP1.2,OP1.3]
	(b),(c) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(b),(c) [F03-OP1.2] [F04-OP1.2,OP1.3]
3.2.2.18. Automatic Sprinkler System Required	
(2)	[F02,F04-OS1.2,OS1.3]
	[F02,F04-OP1.2,OP1.3]
3.2.2.20. Group A, Division 1, Any Height, Any Area, Sprinklered	
(2)	[F02-OS1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	[F02-OP1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* shall be *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* shall be *sprinklered* throughout …"
	(b),(d) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(b),(d) [F03-OP1.2] [F04-OP1.2,OP1.3]
	(c),(d) [F04-OS1.3]
	(c),(d) [F04-OP1.3]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
3.2.2.21. Group A, Division 1, One Storey, Limited Area, Sprinklered	
(1)	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
(2)	[F02-OS1.2] Applies to portion of Code text: "The *building* referred to in Sentence (1) is permitted to be of *heavy timber construction* or *noncombustible construction* used singly or in combination …"
	[F02-OP1.2] Applies to portion of Code text: "The *building* referred to in Sentence (1) is permitted to be of *heavy timber construction* or *noncombustible construction* used singly or in combination …"
	[F03-OS1.2] [F04-OS1.2,OS1.3] Applies to portion of Code text: "… (a) floor assemblies shall be *fire separations* … (i) with a*fire-resistance rating* not less than 45 min …" and to Clause (b).
	[F03-OP1.2] [F04-OP1.2,OP1.3] Applies to portion of Code text: "… (a) floor assemblies shall be *fire separations*… (i) with a *fire-resistance rating* not less than 45 min …" and to Clause (b).
3.2.2.22. Group A, Division 1, One Storey, Sprinklered	
(1)	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
(2)	[F03-OS1.2] [F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 45 min, …" and to Clause (d).
	[F03-OP1.2] [F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 45 min, …" and to Clause (d).
	(b),(c) [F04-OS1.3]
	(b),(c) [F04-OP1.3]
3.2.2.23. Group A, Division 2, Any Height, Any Area, Sprinklered	
(2)	[F02-OS1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	[F02-OP1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* shall be *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* shall be *sprinklered* throughout …"
	(b),(d) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(b),(d) [F03-OP1.2] [F04-OP1.2,OP1.3]
	(c),(d) [F04-OS1.3]
	(c),(d) [F04-OP1.3]
3.2.2.24. Group A, Division 2, up to 6 Storeys, Any Area, Sprinklered	
(1)	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
(2)	[F02-OS1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	[F02-OP1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	(a),(c) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(a),(c) [F03-OP1.2] [F04-OP1.2,OP1.3]
	(b),(c) [F04-OS1.3]
	(b),(c) [F04-OP1.3]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
3.2.2.25. Group A, Division 2, up to 2 Storeys	
(2)	[F04-OS1.3] Applies to portion of Code text: "… c) roof assemblies shall have, if of *combustible construction*, a *fire-resistance rating* not less than 45 min, …" and to Clause (d).
	[F04-OP1.3] Applies to portion of Code text: "… c) roof assemblies shall have, if of *combustible construction*, a *fire-resistance rating* not less than 45 min, …" and to Clause (d).
	(a) [F03-OS1.2] Applies to the requirement that *noncombustible* floor assemblies be *fire separations*.
	(a) [F03-OP1.2] Applies to the requirement that *noncombustible* floor assemblies be *fire separations*.
	(a),(d) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(a),(d) [F03-OP1.2] [F04-OP1.2,OP1.3]
	(b),(d) [F04-OS1.3]
	(b),(d) [F04-OP1.3]
3.2.2.26. Group A, Division 2, up to 2 Storeys, Increased Area, Sprinklered	
(1)	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
(2)	(a) [F03-OS1.2] Applies to the requirement that *noncombustible* floor assemblies be *fire separations*.
	(a) [F03-OP1.2] Applies to the requirement that *noncombustible* floor assemblies be *fire separations*.
	(a),(c) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(a),(c) [F03-OP1.2] [F04-OP1.2,OP1.3]
	(b),(c) [F04-OS1.3]
	(b),(c) [F04-OP1.3]
3.2.2.27. Group A, Division 2, up to 2 Storeys, Sprinklered	
(1)	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
3.2.2.28. Group A, Division 2, One Storey	
(2)	[F03-OP1.2]
	[F03-OS1.2]
3.2.2.29. Group A, Division 3, Any Height, Any Area, Sprinklered	
(2)	[F02-OS1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	[F02-OP1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* shall be *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* shall be *sprinklered* throughout …"
	(b),(d) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(b),(d) [F03-OP1.2] [F04-OP1.2,OP1.3]
	(c),(d) [F04-OS1.3]
	(c),(d) [F04-OP1.3]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
3.2.2.30. Group A, Division 3, up to 2 Storeys	
(2)	[F02-OS1.2] Applies to portion of Code text: "Except as permitted by Clauses (c) and (d), the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	[F02-OP1.2] Applies to portion of Code text: "Except as permitted by Clauses (c) and (d), the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	(a),(d) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(a),(d) [F03-OP1.2] [F04-OP1.2,OP1.3]
	(b),(d) [F04-OS1.3]
	(b),(d) [F04-OP1.3]
	[F04-OS1.3] Applies to portion of Code text: "… c) roof assemblies shall … (i) have a *fire-resistance rating* not less than 45 min, …" and to Clause (d).
	[F04-OP1.3] Applies to portion of Code text: "… c) roof assemblies shall (i) … have a *fire-resistance rating* not less than 45 min, …" and to Clause (d).
(3)	[F02-OS1.2] [F04-OS1.3]
	[F02-OP1.2] [F04-OP1.3]
3.2.2.31. Group A, Division 3, up to 2 Storeys, Sprinklered	
(1)	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
(2)	[F02-OS1.2] Applies to portion of Code text: "Except as permitted by Clause (c) … the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	[F02-OP1.2] Applies to portion of Code text: "Except as permitted by Clause (c) … the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	(a),(c) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(a),(c) [F03-OP1.2] [F04-OP1.2,OP1.3]
	(b),(c) [F04-OS1.3]
	(b),(c) [F04-OP1.3]
3.2.2.32. Group A, Division 3, One Storey, Increased Area	
(2)	(a),(c) [F04-OS1.3]
	(a),(c) [F04-OP1.3]
	[F04-OS1.3] Applies to portion of Code text: "… b) roof assemblies shall have, if of *combustible construction*, a *fire-resistance rating* not less than 45 min, …" and to Clause (c).
	[F04-OP1.3] Applies to portion of Code text: "… b) roof assemblies shall have, if of *combustible construction*, a *fire-resistance rating* not less than 45 min, …" and to Clause (c).
(3)	[F02-OS1.2] [F04-OS1.3]
	[F02-OP1.2] [F04-OP1.3]
3.2.2.33. Group A, Division 3, One Storey, Sprinklered	
(1)	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
3.2.2.35. Group A, Division 4	
(1)	[F02-OS1.2] Applies to portion of Code text: "… a *building* classified as Group A, Division 4 shall be of *noncombustible construction*."
	[F02-OP1.2] Applies to portion of Code text: "… a *building* classified as Group A, Division 4 shall be of *noncombustible construction*."
(4)	[F02,F04-OS1.2,OS1.3]
	[F02,F04-OP1.2,OP1.3]
3.2.2.36. Group B, Division 1, Any Height, Any Area, Sprinklered	
(2)	[F02-OS1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	[F02-OP1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* shall be *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* shall be *sprinklered* throughout …"
	(b),(d) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(b),(d) [F03-OP1.2] [F04-OP1.2,OP1.3]
	(c),(d) [F04-OS1.3]
	(c),(d) [F04-OP1.3]
3.2.2.37. Group B, Division 1, up to 3 Storeys, Sprinklered	
(1)	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
(2)	[F02-OS1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	[F02-OP1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	(a),(c) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(a),(c) [F03-OP1.2] [F04-OP1.2,OP1.3]
	(b),(c) [F04-OS1.3]
	(b),(c) [F04-OP1.3]
3.2.2.38. Group B, Division 2, Any Height, Any Area, Sprinklered	
(2)	[F02-OS1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	[F02-OP1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* shall be *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* shall be *sprinklered* throughout …"
	(b),(d) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(b),(d) [F03-OP1.2] [F04-OP1.2,OP1.3]
	(c),(d) [F04-OS1.3]
	(c),(d) [F04-OP1.3]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
3.2.2.39. Group B, Division 2, up to 3 Storeys, Sprinklered	
(1)	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
(2)	[F02-OS1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	[F02-OP1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	(a),(c) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(a),(c) [F03-OP1.2] [F04-OP1.2,OP1.3]
	(b),(c) [F04-OS1.3]
	(b),(c) [F04-OP1.3]
3.2.2.40. Group B, Division 2, up to 2 Storeys, Sprinklered	
(1)	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
(2)	(a),(c) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(a),(c) [F03-OP1.2] [F04-OP1.2,OP1.3]
	(b),(c) [F04-OS1.3]
	(b),(c) [F04-OP1.3]
3.2.2.41. Group B, Division 2, One Storey, Sprinklered	
(1)	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
3.2.2.42. Group B, Division 3, Any Height, Any Area, Sprinklered	
(2)	[F02-OS1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	[F02-OP1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* shall be *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* shall be *sprinklered* throughout …"
	(b),(d) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(b),(d) [F03-OP1.2] [F04-OP1.2,OP1.3]
	(c),(d) [F04-OS1.3]
	(c),(d) [F04-OP1.3]
3.2.2.43. Group B, Division 3, up to 3 Storeys (Noncombustible), Sprinklered	
(1)	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F02-OS1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	[F02-OP1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	(a),(c) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(a),(c) [F03-OP1.2] [F04-OP1.2,OP1.3]
	(b),(c) [F04-OS1.3]
	(b),(c) [F04-OP1.3]
3.2.2.44. Group B, Division 3, up to 3 Storeys, Sprinklered	
(1)	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
(2)	[F03-OS1.2] [F04-OS1.2,OS1.3] Applies to portion of Code text: "...a) ... floor assemblies shall be fire separations with a fire-resistance rating not less than 1 h, ..." and to Clause (c).
	[F03-OP1.2] [F04-OP1.2,OP1.3] Applies to portion of Code text: "...a) ... floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 1 h, ..." and to Clause (c).
	(b),(c) [F04-OS1.3]
	(b),(c) [F04-OP1.3]
3.2.2.45. Group B, Division 3, up to 2 Storeys, Sprinklered	
(1)	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
(2)	(a),(c) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(a),(c) [F03-OP1.2] [F04-OP1.2,OP1.3]
	(b),(c) [F04-OS1.3]
	(b),(c) [F04-OP1.3]
3.2.2.46. Group B, Division 3, One Storey, Sprinklered	
(1)	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
3.2.2.47. Group C, Any Height, Any Area, Sprinklered	
(2)	[F02-OS1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	[F02-OP1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* shall be *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* shall be *sprinklered* throughout …"
	(b),(d) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(b),(d) [F03-OP1.2] [F04-OP1.2,OP1.3]
	(c),(d) [F04-OS1.3]
	(c),(d) [F04-OP1.3]
3.2.2.48. Group C, up to 6 Storeys, Sprinklered	
(1)	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F02-OS1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	[F02-OP1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	(a),(c) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(a),(c) [F03-OP1.2] [F04-OP1.2,OP1.3]
	(b),(c) [F04-OS1.3]
	(b),(c) [F04-OP1.3]
3.2.2.49. Group C, up to 3 Storeys, Noncombustible Construction	
(2)	[F02-OS1.2] Applies to portion of Code text: "The *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	[F02-OP1.2] Applies to portion of Code text: "The *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	[F03-OS1.2] [F04-OS1.2,OS1.3] Applies to portion of Code text: "a) ... floor assemblies shall be *fire separation* with a *fire-resistance rating* not less than 1 h, …" and to Clause (d).
	[F03-OP1.2] [F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 1 h, …" and to Clause (d).
	(b),(d) [F04-OS1.3]
	(b),(d) [F04-OP1.3]
	(c),(d) [F04-OS1.3]
	(c),(d) [F04-OP1.3]
3.2.2.50. Group C, up to 4 Storeys, Sprinklered	
(1)	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
(2)	[F03-OS1.2] [F04-OS1.2,OS1.3] Applies to portion of Code text: "...a) ... floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 1 h, ..." and to Clause (c).
	[F03-OP1.2] [F04-OP1.2,OP1.3] Applies to portion of Code text: "...a) ... floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 1 h, ..." and to Clause (c).
	(b),(c) [F04-OS1.3]
	(b),(c) [F04-OP1.3]
3.2.2.51. Group C, up to 3 Storeys, Increased Area	
(2)	[F03-OS1.2] [F04-OS1.2,OS1.3] Applies to portion of Code text: "... a) ... floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 1 h, ..." and to Clause (d).
	[F03-OP1.2] [F04-OP1.2,OP1.3] Applies to portion of Code text: "... a) ... floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 1 h, ..." and to Clause (d).
	(b),(d) [F04-OS1.3]
	(b),(d) [F04-OP1.3]
	(c),(d) [F04-OS1.3]
	(c),(d) [F04-OP1.3]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
3.2.2.52. Group C, up to 3 Storeys	
(2)	[F03-OS1.2] [F04-OS1.2,OS1.3] Applies to portion of Code text: "... a) ... floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 45 min, ..." and to Clause c).
	[F03-OP1.2] [F04-OP1.2,OP1.3] Applies to portion of Code text: "...a) ... floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 45 min, …" and to Clause (d)
	(b),(c) [F04-OS1.3]
	(b),(c) [F04-OP1.3]
3.2.2.53. Group C, up to 3 Storeys, Sprinklered	
(1)	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
(2)	[F03-OS1.2] [F04-OS1.2,OS1.3] Applies to portion of Code text: " ... a) ... floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 45 min, …" and to Clause (c).
	[F03-OP1.2] [F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … floor assemblies shall be *fire separations* with a *fire-resistance rating* not less than 45 min, …" and to Clause (c).
	(b),(c) [F04-OS1.3]
	(b),(c) [F04-OP1.3]
3.2.2.54. Group D, Any Height, Any Area, Sprinklered	
(2)	[F02-OS1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	[F02-OP1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* shall be *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* shall be *sprinklered* throughout …"
	(b),(d) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(b),(d) [F03-OP1.2] [F04-OP1.2,OP1.3]
	(c),(d) [F04-OS1.3]
	(c),(d) [F04-OP1.3]
3.2.2.55. Group D, up to 6 Storeys	
(2)	[F02-OS1.2] Applies to portion of Code text: "The *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	[F02-OP1.2] Applies to portion of Code text: "The *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	(a),(d) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(a),(d) [F03-OP1.2] [F04-OP1.2,OP1.3]
	(b),(d) [F04-OS1.3]
	(b),(d) [F04-OP1.3]
	[F04-OS1.3] Applies to portion of Code text: "… c) roof assemblies shall have a *fire-resistance rating* not less than 1 h …" and to Clause (d).
	[F04-OP1.3] Applies to portion of Code text: "… c) roof assemblies shall have a *fire-resistance rating* not less than 1 h, …" and to Clause (d).

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
3.2.2.56. Group D, up to 6 Storeys, Sprinklered	
(1)	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
(2)	[F02-OS1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	[F02-OP1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	(a),(c) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(a),(c) [F03-OP1.2] [F04-OP1.2,OP1.3]
	(b),(c) [F04-OS1.3]
	(b),(c) [F04-OP1.3]
3.2.2.57. Group D, up to 4 Storeys, Sprinklered	
(1)	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
(2)	(a),(c) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(a),(c) [F03-OP1.2] [F04-OP1.2,OP1.3]
	(b),(c) [F04-OS1.3]
	(b),(c) [F04-OP1.3]
3.2.2.58. Group D, up to 3 Storeys	
(2)	[F04-OS1.3] Applies to portion of Code text: "… c) roof assemblies shall have, if of *combustible construction*, a *fire-resistance rating* not less than 45 min, …" and to Clause (d).
	[F04-OP1.3] Applies to portion of Code text: "… c) roof assemblies shall have, if of *combustible construction*, a *fire-resistance rating* not less than 45 min, …" and to Clause (d).
	(a) [F03-OS1.2] Applies to the requirement that *noncombustible* floor assemblies be *fire separations*.
	(a) [F03-OP1.2] Applies to the requirement that *noncombustible* floor assemblies be *fire separations*.
	(a),(d) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(a),(d) [F03-OP1.2] [F04-OP1.2,OP1.3]
	(b),(d) [F04-OS1.3]
	(b),(d) [F04-OP1.3]
3.2.2.59. Group D, up to 3 Storeys, Sprinklered	
(1)	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
(2)	(a) [F03-OS1.2] Applies to the requirement that *noncombustible* floor assemblies be *fire separations*.
	(a) [F03-OP1.2] Applies to the requirement that *noncombustible* floor assemblies be *fire separations*.
	(a),(c) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(a),(c) [F03-OP1.2] [F04-OP1.2,OP1.3]
	(b),(c) [F04-OS1.3]
	(b),(c) [F04-OP1.3]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
3.2.2.60. Group D, up to 2 Storeys	
(2)	(a) [F03-OS1.2] Applies to the requirement that *noncombustible* floor assemblies be *fire separations*.
	(a) [F03-OP1.2] Applies to the requirement that *noncombustible* floor assemblies be *fire separations*.
	[F03-OS1.2] [F04-OS1.2,OS1.3]
	[F03-OP1.2] [F04-OP1.2,OP1.3]
3.2.2.61. Group D, up to 2 Storeys, Sprinklered	
(1)	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
(2)	(a) [F03-OS1.2] Applies to the requirement that *noncombustible* floor assemblies be *fire separations*.
	(a) [F03-OP1.2] Applies to the requirement that *noncombustible* floor assemblies be *fire separations*.
	[F03-OS1.2] [F04-OS1.2,OS1.3]
	[F03-OP1.2] [F04-OP1.2,OP1.3]
3.2.2.62. Group E, Any Height, Any Area, Sprinklered	
(2)	[F02-OS1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	[F02-OP1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* shall be *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* shall be *sprinklered* throughout …"
	(b),(d) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(b),(d) [F03-OP1.2] [F04-OP1.2,OP1.3]
	(c),(d) [F04-OS1.3]
	(c),(d) [F04-OP1.3]
3.2.2.63. Group E, up to 4 Storeys, Sprinklered	
(1)	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
(2)	(a),(c) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(a),(c) [F03-OP1.2] [F04-OP1.2,OP1.3]
	(b),(c) [F04-OS1.3]
	(b),(c) [F04-OP1.3]
3.2.2.64. Group E, up to 3 Storeys	
(2)	(a),(e) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(a),(e) [F03-OP1.2] [F04-OP1.2,OP1.3]
	(b),(d) [F04-OS1.3]
	(b),(d) [F04-OP1.3]
	(c),(d) [F04-OS1.3]
	(c),(d) [F04-OP1.3]
3.2.2.65. Group E, up to 3 Storeys, Sprinklered	
(1)	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	(a),(d) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(a),(d) [F03-OP1.2] [F04-OP1.2,OP1.3]
	(b),(c) [F04-OS1.3]
	(b),(c) [F04-OP1.3]
3.2.2.66. Group E, up to 2 Storeys	
(2)	[F03-OS1.2] [F04-OS1.2,OS1.3]
	(a),(b) [F03-OP1.2] [F04-OP1.2,OP1.3]
3.2.2.67. Group E, up to 2 Storeys, Sprinklered	
(1)	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
(2)	[F03-OS1.2] [F04-OS1.2,OS1.3]
	(a),(b) [F03-OP1.2] [F04-OP1.2,OP1.3]
3.2.2.68. Group F, Division 1, up to 4 Storeys, Sprinklered	
(2)	(c),(d) [F04-OP1.3]
	[F02-OS1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	[F02-OP1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* shall be *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* shall be *sprinklered* throughout …"
	(b),(d) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(b),(d) [F03-OP1.2] [F04-OP1.2,OP1.3]
	(c),(d) [F04-OS1.3]
3.2.2.69. Group F, Division 1, up to 3 Storeys, Sprinklered	
(1)	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
(2)	[F02-OS1.2] Applies to portion of Code text: "The *building* referred to in Sentence (1) is permitted to be of *heavy timber construction* or *noncombustible construction* used singly or in combination …"
	[F02-OP1.2] Applies to portion of Code text: "The *building* referred to in Sentence (1) is permitted to be of *heavy timber construction* or *noncombustible construction* used singly or in combination …"
	[F03-OS1.2] [F04-OS1.2,OS1.3]
	[F03-OP1.2] [F04-OP1.2,OP1.3]
3.2.2.70. Group F, Division 1, up to 2 Storeys, Sprinklered	
(1)	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
(2)	[F03-OS1.2] Applies to portion of Code text: "… a) [*noncombustible*] floor assemblies shall be *fire separations* …"
	[F03-OP1.2] Applies to portion of Code text: "… a) [*noncombustible*] floor assemblies shall be *fire separations* …"
	[F03-OS1.2] [F04-OS1.2,OS1.3]
	[F03-OP1.2] [F04-OP1.2,OP1.3]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
3.2.2.72. Group F, Division 2, Any Height, Any Area, Sprinklered	
(2)	[F02-OS1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	[F02-OP1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* shall be *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* shall be *sprinklered* throughout …"
	(b),(d) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(b),(d) [F03-OP1.2] [F04-OP1.2,OP1.3]
	(c),(d) [F04-OS1.3]
	(c),(d) [F04-OP1.3]
3.2.2.73. Group F, Division 2, up to 4 Storeys, Increased Area, Sprinklered	
(1)	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
(2)	[F02-OS1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	[F02-OP1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	(a),(c) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(a),(c) [F03-OP1.2] [F04-OP1.2,OP1.3]
	(b),(c) [F04-OS1.3]
	(b),(c) [F04-OP1.3]
3.2.2.74. Group F, Division 2, up to 3 Storeys	
(2)	(a),(e) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(a),(e) [F03-OP1.2] [F04-OP1.2,OP1.3]
	(b),(d) [F04-OS1.3]
	(b),(d) [F04-OP1.3]
	[F04-OS1.3] Applies to portion of Code text: "… c) roof assemblies shall have, if of *combustible construction*, a *fire-resistance rating* not less than 45 min …" and to Clause (d).
	[F04-OP1.3] Applies to portion of Code text: "… c) roof assemblies shall have, if of *combustible construction*, a *fire-resistance rating* not less than 45 min, …" and to Clause (d).
3.2.2.75. Group F, Division 2, up to 4 Storeys, Sprinklered	
(1)	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
(2)	(a),(d) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(a),(d) [F03-OP1.2] [F04-OP1.2,OP1.3]
	(b),(c) [F04-OS1.3]
	(b),(c) [F04-OP1.3]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
3.2.2.76. Group F, Division 2, up to 2 Storeys	
(2)	(a) [F03-OS1.2] Applies to the requirement that *noncombustible* floor assemblies be *fire separations*.
	(a) [F03-OP1.2] Applies to the requirement that *noncombustible* floor assemblies be *fire separations*.
	[F03-OS1.2] [F04-OS1.2,OS1.3]
	[F03-OP1.2] [F04-OP1.2,OP1.3]
3.2.2.77. Group F, Division 2, up to 2 Storeys, Sprinklered	
(1)	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
(2)	(a) [F03-OS1.2] Applies to the requirement that *noncombustible* floor assemblies be *fire separations*.
	(a) [F03-OP1.2] Applies to the requirement that *noncombustible* floor assemblies be *fire separations*.
	[F03-OS1.2] [F04-OS1.2,OS1.3]
	[F03-OP1.2] [F04-OP1.2,OP1.3]
3.2.2.78. Group F, Division 3, Any Height, Any Area, Sprinklered	
(2)	[F02-OS1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	[F02-OP1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* shall be *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* shall be *sprinklered* throughout …"
	(b),(d) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(b),(d) [F03-OP1.2] [F04-OP1.2,OP1.3]
	(c),(d) [F04-OS1.3]
	(c),(d) [F04-OP1.3]
3.2.2.79. Group F, Division 3, up to 6 Storeys	
(2)	[F02-OS1.2] Applies to portion of Code text: "The *building* referred to in Sentence (1) shall be of *noncombustible construction*…"
	[F02-OP1.2] Applies to portion of Code text: "The *building* referred to in Sentence (1) shall be of *noncombustible construction*…"
	(a),(d) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(a),(d) [F03-OP1.2] [F04-OP1.2,OP1.3]
	(b),(d) [F04-OS1.3]
	(b),(d) [F04-OP1.3]
	(c),(d) [F04-OS1.3]
	(c),(d) [F04-OP1.3]
3.2.2.80. Group F, Division 3, up to 6 Storeys, Sprinklered	
(1)	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F02-OS1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	[F02-OP1.2] Applies to portion of Code text: "… the *building* referred to in Sentence (1) shall be of *noncombustible construction* …"
	(a),(c) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(a),(c) [F03-OP1.2] [F04-OP1.2,OP1.3]
	(b),(c) [F04-OS1.3]
	(b),(c) [F04-OP1.3]
3.2.2.81. Group F, Division 3, up to 4 Storeys	
(2)	[F04-OS1.3] Applies to portion of Code text: "… c) roof assemblies shall have, if of *combustible construction*, a *fire-resistance rating* not less than 45 min …" and to Clause (d).
	[F04-OP1.3] Applies to portion of Code text: "… c) roof assemblies shall have, if of *combustible construction*, a *fire-resistance rating* not less than 45 min, …" and to Clause (d).
	(a) [F03-OS1.2] Applies to the requirement that *noncombustible* floor assemblies be *fire separations*.
	(a) [F03-OP1.2] Applies to the requirement that *noncombustible* floor assemblies be *fire separations*.
	(a),(d) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(a),(d) [F03-OP1.2] [F04-OP1.2,OP1.3]
	(b),(d) [F04-OS1.3]
	(b),(d) [F04-OP1.3]
3.2.2.82. Group F, Division 3, up to 4 Storeys, Sprinklered	
(1)	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
(2)	(a) [F03-OS1.2] Applies to the requirement that *noncombustible* floor assemblies be *fire separations*.
	(a) [F03-OP1.2] Applies to the requirement that *noncombustible* floor assemblies be *fire separations*.
	(a),(c) [F03-OS1.2] [F04-OS1.2,OS1.3]
	(a),(c) [F03-OP1.2] [F04-OP1.2,OP1.3]
	(b),(c) [F04-OS1.3]
	(b),(c) [F04-OP1.3]
3.2.2.83. Group F, Division 3, up to 2 Storeys	
(2)	(a) [F03-OS1.2] Applies to the requirement that *noncombustible* floor assemblies be *fire separations*.
	(a) [F03-OP1.2] Applies to the requirement that *noncombustible* floor assemblies be *fire separations*.
	[F03-OS1.2] [F04-OS1.2,OS1.3]
	[F03-OP1.2] [F04-OP1.2,OP1.3]
3.2.2.84. Group F, Division 3, up to 2 Storeys, Sprinklered	
(1)	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
(2)	(a) [F03-OS1.2] Applies to the requirement that *noncombustible* floor assemblies be *fire separations*.
	(a) [F03-OP1.2] Applies to the requirement that *noncombustible* floor assemblies be *fire separations*.
	[F03-OS1.2] [F04-OS1.2,OS1.3]
	[F03-OP1.2] [F04-OP1.2,OP1.3]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
3.2.2.85. Group F, Division 3, One Storey	
(1)	[F02-OS1.2] Applies to portion of Code text: "A *building* classified as Group F, Division 3 is permitted to be of *heavy timber construction* or *noncombustible construction* used singly or in combination …"
	[F02-OP1.2] Applies to portion of Code text: "A *building* classified as Group F, Division 3 is permitted to be of *heavy timber construction* or *noncombustible construction* used singly or in combination …"
3.2.2.86. Group F, Division 3, One Storey, Sprinklered	
(1)	[F02-OS1.2] Applies to portion of Code text: "A *building* classified as Group F, Division 3 is permitted to be of *heavy timber construction* or *noncombustible construction* used singly or in combination …"
	[F02-OP1.2] Applies to portion of Code text: "A *building* classified as Group F, Division 3 is permitted to be of *heavy timber construction* or *noncombustible construction* used singly or in combination …"
	[F02,F04-OS1.2,OS1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
	[F02,F04-OP1.2,OP1.3] Applies to portion of Code text: "… a) … the *building* is *sprinklered* throughout …"
3.2.2.87. Group F, Division 3, One Storey, Any Area, Low Fire Load Occupancy	
(2)	[F02-OS1.2]
	[F02-OP1.2]
3.2.2.88. Group F, Division 3, Storage Garages up to 22 m High	
(1)	[F02-OS1.2] Applies to portion of Code text: "A *building* used as a *storage garage* with all *storeys* constructed as *open-air storeys* and having no other *occupancy* above it is permitted to have its floor, wall, ceiling and roof assemblies constructed without a *fire-resistance rating* provided it is: a) of *noncombustible construction*…"
	[F02-OP1.2] Applies to portion of Code text: "A *building* used as a *storage garage* with all *storeys* constructed as *open-air storeys* and having no other *occupancy* above it is permitted to have its floor, wall, ceiling and roof assemblies constructed without a *fire-resistance rating* provided it is: a) of *noncombustible construction*…"
3.2.3.1. Limiting Distance and Area of Unprotected Openings	
(1)	[F03-OP3.1]
(5)	[F03-OP3.1]
(6)	[F03-OP3.1]
(8)	[F03-OP3.1]
(9)	[F03-OP3.1]
(10)	[F03-OP3.1]
3.2.3.2. Area of Exposing Building Face	
(2)	[F03-OP3.1]
(3)	[F03-OP3.1]
3.2.3.4. Party Wall	
(1)	[F03-OP3.1]
3.2.3.5. Wall with Limiting Distance Less Than 1.2 m	
(1)	[F03-OP3.1]
(2)	[F03-OP3.1]
3.2.3.6. Combustible Projections	
(1)	[F03-OP3.1]
(2)	[F03-OP3.1]
(3)	[F03-OP3.1]
(4)	[F03-OP3.1]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
3.2.3.7. Construction of Exposing Building Face	
(1)	[F03,F02-OP3.1]
(2)	[F03,F02-OP3.1]
(3)	[F02,F03-OP3.1]
(4)	[F03,F02-OP3.1]
3.2.3.8. Protection of Exterior Building Face	
(1)	[F01,F02,F04-OS1.2]
	[F01,F02-OP1.2]
	[F02-OP3.1]
3.2.3.9. Protection of Structural Members	
(1)	[F04-OS1.3]
	[F04-OP1.3]
3.2.3.10. Unlimited Unprotected Openings	
(1)	[F03-OP3.1]
(2)	[F03-OP3.1]
3.2.3.11. Low Fire Load, One Storey Building	
(1)	(b) [F03-OP3.1]
	(a) [F04-OP3.1]
3.2.3.12. Area Increase for Unprotected Openings	
(1)	[F03-OP3.1]
3.2.3.13. Protection of Exit Facilities	
(4)	[F06-OS1.2] [F05-OS1.5]
	[F06-OP1.2]
3.2.3.14. Wall Exposed to Another Wall	
(1)	[F03-OS1.2]
	[F03-OP1.2]
	[F03-OP3.1]
(2)	[F03-OS1.2]
	[F03-OP1.2]
	[F03-OP3.1]
3.2.3.15. Wall Exposed to Adjoining Roof	
(1)	[F03-OS1.2]
	[F03-OP1.2]
3.2.3.16. Protection of Soffits	
(1)	[F03-OS1.2]
	[F03-OP1.2]
(2)	[F03-OS1.2]
	[F03-OP1.2]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(3)	[F03-OS1.2]
	[F03-OP1.2]
(4)	[F02-OS1.2]
	[F02-OP1.2]
3.2.3.17. Canopy Protection for Vertically Separated Openings	
(1)	[F03-OS1.2]
	[F03-OP1.2]
(2)	[F03-OS1.2]
	[F03-OP1.2]
(3)	[F02-OS1.2]
	[F02-OP1.2]
3.2.3.18. Covered Vehicular Passageway	
(1)	[F03-OP3.1]
(2)	[F02-OP3.1]
3.2.3.19. Walkway between Buildings	
(1)	[F03-OP3.1]
(2)	[F02-OP3.1]
(3)	[F02,F12-OP3.1]
3.2.3.20. Underground Walkway	
(1)	[F01,F02-OP3.1]
(2)	[F03-OP3.1]
(3)	[F02-OP3.1] Applies to portion of Code text: "An underground *walkway* shall be of *noncombustible construction* …"
	[F80-OP2.3] Applies to portion of Code text: "An underground *walkway* shall be … suitable for an underground location."
(4)	(a) [F05-OS1.5] [F06-OS1.2]
	(b) [F10-OS1.5] [F12-OS1.2]
3.2.3.22. Installation of Service Lines Under Buildings	
(1)	[F01-OS1.1]
	[F01-OP1.1]
3.2.4.1. Determination of Requirement for a Fire Alarm System	
(1)	[F11-OS1.5] [F13-OS1.5,OS1.2]
	[F13-OP1.2]
(4)	[F11-OS1.5]
3.2.4.2. Continuity of Fire Alarm System	
(1)	[F11-OS1.5]
(2)	[F11-OS1.5]
(3)	[F11-OS1.5]
(4)	[F10-OS1.5] [F03-OS1.2]
(5)	[F11,F13-OS1.2]
(6)	[F11-OS1.5]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
3.2.4.3. Types of Fire Alarm Systems	
(1)	(a) [F11-OS1.5]
	(b) [F11-OS1.4] [F13-OS1.5]
	(c),(d) [F11-OS1.5]
3.2.4.4. Description of Fire Alarm Systems	
(1)	[F11-OS1.5]
(2)	(a) [F11-OS1.4] [F13-OS1.5]
	(b),(c) [F11-OS1.5]
(3)	[F13-OS1.5]
(4)	[F13-OS1.5]
3.2.4.5. Installation and Verification of Fire Alarm Systems	
(1)	[F11,F81-OS1.5] [F13,F12,F81-OS1.5,OS1.2]
	[F12,F11-OS3.7] Applies to voice communication systems.
(2)	[F82-OS1.5]
3.2.4.6. Commissioning of Life Safety and Fire Protection Systems	
(1)	[F02,F81,F82-OS1.2,OS1.5]
	[F02,F81,F82-OP1.2]
3.2.4.7. Silencing of Alarm Signals	
(1)	[F11-OS1.5]
(2)	[F81,F34-OS1.5]
3.2.4.8. Signals to Fire Department	
(1)	[F13-OS1.5,OS1.2]
	[F13-OP1.2]
(2)	[F13-OS1.5,OS1.2]
	[F13-OP1.2]
(3)	[F13-OS1.5,OS1.2]
	[F13-OP1.2]
(4)	[F81,F13-OS1.5,OS1.2]
	[F81,F13-OP1.2]
(5)	[F13-OS1.5,OS1.2]
	[F13-OP1.2]
(6)	[F13-OP1.2]
	[F13-OS1.2]
3.2.4.9. Annunciator and Zone Indication	
(1)	[F12-OS1.5,OS1.2]
(2)	[F12-OS1.5,OS1.2]
(4)	[F12-OS1.2,OS1.5]
(7)	[F12-OS1.5,OS1.2]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
3.2.4.10. Electrical Supervision	
(1)	[F82-OS1.5,OS1.2]
(2)	[F82-OS1.2]
	[F82-OP1.2]
(3)	(a),(d),(e),(f),(g) [F82-OS1.2]
	(a),(d),(e),(f),(g) [F82-OP1.2]
	(b),(c) [F82-OS1.5]
(4)	[F81-OP1.2]
	[F82-OS1.5]
(5)	[F82-OS1.2]
	[F82-OP1.2]
3.2.4.11. Fire Detectors	
(1)	[F11-OS1.5]
(2)	[F11-OS1.5]
(3)	[F02-OS1.2] [F11-OS1.5]
(4)	[F11-OS1.5]
3.2.4.12. Smoke Detectors	
(1)	[F11-OS1.5]
(3)	[F12-OS1.5]
(4)	[F10-OS1.5]
(5)	[F11-OS1.5]
(7)	[F11-OS1.4,OS1.5]
3.2.4.13. Prevention of Smoke Circulation	
(1)	[F03-OS1.2]
3.2.4.14. Vacuum Cleaning System Shutdown	
(1)	[F03-OS1.2]
3.2.4.15. Elevator Emergency Return	
(1)	[F10-OS1.5]
(2)	[F11-OS1.5]
(3)	[F02-OS1.2]
3.2.4.16. System Monitoring	
(1)	[F11-OS1.5] [F12-OS1.5,OS1.2]
	[F12-OP1.2]
(2)	[F11-OS1.5] [F13-OS1.5,OS1.2]
	[F13-OP1.2]
(3)	[F12-OS1.2,OS1.5]
	[F12-OP1.2]
3.2.4.17. Manual Stations	
(1)	[F11-OS1.5]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F02-OS1.2] [F12-OS1.2,OS1.5] [F10-OS1.5]
(3)	[F02-OS1.2] [F12-OS1.2,OS1.5] [F10-OS1.5]
(4)	[F11-OS1.5]
(5)	[F13-OP1.2]
	[F11-OS1.5] [F13-OS1.2]
3.2.4.18. Alert and Alarm Signals	
(2)	[F11-OS1.5]
(3)	[F11-OS1.5]
3.2.4.19. Audibility of Alarm Systems	
(1)	[F11-OS1.5]
(2)	[F11-OS1.5]
(3)	[F11-OS1.5]
(4)	[F33-OS3.5]
(5)	[F11-OS1.5]
(6)	[F11-OS1.5]
(7)	[F11,F81-OS1.5]
(8)	[F11,F81-OS1.5]
(9)	[F11,F81-OS1.5]
(10)	[F11-OS1.5]
(12)	[F11-OS1.5]
3.2.4.20. Visual Signals	
(1)	[F11-OS1.5]
(2)	[F11-OS1.5]
(3)	[F11-OS1.5]
	(a) [F81-OS1.5]
(4)	[F11-OS1.5]
(5)	[F11-OS1.5]
(6)	[F11,F81-OS1.5]
(7)	[F11,F81-OS1.5]
3.2.4.21. Smoke Alarms	
(1)	[F81,F11-OS1.5]
(2)	[F11-OS1.5]
(3)	[F11-OS1.5]
(4)	[F11-OS1.5]
(5)	[F11-OS1.5]
(6)	[F11,F81-OS1.5]
(7)	[F11,F81-OS1.5]
(9)	[F11-OS1.5]
(10)	[F81,F11-OS1.5]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(11)	[F11,F81-OS1.5]
(13)	[F11-OS1.5]
3.2.4.22. Voice Communication Systems	
(1)	[F12,F11-OS3.7]
(2)	[F11-OS1.5]
(3)	[F11-OS1.5]
(4)	[F11-OS1.5] [F13-OS1.4,OS1.5]
(5)	[F11-OS1.5]
(6)	[F12-OS3.7]
(7)	[F11-OS1.5]
(8)	[F11-OS1.5]
(9)	[F11-OS1.5]
3.2.5.1. Access to Above-grade Storeys	
(1)	[F12-OS1.5,OS1.2]
	[F12-OP1.2]
(2)	[F12-OS1.5,OS1.2]
	[F12-OP1.2]
(3)	[F12-OS1.5,OS1.2]
	[F12-OP1.2]
3.2.5.2. Access to Basements	
(1)	[F12-OS1.5,OS1.2]
	[F12-OP1.2]
(2)	[F12-OS1.5,OS1.2]
	[F12-OP1.2]
3.2.5.3. Roof Access	
(1)	[F12-OS1.2]
	[F12-OP1.2]
3.2.5.4. Access Routes	
(1)	[F12-OS1.5,OS1.2]
	[F12-OP1.2]
3.2.5.5. Location of Access Routes	
(1)	[F12-OS1.5,OS1.2] [F06-OS1.1]
	[F12-OP1.2]
(2)	[F12-OS1.2]
	[F12-OP1.2]
(4)	[F12-OS1.2]
	[F12-OP1.2]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
3.2.5.6. Access Route Design	
(1)	[F12-OS1.2]
	[F12-OP1.2]
3.2.5.7. Water Supply	
(1)	[F02-OS1.2]
	[F02-OP1.2]
	[F02-OP3.1]
3.2.5.8. Standpipe Systems	
(1)	[F02-OS1.2]
	[F02-OP1.2]
3.2.5.9. Standpipe System Design	
(1)	[F02-OS1.2]
	[F02-OP1.2]
(2)	[F12-OS1.2]
	[F12-OP1.2]
(5)	[F02-OS1.2]
	[F02-OP1.2]
(6)	[F12-OS1.2]
	[F12-OP1.2]
3.2.5.10. Hose Connections	
(1)	[F03-OS1.2] [F05,F06-OS1.5,OS1.2]
	[F03,F06-OP1.2]
(3)	[F12-OS1.2]
	[F12-OP1.2]
(4)	[F02-OS1.2]
	[F02-OP1.2]
3.2.5.11. Hose Stations	
(1)	[F02-OS1.2]
	[F02-OP1.2]
(2)	[F02-OS1.2]
	[F02-OP1.2]
(3)	[F02,F12-OS1.2]
	[F02,F12-OP1.2]
(4)	[F03-OS1.2]
	[F03-OP1.2]
(5)	[F10-OS1.5]
(6)	[F02-OS1.2]
	[F02-OP1.2]
(7)	[F01-OS1.1]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
3.2.5.12. Automatic Sprinkler Systems	
(1)	[F02,F81,F82-OS1.2]
	[F02,F81,F82-OP1.2]
(2)	[F02,F81,F82-OS1.2]
	[F02,F81,F82-OP1.2]
(3)	[F02,F81-OS1.2]
	[F02,F81-OP1.2]
(4)	[F02-OS1.2]
	[F02-OP1.2]
(5)	[F81-OS1.2]
	[F81-OP1.2]
(6)	[F02-OS1.2]
	[F02-OP1.2]
(7)	[F81-OS3.3,OS3.6]
3.2.5.13. Combustible Sprinkler Piping	
(1)	[F06-OS1.2]
	[F06-OP1.2]
(2)	[F02,F81-OS1.2]
	[F02,F81-OP1.2]
(3)	[F06-OS1.2]
	[F06-OP1.2]
(4)	[F06-OS1.2]
	[F06-OP1.2]
3.2.5.14. Sprinklered Service Space	
(1)	[F02-OS1.2]
	[F02-OP1.2]
(2)	[F12-OS1.2]
	[F12-OP1.2]
(3)	[F11-OS1.5] [F12-OS1.5,OS1.2]
	[F12-OP1.2]
3.2.5.15. Fire Department Connections	
(1)	[F12-OS1.2]
	[F12-OP1.2]
(2)	[F12-OS1.2]
	[F12-OP1.2]
3.2.5.16. Portable Fire Extinguishers	
(1)	[F02,F12,F81-OS1.2]
	[F02,F12,F81-OP1.2]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F12-OS1.2]
	[F12-OP1.2]
3.2.5.17. Protection from Freezing	
(1)	[F81-OS1.2]
	[F81-OP1.2]
3.2.5.18. Fire Pumps	
(1)	[F02,F81-OS1.2] [F81-OS1.4]
	[F02,F81-OP1.2] [F81-OP1.4]
3.2.6.2. Limits to Smoke Movement	
(1)	[F02-OS1.2,OS1.5]
	[F02-OP1.2]
(2)	[F06-OS1.2,OS1.5] [F05-OS1.5]
	[F06-OP1.2]
(3)	[F06-OS1.5,OS1.2] [F05-OS1.5]
	[F06-OP1.2]
(4)	[F03-OS1.2,OS1.5]
	[F03-OP1.2]
(5)	[F03-OS1.2,OS1.5]
	[F03-OP1.2]
3.2.6.3. Connected Buildings	
(1)	[F03-OS1.2,OS1.5]
	[F03-OP1.2]
	[F03-OP3.1]
3.2.6.4. Emergency Operation of Elevators	
(1)	[F12-OS1.2,OS1.5]
	[F12-OP1.2]
(2)	[F12-OS1.2,OS1.5]
	[F12-OP1.2]
(3)	[F12-OS1.2,OS1.5]
	[F12-OP1.2]
(4)	[F12-OS1.2,OS1.5]
	[F12-OP1.2]
3.2.6.5. Elevator for Use by Firefighters	
(1)	[F12,F06-OS1.2,OS1.5]
	[F12,F06-OP1.2]
(2)	[F12-OS1.2,OS1.5]
	[F12-OP1.2]
(3)	[F06-OS1.2,OS1.5]
	[F06-OP1.2]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(4)	[F12-OS1.2,OS1.5]
	[F12-OP1.2]
(5)	[F12-OS1.2,OS1.5]
	[F12-OP1.2]
(6)	[F06-OS1.2,OS1.5]
	[F06-OP1.2]
3.2.6.6. Venting to Aid Firefighting	
(1)	[F06-OS1.2,OS1.5]
	[F06-OP1.2]
(2)	[F30-OS3.1]
(3)	[F12-OS1.2,OS1.5]
	[F12-OP1.2]
(4)	[F03-OS1.2] [F12-OS1.2,OS1.5]
3.2.6.7. Central Alarm and Control Facility	
(1)	[F12-OS1.2,OS1.5]
	[F12-OP1.2]
(2)	[F12-OS1.2,OS1.5] [F11-OS1.5]
	[F12-OP1.2]
3.2.6.8. Voice Communication System	
(1)	[F12,F11-OS3.7]
3.2.6.9. Testing	
(1)	[F82-OS1.2,OS1.5]
	[F82-OP1.2]
3.2.7.1. Minimum Lighting Requirements	
(1)	[F30-OS3.1] [F10-OS3.7]
(2)	[F30-OS3.1] [F10-OS3.7]
3.2.7.2. Recessed Lighting Fixtures	
(1)	[F01-OS1.1,OS1.2]
	[F01-OP1.1,OP1.2]
3.2.7.3. Emergency Lighting	
(1)	[F30-OS3.1] [F10-OS3.7]
(2)	[F30-OS3.1] [F10-OS3.7]
(3)	[F30-OS3.1] [F10-OS3.7]
(4)	[F30-OS3.1] [F10-OS3.7]
3.2.7.4. Emergency Power for Lighting	
(1)	[F30-OS3.1] [F10-OS3.7]
(2)	[F30,F81-OS3.1] [F10,F81-OS3.7]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
3.2.7.5. Emergency Power Supply Installation	
(1)	[F81,F06,F11,F02,F03,F10,F12-OS1.2,OS1.5]
	[F81,F06,F02,F03-OP1.2]
	[F81,F06,F02-OP3.1]
	[F81,F30-OS3.1] [F81,F11,F10,F12-OS3.7]
3.2.7.6. Emergency Power for Treatment Occupancies	
(1)	[F81,F06,F11,F02,F03,F10,F12-OS1.2,OS1.5]
	[F81,F06,F02,F03-OP1.2]
	[F81,F06,F02-OP3.1]
	[F81,F30-OS3.1] [F81,F11,F10,F12-OS3.7]
3.2.7.7. Fuel Supply Shut-off Valves	
(1)	[F12-OS1.1,OS1.2] Applies to the requirement for a suitably identified shut-off valve outside the *building*.
	[F12-OP1.2] Applies to the requirement for a suitably identified shut-off valve outside the *building*.
	[F12-OH5] Applies to the requirement for a suitably identified shut-off valve outside the *building*.
	[F81-OS1.2,OS1.5] Applies to the requirement for a suitably identified separate shut-off valve.
	[F81-OS3.1,OS3.7] Applies to the requirement for a suitably identified separate shut-off valve.
3.2.7.8. Emergency Power for Fire Alarm Systems	
(1)	[F11-OS1.5] [F13-OS1.5,OS1.2]
	[F13-OP1.2] Applies to the requirement for fire alarm systems, including those with a voice communication system, to be provided with an emergency power supply.
(2)	[F11-OS1.5] [F13-OS1.2,OS1.5]
	[F13-OP1.2]
(3)	[F11-OS1.5] [F13-OS1.5,OS1.2]
	[F13-OP1.2]
(4)	[F13-OP1.2]
	[F11-OS1.5] [F13-OS1.2,OS1.5]
3.2.7.9. Emergency Power for Building Services	
(1)	[F12,F02,F03-OS1.5,OS1.2]
	[F12,F02,F03-OP1.2]
	(b) [F02-OP3.1]
	(a) [F36-OS3.6] [F12,F10-OS3.7]
(2)	[F12-OS1.5,OS1.2]
	[F12-OP1.2]
	[F36-OS3.6] [F12-OS3.7]
3.2.7.10. Protection of Electrical Conductors	
(2)	[F06-OS1.2,OS1.5]
	[F06-OP1.2]
(3)	[F06-OS1.2,OS1.5]
	[F06-OP1.2]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(4)	[F06-OS1.2,OS1.5]
	[F06-OP1.2]
(6)	[F06-OS1.2,OS1.5]
	[F06-OP1.2]
(8)	[F06-OS1.2,OS1.5]
	[F06-OP1.2]
3.2.8.1. Application	
(1)	[F03,F06-OS1.2] [F05-OS1.5]
	[F03,F06-OP1.2]
3.2.8.2. Exceptions to Special Protection	
(3)	[F03-OS1.2]
	[F03-OP1.2]
(5)	[F02,F03-OS1.2]
	[F02,F03-OP1.2]
3.2.8.3. Construction Requirements	
(1)	[F02-OS1.2]
	[F02-OP1.2]
3.2.8.4. Sprinklers	
(1)	[F02-OS1.2]
	[F02-OP1.2]
3.2.8.5. Vestibules	
(1)	[F06-OS1.2] [F05-OS1.5]
	[F06,F03-OP1.2]
3.2.8.6. Protected Floor Space	
(1)	[F05-OS1.2] [F06-OS1.5]
3.2.8.7. Draft Stops	
(1)	[F02-OS1.2] [F11-OS1.5] [F13-OS1.5,OS1.2]
	[F02,F13-OP1.2]
3.2.8.8. Mechanical Exhaust System	
(1)	[F03-OS1.5,OS1.2]
	[F03-OP1.2]
(2)	[F12-OS1.5,OS1.2]
	[F12-OP1.2]
3.2.8.9. Combustible Content Limits	
(1)	[F02-OS1.2]
	[F02-OP1.2]
3.3.1.1. Separation of Suites	
(1)	[F03-OS1.2]
	[F03-OP1.2]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(3)	[F02-OS1.2]
	[F02-OP1.2]
3.3.1.2. Hazardous Substances, Equipment and Processes	
(1)	[F01,F02,F03-OS1.1,OS1.2]
	[F01,F02,F03-OP1.1,OP1.2]
	[F43-OS3.4]
(3)	[F43-OS3.7]
	[F05-OS1.5]
3.3.1.3. Means of Egress	
(3)	[F10-OS3.7]
(4)	[F10,F12,F05,F06-OS3.7]
(5)	[F10,F12-OS3.7]
(6)	[F10,F12,F05,F06-OS3.7]
(7)	[F10,F12,F05,F06-OS3.7]
(8)	[F05-OS1.5]
(9)	[F10,F12,F05,F06-OS3.7]
3.3.1.4. Public Corridor Separations	
(1)	[F03,F05-OS1.5] [F06-OS1.5,OS1.2]
	[F03,F06-OP1.2]
(2)	[F03,F05-OS1.5] [F06-OS1.5,OS1.2]
	[F03,F06-OP1.2]
(3)	[F03,F05-OS1.5] [F06-OS1.2,OS1.5]
	[F03,F06-OP1.2]
(4)	(a),(b) [F03,F05,F10-OS1.5] [F06,F12-OS1.2,OS1.5] (c) [F03,F05-OS1.5] [F03,F06-OS1.5,OS1.2]
	(a),(b) [F03,F06,F12-OP1.2] (c) [F03,F06-OP1.2]
3.3.1.5. Egress Doorways	
(1)	[F10,F05-OS1.5]
(2)	[F05,F10-OS1.5]
3.3.1.6. Travel Distance	
(1)	[F10-OS1.5]
3.3.1.7. Protection on Floor Areas with a Barrier-Free Path of Travel	
(1)	[F10,F05-OS1.5]
	(a) [F06-OS1.5]
(2)	[F03-OS1.2] [F06-OS1.5]
(4)	[F03-OS1.2] [F06-OS1.5]
(5)	(a) [F10,F73-OS1.5]
	(b),(c) [F10-OS1.5]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
3.3.1.9. Corridors	
(1)	[F10,F12-OS3.7]
(2)	[F10,F12-OS3.7]
(3)	[F30,F73-OS3.1]
(5)	[F10,F12-OS3.7]
(6)	(a) [F10,F12-OS3.7]
	(b) [F05-OS1.5] [F06-OS1.5,OS1.2]
3.3.1.11. Door Swing	
(1)	[F10-OS3.7]
(2)	[F10-OS3.7]
(3)	[F10-OS3.7]
(4)	[F10-OS3.7]
3.3.1.12. Sliding Doors	
(1)	(b) [F10-OS3.7]
3.3.1.13. Doors and Door Hardware	
(1)	[F73-OA1]
	(c) [F10-OS3.7] [F30-OS3.1]
(2)	[F10-OS3.7]
(3)	[F10-OS3.7]
(4)	[F10-OS3.7]
(5)	[F10-OS3.7]
	[F73-OA1]
(7)	[F12-OS3.7]
(8)	[F12-OS3.7]
(9)	[F12-OS3.7]
(10)	[F73-OA1]
	(c) [F73-AO1]
	[F10-OS3.7]
	(e) [F73-OA1]
	[F30-OS3.1]
(11)	[F73-OA1]
	[F10-OS3.7]
(12)	[F73-OA1]
	[F30-OS3.1]
3.3.1.17. Capacity of Access to Exits	
(2)	[F10-OS3.7]
(3)	[F10-OS3.7]
(4)	[F10-OS3.7]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
3.3.1.18. Guards	
(1)	[F30-OS3.1]
(2)	[F30-OS3.1]
(3)	[F30-OS3.1]
3.3.1.19. Transparent Doors and Panels	
(1)	[F30-OS3.1] [F10-OS3.7]
(2)	[F20-OS3.1]
(3)	[F30-OS3.1] [F10-OS3.7]
(6)	[F30-OS3.1]
3.3.1.20. Exhaust Ventilation and Explosion Venting	
(1)	[F01-OS1.1]
(2)	[F02-OS1.3] Applies to the requirement for explosion-relief devices and vents.
	[F02-OP1.3] Applies to the requirement for explosion-relief devices and vents.
3.3.1.21. Janitors' Rooms	
(1)	[F03-OS1.2]
	[F03-OP1.2]
(3)	[F02-OS1.2]
	[F02-OP1.2]
3.3.1.22. Common Laundry Rooms	
(1)	[F03-OS1.2]
	[F03-OP1.2]
(3)	[F02-OS1.2]
	[F02-OP1.2]
3.3.1.23. Obstructions	
(1)	[F10-OS3.7]
3.3.1.24. Signs in Service Spaces	
(1)	[F10-OS3.7]
3.3.1.25. Welding and Cutting	
(1)	[F03,F02-OS1.2]
	[F03,F02-OP1.2]
3.3.2.1. Scope	
(2)	[F30-OS3.1] [F10-OS3.7]
(3)	[F30-OS3.1] [F10-OS3.7]
3.3.2.2. Fire Separations	
(1)	[F03-OS1.2]
(3)	[F03-OS1.2] Applies where space under tiers of seats is not *sprinklered*.
	[F03-OS1.2] Applies where space under tiers of seats is *sprinklered*.
3.3.2.4. Fixed Seats	
(1)	[F30-OS3.1] [F10-OS3.7]
(3)	[F10-OS3.7]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
3.3.2.5. Aisles	
(2)	[F10-OS3.7]
(4)	[F10-OS3.7]
(5)	[F10-OS3.7]
(6)	[F10-OS3.7]
(7)	[F10-OS3.7]
(8)	[F10-OS3.7] [F30-OS3.1]
(9)	[F10-OS3.7] [F30-OS3.1]
(10)	[F10-OS3.7] [F30-OS3.1]
(11)	[F10-OS3.7] [F30-OS3.1]
(12)	[F10-OS3.7] [F30-OS3.1]
(13)	[F10-OS3.7] [F30-OS3.1]
(14)	[F10-OS3.7] [F30-OS3.1]
(15)	[F10-OS3.7] [F30-OS3.1]
(16)	[F10-OS3.7] [F30-OS3.1]
3.3.2.6. Corridors	
(1)	[F03,F05-OS1.5] [F06-OS1.5,OS1.2]
	[F03,F06-OP1.2]
(3)	[F03,F05-OS1.5] [F06-OS1.5,OS1.2]
	[F03,F06-OP1.2]
(4)	[F10-OS3.7]
3.3.2.7. Doors	
(1)	[F10-OS3.7]
3.3.2.8. Fixed Bench-Type Seats without Arms	
(1)	[F10-OS3.7]
	[F10-OS3.7]
3.3.2.10. Outdoor Places of Assembly	
(1)	[F10-OS3.7]
(2)	[F10-OS3.7]
(3)	[F10-OS3.7]
(5)	[F10-OS3.7]
3.3.2.11. Bleachers	
(1)	[F10-OS3.7] [F30-OS3.1]
(2)	[F10-OS3.7] [F30-OS3.1]
(4)	[F10-OS3.7] [F30-OS3.1]
(5)	[F30-OS3.1]
3.3.2.12. Libraries	
(1)	[F03-OS1.2]
	[F03-OP1.2]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives(1)
(2)	[F02-OS1.2]
	[F02-OP1.2]
3.3.2.13. Stages for Theatrical Performances	
(1)	[F02-OS1.2]
	[F02-OP1.2]
(2)	[F03-OS1.2]
	[F03-OP1.2]
(3)	[F03-OS1.2]
	[F03-OP1.2]
(4)	[F03-OS1.2]
	[F03-OP1.2]
(5)	[F02-OS1.2] [F06-OS1.2,OS1.5]
	[F02,F06-OP1.2]
(6)	[F03-OS1.2,OS1.5]
	[F03-OP1.2]
3.3.2.14. Risers for Stairs	
(1)	[F30-OS3.1]
3.3.2.15. Storage Rooms	
(1)	[F12-OS1.2]
	[F12-OP1.2]
3.3.2.16. Daycare Facilities with Children under 30 Months	
(1)	(a) [F02,F03,F05-OS1.2,OS1.3]
	(b) [F10-OS1.5]
(2)	[F11-OS1.5]
(3)	[F11-OS1.5]
(4)	[F11-OS1.5]
	[F81-OS1.4]
(5)	[F11-OS1.5]
	[F81-OS1.4]>
3.3.3.2. Separations between Care, Treatment or Detention Occupancies and Repair Garages	
(1)	[F44-OS3.4]
	[F03-OS1.2]
3.3.3.3. Corridors	
(1)	[F10-OS3.7]
(2)	[F10-OS3.7]
(3)	[F10,F12-OS3.7]
(4)	(a) [F10-OS3.7]
	(b) [F10,F12-OS3.7]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
3.3.3.4. Doorway Width	
(1)	[F10,F12-OS3.7]
(2)	[F10,F12-OS3.7]
3.3.3.5. Compartments and Fire Separations	
(2)	[F05-OS1.5] [F06-OS1.5,OS1.2]
	[F06-OP1.2]
(4)	[F05-OS1.2] [F06-OS1.2,OS1.5]
	[F03,F06-OP1.2]
(6)	[F05-OS1.2] [F06-OS1.5]
(7)	[F10-OS1.5]
(8)	[F10-OS1.5]
(9)	[F03,F05-OS1.2] [F06-OS1.5]
(13)	[F03,F05-OS1.2] [F06-OS1.5]
(17)	[F02,F03-OS1.2] [F44-OS1.1]
	[F02,F03-OP1.2]
3.3.3.6. Areas of Refuge	
(1)	[F03-OS1.2]
3.3.3.7. Contained Use Areas	
(2)	[F03-OS1.2] [F06-OS1.5,OS1.2]
	[F03,F06-OP1.2]
(3)	[F02-OS1.2] [F06-OS1.5,OS1.2]
	[F02,F06-OP1.2]
(4)	[F02-OS1.2] [F06-OS1.5,OS1.2]
	[F02,F06-OP1.2]
(5)	[F10-OS3.7]
3.3.4.2. Fire Separations	
(1)	[F03-OS1.2] [F05-OS1.5] [F06-OS1.5,OS1.2]
	[F03,F06-OP1.2]
(4)	[F02,F03-OS1.2] [F44-OS1.1]
	(a),(b) [F02,F03-OP1.2]
(5)	[F03-OS1.2] [F01-OS1.1]
	(a) [F03-OP1.2]
	[F44-OS3.4]
3.3.4.3. Storage Rooms	
(1)	[F02-OS1.2]
	[F02-OP1.2]
(2)	[F03-OS1.2]
	[F03-OP1.2]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives(1)
(4)	[F12-OS1.2]
	[F12-OP1.2]
3.3.4.4. Egress from Dwelling Units	
(2)	[F10,F05-OS3.7]
(3)	[F10-OS3.7]
(4)	[F05-OS1.2,OS1.5]
(5)	[F10,F05-OS3.7]
(6)	[F10,F05-OS3.7]
3.3.4.5. Automatic Locking Prohibition	
(1)	[F10-OS3.7]
3.3.4.8. Protection of Openable Windows	
(1)	[F30-OS3.1]
3.3.5.2. Fire Extinguishing Systems	
(1)	[F03-OS1.2]
	[F03-OP1.2]
3.3.5.3. Basements	
(1)	[F12-OS1.2,OS1.5] [F01-OS1.1]
	[F12-OP1.2]
(2)	[F06-OS1.5,OS1.2] Applies to the separation of entrances to *basements* and to rooms containing *building* services from the remainder of the *building*.
	[F06-OP1.2] Applies to the separation of entrances from the remainder of the *building*.
	[F05-OS1.5] [F06-OS1.2,OS1.5] Applies to the separation of *exits* from the remainder of the *building*.
	[F06-OP1.2] Applies to the separation of *exits* from the remainder of the *building*.
(3)	[F44-OS1.1]
3.3.5.4. Repair and Storage Garages	
(2)	[F30-OS3.1] [F10,F12-OS3.7]
(5)	[F30-OS3.1]
(6)	[F30-OS3.1]
(7)	[F02-OS1.2]
	[F02-OP1.2]
3.3.5.5. Repair Garage Separation	
(1)	[F03-OS1.2]
	[F03-OP1.2]
3.3.5.6. Storage Garage Separation	
(1)	[F03-OS1.2]
	[F03-OP1.2]
3.3.5.7. Vestibules	
(4)	[F44-OS3.4]
	[F44-OS1.1]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
3.3.5.8. Dispensing of Fuel	
(1)	[F01-OS1.1]
(2)	[F01-OS1.1]
3.3.5.9. Multiple Tenant Self Storage Warehouses	
(1)	[F03-OS1.2]
	[F03-OP1.2]
3.3.6.2. Storage of Dangerous Goods	
(1)	[F03-OP1.2]
(2)	[F03-OS1.2]
(3)	[F01,F02,F03,F81-OS1.1,OS1.2]
(4)	[F01-OS1.1]
3.3.6.3. Indoor Storage of Compressed Gases	
(1)	(a) [F03-OS1.2] [F44-OS1.1]
	(a) [F03-OP1.2]
	(b) [F12-OS1.2] [F01-OS1.1] [F02-OS1.3]
	(b) [F02-OP1.3]
	(c) [F12-OS1.1]
	(d) [F44-OS1.1]
(2)	(a) [F03-OP1.2]
	(a) [F03-OS1.2,OS1.5]
	(a) [F44-OS1.2,OS1.5,OS1.1] Applies to gas-tight *fire separations*.
	(b) [F12-OS1.2] [F01-OS1.1]
	(c) [F12-OS1.1]
	(d) [F44-OS1.1]
3.3.6.4. Storage and Dispensing Rooms for Flammable Liquids and Combustible Liquids	
(1)	[F03-OS1.2]
	[F03-OP1.2]
(2)	[F02-OS1.3]
	[F02-OP1.3]
3.3.6.5. Tire Storage	
(1)	[F03-OS1.2]
	[F03-OP1.2]
3.3.6.6. Ammonium Nitrate Storage	
(2)	[F01-OS1.1] [F02,F12-OS1.2]
	[F01-OP1.1] [F02,F12-OP1.2]
(3)	[F03-OS1.2] [F01-OS1.1]
	[F03-OP1.2] [F01-OP1.1]
(4)	[F12,F02-OS1.1]
	[F12,F02-OP1.2]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(5)	[F44-OH5]
	[F01-OS1.1] [F02-OS1.2]
	[F43-OS3.4]
(6)	[F01,F81-OS1.1]
3.3.6.7. Flooring Materials	
(1)	[F43-OS3.4]
	[F44-OH5]
	[F01-OS1.1]
3.3.6.8. Fire Separations in Process Plants	
(1)	[F03-OP1.2]
	[F03-OS1.2]
3.3.6.9. Basements and Pits	
(1)	[F01-OS1.1]
3.4.1.2. Separation of Exits	
(1)	[F10,F12,F05,F06-OS3.7]
	[F12,F06-OP1.2]
	[F12,F06-OS1.5,OS1.2]
(2)	[F10-OS3.7]
3.4.1.5. Exterior Exit Passageways	
(1)	[F10-OS3.7]
3.4.1.6. Restricted Use of Horizontal Exits	
(1)	[F10-OS3.7]
(2)	[F10,F05-OS3.7]
3.4.1.7. Slide Escapes	
(1)	[F10-OS3.7]
3.4.1.9. Mirrors near Exits	
(1)	[F10-OS3.7] [F30-OS3.1]
3.4.1.10. Combustible Glazing in Exits	
(1)	[F05-OS1.2] [F06-OS1.2,OS1.5]
	[F03,F06-OP1.2]
3.4.2.1. Minimum Number of Exits	
(1)	[F10,F12,F05,F06-OS3.7]
	[F12,F06-OS1.2]
	[F12,F06-OP1.2]
(3)	[F10-OS3.7]
3.4.2.2. Means of Egress from Mezzanines	
(1)	[F05-OS1.5]
3.4.2.3. Distance between Exits	
(1)	[F10,F05-OS1.5]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
3.4.2.4. Travel Distance	
(3)	[F10-OS3.7]
3.4.2.5. Location of Exits	
(1)	[F10-OS3.7]
(3)	[F10-OS3.7]
3.4.2.6. Principal Entrances	
(1)	[F10-OS3.7]
3.4.3.1. Exit Width Based on Occupant Load	
(2)	[F10-OS3.7]
3.4.3.2. Exit Width	
(1)	[F10-OS3.7]
(2)	[F10-OS3.7]
(3)	[F10-OS3.7]
(6)	[F10-OS3.7]
(7)	[F10-OS3.7]
(8)	[F12,F10-OS3.7] [F30-OS3.1]
	[F12-OP1.2]
	[F12-OS1.2]
3.4.3.3. Exit Width Reduction	
(1)	[F10,F12-OS3.7] [F30-OS3.1]
	[F12-OP1.2]
	[F12-OS1.2]
(2)	[F10,F12-OS3.7]
	[F12-OP1.2]
	[F12-OS1.2]
(3)	[F10,F12-OS3.7]
	[F12-OP1.2]
	[F12-OS1.2]
(4)	[F10,F12-OS3.7]
	[F12-OP1.2]
	[F12-OS1.2]
3.4.3.4. Headroom Clearance	
(1)	[F30-OS3.1] [F10,F12-OS3.7]
	[F12-OP1.2]
	[F12-OS1.2]
(2)	[F30-OS3.1] [F10-OS3.7]
(3)	[F30-OS3.1] [F10-OS3.7]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(4)	[F30-OS3.1] [F10,F12-OS3.7]
	[F12-OP1.2]
	[F12-OS1.2]
(5)	[F30-OS3.1] [F10,F12-OS3.7]
	[F12-OP1.2]
	[F12-OS1.2]
3.4.4.1. Fire-Resistance Rating of Exit Separations	
(1)	[F05-OS1.5] [F06-OS1.5,OS1.2] [F03-OS1.2]
	[F06,F03-OP1.2]
3.4.4.2. Exits through Lobbies	
(1)	[F05,F06-OS1.5]
(2)	[F12,F10,F05,F06-OS1.5]
3.4.4.3. Exterior Passageway Exceptions	
(1)	[F05,F06,F10-OS1.5]
3.4.4.4. Integrity of Exits	
(1)	[F05-OS1.5] [F06-OS1.5,OS1.2] [F03-OS1.2]
	[F06,F03-OP1.2]
(2)	[F05-OS1.5] [F06-OS1.5,OS1.2]
	[F06-OP1.2]
(3)	[F05-OS1.5] [F06-OS1.5,OS1.2]
	[F06-OP1.2]
(4)	[F05-OS1.5] [F06-OS1.5,OS1.2]
	[F06-OP1.2]
	[F43-OS3.7]
(5)	[F05-OS1.5] [F06-OS1.5,OS1.2] [F03-OS1.2]
	[F03,F06-OP1.2]
(6)	[F10,F12-OS3.7] [F30-OS3.1] [F31-OS3.2] [F32-OS3.3] [F43-OS3.4]
	[F10,F05-OS1.5] [F12-OS1.5,OS1.2]
	[F12-OP1.2]
(7)	[F05-OS1.5] [F06-OS1.5,OS1.2]
	[F06-OP1.2]
	[F43-OS3.7]
(8)	[F05-OS1.5] [F06-OS1.5,OS1.2]
	[F06-OP1.2]
(9)	[F05-OS1.5] [F06-OS1.5,OS1.2]
	[F06-OP1.2]
3.4.5.1. Exit Signs	
(1)	[F10-OS3.7]
(2)	[F10-OS3.7]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(3)	[F10,F81-OS3.7]
(4)	[F10,F81-OS3.7]
(5)	[F10-OS3.7]
(6)	[F10-OS3.7]
(7)	[F10-OS3.7]
3.4.5.2. Signs for Stairs and Ramps at Exit Level	
(1)	[F10-OS3.7]
3.4.6.1. Slip Resistance of Ramps and Stairs	
(1)	(a) [F10-OS3.7] [F30-OS3.1]
	(b) [F10-OS3.7] [F30-OS3.1]] [F73-OA]
(2)	[F10,F12-OS3.7] [F30-OS3.1]
	[F12-OP1.2]
	[F12-OS1.2,OS1.5]
3.4.6.2. Minimum Number of Risers	
(1)	[F30-OS3.1]
3.4.6.3. Maximum Vertical Rise of Stair Flights and Required Landings	
(1)	[F10-OS3.7]
(2)	[F10-OS3.7] [F30-OS3.1]
(3)	[F10,F12-OS3.7] [F30-OS3.1]
3.4.6.4. Dimensions of Landings	
(1)	[F10,F12-OS3.7] [F30-OS3.1]
	[F12-OP1.2]
	[F12-OS1.2,OS1.5]
(2)	[F10,F12-OS3.7] [F30-OS3.1]
(3)	[F10,F12-OS3.7] [F30-OS3.1]
3.4.6.5. Handrails	
(1)	[F30-OS3.1] [F10-OS3.7]
(2)	[F30-OS3.1] [F10-OS3.7]
(3)	[F30-OS3.1] [F10-OS3.7]
(5)	[F30-OS3.1] [F10-OS3.7]
(7)	[F30-OS3.1] [F10-OS3.7]
(8)	[F30-OS3.1] [F10-OS3.7]
(9)	[F30-OS3.1] [F10-OS3.7]
(10)	[F30-OS3.1] [F10-OS3.7]
	[F73-OA1]
(11)	[F30-OS3.1] [F10-OS3.7]
(12)	[F20-OS3.1,OS3.7]
(13)	[F30-OS3.1] [F10-OS3.7]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
3.4.6.6. Guards	
(1)	[F30-OS3.1] [F10-OS3.7]
(2)	[F30-OS3.1] [F10-OS3.7]
(3)	[F30-OS3.1] [F10-OS3.7]
(4)	[F30-OS3.1] [F10-OS3.7]
(5)	[F30-OS3.1]
(6)	[F30-OS3.1]
(7)	[F30-OS3.1]
3.4.6.7. Ramp Slope	
(1)	[F10-OS3.7] [F30-OS3.1]
3.4.6.8. Treads and Risers	
(1)	[F10-OS3.7] [F30-OS3.1]
(2)	[F10-OS3.7] [F30-OS3.1]
(3)	[F10-OS3.7] [F30-OS3.1]
(4)	[F30-OS3.1] [F10-OS3.7]
(5)	[F30-OS3.1] [F10-OS3.7]
(6)	[F30-OS3.1] [F10-OS3.7]
(7)	[F30-OS3.1] [F10-OS3.7]
(8)	[F30-OS3.1]
(9)	[F10-OS3.7] [F30-OS3.1]
(10)	[F30-OS3.1]
3.4.6.9. Curved Stairs	
(1)	[F10-OS3.7] [F30-OS3.1]
(2)	[F10-OS3.7] [F30-OS3.1]
3.4.6.10. Horizontal Exits	
(1)	[F10-OS3.7]
(2)	[F10-OS3.7]
(4)	[F10,F73-OS3.7]
(5)	[F10-OS3.7]
3.4.6.11. Doors	
(1)	[F30-OS3.1] [F10-OS3.7]
(2)	[F30-OS3.1] [F10-OS3.7] Applies to portion of Code text: "No *exit* door shall open directly onto a step …"
	[F81,F10-OS3.7] Applies where there is a danger of blockage from ice or snow.
(3)	[F10-OS3.7]
(4)	[F10,F12-OS3.7]
3.4.6.12. Direction of Door Swing	
(1)	[F10-OS3.7]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
3.4.6.13. Self-closing Devices	
(1)	[F05-OS1.5] [F06-OS1.5,OS1.2]
	[F06,F03-OP1.2]
3.4.6.14. Sliding Doors	
(2)	[F12-OS3.7]
3.4.6.15. Revolving Doors	
(1)	(a) [F30-OS3.1] [F10-OS3.7]
	(b) [F10,F12-OS3.7]
	(c) [F10-OS3.7]
	(d) [F30-OS3.1] [F10-OS3.7]
	(e) [F20-OS3.1]
(2)	[F10-OS3.7]
(3)	(a),(b),(d),(e) [F10,F81-OS3.7] [F20,F30-OS3.1]
3.4.6.16. Door Release Hardware	
(1)	[F10-OS3.7]
(2)	[F10-OS3.7]
(3)	[F10-OS3.7]
(4)	[F10,F81-OS3.7]
(5)	[F10-OS3.7]
	[F73-OA1]
3.4.6.17. Security for Banks and Mercantile Floor Areas	
(1)	[F02-OS1.2] Applies to *sprinklered buildings*.
	[F10,F81-OS3.7] Applies to *exit* and egress doors that comply with the stated Sentences.
(2)	[F10-OS3.7]
(3)	[F81-OS3.7]
(5)	[F10-OS1.5]
(6)	[F10-OS3.7]
(9)	[F10,F81-OS3.7]
3.4.6.18. Emergency Access to Floor Areas	
(1)	(a),(b) [F10-OS3.7]
	(c) [F12-OS3.7]
	(c) [F12-OP1.2]
	(c) [F12-OS1.2,OS1.5]
(2)	[F10-OS3.7]
3.4.6.19. Floor Numbering	
(1)	[F10,F12,F73-OS3.7]
	[F73-OA1]
	[F12-OP1.2]
	[F12-OS1.2]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
3.4.7.1. Scope	
(1)	[F10,F12-OS3.7]
(2)	[F10-OS3.7] [F30-OS3.1]
	[F10-OS1.5] [F12-OS1.2]
3.4.7.2. Fire Escape Construction	
(1)	[F05-OS1.5] [F06-OS1.2] Applies to the combustibility of materials used in the construction of fire escapes.
	[F10,F12-OS3.7] [F20-OS3.1] Applies to the type and construction of fire escapes.
	[F20-OS2.1] Applies to the type and construction of fire escapes.
3.4.7.3. Access to Fire Escapes	
(1)	[F10-OS3.7] Applies to portion of Code text: "Access to fire escapes shall be from corridors through doors at floor level …"
(2)	[F30-OS3.1] [F10-OS3.7]
3.4.7.4. Protection of Fire Escapes	
(1)	[F05,F06-OS1.5]
3.4.7.5. Stairs	
(1)	[F10-OS3.7]
(2)	[F10-OS3.7]
(3)	[F10-OS3.7] Applies to the reduction in width permitted under certain conditions.
(4)	[F10-OS3.7] [F30-OS3.1]
3.4.7.6. Guards and Railings	
(1)	[F10-OS3.7] [F30-OS3.1]
(2)	[F10-OS3.7] [F30-OS3.1]
(3)	[F10-OS3.7] [F30-OS3.1]
(4)	[F30-OS3.1]
(5)	[F30-OS3.1]
3.5.2.1. Elevators, Escalators and Dumbwaiters	
(1)	[F30,F81-OS3.1] [F32,F81-OS3.3] [F36,F81-OS3.6]
(2)	[F82-OS3.1,OS3.3,OS3.6]
(3)	[F73-OA1]
3.5.3.1. Fire Separations for Elevator Hoistways	
(1)	[F03-OS1.2]
	[F03-OP1.2]
3.5.3.2. Vertical Service Spaces for Dumbwaiters	
(1)	[F03-OS1.2]
	[F03-OP1.2]
3.5.3.3. Fire Separations for Elevator Machine Rooms	
(1)	[F03-OS1.2]
	[F03-OP1.2]
(2)	[F03-OS1.2]
	[F03-OP1.2]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
3.5.4.1. Elevator Car Dimensions	
(1)	[F12-OS3.7]
(2)	[F12-OS3.7]
3.5.4.2. Floor Numbering	
(1)	[F73-OA1]
3.6.1.2. Electrical Wiring and Equipment	
(1)	[F01-OS1.1] [F02,F03-OS1.2] [F81-OS1.4]
	[F01-OP1.1] [F02,F03-OP1.2] [F81-OP1.4]
	[F32-OS3.3]
3.6.1.3. Storage Use Prohibition	
(1)	[F01-OS1.1] [F02-OS1.2]
3.6.1.4. Appliances Installed outside a Building	
(1)	[F03-OS1.2]
	(b) [F03-OP1.2]
	(a) [F03-OP3.1]
3.6.2.1. Fire Separations around Service Rooms	
(1)	[F03-OS1.2,OS1.4]
	[F03-OP1.2,OP1.4]
(3)	[F01-OS1.1] [F03-OS1.2]
	[F01-OP1.1] [F03-OP1.2]
(4)	[F03-OS1.2,OS1.4]
	[F03-OP1.2,OP1.4]
(5)	[F03-OS1.2,OS1.4]
	[F03-OP1.2,OP1.4]
(6)	[F03-OS1.2,OS1.4]
	[F03-OP1.2,OP1.4]
(7)	[F03-OS1.2,OS1.4]
	[F03-OP1.2,OP1.4]
3.6.2.2. Service Rooms under Exits	
(1)	[F06,F05-OS3.7]
	[F02-OS1.2]
3.6.2.4. Incinerator Rooms	
(1)	[F02-OS1.2]
3.6.2.5. Combustible Refuse Storage	
(1)	[F03-OS1.2]
	[F03-OP1.2]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
3.6.2.6. Door Swing for Service Rooms	
(1)	[F10-OS1.5] Applies to portion of Code text: "A swing-type door from a *service room* containing a *boiler* or incinerator shall swing outward from the room …"
	[F30-OS3.1] Applies to portion of Code text: "A swing-type door from a *service room* containing a *boiler* or incinerator shall swing … inward if the door opens onto a corridor or any room used for an *assembly occupancy*."
3.6.2.7. Electrical Equipment Vaults	
(2)	[F03-OS1.2,OS1.4]
	[F03-OP1.2,OP1.4]
(3)	[F02-OS1.2] [F11-OS1.5] [F03-OS1.4]
	[F02-OP1.2] [F03-OP1.4]
(4)	[F03-OS1.2,OS1.4]
	[F03-OP1.2,OP1.4]
(6)	[F81-OS1.1]
(7)	[F03-OS1.2]
(8)	[F44-OS1.1] [F03-OS1.2]
(9)	[F34-OS1.1]
	[F34-OS3.3]
	[F34-OP1.1]
3.6.2.8. Emergency Power Installations	
(1)	[F03-OS1.2,OS1.4] [F06-OS1.2,OS1.5]
	[F03-OP1.2,OP1.4] [F06-OP1.2]
3.6.3.1. Fire Separations for Vertical Service Spaces	
(1)	[F03-OS1.2]
	[F03-OP1.2]
(2)	[F03-OS1.2]
	[F03-OP1.2]
(3)	[F03-OS1.2]
	[F03-OP1.2]
(4)	[F03-OS1.2]
	[F03-OP1.2]
(5)	[F03-OS1.2]
	[F03-OP1.2]
3.6.3.2. Foamed Plastic Protection	
(1)	[F02-OS1.2]
3.6.3.3. Linen and Refuse Chutes	
(1)	(d),(e) [F02-OS1.2]
	(a),(b),(c) [F41-OH2.4,OH2.5]
(2)	[F03-OS1.2]
	[F03-OP1.2]
(3)	[F03-OS1.2]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(4)	(b) [F03-OS1.2]
	(a) [F41-OH2.4,OH2.5]
(5)	(a) [F81,F03-OS1.2]
	(a) [F81,F41-OH2.4,OH2.5]
	(a) [F81,F03-OP1.2]
	(b) [F03-OS1.2]
	(b) [F03-OP1.2]
	(c) [F01,F02-OS1.2]
	(c) [F01,F02-OP1.2]
	(d) [F05-OS1.5] [F06-OS1.5,OS1.2]
	(d) [F06-OP1.2]
(6)	[F02-OS1.2]
	[F02-OP1.2]
(7)	[F03-OS1.2]
	[F03-OP1.2]
(8)	[F02-OS1.2]
	[F41-OH2.4,OH2.5]
(9)	[F03-OS1.2]
	[F03-OP1.2]
(10)	[F81,F03-OS1.2] Applies to portion of Code text: "The room or bin into which a refuse chute discharges shall be of sufficient size to contain the refuse between normal intervals of emptying …"
	[F81,F41-OH2.4,OH2.5] Applies to portion of Code text: "The room or bin into which a refuse chute discharges shall be of sufficient size to contain the refuse between normal intervals of emptying …"
	[F41-OH2.4,OH2.5] Applies to portion of Code text: "The room or bin into which a refuse chute discharges shall be … impervious to moisture and be equipped with a water connection and floor drain for washing-down purposes."
(11)	[F01,F02-OS1.2]
3.6.3.4. Exhaust Duct Negative Pressure	
(1)	[F03-OS1.2]
3.6.4.2. Fire Separations for Horizontal Service Spaces	
(2)	[F03-OS1.2]
	[F03-OP1.2]
3.6.4.3. Plenum Requirements	
(1)	[F02-OS1.2]
(2)	[F03-OS1.2]
	[F03-OP1.2]
3.6.4.4. Attic or Roof Space Access	
(1)	[F01,F02,F12-OS1.2]
	[F01,F02,F12-OP1.2]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
3.6.4.5. Horizontal Service Space Access	
(1)	[F01,F02,F12-OS1.2]
	[F01,F02,F12-OP1.2]
3.6.4.6. Crawl Space Access	
(1)	[F01,F02,F12-OS1.2]
	[F01,F02,F12-OP1.2]
3.6.5.1. Duct Materials	
(1)	[F01,F02-OS1.2]
(2)	[F02-OS1.2]
(4)	[F02-OS1.2]
(5)	[F02-OS1.2]
3.6.5.2. Vibration Isolation Connectors	
(1)	[F01,F02-OS1.2]
(2)	[F02-OS1.2]
3.6.5.3. Tape	
(1)	[F02-OS1.2]
3.6.5.4. Coverings, Linings, Adhesives and Insulation	
(1)	[F02-OS1.2]
(2)	[F02-OS1.2]
(3)	[F02-OS1.2]
(4)	[F02-OS1.2]
(5)	[F02-OS1.2]
(6)	[F02-OS1.2]
(7)	[F01,F02-OS1.2]
3.6.5.5. Insulation and Coverings	
(1)	[F01,F02-OS1.2]
(2)	[F02-OS1.2]
(3)	[F02-OS1.2]
(4)	[F02-OS1.2]
3.6.5.6. Clearance of Ducts and Plenums	
(2)	[F01-OS1.2]
(3)	[F01-OS1.2]
(4)	[F01-OS1.2]
(5)	[F01-OS1.2]
3.6.5.7. Supply, Return, Intake and Exhaust-Air Openings	
(1)	[F02-OS1.2]
3.6.5.8. Return-Air System	
(1)	[F02-OS1.2]
(2)	[F01,F02-OS1.2]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(3)	[F01,F02-OS1.2]
(4)	[F01,F02-OS1.2]
3.7.1.1. Room and Space Height	
(1)	[F30-OS3.1]
3.7.2.1. Plumbing and Drainage Systems	
(1)	[F72-OH2.1]
(2)	[F72-OH2.1]
3.7.2.2. Water Closets	
(1)	[F72-OH2.1] Applies to portion of Code text: "... water closets shall be provided ..."
(6)	[F72-OH2.1]
(7)	[F72-OH2.1]
(8)	[F72-OH2.1]
(9)	[F72-OH2.1]
(10)	[F72-OH2.1]
(11)	[F72-OH2.1]
(12)	[F72-OH2.1]
(13)	[F72-OH2.1]
(14)	[F72-OH2.1]
(15)	[F72-OH2.1]
(16)	[F72-OH2.1]
3.7.2.3. Lavatories	
(1)	[F71-OH2.3]
(3)	[F30-OS3.1]
(4)	[F71-OH2.3]
3.7.2.4. Mobile Home Facilities	
(1)	[F72-OH2.1] [F71-OH2.3]
(2)	[F72-OH2.1]
(3)	[F71-OH2.3] Applies to the minimum number of laundry trays or similar facilities, and of bathtubs or showers for each sex.
3.7.2.5. Safety Glass	
(1)	[F20-OS3.1]
3.7.2.6. Surface Protection	
(1)	[F72-OH2.1] [F40-OH2.4]
(2)	[F72-OH2.1] [F40-OH2.4]
3.7.2.7. Floor Drain	
(1)	[F40-OH2.4]
	[F30-OS3.1]
3.7.2.8. Grab Bar Installation	
(1)	[F20-OS3.1]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
3.7.2.9. Bathtubs	
(1)	[F74-OA2]
	(b) [F31-OS3.2]
	(c) [F30-OS3.1]
3.7.2.10 Accessible Washrooms	
(1)	[F74-OA2]
(2)	[F74-OA2]
	(g) [F30-OS3.1] Applies to portion of Code text: "...projecting not more than 50 mm from the wall..."
(3)	[F74-OA2]
	[F72-OH2.1]
(4)	[F74-OA2]
	[F20, F30-OS3.1]
(5)	[F74-OA2]
	[F71-OH2.3]
	(c) [F31-OS3.2]
(6)	[F74-OA2]
	(a) [F72-OH2.1]
	(b) [F30-OS3.1]
(7)	[F74-OA2]
(8)	[F74-OA2]
(9)	[F72-OH2.1] [F71-OH2.3]
	[F74-OA2]
	(g) [F10-OS3.7]
(10)	[F74-OA2]
	(c), (d) [F31-OS3.2]
	(e) [F20-OS2.1]
	(g), (i) [F30-OS3.1]
	(j) [F20, F30-OS3.1]
(11)	[F74-OA2]
	(d) [F20-OS2.1] [F71-OH2.1]
	(f) [F31-OS3.2]
	(h), (i) [F30-OS3.1]
	(j) [F30-OS3.1] [F20-OS2.1]
3.7.3.1. Medical Gas Piping	
(1)	[F43-OS3.4] [F20-OS3.1]
3.8.2.3. Specific Requirements	
(1)	[F73-OA1]
	[F74-OA1]
(2)	[F74-OA2]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
3.8.2.5. Theatres, Studios and Opera Houses	
(1)	[F74-OA2]
3.8.2.6. Art Galleries, Exhibition Halls, Libraries and Museums	
(1)	[F74-OA2]
3.8.2.7. Bowling Allies	
(1)	[F74-OA2]
3.8.2.8. Amusement Arcades and Billiard Halls	
(1)	[F74-OA2]
3.8.2.9. Churches	
(1)	[F74-OA2]
3.8.2.10. Clubs, Non-residential	
(1)	[F74-OA2]
3.8.2.11. Community, Dance and Lecture Halls	
(1)	[F74-OA2]
3.8.2.12. Courthouses	
(1)	[F74-OA2]
3.8.2.13. Gymnasiums	
(1)	[F74-OA2]
3.8.2.14. Restaurants	
(1)	[F74-OA2]
3.8.2.15. Lodge Rooms	
(1)	[F74-OA2]
3.8.2.16. Passenger Terminals	
(1)	[F74-OA2]
3.8.2.17. Schools and Colleges, Non-residential	
(1)	[F74-OA2]
(2)	[F74-OA2]
(3)	[F74-OA2]
3.8.2.18. Undertaking Premises	
(1)	[F74-OA2]
3.8.2.19. Arenas and Ice Rinks	
(1)	[F74-OA2]
(2)	[F74-OA2]
<3.8.2.20. Swimming Pools>	
<(1)>	<[F74-OA2]>
3.8.2.21. Bleachers	
(1)	[F74-OA2]
3.8.2.22. Grandstands and Stadiums	
(1)	[F74-OA2]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F74-OA2]
(3)	[F74-OA2]
3.8.2.23. Drive-In Theatres	
(1)	[F74-OA2]
3.8.2.24. Jails	
(1)	[F74-OA2]
3.8.2.25. Psychiatric Hospitals and Police Stations	
(1)	[F74-OA2]
<3.8.2.26. Care and Treatment Facilities>	
<(1)>	<[F74-OA2]>
3.8.2.27. Apartment Buildings and Condominiums	
(1)	[F74-OA2]
(2)	[F74-OA2]
(3)	[F11-OS1.5]
3.8.2.28. Clubs, Residential	
(1)	[F11-OS1.5]
3.8.2.29. Schools and Colleges, Residential	
(1)	[F74-OA2] [F11-OS1.5]
3.8.2.30. Dormitories	
(1)	[F74-OA2]
(2)	[F11-OS1.5]
(3)	[F74-OA2]
3.8.2.31. Hotels and Motels	
(1)	[F74-OA2]
(2)	[F11-OS1.5]
3.8.2.32. Business and Personal Service	
(1)	[F74-OA2]
(2)	[F74-OA2]
3.8.2.33. Banks	
(1)	[F74-OA2]
3.8.2.34. Barbers and Hairdressers	
(1)	[F74-OA2]
3.8.2.35. Laundry and Dry-cleaning, Self-service	
(1)	[F74-OA2]
3.8.2.36. Mercantile Occupancies	
(1)	[F74-OA2]
(2)	[F74-OA2]
3.8.2.38. Industrial Occupancies, Service Stations and Parking Garages	
(1)	[F74-OA2]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
3.8.2.39. Public Toilets	
(1)	[F74-OA2]
(2)	[F74-OA2]
3.8.3.2. Paths of Travel	
(1)	[F73-OA1]
	(b), (e), (g) [F30-OS3.1]
3.8.3.3. Ramps	
(1)	[F73-OA1]
	(b), (c) [F30-OS3.1]
(2)	[F30-OS3.1]
(4)	[F73-OA1]
(6)	[F73-OA1]
(7)	[F73-OA1]
3.8.3.4. Parking Stalls for Persons with Disabilities	
(1)	[F74-OA2]
(2)	[F74-OA2]
3.8.3.5. Main Entrances	
(1)	[F73-OA1]
(2)	[F73-OA1]
(3)	[F73-OA1]
(4)	[F73-OA1]
(5)	[F73-OA1]
3.8.3.6. Interior Passageways	
(1)	[F73-OA1] [F30-OS3.1]
3.8.3.7. Public Aisles	
(1)	[F73-OA1]
3.8.3.8. Turnstiles	
(1)	[F73-OA1]
3.8.3.9. Food Service Lines	
(1)	[F73-OA1] [F74-OA2]
3.8.3.10. Floor Levels	
(1)	[F73-OA1]
3.8.3.11. Tactile Warning Systems	
(1)	[F73-OA1]
(2)	[F73-OA1]
3.8.3.12. Directional Signs	
(1)	[F73-OA1] [F74-OA2]
(3)	[F73-OA1] [F74-OA2]

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
3.8.3.13. Door Numbers	
(1)	[F73-OA1]
(2)	[F73-OA1]
3.8.3.14. Sleeping Units	
(1)	[F73-OA1] [F74-OA2]
3.8.3.15. Viewing Positions	
(1)	[F74-OA2]
	(a) [F30-OS3.1]
	(b) [F10-OS3.7]
(2)	[F74-OA2]
3.8.3.16. Public Telephones	
(1)	[F74-OA2]
3.8.3.17. Drinking Fountains	
(1)	[F74-OA2]
(2)	[F74-OA2]
3.8.3.19. Egress from Floor Areas	
(1)	[F05,F10-OS1.5]
	(a) [F06-OS1.5]
(2)	[F03-OS1.2] [F06-OS1.5]
(4)	[F03-OS1.2] [F06-OS1.5]
(5)	(a) [F10, F73-OS1.5]
	(b), (c) [F10-OS1.5]
3.8.3.20. Assistive Listening Devices	
(1)	[F74-OA2] [F11-OS3.7]
3.8.3.21. Controls	
(1)	[F74-OA2] [F10-OS3.7]
3.8.4.2. Specific Requirements	
(1)	[F73-OA1]
<3.8.4.3. Vertical Additions>	
<(1)>	<[F73,F74-OA1,OA2]>
<3.8.4.4. Horizontal Additions>	
<(1)>	<[F73,F74-OA1,OA2]>
<3.8.4.5. Alterations and Occupancy Changes>	
<(1)>	<[F73,F74-OA1,OA2]>
<3.8.4.6. Sleeping Units>	
<(1)>	<[F74-OA2]>

Table 3.9.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3
Forming part of Sentence 3.9.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives(1)
3.8.4.7. Existing Facilities	
(1)	[F74-OA2]
<3.8.4.8. Egress from Floor Areas>	
<(1)>	<[F73,F74-OA1,OA2]>

Notes to Table 3.9.1.1.:
(1) See Parts 2 and 3 of Division A.

Attribution Tables - Table 6.4.1.1.
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Table 6.4.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 6
Forming part of Sentence 6.4.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives(1)
6.2.1.1. Good Engineering Practice	
(1)	(a) to (e) [F31,F51-OP1.1]
	(a) to (c) and (e) to (i) [F40,F50,F51,F52,F54,F63-OH1.1]
	(a),(b),(c),(e),(f),(g),(h) [F50,F51,F52,F54,F63-OH1.2,OH1.3]
	[F50,F31,F63,F51,F54,F52-OS3.2,OS3.4]
	(d) [F01-OS1.1]
6.2.1.3. Structural Movement	
(1)	[F23-OS3.1]
	[F51,F63,F50-OH1.1,OH1.2,OH1.3]
6.2.1.4. Installation Standards	
(1)	[F43-OS1.1]
	[F43-OS3.4]
	[F43-OP1.1]
(2)	[F40,F44,F50-OH1.1]
	[F44-OS3.4]**>**
6.2.1.8. Installation – General	
(1)	[F82-OS1.1]
	[F82-OS3.4]
	[F82-OP1.1]
(2)	[F31-OS3.1]
(3)	[F81-OS3.2,OS3.3,OS3.4]
	[F81-OS1.1]
6.2.1.9. Expansion, Contraction and System Pressure	
(1)	[F20-OS3.2]
6.2.1.10. Asbestos	
(1)	[F43-OH1.1]
6.2.1.11. Access Openings	
(1)	[F36-OS3.6]
6.2.2.1. Required Ventilation	
(1)	[F50,F31,F63,F51,F54,F52-OS1.1]
	[F50,F31,F63,F51,F54,F52-OP1.1]
(2)	[F50-OH1.1]
6.2.2.2. Natural Ventilation	
(1)	[F50-OH1.1]
(2)	[F50-OH1.1]
6.2.2.3. Ventilation of Storage Garages	
(1)	[F50,F44-OS3.4]
(2)	[F44-OS3.4]
(3)	[F44-OS3.4]

Table 6.4.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 6
Forming part of Sentence 6.4.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(4)	[F50,F44-OS3.4]
(5)	[F50,F44-OH1.1]
	[F50,F44-OS3.4]
6.2.2.4. Cleaning Devices	
(1)	[F40,F43,F44,F50-OH1.1]
	[F44-OS3.4]
6.2.2.5. Air Contaminants	
(1)	[F44-OS3.4]
	[F44-OH1.1]
(2)	[F44-OH1.1]
(3)	[F52-OH1.1]
6.2.2.6. Hazardous Gases, Dusts or Liquids	
(1)	[F01-OP1.1]
	[F01-OS1.1]
(2)	[F01-OS1.1]
	[F01-OP1.1]
6.2.2.7. Commercial Cooking Equipment	
(1)	[F01,F44-OS1.1]
	[F01,F44-OP1.1]
(2)	[F02,F81-OS1.2]
	[F02,F81-OP1.2]
6.2.2.8. Crawl Spaces and Attic or Roof Spaces	
(1)	[F61,F63,F41-OH1.1,OH1.3]
6.2.3.2. Materials in Air Duct Systems	
(2)	[F20,F80-OH1.1,OH1.2]
(3)	[F81,F44-OS3.4]
	[F81-OH1.1]
(4)	[F20,F80-OH1.1,OH1.2]
6.2.3.3. Connections and Openings in Air Duct Systems	
(1)	[F81-OH1.1,OH1.2]
	[F81,F44-OS3.4]
(2)	[F82-OS1.1]
6.2.3.4. Duct Coverings and Linings	
(3)	[F81-OH1.1,OH1.2]
	[F81-OS1.1]
	[F81-OP1.1]
6.2.3.5. Underground Ducts	
(1)	(a) [F44,F81-OH1.2,OH1.3]
	(b) [F44,F81-OH1.1]
	(c) [F44,F81-OH1.1]
(2)	[F81-OH1.1,OH1.2,OH1.3]

Table 6.4.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 6
Forming part of Sentence 6.4.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
6.2.3.8. Exhaust Ducts and Outlets	
(1)	[F44-OH1.1]
(2)	[F44-OH1.1]
(3)	[F81-OH1.1]
	[F81-OH1.2]
(4)	[F81-OH1.1]
	[F81-OH1.2]
(5)	[F81-OH1.1]
(6)	[F81-OH1.1]
(7)	[F81-OS1.1]
(8)	[F40,F44,F50,F52-OH1.1]
	[F44-OS3.4]
	[F01-OS1.1]
	[F01-OP1.1]
(9)	[F40,F44,F50,F52-OH1.1]
	[F44-OS3.4]
	[F01-OS1.1]
	[F01-OP1.1]
(10)	[F81-OH1.1]
(11)	[F81,F44-OH1.1]
	[F81,F44-OS1.1]
(12)	[F81,F44-OH1.1]
(13)	[F81-OH1.2]
	[F81,F44-OH1.1]
6.2.3.9. Interconnection of Systems	
(1)	[F44-OS1.1]
	[F40-OH1.1]
(2)	[F81,F44-OH1.1]
	[F81,F44-OS1.1]
	[F81,F44-OP1.1]
(3)	[F81,F44-OH1.1]
6.2.3.11. Makeup Air	
(1)	[F50,F81-OH1.1]
	[F44,F81-OS3.4]
(2)	[F81-OH1.1]
	[F81,F44-OS3.4]
(3)	[F81-OH1.2]
6.2.3.12. Supply, Return, Intake and Exhaust Air Openings	
(1)	[F30-OS3.1]
	[F81-OH1.2]

Table 6.4.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 6
Forming part of Sentence 6.4.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F81-OH1.1]
	[F81,F44-OS3.4]
(3)	[F81-OH1.1]
(4)	[F82,F81-OH1.1]
	[F82-OS3.4]
6.2.3.13. Filters and Odour Removal Equipment	
(1)	[F80-OS1.1]
	[F80-OP1.1]
(2)	[F30-OS3.3]
	[F81,F43-OH1.1]
(3)	[F82-OH1.1]
(4)	[F82-OH1.1]
6.2.3.14. Air Washers and Evaporative Cooling Sections or Towers	
(1)	[F80,F81-OS1.1]
	[F80,F81-OP1.1]
(2)	[F82-OH1.1]
(3)	[F01,F81-OS1.1]
6.2.3.15. Fans and Associated Air-Handling Equipment	
(1)	[F81,F44-OH1.1]
	[F81,F44-OS3.4]
(2)	[F81-OH1.1]
6.2.3.20. Return-Air System	
(3)	[F10-OS1.5]
6.2.4.1. Carbon Monoxide Alarms	
(2)	(a),(b),(d) [F44-OS3.4] (c) [F81-OS3.4]
(3)	[F44-OS3.4]
(4)	[F44-OS3.4]
(5)	[F44-OS3.4]
6.2.5.2. Appliances Installed Outside the Building	
(1)	[F81-OP1.1]
	[F81-OH1.1]
	[F81-OS1.1]
6.2.6.1. Applicable Standard	
(1)	[F81-OS1.1]
6.2.7.1. Clearances	
(1)	[F01-OP1.1]
	[F01-OS1.1]

Table 6.4.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 6
Forming part of Sentence 6.4.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
6.2.8.1. Lining or Backing	
(1)	[F01-OS1.1]
	[F01-OP1.1]
(2)	[F01-OS1.1]
6.2.9.1. Piping Materials and Installation	
(1)	[F20-OS3.2,OS3.4]
(2)	[F21-OH1.1]
(3)	[F20-OS2.2]
6.2.9.2. Insulation and Coverings	
(1)	[F20,F30-OS3.2,OS3.4]
(2)	[F31-OS3.2]
6.2.9.3. Clearances	
(1)	[F01-OS1.1]
	[F01-OP1.1]
6.2.9.4. Surface Temperature	
(1)	[F31-OS3.2]
6.2.9.5. Protection	
(1)	[F01-OS1.1]
	[F01-OP1.1]
6.2.10.1. Cooling Units	
(1)	[F43,F81-OS3.4]
6.2.11.1. Storage Bins	
(1)	[F30,F31,F43-OS3.2,OS3.4]
(2)	[F01-OS1.1]
	[F01-OP1.1]
(3)	[F30-OH2.1]
(4)	[F01-OS1.1]
	[F01-OP1.1]
6.2.11.2. Ash Storage Bins	
(1)	[F01-OS1.1]
	[F01-OP1.1]
(2)	[F01-OS1.1]
	[F01-OP1.1]
6.2.12.2. General Ventilation	
(1)	(a),(b),(d),(e) [F01-OS1.1]
	(c) [F02-OP1.2]
	(c) [F02-OS1.2] [F81,F82-OS1.1]
(2)	[F81,F11-OS1.1]

Table 6.4.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 6
Forming part of Sentence 6.4.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives(1)
6.2.12.3. Enclosure Exhaust Ventilation	
(1)	(a),(c),(d) [F01-OS1.1]
	(b) [F02-OP1.2]
	(e) [F12-OP1.1,OP1.2]
	(a) [F02-OP1.2]
	(b) [F02-OS1.2] [F81-OS1.1]
	(e) [F12-OS1.1,OS1.2]
	(a) [F02-OS1.2]
	(a) [F01-OS1.1]
6.2.12.4. Enclosure Construction	
(1)	(a) [F02-OS1.2] Applies to portion of Code text: "… be constructed of *noncombustible* materials …"
	(b) [F02-OP1.2]
	(a) [F02-OP1.2] Applies to portion of Code text: "… be constructed of *noncombustible* materials …"
	(a) [F80-OS3.4] Applies to portion of Code text: "… be constructed of … materials … chemically resistant to the *dangerous goods* vapours and particles being exhausted …"
	(b) [F02-OS1.2] [F82-OS1.1]
	(a) [F80-OS1.1] Applies to portion of Code text: "… be constructed of … materials … chemically resistant to the *dangerous goods* vapours and particles being exhausted …"
	(a) [F01-OS1.1] Applies to portion of Code text: "… be constructed of … materials compatible with … the *dangerous goods* vapours and particles being exhausted …"
(3)	[F02-OS1.2]
	[F02-OP1.2]
6.3.1.2. Masonry or Concrete Chimneys	
(2)	[F01-OS1.1]
	[F01-OP1.1]
6.3.1.3. Metal Smoke Stacks	
(1)	[F01-OS1.1]
	[F01-OP1.1]
6.3.1.4. Lightning Protection Systems	
(1)	[F01,F81-OS1.1]
	[F01,F81-OP1.1]
6.3.1.5. Access Ladders	
(1)	[F20,F80-OS3.1]
(2)	[F30-OS3.1]

Notes to Table 6.4.1.1.:
(1) See Parts 2 and 3 of Division A.

Attribution Tables - Table 9.38.1.1.
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Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.3.1.2. Cement	
(1)	[F20-OS2.1] [F80-OS2.3] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F80-OP2.3,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F80-OH1.1] Applies where concrete supports or is used in the walls of *chimneys* or fireplaces. [F20,F80,F61,F55-OH1.1,OH1.2] [F20,F80,F61-OH1.3] Applies where concrete supports or is used in an environmental separator.
	[F20,F80-OH4] Applies where concrete elements support wood-frame floors.
	[F20,F80-OS3.1] Applies to concrete floors or steps, concrete that supports wood-frame floors or steps, and concrete steps that support *guards* or handrails. [F20,F80-OS3.4,OS3.7] Applies where concrete supports or is used in *chimneys* or fireplaces.
	[F20,F80-OS1.1] Applies where concrete supports or is used in *chimneys* or fireplaces.
9.3.1.3. Concrete in Contact with Sulphate Soil	
(1)	[F20-OS2.1] [F80-OS2.3] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F80-OP2.3,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F80-OH1.1] Applies where concrete supports or is used in the walls of *chimneys* or fireplaces. [F80-OH1.1,OH1.2,OH1.3] Applies where concrete supports or is used in an environmental separator.
	[F80-OH4] Applies where concrete elements support wood-frame floors.
	[F80-OS3.1] Applies to concrete floors or steps, concrete that supports wood-frame floors or steps, and concrete steps that support *guards* or handrails. [F80-OS3.4,OS3.7] Applies where concrete supports or is used in *chimneys* or fireplaces.
	[F80-OS1.1] Applies where concrete is used in footings for *chimneys* or fireplaces.
9.3.1.4. Aggregates	
(1)	[F20-OS2.1] [F80-OS2.3] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F80-OP2.3,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F80,F61,F55-OH1.1,OH1.2] Applies to elements that support or are part of an environmental separator and to masonry used in *chimneys* and fireplaces. [F20,F80,F61-OH1.3] Applies to elements that support or are part of an environmental separator and to masonry used in *chimneys* and fireplaces.
	[F20,F80-OS1.1] Applies to concrete used in *chimneys* or fireplaces.
	[F20,F80-OS3.1] Applies to floors and elements that support floors. [F20,F80-OS3.4] Applies to concrete used in *chimneys* or fireplaces.
	[F20,F80-OH4] Applies to floors and elements that support floors.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
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Acceptable Solutions	Functional Statements and Objectives[1]
9.3.1.5. Water	
(1)	[F20-OS2.1] [F80-OS2.3] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F80-OP2.3,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F80,F61,F55-OH1.1,OH1.2] Applies to elements that support or are part of an environmental separator and to masonry used in *chimneys* and fireplaces. [F20,F80,F61-OH1.3] Applies to elements that support or are part of an environmental separator and to masonry used in *chimneys* and fireplaces.
	[F20,F80-OH4] Applies where concrete elements support wood-frame floors.
	[F20,F80-OS3.1] Applies to concrete floors or steps, concrete that supports wood-frame floors or steps, and concrete steps that support *guards* or handrails. [F20,F80-OS3.4,OS3.7] Applies where concrete supports or is used in *chimneys* or fireplaces.
	[F20,F80-OS1.1] Applies where concrete supports or is used in *chimneys* or fireplaces.
9.3.1.6. Compressive Strength	
(1)	(a) [F20-OS2.1] (a) [F21,F80-OS2.3] (a) [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	(a) [F20-OP2.1,OP2.4] (a) [F21-OP2.3,OP2.4] (a) [F80-OP2.3] (a) [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	(a) [F20,F80-OH1.1] Applies where concrete supports or is used in the walls of *chimneys* or fireplaces. (a) [F20,F80,F61,F55-OH1.1,OH1.2] [F20,F80,F61-OH1.3] Applies where concrete supports or is used in an environmental separator.
	(a) [F20,F21,F80-OH4] Applies to elements that support floors.
	(a) [F20,F80-OS3.1] Applies to elements that support floors or steps. (a) [F20,F80-OS3.4,OS3.7] Applies where concrete supports or is used in *chimneys* or fireplaces.
	(a) [F20,F21,F80-OS1.1] Applies where concrete supports or is used in *chimneys* or fireplaces.
	(b) [F20-OS2.1] (b) [F21,F80-OS2.3] (b) [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	(b) [F20-OP2.1,OP2.4] (b) [F21-OP2.3,OP2.4] (b) [F80-OP2.3] (b) [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	(b) [F20,F21,F80,F61,F55-OH1.1,OH1.2] [F20,F21,F80,F61-OH1.3]
	(b) [F20,F21,F80-OS3.1]
	(c) [F20-OS2.1] [F20,F21,F80-OS2.3]
	(c) [F20-OP2.1] [F20,F21,F80-OP2.3,OP2.4]
	(c) [F20,F21,F80-OS3.1]
(2)	[F80-OS3.1]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.3.1.7. Concrete Mixes	
(1)	(a) [F20-OS2.1] (a) [F21-OS2.3] (a) [F20,F61,F55-OS2.3] Applies to elements that support or are part of an environmental separator.
	(a) [F20-OP2.1,OP2.4] (a) [F21-OP2.3,OP2.4] (a) [F20,F55,F61-OP2.3] Applies to elements that support or are part of an environmental separator.
	(a) [F20,F21,F80-OH1.1] Applies where concrete supports or is used in the walls of *chimneys* or fireplaces. (a) [F20,F21,F80,F61,F55-OH1.1,OH1.2] [F20,F21,F80,F61-OH1.3] Applies where concrete supports or is used in an environmental separator.
	(a) [F20,F21,F61-OH4] Applies to elements that support floors.
	(a) [F20,F21,F61-OS3.1] Applies to concrete floors or steps, concrete that supports wood-frame floors or steps, and concrete steps that support *guards* or handrails. (a) [F20,F21,F61-OS3.4,OS3.7] Applies where concrete supports or is used in *chimneys* or fireplaces.
	(a) [F20,F21,F61-OS1.1] Applies where concrete supports or is used in *chimneys* or fireplaces.
	(b) [F20-OS2.1] (b) [F21,F80-OS2.3] (b) [F20-OS2.3] Applies where concrete is used in an environmental separator.
	(b) [F20-OP2.1,OP2.4] (b) [F21-OP2.3,OP2.4] (b) [F80-OP2.3] (b) [F20-OP2.3] Applies where concrete is used in an environmental separator.
	(b) [F20,F21,F80,F61,F55-OH1.1,OH1.2] [F20,F21,F80,F61-OH1.3]
	(b) [F20,F21,F80-OS3.1]
	(c) [F20,F21-OS2.1] [F20,F21,F80-OS2.3]
	(c) [F20,F21,F80-OS3.1]
	(c) [F20,F21,F80-OP2.3,OP2.4]
(2)	[F20-OS2.1] [F21-OS2.3] [F20,F61,F55-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F21-OP2.3,OP2.4] [F20,F61,F55-OP2.3] Applies where concrete supports or is used in an environmental separator.
	[F20,F21,F61,F55-OH1.1] Applies where concrete supports or is used in the walls of *chimneys* or fireplaces. [F20,F21-OH1.2,OH1.3] Applies where concrete supports or is used in an environmental separator.
	[F20,F21,F61,F55-OH4] Applies where concrete elements support wood-frame floors.
	[F20,F80-OS3.1] Applies to concrete floors or steps, concrete that supports wood-frame floors or steps, and concrete steps that support *guards* or handrails. [F20,F80-OS3.4,OS3.7] Applies where concrete supports or is used in *chimneys* or fireplaces.
	[F20,F21-OS1.1] Applies where concrete supports or is used in *chimneys* or fireplaces.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.3.1.8. Admixtures	
(1)	[F20-OS2.1] [F21-OS2.3] [F20,F61,F55-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F21-OP2.3,OP2.4] [F80-OP2.3,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F80-OH1.1] Applies where concrete supports or is used in the walls of *chimneys* or fireplaces. [F20,F80,F61,F55-OH1.1,OH1.2] [F20,F80,F61-OH1.3] Applies where concrete supports or is used in an environmental separator.
	[F20,F21,F80-OH4] Applies where concrete elements support wood-frame floors.
	[F20,F80-OS3.1] Applies to concrete floors or steps, concrete that supports wood-frame floors or steps, and concrete steps that support *guards* or handrails. [F20,F80-OS3.4,OS3.7] Applies where concrete supports or is used in *chimneys* or fireplaces.
	[F20,F21,F80-OS1.1] Applies where concrete supports or is used in *chimneys* or fireplaces.
9.3.1.9. Cold Weather Requirements	
(1)	[F20-OS2.1] [F21-OS2.3] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F21,F80-OP2.3,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F80-OH1.1] Applies where concrete supports or is used in the walls of *chimneys* or fireplaces. [F20,F80,F61,F55-OH1.1,OH1.2] [F20,F80,F61-OH1.3] Applies where concrete supports or is used in an environmental separator.
	[F20,F21,F80-OH4] Applies where concrete elements support wood-frame floors.
	[F20,F80-OS3.1] Applies to concrete floors or steps, concrete that supports wood-frame floors or steps, and concrete steps that support *guards* or handrails. [F20,F80-OS3.4,OS3.7] Applies where concrete supports or is used in *chimneys* or fireplaces.
	[F20,F21,F80-OS1.1] Applies where concrete supports or is used in *chimneys* or fireplaces.
(2)	[F20-OH1.1] Applies where concrete supports or is used in the walls of *chimneys* or fireplaces. [F20,F61,F55-OH1.1,OH1.2] [F20,F61-OH1.3] Applies where concrete supports or is used in an environmental separator.
	[F20-OS2.1] [F20,F61,F55-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F20,F61,F55-OP2.3] [F61,F55-OP2.4] Applies to elements that support or are part of an environmental separator.
	[F20-OS1.1] Applies to concrete that supports or is used in *chimneys* or fireplaces.
	[F20,F61,F55-OS3.1] Applies to floors and elements that support floors. [F20,F61,F55-OS3.4] Applies to concrete that supports or is used in *chimneys* or fireplaces.
	[F20,F61,F55-OH4] Applies to elements that support floors.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
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Acceptable Solutions	Functional Statements and Objectives[1]
9.3.2.2. Lumber Grades	
(1)	[F20-OS2.1] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, or elements that support walls, that contain doors or windows required for emergency egress.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20,F22-OH4] Applies to floors and elements that support floors.
9.3.2.5. Moisture Content	
(1)	[F21,F80-OS2.3]
	[F21,F80-OP2.3,OP2.4]
	[F21,F80-OS3.1] Applies to floors and elements that support floors.
	[F21,F80-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F21,F80-OS1.2] Applies to assemblies required to provide fire resistance.
	[F21,F80-OH4] Applies to floors and elements that support floors.
9.3.2.8. Undersized Lumber	
(1)	[F20-OS2.1] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
9.3.2.9. Termite and Decay Protection	
(1)	[F82,F80-OS2.3]
	[F82,F80-OP2.3,OP2.4]
	[F82,F80,F61,F55-OH1.1,OH1.2] [F82,F80,F61-OH1.3] Applies where structural wood elements support or are used in an environmental separator.
	[F82,F80-OH4] Applies where structural wood elements support or are used in floors.
	[F82,F80-OS3.1] Applies where structural wood elements support or are used in floors.
	[F82,F80-OS1.2] Applies where structural wood elements support or are used in assemblies that are required to provide fire resistance.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F80,F82-OS2.3]
	[F80,F82-OP2.3,OP2.4]
	[F82,F80,F61,F55-OH1.1,OH1.2] [F82,F80,F61-OH1.3] Applies where structural wood elements support or are used in an environmental separator.
	[F82,F80-OH4] Applies where structural wood elements support or are used in floors.
	[F82,F80-OS3.1] Applies where structural wood elements support or are used in floors.
	[F82,F80-OS1.2] Applies where structural wood elements support or are used in assemblies that are required to provide fire resistance.
(3)	[F80-OS2.3]
	[F80-OP2.3,OP2.4]
	[F82,F80,F61,F55-OH1.1,OH1.2] [F82,F80,F61-OH1.3] Applies where structural wood elements support or are used in an environmental separator.
	[F80-OH4] Applies where structural wood elements support or are used in floors.
	[F80-OS3.1] Applies where structural wood elements support or are used in floors.
	[F80-OS1.2] Applies where structural wood elements support or are used in assemblies that are required to provide fire resistance.
(4)	[F80-OS2.3,OS2.5]
	[F80-OP2.3,OP2.4,OP2.5]
	[F80,F61,F55-OH1.1,OH1.2] [F80,F61-OH1.3] Applies where cribbing or retaining walls support an environmental separator.
	[F80-OH4] Applies to floors and elements that support floors.
	[F80-OS3.1] Applies where cribbing or retaining walls support floors.
	[F80-OS1.2] Applies where cribbing or retaining walls support assemblies that are required to provide fire resistance.
(5)	[F80,F81-OS2.3]
	[F80,F81-OP2.3,OP2.4]
	[F81,F80,F61,F55-OH1.1,OH1.2] [F81,F80,F61-OH1.3] Applies where structural wood elements support or are used in an environmental separator.
	[F80,F81-OH4] Applies where structural wood elements support wood-frame floors.
	[F81,F80-OS3.1] Applies where structural wood elements support or are used in floors.
	[F80,F81-OS1.2] Applies where structural wood elements support or are used in assemblies that are required to provide fire resistance.
(6)	[F20,F60-OS2.3]
	[F20,F61-OP2.3,OP2.4]
	[F20,F61,F55-OH1.1,OH1.2] [F20,F61-OH1.3] Applies where structural wood elements support or are used in an environmental separator.
	[F80,F61-OH4] Applies to floors and elements that support floors.
	[F20,F61-OS3.1] Applies where structural wood elements support or are used in floors.
	[F80,F81-OS1.2] Applies where structural wood elements support or are used in assemblies that are required to provide fire resistance.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
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Acceptable Solutions	Functional Statements and Objectives[1]
9.3.3.2. Galvanized Sheet Steel	
(1)	[F80-OS2.3]
	[F80-OP2.3,OP2.4]
	[F80-OH1.1,OH1.2,OH1.3] Applies where sheet metal is used in an environmental separator.
	[F80-OS3.1] Applies where sheet metal is used in assemblies that support floors.
	[F80-OH4] Applies where sheet metal is used in assemblies that support floors.
(2)	[F80-OS2.3]
	[F80-OP2.3]
	[F80-OH1.1,OH1.2,OH1.3]
9.4.2.2. Specified Snow Loads	
(1)	[F20-OS2.1,OS2.3] [F22-OS2.3]
	[F20-OP2.1,OP2.3] [F22-OP2.3]
	[F22-OH1.1,OH1.2,OH1.3]
(2)	[F20-OS2.1]
	[F20-OP2.1]
9.4.2.3. Platforms Subject to Snow and Occupancy Loads	
(1)	[F20-OS2.1]
	[F20-OP2.1]
9.4.2.4. Attics and Roof Spaces	
(1)	[F20-OS2.1]
	[F20-OP2.1]
9.4.3.1. Deflections	
(1)	[F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F22-OP2.1,OP2.4] [F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4]
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
	[F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
9.4.4.1. Allowable Bearing Pressures	
(1)	[F20-OS2.2] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.2,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH1.1,OH1.2,OH1.3] Applies to footings that support an environmental separator.
	[F20-OH4] Applies to footings that support floors and other elements that support floors.
	[F20-OS3.1] Applies to footings that support floors and other elements that support floors. [F20-OS3.7] Applies to footings that support walls that contain doors or windows required for emergency egress.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
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Acceptable Solutions	Functional Statements and Objectives[1]
9.4.4.2. Foundation Capacity in Weaker Soil and Rock	
(1)	[F20-OS2.2] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.2,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
(2)	[F20-OS2.2] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.2,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
9.4.4.3. High Water Table	
(1)	[F20-OS2.2] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.2,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
9.4.4.4. Soil Movement	
(1)	[F21-OS2.1] [F21-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F21-OP2.1,OP2.4] [F21-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F21-OH1.1,OH1.2,OH1.3] Applies to walls that support or are part of an environmental separator.
	[F21-OH4] Applies to *foundations* that support floors and other elements that support floors.
	[F21-OS3.1] Applies to footings that support floors and other elements that support floors. [F21-OS3.7] Applies to footings that support walls that contain doors or windows required for emergency egress.
9.4.4.5. Retaining Walls	
(1)	[F20-OS2.1,OS2.3]
	[F20-OP2.1,OP2.3,OP2.4]
	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
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Acceptable Solutions	Functional Statements and Objectives[1]
9.4.4.6. Walls Supporting Drained Earth	
(1)	[F20-OS2.1,OS2.3]
	[F20-OP2.1,OP2.3,OP2.4]
	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors. [F20-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(2)	[F20-OS2.1,OS2.3]
	[F20-OP2.1,OP2.3,OP2.4]
	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors. [F20-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
9.5.1.2. Combination Rooms	
(2)	[F10-OS3.7]
9.5.3.1. Ceiling Heights of Rooms or Spaces	
(1)	[F30-OS3.1] [F10-OS3.7]
(2)	[F30-OS3.1] [F10-OS3.7]
(3)	[F30-OS3.1] [F10-OS3.7]
(4)	[F30-OS3.1] [F10-OS3.7]
9.5.3.2. Mezzanines	
(1)	[F30-OS3.1] [F10-OS3.7]
9.5.3.3. Storage Garages	
(1)	[F30-OS3.1] [F10-OS3.7]
9.5.4.1. Hallway Width	
(1)	[F10-OS3.7]
9.5.5.1. Doorway Opening Sizes	
(1)	[F30-OS3.1] [F10-OS3.7]
(2)	[F10-OS3.7] [F30-OS3.1]
9.5.5.2. Doorways to Public Water-Closet Rooms	
(1)	[F30-OS3.1] [F10-OS3.7]
9.5.5.3. Doorways to Rooms with a Bathtub, Shower or Water Closet	
(2)	[F74-OA2]
9.6.1.2. Material Standards for Glass	
(1)	[F20-OS2.1] [F63-OS2.3]
	(e),(h) [F63-OH1.1] [F51,F63-OH1.2]
	(g) [F03-OS1.2]
(2)	[F30-OS3.1] [F10-OS3.7]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
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Acceptable Solutions	Functional Statements and Objectives[1]
9.6.1.3. Structural Sufficiency of Glass	
(1)	[F20-OS2.1]
(2)	[F30-OS3.1] [F10-OS3.7]
9.6.1.4. Types of Glass and Protection of Glass	
(1)	[F30-OS3.1] [F10-OS3.7]
(3)	[F30-OS3.1] [F10-OS3.7]
(4)	[F30-OS3.1] [F10-OS3.7] Applies to portion of Code text: "… except that such *partitions* shall be suitably marked to indicate their existence and position."
(5)	[F30-OS3.1] [F10-OS3.7]
(6)	[F30-OS3.1]
9.7.2.1. Entrance Doors	
(1)	[F42-OH2.5]
	[F51,F54-OH1.2] [F40,F61,F42-OH1.1]
	[F61,F42-OS2.3]
(2)	[F35-OS4.2]
9.7.3.1. General Performance Expectations	
(1)	[F42,F55,F61,F62,F63-OH1.1] [F81-OH1.1] Applies to windows that provide required non-heating season ventilation. [F54,F55,F61,F62,F63-OH1.2] [F63,F61,F62-OH1.3]
	[F20,F55,F61-OS2.1,OS2.3]
	[F42-OH2.5]
	[F81-OS3.7]
	[F34-OS4.1]
(2)	[F81-OH1.1] Applies to skylights that provide required non-heating season ventilation. [F20,F22-OH1.3]
	[F20-OS2.1,OS2.3]
(3)	[F42,F55-OH1.1]
	[F42-OH2.5]
	[F81-OS3.7]
	[F34-OS4.1]
(4)	[F20,F22-OS2.3]
	[F30-OS3.1]
	[F20,F61-OH1.1,OH1.2]
	[F34-OS4.1]
9.7.3.2. Heat Transfer Performance	
(1)	[F51,F63-OH1.1,OH1.2]
	[F63-OS2.3]
9.7.3.3. Thermal Characteristics of Windows, Doors and Skylights	
(1)	[F63-OH1.1,OH1.2,OH1.3]
	[F63-OS2.3]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F63-OS2.3]
	[F63-OH1.1,OH1.2]
(3)	[F63-OH1.1,OH1.2,OH1.3]
	[F63-OS2.3]
(4)	[F63-OH1.1,OH1.2,OH1.3]
	[F63-OS2.3]
	[F63-OS3.1]
9.7.4.2. General	
(1)	[F20,F55,F61,F62,F63-OH1.1] [F81-OH1.1] Applies to windows that provide required non-heating season ventilation. [F54,F55,F61,F62,F63-OH1.2] [F63,F20,F61,F62-OH1.3]
	[F20,F21,F61-OS2.3]
	[F10-OS1.5] Applies where windows, doors or skylights serve bedrooms, except bedrooms that have direct access to the exterior through an *exit* door or bedrooms that are in *sprinklered suites*.
9.7.4.3. Performance Requirements	
(1)	[F20,F55,F61-OH1.1] [F55-OH1.2] [F20,F61,F62-OH1.3]
(4)	[F40,F61,F42-OH1.1] [F51,F54-OH1.2]
	[F61,F42-OS2.3]
	[F80-OS3.7]
	[F80-OS4.1]
	[F42-OH2.5]
9.7.5.2. Resistance to Forced Entry for Doors	
(2)	[F34-OS4.1]
(3)	[F20-OS4.1]
(4)	[F34-OS4.1]
(5)	[F34-OS4.1]
(6)	[F20-OS4.1]
(7)	[F20-OS4.1]
(8)	[F34-OS4.1]
(9)	[F20-OS4.1]
9.7.5.3. Resistance to Forced Entry for Windows	
(1)	[F34-OS4.1]
9.7.6.1. Installation of Windows, Doors and Skylights	
(1)	[F20,F54,F55,F61,F63-OH1.1,OH1.2,OH1.3]
	[F20,F61,F63-OS2.3]
(2)	[F54,F55,F61,F63-OH1.1,OH1.2,OH1.3]
	[F61,F63-OS2.3]
(3)	[F55,F61,F63-OS2.3]
	[F55,F61,F63-OH1.1,OH1.2]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.7.6.2. Sealants, Trim and Flashing	
(1)	[F61,F63-OH1.1,OH1.3] [F61,F51,F54,F63-OH1.2]
	[F61,F63-OS2.3]
(4)	[F80-OS2.1,OS2.3]
	[F80-OP2.1,OP2.3]
	[F80-OH1.1,OH1.2,OH1.3]
9.8.2.1. Stair Width	
(1)	[F30-OS3.1] [F10-OS3.7]
(2)	[F30-OS3.1] [F10-OS3.7]
(3)	[F30-OS3.1] [F10-OS3.7]
(4)	[F30-OS3.1] [F10-OS3.7]
9.8.2.2. Height over Stairs	
(2)	[F30-OS3.1] [F10-OS3.7]
(3)	[F30-OS3.1] [F10-OS3.7]
(4)	[F30-OS3.1] [F10-OS3.7]
9.8.3.1. Straight and Curved Runs in Stairs	
(1)	[F30-OS3.1] [F10-OS3.7]
(2)	[F10-OS3.7]
(3)	[F30-OS3.1] [F10-OS3.7]
9.8.3.2. Minimum Number of Risers	
(1)	[F30-OS3.1] [F10-OS3.7]
9.8.3.3. Maximum Height of Stairs	
(1)	[F30-OS3.1]
9.8.4.1. Dimensions for Risers	
(1)	[F30-OS3.1] [F10-OS3.7]
9.8.4.2. Dimensions for Rectangular Treads	
(1)	[F30-OS3.1] [F10-OS3.7]
(2)	[F30-OS3.1] [F10-OS3.7]
9.8.4.3. Dimensions for Angled Treads	
(2)	[F30-OS3.1] [F10-OS3.7]
(3)	[F30-OS3.1] [F10-OS3.7]
9.8.4.4. Uniformity and Tolerances for Risers and Treads	
(1)	[F30-OS3.1] [F10-OS3.7]
(2)	[F30-OS3.1] [F10-OS3.7]
(3)	[F30-OS3.1] [F10-OS3.7]
(4)	[F30-OS3.1] [F10-OS3.7]
(5)	[F30-OS3.1] [F10-OS3.7]
9.8.4.5. Winders	
(1)	[F30-OS3.1] [F10-OS3.7]
(2)	[F30-OS3.1] [F10-OS3.7]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.8.4.6. Tread Nosings	
(1)	[F30-OS3.1] [F10-OS3.7]
(2)	[F30-OS3.1] [F10-OS3.7]
9.8.5.2. Ramp Width	
(1)	[F30-OS3.1] [F10-OS3.7]
(2)	[F30-OS3.1] [F10-OS3.7]
(3)	[F30-OS3.1] [F10-OS3.7]
9.8.5.3. Height over Ramps	
(1)	[F30-OS3.1] [F10-OS3.7]
(2)	[F30-OS3.1] [F10-OS3.7]
9.8.5.4. Slope	
(1)	[F30-OS3.1] [F10-OS3.7]
9.8.5.5. Maximum Rise	
(1)	[F30-OS3.1]
9.8.6.2. Required Landings	
(1)	[F30-OS3.1] [F10-OS3.7]
9.8.6.3. Dimensions of Landings	
(1)	[F30-OS3.1] [F10-OS3.7]
(2)	[F30-OS3.1] [F10-OS3.7]
(3)	[F30-OS3.1] [F10-OS3.7]
(4)	[F30-OS3.1] [F10-OS3.7]
(5)	[F30-OS3.1] [F10-OS3.7]
(6)	[F30-OS3.1] [F10-OS3.7]
9.8.6.4. Height over Landings	
(1)	[F30-OS3.1] [F10-OS3.7]
(2)	[F30-OS3.1] [F10-OS3.7]
9.8.7.1. Required Handrails	
(1)	[F30-OS3.1] [F10-OS3.7]
(2)	[F10-OS3.7] [F30-OS3.1]
9.8.7.2. Continuity of Handrails	
(1)	[F30-OS3.1] [F10-OS3.7]
(2)	[F30-OS3.1] [F10-OS3.7]
9.8.7.3. Termination of Handrails	
(1)	[F30-OS3.1] [F10-OS3.7]
(2)	[F30-OS3.1] [F10-OS3.7]
9.8.7.4. Height of Handrails	
(2)	[F30-OS3.1] [F10-OS3.7]
(3)	[F30-OS3.1] [F10-OS3.7]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.8.7.5. Ergonomic Design	
(1)	[F30-OS3.1] [F10-OS3.7]
(2)	[F30-OS3.1] [F10-OS3.7]
9.8.7.6. Projections into Stairs and Ramps	
(1)	[F30-OS3.1] [F10-OS3.7]
9.8.7.7. Design and Attachment of Handrails	
(1)	[F20-OS2.1]
	[F20-OS3.1,OS3.7]
(2)	[F20-OS2.1]
	[F20-OS3.1,OS3.7]
9.8.8.1. Required Guards	
(1)	[F30-OS3.1] [F10-OS3.7]
(3)	[F30-OS3.1] [F10-OS3.7]
(4)	[F30-OS3.1] [F10-OS3.7]
(5)	[F30-OS3.1]
(7)	[F30-OS3.1] [F10-OS3.7]
(8)	[F30-OS3.1] [F10-OS3.7]
(9)	[F30-OS3.1]
9.8.8.2. Loads on Guards	
(1)	[F20-OS2.1]
9.8.8.3. Height of Guards	
(1)	[F30-OS3.1] [F10-OS3.7]
(2)	[F30-OS3.1] [F10-OS3.7]
(3)	[F30-OS3.1] [F10-OS3.7]
(4)	[F30-OS3.1] [F10-OS3.7]
9.8.8.4. Guards for Floors and Ramps in Garages	
(1)	[F10-OS3.1]
(2)	[F20-OS2.1]
9.8.8.5. Openings in Guards	
(1)	[F30-OS3.1]
(2)	[F30-OS3.1]
(3)	[F30-OS3.1]
9.8.8.6. Design of Guards to Not Facilitate Climbing	
(1)	[F30-OS3.1]
(2)	[F30-OS3.1]
9.8.8.7. Glass in Guards	
(1)	[F20-OS3.1,OS3.7]
	[F20-OS2.1]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.8.9.1. Loads on Stairs and Ramps	
(1)	[F20-OS2.1]
	[F22-OH4]
9.8.9.2. Exterior Concrete Stairs	
(1)	[F22-OS3.1,OS3.7]
9.8.9.3. Exterior Wood Steps	
(1)	[F80-OS3.1,OS3.7]
	[F80-OS2.3]
9.8.9.4. Wooden Stair Stringers	
(1)	[F20-OS2.1]
	[F22-OH4]
(2)	[F22-OH4]
	[F20-OS2.1]
9.8.9.5. Treads	
(1)	[F22-OH4]
	[F20-OS2.1]
(2)	[F22-OH4]
	[F20-OS2.1]
9.8.9.6. Finish for Treads and Landings	
(1)	[F30-OS3.1] [F10-OS3.7]
(2)	[F30-OS3.1] [F10-OS3.7]
9.8.10.1. Design	
(1)	[F22-OS3.1,OS3.7]
	[F20-OS2.1]
9.8.10.2. Anchorage	
(1)	[F20-OS2.1]
	[F22-OS3.1,OS3.7]
	[F20-OH1.1,OH1.2,OH1.3]
9.8.10.3. Prevention of Damage Due to Frost	
(1)	[F21-OS3.1]
	[F21-OS2.1]
	[F21-OH1.1,OH1.2,OH1.3]
9.9.1.3. Occupant Load	
(1)	[F10-OS3.7]
(2)	[F10-OS3.7]
9.9.2.2. Purpose of Exits	
(1)	[F10-OS3.7] Applies to “An *exit* shall be designed for no purpose other than for exiting ...”
9.9.2.3. Elevators, Slide Escapes and Windows as Means of Egress	
(1)	[F10-OS3.7]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.9.2.4. Principal Entrances	
(1)	[F10-OS3.7]
9.9.3.2. Exit Width	
(1)	[F10-OS3.7]
9.9.3.3. Width of Corridors	
(1)	[F30-OS3.1] [F10-OS3.7]
9.9.3.4. Clear Height	
(1)	[F30-OS3.1] [F10-OS3.7]
(2)	[F30-OS3.1] [F10-OS3.7]
9.9.4.2. Fire Separations for Exits	
(1)	[F05-OS1.5] [F03-OS1.2]
	[F03-OP1.2]
(2)	[F03-OS1.2] [F05-OS1.5]
	[F03-OP1.2]
(3)	[F05-OS1.5]
(4)	[F05-OS1.5] [F03-OS1.2]
	[F03-OP1.2]
9.9.4.3. Wired Glass or Glass Block	
(2)	[F05-OS1.5]
9.9.4.4. Openings Near Unenclosed Exterior Exit Stairs and Ramps	
(1)	[F05-OS1.5]
9.9.4.5. Openings in Exterior Walls of Exits	
(1)	[F05-OS1.5]
9.9.4.6. Openings Near Exit Doors	
(1)	[F05-OS1.5]
9.9.4.7. Stairways in 2 Storey, Group D or E Buildings	
(1)	[F05-OS1.5]
9.9.5.2. Occupancies in Corridors	
(1)	[F10-OS3.7]
9.9.5.3. Obstructions in Public Corridors	
(1)	[F30-OS3.1]
9.9.5.4. Obstructions in Exits	
(1)	[F10-OS3.7]
9.9.5.5. Obstructions in Means of Egress	
(1)	[F10-OS3.7]
(2)	[F10-OS3.7]
9.9.5.6. Mirrors or Draperies	
(1)	[F10-OS3.7] [F30-OS3.1]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.9.5.7. Fuel-Fired Appliances	
(1)	[F10-OS1.5]
	[F10-OS3.7]
9.9.5.8. Service Rooms	
(1)	[F10-OS3.7] [F30-OS3.1]
9.9.5.9. Ancillary Rooms	
(1)	[F05,F06-OS1.5]
	[F10-OS3.7]
9.9.6.1. Obstructions by Doors	
(2)	[F30-OS3.1] [F10-OS3.7]
(3)	[F30-OS3.1] [F10-OS3.7]
9.9.6.2. Clear Opening Height at Doorways	
(1)	[F30-OS3.1] [F10-OS3.7]
(2)	[F30-OS3.1] [F10-OS3.7]
9.9.6.3. Clear Opening Width at Doorways	
(2)	[F30-OS3.1] [F10-OS3.7]
(3)	[F30-OS3.1] [F10-OS3.7]
9.9.6.4. Door Action	
(1)	[F10-OS3.7]
(2)	[F10-OS3.7]
9.9.6.5. Direction of Door Swing	
(1)	[F10-OS3.7]
(2)	[F10-OS3.7]
(3)	[F10-OS3.7]
(4)	[F10-OS3.7]
9.9.6.6. Nearness of Doors to Stairs	
(1)	[F30-OS3.1] [F10-OS3.7]
(2)	[F10-OS3.7]
9.9.6.7. Door Latching, Locking and Opening Mechanisms	
(1)	(a) [F10-OS3.7]
	(b) [F10,F81-OS3.7]
(2)	[F10-OS3.7]
(3)	[F10-OS3.7]
	[F73-OA1]
(4)	[F10-OS3.7]
9.9.6.8. Effort Required to Open	
(1)	[F10-OS3.7]
9.9.7.1. Egress from Roof Area, Podiums, Terraces, Platforms and Contained Open Spaces	
(1)	[F10-OS3.7]
(2)	[F10-OS3.7]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.9.7.2. Means of Egress from Suites	
(1)	[F10-OS1.5]
(2)	[F10-OS3.7]
9.9.7.3. Dead-End Corridors	
(1)	[F10-OS3.7]
9.9.7.4. Number and Spacing of Egress Doors	
(1)	[F10-OS3.7]
(2)	[F10-OS1.5]
9.9.7.5. Independent Access to Exit	
(1)	[F10-OS3.7]
9.9.8.2. Number of Required Exits	
(1)	[F10-OS3.7]
9.9.8.3. Contribution of Each Exit	
(1)	[F10-OS3.7]
9.9.8.4. Location of Exits	
(1)	[F10-OS1.5]
9.9.8.5. Exiting through a Lobby	
(1)	[F10-OS1.5]
(2)	[F10-OS1.5]
(3)	[F10-OS1.5]
(4)	[F10-OS1.5]
(5)	[F05-OS1.5]
9.9.8.6. Mezzanine Means of Egress	
(1)	[F05-OS1.5]
(4)	[F05-OS1.5]
9.9.9.1. Travel Limit to Exits or Egress Doors	
(1)	[F10-OS3.7]
(2)	[F10-OS3.7]
(3)	[F10-OS3.7]
9.9.9.2. Two Separate Exits	
(1)	[F10-OS3.7]
9.9.9.3. Shared Egress Facilities	
(1)	[F10-OS3.7]
(2)	[F10-OS3.7]
9.9.10.1. Egress Windows or Doors for Bedrooms	
(1)	[F10-OS3.7]
(2)	[F10-OS3.7]
(3)	[F10-OS3.7]
(4)	[F10-OS3.7]
(5)	[F10-OS3.7]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.9.11.2. Visibility of Exits	
(1)	[F10-OS3.7]
9.9.11.3. Exit Signs	
(1)	[F10-OS3.7]
(2)	[F10-OS3.7]
(3)	[F10,F81-OS3.7]
(4)	[F10,F81-OS3.7]
(5)	[F10-OS3.7]
(6)	[F10-OS3.7]
9.9.11.4. Signs for Stairs and Ramps at Exit Level	
(1)	[F10-OS3.7]
9.9.11.5. Floor Numbering	
(1)	[F10-OS3.7]
	[F73-OA1]
9.9.12.2. Required Lighting in Egress Facilities	
(1)	[F30-OS3.1] [F10-OS3.7]
(2)	[F30-OS3.1] [F10-OS3.7]
9.9.12.3. Emergency Lighting	
(1)	[F30-OS3.1] [F10-OS3.7]
(2)	[F30-OS3.1] [F10-OS3.7]
(3)	[F30-OS3.1] [F10-OS3.7]
(4)	[F30-OS3.1] [F10-OS3.7]
(5)	[F30-OS3.1] [F10-OS3.7]
(7)	[F30-OS3.1] [F10-OS3.7]
9.10.1.2. Commissioning of Life Safety and Fire Protection Systems	
(1)	[F02,F81,F82-OS1.2,OS1.5]
	[F02,F81,F82-OP1.2]
9.10.1.3. Items under Part 3 Jurisdiction	
(5)	[F01-OS1.1] Applies to portion of Code text: " ... facilities for the dispensing of fuel shall not be installed in any *building*."
9.10.3.4. Suspended Membrane Ceilings	
(1)	[F04-OS1.3]
	[F04-OP1.3]
9.10.4.3. Basement Storage Garages	
(1)	[F03-OS1.2]
	[F03-OP1.2]
9.10.5.1. Permitted Openings in Wall and Ceiling Membranes	
(1)	[F03-OS1.2] [F04-OS1.3]
	[F03-OP1.2] [F04-OP1.3]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F04-OS1.3]
	[F04-OP1.3]
(3)	[F03-OS1.2]
	[F03-OP1.2]
(4)	[F04-OS1.2,OS1.3]
	[F04-OP1.3]
9.10.7.1. Protection of Steel Members	
(1)	[F03-OS1.2] [F04-OS1.3]
	[F03-OP1.2] [F04-OP1.3]
9.10.8.1. Fire-Resistance Ratings for Floors and Roofs	
(1)	[F03-OS1.2] [F04-OS1.2,OS1.3] Applies to portion of Code text: "Except as otherwise provided in this Subsection, the *fire-resistance ratings* of floors and roofs shall conform to Table 9.10.8.1."
	[F03-OP1.2] [F04-OP1.2,OP1.3] Applies to portion of Code text: "Except as otherwise provided in this Subsection, the *fire-resistance ratings* of floors and roofs shall conform to Table 9.10.8.1."
9.10.8.2. Fire-Resistance Ratings in Sprinklered Buildings	
(1)	(a),(b) [F02,F82-OS1.3] [F13-OS1.5,OS1.2]
	(a),(b) [F02,F82-OP1.3] [F13-OP1.2]
9.10.8.3. Fire-Resistance Ratings for Walls, Columns and Arches	
(1)	[F04-OS1.2,OS1.3]
	[F04-OP1.2,OP1.3]
(2)	[F04-OS1.2,OS1.3]
	[F04-OP1.2,OP1.3]
9.10.8.4. Support of Noncombustible Construction	
(1)	[F04-OS1.3]
	[F04-OP1.3]
9.10.8.7. Roofs Supporting an Occupancy	
(1)	[F03-OS1.2]
	[F03-OP1.2]
9.10.8.8. Floors of Exterior Passageways	
(1)	[F05-OS1.5] [F06-OS1.5,OS1.2]
	[F04-OP1.3] [F06-OP1.2]
9.10.9.2. Continuous Barrier	
(1)	[F03-OS1.2]
	[F03-OP1.2]
(2)	[F03-OS1.2]
(3)	[F03-OS1.2]
	[F03-OP1.2]
(4)	[F03-OS1.2]
	[F03-OP1.2]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.10.9.3. Openings to be Protected with Closures	
(1)	[F03-OS1.2]
	[F03-OP1.2]
(2)	[F03-OS1.2]
	[F03-OP1.2]
9.10.9.4. Floor Assemblies	
(1)	[F03-OS1.2]
	[F03-OP1.2]
9.10.9.6. Penetration of Fire Separations	
(1)	[F03-OS1.2]
	[F03-OP1.2]
(2)	[F03-OS1.2]
	[F03-OP1.2]
(3)	[F03-OP1.2] [F04-OP1.3] Applies to portion of Code text: "Except as provided in Sentences (4) to (12) and Article 9.10.9.7., pipes, ducts, electrical boxes, totally enclosed raceways or other similar service equipment that partly or wholly penetrate an assembly required to have a *fire-resistance rating* shall be *noncombustible*..."
	[F03-OS1.2] [F04-OS1.3] Applies to portion of Code text: "Except as provided in Sentences (4) to (12) and Article 9.10.9.7., pipes, ducts, electrical boxes, totally enclosed raceways or other similar service equipment that partly or wholly penetrate an assembly required to have a *fire-resistance rating* shall be *noncombustible*..."
9.10.9.7. Combustible Drain, Waste and Vent Piping	
(1)	[F03-OS1.2] [F04-OS1.3]
	[F03-OP1.2] [F04-OP1.3]
9.10.9.8. Collapse of Combustible Construction	
(1)	[F03-OS1.2]
	[F03-OP1.2]
9.10.9.9. Reduction in Thickness of Fire Separation by Beams and Joists	
(1)	[F03-OS1.2]
	[F03-OP1.2]
9.10.9.10. Concealed Spaces above Fire Separations	
(1)	[F03-OS1.2]
	[F03-OP1.2]
(2)	[F03-OS1.2]
	[F03-OP1.2]
9.10.9.11. Separation of Residential Occupancies	
(1)	[F03-OS1.2]
	[F03-OP1.2]
(2)	[F03-OS1.2]
	[F03-OP1.2]
(3)	[F03-OS1.2]
	[F03-OP1.2]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.10.9.12. Residential Suites in Industrial Buildings	
(1)	[F02-OS1.2]
9.10.9.13. Separation of Suites	
(1)	[F03-OS1.2]
	[F03-OP1.2]
(2)	[F02-OS1.2]
	[F02-OP1.2]
9.10.9.14. Separation of Residential Suites	
(1)	[F03-OS1.2]
	[F03-OP1.2]
(3)	[F03-OS1.2]
(4)	[F03-OS1.2]
	[F03-OP1.2]
9.10.9.15. Separation of Public Corridors	
(1)	[F05,F03-OS1.5] [F06-OS1.5,OS1.2]
	[F03,F06-OP1.2]
(2)	[F03-OS1.2] [F06,F05-OS1.5]
	[F03,F06-OP1.2]
(3)	[F03-OS1.2] [F06,F05-OS1.5]
	[F03,F06-OP1.2]
(4)	[F03-OS1.2]
	[F03-OP1.2]
9.10.9.16. Separation of Storage Garages	
(1)	[F03-OS1.2]
	[F03-OP1.2]
(2)	[F03-OS1.2]
	[F03-OP1.2]
(4)	[F44-OS3.4]
	[F01-OS1.1]
(5)	[F44-OS3.4]
	[F01-OS1.1]
9.10.9.17. Separation of Repair Garages	
(1)	[F03-OS1.2]
	[F03-OP1.2]
(3)	[F03-OS1.2]
	[F03-OP1.2]
(4)	[F44-OS3.4]
	[F44-OS1.1]
	[F44-OH1.1]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(5)	[F44-OS3.4]
	[F44-OS1.1]
	[F44-OH1.1]
9.10.9.18. Exhaust Ducts Serving More Than One Fire Compartment	
(1)	[F03-OS1.2]
(2)	[F03-OS1.2]
9.10.9.19. Central Vacuum Systems	
(1)	[F03-OS1.2]
9.10.10.3. Separation of Service Rooms	
(1)	[F03-OS1.2] [F03,F81-OS1.4]
	[F03-OP1.2] [F03,F81-OP1.4]
9.10.10.4. Location of Fuel-Fired Appliances	
(1)	[F03-OS1.2] [F03,F81-OS1.4]
	[F03-OP1.2] [F03,F81-OP1.4]
9.10.10.5. Incinerators	
(1)	[F03-OS1.2] [F03,F81-OS1.4]
	[F03-OP1.2] [F03,F81-OP1.4]
(2)	[F01-OS1.1]
(3)	[F01-OS1.1]
	[F40,F61-OH1.1,OH1.3]
	[F20-OP2.1] [F80-OP2.3]
	[F20-OS2.1] [F80-OS2.3]
	[F01-OP1.1]
(4)	[F01,F02-OS1.2]
9.10.10.6. Storage Rooms	
(1)	[F03-OS1.2]
	[F03-OP1.2]
9.10.11.1. Required Firewalls	
(1)	[F03-OS1.2]
	[F03-OP3.1]
	[F03-OP1.2]
9.10.11.2. Firewalls Not Required	
(1)	[F03-OS1.2]
	[F03-OP3.1]
(2)	[F03-OS1.2]
	[F03-OP3.1]
(3)	[F03-OS1.2]
	[F03-OP3.1]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(4)	[F03-OS1.2]
	[F03-OP3.1]
9.10.12.1. Termination of Floors or Mezzanines	
(1)	[F03-OS1.5]
	[F03-OP1.2,OP1.4]
9.10.12.2. Location of Skylights	
(1)	[F03-OS1.2]
	[F03-OP1.2]
9.10.12.3. Exterior Walls Meeting at an Angle	
(1)	[F03-OS1.2]
	[F03-OP1.2]
(2)	[F03-OS1.2]
	[F03-OP1.2]
(3)	[F03-OS1.2]
	[F03-OP1.2]
9.10.12.4. Protection of Soffits	
(2)	[F03-OS1.2]
	[F03-OP1.2]
(3)	[F03-OS1.2]
	[F03-OP1.2]
9.10.13.1. Closures	
(1)	[F03-OS1.2]
	[F03-OP1.2]
9.10.13.2. Solid Core Wood Door as a Closure	
(2)	[F03-OS1.2]
	[F03-OP1.2]
9.10.13.5. Wired Glass as a Closure	
(2)	[F03-OS1.2]
	[F03-OP1.2]
(3)	[F03-OS1.2]
	[F03-OP1.2]
9.10.13.6. Steel Door Frames	
(1)	[F03-OS1.2]
	[F03-OP1.2]
9.10.13.8. Maximum Size of Opening	
(1)	[F03-OS1.2]
	[F03-OP1.2]
(2)	[F03-OS1.2]
	[F03-OP1.2]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.10.13.9. Door Latch	
(1)	[F03-OS1.2]
	[F03-OP1.2]
9.10.13.10. Self-closing Device	
(1)	[F03-OS1.2]
	[F03-OP1.2]
9.10.13.12. Service Room Doors	
(1)	[F30-OS3.1] Applies to portion of Code text: "Swing-type doors shall open into *service rooms* containing fuel-fired equipment where such doors lead to *public corridors* or rooms used for assembly ..."
	[F10-OS1.5] Applies to portion of Code text: "... but shall swing outward from such rooms in all other cases."
9.10.13.13. Fire Dampers	
(1)	[F03-OS1.2]
	[F03-OP1.2]
9.10.13.14. Fire Stop Flaps	
(1)	[F03-OS1.3]
	[F03-OP1.3]
9.10.13.15. Doors between Garages and Dwelling Units	
(1)	[F44-OS3.4]
	[F01-OS1.1]
(2)	[F44-OS3.4]
	[F01-OS1.1]
9.10.13.16. Door Stops	
(1)	[F81-OS1.4]
	[F81-OP1.4]
9.10.14.3. Limiting Distance and Fire Department Response	
(1)	[F03-OP3.1]
9.10.14.4. Openings in Exposing Building Face	
(1)	[F03-OP3.1]
(2)	[F03-OP3.1]
(3)	[F03-OP3.1]
(4)	[F03-OP3.1]
(6)	[F03-OP3.1]
(7)	[F03-OP3.1]
9.10.14.5. Construction of Exposing Building Face and Walls above Exposing Building Face	
(1)	[F02,F03-OP3.1]
(2)	[F03-OP3.1]
(3)	[F02,F03-OP3.1]
(4)	[F03-OP3.1]
(6)	[F03-OP3.1]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(7)	[F03-OP3.1]
(8)	[F02,F03-OP3.1]
(9)	[F03-OP3.1]
(10)	[F03-OP3.1]
(11)	[F03-OP3.1]
9.10.15.3. Limiting Distance and Fire Department Response	
(1)	[F03-OP3.1]
9.10.15.4. Glazed Openings in Exposing Building Face	
(1)	[F03-OP3.1]
(3)	[F03-OP3.1]
(4)	[F03-OP3.1]
9.10.15.5. Construction of Exposing Building Face of Houses	
(2)	[F02,F03-OP3.1]
(3)	[F02,F03-OP3.1]
(5)	[F03-OP3.1]
(7)	[F02,F03-OP3.1]
(8)	[F03-OP3.1]
(9)	[F03-OP3.1]
(10)	[F03-OP3.1]
9.10.16.1. Required Fire Blocks in Concealed Spaces	
(1)	[F03-OS1.2]
	[F03-OP1.2]
(2)	[F03-OS1.2]
	[F03-OP1.2]
(3)	[F03-OS1.2]
	[F03-OP1.2]
(4)	[F03-OS1.2]
	[F03-OP1.2]
(5)	[F03-OS1.2]
	[F03-OP1.2]
(6)	[F02,F03-OS1.2]
	[F02,F03-OP1.2]
(7)	[F02,F03-OS1.2]
	[F02,F03-OP1.2]
9.10.16.2. Required Fire Blocks in Wall Assemblies	
(1)	[F03-OS1.2]
	[F03-OP1.2]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.10.16.3. Fire Block Materials	
(1)	[F03-OS1.2]
	[F03-OP1.2]
(2)	[F03-OS1.2]
	[F03-OP1.2]
(3)	[F04-OS1.2]
	[F04-OP1.2]
9.10.16.4. Penetration of Fire Blocks	
(1)	[F03-OS1.2]
	[F03-OP1.2]
9.10.17.1. Flame Spread Rating of Interior Surfaces	
(1)	[F02-OS1.2]
9.10.17.2. Ceilings in Exits or Public Corridors	
(1)	[F05-OS1.5]
9.10.17.3. Walls in Exits	
(1)	[F05-OS1.5]
(2)	[F05-OS1.5]
9.10.17.4. Exterior Exit Passageways	
(1)	[F05-OS1.5]
9.10.17.5. Walls in Public Corridors	
(1)	[F05-OS1.5]
9.10.17.9. Combustible Skylights	
(1)	[F02,F05-OS1.5]
9.10.17.10. Protection of Foamed Plastics	
(1)	(a),(b),(c) [F01,F02,F05-OS1.5]
(2)	[F01,F02-OS1.2]
9.10.18.1. Access Provided through a Firewall	
(1)	[F11-OS1.5]
9.10.18.2. Fire Alarm System Required	
(1)	[F11-OS1.5] [F13-OS1.2,OS1.5]
	[F11-OP1.2]
(2)	[F11-OS1.5]
9.10.18.4. Rooms and Spaces Requiring Heat Detectors or Smoke Detectors	
(1)	[F11-OS1.5]
(2)	[F11-OS1.5]
(3)	[F02-OS1.2] Applies to *sprinklered buildings*. [F11-OS1.5] Applies to the supervision of the system and the flow alarm.
9.10.18.5. Smoke Detectors in Recirculating Air-Handling Systems	
(1)	[F03-OS1.2]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
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Acceptable Solutions	Functional Statements and Objectives[1]
9.10.18.6. Portions of Buildings Considered as Separate Buildings	
(1)	[F03-OS1.2]
(2)	[F11-OS1.2]
9.10.18.7. Central Vacuum Systems	
(1)	[F03-OS1.2]
9.10.19.1. Required Smoke Alarms	
(1)	[F81,F11-OS1.5]
9.10.19.2. Sound Patterns of Smoke Alarms	
(1)	[F11-OS1.5]
9.10.19.3. Location of Smoke Alarms	
(1)	[F11-OS1.5]
(2)	[F81,F11-OS1.5]
(3)	[F11-OS1.5]
9.10.19.4. Power Supply	
(1)	[F11,F81-OS1.5]
(3)	[F11,F81-OS1.5]
9.10.19.5. Interconnection of Smoke Alarms	
(1)	[F11-OS1.5]
(2)	[F11-OS1.5]
9.10.19.6. Silencing of Smoke Alarms	
(1)	[F11,F81-OS1.5]
9.10.19.7. Instructions for Maintenance and Care	
(1)	[F82-OS1.5]
9.10.20.1. Windows or Access Panels Required	
(1)	[F12-OS1.2,OS1.5]
	[F12-OP1.2]
(2)	[F12-OS1.5,OS1.2]
	[F12-OP1.2]
9.10.20.2. Access to Basements	
(1)	[F12-OS1.2,OS1.5]
	[F12-OP1.2]
(2)	[F12-OS1.2,OS1.5] Applies to portion of Code text: " Access required in Sentence (1) ... provides an opening not less than 1 100 mm high and 550 mm wide, the sill height of which shall not be more than 900 mm above the floor."
	[F12-OP1.2] Applies to portion of Code text: “Access required in Sentence (1) ... provides an opening not less than 1 100 mm high and 550 mm wide, the sill height of which shall not be more than 900 mm above the floor.”
9.10.20.3. Fire Department Access to Buildings	
(1)	[F12-OS1.2,OS1.5]
	[F12-OP1.2]
(2)	[F12-OS1.2,OS1.5]
	[F12-OP1.2]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.10.20.4. Portable Extinguishers	
(1)	[F81,F02,F12-OS1.2]
	[F81,F02,F12-OP1.2]
9.10.20.5. Freeze Protection of Fire Protection Systems	
(1)	[F81,F02-OS1.2]
	[F81,F02-OP1.2]
9.10.21.2. Separation of Sleeping Rooms	
(1)	[F03-OS1.2]
	[F03-OP1.2]
9.10.21.3. Floor Assemblies between the First and Second Storey	
(1)	[F03-OS1.2,OS1.5]
	[F03-OP1.2]
9.10.21.4. Walkways Connecting Buildings	
(1)	[F03,F06-OS1.2,OS1.5]
	[F03-OP1.2]
	[F03-OP3.1]
9.10.21.5. Spatial Separations	
(1)	[F03-OP3.1]
9.10.21.6. Flame-Spread Ratings	
(1)	[F05-OS1.5,OS1.2]
9.10.21.7. Smoke Detectors	
(1)	[F11-OS1.5]
9.10.21.8. Portable Fire Extinguishers	
(1)	[F81,F12,F02-OP1.2]
	[F81,F12,F02-OS1.2]
9.10.21.9. Hose Stations	
(1)	[F81,F12,F02-OP1.2]
	[F81,F12,F02-OS1.2]
(2)	[F12-OP1.2]
	[F12-OS1.2]
(3)	[F12-OP1.2]
	[F12-OS1.2]
9.10.22.1. Installation of Cooktops and Ovens	
(1)	[F81,F43,F01-OS1.1]
	[F81,F43-OS3.4]
9.10.22.2. Vertical Clearances above Cooktops	
(1)	[F01-OS1.1,OS1.2]
(2)	[F01-OS1.1,OS1.2]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
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Acceptable Solutions	Functional Statements and Objectives[1]
9.10.22.3. Protection around Cooktops	
(1)	[F01-OS1.1,OS1.2]
(3)	[F01-OS1.1,OS1.2]
9.11.1.1. Determination of Sound Transmission Class Ratings	
(1)	[F56-OH3.1]
9.11.2.1. Minimum Sound Transmission Class Ratings	
(1)	[F56-OH3.1]
(2)	[F56-OH3.1]
(3)	[F56-OH3.1]
9.12.1.1. Removal of Topsoil and Organic Matter	
(1)	[F40,F41,F20-OH1.1]
(2)	[F81-OS2.3]
	[F81-OP2.3,OP2.4]
	[F81-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F81-OS1.2] Applies to assemblies required to provide fire resistance.
	[F81-OS3.1] Applies to floors and elements that support floors.
(3)	[F20,F21,F40,F41-OH1.1] [F20,F21-OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.2,OS2.3] [F21-OS2.3]
	[F20-OP2.2] [F20,F21-OP2.3,OP2.4]
	[F20,F21-OH4] Applies to floors and elements that support floors.
	[F20,F21-OS3.1] Applies to floors and elements that support floors.
9.12.1.2. Standing Water	
(1)	[F60-OS2.2,OS2.3]
	[F60-OP2.2,OP2.3,OP2.4]
	[F60-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F60-OH4] Applies to floors and elements that support floors.
	[F60-OS3.1] Applies to floors and elements that support floors.
9.12.1.3. Protection from Freezing	
(1)	[F21-OS2.3]
	[F21-OP2.3,OP2.4]
	[F21-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F21-OH4] Applies to floors and elements that support floors.
	[F21-OS3.1] Applies to floors and elements that support floors.
9.12.2.1. Excavation to Undisturbed Soil	
(1)	[F20-OS2.2,OS2.3]
	[F20-OP2.2,OP2.3,OP2.4]
	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.12.2.2. Minimum Depth of Foundations	
(1)	[F21-OS2.3]
	[F21-OP2.3,OP2.4]
	[F21-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F21-OS3.1] Applies to floors, elements that support floors, and concrete steps with more than 2 risers.
	[F21-OH4] Applies to floors and elements that support floors.
(8)	[F21-OS2.3]
	[F21-OP2.3,OP2.4]
	[F21-OS3.1]
	[F21-OH4]
9.12.3.1. Placement of Backfill	
(1)	[F81-OS2.1] [F81-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F81-OP2.1] [F22-OP2.4] [F81-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F81-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
9.12.3.2. Grading of Backfill	
(1)	[F60,F61-OH1.1,OH1.2,OH1.3]
	[F60,F61-OS2.3]
	[F60,F61-OP2.3]
9.12.3.3. Deleterious Debris and Boulders	
(1)	[F81-OS2.3]
	[F81-OP2.3]
	[F81-OH1.1,OH1.2,OH1.3]
	[F81-OS3.1] Applies to floors and elements that support floors.
(2)	[F20-OS2.1,OS2.3]
	[F20-OP2.1,OP2.3]
	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS3.1] Applies to floors and elements that support floors.
(3)	[F20-OS2.1,OS2.3]
	[F20-OP2.1,OP2.3]
	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS3.1] Applies to floors and elements that support floors.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.12.4.1. Support of Footings	
(1)	[F21-OH1.1,OH1.2,OH1.3]
	[F21-OS2.1] [F21-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F21-OP2.2] [F21-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F21-OH2.1] Applies to sewer-line locations beneath footings.
	[F21-OS3.1] Applies to floors and elements that support floors.
9.13.2.1. Required Dampproofing	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
(2)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
9.13.2.2. Material Standards	
(1)	[F40-OH1.1] Applies to materials installed to control the ingress of soil gas. [F61-OH1.1,OH1.2,OH1.3] Applies to materials installed to control the ingress of moisture.
	[F61-OS2.3]
9.13.2.3. Standards for Application	
(1)	[F40-OH1.1] Applies to materials installed to control the ingress of soil gas. [F61-OH1.1,OH1.2,OH1.3] Applies to materials installed to control the ingress of moisture.
	[F61-OS2.3]
9.13.2.4. Preparation of Surface	
(1)	[F40-OH1.1] Applies to dampproofing installed to control the ingress of soil gas. [F61-OH1.1,OH1.2,OH1.3] Applies to dampproofing installed to control the ingress of moisture.
	[F61-OS2.3]
(2)	[F40-OH1.1] Applies to *foundation* walls where the dampproofing serves to control the ingress of *soil* gas. [F61-OH1.1,OH1.2,OH1.3] Applies where the dampproofing serves to control the ingress of moisture.
	[F61-OS2.3]
(3)	[F61-OH1.1,OH1.2,OH1.3] [F40-OH1.1] Applies where dampproofing materials are installed to control the infiltration of soil gas.
	[F61-OS2.3]
9.13.2.5. Application of Dampproofing Material	
(1)	[F40-OH1.1] Applies to dampproofing installed to control the ingress of soil gas. [F61-OH1.1,OH1.2,OH1.3] Applies to dampproofing installed to control the ingress of moisture.
	[F61-OS2.3]
9.13.2.6. Moisture Protection for Interior Finishes	
(1)	[F61-OH1.1,OH1.2]
	[F61-OS2.3]
(2)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
(3)	[F61,F80-OH1.1,OH1.2,OH1.3]
	[F61,F80-OS2.3]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.13.2.7. Dampproofing of Floors-on-Ground	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
(2)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
(3)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
(4)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
9.13.3.1. Required Waterproofing	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
(2)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
9.13.3.2. Material Standards	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
9.13.3.3. Standards for Application	
(1)	[F61-OH1.1,OH1.2,OH1.3] [F40-OH1.1] Applies where waterproofing materials are installed to control the infiltration of soil gas.
	[F61-OS2.3]
9.13.3.4. Preparation of Surface	
(1)	[F61-OH1.1,OH1.2,OH1.3] [F40-OH1.1] Applies where waterproofing materials are installed to control the infiltration of soil gas.
	[F61-OS2.3]
(2)	[F61-OH1.1,OH1.2,OH1.3] [F40-OH1.1] Applies where waterproofing materials are installed to control the infiltration of soil gas.
	[F61-OS2.3]
(3)	[F61-OH1.1,OH1.2,OH1.3] [F40-OH1.1] Applies where waterproofing materials are installed to control the infiltration of soil gas.
	[F61-OS2.3]
9.13.3.5. Application of Waterproofing Membranes	
(1)	[F61-OH1.1,OH1.2,OH1.3] [F40-OH1.1] Applies where waterproofing materials are installed to control the infiltration of soil gas.
	[F61-OS2.3]
9.13.3.6. Floor Waterproofing System	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.13.4.2. Protection from Soil Gas Ingress	
(1)	[F40-OH1.1]
(2)	[F40-OH1.1]
(3)	[F40-OH1.1]
9.13.4.3. Providing for the Rough-in for a Subfloor Depressurization System	
(1)	[F40-OH1.1]
(2)	[F40-OH1.1]
(3)	[F40-OH1.1]
9.14.2.1. Foundation Wall Drainage	
(1)	[F60-OH1.1,OH1.2,OH1.3]
	[F60-OS2.1,OS2.2,OS2.3]
	[F60-OP2.1,OP2.2,OP2.3]
(2)	(a) [F60-OH1.1,OH1.2,OH1.3] Applies where *foundations* serve as or support an environmental separator.
	(a) [F60-OS2.1] (a) [F60-OS2.3] Applies where *foundations* serve as or support an environmental separator.
	(b) [F21-OS2.1] (b) [F21-OS2.3] Applies where *foundations* serve as or support an environmental separator.
	(b) [F21-OP2.1] (b) [F21-OP2.3] Applies where *foundations* serve as or support an environmental separator. (b) [F21-OP2.4] Applies where *foundations* support walls or floors.
	(b) [F21-OH1.1,OH1.2,OH1.3] Applies where *foundations* serve as or support an environmental separator.
	(b) [F21-OH4] Applies where *foundations* support floors or elements supporting floors.
	(b) [F21-OS3.1] Applies where *foundations* support floors or elements supporting floors. (b) [F21-OS3.7] Applies where *foundations* support walls that contain windows or doors required for emergency egress.
9.14.3.1. Material Standards	
(1)	[F60-OH1.1,OH1.2,OH1.3]
	[F60-OS2.1,OS2.3]
	[F60-OP2.1,OP2.3]
9.14.3.2. Minimum Size	
(1)	[F60-OH1.1,OH1.2,OH1.3]
	[F60-OS2.1,OS2.2,OS2.3]
	[F60-OP2.1,OP2.2,OP2.3]
9.14.3.3. Installation	
(1)	[F60-OH1.1,OH1.2,OH1.3]
	[F60-OS2.1,OS2.2,OS2.3]
	[F60-OP2.1,OP2.2,OP2.3]
(2)	[F60-OH1.1,OH1.2,OH1.3]
	[F60-OS2.1,OS2.2,OS2.3]
	[F60-OP2.1,OP2.2,OP2.3]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(3)	[F60-OH1.1,OH1.2,OH1.3]
	[F60-OS2.1,OS2.2,OS2.3]
	[F60-OP2.1,OP2.2,OP2.3]
(4)	[F60-OH1.1,OH1.2,OH1.3]
	[F60-OS2.1,OS2.2,OS2.3]
	[F60-OP2.1,OP2.2,OP2.3]
9.14.4.1. Type of Granular Material	
(1)	(a) [F60-OS2.3] [F21-OS2.2]
	(a) [F60-OP2.3] [F21-OP2.6]
	(a) [F60-OH1.1,OH1.2,OH1.3]
	(b) [F21-OS2.1] (b) [F21-OS2.3] Applies to elements that support or are part of an environmental separator.
	(b) [F21-OP2.1,OP2.4] (b) [F21-OP2.3] Applies to elements that support or are part of an environmental separator.
	(b) [F21-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	(b) [F21-OH4] Applies to floors and elements that support floors.
	(b) [F21-OS3.1] Applies to floors and elements that support floors.
9.14.4.2. Installation	
(1)	[F60-OH1.1,OH1.2,OH1.3]
	[F60-OS2.1,OS2.2,OS2.3]
	[F60-OP2.1,OP2.2,OP2.3]
9.14.4.3. Grading	
(1)	[F60-OH1.1,OH1.2,OH1.3]
	[F60-OS2.1,OS2.2,OS2.3]
	[F60-OP2.1,OP2.2,OP2.3]
9.14.4.4. Wet Site Conditions	
(1)	[F60-OH1.1,OH1.2,OH1.3]
	[F60-OS2.1,OS2.2,OS2.3]
	[F60-OP2.1,OP2.2,OP2.3]
9.14.5.1. Drainage Disposal	
(1)	[F60-OH1.1,OH1.2,OH1.3]
	[F60-OS2.1,OS2.2,OS2.3]
	[F60-OP2.1,OP2.2,OP2.3]
9.14.5.2. Sump Pits	
(1)	(a),(b) [F60,F61-OH1.1,OH1.3] (c) [F40-OH1.1] [F52-OH1.2]
	(a),(b) [F60,F61-OS2.1,OS2.3] (c) [F52-OS2.3]
	(a),(b) [F60,F61-OP2.3,OP2.4] (c) [F52-OP2.3]
	(c) [F30-OS3.1]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	(a) [F30-OS3.1]
	(b) [F40-OH1.1]
(3)	[F60-OH1.1,OH1.2,OH1.3]
	[F60-OS2.1,OS2.2,OS2.3]
	[F60-OP2.1,OP2.2,OP2.3]
9.14.5.3. Dry Wells	
(1)	[F60-OH1.1,OH1.2,OH1.3]
	[F60-OS2.1,OS2.2,OS2.3]
	[F60-OP2.1,OP2.2,OP2.3]
(2)	[F60-OH1.1,OH1.2,OH1.3]
	[F60-OS2.1,OS2.2,OS2.3]
	[F60-OP2.1,OP2.2,OP2.3]
9.14.6.1. Surface Drainage	
(1)	[F60-OH1.1,OH1.2,OH1.3]
	[F60-OS2.1,OS2.2,OS2.3]
	[F60-OP2.1,OP2.2,OP2.3]
9.14.6.2. Drainage away from Wells or Septic Disposal Beds	
(1)	[F46-OH2.2] Applies to directing drainage away from the location of a water supply. [F44-OH2.1] Applies to directing drainage away from a septic tank disposal system.
9.14.6.3. Window Wells	
(1)	[F60-OH1.1,OH1.2,OH1.3]
	[F60-OS2.1,OS2.3]
	[F60-OP2.1,OP2.3]
9.14.6.4. Catch Basin	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
	[F61-OP2.3]
	[F61-OS3.1]
9.15.1.3. Foundations for Deformation-Resistant Buildings	
(1)	[F20-OS2.2] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.2] [F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.15.2.2. Unit Masonry Construction	
(1)	[F20-OS2.1] [F20,F21,F61-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F21,F61-OS3.1] Applies to floors and elements that support floors.
	[F20,F21,F61-OH4] Applies to floors and elements that support floors.
	[F20,F21,F61-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F21,F61-OP2.4] [F20,F21,F61-OP2.3] Applies to elements that support or are part of an environmental separator.
(3)	(a) [F20-OS2.1] (a) [F20,F80-OS2.3] Applies to elements that support or are part of an environmental separator.
	(a) [F20-OP2.1] (a) [F80-OP2.4] (a) [F20,F80-OP2.3] Applies to elements that support or are part of an environmental separator.
	(a) [F20,F80-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	(a) [F20,F80-OH4] Applies to floors and elements that support floors.
	(a) [F20,F80-OS3.1] Applies to floors and elements that support floors.
	(b) [F20-OS2.1] (b) [F20,F80-OS2.3] Applies to elements that support or are part of an environmental separator.
	(b) [F20-OP2.1] (b) [F80-OP2.4] (b) [F20,F80-OP2.3] Applies to elements that support or are part of an environmental separator.
	(b) [F20,F80-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	(b) [F20,F80-OH4] Applies to floors and elements that support floors.
	(b) [F20,F80-OS3.1] Applies to floors and elements that support floors.
	(c) [F20-OS2.1] (c) [F20,F61-OS2.3] Applies to elements that support or are part of an environmental separator.
	(c) [F20-OP2.1] (c) [F61-OP2.4] (c) [F20,F61-OP2.3] Applies to elements that support or are part of an environmental separator.
	(c) [F20,F61-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	(c) [F20,F61-OH4] Applies to floors and elements that support floors.
	(c) [F20,F61-OS3.1] Applies to floors and elements that support floors.
9.15.2.3. Pier-Type Foundations	
(1)	[F20-OS2.1,OS2.2] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.2] [F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F20-OS2.1,OS2.2] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.2] [F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
(3)	[F20-OS2.1,OS2.4] [F22-OS2.4,OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
(4)	[F20-OS2.1,OS2.4] [F22-OS2.4,OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
9.15.2.4. Wood-Frame Foundations	
(1)	(a) [F20-OS2.1,OS2.2] (a) [F20,F80-OS2.3] Applies to elements that support or are part of an environmental separator.
	(a) [F20-OP2.1,OP2.2] (a) [F20,F80-OP2.3] Applies to elements that support or are part of an environmental separator.
	(a) [F20,F80-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	(a) [F20,F80-OH4] Applies to floors and elements that support floors.
	(a) [F20,F80-OS3.1] Applies to floors and elements that support floors.
9.15.3.1. Footings Required	
(1)	[F20-OS2.2] [F20,F21-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.2] [F20,F21-OP2.4] [F20,F21-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F21-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F21-OH4] Applies to floors and elements that support floors.
	[F20,F21-OS3.1] Applies to floors and elements that support floors.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.15.3.2. Support of Footings	
(1)	[F21-OS2.4] [F21-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F21-OP2.4] [F21-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F21-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F21-OH4] Applies to floors and elements that support floors.
	[F21-OS3.1] Applies to floors and elements that support floors.
(2)	[F21-OS2.1] [F21-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F21-OP2.1,OP2.4] [F21-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F21-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F21-OH4] Applies to floors and elements that support floors.
	[F21-OS3.1] Applies to floors and elements that support floors.
9.15.3.4. Basic Footing Widths and Areas	
(1)	[F20-OS2.2] [F20,F21-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F21-OP2.4] [F20,F21-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F21-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F21-OH4] Applies to floors and elements that support floors.
	[F20,F21-OS3.1] Applies to floors and elements that support floors.
(2)	[F20-OS2.2] [F20,F21-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.2] [F21-OP2.4] [F20,F21-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F21-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F21-OH4] Applies to floors and elements that support floors.
	[F20,F21-OS3.1] Applies to floors and elements that support floors.
(3)	[F20-OS2.2] [F20,F21-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.2] [F21-OP2.4] [F20,F21-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F21-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F21-OH4] Applies to floors and elements that support floors.
	[F20,F21-OS3.1] Applies to floors and elements that support floors.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.15.3.5. Adjustments to Footing Widths for Exterior Walls	
(1)	[F20-OS2.2,OS2.3] [F21-OS2.3]
	[F20-OP2.2,OP2.3] [F21-OP2.3,OP2.4]
	[F20,F21-OH1.1,OH1.2,OH1.3]
	[F20,F21-OH4] Applies to floors and elements that support floors.
	[F20,F21-OS3.1] Applies to floors and elements that support floors.
9.15.3.6. Adjustments to Footing Widths for Interior Walls	
(1)	[F20-OS2.2] [F20,F21-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.2] [F21-OP2.4] [F20,F21-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F21-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F21-OH4] Applies to floors and elements that support floors.
	[F20,F21-OS3.1] Applies to floors and elements that support floors.
(2)	[F20-OS2.2]
	[F20-OP2.2]
9.15.3.7. Adjustments to Footing Area for Columns	
(1)	[F20-OS2.2] [F20,F21-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.2] [F21-OP2.4] [F20,F21-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F21-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F21-OH4] Applies to floors and elements that support floors.
	[F20,F21-OS3.1] Applies to floors and elements that support floors.
9.15.3.8. Footing Thickness	
(1)	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
9.15.3.9. Step Footings	
(1)	[F20,F22-OS2.3,OS2.4]
	[F20,F22-OP2.3,OP2.4]
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies where the *foundation* supports or is part of an environmental separator.
	[F20,F22-OH4] Applies to *foundations* that support floors.
	[F20,F22-OS3.1] Applies to *foundations* that support floors.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
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Acceptable Solutions	Functional Statements and Objectives[1]
9.15.4.1. Permanent Form Material	
(1)	[F22,F63,F55-OH1.1,OH1.2,OH1.3]
9.15.4.2. Foundation Wall Thickness and Required Lateral Support	
(1)	[F20-OS2.1,OS2.3] [F22-OS2.3]
	[F20-OP2.1,OP2.3] [F22-OP2.3,OP2.4]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
(2)	[F20-OS2.1,OS2.3] [F22-OS2.3]
	[F20-OP2.1,OP2.3] [F22-OP2.3,OP2.4]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
(3)	[F20-OS2.1,OS2.3] [F22-OS2.3,OS2.4]
	[F20-OP2.1,OP2.3] [F22-OP2.3,OP2.4]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
(4)	[F20-OS2.1,OS2.3] [F22-OS2.3]
	[F20-OP2.1,OP2.3] [F22-OP2.3,OP2.4]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
(5)	[F20-OS2.1,OS2.3] [F22-OS2.3,OS2.4]
	[F20-OP2.1,OP2.3] [F22-OP2.3,OP2.4]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
(6)	[F20-OS2.1,OS2.3] [F22-OS2.3,OS2.4]
	[F20-OP2.1,OP2.3] [F22-OP2.3,OP2.4]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
(7)	[F20-OS2.1,OS2.3] [F22-OS2.3,OS2.4]
	[F20-OP2.1,OP2.3] [F22-OP2.3,OP2.4]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(8)	[F20-OS2.1,OS2.3] [F22-OS2.3,OS2.4]
	[F20-OP2.1,OP2.3] [F22-OP2.3,OP2.4]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
9.15.4.5. Reinforcement for Flat Insulating Concrete Form Foundation Walls	
(1)	[F20-OS2.1,OS2.3] [F22-OS2.3,OS2.4]
	[F20-OP2.1,OP2.3] [F22-OP2.3,OP2.4]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
(2)	[F20-OS2.1,OS2.3] [F22-OS2.3,OS2.4]
	[F20-OP2.1,OP2.3] [F22-OP2.3,OP2.4]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
(3)	[F20-OS2.1,OS2.3] [F22-OS2.3,OS2.4]
	[F20-OP2.1,OP2.3] [F22-OP2.3,OP2.4]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
(4)	[F20-OS2.1,OS2.3] [F22-OS2.3,OS2.4]
	[F20-OP2.1,OP2.3] [F22-OP2.3,OP2.4]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
9.15.4.6. Extension above Ground Level	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
	[F61-OP2.3]
9.15.4.7. Reduction in Thickness	
(1)	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
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Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
(3)	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
9.15.4.9. Crack Control Joints	
(1)	[F21-OS2.3]
	[F21-OP2.3]
	[F21-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
(2)	[F61-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1] [F20,F61-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F20,F61-OP2.3] Applies to elements that support or are part of an environmental separator.
9.15.5.1. Support of Floor Joists	
(1)	[F20-OS2.1] [F40,F61-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F20-OP2.3] [F40,F61-OP2.3,OP2.4] Applies to elements that support or are part of an environmental separator.
	[F20,F40,F61-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F40,F61-OH4] Applies to floors and elements that support floors.
	[F20,F40,F61-OS3.1] Applies to floors and elements that support floors.
9.15.5.2. Support of Beams	
(1)	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F80-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F80-OP2.3,OP2.4] Applies to elements that support or are part of an environmental separator.
	[F80-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F80-OH4] Applies to floors and elements that support floors.
	[F80-OS3.1] Applies to floors and elements that support floors.
9.15.5.3. Pilasters	
(1)	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
(2)	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
(3)	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
9.15.6.2. Foundation Walls above Ground	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
	[F61-OP2.3]
9.15.6.3. Form Ties	
(1)	[F61-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F30-OS3.1]
	[F61-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F61-OP2.3] Applies to elements that support or are part of an environmental separator.
9.16.1.3. Required Floors-on-Ground	
(1)	(a),(b) [F30-OS3.1]
	(a),(b) [F40-OH2.4]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
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Acceptable Solutions	Functional Statements and Objectives[1]
9.16.2.1. Required Installation of Granular Material	
(1)	[F40,F61-OH1.1] [F61,F60-OH1.2,OH1.3]
	[F60-OS2.3]
9.16.2.2. Support of Floors	
(1)	[F21-OS2.1,OS2.3]
	[F21-OP2.1,OP2.3,OP2.4]
	[F21-OH1.1,OH1.2,OH1.3]
	[F21-OS3.1]
(2)	[F21-OS2.1,OS2.3]
	[F21-OP2.1,OP2.3,OP2.4]
	[F21-OH1.1,OH1.2,OH1.3]
	[F21-OS3.1]
(3)	[F22-OS3.1]
9.16.3.1. Control of Water Ingress	
(1)	[F60-OH1.1,OH1.2,OH1.3]
	[F60-OS2.3]
	[F60-OS3.1]
9.16.3.2. Hydrostatic Pressure	
(1)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.1] [F61-OS2.3]
	[F20-OP2.1] [F61-OP2.3]
	[F20-OS3.1]
9.16.3.3. Floor Drains	
(1)	[F62-OH1.1,OH1.2,OH1.3]
	[F62-OS2.3]
	[F62-OS3.1]
9.16.4.1. Surface Finish	
(1)	[F40-OH2.4]
	[F30,F80-OS3.1]
	[F62-OH1.1,OH1.2,OH1.3]
(2)	[F41-OH1.1]
	[F20,F80-OS3.1]
9.16.4.2. Topping Course	
(1)	[F20,F80-OS3.1]
(2)	[F20,F80-OS3.1]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
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Acceptable Solutions	Functional Statements and Objectives[1]
9.16.4.3. Thickness	
(1)	[F20-OS2.1,OS2.3]
	[F20-OS3.1]
	[F20-OP2.1,OP2.3]
	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OH4]
9.16.4.4. Bond Break	
(1)	[F21-OS3.1]
9.16.5.1. Wood-Frame Floors	
(1)	[F20-OS2.1] [F20-OS2.3] Applies where wood-frame floors-on-ground serve as an environmental separator.
	[F20-OS3.1]
	[F20-OP2.1] [F20-OP2.3] Applies where wood-frame floors-on-ground serve as an environmental separator.
	[F20-OH1.1,OH1.2,OH1.3] Applies where wood-frame floors-on-ground serve as an environmental separator.
	[F20-OH4]
9.17.2.1. Location	
(1)	[F20-OS2.2] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.2,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
9.17.2.2. Lateral Support	
(1)	[F22-OS2.4,OS2.5] [F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F22-OP2.4,OP2.5] [F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F22-OS2.4,OS2.5] [F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F22-OP2.4,OP2.5] [F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
9.17.3.1. Size and Thickness	
(1)	[F20-OS2.1] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F20,F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
(2)	[F20-OS2.1] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F20,F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
9.17.3.2. End Bearing Plates	
(1)	[F20-OS2.1] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F20,F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
9.17.3.3. Paint	
(1)	[F80-OS3.1] Applies to floors and elements that support floors.
	[F80-OS2.3]
	[F80-OP2.3,OP2.4]
	[F80-OH1.1,OH1.2,OH1.3]
	[F80-OH4] Applies to floors and elements that support floors.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
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Acceptable Solutions	Functional Statements and Objectives[1]
9.17.3.4. Design of Steel Columns	
(1)	[F20-OS2.1] [F22-OS2.4] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors. [F20,F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
9.17.4.1. Column Sizes	
(1)	[F20-OS2.1] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F20,F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
(2)	[F20-OS2.1] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F20,F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
9.17.4.2. Materials	
(1)	[F20-OS2.1] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F20,F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
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Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F20-OS2.1] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F20,F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
9.17.4.3. Columns in Contact with Concrete	
(1)	[F80-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F80-OP2.4] [F80-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F80-OH4] Applies to floors and elements that support floors.
	[F80-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F80-OS3.1] Applies to floors and elements that support floors.
9.17.5.1. Materials	
(1)	[F20-OS2.1] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F20,F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
9.17.5.2. Sizes	
(1)	[F20-OS2.1] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F20,F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
9.17.6.2. Sizes	
(1)	[F20-OS2.1] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F20,F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.18.2.1. Access Openings	
(1)	[F82-OH1.1,OH1.2]
(2)	[F51,F63-OS2.3] Applies where crawl spaces are unheated and access is from the interior. [F42,F61-OS2.3] Applies where crawl spaces are heated or unheated and access is from the exterior.
	[F63-OS2.3] Applies where crawl spaces are unheated and access is from the interior. [F42,F61-OS2.3] Applies where crawl spaces are heated or unheated and access is from the exterior.
	[F42-OH2.4,OH2.5] Applies where crawl spaces are heated or unheated and access is from the exterior.
9.18.3.1. Ventilation of Unheated Crawl Spaces	
(1)	[F62-OH1.1]
	[F62-OS2.3]
(2)	[F62-OH1.1]
	[F62-OS2.3]
(3)	(a) [F62-OH1.1,OH1.2] (b) [F61,F42-OH1.1,OH1.2]
	(a),(b) [F61,F62,F42-OS2.3]
	(b) [F42-OH2.3,OH2.5]
9.18.4.1. Access Way to Services	
(1)	[F82-OH1.1,OH1.2]
	[F82-OH2.1]
9.18.5.1. Drainage	
(1)	[F60-OH1.1,OH1.2]
	[F60-OS2.3]
9.18.6.1. Ground Cover in Unheated Crawl Spaces	
(1)	[F61-OH1.1,OH1.2]
	[F61-OS2.3]
(2)	[F61-OH1.1,OH1.2]
	[F61-OS2.3]
9.18.6.2. Ground Cover in Heated Crawl Spaces	
(1)	[F40,F61-OH1.1] [F61-OH1.2]
	[F61-OS2.3]
(2)	[F40,F61-OH1.1] [F61-OH1.2]
	[F61-OS2.3]
(3)	[F40-OH1.1]
(4)	[F40,F61-OH1.1]
	[F61-OS2.3]
9.18.7.1. Crawl Spaces as Warm Air Plenums	
(1)	[F51-OH1.1,OH1.2]
	[F51-OS2.3]
(2)	[F02-OS1.2]
(3)	[F01-OS1.1]
(4)	(a),(b) [F01-OS1.1]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.19.1.1. Required Venting	
(1)	[F51,F62-OH1.1,OH1.2] [F51-OH1.3] Applies to sloped roof assemblies that may be subject to ice damming.
	[F62,F51-OS2.3]
9.19.1.2. Vent Requirements	
(1)	[F51,F62-OH1.1,OH1.2] [F51-OH1.3] Applies to sloped roof assemblies that may be subject to ice damming.
	[F62,F51-OS2.3]
(2)	[F51,F62-OH1.1,OH1.2] [F51-OH1.3] Applies to sloped roof assemblies that may be subject to ice damming.
	[F62,F51-OS2.3]
(3)	[F51,F62-OH1.1,OH1.2] [F51-OH1.3] Applies to sloped roof assemblies that may be subject to ice damming.
	[F62,F51-OS2.3]
(4)	[F51,F62-OH1.1,OH1.2] [F51-OH1.3] Applies to sloped roof assemblies that may be subject to ice damming.
	[F62,F51-OS2.3]
(5)	[F42,F51,F61,F62-OS2.3]
	[F42-OH1.1] Applies to resistance to the entry of insects. [F51,F61,F62-OH1.1,OH1.2,OH1.3]
	[F42-OH2.5] Applies to resistance to the entry of insects.
9.19.1.3. Clearances	
(1)	[F62,F51-OH1.1,OH1.2,OH1.3]
	[F62,F51-OS2.3]
(2)	[F62,F51-OH1.1,OH1.2,OH1.3]
	[F62,F51-OS2.3]
(3)	[F51,F62-OH1.1,OH1.2,OH1.3]
	[F51,F62-OS2.3]
9.19.2.1. Access	
(1)	[F82-OS2.3]
	[F82-OH1.1,OH1.2,OH1.3]
(2)	[F82-OH1.1,OH1.2]
	[F82-OS2.3]
(3)	[F42-OH1.1] [F61-OH1.1,OH1.2,OH1.3] Applies where access is from the exterior. [F42-OH1.1] Applies where access is from an unheated enclosed space. [F51-OH1.2] Applies where access is from an interior heated space.
	[F61,F42-OS2.3] Applies where access is from the exterior or an unheated enclosed space.
	[F42-OH2.5] Applies where access is from the exterior or an unheated enclosed space.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.20.2.1. Masonry Unit Standards	
(1)	[F20,F80-OS2.1] [F20,F80-OS2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20,F80-OP2.1,OP2.4] [F20,F80-OP2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20,F80-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator and to masonry used in *chimneys* and fireplaces.
	[F20,F80-OS3.1] Applies to floors and elements that support floors. [F20,F80-OS3.4] Applies to masonry used in *chimneys* and fireplaces.
	[F20,F80-OS1.2] Applies to assemblies required to provide fire resistance. [F01-OS1.1,OS1.2] Applies to masonry used in *chimneys* and fireplaces.
	[F20,F80-OH4] Applies to floors and elements that support floors.
	[F20,F80-OP1.2] Applies to assemblies required to provide fire resistance. [F01,F20,F80-OP1.2] Applies to masonry used in *chimneys* and fireplaces.
9.20.2.2. Used Brick	
(1)	[F20,F80-OS2.1] [F20,F80-OS2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20,F80-OP2.1,OP2.4] [F20,F80-OP2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20,F80-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator and to masonry used in *chimneys* and fireplaces.
	[F20,F80-OS1.2] Applies to assemblies required to provide fire resistance. [F01-OS1.1,OS1.2] Applies to masonry used in *chimneys* and fireplaces.
	[F20,F80-OS3.1] Applies to floors and elements that support floors. [F20,F80-OS3.4] Applies to masonry used in *chimneys* and fireplaces.
	[F20,F80-OH4] Applies to floors and elements that support floors.
	[F20,F80-OP1.2] Applies to assemblies required to provide fire resistance. [F01-OP1.2] Applies to masonry used in *chimneys* and fireplaces.
9.20.2.3. Glass Blocks	
(1)	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator and to masonry used in *chimneys* and fireplaces.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors. [F01,F20-OS3.4] Applies to masonry used in *chimneys* and fireplaces.
	[F01,F20-OS1.1] [F20-OS1.2] Applies to assemblies required to provide fire resistance.
	[F01,F20-OP1.1] [F20-OP1.2] Applies to assemblies required to provide fire resistance.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.20.2.4. Cellular Concrete	
(1)	[F80-OS2.1] [F80-OS2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F80-OP2.1,OP2.4] [F80-OP2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F80-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator and to masonry used in *chimneys* and fireplaces.
	[F80-OH4] Applies to floors and elements that support floors.
	[F80-OS3.1] Applies to floors and elements that support floors. [F80-OS3.4] Applies to masonry used in *chimneys* and fireplaces.
	[F80-OP1.2] Applies to masonry used in *chimneys* and fireplaces.
	[F80-OS1.2] Applies to masonry used in *chimneys* and fireplaces.
9.20.2.5. Stone	
(1)	[F20,F80-OS2.1] [F20,F80-OS2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20,F80-OP2.1,OP2.4] [F20,F80-OP2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20,F80-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator and to masonry used in *chimneys* and fireplaces.
	[F20,F80-OS1.2] Applies to assemblies required to provide fire resistance. [F01-OS1.1,OS1.2] Applies to masonry used in *chimneys* and fireplaces.
	[F20,F80-OH4] Applies to floors and elements that support floors.
	[F20,F80-OP1.2] Applies to assemblies required to provide fire resistance. [F01,F20,F80-OP1.2] Applies to masonry used in *chimneys* and fireplaces.
9.20.2.6. Concrete Blocks Exposed to the Weather	
(1)	[F80-OS2.1,OS2.3] [F61-OS2.3]
	[F80-OP2.1,OP2.3] [F61-OP2.3]
	[F61,F80-OH1.1,OH1.2,OH1.3]
	[F80-OH4] Applies to floors and elements that support floors.
	[F80-OS3.1] Applies to elements that support floors. [F80-OS3.4] Applies to masonry used in *chimneys* and fireplaces.
	[F80-OP1.2] Applies to concrete blocks in *chimneys* and fireplaces.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.20.2.7. Compressive Strength	
(1)	[F20,F80-OS2.1] [F20,F80-OS2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20,F80-OP2.1,OP2.4] [F20,F80-OP2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20,F80-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator and to masonry used in *chimneys* and fireplaces.
	[F20,F80-OS1.2] Applies to assemblies required to provide fire resistance. [F01-OS1.1,OS1.2] Applies to masonry used in *chimneys* and fireplaces.
	[F20,F80-OH4] Applies to floors and elements that support floors.
	[F20,F80-OS3.1] Applies to floors and elements that support floors. [F20,F80-OS3.4] Applies to masonry used in *chimneys* and fireplaces.
	[F20,F80-OP1.2] Applies to assemblies required to provide fire resistance. [F01,F20,F80-OP1.2] Applies to masonry used in *chimneys* and fireplaces.
9.20.3.1. Mortar Materials	
(1)	[F20,F80-OS2.1] [F20,F80-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F80-OP2.1,OP2.4] [F20,F80-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F80-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator and to masonry used in *chimneys* and fireplaces.
	[F20,F80-OH4] Applies to floors and elements that support floors.
	[F20,F80-OS3.1] Applies to floors and elements that support floors.
	[F20,F80-OS1.2] Applies to assemblies required to provide fire resistance.
(2)	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
(3)	[F21-OS2.1] [F21-OS2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F21-OP2.1,OP2.4] [F21-OP2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F21-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator and to masonry used in *chimneys* and fireplaces.
	[F21-OS1.2] Applies to assemblies required to provide fire resistance.
	[F21-OH4] Applies to floors and elements that support floors.
	[F21-OS3.1] Applies to floors and elements that support floors.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(4)	[F21-OS2.1] [F21-OS2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F21-OP2.1,OP2.4] [F21-OP2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F21-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator and to masonry used in *chimneys* and fireplaces.
	[F21-OS1.2] Applies to assemblies required to provide fire resistance.
	[F21-OH4] Applies to floors and elements that support floors.
	[F21-OS3.1] Applies to floors and elements that support floors.
9.20.3.2. Mortar and Grout Mixes	
(1)	[F20,F21,F61-OS2.1] [F20,F21,F61-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F21,F61-OP2.1,OP2.4] [F20,F21,F61-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F21,F61-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator and to masonry used in *chimneys* and fireplaces.
	[F20,F21,F61-OH4] Applies to floors and elements that support floors.
	[F20,F21,F61-OS3.1] Applies to floors and elements that support floors.
	[F20,F21-OS1.2] Applies to assemblies required to provide fire resistance.
(2)	(a) [F21,F61,F55-OS2.1,OS2.3]
	(a) [F21,F61,F55-OP2.1,OP2.3]
	(a) [F21,F61,F55-OH1.1,OH1.2,OH1.3]
	(b) [F21-OS2.1]
	(b) [F21-OP2.1]
	(b) [F21,F44-OS1.2] Applies to assemblies required to provide fire resistance.
(3)	[F20,F21,F61-OS2.1] [F20,F21,F61-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F21,F61-OP2.1,OP2.4] [F20,F21,F61-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F21,F61-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator and to masonry used in *chimneys* and fireplaces.
	[F20,F21,F61-OH4] Applies to floors and elements that support floors.
	[F20,F21,F61-OS3.1] Applies to floors and elements that support floors.
	[F20,F21-OS1.2] Applies to assemblies required to provide fire resistance.
(4)	[F20,F21-OS2.1] [F20,F21-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F21-OP2.1,OP2.4] [F20,F21-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F21-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator and to masonry used in *chimneys* and fireplaces.
	[F20,F21-OH4] Applies to floors and elements that support floors.
	[F20,F21-OS3.1] Applies to floors and elements that support floors.
	[F20,F21-OS1.2] Applies to assemblies required to provide fire resistance.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(5)	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator and to masonry used in *chimneys* and fireplaces.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
	[F20-OS1.2] Applies to assemblies required to provide fire resistance.
(6)	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator and to masonry used in *chimneys* and fireplaces.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
	[F20-OS1.2] Applies to assemblies required to provide fire resistance.
(7)	[F20,F21,F61-OS2.1] [F20,F21,F61-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F21,F61-OP2.1,OP2.4] [F20,F21,F61-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F21,F61-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator and to masonry used in *chimneys* and fireplaces.
	[F20,F21,F61-OH4] Applies to floors and elements that support floors.
	[F20,F21,F61-OS3.1] Applies to floors and elements that support floors.
	[F20,F21,F61-OS1.2] Applies to assemblies required to provide fire resistance.
9.20.4.1. Thickness	
(1)	[F20,F61-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F61-OS2.1] [F20,F61-OS2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20,F61-OP2.1,OP2.4] [F20,F61-OP2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20,F61-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20,F61-OH4] Applies to floors and elements that support floors.
	[F20,F61-OS3.1] Applies to floors and elements that support floors.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F20,F61-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F61-OS2.1] [F20,F61-OS2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20,F61-OP2.1,OP2.4] [F20,F61-OP2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20,F61-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20,F61-OH4] Applies to floors and elements that support floors.
	[F20,F61-OS3.1] Applies to floors and elements that support floors.
9.20.4.2. Solid Masonry Units	
(1)	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator and to masonry used in *chimneys* and fireplaces.
	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
9.20.4.3. Laying of Masonry Units	
(1)	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator and to masonry used in *chimneys* and fireplaces.
	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
(2)	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator and to masonry used in *chimneys* and fireplaces.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
	[F20-OS1.2] Applies to assemblies required to provide fire resistance.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(3)	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator and to masonry used in *chimneys* and fireplaces.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
	[F20-OS1.2] Applies to assemblies required to provide fire resistance.
9.20.5.1. Masonry Support	
(1)	[F20,F21-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F21-OS2.1] [F20,F21-OS2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20,F21-OP2.1,OP2.4] [F20,F21-OP2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20,F21-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20,F21-OH4] Applies to floors and elements that support floors.
	[F20,F21-OS3.1] Applies to floors and elements that support floors.
(2)	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
9.20.5.2. Lintels or Arches	
(1)	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS2.1] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20,F22-OP2.1,OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS2.1] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OP2.1,OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
(4)	[F80-OS2.1] [F80-OS2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F80-OP2.1,OP2.4] [F80-OP2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F80-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F80-OS1.2] Applies to assemblies required to provide fire resistance.
	[F80-OH4] Applies to floors and elements that support floors.
	[F80-OS3.1] Applies to floors and elements that support floors. [F80-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
9.20.6.1. Thickness of Exterior Walls	
(1)	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
(2)	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(3)	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
9.20.6.2. Cavity Walls	
(1)	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20-OP2.1,OP2.4,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
(2)	[F20,F22,F61-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22,F61-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4,OP2.5] [F22-OP2.4,OP2.5] [F20,F22,F61-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
	[F61-OS1.2] Applies to assemblies required to provide fire resistance.
(3)	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20-OP2.1,OP2.4,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.20.6.3. Thickness of Interior Walls	
(2)	(b) [F20-OS2.1,OS2.3,OS2.5] [F22-OS2.5]
	(b) [F20-OP2.1,OP2.3,OP2.5] [F22-OP2.5]
9.20.6.4. Masonry Veneer	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.5] [F20,F22-OP2.3] Applies to elements that are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
(2)	[F61-OS2.3]
	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OP2.3]
	[F61-OS1.2] Applies to assemblies required to provide fire resistance.
(3)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
9.20.6.5. Parapet Walls	
(1)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
(2)	[F61-OS2.3]
	[F61-OP2.3]
	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS1.2]
9.20.7.1. Maximum Dimensions	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.20.7.2. Minimum Wall Thickness	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
(2)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
9.20.7.3. Separation of Chases or Recesses	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
9.20.7.4. Non-Conforming Chases or Recesses	
(1)	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
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Acceptable Solutions	Functional Statements and Objectives[1]
9.20.7.5. Chases or Recesses Cut into Walls	
(1)	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
9.20.8.1. Capping of Hollow Masonry Walls	
(1)	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
(2)	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
9.20.8.2. Cavity Walls Supporting Framing Members	
(1)	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
(2)	[F80-OS2.3]
	[F80-OP2.3]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(3)	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
9.20.8.3. Bearing of Beams and Joists	
(1)	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
(2)	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
(3)	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
9.20.8.4. Support of Beams and Columns	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
(2)	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(3)	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
(4)	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
(5)	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
9.20.8.5. Distance to Edge of Supporting Members	
(1)	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
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Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
9.20.9.1. Joints to be Offset or Reinforced	
(1)	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
(2)	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
9.20.9.2. Bonding or Tying of Other than Masonry Veneer	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors. [F20,F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.20.9.3. Bonding	
(1)	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
(2)	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
(3)	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
9.20.9.4. Tying	
(2)	[F20,F80-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F80-OS2.1] [F20,F80-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F80-OP2.1,OP2.4] [F20,F80-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F80-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20,F80-OH4] Applies to floors and elements that support floors.
	[F20,F80-OS3.1] Applies to floors and elements that support floors. [F20,F80-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(3)	[F20,F80-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F80-OS2.1] [F20,F80-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F80-OP2.1,OP2.4] [F20,F80-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F80-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20,F80-OH4] Applies to floors and elements that support floors.
	[F20,F80-OS3.1] Applies to floors and elements that support floors. [F20,F80-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(4)	[F20,F80-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F80-OS2.1] [F20,F80-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F80-OP2.1,OP2.4] [F20,F80-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F80-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20,F80-OH4] Applies to floors and elements that support floors.
	[F20,F80-OS3.1] Applies to floors and elements that support floors. [F20,F80-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(5)	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
(6)	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(7)	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
(8)	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS3.1] Applies to floors and elements that support floors.
(9)	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
9.20.9.5. Ties for Masonry Veneer	
(1)	[F20,F22,F80-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F80-OS2.1] [F20,F22,F80-OS2.5] [F20,F22,F80-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F80-OP2.1] [F20,F22,F80-OP2.5] [F20,F22,F80-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22,F80-OS1.2] Applies to assemblies required to provide fire resistance.
(2)	[F20,F80-OS2.1] [F20,F80-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F80-OP2.1] [F20,F80-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F80-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F80-OS1.2] Applies to assemblies required to provide fire resistance.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.20.9.6. Reinforcing for Glass Block	
(1)	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that are part of an environmental separator.
	[F20-OS2.1] [F20-OS2.3] Applies to elements that are part of an environmental separator.
	[F20-OP2.1] [F20-OP2.3] Applies to elements that are part of an environmental separator.
	[F20-OS1.2] Applies to assemblies required to provide fire resistance.
(2)	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that are part of an environmental separator.
	[F20-OS2.1] [F20-OS2.3] Applies to elements that are part of an environmental separator.
	[F20-OP2.1] [F20-OP2.3] Applies to elements that are part of an environmental separator.
	[F20-OS1.2] Applies to assemblies required to provide fire resistance.
9.20.10.1. Lateral Support Required	
(1)	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1] [F20,F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F20,F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
(2)	(a) [F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1] [F20,F22-OS2.5] (a) [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F20,F22-OP2.5] (a) [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	(a) [F20,F22-OH4] Applies to floors and elements that support floors.
	(a) [F20,F22-OS3.1] Applies to floors and elements that support floors.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(4)	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1] [F20,F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20-OP2.1] [F20,F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
9.20.11.1. Anchorage to Floor or Roof Assemblies where Masonry Walls Require Lateral Support	
(1)	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1] [F20,F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F20,F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
(2)	[F20,F80-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F80-OS2.1] [F20,F80-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F80-OP2.1,OP2.4] [F20,F80-OP2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20,F80-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20,F80-OH4] Applies to floors and elements that support floors.
	[F20,F80-OS3.1] Applies to floors and elements that support floors. [F20,F80-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(3)	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(4)	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1] [F20,F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F20,F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
9.20.11.2. Bonding and Tying Intersecting Masonry Walls where Walls Require Lateral Support	
(1)	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1] [F20,F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F20,F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
(2)	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
(3)	[F20,F80-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20,F80-OS2.1] [F20,F80-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F80-OP2.1,OP2.4] [F20,F80-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F80-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F80-OH4] Applies to floors and elements that support floors.
	[F20,F80-OS3.1] Applies to floors and elements that support floors. [F20,F80-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.20.11.3. Anchoring Intersecting Wood-Frame Walls to Masonry Walls	
(1)	[F20,F22,F80-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F80-OS2.1] [F20,F22,F80-OS2.5] [F20,F22,F80-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F80-OP2.1] [F20,F22,F80-OP2.4,OP2.5] [F20,F22,F80-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22,F80-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20,F22,F80-OH4] Applies to floors and elements that support floors.
	[F20,F22,F80-OS3.1] Applies to floors and elements that support floors. [F20,F22,F80-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(2)	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
9.20.11.4. Anchoring Wood-Frame Roof Systems to Masonry Walls	
(1)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.1,OS2.3]
	[F20-OP2.1,OP2.3]
(2)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.1,OS2.3]
	[F20-OP2.1,OP2.3]
9.20.11.5. Anchoring Masonry Cornices, Sills and Trim to Masonry Walls	
(1)	[F20,F80-OS2.1,OS2.3,OS2.5] [F22-OS2.5]
9.20.11.6. Anchoring to Masonry Piers	
(1)	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
	[F20-OS1.2] Applies to assemblies required to provide fire resistance.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.20.12.1. Corbelling	
(1)	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
(2)	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
9.20.12.2. Corbelling for Cavity Walls	
(1)	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
(2)	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
9.20.12.3. Corbelling for Masonry Veneer	
(1)	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
(2)	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.20.13.1. Materials for Flashing	
(1)	[F80-OS2.1,OS2.3]
	[F80-OP2.1,OP2.3]
	[F80-OH1.1,OH1.2,OH1.3]
	[F80-OS1.2] Applies to assemblies required to provide fire resistance.
(2)	[F80-OS2.1,OS2.3]
	[F80-OP2.1,OP2.3]
	[F80-OH1.1,OH1.2,OH1.3]
	[F80-OS1.2] Applies to assemblies required to provide fire resistance.
9.20.13.2. Fastening of Flashing	
(1)	[F80-OH1.1,OH1.2,OH1.3]
	[F80-OS2.1,OS2.3]
	[F80-OP2.1,OP2.3]
	[F80-OS1.2] Applies to assemblies required to provide fire resistance.
9.20.13.3. Location of Flashing	
(1)	[F61,F62-OS2.1,OS2.3]
	[F61,F62-OP2.1,OP2.3]
	[F61,F62-OH1.1,OH1.2,OH1.3]
9.20.13.4. Extension of Flashing	
(1)	[F61-OS2.1,OS2.3]
	[F61-OP2.1,OP2.3]
	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS1.2] Applies to assemblies required to provide fire resistance.
9.20.13.5. Flashing for Weep Holes in Masonry/Masonry Walls	
(1)	[F61,F62-OH1.1,OH1.2,OH1.3]
	[F61,F62-OS2.1,OS2.3]
	[F61,F62-OP2.1,OP2.3]
	[F61,F62-OS1.2] Applies to assemblies required to provide fire resistance.
9.20.13.6. Flashing for Weep Holes in Masonry Veneer	
(2)	[F61,F62-OS2.1,OS2.3]
	[F61,F62-OP2.1,OP2.3]
	[F61,F62-OH1.1,OH1.2,OH1.3]
	[F61,F62-OS1.2] Applies to assemblies required to provide fire resistance.
(3)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.1,OS2.3]
	[F61-OP2.1,OP2.3]
	[F61-OS1.2] Applies to assemblies required to provide fire resistance.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
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Acceptable Solutions	Functional Statements and Objectives[1]
9.20.13.7. Flashing Joints	
(1)	[F61,F62-OH1.1,OH1.2,OH1.3]
	[F61,F62-OS2.1,OS2.3]
	[F61,F62-OP2.1,OP2.3]
	[F61,F62-OS1.2] Applies to assemblies required to provide fire resistance.
9.20.13.8. Required Weep Holes	
(1)	[F62-OS2.1,OS2.3]
	[F62-OP2.1,OP2.3]
	[F62-OH1.1,OH1.2,OH1.3]
	[F62-OS1.2] Applies to assemblies required to provide fire resistance.
9.20.13.9. Protection of Interior Finish	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.1,OS2.3]
	[F61-OP2.1,OP2.3]
(2)	[F61,F62-OS2.1,OS2.3]
	[F61,F62-OP2.1,OP2.3]
	[F61,F62-OH1.1,OH1.2,OH1.3]
9.20.13.10. Mortar Droppings	
(1)	[F61,F62-OH1.1,OH1.2,OH1.3]
	[F61,F62-OS2.1,OS2.3]
	[F61,F62-OP2.1,OP2.3]
	[F61,F62-OS1.2] Applies to assemblies required to provide fire resistance.
9.20.13.12. Drips beneath Window Sills	
(1)	[F61,F62-OH1.1,OH1.2,OH1.3]
	[F61,F62-OS2.1,OS2.3]
	[F61,F62-OP2.1,OP2.3]
	[F61,F62-OS1.2] Applies to assemblies required to provide fire resistance.
9.20.14.1. Laying Temperature of Mortar and Masonry	
(1)	[F20,F80-OS2.1] [F20,F80-OS2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20,F80-OP2.1,OP2.4] [F20,F80-OP2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20,F80-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F80-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20,F80-OH4] Applies to floors and elements that support floors.
	[F20,F80-OS3.1] Applies to floors and elements that support floors. [F20,F80-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F20,F80-OS2.1] [F20,F80-OS2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20,F80-OP2.1,OP2.4] [F20,F80-OP2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F20,F80-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F80-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20,F80-OH4] Applies to floors and elements that support floors.
	[F20,F80-OS3.1] Applies to floors and elements that support floors. [F20,F80-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
9.20.14.2. Protection from Weather	
(1)	[F80-OS2.1,OS2.3]
	[F80-OP2.1,OP2.3]
9.20.15.1. Amount of Reinforcement	
(1)	[F20-OS2.1,OS2.3]
	[F20-OP2.1,OP2.3]
9.20.15.2. Installation Standard	
(1)	[F20-OS2.1,OS2.3]
	[F20-OP2.1,OP2.3]
9.20.16.1. Corrosion Resistance of Connectors	
(1)	[F80-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F80-OS2.1] [F80-OS2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F80-OP2.1,OP2.4] [F80-OP2.3] Applies to elements that support or are part of an environmental separator or are exposed to moisture.
	[F80-OS1.2] Applies to assemblies required to provide fire resistance.
	[F80-OH4] Applies to floors and elements that support floors.
	[F80-OS3.1] Applies to floors and elements that support floors. [F80-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
9.20.17.1. Thickness of Flat Insulating Concrete Form Walls	
(1)	[F20-OS2.1] [F22-OS2.4] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors. [F20,F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.20.17.2. Reinforcement for Flat Insulating Concrete Form Walls	
(1)	[F20-OS2.1] [F22-OS2.4] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors. [F20,F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(2)	[F20-OS2.1] [F22-OS2.4] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors. [F20,F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(3)	[F20-OS2.1] [F22-OS2.4] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors. [F20,F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
9.20.17.3. Openings in Non-Loadbearing Flat Insulating Concrete Form Walls	
(1)	[F20-OS2.1,OS2.3] [F22-OS2.3,OS2.4]
	[F20-OP2.1,OP2.3] [F22-OP2.3,OP2.4]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors. [F20,F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F20-OS2.1] [F22-OS2.4] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors. [F20,F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(3)	[F20-OS2.1] [F22-OS2.4] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors. [F20,F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(4)	[F20-OS2.1] [F22-OS2.4] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors. [F20,F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(5)	[F20-OS2.1] [F22-OS2.4] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors. [F20,F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(6)	[F20-OS2.1] [F22-OS2.4] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors. [F20,F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
9.20.17.4. Openings in Loadbearing Flat Insulating Concrete Form Walls	
(1)	[F20-OS2.1] [F22-OS2.4] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors. [F20,F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(2)	[F20-OS2.1] [F22-OS2.4] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors. [F20,F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(3)	[F20-OS2.1] [F22-OS2.4] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors. [F20,F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(4)	[F20-OS2.1] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
9.20.17.5. Framing Supported on Flat Insulating Concrete Form Walls	
(1)	[F20-OS2.1] [F22-OS2.4] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4]
	[F20,F22-OS3.1]
(2)	[F20-OS2.1] [F22-OS2.4] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4]
	[F20,F22-OS3.1]
(3)	[F20-OS2.1] [F22-OS2.4] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4]
	[F20,F22-OS3.1]
9.20.17.6. Anchoring of Roof Framing to the Top of Flat Insulating Concrete Form Walls	
(1)	[F20-OS2.1,OS2.3] [F22-OS2.3,OS2.4]
	[F20-OP2.1,OP2.3] [F22-OP2.3,OP2.4]
	[F20,F22-OH1.1,OH1.2,OH1.3]
(2)	[F20-OS2.1,OS2.3] [F22-OS2.3,OS2.4]
	[F20-OP2.1,OP2.3] [F22-OP2.3,OP2.4]
	[F20-OH1.1,OH1.2,OH1.3]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.21.1.2. Chimney or Flue Pipe Walls	
(1)	[F01-OS1.1] Applies to the walls of any *chimney* or *flue pipe*, which are required to be constructed to be flame-tight.
	[F44-OH1.1] Applies to the walls of any *chimney* or *flue pipe*, which are required to be constructed to be smoke-tight.
	[F01-OP1.1] Applies to the walls of any *chimney* or *flue pipe*, which are required to be constructed to be flame-tight.
9.21.2.1. Chimney Flue Limitations	
(1)	[F44-OH1.1]
	[F44-OS3.4]
(2)	[F44-OH1.1]
	[F44-OS3.4]
(3)	[F44-OS3.4]
	[F44-OH1.1]
9.21.2.2. Connections of More Than One Appliance	
(1)	[F44-OH1.1]
	[F44-OS3.4]
(2)	[F44-OS3.4]
(3)	[F44-OH1.1]
	[F44-OS3.4]
(4)	[F44-OH1.1]
	[F44-OS3.4]
9.21.2.3. Inclined Chimney Flues	
(1)	[F44-OH1.1]
	[F44-OS3.4]
9.21.2.4. Size of Chimney Flues	
(2)	[F44-OH1.1]
	[F44-OS3.4]
9.21.2.5. Fireplace Chimneys	
(1)	[F44-OH1.1]
	[F44-OS3.4]
9.21.2.6. Oval Chimney Flues	
(1)	[F44-OH1.1]
	[F44-OS3.4]
9.21.3.1. Lining Materials	
(1)	[F20-OS2.3]
	[F20-OH1.1]
	[F01-OS1.1]
	[F44-OS3.4]
	[F44,F01,F20-OP1.1]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.21.3.2. Joints in Chimney Liners	
(1)	[F44-OH1.1]
	[F44,F20-OS2.3]
	[F01-OS1.1]
	[F01-OP1.1]
	[F01-OS3.4]
(2)	[F01-OS1.1]
	[F44-OS3.4]
	[F01-OP1.1]
	[F44-OH1.1]
9.21.3.3. Clay Liners	
(1)	[F20-OS2.2]
	[F01-OS1.1]
	[F20,F44-OS3.4]
	[F20,F44-OH1.1]
	[F20,F01-OP1.1]
(2)	[F44-OH1.1]
	[F01,F20-OP1.1]
	[F44-OS3.4]
	[F01,F20-OS1.1]
	[F20-OS2.3] Applies to the liners referred to in Sentence 9.21.3.3.(1), which are required to be not less than 15.9 mm thick.
9.21.3.4. Firebrick Liners	
(1)	[F20,F44-OS3.4]
	[F44-OH1.1]
	[F01-OS1.1]
	[F01-OP1.1]
(2)	[F20-OH1.1]
	[F20,F01-OS1.1]
	[F20-OS2.2]
	[F20,F44-OS3.4]
	[F01,F20-OP1.1]
9.21.3.5. Concrete Liners	
(1)	[F01,F20-OS1.1]
	[F44-OH1.1]
	[F20,F44-OS3.4]
	[F01-OP1.1]
	[F20-OS2.3]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.21.3.6. Metal Liners	
(1)	[F20,F44-OH1.1]
	[F01,F20-OP1.1]
	[F20,F44-OS3.4]
	[F20,F01-OS1.1]
	[F20-OS2.3]
(2)	[F44-OH1.1]
	[F20-OS2.3]
	[F20-OP1.1]
	[F20,F44-OS3.4]
	[F20,F01-OS1.1]
9.21.3.7. Installation of Chimney Liners	
(1)	[F44-OH1.1]
	[F01-OP1.1]
	[F44-OS3.4]
	[F01-OS1.1]
	[F20-OS2.3]
9.21.3.8. Spaces between Liners and Surrounding Masonry	
(1)	[F01-OP1.1]
	[F20-OS2.3]
	[F01-OS1.1]
(2)	[F20-OS1.1]
	[F44-OH1.1]
	[F44-OS3.4]
	[F01-OP1.1]
	[F20-OS2.3]
9.21.3.9. Mortar for Chimney Liners	
(1)	(b) [F20-OS2.3]
	(a),(b) [F01,F20-OP1.1]
	[F20,F44-OH1.1]
	[F20,F44-OS3.4]
	(a),(b) [F01,F20-OS1.1]
(2)	[F20,F01-OP1.1]
	[F20,F44-OH1.1]
	[F20-OS2.3]
	[F44-OS3.4]
	[F20,F01-OS1.1]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.21.3.10. Extension of Chimney Liners	
(1)	[F20-OS2.3]
	[F44,F20-OH1.1]
	[F44-OS3.4]
	[F01-OS1.1]
	[F01-OP1.1]
9.21.4.4. Height of Chimney Flues	
(1)	(a),(b) [F44-OH1.1]
	(a),(b) [F44-OS3.4]
9.21.4.6. Chimney Caps	
(1)	[F20-OS2.3]
	[F01-OS1.1]
	[F01-OP1.1]
	[F20,F44-OH1.1]
	[F44-OS3.4]
(2)	[F20-OS2.3]
(3)	[F20-OS2.3]
	[F20,F01-OS1.1]
	[F20,F01-OP1.1]
	[F20,F44-OS3.4]
(4)	[F20-OS2.3]
	[F20,F01-OS1.1]
	[F20,F01-OP1.1]
	[F20,F44-OH1.1]
	[F20,F44-OS3.4]
9.21.4.7. Cleanout	
(1)	[F01-OP1.1]
	[F01-OS1.1]
9.21.4.8. Wall Thickness	
(1)	[F20,F22-OS2.1]
	[F01-OP1.1]
	[F01-OS1.1]
	[F22-OP2.1]
9.21.4.9. Separation of Flue Liners	
(1)	[F20,F44-OH1.1]
	[F20,F01-OP1.1]
	[F20,F22-OS2.3]
	[F44-OS3.4]
	[F01-OS1.1]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F20,F22-OS2.3]
	[F20,F44-OH1.1]
	[F20,F44-OS3.4]
	[F01-OS1.1]
9.21.4.10. Flashing	
(1)	[F20,F61-OS2.3]
9.21.5.1. Clearance from Combustible Materials	
(1)	(a),(b) [F01-OP1.1]
	(a),(b) [F01-OS1.1]
(2)	[F01-OP1.1]
	[F01-OS1.1]
(3)	[F01-OP1.1]
	[F01-OS1.1]
9.21.5.2. Sealing of Spaces	
(1)	[F01-OP1.1]
	[F01-OS1.1]
9.21.5.3. Support of Joists or Beams	
(1)	[F01-OP1.1]
	[F01-OS1.1]
9.22.1.2. Masonry and Concrete	
(2)	[F22,F20-OS2.3]
9.22.1.4. Combustion Air	
(1)	[F01-OS1.1]
	[F01-OP1.1]
9.22.2.1. Brick or Steel Liners	
(1)	[F20,F01-OS1.1]
	[F20,F01-OP1.1]
9.22.2.2. Firebrick Liners	
(1)	(a),(b) [F01-OS1.1]
	(a),(b) [F01-OP1.1]
(2)	[F01-OS1.1]
	[F01-OP1.1]
(3)	[F01-OS1.1]
	[F01-OP1.1]
9.22.2.3. Steel Liners	
(1)	[F44-OH1.1]
	[F01-OS1.1]
	[F44-OS3.4]
	[F01-OP1.1]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.22.3.1. Thickness of Walls	
(1)	[F01-OS1.1]
	[F01-OP1.1]
(2)	(a),(b) [F01-OS1.1]
	(a),(b) [F01-OP1.1]
9.22.4.1. Fire Chamber Dimensions	
(1)	[F44-OH1.1]
	[F44-OS3.4]
9.22.5.1. Hearth Extension	
(1)	[F01-OS1.1]
	[F01-OP1.1]
(2)	(a),(b) [F01-OS1.1]
	(a),(b) [F01-OP1.1]
9.22.5.2. Support of Hearth	
(1)	[F01-OS1.1]
	[F20-OS2.3]
	[F20,F01-OP1.1]
(2)	[F01-OS1.1]
	[F01-OP1.1]
9.22.6.1. Required Damper and Size	
(1)	[F01-OS1.1]
	[F54-OH1.2]
	[F01-OP1.1]
9.22.7.1. Slope of Smoke Chamber	
(1)	[F44-OH1.1]
	[F44-OS3.4]
9.22.7.2. Wall Thickness	
(1)	[F01-OS1.1]
	[F01-OP1.1]
9.22.8.1. Conformance to Standard	
(1)	[F01-OS1.1]
	[F44-OH1.1]
	[F01-OP1.1]
	[F44-OS3.4]
9.22.9.1. Clearance to the Fireplace Opening	
(1)	[F01-OS1.1]
	[F01-OP1.1]
9.22.9.2. Metal Exposed to the Interior	
(1)	[F01-OS1.1]
	[F01-OP1.1]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.22.9.3. Clearance to Combustible Framing	
(1)	[F01-OS1.1]
	[F01-OP1.1]
(2)	[F01-OS1.1]
	[F01-OP1.1]
9.22.9.4. Heat-Circulating Duct Outlets	
(1)	(a),(b) [F01-OS1.1]
	(a),(b) [F01-OP1.1]
9.22.10.1. Appliance Standard	
(1)	[F44-OH1.1]
	[F01-OS1.1]
	[F44-OS3.4]
	[F01-OP1.1]
9.22.10.2. Installation	
(1)	[F01-OS1.1]
	[F44-OH1.1]
	[F01-OP1.1]
	[F44-OS3.4]
9.23.2.1. Strength and Rigidity	
(1)	[F20-OS2.1] [F20,F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F20,F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
9.23.2.2. Protection from Decay	
(1)	[F80-OS2.3]
	[F80-OP2.3,OP2.4]
	[F80-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F80-OS1.2] Applies to assemblies required to provide fire resistance.
	[F80-OH4] Applies to floors and elements that support floors.
	[F80-OS3.1] Applies to floors and elements that support floors. [F80-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F81-OS2.3]
	[F81-OP2.3]
	[F81-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F81-OS1.2] Applies to assemblies required to provide fire resistance.
	[F81-OH4] Applies to floors and elements that support floors.
	[F81-OS3.1] Applies to floors and elements that support floors.
9.23.2.3. Protection from Dampness	
(1)	[F80-OS2.1,OS2.3]
	[F80-OP2.1,OP2.3,OP2.4]
	[F80-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F80-OS1.2] Applies to assemblies required to provide fire resistance.
	[F80-OH4] Applies to floors and elements that support floors.
	[F80-OS3.1] Applies to floors and elements that support floors.
9.23.3.1. Standards for Nails and Screws	
(1)	[F20-OS2.1] [F20,F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] [F20,F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(2)	[F20-OS2.1] [F20,F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OH4] Applies to floors and elements that support floors.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.23.3.2. Length of Nails	
(1)	[F20-OS2.1] [F20,F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OH4] Applies to floors and elements that support floors.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
9.23.3.3. Prevention of Splitting	
(1)	[F80-OS2.1] [F80-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F80-OP2.1,OP2.4] [F80-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F80-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F80-OS1.2] Applies to assemblies required to provide fire resistance.
	[F80-OH4] Applies to floors and elements that support floors.
	[F80-OS3.1] Applies to floors and elements that support floors.
9.23.3.4. Nailing of Framing	
(1)	[F20-OS2.1] [F20,F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F20-OS2.1] [F20,F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OH4] Applies to floors and elements that support floors.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(3)	[F20-OS2.1] [F20,F22-OS2.3] [F20,F22-OS2.5]
	[F20-OP2.1,OP2.5] [F20,F22-OP2.3] [F22-OP2.4,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
(4)	[F20-OS2.1] [F20,F22-OS2.3] [F20,F22-OS2.5]
	[F20-OP2.1,OP2.5] [F20,F22-OP2.3] [F22-OP2.4,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
9.23.3.5. Fasteners for Sheathing or Subflooring	
(1)	[F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
	[F20-OS2.1] [F20,F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
(2)	[F22-OH4] Applies to floors and elements that support floors.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
	[F20-OS2.1] [F20,F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
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Acceptable Solutions	Functional Statements and Objectives[1]
(4)	[F20-OS2.1] [F20,F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(5)	[F20-OS2.1] [F20,F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(6)	[F20,F22-OS2.1]
	[F20-OP2.1] [F22-OP2.4]
	[F22-OH4] Applies to floors and elements that support floors.
	[F22-OS3.1] Applies to floors and elements that support floors.
	[F20-OS1.2] Applies to assemblies required to provide fire resistance.
9.23.4.2. Spans for Joists, Rafters and Beams	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.4,OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F20-OS2.1,OS2.5] [F22-OS2.4,OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(3)	[F20-OS2.1,OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5]
(4)	[F20-OS2.1,OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5]
9.23.4.3. Steel Beams	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.4,OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
	[F22-OH4] Applies to floors and elements that support floors.
(2)	[F20-OS2.1,OS2.5] [F22-OS2.4,OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
	[F22-OH4] Applies to floors and elements that support floors.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
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Acceptable Solutions	Functional Statements and Objectives[1]
9.23.4.4. Concrete Topping	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.4,OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(2)	[F20-OS2.1,OS2.5] [F22-OS2.4,OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(3)	[F20-OS2.1,OS2.5] [F22-OS2.4,OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to elements that support walls that contain doors or windows required for emergency egress.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
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Acceptable Solutions	Functional Statements and Objectives[1]
9.23.4.5. Heavy Roofing Materials	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.4,OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
9.23.5.1. Holes Drilled in Framing Members	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
	[F22-OH4] Applies to floors and elements that support floors.
9.23.5.2. Notching of Framing Members	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
	[F22-OH4] Applies to floors and elements that support floors.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.23.5.3. Wall Studs	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
9.23.5.4. Top Plates	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
9.23.5.5. Roof Trusses	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
9.23.6.1. Anchorage of Building Frames	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
(3)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
(4)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
(5)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F20-OS3.1] Applies to floors and elements that support floors.
9.23.6.2. Anchorage of Columns and Posts	
(1)	[F22-OS2.4,OS2.5] [F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F22-OP2.4,OP2.5] [F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F22-OS2.4,OS2.5] [F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F22-OP2.4,OP2.5] [F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F22-OS3.1] Applies to floors and elements that support floors.
	[F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
9.23.6.3. Anchorage of Smaller Buildings	
(1)	[F22-OS2.3,OS2.5]
9.23.7.1. Size of Sill Plates	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
	[F22-OS1.2] Applies to assemblies required to provide fire resistance.
9.23.7.2. Levelling and Sealing of Sill Plates	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.4,OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
9.23.8.1. Bearing for Beams	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors. [F20,F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.23.8.2. Priming of Steel Beams	
(1)	[F80-OS2.1] [F80-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F80-OP2.1,OP2.4] [F80-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F80-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F80-OS1.2] Applies to assemblies required to provide fire resistance.
	[F80-OS3.1] Applies to floors and elements that support floors.
	[F80-OH4] Applies to floors and elements that support floors.
9.23.8.3. Built-up Wood Beams	
(1)	[F20-OS2.1]
	[F20-OP2.1]
(2)	[F20-OS2.1]
	[F20-OP2.1]
(3)	[F20-OS2.1]
	[F20-OP2.1]
(4)	[F20-OS2.1]
	[F20-OP2.1]
(5)	[F20-OS2.1]
	[F20-OP2.1]
(6)	[F20-OS2.1]
	[F20-OP2.1]
(7)	[F20-OS2.1]
	[F20-OP2.1]
(8)	[F20-OS2.1]
	[F20-OP2.1]
9.23.9.1. End Bearing for Joists	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1]
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4]
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
9.23.9.2. Joists Supported by Beams	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(2)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(3)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(4)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(5)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.23.9.3. Restraint of Joist Bottoms	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
9.23.9.4. Strapping, Bridging, Furring and Ceilings in Tables A-1 and A-2	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(2)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(3)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(4)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(5)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(6)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
9.23.9.5. Header Joists	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
9.23.9.6. Trimmer Joists	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.23.9.7. Support of Tail and Header Joists	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
9.23.9.8. Support of Walls	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(2)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(4)	[F22-OS3.1] [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4]
	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
(5)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(6)	[F22-OS3.1] [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4]
	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
9.23.9.9. Cantilevered Floor Joists	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(3)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
9.23.10.1. Stud Size and Spacing	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.23.10.2. Bracing and Lateral Support	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to walls that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to walls that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to walls that support or are part of an environmental separator.
	[F22-OH4] Applies to walls that support floors.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to walls that support floors. [F22-OS3.7] Applies to walls that contain doors or windows required for emergency egress.
9.23.10.3. Orientation of Studs	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(3)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.23.10.4. Continuity of Studs	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
9.23.10.5. Support for Cladding, Sheathing and Finishing Materials	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(2)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OH4] Applies to floors and elements that support floors.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.23.10.6. Studs at Sides of Openings	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors. [F20,F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
(2)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors. [F20,F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
(3)	[F20-OS2.1] (b) [F20,F22-OS2.5] (b) [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1] (b) [F20-OP2.5] (b) [F22-OP2.4,OP2.5] (b) [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	(b) [F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	(b) [F20,F22-OH4] Applies to floors and elements that support floors.
	(b) [F20,F22-OS3.1] Applies to floors and elements that support floors. (b) [F20,F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
	(b) [F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.23.11.1. Size of Wall Plates	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
	[F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
(2)	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
9.23.11.2. Bottom Wall Plates	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.4,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
9.23.11.3. Top Plates	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(2)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(3)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OH4] Applies to floors and elements that support floors.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(4)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
9.23.11.4. Joints in Top Plates	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(2)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(3)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(4)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
9.23.12.1. Openings in Non-Loadbearing Walls	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(2)	[F20,F22-OS1.2]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.23.12.2. Openings in Loadbearing Walls	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(2)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
9.23.12.3. Lintel Spans and Sizes	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(3)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.4,OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
9.23.13.1. Requirements for Low to Moderate Wind and Seismic Forces	
(2)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.4,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.4,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to walls that support floors. [F22-OS3.7] Applies to walls that contain doors or windows required for emergency egress.
	[F20,F22-OH4] Applies to walls that support floors.
9.23.13.2. Requirements for High Wind and Seismic Forces	
(2)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.4,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.4,OP2.5]
	[F22-OS3.1] Applies to walls that support floors. [F22-OS3.7] Applies to walls that contain doors or windows required for emergency egress.
	[F20,F22-OH4] Applies to walls that support floors.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.23.13.3. Requirements for Extreme Wind and Seismic Forces	
(2)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.4,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.4,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to walls that support floors. [F22-OS3.7] Applies to walls that contain doors or windows required for emergency egress.
	[F20,F22-OH4] Applies to walls that support floors.
9.23.13.4. Braced Wall Bands	
(1)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.4,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.4,OP2.5]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to walls that support floors. [F22-OS3.7] Applies to walls that contain doors or windows required for emergency egress.
	[F20,F22-OH4] Applies to walls that support floors.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
(2)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.4,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.4,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to walls that support floors. [F22-OS3.7] Applies to walls that contain doors or windows required for emergency egress.
	[F20,F22-OH4] Applies to walls that support floors.
(3)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.4,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.4,OP2.5]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to walls that support floors. [F22-OS3.7] Applies to walls that contain doors or windows required for emergency egress.
	[F20,F22-OH4] Applies to walls that support floors.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
9.23.13.5. Braced Wall Panels in Braced Wall Bands	
(1)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.4,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.4,OP2.5]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to walls that support floors. [F22-OS3.7] Applies to walls that contain doors or windows required for emergency egress.
	[F20,F22-OH4] Applies to walls that support floors.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.4,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.4,OP2.5]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to walls that support floors. [F22-OS3.7] Applies to walls that contain doors or windows required for emergency egress.
	[F20,F22-OH4] Applies to walls that support floors.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
9.23.13.6. Materials in Braced Wall Panels	
(1)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.4,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.4,OP2.5]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to walls that support floors. [F22-OS3.7] Applies to walls that contain doors or windows required for emergency egress.
	[F20,F22-OH4] Applies to walls that support floors.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
(2)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.4,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.4,OP2.5]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to walls that support floors.
	[F20,F22-OH4] Applies to walls that support floors.
(4)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.4,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.4,OP2.5]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to walls that support floors. [F22-OS3.7] Applies to walls that contain doors or windows required for emergency egress.
	[F20,F22-OH4] Applies to walls that support floors.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
(5)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.4,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.4,OP2.5]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to walls that support floors. [F22-OS3.7] Applies to walls that contain doors or windows required for emergency egress.
	[F20,F22-OH4] Applies to walls that support floors.
	[F20,F22-OH1.1,OH1.2,OH1.3]
(6)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.4,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.4,OP2.5]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to walls that support floors. [F22-OS3.7] Applies to walls that contain doors or windows required for emergency egress.
	[F20,F22-OH4] Applies to walls that support floors.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.23.13.7. Additional System Considerations	
(7)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.4,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.4,OP2.5]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to walls that support floors. [F22-OS3.7] Applies to walls that contain doors or windows required for emergency egress.
	[F20,F22-OH4] Applies to walls that support floors.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
9.23.14.1. Continuity of Rafters and Joists	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
9.23.14.2. Framing around Openings	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
9.23.14.3. End Bearing Length	
(1)	[F20-OS2.1,OS2.5] [F22-OS2.5] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.5] [F22-OP2.5] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
9.23.14.4. Location and Attachment of Rafters	
(1)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
(3)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
9.23.14.5. Shaping of Rafters	
(1)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
9.23.14.6. Hip and Valley Rafters	
(1)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
9.23.14.7. Intermediate Support for Rafters and Joists	
(1)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
(2)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.5]
(4)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
(5)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
(6)	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.4,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F22-OH4]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.23.14.8. Ridge Support	
(1)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.4,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(3)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.4,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(4)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.4,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(5)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.4,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(6)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.4,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(7)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.4,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20,F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.23.14.9. Restraint of Joist Bottoms	
(1)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
9.23.14.10. Ceiling Joists Supporting Roof Load	
(1)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
(2)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
9.23.14.11. Roof Trusses	
(1)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.4,OP2.5]
	(b) [F20,F22-OH1.1,OH1.2,OH1.3]
	(b) [F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
(3)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.5]
(4)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.5]
(5)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
(6)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
9.23.15.1. Subflooring Required	
(1)	[F20-OS2.1]
9.23.15.2. Material Standards	
(1)	[F22-OS3.1]
	[F22-OP2.4]
	[F22-OH4]
	[F20-OS2.1]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F80-OS3.1]
	[F80-OP2.4]
	[F80-OH4]
	[F80-OS2.1]
(3)	[F22-OS3.1]
	[F22-OP2.4]
	[F22-OH4]
	[F20-OS2.1]
(4)	[F80-OS3.1]
	[F80-OP2.4]
	[F80-OH4]
	[F80-OH1.1]
9.23.15.3. Edge Support	
(1)	[F22-OS3.1]
	[F22-OP2.4]
	[F22-OH4]
9.23.15.4. Direction of Installation	
(1)	[F22-OS3.1]
	[F22-OP2.4]
	[F22-OH4]
(2)	[F22-OS3.1]
	[F22-OP2.4]
	[F22-OH4]
9.23.15.5. Subfloor Thickness or Rating	
(1)	[F22-OS3.1]
	[F22-OP2.4]
	[F22-OH4]
	[F20-OS2.1]
(2)	[F20-OS2.1]
	[F22-OS3.1]
	[F22-OH4]
	[F22-OP2.4]
(3)	[F20-OS2.1]
	[F22-OH4]
	[F22-OS3.1]
	[F22-OP2.4]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.23.15.6. Annular Grooved Nails	
(1)	[F81-OS2.3]
	[F81-OP2.3]
	[F81-OH1.1]
9.23.15.7. Lumber Subflooring	
(1)	[F22-OS3.1]
	[F22-OP2.4]
	[F22-OH4]
(2)	[F22-OS3.1]
	[F22-OP2.4]
	[F22-OH4]
(3)	[F22-OS3.1]
	[F22-OP2.4]
9.23.16.1. Required Roof Sheathing	
(1)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.4,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.4,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
9.23.16.2. Material Standards	
(1)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
9.23.16.3. Direction of Installation	
(1)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
(2)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
9.23.16.4. Joints in Panel-Type Sheathing	
(1)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
(2)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.23.16.5. Lumber Roof Sheathing	
(1)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
(2)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.4,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.4,OP2.5]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to assemblies required to provide fire resistance.
9.23.16.6. Edge Support	
(1)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
9.23.16.7. Thickness or Rating	
(1)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.4,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F22-OH4]
	[F22-OS3.1]
(2)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
(3)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
(4)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
9.23.17.1. Required Sheathing	
(1)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.4,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
	[F20,F22-OH4] Applies to floors and elements that support floors.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
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Acceptable Solutions	Functional Statements and Objectives[1]
9.23.17.2. Thickness, Rating and Material Standards	
(1)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.4,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
9.23.17.4. Lumber Sheathing	
(1)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.4,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F20,F22-OH4] Applies to floors and elements that support floors.
	[F20,F22-OS3.1] Applies to floors and elements that support floors.
(2)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.4,OP2.5]
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to floors and elements that support floors. [F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
	[F20,F22-OH4] Applies to floors and elements that support floors.
9.23.17.5. Joints in Panel-Type Sheathing	
(1)	[F80,F81-OS2.3]
	[F80,F81-OP2.3,OP2.4]
	[F80,F81-OH1.1,OH1.2,OH1.3]
	[F80,F81-OH4] Applies to floors and elements that support floors.
	[F80,F81-OS3.1] Applies to floors and elements that support floors.
9.24.1.2. Material Standards	
(1)	[F20-OP2.1,OP2.4] [F22,F80-OP2.4] [F20,F22,F80-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS2.1,OS2.4] [F22,F80-OS2.4] [F20,F22,F80-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22,F80-OH1.1,OH1.2,OH1.3]
	[F20,F22,F80-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22,F80-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
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Acceptable Solutions	Functional Statements and Objectives[1]
9.24.1.4. Screws	
(1)	[F20-OP2.1,OP2.4] [F22,F80-OP2.4] [F20,F22,F80-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22,F80-OS2.1] [F20,F22,F80-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22,F80-OH1.1,OH1.2,OH1.3]
	[F20,F22,F80-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22,F80-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
9.24.1.5. Cladding, Sheathing and Interior Finish Required	
(1)	[F20,F22,F80-OH1.1,OH1.2,OH1.3]
	[F20,F22,F80-OS2.1] [F20,F22,F80-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22,F80-OP2.1,OP2.4] [F20,F22,F80-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22,F80-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22,F80-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
9.24.2.1. Size and Spacing of Studs in Interior Walls	
(1)	[F20-OP2.1,OP2.4] [F22-OP2.4]
	[F20-OS2.1,OS2.4] [F22-OS2.4]
	[F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
9.24.2.2. Thickness of Studs	
(1)	[F20-OP2.1,OP2.4] [F22-OP2.4]
	[F20-OS2.1,OS2.4] [F22-OS2.4]
	[F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
9.24.2.3. Runners	
(1)	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20-OS2.1,OS2.4] [F22-OS2.4] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
9.24.2.4. Openings in Fire Separations	
(1)	[F20-OS1.2]
(2)	[F20-OS1.2]
(3)	[F20-OS1.2]
(4)	[F20-OS1.2]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
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Acceptable Solutions	Functional Statements and Objectives[1]
9.24.2.5. Size and Spacing of Studs in Exterior Walls	
(1)	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20-OS2.1,OS2.3,OS2.4] [F22-OS2.3,OS2.4]
	[F20-OP2.1,OP2.3,OP2.4] [F22-OP2.3,OP2.4]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22,F80-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
9.24.3.1. Installation of Runners	
(1)	[F20-OP2.1,OP2.4] [F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20-OS2.1,OS2.4] [F22-OS2.4] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22,F80-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(2)	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20-OS2.1,OS2.4] [F22-OS2.4] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(3)	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS2.1,OS2.4] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OP2.1,OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(4)	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20-OS2.1,OS2.4] [F22-OS2.4] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
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Acceptable Solutions	Functional Statements and Objectives[1]
9.24.3.2. Fire-Rated Walls	
(1)	[F21-OS1.2]
(2)	[F21-OS1.2]
(3)	[F20-OS1.2]
(4)	[F20-OS1.2]
(5)	[F03-OS1.2]
9.24.3.3. Orientation of Studs	
(1)	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20-OS2.1,OS2.4] [F22-OS2.4] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
9.24.3.4. Support for Cladding Materials	
(1)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.1,OS2.4] [F20-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F20-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
9.24.3.5. Framing around Openings	
(1)	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20-OS2.1,OS2.4] [F22-OS2.4] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20-OS2.1,OS2.4] [F22-OS2.4] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
9.24.3.6. Attachment of Studs to Runners	
(1)	[F20-OS2.1,OS2.4] [F22-OS2.4] [F20,F22-OS2.3] Applies to elements that support or are part of an environmental separator.
	[F20-OP2.1,OP2.4] [F22-OP2.4] [F20,F22-OP2.3] Applies to elements that support or are part of an environmental separator.
	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.7] Applies to walls, and elements that support walls, that contain doors or windows required for emergency egress.
(2)	[F21-OS1.2]
9.24.3.7. Openings for Fire Dampers	
(1)	[F20-OS1.2]
(2)	[F20-OS1.2]
(3)	[F03-OS1.2]
9.25.1.1. Scope and Application	
(2)	[F51,F63-OH1.1,OH1.2] [F55-OH1.1,OH1.2,OH1.3]
	[F55,F63-OS2.3]
9.25.2.1. Required Insulation	
(1)	[F51,F63-OH1.1,OH1.2]
	[F63-OS2.3]
9.25.2.2. Insulation Materials	
(1)	[F51,F63,F80-OH1.1,OH1.2]
	[F63,F80-OS2.3]
(3)	[F51,F63-OH1.1,OH1.2]
	[F63-OS2.3]
9.25.2.3. Installation of Thermal Insulation	
(1)	[F51,F63-OH1.1,OH1.2]
	[F63-OS2.3]
(2)	[F51,F63-OH1.1,OH1.2]
	[F63-OS2.3]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(3)	[F55-OH1.1,OH1.2]
	[F55-OS2.3]
(4)	[F51,F63,F80-OH1.1,OH1.2]
	[F63,F80-OS2.3]
(5)	[F21-OH1.1,OH1.2,OH1.3]
	[F21-OS2.2,OS2.3]
(6)	[F80-OH1.1,OH1.2]
	[F80-OS2.3]
(7)	[F80-OH1.1,OH1.2]
	[F80-OS2.3]
(8)	[F21-OH1.1,OH1.2]
	[F21-OS2.3]
9.25.2.4. Installation of Loose-Fill Insulation	
(1)	[F51,F63-OH1.1,OH1.2]
	[F63-OS2.3]
(2)	[F51-OH1.1,OH1.2,OH1.3]
	[F51-OS2.3]
(4)	(a) [F21,F51-OS2.3]
	(a) [F21,F51-OH1.1,OH1.2]
	(c) [F81-OS2.1,OS2.3] (c) [F81-OS2.1,OS2.3,OS2.4,OS2.5] Applies where the interior finish provides the required bracing.
	(c) [F81-OH1.1,OH1.2] (c) [F81-OH1.1,OH1.2,OH1.3] Applies where the interior finish provides the required bracing.
	(c) [F81-OP2.1,OP2.3,OP2.4,OP2.5] Applies where the interior finish provides to the required bracing.
	(c) [F81-OP3.1] Applies where the interior finish contributes to the required fire resistance of the wall.
	(c) [F81-OS3.7] Applies where the interior finish provides the required bracing. (c) [F81-OS3.1] Applies where the interior finish provides the required bracing of walls that support floors.
	(c) [F81-OH4] Applies where the interior finish provides the required bracing of walls that support floors.
	(d) [F80-OS2.3]
	(d) [F80-OH1.1,OH1.2,OH1.3]
(5)	[F51,F63-OH1.1,OH1.2]
	[F63-OS2.3]
(6)	(a) [F51,F62-OH1.1,OH1.2,OH1.3] (b) [F51,F63-OH1.1,OH1.2]
	(a) [F62,F51-OS2.3] (b) [F51,F63-OS2.3]
9.25.2.5. Installation of Spray-Applied Polyurethane	
(1)	[F51,F41,F63-OH1.1] [F51,F63-OH1.2]
	[F63-OS2.3]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.25.3.1. Required Barrier to Air Leakage	
(1)	[F55-OH1.1,OH1.2,OH1.3] [F40-OH1.1]
	[F55-OS2.3]
	[F44-OS1.1] Applies where the *air barrier system* separates a garage, or *suite* containing a garage, from residential space.
	[F44-OS3.4] Applies where the *air barrier system* separates a garage, or *suite* containing a garage, from residential space.
9.25.3.2. Air Barrier System Properties	
(1)	[F20,F55-OH1.1,OH1.2,OH1.3] [F40-OH1.1]
	[F20,F55-OS2.3]
	[F20,F44-OS1.1] Applies where the *air barrier system* separates a garage, or *suite* containing a garage, from residential space.
	[F20,F44-OS3.4] Applies where the *air barrier system* separates a garage, or *suite* containing a garage, from residential space.
(2)	[F20,F80,F55-OH1.1,OH1.2,OH1.3] [F40-OH1.1]
	[F20,F80,F55-OS2.3]
	[F20,F80,F44-OS1.1] Applies where the *air barrier system* separates a garage, or *suite* containing a garage, from residential space.
	[F20,F80,F44-OS3.4] Applies where the *air barrier system* separates a garage, or *suite* containing a garage, from residential space.
9.25.3.3. Continuity of the Air Barrier System	
(1)	[F55-OH1.1,OH1.2,OH1.3] [F40-OH1.1]
	[F55-OS2.3]
	[F44-OS1.1] Applies where the *air barrier system* separates a garage, or *suite* containing a garage, from residential space.
	[F44-OS3.4] Applies where the *air barrier system* separates a garage, or *suite* containing a garage, from residential space.
(2)	[F55-OH1.1,OH1.2,OH1.3] [F40-OH1.1]
	(a) [F44-OS3.4] Applies where the *air barrier system* separates a garage, or *suite* containing a garage, from residential space.
	[F55-OS2.3]
	(a) [F44-OS1.1] Applies where the *air barrier system* separates a garage, or *suite* containing a garage, from residential space.
(6)	[F55-OH1.1,OH1.2,OH1.3] [F40-OH1.1]
	[F55-OS2.3]
	[F44-OS1.1] Applies where the *air barrier system* separates a garage, or *suite* containing a garage, from residential space.
	[F44-OS3.4] Applies where the *air barrier system* separates a garage, or *suite* containing a garage, from residential space.
(7)	[F55-OH1.1,OH1.2,OH1.3] [F40-OH1.1]
	[F55-OS2.3]
(8)	[F01-OS1.1]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.25.3.4. Air Leakage Control in Masonry Walls	
(1)	[F40-OH1.1]
(2)	[F40-OH1.1]
9.25.3.5. Air Leakage Control in Underground Roofs	
(1)	[F40-OH1.1]
9.25.3.6. Air Barrier Systems in Floors-on-ground	
(1)	[F40-OH1.1]
(2)	[F40-OH1.1]
(3)	[F40-OH1.1]
(5)	[F40-OH1.1]
(6)	[F40-OH1.1]
9.25.4.1. Required Barrier to Vapour Diffusion	
(1)	[F63-OH1.1,OH1.2]
	[F63-OS2.3]
9.25.4.2. Vapour Barrier Materials	
(1)	[F63-OS2.3]
	[F63-OH1.1,OH1.2]
(2)	[F62,F63-OS2.3]
	[F62,F63-OH1.1,OH1.2]
(3)	[F63,F80-OS2.3]
	[F63,F80-OH1.1,OH1.2]
(4)	[F63,F80-OS2.3]
	[F63,F80-OH1.1,OH1.2]
(5)	[F63-OS2.3]
	[F63-OH1.1,OH1.2]
(6)	[F63-OS2.3]
	[F63-OH1.1,OH1.2]
9.25.4.3. Installation of Vapour Barriers	
(1)	[F63-OH1.1,OH1.2]
	[F63-OS2.3]
(2)	[F63-OH1.1,OH1.2]
	[F63-OS2.3]
(3)	[F63-OS2.3]
9.25.5.1. General	
(2)	[F62,F63-OS2.3]
	[F62,F63-OH1.1,OH1.2]
9.25.5.2. Position of Low Permeance Materials	
(1)	[F62,F63-OS2.3]
	[F62,F63-OH1.1,OH1.2]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.26.1.1. Purpose of Roofing	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
9.26.1.2. Alternate Installation Methods	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
9.26.2.1. Material Standards	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
9.26.2.2. Nails	
(1)	[F20,F80-OH1.1,OH1.2,OH1.3]
	[F20,F80-OS2.3]
(2)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.3]
(3)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.3]
(4)	[F20,F80-OH1.1,OH1.2,OH1.3]
	[F20,F80-OS2.3]
9.26.2.3. Staples	
(1)	[F20,F80-OH1.1,OH1.2,OH1.3]
	[F20,F80-OS2.3]
(2)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.3]
(3)	[F20,F80-OH1.1,OH1.2,OH1.3]
	[F20,F80-OS2.3]
9.26.3.1. Slope	
(1)	[F20-OS2.1,OS2.3] [F61,F80-OS2.3]
	[F20,F61,F80-OH1.1,OH1.2,OH1.3]
(2)	[F20,F61,F80-OS2.3]
	[F20,F61,F80-OH1.1,OH1.2,OH1.3]
(3)	[F61,F80-OS2.3]
	[F61,F80-OH1.1,OH1.2,OH1.3]
(4)	[F61,F80-OS2.3]
	[F61,F80-OH1.1,OH1.2,OH1.3]
(5)	[F21-OS2.3]
	[F21-OH1.1,OH1.2,OH1.3]
9.26.4.1. Required Flashing at Intersections	
(1)	[F61-OS2.3]
	[F61-OH1.1,OH1.2,OH1.3]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.26.4.2. Materials	
(1)	[F61,F62,F80-OH1.1,OH1.2,OH1.3]
	[F61,F62,F80-OS2.3]
9.26.4.3. Valley Flashing	
(1)	[F61-OS2.3]
	[F61-OH1.1,OH1.2,OH1.3]
(2)	[F20-OS2.1,OS2.3] [F22-OS2.3,OS2.4]
	[F20,F22-OH1.1,OH1.2,OH1.3]
(3)	[F61-OS2.3]
	[F61-OH1.1,OH1.2,OH1.3]
(4)	[F20,F61,F80-OH1.1,OH1.2,OH1.3]
	[F20,F61,F80-OS2.3]
(5)	[F20,F61,F80-OH1.1,OH1.2,OH1.3]
	[F20,F61,F80-OS2.3]
(6)	[F20,F61,F80-OH1.1,OH1.2,OH1.3]
	[F20,F61,F80-OS2.3]
9.26.4.4. Intersection of Shingle Roofs and Masonry	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
	[F61-OS1.1] Applies where a shingle roof intersects with a masonry *chimney*.
	[F61-OP1.1] Applies where a shingle roof intersects with a masonry *chimney*.
	[F61-OS3.4] Applies where a shingle roof intersects with a masonry *chimney*.
(2)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
	[F61-OS1.1] Applies where counter flashing is installed between a shingle roof and a masonry *chimney*.
	[F61-OP1.1] Applies where counter flashing is installed between a shingle roof and a masonry *chimney*.
	[F61-OS3.4] Applies where counter flashing is installed between a shingle roof and a masonry *chimney*.
(3)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
	[F61-OS1.1] Applies where flashing is installed between a shingle roof and a masonry *chimney*.
	[F61-OP1.1] Applies where flashing is installed between a shingle roof and a masonry *chimney*.
	[F61-OS3.4] Applies where flashing is installed between a shingle roof and a masonry *chimney*.
(4)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
	[F61-OS1.1] Applies where a shingle roof slopes upward from a masonry *chimney*.
	[F61-OP1.1] Applies where a shingle roof slopes upward from a masonry *chimney*.
	[F61-OS3.4] Applies where a shingle roof slopes upward from a masonry *chimney*.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
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Acceptable Solutions	Functional Statements and Objectives[1]
9.26.4.5. Intersection of Shingle Roofs and Walls other than Masonry	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
(2)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
(3)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
9.26.4.6. Intersection of Built-Up Roofs and Masonry	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
	[F61-OS1.1] Applies where a built-up roof intersects with a masonry *chimney*.
	[F61-OP1.1] Applies where a built-up roof intersects with a masonry *chimney*.
	[F61-OS3.4] Applies where a built-up roof intersects with a masonry *chimney*.
(2)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
	[F61-OS1.1] Applies where counter flashing is installed between a built-up roof and a masonry *chimney*.
	[F61-OP1.1] Applies where counter flashing is installed between a built-up roof and a masonry *chimney*.
	[F61-OS3.4] Applies where counter flashing is installed between a built-up roof and a masonry *chimney*.
9.26.4.7. Intersection of Built-Up Roofs and Walls other than Masonry	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
(2)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
(3)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
9.26.4.8. Chimney Saddles	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
	[F61-OS1.1]
	[F61-OP1.1]
	[F61-OS3.4]
(2)	[F20,F81-OH1.1,OH1.2,OH1.3]
	[F20,F81-OS2.3]
	[F20,F81-OS1.1]
	[F20,F81-OP1.1]
	[F20,F81-OS3.4]
(3)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(5)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
	[F61-OS1.1]
	[F61-OP1.1]
	[F61-OS3.4]
9.26.5.1. Required Eave Protection	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
9.26.5.2. Materials	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
9.26.6.1. Materials	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
(2)	[F62-OH1.1,OH1.2,OH1.3]
	[F62-OS2.3]
9.26.6.2. Installation	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
(2)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
(3)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
9.26.7.1. Coverage	
(1)	[F61,F80-OH1.1,OH1.2,OH1.3]
	[F61,F80-OS2.1]
9.26.7.2. Starter Strip	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
(2)	[F61,F80-OH1.1,OH1.2,OH1.3]
	[F61,F80-OS2.3]
(3)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
9.26.7.3. Head Lap	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
9.26.7.4. Fasteners	
(1)	[F20,F61-OH1.1,OH1.2,OH1.3]
	[F20,F61-OS2.3]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.3]
(3)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.3]
(4)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.3]
(5)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.3]
9.26.7.5. Securing of Tabs	
(1)	[F20,F61-OH1.1,OH1.2,OH1.3]
	[F20,F61-OS2.3]
9.26.7.6. Hips and Ridges	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
(2)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.3]
9.26.8.1. Coverage	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
9.26.8.2. Starter Strip	
(2)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
9.26.8.3. Securing of Tabs	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
9.26.8.4. Securing of Shingle Courses	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
(2)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
(3)	[F61-OS2.3]
	[F61-OH1.1,OH1.2,OH1.3]
9.26.8.5. Hips and Ridges	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
(2)	[F61,F80-OS2.3]
	[F61,F80-OH1.1,OH1.2,OH1.3]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
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Acceptable Solutions	Functional Statements and Objectives[1]
9.26.9.2. Grade	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
(2)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
9.26.9.3. Size	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
9.26.9.4. Spacing and Joints	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
9.26.9.5. Fastening	
(1)	[F20,F80-OH1.1,OH1.2,OH1.3]
	[F20,F80-OS2.3]
9.26.9.6. Exposure	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
9.26.10.1. Size and Thickness	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
9.26.10.2. Underlay	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
(2)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
(3)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
9.26.10.3. Spacing and Joints	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
9.26.10.4. Fastening	
(1)	[F20,F80-OH1.1,OH1.2,OH1.3]
	[F20,F80-OS2.3]
9.26.10.5. Exposure	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
9.26.10.8. Grade	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
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Acceptable Solutions	Functional Statements and Objectives[1]
9.26.11.1. Quantity of Materials	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
9.26.11.2. Coal-Tar and Asphalt Products	
(1)	[F61,F80-OH1.1,OH1.2,OH1.3]
	[F61,F80-OS2.3]
9.26.11.3. Roof Felts	
(1)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.3]
9.26.11.4. Aggregate Surfacing	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
(2)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
9.26.11.6. Number of Layers	
(1)	[F20,F80-OH1.1,OH1.2,OH1.3]
	[F20,F80-OS2.3]
9.26.11.7. Installation of Layers	
(1)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.3]
(2)	[F61,F81-OH1.1,OH1.2,OH1.3]
	[F61,F81-OS2.3]
(3)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.3]
9.26.11.8. Roofing over Wood-Based Sheathing	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
(2)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
9.26.11.9. Attachment to Decking	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
9.26.11.10. Cant Strips	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
	[F61-OS3.1]
(2)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(3)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
(4)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
	[F61-OS3.1]
(5)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
(6)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
9.26.12.1. Coverage	
(1)	[F61,F80-OH1.1,OH1.2,OH1.3]
	[F61,F80-OS2.3]
9.26.12.2. Joints	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
9.26.13.1. Thickness	
(1)	[F61,F80-OH1.1,OH1.2,OH1.3]
	[F61,F80-OS2.3]
9.26.13.2. Support	
(1)	[F20-OS2.1,OS2.3] [F22-OS2.3,OS2.4]
	[F20-OP2.1,OP2.3] [F22-OP2.3,OP2.4]
	[F20,F22-OH1.1,OH1.2,OH1.3]
9.26.14.1. Support	
(1)	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20-OS2.1,OS2.3] [F22-OS2.3,OS2.4]
9.26.15.1. Installation	
(1)	[F61,F80-OH1.1,OH1.2,OH1.3]
	[F61,F80-OS2.3]
9.26.16.1. Installation	
(1)	[F61,F80-OH1.1,OH1.2,OH1.3]
	[F61,F80-OS2.3]
9.26.17.1. Installation	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
9.26.18.2. Downspouts	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
9.27.2.1. Minimizing and Preventing Ingress and Damage	
(1)	[F61-OS2.3]
	[F61-OH1.1,OH1.2,OH1.3]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F80,F81-OS2.3]
	[F80,F81-OH1.1,OH1.2,OH1.3]
9.27.2.2. Minimum Protection from Precipitation Ingress	
(3)	[F62-OS2.3]
	[F62-OH1.1,OH1.2,OH1.3]
(4)	[F61,F62-OS2.3]
	[F61,F62-OH1.1,OH1.2,OH1.3]
(5)	[F61,F62-OS2.3]
	[F61,F62-OH1.1,OH1.2,OH1.3]
9.27.2.3. First and Second Planes of Protection	
(1)	[F61,F62-OS2.3]
	[F61,F62-OH1.1,OH1.2,OH1.3]
9.27.2.4. Protection of Cladding from Moisture	
(1)	[F61,F80-OS2.3]
	[F61,F80-OH1.1,OH1.2,OH1.3]
(2)	[F61,F80-OS2.3]
	[F61-OH1.1,OH1.2,OH1.3]
9.27.3.1. Elements of the Second Plane of Protection	
(1)	[F61,F62-OS2.3]
	[F61,F62-OH1.1,OH1.2,OH1.3]
(3)	[F61,F62-OS2.3]
	[F61,F62-OH1.1,OH1.2,OH1.3]
9.27.3.2. Sheathing Membrane Material Standard	
(1)	[F20,F61,F62,F55-OS2.3]
	[F20,F61,F62,F55-OH1.1,OH1.2,OH1.3]
9.27.3.3. Required Sheathing Membrane and Installation	
(1)	[F61,F55-OS2.3]
	[F61,F55-OH1.1,OH1.2,OH1.3]
(2)	[F61,F55-OS2.3]
	[F61,F55-OH1.1,OH1.2,OH1.3]
(3)	[F61-OS2.3]
	[F61-OH1.1,OH1.2,OH1.3]
9.27.3.4. Insulating Sheathing in lieu of Sheathing Membrane	
(2)	[F61,F55-OS2.3]
	[F61,F55-OH1.1,OH1.2,OH1.3]
9.27.3.5. Sheathing Membranes in lieu of Sheathing	
(1)	[F61,F55-OS2.3]
	[F61,F55-OH1.1,OH1.2,OH1.3]
(2)	[F61,F55-OS2.3]
	[F61,F55-OH1.1,OH1.2,OH1.3]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.27.3.6. Face Sealed Cladding	
(2)	[F20,F61,F55-OS2.3]
	[F20,F61,F55-OH1.1,OH1.2,OH1.3]
(3)	[F61,F55-OS2.3]
	[F61,F55-OH1.1,OH1.2,OH1.3]
9.27.3.7. Flashing Materials	
(1)	[F61,F62,F80-OS2.3]
	[F61,F62,F80-OH1.1,OH1.2,OH1.3]
9.27.3.8. Flashing Installation	
(1)	(a),(b),(c)(i) [F61-OS2.3]
	(a),(b),(c)(i) [F61-OH1.1,OH1.2,OH1.3]
	(c)(ii) [F61,F62-OS2.3]
	(c)(ii) [F61,F62-OH1.1,OH1.2,OH1.3]
(2)	(a),(b)(ii),(c)(i) [F61-OS2.3] Applies to detailing of horizontal joints.
	(a),(b)(ii),(c)(i) [F61-OH1.1,OH1.2,OH1.3] Applies to detailing of horizontal joints.
	(b)(i),(c)(ii) [F61,F62-OS2.3] Applies to cladding installed outboard of a drained and vented air space.
	(b)(i), (c)(ii) [F61,F62-OH1.1,OH1.2,OH1.3] Applies to cladding installed outboard of a drained and vented air space.
(3)	[F61,F62-OS2.3]
	[F61,F62-OH1.1,OH1.2,OH1.3]
(4)	[F61,F62-OS2.3]
	[F61,F62-OH1.1,OH1.2,OH1.3]
(5)	[F61,F62-OS2.3]
	[F61,F62-OH1.1,OH1.2,OH1.3]
9.27.4.1. Required Sealants	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
(2)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
(3)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
9.27.4.2. Materials	
(1)	[F80-OH1.1,OH1.2,OH1.3]
	[F80-OS2.3]
(2)	[F80-OH1.1,OH1.2,OH1.3]
	[F80-OS2.3]
(3)	[F80-OH1.1,OH1.2,OH1.3]
	[F80-OS2.3]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.27.5.1. Attachment	
(1)	[F20-OS2.1,OS2.3] [F20-OS2.1,OS2.3,OS2.4] [F22-OS2.3,OS2.4,OS2.5] Applies where panel-type cladding is installed to provide the required bracing.
	[F20-OP2.1,OP2.3,OP2.4] [F22-OP2.3,OP2.4,OP2.5] Applies where panel-type cladding is installed to provide the required bracing.
	[F20-OH1.1,OH1.2,OH1.3] [F20,F22-OH1.1,OH1.2,OH1.3] Applies where panel-type cladding is installed to provide the required bracing.
	[F20,F22-OH4] Applies where panel-type cladding is installed to provide the required bracing of walls that support floors.
	[F20,F22-OS3.1] Applies where panel-type cladding is installed to provide the required bracing of walls that support floors. [F20,F22-OS3.7] Applies where panel-type cladding is installed to provide required bracing of walls that contain doors or windows required for emergency egress.
(2)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.1,OS2.3]
(3)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.3]
(4)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.1,OS2.3]
(5)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.1,OS2.3]
(6)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.1,OS2.3]
9.27.5.2. Blocking	
(1)	[F20-OH1.1,OH1.2,OH1.3] [F20,F22-OH1.1,OH1.2,OH1.3] Applies where panel-type cladding is installed to provide the required bracing.
	[F20-OS2.1,OS2.3] [F20-OS2.1,OS2.3,OS2.4] [F22-OS2.3,OS2.4,OS2.5] Applies where panel-type cladding is installed to provide the required bracing.
	[F20-OP2.1,OP2.3,OP2.4] [F22-OP2.3,OP2.4,OP2.5] Applies where panel-type cladding is installed to provide the required bracing.
9.27.5.3. Furring	
(1)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.1,OS2.3] [F20-OS2.1,OS2.3,OS2.4] [F22-OS2.3,OS2.4,OS2.5] Applies where furring is used for the attachment of panel-type cladding installed to provide the required bracing.
(2)	[F20-OH1.1,OH1.2,OH1.3] [F20,F22-OH1.1,OH1.2,OH1.3] Applies where furring is used for the attachment of panel-type cladding installed to provide the required bracing.
	[F20-OS2.1,OS2.3] [F20-OS2.1,OS2.3,OS2.4] [F22-OS2.3,OS2.4,OS2.5] Applies where furring is used for the attachment of panel-type cladding installed to provide the required bracing.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(3)	[F20-OH1.1,OH1.2,OH1.3] [F20,F22-OH1.1,OH1.2,OH1.3] Applies where furring is used for the attachment of panel-type cladding installed to provide the required bracing.
	[F20-OS2.1,OS2.3] [F20-OS2.1,OS2.3,OS2.4] [F22-OS2.3,OS2.4,OS2.5] Applies where furring is used for the attachment of panel-type cladding installed to provide the required bracing.
9.27.5.4. Size and Spacing of Fasteners	
(1)	[F20-OH1.1,OH1.2,OH1.3] [F20,F22-OH1.1,OH1.2,OH1.3] Applies to the attachment of panel-type cladding installed to provide the required bracing.
	[F20-OS2.1,OS2.3] [F20-OS2.1,OS2.3,OS2.4] [F22-OS2.3,OS2.4,OS2.5] Applies where panel-type cladding is installed to provide the required bracing.
9.27.5.5. Fastener Materials	
(1)	[F80-OH1.1,OH1.2,OH1.3]
	[F80-OS2.3] [F80-OS2.3,OS2.4] Applies where panel-type cladding is installed to provide the required bracing.
	[F80-OP2.1,OP2.3,OP2.4,OP2.5] Applies where panel-type cladding is installed to provide the required bracing.
9.27.5.6. Expansion and Contraction	
(1)	[F21-OH1.1,OH1.2,OH1.3]
	[F21-OS2.3]
9.27.5.7. Penetration of Fasteners	
(1)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.1,OS2.3]
(2)	[F20-OH1.1,OH1.2,OH1.3] [F20,F22-OH1.1,OH1.2,OH1.3] Applies where panel-type cladding is installed to provide the required bracing.
	[F20-OS2.1,OS2.3] [F20-OS2.1,OS2.3,OS2.4] [F22-OS2.3,OS2.4,OS2.5] Applies where panel-type cladding is installed to provide the required bracing.
	[F20-OP2.1,OP2.3,OP2.4] [F22-OP2.3,OP2.4,OP2.5] Applies where panel-type cladding is installed to provide the required bracing.
9.27.6.1. Materials	
(1)	[F61,F20-OH1.1,OH1.2,OH1.3]
	[F62,F20-OS2.3]
9.27.6.2. Thickness and Width	
(1)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.3]
(2)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.3]
(3)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.3]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
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Acceptable Solutions	Functional Statements and Objectives[1]
9.27.6.3. Joints	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
(2)	[F21,F61-OH1.1,OH1.2,OH1.3]
	[F21,F61-OS2.3]
9.27.7.1. Materials	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
(2)	[F61,F20-OH1.1,OH1.2,OH1.3]
	[F61,F20-OS2.3]
(3)	[F61,F20-OH1.1,OH1.2,OH1.3]
	[F61,F20-OS2.3]
9.27.7.2. Width	
(1)	[F61,F20-OH1.1,OH1.2,OH1.3]
	[F61,F20-OS2.3]
9.27.7.3. Fasteners	
(1)	[F61,F20-OH1.1,OH1.2,OH1.3]
	[F61,F20-OS2.3]
9.27.7.4. Offsetting of Joints	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
(2)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
9.27.7.5. Fastening to Lath	
(1)	[F81-OH1.1,OH1.2,OH1.3]
	[F81-OS2.3]
(2)	[F62-OH1.1,OH1.2,OH1.3]
	[F62-OS2.3]
(3)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.3]
(4)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.3]
(5)	[F62-OH1.1,OH1.2,OH1.3]
	[F62-OS2.3]
9.27.7.6. Exposure and Thickness	
(1)	[F62,F20-OH1.1,OH1.2,OH1.3]
	[F62,F20-OS2.3]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
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Acceptable Solutions	Functional Statements and Objectives[1]
9.27.8.1. Material Standards	
(1)	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20-OS2.1,OS2.3] [F20-OS2.1,OS2.3,OS2.4] [F22-OS2.3,OS2.4,OS2.5] Applies where panel-type cladding is installed to provide the required bracing.
	[F20-OP2.1,OP2.3,OP2.4] [F22-OP2.3,OP2.4,OP2.5] Applies where panel-type cladding is installed to provide the required bracing.
9.27.8.2. Thickness	
(1)	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS2.1,OS2.3] [F20-OS2.1,OS2.3,OS2.4] [F22-OS2.3,OS2.4,OS2.5] Applies where panel-type cladding is installed to provide the required bracing.
(2)	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20-OS2.1,OS2.3] [F20-OS2.1,OS2.3,OS2.4] [F22-OS2.3,OS2.4,OS2.5] Applies where panel-type cladding is installed to provide the required bracing.
	[F20-OP2.1,OP2.3] [F22-OP2.3,OP2.4,OP2.5] Applies where panel-type cladding is installed to provide the required bracing.
9.27.8.3. Edge Treatment	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3] [F61-OS2.3,OS2.4,OS2.5] Applies where panel-type cladding is installed to provide the required bracing.
	[F61-OP2.3,OP2.4,OP2.5] Applies where panel-type cladding is installed to provide the required bracing.
9.27.8.4. Panel Cladding	
(1)	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS2.1,OS2.3] [F20-OS2.1,OS2.3,OS2.4] [F22-OS2.3,OS2.4,OS2.5] Applies where panel-type cladding is installed to provide the required bracing.
	[F20-OP2.1,OP2.3,OP2.4] [F22-OP2.3,OP2.4,OP2.5] Applies where panel-type cladding is installed to provide the required bracing.
(2)	[F21-OH1.1,OH1.2,OH1.3]
	[F21-OS2.3]
(3)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
(4)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
9.27.8.5. Lapped Strip Siding	
(1)	[F21,F61-OH1.1,OH1.2,OH1.3]
	[F21,F61-OS2.3]
(2)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
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Acceptable Solutions	Functional Statements and Objectives[1]
(3)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
9.27.9.1. Material Standards	
(1)	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20-OS2.1,OS2.3] [F20-OS2.1,OS2.3,OS2.4] [F22-OS2.3,OS2.4,OS2.5] Applies where panel-type cladding is installed to provide the required bracing.
(2)	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20-OS2.1,OS2.3] [F22-OS2.3,OS2.4,OS2.5] Applies where panel-type cladding is installed to provide the required bracing.
9.27.9.2. Thickness	
(1)	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS2.1,OS2.3] [F20-OS2.1,OS2.3,OS2.4] [F22-OS2.3,OS2.4,OS2.5] Applies where panel-type cladding is installed to provide the required bracing.
	[F20-OP2.1,OP2.3,OP2.4] [F22-OP2.3,OP2.4,OP2.5] Applies where panel-type cladding is installed to provide the required bracing.
(2)	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS2.1,OS2.3] [F20-OS2.1,OS2.3,OS2.4] [F22-OS2.3,OS2.4,OS2.5] Applies where panel-type cladding is installed to provide the required bracing.
(3)	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS2.1,OS2.3] [F20-OS2.1,OS2.3,OS2.4] [F22-OS2.3,OS2.4,OS2.5] Applies where panel-type cladding is installed to provide the required bracing.
	[F20-OP2.1,OP2.3,OP2.4] [F22-OP2.3,OP2.4,OP2.5] Applies where panel-type cladding is installed to provide the required bracing.
9.27.9.3. Panel Cladding	
(1)	[F20,F21,F22-OH1.1,OH1.2,OH1.3]
	[F20,F21,F22-OS2.1,OS2.3] [F20-OS2.1,OS2.3,OS2.4] [F22-OS2.3,OS2.4,OS2.5] Applies where panel-type cladding is installed to provide the required bracing.
	[F20-OP2.1,OP2.3,OP2.4] [F22-OP2.3,OP2.4,OP2.5] Applies where panel-type cladding is installed to provide the required bracing.
(2)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
(3)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
9.27.9.4. Lapped Strip Siding	
(1)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
(2)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
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Acceptable Solutions	Functional Statements and Objectives[1]
9.27.9.5. Clearance	
(1)	[F21-OH1.1,OH1.2,OH1.3]
	[F21-OS2.1,OS2.3] [F21-OS2.1,OS2.3,OS2.4,OS2.5] Applies where panel-type cladding is installed to provide the required bracing.
	[F21-OP2.1,OP2.3,OP2.4,OP2.5] Applies where panel-type cladding is installed to provide the required bracing.
9.27.10.1. Material Standard	
(1)	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20-OS2.1,OS2.3] [F20-OS2.1,OS2.3,OS2.4] [F22-OS2.3,OS2.4,OS2.5] Applies where panel-type cladding is installed to provide the required bracing.
9.27.10.2. Thickness	
(1)	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS2.1,OS2.3] [F20-OS2.1,OS2.3,OS2.4] [F22-OS2.3,OS2.4,OS2.5] Applies where panel-type cladding is installed to provide the required bracing.
(2)	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS2.1,OS2.3] [F20-OS2.1,OS2.3,OS2.4] [F22-OS2.3,OS2.4,OS2.5] Applies where panel-type cladding is installed to provide the required bracing.
	[F20-OP2.1,OP2.3,OP2.4] [F22-OP2.3,OP2.4,OP2.5] Applies where panel-type cladding is installed to provide the required bracing.
(3)	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS2.1,OS2.3] [F20-OS2.1,OS2.3,OS2.4] [F22-OS2.3,OS2.4,OS2.5] Applies where panel-type cladding is installed to provide the required bracing.
(4)	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS2.1,OS2.3] [F20-OS2.1,OS2.3,OS2.4] [F22-OS2.3,OS2.4,OS2.5] Applies where panel-type cladding is installed to provide the required bracing.
	[F20-OP2.1,OP2.3,OP2.4] [F22-OP2.3,OP2.4,OP2.5] Applies where panel-type cladding is installed to provide the required bracing.
9.27.10.3. Panel Cladding	
(1)	[F20,F22,F80-OH1.1,OH1.2,OH1.3]
	[F20,F22,F80-OS2.1,OS2.3] [F20,F80-OS2.1,OS2.3,OS2.4] [F22,F80-OS2.3,OS2.4,OS2.5] Applies where panel-type cladding is installed to provide the required bracing.
(2)	[F21-OH1.1,OH1.2,OH1.3]
	[F21-OS2.3]
(3)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]
(4)	[F61-OH1.1,OH1.2,OH1.3]
	[F61-OS2.3]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.27.10.4. Clearance	
(1)	[F21-OH1.1,OH1.2,OH1.3]
	[F21-OS2.1,OS2.3] [F21-OS2.1,OS2.3,OS2.4,OS2.5] Applies where panel-type cladding is installed to provide the required bracing.
	[F21-OP2.1,OP2.3,OP2.4,OP2.5] Applies where panel-type cladding is installed to provide the required bracing.
9.27.11.1. Material Standards	
(1)	[F20,F22,F61,F62-OH1.1,OH1.2,OH1.3]
	[F20-OS2.1,OS2.3] [F22,F61,F62-OS2.3]
(2)	[F20,F22,F61-OH1.1,OH1.2,OH1.3]
	[F20-OS2.1,OS2.3] [F22,F61-OS2.3] [F20-OS2.1,OS2.3,OS2.4] [F22-OS2.3,OS2.4,OS2.5] Applies where panel-type cladding is installed to provide the required bracing.
(3)	[F20,F22,F61-OH1.1,OH1.2,OH1.3]
	[F20-OS2.1,OS2.3] [F22,F61-OS2.3]
(4)	[F20,F22,F61-OH1.1,OH1.2,OH1.3]
	[F20-OS2.1,OS2.3] [F22,F61-OS2.3] [F20-OS2.1,OS2.3,OS2.4] [F22-OS2.3,OS2.4,OS2.5] Applies where panel-type cladding is installed to provide the required bracing.
9.27.12.1. Material Standard	
(1)	[F62,F61,F20-OH1.1,OH1.2,OH1.3]
	[F62,F61,F20-OS2.3]
9.28.1.1. Sheathing beneath Stucco	
(1)	[F20,F22-OH1.1,OH1.2,OH1.3]
	[F20,F22-OS2.3]
9.28.1.2. Lath and Reinforcing	
(1)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.3]
(2)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.3]
(3)	[F20,F21-OS1.1]
	[F20,F21-OS2.3]
	[F20,F21-OS3.4]
	[F20,F21-OP1.1]
	[F20,F21-OH1.1]
9.28.1.3. Concrete Masonry Units	
(1)	[F80-OH1.1,OH1.2,OH1.3]
	[F80-OS2.3]
	[F80-OS1.1] Applies where stucco is applied to masonry *chimneys*.
	[F80-OS3.4] Applies where stucco is applied to masonry *chimneys*.
	[F80-OP1.1] Applies where stucco is applied to masonry *chimneys*.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.28.1.4. Clearance over Ground Level	
(1)	[F80-OH1.1,OH1.2,OH1.3]
	[F80-OS2.3]
9.28.1.5. Flashing and Caulking	
(1)	[F80-OH1.1,OH1.2,OH1.3] Applies to the separation of aluminum flashing from stucco.
	[F80-OS2.3] Applies to the separation of aluminum flashing from stucco.
9.28.2.1. Portland Cement	
(1)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.3]
	[F20-OS1.1] Applies where stucco is applied to masonry *chimneys*.
	[F20-OS3.4] Applies where stucco is applied to masonry *chimneys*.
	[F20-OP1.1] Applies where stucco is applied to masonry *chimneys*.
9.28.2.2. Aggregate	
(1)	[F80-OH1.1,OH1.2,OH1.3]
	[F80-OS2.3]
	[F80-OS1.1] Applies where stucco is applied to masonry *chimneys*.
	[F80-OS3.4] Applies where stucco is applied to masonry *chimneys*.
	[F80-OP1.1] Applies where stucco is applied to masonry *chimneys*.
(2)	[F20,F80-OH1.1,OH1.2,OH1.3]
	[F20,F80-OS2.3]
	[F20,F80-OS1.1] Applies where stucco is applied to masonry *chimneys*.
	[F20,F80-OS3.4] Applies where stucco is applied to masonry *chimneys*.
	[F20,F80-OP1.1] Applies where stucco is applied to masonry *chimneys*.
9.28.2.3. Water	
(1)	[F80-OH1.1,OH1.2,OH1.3]
	[F80-OS2.3]
	[F80-OS1.1] Applies where stucco is applied to masonry *chimneys*.
	[F80-OS3.4] Applies where stucco is applied to masonry *chimneys*.
	[F80-OP1.1] Applies where stucco is applied to masonry *chimneys*.
9.28.3.1. Materials	
(1)	[F80-OH1.1,OH1.2,OH1.3]
	[F80-OS2.3]
	[F80-OS1.1] Applies where stucco is applied to masonry *chimneys*.
	[F80-OS3.4] Applies where stucco is applied to masonry *chimneys*.
	[F80-OP1.1] Applies where stucco is applied to masonry *chimneys*.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.28.3.2. Nails and Staples	
(1)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.3]
	[F20-OS1.1] Applies where stucco is applied to masonry *chimneys*.
	[F20-OS3.4] Applies where stucco is applied to masonry *chimneys*.
	[F20-OP1.1] Applies where stucco is applied to masonry *chimneys*.
(2)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.3]
(3)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.3]
	[F20-OS1.1] Applies where stucco is applied to masonry *chimneys*.
	[F20-OS3.4] Applies where stucco is applied to masonry *chimneys*.
	[F20-OP1.1] Applies where stucco is applied to masonry *chimneys*.
(4)	[F20-OS2.1]
9.28.4.1. Materials	
(1)	[F80-OH1.1,OH1.2,OH1.3]
	[F80-OS2.3]
	[F80-OS1.1] Applies where stucco is applied to masonry *chimneys*.
	[F80-OS3.4] Applies where stucco is applied to masonry *chimneys*.
	[F80-OP1.1] Applies where stucco is applied to masonry *chimneys*.
(2)	[F80-OH1.1,OH1.2,OH1.3]
	[F80-OS2.3]
	[F80-OS1.1] Applies where stucco is applied to masonry *chimneys*.
	[F80-OS3.4] Applies where stucco is applied to masonry *chimneys*.
	[F80-OP1.1] Applies where stucco is applied to masonry *chimneys*.
9.28.4.2. No Sheathing Required	
(1)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.3]
9.28.4.3. Stucco Lath Specifications	
(1)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.3]
	[F20-OS1.1] Applies where stucco is applied to masonry *chimneys*.
	[F20-OS3.4] Applies where stucco is applied to masonry *chimneys*.
	[F20-OP1.1] Applies where stucco is applied to masonry *chimneys*.
9.28.4.4. Self-Furring Devices	
(1)	[F20,F80-OH1.1,OH1.2,OH1.3]
	[F20,F80-OS2.3]
	[F20,F80-OS1.1] Applies where stucco is applied to masonry *chimneys*.
	[F20,F80-OS3.4] Applies where stucco is applied to masonry *chimneys*.
	[F20,F80-OP1.1] Applies where stucco is applied to masonry *chimneys*.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.28.4.5. Application of Stucco Lath	
(1)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.3]
	[F20-OS1.1] Applies where stucco is applied to masonry *chimneys*.
	[F20-OS3.4] Applies where stucco is applied to masonry *chimneys*.
	[F20-OP1.1] Applies where stucco is applied to masonry *chimneys*.
(2)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.3]
	[F20-OS1.1] Applies where stucco is applied to masonry *chimneys*.
	[F20-OS3.4] Applies where stucco is applied to masonry *chimneys*.
	[F20-OP1.1] Applies where stucco is applied to masonry *chimneys*.
(3)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.3]
(4)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.3]
	[F20-OS1.1] Applies where stucco is applied to masonry *chimneys*.
	[F20-OS3.4] Applies where stucco is applied to masonry *chimneys*.
	[F20-OP1.1] Applies where stucco is applied to masonry *chimneys*.
9.28.4.6. Fastening	
(2)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.3]
	[F20-OS1.1] Applies where stucco is applied to masonry *chimneys*.
	[F20-OS3.4] Applies where stucco is applied to masonry *chimneys*.
	[F20-OP1.1] Applies where stucco is applied to masonry *chimneys*.
(3)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.3]
	[F20-OS1.1] Applies where stucco is applied to masonry *chimneys*.
	[F20-OS3.4] Applies where stucco is applied to masonry *chimneys*.
	[F20-OP1.1] Applies where stucco is applied to masonry *chimneys*.
(4)	[F20-OS2.1]
9.28.5.1. Mixes	
(1)	[F20,F61,F80-OH1.1,OH1.2,OH1.3]
	[F20,F61,F80-OS2.3]
	[F20,F61,F80-OS1.1] Applies where stucco is applied to masonry *chimneys*.
	[F20,F61,F80-OS3.4] Applies where stucco is applied to masonry *chimneys*.
	[F20,F61,F80-OP1.1] Applies where stucco is applied to masonry *chimneys*.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.28.5.2. Pigments	
(1)	[F20,F80-OH1.1,OH1.2,OH1.3]
	[F20,F80-OS2.3]
	[F20,F80-OS1.1] Applies where stucco is applied to masonry *chimneys*.
	[F20,F80-OS3.4] Applies where stucco is applied to masonry *chimneys*.
	[F20,F80-OP1.1] Applies where stucco is applied to masonry *chimneys*.
(2)	[F20,F80-OH1.1,OH1.2,OH1.3]
	[F20,F80-OS2.3]
9.28.5.3. Mixing	
(1)	[F20,F80-OH1.1,OH1.2,OH1.3]
	[F20,F80-OS2.3]
	[F20,F80-OS1.1] Applies where stucco is applied to masonry *chimneys*.
	[F20,F80-OS3.4] Applies where stucco is applied to masonry *chimneys*.
	[F20,F80-OP1.1] Applies where stucco is applied to masonry *chimneys*.
(2)	[F20,F80-OH1.1,OH1.2,OH1.3]
	[F20,F80-OS2.3]
	[F20,F80-OS1.1] Applies where stucco is applied to masonry *chimneys*.
	[F20,F80-OS3.4] Applies where stucco is applied to masonry *chimneys*.
	[F20,F80-OP1.1] Applies where stucco is applied to masonry *chimneys*.
9.28.6.1. Low Temperature Conditions	
(1)	[F20,F80-OH1.1,OH1.2,OH1.3]
	[F20,F80-OS2.3]
	[F20,F80-OS1.1] Applies where stucco is applied to masonry *chimneys*.
	[F20,F80-OS3.4] Applies where stucco is applied to masonry *chimneys*.
	[F20,F80-OP1.1] Applies where stucco is applied to masonry *chimneys*.
(2)	[F20,F80-OH1.1,OH1.2,OH1.3]
	[F20,F80-OS2.3]
	[F20,F80-OS1.1] Applies where stucco is applied to masonry *chimneys*.
	[F20,F80-OS3.4] Applies where stucco is applied to masonry *chimneys*.
	[F20,F80-OP1.1] Applies where stucco is applied to masonry *chimneys*.
9.28.6.2. Number of Coats and Total Thickness	
(1)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.3]
	[F20-OS1.1] Applies where stucco is applied to masonry *chimneys*.
	[F20-OS3.4] Applies where stucco is applied to masonry *chimneys*.
	[F20-OP1.1] Applies where stucco is applied to masonry *chimneys*.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
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Acceptable Solutions	Functional Statements and Objectives[1]
9.28.6.3. First Coat	
(1)	[F20,F80-OH1.1,OH1.2,OH1.3]
	[F20,F80-OS2.3]
	[F20,F80-OS1.1] Applies where stucco is applied to masonry *chimneys*.
	[F20,F80-OS3.4] Applies where stucco is applied to masonry *chimneys*.
	[F20,F80-OP1.1] Applies where stucco is applied to masonry *chimneys*.
(2)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.3]
	[F20-OS1.1] Applies where stucco is applied to masonry *chimneys*.
	[F20-OS3.4] Applies where stucco is applied to masonry *chimneys*.
	[F20-OP1.1] Applies where stucco is applied to masonry *chimneys*.
9.28.6.4. Second Coat	
(1)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.3]
	[F20-OS1.1] Applies where stucco is applied to masonry *chimneys*.
	[F20-OS3.4] Applies where stucco is applied to masonry *chimneys*.
	[F20-OP1.1] Applies where stucco is applied to masonry *chimneys*.
(2)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.3]
	[F20-OS1.1] Applies where stucco is applied to masonry *chimneys*.
	[F20-OS3.4] Applies where stucco is applied to masonry *chimneys*.
	[F20-OP1.1] Applies where stucco is applied to masonry *chimneys*.
9.28.6.5. Finish Coat	
(1)	[F80-OH1.1,OH1.2,OH1.3]
	[F80-OS2.3]
	[F80-OS1.1] Applies where stucco is applied to masonry *chimneys*.
	[F80-OS3.4] Applies where stucco is applied to masonry *chimneys*.
	[F80-OP1.1] Applies where stucco is applied to masonry *chimneys*.
(2)	[F20-OH1.1,OH1.2,OH1.3]
	[F20-OS2.3]
	[F20-OS1.1] Applies where stucco is applied to masonry *chimneys*.
	[F20-OS3.4] Applies where stucco is applied to masonry *chimneys*.
	[F20-OP1.1] Applies where stucco is applied to masonry *chimneys*.
(3)	[F80-OH1.1,OH1.2,OH1.3]
	[F80-OS2.3]
	[F80-OS1.1] Applies where stucco is applied to masonry *chimneys*.
	[F80-OS3.4] Applies where stucco is applied to masonry *chimneys*.
	[F80-OP1.1] Applies where stucco is applied to masonry *chimneys*.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.29.2.1. Where Required	
(1)	[F80,F81-OH1.1,OH1.2] Applies where interior finishes support or serve as required environmental separation elements.
	[F80,F81-OS2.3]
	[F80,F81-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F80,F81-OP2.3,OP2.4]
9.29.2.2. Materials	
(1)	[F80,F81-OH1.1,OH1.2] Applies where interior finishes support or serve as required environmental separation elements.
	[F80-OS2.3]
	[F80-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F80-OP2.3,OP2.4]
9.29.3.1. Size and Spacing of Furring	
(1)	[F20,F22-OS2.1]
	[F20,F22-OH1.1,OH1.2] Applies where interior finishes support or serve as required environmental separation elements.
	[F20,F22-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20,F22-OP2.1,OP2.4]
9.29.3.2. Fastening	
(1)	[F20-OS2.1]
	[F20-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20-OH1.1,OH1.2] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OP2.1,OP2.4]
9.29.4.1. Application	
(1)	[F20,F80-OS2.1,OS2.3]
	[F20,F22,F80,F81-OH1.1,OH1.2] Applies where interior finishes support or serve as required environmental separation elements.
	[F20,F80-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20,F80-OP2.1,OP2.3] [F22,F80-OP2.4]
9.29.5.1. Application	
(2)	[F20,F80-OS2.1,OS2.3]
	[F20,F22,F80,F81-OH1.1,OH1.2] Applies where interior finishes support or serve as required environmental separation elements.
	[F20,F22,F80-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20,F80-OP2.1,OP2.3] [F22,F80-OP2.4]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.29.5.2. Materials	
(1)	[F20,F80-OP2.1,OP2.3] [F22,F80-OP2.4]
	[F20,F80-OS2.1,OS2.3]
	[F20,F22,F80-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20,F22,F80,F81-OH1.1,OH1.2] Applies where interior finishes support or serve as required environmental separation elements.
9.29.5.3. Maximum Spacing of Supports	
(1)	[F20-OS2.1]
	[F20,F22-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20,F22-OH1.1,OH1.2] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OP2.1] [F20,F22-OP2.4]
9.29.5.4. Support of Insulation	
(1)	[F20-OS2.1]
	[F20,F22-OH1.1,OH1.2] Applies where interior finishes support or serve as required environmental separation elements.
	[F20,F22-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20-OP2.1] [F20,F22-OP2.4]
9.29.5.5. Length of Fasteners	
(1)	[F20-OS2.1]
	[F20-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20-OH1.1,OH1.2] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OP2.1,OP2.4]
9.29.5.6. Nails	
(1)	[F20-OS2.1]
	[F20-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20-OH1.1,OH1.2] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OP2.1,OP2.4]
9.29.5.7. Screws	
(1)	[F20-OS2.1]
	[F20-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20-OH1.1,OH1.2] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OP2.1,OP2.4]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.29.5.8. Spacing of Nails	
(1)	[F20-OP2.1] [F20-OP2.3] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OS2.1] [F20-OS2.3] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OH1.1,OH1.2] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20-OP1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
(3)	[F20-OS2.1] [F20-OS2.3] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OP2.1] [F20-OP2.3] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OH1.1,OH1.2] Applies where interior finishes support or serve as required environmental separation elements.
(4)	[F20-OS2.1] [F20-OS2.5] [F22-OS2.4,OS2.5] Applies where interior finishes contribute to the required bracing or lateral support for studs. [F20,F22-OS2.3] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OP2.1] [F20-OP2.5] [F22-OP2.4,OP2.5] Applies where interior finishes contribute to the required bracing or lateral support for studs. [F20,F22-OP2.3] Applies where interior finishes support or serve as required environmental separation elements.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies where interior finishes contribute to the required bracing or lateral support for studs, or where interior finishes support or serve as required environmental separation elements.
	[F20-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20,F22-OH4] Applies where walls support floors and where interior finishes contribute to the required bracing or lateral support for studs or where interior finishes support or serve as required environmental separation elements.
	[F20,F22-OS3.1,OS3.7] Applies where walls support floors and where interior finishes contribute to the required bracing or lateral support for studs or where interior finishes support or serve as required environmental separation elements.
	[F20-OP3.1] Applies where interior finishes are installed to contribute to the required fire resistance of exterior walls.
	[F20-OP1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives(1)
(5)	[F20-OS2.1] [F20-OS2.5] [F22-OS2.4,OS2.5] Applies where interior finishes contribute to the required bracing or lateral support for studs. [F20,F22-OS2.3] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OP2.1] [F20-OP2.5] [F22-OP2.4,OP2.5] Applies where interior finishes contribute to the required bracing or lateral support for studs. [F20,F22-OP2.3] Applies where interior finishes support or serve as required environmental separation elements.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies where interior finishes contribute to the required bracing or lateral support for studs, or where interior finishes support or serve as required environmental separation elements.
	[F20-OH4] Applies where walls support floors and where interior finishes contribute to the required bracing or lateral support for studs or where interior finishes support or serve as required environmental separation elements.
	[F20-OS3.1,OS3.7] Applies where walls support floors and where interior finishes contribute to the required bracing or lateral support for studs or where interior finishes support or serve as required environmental separation elements.
	[F20-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20-OP1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20-OP3.1] Applies where interior finishes are installed to contribute to the required fire resistance of exterior walls.
(6)	[F20-OS2.1] [F20-OS2.5] [F22-OS2.4,OS2.5] Applies where interior finishes contribute to the required bracing or lateral support for studs. [F20,F22-OS2.3] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OP2.1] [F20-OP2.5] [F22-OP2.4,OP2.5] Applies where interior finishes contribute to the required bracing or lateral support for studs. [F20,F22-OP2.3] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OH4] Applies where walls support floors and where interior finishes contribute to the required bracing or lateral support for studs or where interior finishes support or serve as required environmental separation elements.
	[F20-OP1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20-OS3.1,OS3.7] Applies where walls support floors and where interior finishes contribute to the required bracing or lateral support for studs or where interior finishes support or serve as required environmental separation elements.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(7)	[F20-OS2.1] [F20-OS2.5] [F22-OS2.4,OS2.5] Applies where interior finishes contribute to the required bracing or lateral support for studs. [F20,F22-OS2.3] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OP2.1] [F20-OP2.5] [F22-OP2.4,OP2.5] Applies where interior finishes contribute to the required bracing or lateral support for studs. [F20,F22-OP2.3] Applies where interior finishes support or serve as required environmental separation elements.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies where interior finishes contribute to the required bracing or lateral support for studs, or where interior finishes support or serve as required environmental separation elements.
	[F20-OH4] Applies where walls support floors and where interior finishes contribute to the required bracing or lateral support for studs or where interior finishes support or serve as required environmental separation elements.
	[F20-OS3.1,OS3.7] Applies where walls support floors and where interior finishes contribute to the required bracing or lateral support for studs or where interior finishes support or serve as required environmental separation elements.
	[F20-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20-OP1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20-OP3.1] Applies where interior finishes are installed to contribute to the required fire resistance of exterior walls.
9.29.5.9. Spacing of Screws	
(1)	[F20-OS2.1] [F20-OS2.3] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OP2.1] [F20-OP2.3] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OH1.1,OH1.2] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20-OP1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
(3)	[F20-OS2.1] [F20-OS2.3] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OP2.1] [F20-OP2.3] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OH1.1,OH1.2,OH1.3] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OS1.2] Applies where gypsum board is required to provide the fire resistance and the rating of the assembly is determined according to Table A-9.10.3.1.A in Appendix A.
	[F20-OP1.2] Applies where gypsum board is required to provide the fire resistance and the rating of the assembly is determined according to Table A-9.10.3.1.A in Appendix A.
	[F20-OP3.1] Applies where interior finishes are installed to contribute to the required fire resistance of exterior walls.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(4)	[F20-OS2.1] [F20-OS2.5] [F22-OS2.4,OS2.5] Applies where interior finishes contribute to the required bracing or lateral support for studs. [F20,F22-OS2.3] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OP2.1] [F20-OP2.5] [F22-OP2.4,OP2.5] Applies where interior finishes contribute to the required bracing or lateral support for studs. [F20,F22-OP2.3] Applies where interior finishes support or serve as required environmental separation elements.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies where interior finishes contribute to the required bracing or lateral support for studs, or where interior finishes support or serve as required environmental separation elements.
	[F20-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20,F22-OS3.1,OS3.7] Applies where the walls support floors and where interior finishes contribute to the required bracing or lateral support for studs or where interior finishes support or serve as required environmental separation elements.
	[F20,F22-OH4] Applies where the walls support floors and where interior finishes contribute to the required bracing or lateral support for studs or where interior finishes support or serve as required environmental separation elements.
	[F20-OP3.1] Applies where interior finishes are installed to contribute to the required fire resistance of exterior walls.
	[F20-OP1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
(6)	[F20-OS2.1] [F20-OS2.5] [F22-OS2.4,OS2.5] Applies where interior finishes contribute to the required bracing or lateral support for studs. [F20,F22-OS2.3] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OP2.1] [F20-OP2.5] [F22-OP2.4,OP2.5] Applies where interior finishes contribute to the required bracing or lateral support for studs. [F20,F22-OP2.3] Applies where interior finishes support or serve as required environmental separation elements.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies where interior finishes contribute to the required bracing or lateral support for studs, or where interior finishes support or serve as required environmental separation elements.
	[F20-OH4] Applies where walls support floors and where interior finishes contribute to the required bracing or lateral support for studs or where interior finishes support or serve as required environmental separation elements.
	[F20-OS3.1,OS3.7] Applies where walls support floors and where interior finishes contribute to the required bracing or lateral support for studs or where interior finishes support or serve as required environmental separation elements.
	[F20-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20-OP1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20-OP3.1] Applies where interior finishes are installed to contribute to the required fire resistance of exterior walls.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(7)	[F20-OS2.1] [F20-OS2.5] [F22-OS2.4,OS2.5] Applies where interior finishes contribute to the required bracing or lateral support for studs. [F20,F22-OS2.3] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OP2.1] [F20-OP2.5] [F22-OP2.4,OP2.5] Applies where interior finishes contribute to the required bracing or lateral support for studs. [F20,F22-OP2.3] Applies where interior finishes support or serve as required environmental separation elements.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies where interior finishes contribute to the required bracing or lateral support for studs, or where interior finishes support or serve as required environmental separation elements.
	[F20-OS3.1,OS3.7] Applies where walls support floors and where interior finishes contribute to the required bracing or lateral support for studs or where interior finishes support or serve as required environmental separation elements.
	[F20-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20-OH4] Applies where walls support floors and where interior finishes contribute to the required bracing or lateral support for studs or where interior finishes support or serve as required environmental separation elements.
	[F20-OP1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20-OP3.1] Applies where interior finishes are installed to contribute to the required fire resistance of exterior walls.
9.29.5.10. Low Temperature Conditions	
(1)	[F81-OS1.2] Applies where the finishing of joints is required to maintain required *fire-resistance ratings*.
9.29.6.1. Thickness	
(1)	[F20-OS2.1]
	[F20,F22-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20,F22-OH1.1,OH1.2] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OP2.1] [F20,F22-OP2.4]
9.29.6.2. Grooved Plywood	
(1)	[F20-OS2.1]
	[F20,F22-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20,F22-OH1.1,OH1.2] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OP2.1] [F20,F22-OP2.4]
9.29.6.3. Nails and Staples	
(1)	[F20-OS2.1]
	[F20,F22-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20,F22-OH1.1,OH1.2] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OP2.1] [F20,F22-OP2.4]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.4,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.4,OP2.5]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to walls that support floors. [F22-OS3.7] Applies to walls that contain doors or windows required for emergency egress.
	[F20,F22-OH4] Applies to walls that support floors.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
9.29.6.4. Edge Support	
(1)	[F20-OS2.1]
	[F20,F22-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20,F22-OH1.1,OH1.2] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OP2.1] [F20,F22-OP2.4]
9.29.7.1. Material Standard	
(1)	[F20,F80-OS2.1,OS2.3]
	[F20,F22,F80-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20,F22,F80,F81-OH1.1,OH1.2] Applies where interior finishes support or serve as required environmental separation elements.
	[F20,F80-OP2.1,OP2.3] [F22,F80-OP2.4]
9.29.7.2. Thickness	
(1)	[F20-OS2.1]
	[F20,F22-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20,F22-OH1.1,OH1.2] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OP2.1] [F20,F22-OP2.4]
9.29.7.3. Nails	
(1)	[F20-OS2.1]
	[F20,F22-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20,F22-OH1.1,OH1.2] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OP2.1] [F20,F22-OP2.4]
9.29.7.4. Edge Support	
(1)	[F20-OS2.1]
	[F20,F22-OH1.1,OH1.2] Applies where interior finishes support or serve as required environmental separation elements.
	[F20,F22-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20-OP2.1] [F20,F22-OP2.4]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.29.8.1. Material Standard	
(1)	[F20,F80-OS2.1,OS2.3]
	[F20,F22,F80-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20,F22,F80,F81-OH1.1,OH1.2] Applies where interior finishes support or serve as required environmental separation elements.
	[F20,F80-OP2.1,OP2.3]
9.29.8.2. Thickness	
(1)	[F20-OS2.1]
	[F20,F22-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20,F22-OH1.1,OH1.2] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OP2.1] [F20,F22-OP2.4]
(2)	[F20-OS2.1]
	[F20,F22-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20,F22-OH1.1,OH1.2] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OP2.1] [F20,F22-OP2.4]
9.29.8.3. Nails	
(1)	[F20-OS2.1]
	[F20-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20-OH1.1,OH1.2] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OP2.1] [F20-OP2.4]
(2)	[F20-OS2.1]
	[F20,F22-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20,F22-OH1.1,OH1.2] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OP2.1] [F20,F22-OP2.4]
9.29.8.4. Edge Support	
(1)	[F20-OS2.1]
	[F20,F22-OH1.1,OH1.2] Applies where interior finishes support or serve as required environmental separation elements.
	[F20,F22-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20-OP2.1] [F20,F22-OP2.4]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.29.9.1. Material Standard	
(1)	[F20,F80-OS2.1,OS2.3]
	[F20,F22,F80-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20,F22,F80,F81-OH1.1,OH1.2] Applies where interior finishes support or serve as required environmental separation elements.
	[F20,F80-OP2.1,OP2.3] [F22,F80-OP2.4]
(2)	[F20,F80-OP2.1,OP2.3] [F22,F80-OP2.4]
	[F20,F80-OS2.1,OS2.3]
	[F20,F22,F80-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20,F22,F80,F81-OH1.1,OH1.2] Applies where interior finishes support or serve as required environmental separation elements.
9.29.9.2. Minimum Thickness	
(1)	[F20-OS2.1]
	[F20,F22-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20,F22-OH1.1,OH1.2] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OP2.1] [F20,F22-OP2.4]
(4)	[F20-OS2.1]
	[F20,F22-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20,F22-OH1.1,OH1.2] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OP2.1] [F20,F22-OP2.4]
(5)	[F20-OS2.1] [F20,F22-OS2.4,OS2.5] Applies where interior finishes contribute to the required bracing or lateral support for studs. [F20,F22-OS2.3] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OP2.1] [F20-OP2.5] [F22-OP2.4,OP2.5] Applies where interior finishes contribute to the required bracing or lateral support for studs. [F20,F22-OP2.3] Applies where interior finishes support or serve as required environmental separation elements.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies where interior finishes support or serve as required environmental separation elements, or where interior finishes contribute to the required bracing of exterior walls.
	[F20,F22-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics.
9.29.9.3. Nails	
(1)	[F20-OS2.1]
	[F20,F22-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20,F22-OH1.1,OH1.2] Applies where interior finishes support or serve as required environmental separation elements.
	[F20-OP2.1] [F20,F22-OP2.4]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F20-OS2.1,OS2.3,OS2.5] [F22-OS2.3,OS2.4,OS2.5]
	[F20-OP2.1,OP2.3,OP2.5] [F22-OP2.3,OP2.4,OP2.5]
	[F20,F22-OS1.2] Applies to assemblies required to provide fire resistance.
	[F22-OS3.1] Applies to walls that support floors. [F22-OS3.7] Applies to walls that contain doors or windows required for emergency egress.
	[F20,F22-OH4] Applies to walls that support floors.
	[F20,F22-OH1.1,OH1.2,OH1.3] Applies to elements that support or are part of an environmental separator.
9.29.9.4. Edge Support	
(1)	[F20-OS2.1]
	[F20,F22-OH1.1,OH1.2] Applies where interior finishes support or serve as required environmental separation elements.
	[F20,F22-OS1.2] Applies where interior finishes are required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20-OP2.1] [F20,F22-OP2.4]
9.29.10.1. Tile Application	
(1)	[F20,F81-OH1.1,OH1.2] Applies where the substrate serves as a required environmental separation element.
	[F20-OS2.1] [F20-OS2.5] [F22-OS2.4,OS2.5] Applies where the substrate for the tile contributes to the required bracing or lateral support for studs. [F20-OS2.3] Applies where the substrate for the tile serves as a required environmental separation element or where the tile is installed to provide the required waterproof wall finish.
	[F20-OS1.2] Applies where the substrate is required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20-OP2.1] [F20-OP2.5] [F22-OP2.4,OP2.5] Applies where the substrate for the tile contributes to the required bracing or lateral support for studs. [F20-OP2.3] Applies where the substrate for the tile serves as a required environmental separation element or where the tile is installed to provide the required waterproof wall finish.
(2)	[F20,F81-OH1.1,OH1.2] Applies where the substrate serves as a required environmental separation element.
	[F20-OS2.1] [F20-OS2.5] [F22-OS2.4,OS2.5] Applies where the substrate for the tile contributes to the required bracing or lateral support for studs. [F20-OS2.3] Applies where the substrate for the tile serves as a required environmental separation element or where the tile is installed to provide the required waterproof wall finish.
	[F20-OS1.2] Applies where the substrate is required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20-OP2.1] [F20-OP2.5] [F22-OP2.4,OP2.5] Applies where the substrate for the tile contributes to the required bracing or lateral support for studs. [F20-OP2.3] Applies where the substrate for the tile serves as a required environmental separation element or where the tile is installed to provide the required waterproof wall finish.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.29.10.2. Mortar Base	
(1)	[F20-OS2.1] [F20-OS2.5] [F22-OS2.4,OS2.5] Applies where the substrate for the tile contributes to the required bracing or lateral support for studs. [F20,F80-OS2.3] Applies where the substrate for the tile serves as a required environmental separation element or where the tile is installed to provide the required waterproof wall finish.
	[F20,F80-OS1.2] Applies where the substrate is required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20,F80,F81-OH1.1,OH1.2] Applies where the substrate serves as a required environmental separation element.
	[F20-OP2.1] [F20-OP2.5] [F22-OP2.4,OP2.5] Applies where the substrate for the tile contributes to the required bracing or lateral support for studs. [F20-OP2.3] Applies where the substrate for the tile serves as a required environmental separation element or where the tile is installed to provide the required waterproof wall finish.
(2)	[F20-OS2.1] [F20-OS2.5] [F22-OS2.4,OS2.5] Applies where the substrate for the tile contributes to the required bracing or lateral support for studs. [F20,F80-OS2.3] Applies where the substrate for the tile serves as a required environmental separation element or where the tile is installed to provide the required waterproof wall finish.
	[F20,F80-OS1.2] Applies where the substrate is required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20,F80,F81-OH1.1,OH1.2] Applies where the substrate serves as a required environmental separation element.
	[F20-OP2.1] [F20-OP2.5] [F22-OP2.4,OP2.5] Applies where the substrate for the tile contributes to the required bracing or lateral support for studs. [F20-OP2.3] Applies where the substrate for the tile serves as a required environmental separation element or where the tile is installed to provide the required waterproof wall finish.
(3)	[F20-OS2.1] [F20-OS2.5] [F22-OS2.4,OS2.5] Applies where the substrate for the tile contributes to the required bracing or lateral support for studs. [F20-OS2.3] Applies where the substrate for the tile serves as a required environmental separation element.
	[F20-OS1.2] Applies where the substrate is required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20,F81-OH1.1,OH1.2] Applies where the substrate serves as a required environmental separation element.
	[F20-OP2.1] [F20-OP2.5] [F22-OP2.4,OP2.5] Applies where the substrate for the tile contributes to the required bracing or lateral support for studs. [F20-OP2.3] Applies where the substrate for the tile serves as a required environmental separation element or where the tile is installed to provide the required waterproof wall finish.

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(4)	[F20-OS2.1] [F20-OS2.5] [F22-OS2.4,OS2.5] Applies where the substrate for the tile contributes to the required bracing or lateral support for studs. [F20-OS2.3] Applies where the substrate for the tile serves as a required environmental separation element or where the tile is installed to provide the required waterproof wall finish.
	[F20-OH1.1,OH1.2] Applies where the substrate serves as a required environmental separation element.
	[F20-OS1.2] Applies where the substrate is required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20-OP2.1] [F20-OP2.5] [F22-OP2.4,OP2.5] Applies where the substrate for the tile contributes to the required bracing or lateral support for studs. [F20-OP2.3] Applies where the substrate for the tile serves as a required environmental separation element or where the tile is installed to provide the required waterproof wall finish.
9.29.10.3. Adhesives	
(1)	[F20-OH1.1,OH1.2] Applies where the substrate serves as a required environmental separation element.
	[F20-OS2.3]
	[F20-OS1.2] Applies where the substrate is required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F20-OP2.3,OP2.4]
9.29.10.4. Moisture-Resistant Backing	
(1)	[F81-OH1.1,OH1.2] Applies where the substrate supports or serves as a required environmental separation element.
	[F20-OS2.3]
	[F20-OS1.2] Applies where the substrate is required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F81-OP2.3,OP2.4]
9.29.10.5. Joints between Tiles and Bathtub	
(1)	[F81-OH1.1,OH1.2] Applies where the substrate serves as a required environmental separation element.
	[F81-OS2.3]
	[F81-OS1.2] Applies where the substrate is required to act as fire protection for foamed plastics or to contribute to the required fire resistance of assemblies.
	[F81-OP2.3,OP2.4]
9.30.1.1. Required Finished Flooring	
(1)	[F30-OS3.1]
	[F40,F41-OH2.4]
9.30.1.2. Water Resistance	
(1)	[F80-OS2.3] Applies where finished flooring is required to provide water resistance.
	[F41,F81-OH1.1] Applies where finished flooring is required to provide water resistance.
9.30.1.3. Sleepers	
(1)	[F20,F80-OS3.1]
	[F80-OH1.1] Applies to portion of Code text: “Wood sleepers supporting finished flooring over a concrete base supported on the ground ... shall be treated with a wood preservative.”

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.30.2.1. Required Underlay	
(1)	[F81-OS3.1]
	[F81-OS2.3] Applies where finished flooring is required to provide water resistance.
	[F81-OH1.1] Applies where finished flooring is required to provide water resistance.
(2)	[F81-OS3.1]
	[F81-OS2.3] Applies where finished flooring is required to provide water resistance.
	[F81-OH1.1] Applies where finished flooring is required to provide water resistance.
(3)	[F81-OS3.1]
	[F81-OH1.1] Applies where finished flooring is required to provide water resistance.
	[F81-OS2.3] Applies where finished flooring is required to provide water resistance.
9.30.2.2. Materials and Thickness	
(1)	[F81-OS3.1]
	[F81-OS2.3] Applies where finished flooring is required to provide water resistance.
	[F81-OH1.1] Applies where finished flooring is required to provide water resistance.
(2)	[F81-OS2.3] Applies where finished flooring is required to provide water resistance.
	[F81-OS3.1]
	[F81-OH1.1] Applies where finished flooring is required to provide water resistance.
9.30.2.3. Fastening	
(1)	[F81-OS3.1]
	[F81-OS2.3] Applies where finished flooring is required to provide water resistance.
	[F81-OH1.1] Applies where finished flooring is required to provide water resistance.
(2)	[F81-OS3.1]
	[F81-OS2.3] Applies where finished flooring is required to provide water resistance.
	[F81-OH1.1] Applies where finished flooring is required to provide water resistance.
(3)	[F81-OS3.1]
	[F81-OS2.3] Applies where finished flooring is required to provide water resistance.
	[F81-OH1.1] Applies where finished flooring is required to provide water resistance.
9.30.2.4. Joints Offset	
(1)	[F81-OS3.1]
	[F81-OS2.3] Applies where finished flooring is required to provide water resistance.
	[F81-OH1.1] Applies where finished flooring is required to provide water resistance.
9.30.2.5. Surface Defects	
(1)	[F81-OS3.1]
	[F81-OS2.3] Applies where finished flooring is required to provide water resistance.
	[F81-OH1.1] Applies where finished flooring is required to provide water resistance.
9.30.3.1. Thickness	
(1)	[F30-OS3.1]
	[F20-OS2.1]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.30.3.2. Strip Direction and End Joints	
(1)	[F30-OS3.1]
(2)	[F20-OS2.1]
(3)	[F20-OS2.1]
9.30.3.3. Nailing	
(1)	[F30-OS3.1]
(2)	[F30-OS3.1]
9.30.3.4. Staples	
(1)	[F30-OS3.1]
9.30.4.1. Adhesive	
(1)	[F81-OS3.1]
9.30.5.1. Materials	
(1)	[F41,F80-OH1.1]
	[F80-OS3.1]
(2)	[F81,F80-OS3.1]
	[F41-OH1.1]
9.30.6.1. Substrate	
(1)	[F81-OS3.1]
	[F81-OH1.1] Applies where finished flooring is required to provide water resistance.
	[F81-OS2.3] Applies where finished flooring is required to provide water resistance.
(2)	[F81-OH1.1] Applies where finished flooring is required to provide water resistance.
	[F81-OS3.1]
	[F81-OS2.3] Applies where finished flooring is required to provide water resistance.
9.31.2.2. Corrosion Protection	
(1)	[F80-OH2.1]
	[F80-OS2.3]
9.31.2.3. Grab Bars	
(1)	[F20-OS3.1]
9.31.3.1. Required Water Supply	
(1)	[F70,F71-OH2.2,OH2.3]
9.31.3.2. Required Connections	
(1)	[F71-OH2.3]
(2)	[F71,F70-OH2.3]
9.31.4.1. Required Fixtures	
(1)	[F71,F70,F72-OH2.1,OH2.3]
9.31.4.2. Hot Water Supply	
(1)	[F71-OH2.3]
9.31.4.3. Floor Drains	
(1)	[F62,F40,F41-OH1.2,OH1.3] [F62-OH1.1]
(2)	[F62,F52-OH1.2,OH1.3] [F62-OH1.1]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.31.5.1. Building Sewer	
(1)	[F72-OH2.1]
9.31.5.2. Discharge of Sewage	
(1)	[F72-OH2.1]
(2)	[F72-OH2.1]
9.31.6.1. Hot Water Supply	
(1)	(a) [F40-OH2.1,OH2.4] [F71-OH2.3]
9.31.6.2. Equipment and Installation	
(1)	[F31,F30,F81-OS3.2] [F44-OS3.4]
(2)	[F44-OH1.1]
	[F01-OS1.1]
(3)	[F23-OS3.4]
	[F01-OS1.1]
9.31.6.3. Corrosion-Resistant Coating	
(1)	[F81,F80-OH2.3]
9.31.6.4. Fuel-Burning Heaters	
(1)	[F41-OH1.1]
	[F01-OS1.1]
9.31.6.5. Heating Coils	
(1)	[F31-OS3.2]
	[F71-OH2.3]
9.32.1.2. Required Ventilation	
(1)	[F40,F50-OH1.1]
	[F51,F52-OH1.2]
	[F51,F52,F62,F63-OH1.3]
	[F52,F62,F63,F80-OP2.3]
9.32.2.1. Required Ventilation	
(1)	[F40,F50-OH1.1]
	[F51,F52-OH1.2]
	[F51,F52,F62,F63-OH1.3]
	[F52,F62,F63,F80-OP2.3]
(2)	[F40,F50-OH1.1]
	[F51,F52-OH1.2]
	[F51,F52,F62,F63-OH1.3]
	[F52,F62,F63,F80-OP2.3]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.32.2.2. Non-Heating-Season Ventilation	
(1)	[F40,F50-OH1.1]
	[F51,F52-OH1.2]
	[F51,F52,F62,F63-OH1.3]
	[F52,F62,F63,F80-OP2.3]
(3)	[F42-OH2.5]
	[F42,F61-OP2.3]
(4)	[F80-OH2.5]
	[F80-OP2.3]
9.32.3.1. Required Ventilation	
(1)	[F40,F50-OH1.1]
	[F51,F52-OH1.2]
	[F51,F52,F62,F63-OH1.3]
	[F52,F62,F63,F80-OP2.3]
9.32.3.2. Design and Installation	
(1)	[F81-OH1.1,OH1.2,OH1.3]
	[F81-OP2.3]
(2)	[F81-OH1.1,OH1.2,OH1.3]
	[F81-OP2.3]
(3)	[F82-OH1.1,OH1.2,OH1.3]
	[F82-OP2.3]
9.32.3.3. Mechanical Ventilation System Components	
(1)	(a) [F40,F41,F50-OH1.1]
	(a), (b) [F52-OH1.2]
	(a), (b) [F40,F52,F62,F63,F80-OH1.3]
	(a), (b) [F40,F52,F62,F63,F80-OP2.3]
9.32.3.4. Principal Ventilation System Supply Air	
(2)	[F40,F41,F50-OH1.1]
(3)	[F40,F41,F50-OH1.1]
(4)	[F40,F41,F50-OH1.1]
(5)	[F40,F41,F50-OH1.1]
(6)	[F40,F41,F50-OH1.1]
9.32.3.5. Principal Ventilation System Exhaust Fan	
(1)	[F40,F41,F50-OH1.1]
	[F52-OH1.2]
	[F52,F62,F63-OH1.3]
	[F52,F62,F63,F80-OP2.3]
(2)	[F81-OH1.1,OH1.2,OH1.3]
	[F81-OP2.3]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(3)	(a) [F40,F41,F50-OH1.1]
	(a) [F52-OH1.2]
	(a) [F52,F62,F63-OH1.3]
	(a) [F52,F62,F63,F80-OP2.3]
	(b) [F81-OH1.1,OH1.2,OH1.3]
	(b) [F81-OP2.3]
(4)	[F81-OH1.1,OH1.2,OH1.3]
	[F81-OP2.3]
(5)	[F56-OH3.1]
9.32.3.6. Kitchen and Bathroom Exhaust Fans	
(1)	[F52,F62,F63-OH1.3]
	[F52,F62,F63,F80-OP2.3]
(2)	[F81-OH1.1,OH1.2,OH1.3]
	[F81-OP2.3]
9.32.3.7. Heated Craws Space Ventilation	
(1)	[F40,F41,F52,F62,F63,F80-OP2.3]
(2)	[F40,F41,F52,F62,F63,F80-OP2.3]
(3)	[F40,F41,F52,F62,F63,F80-OP2.3]
(4)	[F40,F41,F52,F62,F63,F80-OP2.3]
(5)	[F40,F41,F52,F62,F63,F80-OP2.3]
9.32.3.8.Air Ducts	
(1)	[F40,F41,F50-OH1.1]
	[F52,F62,F63-OH1.3]
	[F52,F62,F63,F80-OP2.3]
(2)	[F62-OH1.3]
	[F62-OP2.3]
(3)	[F40,F41,F50-OH1.1]
	[F52,F62,F63-OH1.3]
	[F52,F62,F63,F80-OP2.3]
	Table 9.32.3.8.(3), Note (1) [F81-OH1.1,OH1.3]
	Table 9.32.3.8.(3), Note (1) [F81-OP2.3]
(4)	[F51,F63-OH1.3]
	[F63,F80-OP2.3]
(5)	[F51,F63-OH1.3]
	[F63,F80-OP2.3]
(6)	(a) [F01,F02-OS1.1,OS1.2]
	(a) [F80,F82-OP2.3]
	(b) [F40,F80-OP2.3]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(7)	[F50,F81-OH1.1]
	[F81-OH1.3]
	[F81-OP2.3]
(8)	[F40,F81-OH1.1]
9.32.3.9. Outdoor Inlets and Outlets	
(1)	[F42-OH2.5]
	[F61,F81-OP2.3]
9.32.3.10. Interior Doors	
(1)	[F40,F50-OH1.1]
	[F52-OH1.2]>
9.32.3.11. Exhaust Fan Installation	
(1)	[F81-OH1.1]
	[F81-OS3.4]
9.32.3.12. Accessibility	
(1)	[F82-OH1.1]
	[F82-OH1.2]
	[F82-OH1.3]
	[F82-OS2.3]
	[F82-OS3.4]
	[F82-OP2.3]
(2)	[F02,F03,F82-OS1.1]
	[F02,F03,F82-OS1.2]
9.32.3.14. Interior Distribution	
(1)	[F40,F50,F52-OH1.1]
9.32.4.1. Protection Requirements	
(1)	(a) [F40,F81-OH1.1]
	(b) [F40,F50,F53-OH1.1]
	(b) [F43-OS3.4]
(2)	[F40,F50,F53-OH1.1]
(3)	[F40,F50,F53,F81-OH1.1]
(4)	[F51-OH1.2]
9.32.4.2. Carbon Monoxide Alarms	
(2)	[F11,F81-OS3.4]
(3)	[F11,F81-OS3.4]
(4)	[F11-OS3.4]
(5)	[F11-OS3.4]
(6)	[F11-OS3.4]>

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.33.1.1. Application	
(3)	[F40-OH1.1]
	[F40-OS3.4]
9.33.2.1. Required Heating Systems	
(1)	[F51,F52-OH1.2] [F63-OH1.1]
	[F63-OS2.3]
9.33.3.1. Indoor Design Temperatures	
(1)	[F51-OH1.2]
9.33.4.1. Design of Heating and Air-conditioning Systems	
(1)	[F41,F63-OH1.1] [F51,F52-OH1.2]
	[F63-OS2.3] Applies only to heating systems.
	[F44-OS3.4] Applies only to heating systems.
9.33.4.2. Installation of Hydronic Heating Systems	
(1)	[F01-OS1.1] Applies to heating equipment.
	[F01-OP1.1] Applies to heating equipment.
	[F63-OH1.1] [F51,F52-OH1.2]
	[F63-OS2.3] Applies to heating equipment.
	[F44-OS3.4] Applies to heating equipment.
9.33.4.3. Heating System Control	
(1)	[F51,F52-OH1.2] [F63-OH1.1]
9.33.4.4. Access	
(1)	[F82-OH1.1,OH1.2]
	[F82-OS2.3] Applies only to heating systems.
	[F82-OS1.1]
	[F82-OP1.1]
9.33.4.5. Protection from Freezing	
(1)	[F81-OH1.1,OH1.2]
	[F81-OS2.3] Applies only to heating systems.
9.33.4.6. Expansion, Contraction and System Pressure	
(1)	[F20-OH1.1,OH1.2]
	[F20-OS3.2]
	[F20-OS2.3] Applies only to heating systems.
9.33.4.7. Structural Movement	
(1)	[F23-OS3.4]
	[F23-OH1.1,OH1.2]
	[F23-OS1.1]
	[F23-OP1.1]
(2)	[F20-OS3.3,OS3.4]
	[F20-OS1.1]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.33.4.8. Asbestos	
(1)	[F43-OH1.1]
9.33.4.9. Contaminant Transfer	
(1)	[F44-OH1.1]
	[F44-OS3.4]
9.33.5.1. Capacity of Heating Appliances	
(1)	[F63-OH1.1] [F51-OH1.2]
	[F63-OS2.3]
9.33.5.2. Appliance Installation Standards	
(1)	[F01-OP1.1] Applies to heating equipment.
	[F41,F63,F50-OH1.1] [F51,F52-OH1.2]
	[F63-OS2.3] Applies to heating equipment.
	[F44-OS3.4] Applies to heating equipment.
	[F01-OS1.1] Applies to heating equipment.
9.33.5.3. Design, Construction and Installation Standard for Solid-Fuel-Burning Appliances	
(1)	[F41,F43-OH1.1] [F51-OH1.2]
	[F51-OS2.3]
	[F43-OS3.4]
	[F01-OS1.1]
	[F01-OP1.1]
9.33.6.2. Materials in Air Duct Systems	
(1)	[F01-OS1.1]
	[F01-OP1.1]
(2)	(a),(b),(c),(d) [F01-OS1.1]
	(a),(b),(c),(d) [F01-OP1.1]
(3)	[F01-OS1.1]
	[F01-OP1.1]
(4)	(a),(b),(c),(d) [F01-OS1.1]
	(a),(b),(c),(d) [F01-OP1.1]
(7)	(a),(b) [F41,F63-OH1.1] [F50,F51,F52-OH1.2]
	(a),(b) [F63-OS2.3]
9.33.6.3. Tape	
(1)	[F01-OS1.1]
	[F01-OP1.1]
9.33.6.4. Coverings, Linings, Adhesives and Insulation	
(1)	[F01-OS1.1]
	[F01-OP1.1]
(2)	(a),(b) [F01-OS1.1]
	(a),(b) [F01-OP1.1]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(3)	(a),(b) [F01-OS1.1]
	(a),(b) [F01-OP1.1]
(4)	[F01-OS1.1]
	[F01-OP1.1]
(5)	[F01-OS1.1]
	[F01-OP1.1]
(6)	[F01-OS1.1]
	[F01-OP1.1]
(7)	(a),(b) [F01,F03-OS1.1]
	(a),(b) [F01,F03-OP1.1]
(8)	[F63-OH1.1] Applies to ventilation ducts and their fittings. [F51,F52-OH1.2] Applies to air duct distribution systems serving heating systems.
	[F03-OS1.1] Applies to air duct distribution systems.
	[F03-OP1.1] Applies to air duct distribution systems.
	[F63-OS2.3] Applies to air duct distribution systems.
9.33.6.5. Galvanized Steel or Aluminum Supply Ducts	
(1)	[F20-OH1.1,OH1.2]
	[F01-OS1.1]
	[F01-OP1.1]
(2)	[F20,F63-OH1.1] [F20,F51,F52-OH1.2]
	[F20,F63-OS2.3]
9.33.6.6. Construction of Ducts and Plenums	
(1)	[F03-OS1.1]
	[F03-OP1.1]
(2)	[F01-OS1.1]
	[F20-OS3.1]
	[F63-OH1.1] [F51,F52-OH1.2]
	[F20,F63-OS2.3]
(3)	[F43,F63-OH1.1] [F51,F52-OH1.2]
	[F01-OS1.1]
	[F63-OS2.3]
	[F01-OP1.1]
(4)	[F43,F63-OH1.1] [F51,F52-OH1.2]
	[F63-OS2.3]
	[F01-OS1.1]
	[F01-OP1.1]
(5)	[F63-OH1.1] [F51,F52-OH1.2]
	[F63-OS2.3]
	[F01-OS1.1]
	[F01-OP1.1]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.33.6.7. Installation of Ducts and Plenums	
(1)	[F40-OH1.1]
	[F40-OS3.4]
(2)	[F63-OH1.1] [F51,F52-OH1.2]
	[F63-OS2.3]
	[F01-OS1.1]
	[F01-OP1.1]
(3)	[F63-OH1.1] [F51,F52-OH1.2]
	[F63-OS2.3]
	[F20-OS3.1]
(4)	[F51,F52-OH1.2] [F63,F50-OH1.1]
	[F63,F80-OS2.3]
(5)	[F01-OS1.1]
	[F01-OP1.1]
(6)	[F80-OH1.1,OH1.2]
	[F80-OS2.3]
(7)	(a),(b) [F40,F62-OH1.1,OH1.2]
	(a),(b) [F40,F62-OS2.3]
	(b) [F44-OS3.4]
9.33.6.8. Clearances of Ducts and Plenums	
(2)	(a),(b) [F01-OS1.1]
	(a),(b) [F01-OP1.1]
(3)	(a),(b) [F01-OS1.1]
	(a),(b) [F01-OP1.1]
(4)	(a),(b),(c) [F01-OS1.1]
	(a),(b),(c) [F01-OP1.1]
(5)	[F01-OS1.1]
	[F01-OP1.1]
9.33.6.9. Adjustable Dampers and Balance Stops	
(1)	[F40,F63-OH1.1] [F51,F52-OH1.2]
	[F63-OS2.3] Applies to branch *supply ducts* that are not fitted with diffusers with adjustable balance stops.
9.33.6.10. Warm-Air Supply Outlets and Return Inlets — General	
(1)	[F81-OS1.1]
	[F81-OH1.1,OH1.2]
	[F81-OS2.3]
(2)	(a),(b) [F01,F02-OS1.1]
	(a),(b) [F01,F02-OP1.1]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.33.6.11. Warm-Air Supply Outlets	
(1)	[F40,F63-OH1.1] [F51,F52-OH1.2]
	[F63-OS2.3]
(2)	[F63-OH1.1] [F51-OH1.2]
	[F63-OS2.3]
(3)	[F40,F63-OH1.1] [F51-OH1.2]
(4)	[F40,F63-OH1.1] [F51-OH1.2]
	[F63-OS2.3]
(5)	[F40,F63-OH1.1] [F51-OH1.2]
	[F63-OS2.3]
(6)	[F40,F63-OH1.1] [F51-OH1.2]
	[F63-OS2.3]
(8)	[F31-OS3.2]
(9)	[F40,F63-OH1.1] [F51-OH1.2]
	[F63-OS2.3] Applies to warm-air supply outlets located in finished areas.
9.33.6.12. Return-Air Inlets	
(1)	[F44,F40-OH1.1]
	[F44,F40-OS3.4]
(2)	[F63-OH1.1] [F51-OH1.2]
(3)	[F63-OH1.1] [F51-OH1.2]
	[F63-OS2.3]
9.33.6.13. Return-Air System	
(1)	[F63-OH1.1] [F51-OH1.2]
	[F63-OS2.3]
(2)	[F01-OS1.1]
	[F01-OP1.1]
(3)	[F01-OS1.1]
	[F01-OP1.1]
(4)	(a),(b),(c) [F01-OS1.1]
	(a),(b),(c) [F01-OP1.1]
(5)	[F51,F52-OH1.1,OH1.2]
	[F51,F52-OS2.3]
(6)	[F63-OH1.1] [F51-OH1.2]
	[F63-OS2.3]
(7)	(a),(b) [F44-OH1.1]
	(a),(b) [F44-OS3.4]
9.33.6.14. Filters and Odour Removal Equipment	
(1)	[F01-OS1.1]
	[F01-OP1.1]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
(2)	[F32-OS3.3]
	[F41-OH1.1]
(3)	(a),(b) [F81-OH1.1]
9.33.7.1. Recessed Radiators and Convectors	
(1)	[F01-OS1.1]
	[F01-OP1.1]
9.33.7.2. Surface Temperature	
(1)	[F31-OS3.2]
9.33.8.1. Piping Materials and Installation	
(1)	[F20-OS3.2]
	[F20-OH1.1,OH1.2]
(2)	[F21,F40-OH1.1] [F21,F51-OH1.2]
(3)	[F20-OS2.2]
9.33.8.2. Insulation and Coverings	
(1)	[F80-OH1.2]
	[F80-OS3.2]
(2)	(a),(b) [F01-OS1.1]
	(a),(b) [F01-OP1.1]
(3)	(a),(b) [F01,F02-OS1.1,OS1.2]
	(a),(b) [F01,F02-OP1.1,OP1.2]
(4)	[F01,F02-OS1.1,OS1.2]
	[F01,F02-OP1.1]
(5)	[F31-OS3.2]
9.33.8.3. Clearances	
(1)	[F01-OS1.1]
	[F01-OP1.1]
9.33.8.4. Protection	
(1)	[F01-OS1.1]
	[F01-OP1.1]
(2)	[F01-OS1.1]
	[F01-OP1.1]
9.33.9.1. Cooling Units	
(1)	(a),(b),(c) [F43-OH1.1] [F51-OH1.2]
9.33.10.2. Factory-Built Chimneys	
(1)	[F01-OS1.1]
	[F44-OS3.4]
	[F44,F41-OH1.1]
	[F01-OP1.1]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.34.1.1. Standard for Electrical Installations	
(1)	[F32-OS3.3]
	[F01-OS1.1]
	[F01-OP1.1]
9.34.1.3. Location of Equipment in Public Areas	
(1)	[F10-OS3.1] [F32-OS3.3]
9.34.1.4. Recessed Lighting Fixtures	
(1)	[F01-OS1.1]
9.34.1.5. Wiring and Cables	
(1)	[F02-OS1.2]
	[F02-OP1.2]
9.34.2.1. Lighting of Entrances	
(1)	[F30-OS3.1]
	[F34-OS4.2]
9.34.2.2. Outlets in Dwelling Units	
(1)	[F30-OS3.1]
(2)	[F30-OS3.1]
9.34.2.3. Stairways	
(1)	[F30-OS3.1]
(2)	[F30-OS3.1]
9.34.2.4. Basements	
(1)	[F30-OS3.1]
(2)	[F30-OS3.1]
9.34.2.5. Storage Rooms	
(1)	[F30-OS3.1]
9.34.2.6. Garages and Carports	
(1)	[F30-OS3.1]
(2)	[F30-OS3.1]
(3)	[F30-OS3.1]
9.34.2.7. Public and Service Areas	
(1)	[F30-OS3.1]
(2)	[F30-OS3.1]
(3)	[F30-OS3.1]
9.35.2.2. Garage Floor	
(1)	[F40-OS1.1]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives[1]
9.35.3.2. Protection from Damage due to Soil Movement	
(1)	[F21-OS2.3]
	[F21-OH1.1,OH1.2,OH1.3]
	[F21-OP2.3,OP2.4]
	[F21-OH4] Applies to floors and elements that support floors.
	[F21-OS3.1] Applies to floors and elements that support floors.
(2)	[F21-OS2.3]
	[F21-OH1.1,OH1.2,OH1.3]
	[F21-OP2.3,OP2.4]
	[F21-OH4] Applies to floors and elements that support floors.
	[F21-OS3.1] Applies to floors and elements that support floors.
9.35.3.4. Column Piers	
(1)	[F80-OS2.3]
	[F80-OP2.3]
(2)	[F20-OS2.1,OS2.2]
	[F20-OP2.1,OP2.2]
9.35.4.2. Columns	
(1)	[F20-OS2.1]
	[F20-OP2.1]
9.35.4.3. Anchorage	
(1)	[F22-OS2.4,OS2.5]
	[F22-OP2.4,OP2.5]
9.37. Secondary Suites	
<9.37.2.1.>	[F30-OS3.1] [F10-OS3.7]
<9.37.2.2.>	[F20-OS4.1]
<9.37.2.3.>	[F30-OS3.1] [F10-OS3.7]
<9.37.2.4.>	[F30-OS3.1] [F10-OS3.7]
<9.37.2.5.>	[F30-OS3.1] [F10-OS3.7]
<9.37.2.6.>	[F30-OS3.1] [F10-OS3.7]
<9.37.2.7.>	[F03-OP1.2]
	[F05-OS1.5] [F03-OS1.2]
<9.37.2.8.>	[F05-OS1.5]
<9.37.2.9.>	[F30-OS3.1] [F10-OS3.7]
<9.37.2.10.>	[F10-OS3.7]
<9.37.2.11.>	[F10-OS3.7]
<9.37.2.12.>	[F10-OS3.7]

Table 9.38.1.1.
Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9
Forming part of Sentence 9.38.1.1.(1)

Acceptable Solutions	Functional Statements and Objectives(1)
<9.37.2.14.>	[F03-OP1.2] [F04-OP1.3]
	[F03-OS1.2] [F04-OS1.3]
<9.37.2.15.>	[F03-OP1.2] [F04-OP1.3]
	[F03-OS1.2] [F04-OS1.3]
<9.37.2.16.>	[F03-OP1.2]
<9.37.2.17.>	[F03,F06-OP1.2]
	[F03,F06-OS1.5] [F03-OS1.2]
<9.37.2.18.>	[F03-OP1.2]
	[F03-OS1.2]
<9.37.2.19.>	[F02,F03-OP3.1]
<9.37.2.20.>	[F81,F11-OS1.5]
<9.37.2.21.>	[F56-OH3.1]
<9.37.2.22.>	[F82-OH1.1, OH1.2, OH1.3]
	[F82-OS2.3]

Notes to Table 9.38.1.1.:
(1) See Parts 2 and 3 of Division A.

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Division C - Appendix A - Appnote A-2.2.7.3.
Amended by: Reg 140/2014
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3.2.4. Fire Suppression

The design of sprinkler systems can be accomplished by at least two possible scenarios:

Scenario 1

- The engineer of record undertakes the complete detailed design prior to the building permit application.
- The engineer of record submits <Schedule B> with the BP application.
- The engineer of record provides field reviews during construction and submits a Schedule C-B prior to Occupancy Permit.

Scenario 2

- The engineer of record provides a detailed performance specification for the sprinkler design, as well as sufficient drawings to demonstrate/assure layout feasibility and interface with other components.
- The engineer of record submits <Schedule B> with the BP application for overall coordination of the sprinkler design. <Schedule B> can be annotated "For Performance Specification Only."
- The performance specifications may include a requirement that a separate sprinkler design engineer be responsible for detailed sprinkler design, preparation of sprinkler shop drawings and hydraulic calculations, <letter of assurance Schedule B (for field review during construction)> and Schedule C-B (for Detailed Design) prior to Occupancy Permit.
- The engineer of record reviews the detailed sprinkler design and shop drawings to ascertain that they substantially comply with the performance specifications.
- The engineer of record provides a Schedule C-B prior to Occupancy Permit to confirm overall coordination of the sprinkler design and installation. Schedule C-B can be annotated "For Performance Specification Only." The engineer of record is entitled to rely upon the professional seal of the sprinkler design engineer for the detailed design and field review of the sprinkler system.

Division C - Appendix A - Appnote A-2.2.8.1.(1) and A-2.2.8.3.(2)(c)(ii)
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Remove Page: 1159 **Replacement Page:** 1159

<A-2.2.8.1.(1) Use of Terms "Building" and "House" Although the word "house" is used in the terms "proposed house," "reference house" and "house performance compliance calculation report" in Subsection 2.2.8., it is intended to include other types of residential buildings also addressed by Subsection 9.36.5. of Division B. The terms "proposed building," "reference building" and "building performance compliance calculation report" used in the NECB apply to other types of buildings.

A-2.2.8.3.(2)(c)(i) Annual Energy Consumption The performance compliance calculation method detailed in Subsection 9.36.5. of Division B uses a number of assumptions regarding environmental values and operating conditions in order to standardize the calculations and neutralize the impact of occupant behaviour or to exclude issues that are not addressed in the requirements. Note that the result of the energy model calculations is not a prediction of the actual energy consumption of the proposed house.**>**

A-2.3.1. Documentation of Alternative Solutions Beyond the purposes of demonstrating compliance and acquiring a building permit, there are other important reasons for requiring that the proponent of an alternative solution submit project documentation (i.e. a compliance report) to the authority having jurisdiction and for the authority having jurisdiction to retain that documentation for a substantial period following the construction of a building:

- Documentation helps consultants perform code compliance assessments of existing buildings before they are sold and informs current owners or prospective buyers of existing buildings of any limitations pertaining to their future use or development.
- Documentation provides design professionals with the basic information necessary to design changes to an existing building.
- An alternative solution could be invalidated by a proposed alteration to a building. Designers and regulators must therefore know the details of the particular alternative solutions that were integral to the original design. Complete documentation should provide insight as to why one alternative solution was chosen over another.
- Documentation is the "paper trail" of the alternative solution negotiated between the designer and the regulator and should demonstrate that a rational process led to the acceptance of the alternative solution as an equivalency.
- It is possible that over time a particular alternative solution may be shown to be inadequate. It would be advantageous for a jurisdiction to know which buildings included that alternative solution as part of their design: documentation will facilitate this type of analysis.
- Project documentation provides important information to a forensic team that is called to investigate an accident or why a design failed to provide the level of performance expected.