

CCMC 08675-R

CCMC Canadian code compliance evaluation

CCMC number:	08675-R
Status:	Active
Issue date:	1984-05-04
Modified date:	2024-03-12
Evaluation holder:	<p>Weyerhaeuser 32901 Weyerhaeuser Way South - Suite 102 Federal Way WA 98001 United States Website: www.weyerhaeuser.com Telephone: 888-453-8358</p>
Product name:	Microllam [®] LVL
Compliance:	NBC 2015, OBC
Criteria:	CCMC-TG-061710-15A, "CCMC Technical Guide for Structural Composite Lumber"

In most jurisdictions this document is sufficient evidence for approval by Canadian authorities.

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Compliance opinion

It is the opinion of the Canadian Construction Materials Centre that the evaluated product, when used as structural composite lumber (SCL) in accordance with the conditions and limitations stated in this evaluation, complies with the following code:

National Building Code of Canada 2015

Code provision	Solution type
4.3.1.1.(1) Buildings and their structural members m ...	<u>Acceptable</u>
9.23.4.2.(3) Spans for built-up wood and glued-lamina ...	<u>Alternative</u>

Ontario Building Code

Ruling No. 05-20-144 (08675-R) authorizing the use of this product in Ontario, subject to the terms and conditions contained in the Ruling, was made by the Minister of Municipal Affairs and Housing on 2006-01-31 (revised 2012-06-13) pursuant to s.29 of the Building Code Act, 1992 (see Ruling for terms and conditions). This Ruling is subject to periodic revisions and updates.

The above opinion(s) is/are based on the evaluation by the CCMC of technical evidence provided by the evaluation holder, and is bound by the stated conditions and limitations. For the benefit of the user, a summary of the technical information that forms the basis of this evaluation has been included.

Product information

Product name

Microllam[®] LVL

Product description

The product is manufactured by laminating veneer sheets of wood species or species combinations coated with an exterior-type adhesive conforming to CSA O112.6-M1977 (R2006), “Phenol and Phenol-Resorcinol Resin Adhesives for Wood (High-Temperature Curing),” and CSA O112.9-10, “Evaluation of Adhesives for Structural Wood Products (Exterior Exposure),” in specific lay-up patterns that are fed into a continuous press with all grain oriented parallel to the length of the member. The wood species, species combinations, lay-up patterns and adhesives used are as specified in the Weyerhaeuser “Microllam[®] LVL Manufacturing Standards.”

The product is available in thicknesses ranging from 19 mm to 89 mm, widths ranging from 63.5 mm to 1 220 mm, and lengths up to 24.4 m.

The manufacturing quality assurance program and records are verified by PFS-TECO, Cottage Grove, WI, as part of the product certification.

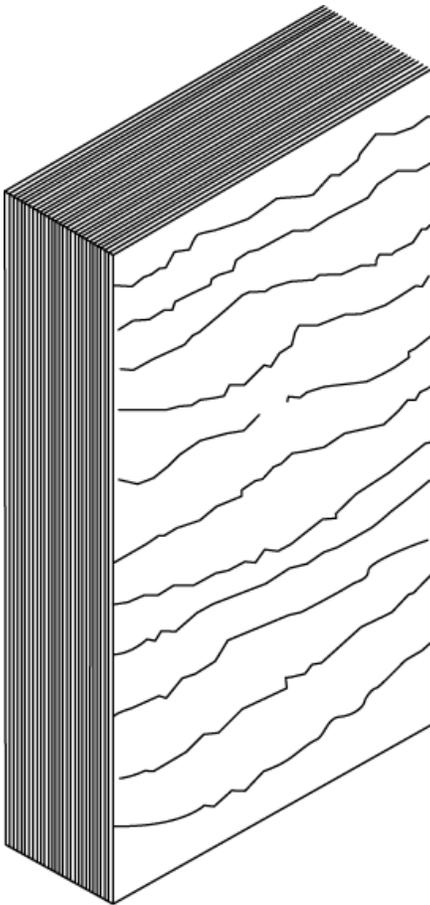


Figure 1. Microllam[®] LVL

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Manufacturing plants

This evaluation is limited to products produced at the following plants:

Product name	Manufacturing plants				
	Buckhannon, WV, US	Castleberry, AL, US	Eugene, OR, US	Natchitoches, LA, US	Stayton, OR, US
Microllam® LVL	☑	☑	☑	☑	☑

☑ Indicates that the product from this manufacturing facility has been evaluated by the CCMC

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Conditions and limitations

The CCMC's compliance opinion is bound by this product being used in accordance with the conditions and limitations set out below.

- The product, as with all SCL, is intended for dry service applications only. ⁽¹⁾
- The product is intended for use in construction as an alternative material to lumber. Proprietary design values presented for the product are to be used by professional engineers for design in accordance with CSA O86 for structural applications such as beams, headers, joists, rafters and columns as intended by the product manufacturer. The specific application must be qualified through specific testing and validated by the manufacturer. Applications such as I-joist flanges, studs and metal-plated truss chords are beyond the scope of this evaluation.

i. **Weyerhaeuser's pre-engineered tables** ⁽²⁾

The pre-engineered tables in the literature outlined below have been provided to the CCMC by the manufacturer to demonstrate compliance with Part 9 buildings for acceptance by the local authority having jurisdiction (AHJ).

When the product is used to support uniform loads only, the installation must be in accordance with the tables and installation details published by Weyerhaeuser entitled:

1. "Beams, Headers and Columns (TJ-9500) (Limit States Design for Eastern Canada)," dated May 2022, and
2. "Beams, Headers and Columns (TJ-9505) (Limit States Design for Western Canada)," dated March 2020.

Except where a floor is required to support a concentrated load or a specified unfactored live load in excess of 1.9 kN/m², and in lieu of engineering design, the spans for the product, when used as floor joists, rafters and beams, may conform to the spans for select structural grade for the Douglas Fir-Larch group in Tables 9.23.4.2.-A to 9.23.4.2.-I of the NBC 2015. Maximum deflections must conform to Subsection 9.4.3., Deflections, of Division B of the NBC 2015. Floor joists must be designed to meet the deflection and vibration criteria set in the NBC 2015 for lumber.

The product must be installed in accordance with the manufacturer's installation guidelines noted in the above-mentioned documents for those applications falling within the scope of the documents. Applications outside the scope of these installation guidelines require engineering on a case-by-case basis.

Intertek Testing Services considers the product as an equivalent to lumber floor joists with respect to fire-resistance rating for equivalent member size and spacing within a rated floor assembly (see Intertek's Directories of Certified Products).

ii. **Weyerhaeuser's installation details**

The manufacturer's pre-engineered details within the documents outlined above are limited in scope to building designs where the anticipated loads on the following structural details are not exceeded:

- headers supporting floor and/or snow, pages 8–9 of (1) and pages 6–7 of (2);
- beam connection details, pages 12–13 of (1) and pages 10–11 of (2);
- built-up member connections, pages 16–18 of (1) and pages 14–16 of (2); and

- allowable holes in beams, page 14 of (1) and page 12 of (2).

iii. **Engineering required**

For structural applications beyond the scope/limitations of the above-referenced Weyerhaeuser publications, or when required by the AHJ, the drawings or related documents must bear the authorized seal of a professional engineer, or other certified authority approved by the AHJ, skilled in wood design and licensed to practise under the appropriate provincial or territorial legislation.

Installations beyond the scope/limitations of (i) and (ii) above imply, but are not limited to, the following:

- higher loads / longer spans than the manufacturer's pre-engineered details;
- concentrated loads;
- areas of high wind or high seismicity;
- design of supporting members/columns when the total beam/header load exceeds the NBC 2015 pre-engineered beam/lintel tables; and
- design of supporting foundation footings when the total load exceeds the NBC 2015 pre-engineered floor/roof joist tables.

The engineer must design in accordance with CSA O86, and may use as a guide the "Engineering Guide for Wood Frame Construction," published by the Canadian Wood Council.

The specified strengths for the product must not exceed the values set forth in [Table 1](#). See [Figure 1](#) for details about strand orientation.

The ends of all beams must be restrained to prevent rollover. This is normally achieved by attaching a diaphragm sheathing to the top or to the compression edge, and to an end wall or shear transfer panel capable of transferring a minimum unfactored uniform load of 730 N/m or the required shear forces due to wind or seismic conditions. Blocking or crossbracing with equivalent strength may be used. For beams with maximum depth-to-width ratio no more than 6.5:1, the compression edges of the beams must be laterally supported at least every 610 mm. When the depth-to-width ratio exceeds 6.5:1, the compression edges of the beams must be continuously laterally supported throughout its length, except where design is done in accordance with CSA O86.

Nailing of the product perpendicular to glue lines must conform to Table 9.23.3.4., Nailing for Framing, of Division B of the NBC 2015. Nails must be installed parallel to the glue lines on the narrow face (edge) of the product, that is at least 19 mm thick × 89 mm wide. The nails must be spaced at a minimum of 100 mm on centre (o.c.) for 63.5-mm common nails and 125 mm o.c. for 76-mm and 83-mm common nails and No. 14 gauge staples. 89-mm common nails installed parallel to the glue lines on the narrow face (edge) of product that is at least 38 mm thick × 89 mm wide must be spaced a minimum of 200 mm o.c.

iv. **Engineering support provided by manufacturer**

Weyerhaeuser may provide engineering services in conjunction with Weyerhaeuser product specification and offers the following support contact number for their Canadian offices:
1-888-453-8358.

- Damaged or defective products must not be used, unless repaired in accordance with written instructions from the manufacturer.
- This product must be identified with the phrase "CCMC 08675-R" along the side of the product. This CCMC number is only valid when it appears in conjunction with the certification mark of PFS-TECO.

Notes:

- 1 All lumber, wood-based panels and proprietary engineered wood products are intended for dry service conditions. “Dry service conditions” are defined as the in-service environment in which the average equilibrium moisture content (MC) of lumber is 15% or less over a year and does not exceed 19% at any time. Wood contained within the interior of dry, heated or unheated buildings has generally been found to have a MC between 6% and 14% depending on season and location. During construction, all wood-based products should be protected from the weather to ensure that the 19% MC is not exceeded in accordance with Article 9.3.2.5., Moisture Content, of Division B of the NBC 2015.

 - 2 The pre-engineered tables present the pre-engineered factored resistance of the beam. The AHJ may require further engineering to determine the factored load in accordance with Part 4 of Division B of the NBC 2015.
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Technical information

This evaluation is based on demonstrated conformance with the following criteria:

Criteria number	Criteria name
CCMC-TG-061710-15A	CCMC Technical Guide for Structural Composite Lumber

The evaluation holder has submitted technical documentation for the CCMC's evaluation. Testing was conducted at laboratories recognized by the CCMC. The corresponding technical evidence for this product is summarized below.

Table 1. Specified strengths of the product (MPa) ⁽¹⁾ ⁽²⁾ ⁽³⁾

Billet material thickness	Grade species ⁽⁴⁾	Axial		Joist/beam				Plank/deck		
		F _t ⁽⁵⁾	F _c	F _b ⁽⁶⁾ ⁽⁷⁾	F _v ⁽⁸⁾	MOE	F _{c-perp}	F _b ⁽⁹⁾	F _v	F _{c-perp}
19 mm to 89 mm	1.6 DF/LP	15.80	23.10	27.25	3.65	11 030	9.40	28.75	2.45	8.50
	1.8 DF/LP	18.50	26.15	31.15	3.65	12 410	9.40	30.85	2.45	8.50
	1.9 DF/LP	19.80	27.60	33.15	3.65	13 100	9.40	31.95	2.45	8.50
	2.0 DF/LP	21.15	29.00	35.05	3.65	13 790	9.40	32.95	2.45	8.50
	2.0E-2900Fb DF/LP	21.15	29.00	36.95	3.65	13 790	9.40	34.00	2.45	8.50
	2.2 DF/LP	23.75	31.60	39.00	3.65	15 170	9.40	35.10	2.45	8.50
	2.4 DF/LP	26.45	33.90	42.90	3.65	16 550	9.40	37.20	2.45	8.50
	2.6 DF/LP	29.15	36.00	46.80	3.65	17 925	9.40	39.35	2.45	8.50
19 mm to 89 mm	1.8 SP	20.05	26.15	31.15	3.65	12 410	10.04	30.85	2.45	8.90
	1.9 SP	21.55	27.60	33.15	3.65	13 100	10.04	31.95	2.45	8.90
	2.0 SP	23.00	29.00	35.05	3.65	13 790	10.04	32.95	2.45	8.90
	2.0E-2900Fb SP	21.15	29.00	36.95	3.65	13 790	10.04	34.00	2.45	8.90
	2.2 SP	25.85	31.60	39.00	3.65	15 170	10.04	35.10	2.45	8.90
	2.4 SP	28.80	33.90	42.90	3.65	16 550	10.04	37.20	2.45	8.90
	2.6 SP	31.65	36.00	46.80	3.65	17 925	10.04	39.35	2.45	8.90
19 mm to 89 mm	1.6 YP	17.20	23.10	27.25	3.65	11 030	10.04	28.75	2.45	11.35
	1.8 YP	20.05	26.15	31.15	3.65	12 410	10.04	30.85	2.45	11.35
	1.9 YP	21.55	27.60	33.15	3.65	13 100	10.04	31.95	2.45	11.35
	2.0 YP	23.00	29.00	35.05	3.65	13 790	10.04	32.95	2.45	11.35
	2.0E-2900Fb YP ⁽¹⁰⁾	23.00	29.00	36.95	3.65	13 790	10.04	34.00	2.45	11.35
	2.0E-3100Fb YP	23.00	29.00	39.50	3.65	13 790	10.04	35.40	2.45	11.35

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Billet material thickness	Grade species ⁽⁴⁾	Axial		Joist/beam				Plank/deck		
		F _t ⁽⁵⁾	F _c	F _b ⁽⁶⁾ ⁽⁷⁾	F _v ⁽⁸⁾	MOE	F _{c-perp}	F _b ⁽⁹⁾	F _v	F _{c-perp}
	2.2 YP	25.85	31.60	39.00	3.65	15 170	10.04	35.10	2.45	11.35
19 mm to 45 mm	2.0E-2600Fb DF/SP/YP	19.80	27.60	33.15	3.65	13 790	9.40	31.95	2.45	8.50
	2.0E-2925Fb SP	22.95	33.35	37.25	3.65	13 790	10.04	34.20	2.45	8.90

Notes:

- 1 Specified strengths are based on covered, dry service conditions of use. Dry service conditions of use are those in which a 19% MC will not be exceeded.
- 2 Simple span uniform load deflection is calculated as follows:

$$\Delta = \frac{156WL^4 \times 10^6}{Ebd^3} + \frac{2400WL^2}{Ebd}$$
where:
Δ = deflection, mm
E = modulus of elasticity (shear-free), MPa
W = specified uniform load, N/m
L = span, m
b = beam width, mm
d = beam depth, mm
- 3 Some grades may not currently be in production; however, the manufacturer has qualified the grades listed in the table. Contact the manufacturer for more information. These unproduced, prequalified grades may be reintroduced to the market after the manufacturer and third-party certification agency verify that the specified design values conform to the relevant requirements of the CSA O86 edition that is current at the time. The manufacturer and third-party certification agency are responsible for maintaining the values and for informing the CCMC of any changes.
- 4 DF = Douglas Fir-Larch, LP = Lodgepole Pine, SP = Southern Pine and YP = Yellow Poplar. SP and YP can be combined as Eastern Species (ES). Red Maple (RM) may be included in a pattern that otherwise consists of Southern Pine or Yellow Poplar veneer, provided the RM plies are not used as face sheets. DF and LP can be combined as Western Species (WS). DF and SP can be combined as ES/WS, provided the DF plies are not used as face sheets. When using the species group designations, ES/WS, WS or ES, the specified strengths must be the lowest values for the species in the group.
- 5 The F_t values in the table are reduced to reflect the volume effects of length, depth and thickness for a range of common application conditions. The F_t values for the product may be higher when approved by the manufacturer for use as a component of engineered products, which are manufactured under a recognized quality control program. Values shown are for lengths up to 12 497 mm (41 ft.).

6 F_b values include allowances for variations in span-to-depth ratio and method of loading, and may be used without further adjustments, except as noted below. For product depths other than 305 mm, regardless of thickness, multiply table values by $(305/d)^{0.136}$. Adjustments for common depths are shown below. For product depths less than 89 mm, the multiplier for the 89-mm depth must be used.

Depth (mm)	89	140	184	241	305	406	457	610
Multiplier	1.18	1.11	1.07	1.03	1.00	0.96	0.93	0.91

7 When structural members qualify as repetitive members in accordance with CSA O86, a 4% increase is permitted for F_b in addition to the increases permitted in Note (6) above. This increase does not apply to field-assembled multi-member beams.

8 For simplicity, use 3.65 MPa for product depths up to 305 mm, and 3.35 MPa for product depths greater than 305 mm. When a more accurate analysis is desired, the allowable horizontal shear for all depths greater than 305 mm is $F_v = 3.65 (305/d)^{0.065}$.

9 Values shown are for thicknesses up to 45 mm. For thicknesses greater than 45 mm but no more than 89 mm, multiply table values by $(45/t)^{0.136}$, where t is the depth of the material in plank orientation.

10 The design values for 2.0E-2900Fb YP are not based on qualification data, but on the plant's capacity to produce product with higher bending strength (2.0E-3100Fb YP). The manufacturer must ensure the quality control data can meet the target values set in the manufacturing standard.

Table 2. Equivalent wood species for determining fastener capacities for Microllam® LVL

Fastener property	Nail orientation	Load direction	Specific gravity (SG) of equivalent species for design purposes
Nail withdrawal	Edge	Withdrawal	D. Fir-L (N), SG = 0.50
	Face	Withdrawal	D. Fir-L (N), SG = 0.50
Lateral nail capacity	Edge	Parallel to grain	D. Fir-L (N), SG = 0.50
	Edge	Perpendicular to grain	D. Fir-L (N), SG = 0.50
	Face	Parallel to grain	D. Fir-L (N), SG = 0.50
	Face	Perpendicular to grain	D. Fir-L (N), SG = 0.50
Bolt axial capacity	–	Parallel to grain	D. Fir-L (N), SG = 0.50
	–	Perpendicular to grain	D. Fir-L (N), SG = 0.50

The manufacturing quality assurance program has been updated to include requirements specified in ASTM D5456, “Evaluation of Structural Composite Lumber Products,” and has been verified by independent, third-party monitoring and inspection conducted by PFS-TECO as part of the product certification.

Note that RedBuilt™, LLC is the owner of the Stayton, OR plant. This plant manufactures the product for Weyerhaeuser according to Weyerhaeuser manufacturing standards.

Additional information

The design values obtained from testing to ASTM D5456-01, ASTM D5456-07 and ASTM D5456-14b as specified in CAN/CSA-O86-01, CSA O86-09 and CSA O86-14 (Update No.1) respectively are summarized below.

Table 3. Additional test information for Microllam® LVL

Property	Test information
Bending	Specimens were tested in edgewise and flatwise bending to establish the characteristic value. Data from quality control (QC) tests were used to establish the applicable coefficient of variation, CV_w , and the reliability normalization factor from CSA O86 was used to determine the specified strength.
Shear	Specimens were tested in shear to establish the characteristic value. Data from quality control (QC) tests were used to establish the applicable coefficient of variation, CV_w , and the reliability normalization factor from CSA O86 was used to determine the specified strength.
Compression parallel to grain	Specimens were tested in compression parallel to grain to establish the characteristic value. Data from quality control (QC) tests were used to establish the applicable coefficient of variation, CV_w , and the reliability normalization factor from CSA O86 was used to determine the specified strength.
Compression perpendicular to grain	Specimens were tested in edgewise compression perpendicular to grain to establish the characteristic value. The characteristic value was multiplied by 1.09 to establish the specified strength in accordance with CSA O86. Specimens were tested in flatwise compression perpendicular to grain following ASTM D5456-14b to establish the characteristic value. The characteristic value was multiplied by 1.81 to establish the specified strength in accordance with CSA O86-14 (Update No. 1).
Tension parallel to grain	Specimens were tested in tension to establish the characteristic value. Data from quality control (QC) tests were used to establish the applicable coefficient of variation, CV_w , and the reliability normalization factor from CSA O86 was used to determine the specified strength.
Nail withdrawal	Nail withdrawal values were established following ASTM D1761, "Methods for Mechanical Fasteners in Wood," for an 8d common nail having a 31.75-mm penetration. Specimens were tested and equivalent species capacity was determined in accordance with ASTM D5456, A2.4.
Nail bearing	Dowel bearing strength was determined in accordance with ASTM D5764, "Method for Evaluating Dowel Bearing Strength of Wood and Wood-Based Products," using 10d common nails with a nominal diameter of 3.76 mm and a lead hole diameter of 2.77 mm. Specimens were tested and the mean bearing capacity was used to establish the equivalent species capacity in accordance with ASTM D5456, A2.5.
Bolt bearing	Bolt bearing capacity in accordance with ASTM D5764 using 12.5-mm- and 19.0-mm-diameter bolts was determined.
Creep and recovery	Creep testing was conducted in accordance with the CCMC's creep and recovery test. After conditioning of the specimens, the creep and recovery performance was considered favourable. Long-term creep testing was also conducted, which demonstrated equivalency to duration of load behaviour of lumber.
Adhesive	The adhesive complies with CSA O112.6 and O112.9. The adhesive heat durability meets the requirements of ASTM D5456-13a.
Durability	Specimens were tested for adhesive durability, product durability, and connection durability (edge nailing durability), in accordance with ASTM D5456-07 (as part of the work in ASTM D07.02.03 Task Group).

Administrative information

Use of Canadian Construction Materials Centre (CCMC) assessments

This assessment must be read in the context of the entire [CCMC Registry of Product Assessments](#), any applicable building code or by-law requirements, and/or any other regulatory requirements (for example, the [Canada Consumer Product Safety Act](#), the [Canadian Environmental Protection Act](#), etc.).

It is the responsibility of the user to confirm that the assessment they are using is current and has not been withdrawn or superseded by a later version on the [CCMC Registry of Product Assessments](#).

Disclaimer

The National Research Council of Canada (NRC) has evaluated only the characteristics of the specific product described herein. The information and opinions in this evaluation are directed to those who have the appropriate degree of experience to use and apply its contents (such as authorities having jurisdiction, design professionals and specifiers). This evaluation is valid when the product is used as part of permitted construction, respecting all conditions and limitations stated in the evaluation, and in accordance with applicable building codes and by-laws.

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Language

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CCMC recognition

The Canadian Construction Materials Centre (CCMC) assesses compliance with Canadian building, energy and safety codes. We are the only construction code compliance service supported and operated by the Government of Canada. Trusted by over 6,000 regulators across Canada.

Most Canadian authorities having jurisdiction (AHJs) consider CCMC product assessments acceptable as evidence for product approval.

CCMC assessments are recognized by construction authorities across Canada:

Alliance of Canadian Building Official Associations (ACBOA)



(Alliance of Canadian Building Official Associations (ACBOA))

First Nations National Building Officers Association (FNNBOA)



(First Nations National Building Officers Association (FNNBOA))

Canadian Home Builders' Association (CHBA)



(Canadian Home Builders' Association (CHBA))

Alberta Building Officials Association (ABOA)



(Alberta Building Officials Associations (ABOA))

Saskatchewan Building Officials Association (SBOA)



(Saskatchewan Building Officials Association (SBOA))

Manitoba Building Officials Association (MBOA)



(Manitoba Building Officials Association (MBOA))

Ontario Building Officials Association (OBOA)



(Ontario Building Officials Association (OBOA))

New Brunswick Building Officials Association (NBBOA)



(New Brunswick Building Officials Association (NBBOA))

Nova Scotia Building Officials Association (NSBOA)



(Nova Scotia Building Officials Association (NSBOA))

The CCMC provides code compliance assessments to Canadian code requirements, consulting nationwide with construction regulators to elicit regional variations in code requirements as well as provincial and local interpretations. Users are advised to review the technical information presented in CCMC assessments when making approval decisions. [Learn more about how the CCMC provides a unique service for Canada.](#)

For more information, contact the CCMC by phone at (613) 993-6189 or by email at ccmc@nrc-cnrc.gc.ca

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Code compliance as an acceptable solution

Code Compliance via Acceptable Solutions

If a building design (e.g. material, component, assembly or system) can be shown to meet all provisions of the applicable **acceptable solutions** in Division B (e.g. it complies with the applicable provisions of a referenced standard), it is deemed to have satisfied the objectives and functional statements linked to those provisions and thus to have complied with that part of the Code.

— National Building Code of Canada, Sentence A-1.2.1.1.(1)(a)

The CCMC has determined that compliance with this provision of the Code has been demonstrated as an **Acceptable Solution**. The evaluation report provides a summary of the basis of CCMC's compliance opinion.

CCMC's code compliance opinions

All CCMC evaluation reports are opinions of code compliance established in accordance with the National Building Code of Canada, Subsection 1.2.1. "Compliance with this Code," which requires compliance to be achieved by:

- complying with the applicable acceptable solutions in Division B, or
- using an alternative solution that will achieve at least the minimum level of performance required by Division B in the areas defined by the objective and functional statements attributed to the applicable acceptable solutions.

The CCMC assesses compliance with Canadian building, energy and safety codes, and is trusted by over 6,000 regulators across Canada.

Code compliance as an alternative solution

Code Compliance via Alternative Solutions

Where a design differs from the acceptable solutions in Division B, then it should be treated as an **"alternative solution."** A proponent of an alternative solution must demonstrate that the alternative solution addresses the same issues as the applicable acceptable solutions in Division B and their attributed objectives and functional statements. However, because the objectives and functional statements are entirely qualitative, demonstrating compliance with them in isolation is not possible. Therefore, Clause 1.2.1.1.(1)(b) identifies the principle that Division B establishes the quantitative performance targets that alternative solutions must meet. In many cases, these targets are not defined very precisely by the acceptable solutions [...] Nevertheless, Clause 1.2.1.1.(1)(b) makes it clear that an effort must be made to demonstrate that an alternative solution will perform as well as a design that would satisfy the applicable acceptable solutions in Division B—not “well enough” but “as well as.”

— National Building Code of Canada, Sentence A-1.2.1.1.(1)(b)

The CCMC has determined that compliance with this provision of the Code has been demonstrated as an **Alternative Solution**. The evaluation report provides a summary of the basis of CCMC's compliance opinion.

CCMC's code compliance opinions

All CCMC evaluation reports are opinions of code compliance established in accordance with the National Building Code of Canada, Subsection 1.2.1. "Compliance with this Code," which requires compliance to be achieved by:

- complying with the applicable acceptable solutions in Division B, or
- using an alternative solution that will achieve at least the minimum level of performance required by Division B in the areas defined by the objective and functional statements attributed to the applicable acceptable solutions.

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