ICC EVALUATION SERVICE

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Joint Evaluation Report

ESR-4875

Reissued September 2022

This report is subject to renewal September 2024.

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DIVISION: 06 00 00—WOOD, PLASTICS AND COMPOSITES
Section: 06 17 19—Cross-laminated Timber

REPORT HOLDER:

NORDIC STRUCTURES

EVALUATION SUBJECT:

NORDIC X-LAM CLT

1.0 EVALUATION SCOPE

1.1 Compliance with the following codes:

- 2021, 2018, 2015, 2012, and 2009 *International Building Code*® (IBC)
- 2021, 2018, 2015, 2012, and 2009 *International Residential Code*® (IRC)
- ANSI/APA PRG 320-2019 Performance Standard for Cross-Laminated Timber

For evaluation for compliance with codes adopted by the California Office of Statewide Health Planning and Development (OSHPD) AKA: California Department of Health Care Access and Information (HCAI) and the Division of the State Architect (DSA), see ESR-4875 CBC and CRC Supplement.

For evaluation for compliance with codes adopted by the Los Angeles Department of Building and Safety (LADBS), see ESR-4875 LABC and LARC Supplement.

Properties evaluated:

- Structural
- Fire resistance

1.2 Evaluation to the following green code(s) and/or standards:

- 2019 California Green Building Standards Code (CALGreen), Title 24, Part 11
- 2020, 2015, 2012 and 2008 ICC 700 *National Green Building Standard*™ (ICC 700-2020, ICC 700-2015, ICC 700-2012 and ICC 700-2008)

2.0 USES

Nordic X-Lam CLT is a cross-laminated timber (CLT) panel for use as components in roofs in Types I and II Construction, in walls (interior only), floors and roof in Type III Construction, and in walls, floors and roofs in Types IV and V Construction. When CLT panels are installed under the IRC, an engineered design is required in accordance with IRC Section R301.1.3.

3.0 DESCRIPTION

3.1 General:

The Nordic X-Lam CLT panels described in this evaluation report comply with requirements noted in Section 2303.1.4 of the 2021, 2018, and 2015 IBC, for allowable stress design (ASD) in accordance with 2021 and 2018 IBC Section 2302.1(1) (2015, 2012, and 2009 IBC Section 2301.2(1)) and load and resistance factor design (LRFD) in accordance with 2021 and 2018 IBC Section 2302.1(2) (2015, 2012, and 2009 IBC Section 2301.2(2)), and consist of three to nine layers of softwood lumber boards (laminations), as shown in Table 1, stacked with wood grain orientation alternating 90 degrees at each layer except that the outermost two layers or the two center layers are permitted to be parallel to each other. The Nordic X-Lam CLT panels are manufactured by face-bonding each layer using a non-formaldehyde-based, exterior-type structural adhesive, and then are placed in a press to form a dimensionally stable structural element, or plank billet. The Nordic X-Lam CLT panels are available in plank billets with gross thickness of 3 inches (76 mm) to 12-3/8 inches (314 mm), nominal widths of 12 inches (305 mm) to 106-1/4 inches (2700 mm), and lengths up to 64 feet (19.5 m). Refer to Table 2 for the grade and layup designations of Nordic X-Lam CLT panels.

The attributes of the CLT products have been verified as conforming to the provisions of (i) CALGreen Sections A4.404.3 for efficient framing techniques; (ii) ICC 700-2020, 700-2015 and ICC 700-2012 Section 608.1(2), 11.608.1(2) and 12(A).608.1 for resource-efficient materials; and (iii) ICC 700-2008 Section 607.1(2) for resource-efficient materials. Note that decisions on compliance for those areas rest with the user of this report. The user is advised of the project-specific provisions that may be contingent upon meeting specific conditions, and the verification of those conditions is outside the scope of this report. These codes or standards often provide supplemental information as guidance.

3.2 Material:

3.2.1 Wood Laminations: Wood laminations used in manufacturing Nordic X-Lam CLT panels must be in accordance with the approved in-plant manufacturing standard using sawn lumber having reference design values provided in Table 1.

3.2.2 Adhesives: Adhesive used to face-bond layers of Nordic X-Lam CLT panels is non-formaldehyde based, exterior-type structural adhesive and adhesive used for finger-joints of wood laminations is two-component polyurethane/emulsion polymer adhesive, conforming to ANSI/APA PRG 320-2019 and the product specifications in the approved quality documentation.

4.0 DESIGN AND INSTALLATION

4.1 General:

Design and installation of Nordic X-Lam CLT panels described in this evaluation report must be in accordance with this evaluation report, the applicable code provisions and the manufacturer's published design and/or installation instructions. The manufacturer's design and/or installation instructions must be available at the jobsite at all times during installation. The requirements specified for ASD and LRFD in accordance with the IBC, Chapter 10 of the 2018 or 2015 NDS, and Sections 4.5 and 4.6 of the 2021 Special Design Provisions for Wind and Seismic (SDPWS) are applicable to Nordic X-Lam CLT panels.

4.2 Reference Design Values:

Tables 3 and 4 provide, respectively, reference design values for bending and shear capacities and in-plane shear capacities of Nordic X-Lam CLT panels. The reference design values in Tables 3 and 4 are intended for allowable stress design and must be adjusted in accordance with Section 4.3 of this evaluation report. The design values used for the LRFD shall be obtained by multiplying the ASD design values by the factors specified in Table 10.3.1 of the 2018 NDS. The unbalanced layup, E1 140-4l, listed in Tables 3 and 4 can be only used in wall and simple span applications. The compression side of the unbalanced layup, which consists of a single layer of lumber laminations in the major strength direction, must be stamped with the word "TOP" that shall be installed on the compression (top) side of the simple-span bending member. For unbalanced layup panels used in walls, the compression (TOP) face may be faced either toward the inside or outside in accordance with the registered design professional.

4.3 Adjustment Factors:

The reference design values in Tables 3 and 4 must be adjusted using the adjustment factors specified in Table 10.3.1 of the 2018 or 2015 NDS. The reference design values in Table 3 must not be increased for the lumber size adjustment factor in accordance with NDS. The time dependent deformation (creep) factor, K_{cr}, of 2.0, as specified in Section 3.5.2 of the NDS must be used to calculate the total deflection due to long-term loading for Nordic X-Lam CLT panels used as components in floors and roofs under dry service condition where the moisture content in lumber in service is less than 16 percent, as in most covered structures.

4.4 Fire Resistance:

When fire resistance is required, the fire resistance rating (FRR) of the exposed Nordic X-Lam CLT panels must be determined by calculation in accordance with Chapter 16 of the 2018 or 2015 NDS. As an alternative to the NDS calculation, the Nordic X-Lam CLT panels shall be permitted to be tested in accordance with ASTM E119 or UL 263 and must be rated for fire resistance in accordance with the test results and conditions of such tests, and such tests must be submitted to the code official for approval and are outside the scope of this evaluation report.

5.0 CONDITIONS OF USE

The Nordic X-Lam CLT described in this report complies with, or is a suitable alternative to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

5.1 Fabrication, design, and installation must comply with this evaluation report and the manufacturer's published design/installation instructions. In the event of a conflict between the manufacturer's published design/installation instructions and this evaluation report, the most restrictive one governs.

5.2 Use of Nordic X-Lam CLT panels must be limited to dry service conditions where the moisture content in lumber in service is less than 16 percent, as in most covered structures.

5.3 Nordic X-Lam CLT panels may be used as components in walls, floors and roofs under the IRC when an engineered design is submitted in accordance with Section R301.1.3.

5.4 To be considered as part of a floor and roof diaphragm, or shear wall, CLT panels used to resist in-plane shear forces shall be accompanied by complete detailing and diaphragm design to the satisfaction of the code official.

5.5 Calculations and drawings demonstrating compliance with this evaluation report must be submitted to the code official. The calculations and drawings must be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed.

5.6 Connections of Nordic X-Lam CLT panels used as components in walls, floors and roofs must be designed by a registered design professional in accordance with the NDS or proprietary connectors and fasteners recognized in an ICC-ES Evaluation Report. Connectors and fasteners must be specified to include size, length, dimension, fastener bearing length and location.

5.7 Nordic X-Lam CLT panels used to resist out-of-plane transverse forces in walls must be accompanied by complete detailing and wall design that are acceptable to the code official.

5.8 Cutting, drilling, and notching of Nordic X-Lam CLT panels when used as components in walls, floors and roofs have not been evaluated and are outside the scope of this evaluation report.

5.9 Design properties for Nordic X-Lam CLT panels, when used as beams or lintels with loads applied parallel to the face-bond gluelines, are outside the scope of this evaluation report.

5.10 The installations of the unbalanced Nordic X-Lam CLT panel layup, E1 140-4l, must be in accordance with Section 4.2 of this evaluation report.

5.11 Nordic X-Lam CLT panel roofs must be covered with approved roof coverings secured to the building or structure in accordance with applicable provisions of IBC Chapter 15.

5.12 The special inspection shall be conducted in accordance with the applicable requirements of Sections 1704 and 1705 of the IBC.

5.13 Nordic X-Lam CLT panels are fabricated in the Nordic Structures facilities located in Chibougamau, Quebec, Canada, under a quality-control program with inspections by ICC-ES and APA—The Engineered Wood Association.

6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for Cross-laminated Timber Panels for Use as Components in Walls, Floors and Roofs (AC455), approved February 2021.

7.0 IDENTIFICATION

7.1 Nordic X-Lam CLT panels are identified with stamps noting the Nordic Structures name or logo (Figure 1), plant number, product layup and designation, production date and shift, and ICC-ES evaluation report number (ESR-4875).

7.2 The report holder's contact information is the following:

NORDIC STRUCTURES
1100 AVENUE DES CANADIENS-DE-MONTRÉAL
SUITE 100
MONTREAL, QUÉBEC H3B 2S2
CANADA
(514) 871-8526
www.nordic.ca

TABLE 1—ASD REFERENCE DESIGN VALUES[1] FOR LUMBER LAMINATIONS USED IN NORDIC X-LAM CLT PANELS

CLT Grade	LAMINATIONS USED IN MAJOR STRENGTH DIRECTION									LAMINATIONS USED IN MINOR STRENGTH DIRECTION								
	Grade & Species	F_b (psi)	E (10^6 psi)	F_t (psi)	F_c (psi)	F_v (psi)	F_s (psi)	$F_{c\perp}$ (psi)	G	Grade & Species	F_b (psi)	E (10^6 psi)	F_t (psi)	F_c (psi)	F_v (psi)	F_s (psi)	$F_{c\perp}$ (psi)	G
E1	1950f-1.7E SPF	1,950	1.7	1,375	1,800	135	45	425	0.42	No. 3 SPF	500	1.2	250	650	135	45	425	0.42

For **SI**: 1 psi = 6,895 Pa

[1]Tabulated values are reference design values intended for Allowable Stress Design (ASD) and must be adjusted in accordance with Table 4.3.1 of the 2018 NDS except that the lumber size adjustment factor (C_F) must not be applied. The design values shall be used in conjunction with the section properties provided by the CLT manufacturer based on the actual layup used in manufacturing the CLT panel (see Table 2).

TABLE 2—NORDIC X-LAM CLT PANEL LAYUPS

CLT GRADE	LAYUP[1]	THICKNESS t_p[2] (in.)	LAMINATION ACTUAL THICKNESS[3] (in.)						
			∥	⊥	∥	⊥	∥	⊥	∥
E1	78-3s	3.07	1.02	1.06	1.02	-	-	-	-
	89-3s	3 1/2	1 3/8	3/4	1 3/8	-	-	-	-
	105-3s	4 1/8	1 3/8	1 3/8	1 3/8	-	-	-	-
	131-5s	5.16	1.02	1.06	1.02	1.06	1.02	-	-
	140-4s	5 1/2	1 3/8	1 3/8 x 2	1 3/8	-	-	-	-
	140-4l[4]	5 1/2	1 3/8 x 2	1 3/8	1 3/8	-	-	-	-
	143-5s	5 5/8	1 3/8	3/4	1 3/8	3/4	1 3/8	-	-
	175-5s	6 7/8	1 3/8	1 3/8	1 3/8	1 3/8	1 3/8	-	-
	197-7s	7 3/4	1 3/8	3/4	1 3/8	3/4	1 3/8	3/4	1 3/8
	213-7l	8 3/8	1 3/8 x 2	3/4	1 3/8	3/4	1 3/8 x 2	-	-
	220-7s	8.66	1.38	1.06	1.38	1.06	1.38	1.06	1.38
	245-7s	9 5/8	1 3/8	1 3/8	1 3/8	1 3/8	1 3/8	1 3/8	1 3/8
	245-7l	9 5/8	1 3/8 x 2	1 3/8	1 3/8	1 3/8	1 3/8 x 2	-	-
	267-9l	10 1/2	1 3/8 x 2	3/4	1 3/8	3/4	1 3/8	3/4	1 3/8 x 2
	315-9l	12 3/8	1 3/8 x 2	1 3/8	1 3/8	1 3/8	1 3/8	1 3/8	1 3/8 x 2

For **SI**: 1 in. = 25.4 mm.

[1]The CLT layups are developed based on the 2019 ANSI/APA PRG 320, using visually graded or machine stress rated (MSR) sawn lumber noted in Section 3.2.1 of the evaluation report. The layup designation refers to the panel thickness (expressed in mm), the number of layers, and the layup combination ("s" for standard perpendicular layers, and "l" for doubled outermost parallel layers).
[2]Gross thickness of CLT panels.
[3]Actual thickness of lamination after planing. "∥": Face laminations are oriented parallel to the major strength direction and "⊥": Face laminations are oriented perpendicular to the major strength direction.
[4]This layup is unbalanced (the top and bottom layers are different in the layer thickness). The side that contains a single outermost layer in the major strength direction must be stamped with the word "TOP". See Section 4.2.

TABLE 3—ASD REFERENCE DESIGN VALUES FOR NORDIC X-LAM CLT PANELS[1]

CLT GRADE	LAYUP[2]	MAJOR STRENGTH DIRECTION				MINOR STRENGTH DIRECTION			
		$(F_bS)_{eff,f,0}$ (lb_f-ft/ft)	$(EI)_{eff,f,0}$ ($x10^6$ lb_f-$in.^2$/ft)	$(GA)_{eff,f,0}$ ($x10^6$ lb_f/ft)	$V_{s,0}$ (lb_f/ft)	$(F_bS)_{eff,f,90}$ (lb_f-ft/ft)	$(EI)_{eff,f,90}$ ($x10^6$ lb_f-$in.^2$/ft)	$(GA)_{eff,f,90}$ ($x10^6$ lb_f/ft)	$V_{s,90}$ (lb_f/ft)
E1	78-3s	2,525	48	0.34	1,110	95	1.4	0.47	380
	89-3s	3,350	72	0.48	1,260	45	0.51	0.39	270
	105-3s	4,525	115	0.46	1,490	160	3.1	0.61	495
	131-5s	5,800	184	0.69	1,860	790	36	0.94	1,130
	140-4s	7,325	248	0.54	1,980	630	25	1.2	990
	140-4l[3]	7,150	261	0.70	1,980	160	3.1	0.67	495
	143-5s	7,725	267	0.96	2,030	615	26	0.78	1,040
	175-5s	10,400	440	0.92	2,480	1,370	81	1.2	1,490
	197-7s	13,725	654	1.4	2,800	1,410	101	1.2	1,800
	213-7l	18,700	963	1.6	3,025	615	26	0.93	1,040
	220-7s	15,975	853	1.4	3,125	2,190	187	1.5	2,130
	245-7s	18,375	1,089	1.4	3,475	3,150	313	1.8	2,480
	245-7l	23,700	1,404	1.4	3,475	1,370	81	1.3	1,490
	267-9l	28,325	1,831	2.0	3,775	1,410	101	1.3	1,800
	315-9l	36,700	2,794	1.8	4,450	3,150	313	1.9	2,480

For **SI**: 1 in. = 25.4 mm; 1 ft. = 304.8 mm; 1 lb_f = 4.448 N

[1]The tabulated values are reference design values intended for ASD and must be adjusted in accordance with Section 4.2.

[2]The CLT layups are developed based on the 2019 ANSI/APA PRG 320, using visually graded or machine stress rated (MSR) sawn lumber noted in Section 3.2.1 of the evaluation report. The layup designation refers to the panel thickness (expressed in mm), the number of layers, and the layup combination ("s" for standard perpendicular layers, and "l" for doubled outermost parallel layers).
[3]This layup is unbalanced (the top and bottom layers are different in the layer thickness). The side that contains a single outermost layer in the major strength direction must be stamped with the word "TOP". See Section 4.2.

TABLE 4—REFERENCE DESIGN VALUES FOR IN-PLANE SHEAR OF THE NORDIC X-LAM CLT PANELS[1]

CLT GRADE	LAYUP[2]	THICKNESS t_p (in.)	MAJOR STRENGTH DIRECTION		MINOR STRENGTH DIRECTION	
			$F_{v,e,0}$[3] (psi)	$G_{e,0}\,t_p^4$ (10^6 lbf/ft)	$F_{v,e,90}$[3] (psi)	$G_{e,90}\,t_p^4$ (10^6 lbf/ft)
E1	78-3s	3.07	155[5]	1.36	190[5]	1.36
	89-3s	3 1/2	155	1.52	190[5]	1.52
	105-3s	4 1/8	155	1.79	190	1.79
	131-5s	5.16	185[6]	2.23	215[6]	2.23
	140-4s	5 1/2	145	2.39	190[5]	2.39
	140-4l[7]	5 1/2	155[5]	2.39	190[5]	2.39
	143-5s	5 5/8	185[6]	2.44	215[6]	2.44
	175-5s	6 7/8	185	2.99	215	2.99
	197-7s	7 3/4	155[5]	3.37	215[6]	3.37
	213-7l	8 3/8	185[6]	3.64	215[6]	3.64
	220-7s	8.66	185[6]	3.75	215[6]	3.75
	245-7s	9 5/8	185[6]	4.18	215[6]	4.18
	245-7l	9 5/8	185[6]	4.18	215[6]	4.18
	267-9l	10 1/2	155[5]	4.56	215[6]	4.56
	315-9l	12 3/8	185[6]	5.38	215[6]	5.38

For **SI**: 1 psi = 6,895 Pa

[1]The tabulated values are reference design values intended for ASD and must be adjusted in accordance with Section 4.2.
[2]The CLT layups are developed based on the 2019 ANSI/APA PRG 320, using visually graded or machine stress rated (MSR) sawn lumber noted in Section 3.2.1 of the evaluation report. The layup designation refers to the panel thickness (expressed in mm), the number of layers, and the layup combination ("s" for standard perpendicular layers, and "l" for doubled outermost parallel layers).
[3]Allowable edgewise in-plane shear stress, which shall be used in conjunction with the CLT thickness, t_p, to determine the in-plane shear capacities. If the net CLT thickness is less than the full CLT thickness, the in-plane shear capacities shall be calculated based on the net CLT thickness.
[4]Edgewise shear rigidity is based on $G_{e,0}$ and $G_{e,90}$ = 36,200 psi and the CLT thickness, t_p, in accordance with product performance testing.
[5]Based on test results from 105-3s.
[6]Based on test results from 175-5s.
[7]This layup is unbalanced (the top and bottom layers are different in the layer thickness). The side that contains a single outermost layer in the major strength direction must be stamped with the word "TOP". See Section 4.2.

NORDIC STRUCTURES

FIGURE 1—COMPANY LOGO FOR NORDIC STRUCTURES

DIVISION: 06 00 00—WOOD, PLASTICS AND COMPOSITES
Section: 06 17 19—Cross-laminated Timber

REPORT HOLDER:

NORDIC STRUCTURES

EVALUATION SUBJECT:

NORDIC X-LAM CLT

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that Nordic X-Lam CLT panels, described in ICC-ES evaluation report ESR-4875, have also been evaluated for compliance with the codes noted below as adopted by the Los Angeles Department of Building and Safety (LADBS).

Applicable code editions:

- 2020 *City of Los Angeles Building Code* (LABC)
- 2020 *City of Los Angeles Residential Code* (LARC)

2.0 CONCLUSIONS

The Nordic X-Lam CLT panels, described in Sections 2.0 through 7.0 of the evaluation report ESR-4875, comply with the LABC Chapters 6 and 23, and the LARC, and are subjected to the conditions of use described in this supplement.

3.0 CONDITIONS OF USE

The Nordic X-Lam CLT panels, described in this evaluation report supplement must comply with all of the following conditions:

- All applicable sections in the evaluation report ESR-4875.
- The design, installation, conditions of use and identification of the Nordic X-Lam CLT panels are in accordance with the 2018 *International Building Code*® (IBC) provisions noted in the evaluation report ESR-4875.
- The design, installation and inspection of the Nordic X-Lam CLT panels are in accordance with additional requirements of LABC Chapters 16 and 17, as applicable.
- Under the LARC, an engineered design in accordance with LARC Section R301.1.3 must be submitted.

This supplement expires concurrently with the evaluation report ESR-4875, reissued September 2022.

DIVISION: 06 00 00—WOOD, PLASTICS AND COMPOSITES
Section: 06 17 19— Cross-laminated Timber

REPORT HOLDER:

NORDIC STRUCTURES

EVALUATION SUBJECT:

NORDIC X-LAM CLT

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that the Nordic X-Lam CLT panels described in the ICC-ES evaluation report ESR-4875, have also been evaluated for compliance with the codes noted below.

Applicable code editions:

- 2019 *California Building Code* (CBC)

For evaluation of applicable chapters adopted by the California Office of Statewide Health Planning and Development (OSHPD) AKA: California Department of Health Care Access and Information (HCAI) and the Division of State Architect (DSA), see Sections 2.1.1 and 2.1.2 below.

- 2019 *California Residential Code* (CRC)

2.0 CONCLUSIONS

2.1 CBC:

The Nordic X-Lam CLT panels, described in Sections 2.0 through 7.0 of the evaluation report ESR-4875, comply with CBC Chapters 6 and 23, provided the design and installation are in accordance with the 2018 *International Building Code*® (IBC) provisions noted in the evaluation report ESR-4875 and the additional requirements of CBC Chapters 6, 16, 17, and 23, as applicable.

2.1.1 OSHPD:

The Nordic X-Lam CLT panels, described in Sections 2.0 through 7.0 of the evaluation report ESR-4875 comply with requirements of CBC amended Chapters 16, 17 and 23 and Chapters 16A and 17A provided the design and installation are in accordance with the 2018 *International Building Code*® (IBC) provisions noted in the evaluation report ESR-4875, and the additional requirements in Sections 2.1.1.1 and 2.1.1.2 of this supplement.

2.1.1.1 Conditions of Use:

1. All loads applied to the Nordic X-Lam CLT panels shall be determined by the registered design professional and shall comply with applicable loads and load combinations from CBC Chapter 16 and amendments [OSHPD 1R, 2, 3 & 5] and Chapter 16A [OSHPD 1 & 4].

2. Seismic Design Category shall be in accordance with CBC amended Section 1613.1, Exception 6 [OSHPD 1R, 2 & 5].

3. The Nordic X-Lam CLT panels are prohibited from use as part of the seismic force-resisting system, unless approved as an alternative system in accordance with CBC Section 104.11 [OSHPD 1, 1R, 2, 4 & 5].

2.1.1.2 Special Inspection Requirement: Special inspection of wood structural elements is required in accordance with CBC amended Section 1705A.5.3 [OSHPD 1 & 4].

2.1.2 DSA:

The Nordic X-Lam CLT panels, described in Sections 2.0 through 7.0 of the evaluation report ESR-4875 comply with the CBC amended Chapters 16 and 23, and Chapters 16A and 17A provided the design and installation are in accordance with the 2018 *International Building Code*® (IBC) provisions noted in the evaluation report ESR-4875, and the additional requirements in Sections 2.1.2.1 and 2.1.2.2 of this supplement.

2.1.2.1 Conditions of Use:

1. All loads applied to the Nordic X-Lam CLT panels shall be determined by the registered design professional and shall comply with applicable loads and load combinations from CBC amended sections in Chapter 16 [DSA-SS/CC] and Chapter 16A [DSA-SS].

2. The Nordic X-Lam CLT panels are prohibited from use as part of the seismic force-resisting system, unless approved as an alternative system in accordance with CBC Section 104.11 [DSA-SS & DSA-SS/CC].

2.1.2.2 Special Inspection Requirement: Special inspection of wood structural elements is required in accordance with the CBC amended Section 1705A.5.3 [DSA-SS & DSA-SS/CC].

2.2 CRC:

The Nordic X-Lam CLT panels described in Sections 2.0 through 7.0 of the evaluation report ESR-4875, complies with CRC Chapters 5, 6 and 8, provided the design and installation are in accordance with the 2018 *International Residential Code*® (IRC) provisions noted in the evaluation report and the additional requirements of CRC Chapter 3, as applicable.

This supplement expires concurrently with the evaluation report ESR-4875, reissued September 2022.

ICC-ES Evaluation Report

ESR-4875 Chicago Title 14 Supplement

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DIVISION: 06 00 00—WOOD, PLASTICS AND COMPOSITES
Section: 06 17 19—Cross-laminated Timber

REPORT HOLDER:

NORDIC STRUCTURES

EVALUATION SUBJECT:

NORDIC X-LAM CLT

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that the Nordic X-Lam CLT panels, described in ICC-ES evaluation report ESR-4875, have also been evaluated for compliance with the Chicago Construction Codes (Title 14 of the Chicago Municipal Code) as noted below.

Applicable code edition:

2019 *Chicago Building Code* (Title 14B)

2.0 CONCLUSIONS

The Nordic X-Lam CLT panels, described in Sections 2.0 through 7.0 of the evaluation report ESR-4875, comply with Title 14B, and are subject to the conditions of use described in this supplement.

3.0 CONDITIONS OF USE

The Nordic X-Lam CLT panels described in this evaluation report supplement must comply with all of the following conditions:

- All applicable sections in the evaluation report ESR-4875.
- The design, installation, conditions of use and identification of the Nordic X-Lam CLT panels are in accordance with the 2018 *International Building Code*® (IBC) provisions noted in the evaluation report ESR-4875.
- The design, installation and inspection of the Nordic X-Lam CLT panels are in accordance with additional requirements of Chapters 6, 16, 17 and 23 of Title 14B, as applicable.

This supplement expires concurrently with the evaluation report ESR-4875, reissued September 2022.