

ESR-5591

Issued	June 2025	This report also contains:		
		- City of LA Supplement		
Subject	to renewal June 2026	- CA Supplement		
		- FL with HVHZ Supplement		
		- City of Chicago Supplement		

- OR Supplement

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DIVISION: 07 00 00— THERMAL AND MOISTURE PROTECTION	REPORT HOLDER: KPS GLOBAL LLC	EVALUATION SUBJECT: WOOD-FRAME, INSULFRAME [®] AND	
Section: 07 41 13 – Metal Roof Panels		FUSIONFRAME® WALK- IN COOLER AND	
Section: 07 42 13 – Metal Wall Panels		FREEZER FANELS	回前路北部

1.0 EVALUATION SCOPE

Compliance with the following codes:

■ 2024, 2021, 2018 and 2015 International Building Code® (IBC)

Property evaluated:

- Structural
- Special Approval
- Interior finish (Surface Burning Characteristics)

2.0 USES

The Structural Insulated Wood-Frame, **INSUL**FRAME[®] and **FUSION**FRAME[®] Walk-In Cooler and Freezer Panels (generically refer to as panels) consist of insulated roof/ceiling panels, and exterior and interior loadbearing and nonload-bearing wall panels. The panels are also available as floor panels when installed over a structural subfloor. The panels may be used in buildings of any type of construction under IBC. When installed as exterior walls in buildings of Type I, II, III or IV construction, the exterior walls are limited to buildings of onestory height in accordance with IBC Section 2603.4.1.4. Walk-in Cooler and Freezer Panels can be installed in all Seismic Design Categories. The panels are limited to be used as walk-in cooler or freezer panels intended only for incidental human occupancy.

3.0 DESCRIPTION

3.1 General:

The panels are metal-faced sandwich panels with a chemically bonded foam-in-place foam plastic core. The panels edges have a design with hook and pin cam-lock devices embedded in the panel edges located at predetermined locations. Panels are available at maximum 47 inches (1194 mm) width and in lengths up to 26 feet (7.92 m). See <u>Table 1</u> for description of available panel configuration. The following panel frame options are available:

3.1.1 Wood-Frame Panel: The Wood-Frame panels include a tongue and groove perimeter frame of Spruce-Pine-Fir No. 2 or better grade lumber. The panel is available in the nominal thickness of 3.5 inches (89 mm), 4 inches (102 mm) and 5 inches (127 mm).



3.1.2 INSULFRAME **Panel:** The **INSUL**FRAME panel includes a tongue and groove perimeter frame of highdensity polyurethane structural members having a nominal density of 10.3 pcf (165 kg/m³). The panel is available in the nominal thickness of 3.5 inches (89 mm), 4 inches (102 mm) and 5 inches (127 mm).

3.1.3 FUSIONFRAME **Panel:** The **FUSION**FRAME panel includes a tongue and groove perimeter frame of polyurethane structural members having a nominal density of 5.25 pcf (84.1 kg/m³). The panel is available in the nominal thickness of 3.5 inches (89 mm), 4 inches (102 mm) and 5 inches (127 mm).

3.2 Material:

3.2.1 Panel Core: The core material of the panels is a polyurethane foam plastic core as specified in approved quality documentation. The core has a nominal density of 2.2 pcf (35.2 kg/m³). The foam plastic has a flame-spread index of 25 or less and smoke-developed index of 450 or less when tested in accordance with ASTM E84 or UL 723.

3.2.2 Panel Facings: The panels come in aluminum, galvanized steel and aluminum zinc alloy coated steel facers. The aluminum is a minimum 0.032-inch-thick ASTM B209 3003 alloy. The galvanized steel comes in 26 gage and 20 gage thickness [0.016 inch and 0.035 inch (0.41 mm and 0.89 mm)] having a G90 zinc coating complying with ASTM A525 and a minimum yield strength of 33 ksi (227.5 MPa). The aluminum zinc alloy coated steel comes in 26 gage and 20 gage thickness [0.016 inch and 0.035 inch (0.41 mm and 0.35 inch (0.41 mm and 0.89 mm)] having a AZ50 coating complying with ASTM A792 and a minimum yield strength of 33 ksi (227.5 MPa).

3.2.3 Cam-Locks: The cam-locks are made from steel conforming to ASTM A1008. The cam-locks are installed during panel fabrication. The spacing of the cam-locks are 12 inches (305 mm) maximum from the edge and maximum spacing of 48 inches (1219 mm) on center.

3.2.4 Surface Burning Characteristics: The Wood-Frame and **FUSION**FRAME uncoated panels have a flame spread index of 25 or less and smoke-developed index of 450 or less when tested in accordance with ASTM E84.

4.0 DESIGN AND INSTALLATION

4.1 Design:

The allowable uniform transverse load, allowable axial compression load and allowable racking shear loads for the panels are shown in <u>Tables 1</u> through <u>3</u>, respectively. Where loading conditions results in panels resisting combined stresses, the sum of ratios of applied loads or allowable loads must be less than 1.0.

The cam-lock connection strength values for the panels are shown in Table 4.

See Figure 1 for typical panel configuration.

Connection of panels to supporting structure must be designed by a registered design professional.

4.2 Installation:

4.2.1 General: Installation of the panels must comply with this report and the manufacturer's published installation instructions. The manufacturer's published installation instructions must be available at the jobsite at all times during installation.

4.2.2 Wall Panels: Wall Panels are connected to each other using the cam-lock mechanism. When the wall panels are used as shear walls, the panel-sill connection consisted of 1¹/₄-inch-1¹/₄-inch-thick (32 mm by 32 mm by 6.4 mm) steel angle to both sides of the panels with No. 6 self-drilling screws at 6 inches (152 mm) on center. Alternate shear wall panel connections must be determined by registered design professional. Connection to supporting structure must be designed by registered design professional. When used in exterior applications, the exterior face of the walls panels is required to be covered with a wall covering complying with the applicable code or recognized in an ICC-ES evaluation report.

4.2.3 Roof/Ceiling Panels: The roof/ceiling panels must be supported by the wall panels and connected to the wall panels using the cam-lock mechanism or alternate method determined by registered design professional. The roof/ceiling panels connect to each other using the cam-lock mechanism. A roof covering complying with IBC Chapter 15 must be installed on exterior side of the roof panels. The roof covering must be installed in accordance with KPS Global LLC recommendations.

4.2.4 Floor Panels: The floor panels must be installed on a structural subfloor and connected to the wall panels using the cam-lock mechanism or alternate method determined by registered design professional. The floor panels connect to each other using the cam-lock mechanism.

4.2.5 Thermal Barrier: A thermal barrier is not required on the interior side of the wall and ceiling panels based on compliance with IBC Section 2603.9.

4.2.5.1 Floor: A thermal barrier complying with IBC Section 2603.4.1.14 is required on the walking-surface of the floor panels.

5.0 CONDITIONS OF USE:

The Wood-Frame, **INSUL**FRAME and **FUSION**FRAME Walk-in Cooler and Freezer Panels described in this report comply with, or are suitable alternatives to what is specified in, the codes listed in Section 1.0 of this report, subject to the following conditions:

- **5.1** Panel fabrication, identification and installation must comply with this report and the manufacturer's published installation instructions. In the event of conflicts between this report and manufacturer's published instructions, the more restrictive governs.
- **5.2** Design loads must be determined in accordance with the applicable code, and must be equal to, or less than, the values given in <u>Tables 1</u> through <u>4</u> of this report.
- **5.3** All construction documents specifying the building panels must comply with the design limitation of this report. Design calculations and details for the specific applications must be furnished to the code official verifying compliance with this report and applicable codes. The documents must be prepared by a registered design professional where required by the statuses of the jurisdiction in which the project is to be constructed.
- **5.4** Connection and attachments of the panel to the foundation or supporting structure are outside the scope of this report and must be addressed by registered design professional.
- 5.5 Use of foam plastic in areas subject to damage from termites must be in accordance with IBC Section 2603.8.
- **5.6** Use of roof panels as horizontal diaphragm is outside the scope of this report and must be determined by registered design professional.
- **5.7** For roof panels, justification must be submitted to the code official demonstrating that the panels with the roof covering comply as a Class A, B or C roof assembly as required by IBC Section 2603.6, with the classification complying with the minimum classification required for the building.
- **5.8** Walk-in cooler and freezer panels may be installed in buildings of any type of construction. When installed in Type I, II, III or IV constructions, the exterior walls are limited to buildings on one-story in height in accordance with IBC Section 2603.4.1.4.
- **5.9** When used in exterior applications, the exterior face of the wall panels and roof panels are required to be covered with a wall and roof covering, as applicable, complying with the applicable code or recognized in an ICC-ES evaluation report.
- **5.10** The panels are limited to be used as walk-in cooler or freezer panels intended only for incidental human occupancy.
- **5.11** The panels are manufactured under a quality control program with inspections by ICC-ES.

6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for ICC-ES Acceptance Criteria for Walk-In Cooler and Freezer Panels (AC570), dated November 2024, including NFPA 286 and UL1715 tests.

Data in accordance with Florida Building Code Test Methods TAS 201, TAS 202 and TAS 203 for the Wood-Frame panels.

7.0 IDENTIFICATION

- **7.1** The ICC-ES mark of conformity, electronic labeling, or the evaluation report number (ICC-ES ESR-5591) along with the name, registered trademark, or registered logo of the report holder must be included in the product label.
- 7.2 In addition, the Wood-Frame, INSULFRAME and FUSIONFRAME Walk-In Cooler and Freezer Panels

are identified by a label bearing the company name (KPS Global LLC) and address, the product name, and the evaluation report number (ICC-ES ESR-5591).

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

KPS GLOBAL LLC 4201 NORTH BEACH STREET FORT WORTH, TEXAS 76137 (800) 633-3426 www.kpsgloabal.com

TABLE 1—ALLOWABLE PANEL SPANS^{1,2,3,4,5,6} (FT-IN)

	PANELS TOP5/CEILINGS									WALL5													
FINISH SKIN IHICKNESS		SKIN FHICKNESS PANEL FHICKNESS	SF	INDOOR				(DUTDOO	ર				INDOOR				(OUTDOOR				
	ESS		ġ.	Defl		Indu	udes 2 PS	F for Me	mbrane o	r Standir	ng Seam I	Roof		Defl									
	CKN SKIP		-Co	L/180			Design	based on	deflection	on criteria	a: L/240			L/180	Design based on deflection criteria: L/180								
	Ĩ		AD AD			U	NIFORM	OUT-OF	-PLANE L	OAD-PSF					_		UNIFORM	MOUT-OF	-PLANE LO	DAD-PSF			
			B	10	20	30	40	50	60	70	80	90	100	5	13.9	15.5	17.4	19.5	23.2	25.9	29.9	37.6	46.3
WOOD	FRAME													2.2-POU	ND DENS	TY						F	c=18psi
	5	31⁄2″	3.0	15'-6"	10'-10"	9'-7"	8'-9"	8'-1"	7'-7"	7'-3"	6'-11"	6'-7"	6'-3"	20'-2"	13'-11"	13'-4"	12'-8"	12'-0"	11'-1"	10'-6"	9'-9"	8'-7"	7'-7"
ALUM	.03	4″	3.5	17'-7"	14'-4"	11'-9"	10'-2"	9'-1"	8'-3"	7'-7"	7-1"	6'-8"	6'-4"	22'-6"	15'-0"	14'-4"	13'-8"	13'-0"	12'-4"	11'-9"	11'-0"	9'-11"	8'-11"
	°	5″	4.0	20'-9"	14'-10"	13'-2"	12'-1"	11'-3"	10'-7"	10'-1"	9'-7"	9'-3"	8'-7"	26'-0"*	18'-9"	17'-11"	17'-0"	16'-1"	15'-5"	14'-8"	13'-8"	12'-2"	10'-9"
	ē	31⁄2″	3.5	17'-6"	13'-3"	11'-1"	9'-9"	8'-10"	8'-2"	7'-7"	7'-2"	6'-9"	6'-5"	22'-10"	15'-5"	14'-9"	14'-1"	13'-6"	12'-8"	12'-1"	11'-5"	10'-6"	9'-8"
GALV &	69	4″	4.0	19'-3"	13'-8"	12'-1"	10'-11"	10'-0"	9'-3"	8'-7"	8'-0"	7'-6"	7-1"	23'-6"	16'-3"	15'-8"	15'-0"	14'-5"	13'-6"	13'-0"	12'-4"	11'-4"	10'-7"
STEEL		5″	4.5	22'-9"	16'-5"	14'-6"	13'-2"	12'-0"	11'-2"	10'-4"	9'-8"	9'-1"	8'-7"	26'-0"*	18'-11"	18'-4"	17'-9"	17'-1"	16'-2"	15'-7"	14'-10"	13'-7"	12'-6"
	20 ga.	5″	5.5	26'-0"*	18'-6"	15'-8"	13'-11"	12'-8"	11'-9"	11'-0"	10'-5"	9'-11"	9'-5"	26'-0"*	26'-0"	24'-11"	22'-7"	20'-0"	15'-11"	15'-9"	15'-7"	15'-2"	14'-8"
INSULF	RAME/	HIGH	DENSIT	Y RAIL (HDR)						_			2.2-POUND DENSITY Fc=18ps									
	٩.	31⁄2″	3.0	14'-7"	10'-2"	8'-11"	8'-0"	7'-4"	6'-10"	6'-5"	5'-8"	5'-5"	5'-2"	19'-5"	13'-2"	12'-6"	11'-10"	11'-3"	10'-3"	10'-1"	9'-4"	8'-3"	7'-3"
ALUM	032	4″	3.5	16'-2"	13'-5"	10'-9"	9'-1"	8'-0"	7'-3"	6'-7"	6'-1"	5'-9"	5'-4"	19'-9"	13'-3"	12'-8"	12'-1"	11'-7"	10'-10"	10'-4"	9'-9"	8'-11"	8'-3"
	Ö	5″	4.0	19'-4"	13'-10"	12'-2"	11'-0"	10'-1"	9'-5"	8'-11"	7'-10"	7'-6"	7'-2"	25'-8"	17'-0"	16'-2"	15'-3"	14'-4"	14'-3"	13'-5"	12'-5"	10'-10"	9'-5"
	а.	31⁄2″	3.5	16'-7"	12'-8"	10'-10"	9'-6"	8'-5"	7'-7"	6'-10"	6'-2"	5'-7"	5'-1"	22'-0"	14'-11"	14'-2"	13'-6"	12'-10"	11'-11"	11'-4"	10'-8"	9'-7"	8'-9"
GALV &	69	4″	4.0	18'-1"	12'-6"	10'-11"	9'-9"	8'-9"	8'-0"	7-4"	6'-10"	6'-4"	5'-10"	22'-3"	16'-1"	15'-7"	14'-11"	14'-4"	13'-5"	12'-11"	12'-2"	10'-11"	9'-10"
STEEL	2	5″	4.5	21'-0"	15'-0"	13'-2"	11'-9"	10'-9"	9'-10"	9'-1"	8'-5"	7-11"	7'-4"	26'-0"*	17'-6"	16'-11"	16'-2"	15'-6"	14'-6"	13'-10"	13'-0"	11'-8"	10'-6"
	20 ga	5″	5.5	23'-6"	17'-11"	15'-4"	13'-5"	12'-3"	11'-1"	10'-2"	9'-4"	8'-7"	8'-0"	26'-0"*	21'-2"	20'-2"	19'-2"	18'-3"	16'-11"	16'-1"	15'-1"	13'-8"	12'-2"
FUSIO	IFRAM	E°												2.2-POU	ND DENS	TY						F	c=18psi
GALV &	÷	31⁄2″	3.5	18'-1"	13'-1"	11'-2"	9'-11"	9'-0"	8'-4"	7'-9"	7-4"	6'-11"	6'-8"	21'-0"	13'-1"	12'-5"	11'-9"	11'-2"	10'-4"	9'-10"	9'-2"	8'-3"	7'-6"
ALZN	6 9	4″	4.0	19'-5"	13'-7"	11'-5"	10'-1"	9'-1"	8'-5"	7-10"	7'-5"	7'-0"	6'-9"	23'-0"	13'-7"	12'-10"	12'-2"	11'-6"	10'-7"	10'-0"	9'-4"	8'-4"	7'-7"
STEEL	3	5″	4.5	22'-0"	15'-5"	13'-0"	11'-7"	10'-6"	9'-9"	9'-1"	8'-8"	8'-2"	7'-10"	26'-0" *	15'-11"	15'-2"	14'-5"	13'-8"	12'-7"	12'-0"	11'-3"	10'-2"	9'-3"

For SI: 1 inch= 0.0254 m; 1 foot= 0.305 m; 1 psf= 47.9 N/m².

NOTES:

1. ALLOWABLE SPANS ARE BASED ON PANELS SIMPLY SUPPORTED WITH UNIFORM LOADS. INTERPOLATION OF TABULATED LOAD AND SPAN VALUES IS PERMITTED. OTHER SUPPORT AND LOAD CONDITIONS ARE OUTSIDE SCOPE OF THIS REPORT AND MUST BE DETERMINED BY REGISTERED DESIGN PROFESSIONAL.

2. DEFLECTION LIMITATIONS ARE BASED ON IBC TABLE 1604.3.

3. PANELS MUST BE INSTALLED IN ACCORDANCE WITH SECTION 4.2 OF THIS REPORT. PANELS MUST BE SUPPORTED BY MINIMUM 3-INCH-WIDE BEARING SUPPORT AT EACH END. ALTERNATE SUPPORT CONDITIONS MUST BE DESIGNED BY REGISTERED DESIGN PROFESSIONAL.

4. TABULATED ALLOWABLE WALL SPANS INCLUDE A 500 PLF AXIAL LOAD ACTING CONCURRENTLY. FOR COMBINED LOADING IN EXCESS OF 500 PLF, THE COMBINED AXIAL LOAD SHALL BE USED TO DETERMINE COMBINED STRESSES IN ACCORDANCE WITH SECTION 4. 1 OF THIS REPORT.

5. MAX SPAN IS BASED ON MANUFACTURING LIMITATION.

6. WHERE TOPS/CEILINGS USED IN OUTDOOR APPLICATIONS, ROOF MAINTENANCE WORKER LIVE LOAD IN ACCORDANCE WITH IBC SECTION 1607.1 WITHOUT ADDITIONAL DEAD LOAD MAY BE CONSIDERED WITHOUT AFFECTING ALLOWABLE SPANS.

PANEL TYPE	PANEL FACERS	PANEL THICKNESS (inches)	PANEL HEIGHT (feet)	ALLOWABLE AXIAL LOAD (plf)		
			12	1847		
		3.5	17	1946		
Wood Fromo	26 CA thick steel	22		1033		
wood-Frame	26 GA. INICK STEEL		16	2779		
		5	21	1334		
			26	1037		
		12		920		
	26 GA. thick steel	3.5	17	596		
			22	603		
INSULFRAME			16	950		
		5	21	800		
			26	623		
		3.5	21	1191		
FUSION FRAME	26 GA. thick steel	4	23	1191		
		5	26	1191		

TABLE 2—ALLOWABLE UNIFORM AXIAL LOADS FOR WALL PANELS^{1,2,3,4}

For SI: 1 inch= 0.0254 m; 1 foot= 0.305 m; 1 plf= 14.6 N/m.

NOTES:

1. ALLOWABLE AXIAL LOAD IS ASSUMED TO BE UNIFORMLY DISTRIBUTED CONCENTRICALLY AT THE TOP OF THE WALL PANEL .

2. WALL PANEL FACERS MUST BE INSTALLED BEARING ON STRUCTURAL SUPPORT AT THE TOP AND BOTTOM OF THE PANEL.

3. PANELS MUST BE INSTALLED IN ACCORDANCE WITH SECTION 4.2 OF THIS REPORT.

4. FOR COMBINED LOADING IN EXCESS OF 500 PLF AS NOTED IN <u>TABLE 1</u> OF THIS REPORT, THE COMBINED AXIAL LOAD SHALL BE USED TO DETERMINE COMBINED STRESSES IN ACCORDANCE WITH SECTION 4. 1 OF THIS REPORT.

PANEL TYPE	HEIGHT TO WIDTH RATIO	ALLOWABLE IN-PLANE SHEAR (plf)					
	4:1	158					
	3:1	161					
	2:1	179					
wood-Frame	1.5:1	246					
	1:1	333					
	1⁄2 : 1	646					
	4:1	56					
	3:1	65					
	2:1	88					
INSULFRAME	1.5:1	108					
	1:1	161 179 246 333 646 56 65 88 108 127 183 81 99 216 321 458 659					
	1⁄2 : 1	183					
	4:1	81					
	3:1	99					
	2:1	216					
FUSIONFRAME	1.5:1	321					
	1:1	458					
	1⁄2 : 1	659					

TABLE 3—ALLOWABLE RACKING SHEAR OF WALL PANELS^{1,2,3,4,5}

For **SI:** 1 inch= 0.0254 m; 1 plf= 14.6 N/m.

NOTES:

1. PANELS MUST BE INSTALLED IN ACCORDANCE WITH SECTION 4.2 OF THIS REPORT. CONNECTION OF PANELS AT THE BOTTOM SUPPORT MUST BE DESIGN BY REGISTERED DESIGN PROFESSIONAL.

2. HOLD-DOWN DEVICES MUST BE INSTALLED TO PREVENT PANEL OVERTURNING WHEN DETERMINED BY REGISTERED DESIGN PROFESSIONAL, UNLESS OVERTURNING RESISTED BY OTHER MEANS.

3. THE CAM-LOCKS MUST BE SPACED 12 INCHES MAXIMUM FROM PANEL ENDS AND 48 INCHES MAXIMUM ALONG PANEL SEAM.

4. DEFLECTION AT ALLOWABLE RACKING SHEAR DOES NOT EXCEED H/200, WHERE H IS PANEL HEIGHT.

5. PANELS MUST BE MINIMUM 3.5 INCHES THICK COMPOSED OF 26 GA. THICK STEEL.

		Allowable Connection Capacity of Wood-Frame Camlock Device (lbf)					
Panel Type	Connection Type		Shear Strength				
		Tension Strength	In-Plane	Out-of- Plane			
	Wall Panel to Wall Panel						
	Ceiling/Roof Panel to Ceiling/Roof Panel	328	403	782			
wood-Frame	Wall Panel to Ceiling/Roof Panel	262	337	387			
	Wall Panel to Floor Panel						
	Wall Panel to Wall Panel Ceiling/Roof Panel to Ceiling/Roof Panel	250	357	220			
FUSIONFRAME	Wall Panel to Ceiling/Roof Panel Wall Panel to Floor Panel	233	207	248			
	Wall Panel to Wall Panel Ceiling/Roof Panel to Ceiling/Roof Panel	216	263	186			
INSULFKAME	Wall Panel to Ceiling/Roof Panel Wall Panel to Floor Panel	199	208	222			

TABLE 4—ALLOWABLE CAM-LOCK CONNECTION CAPACITY

For SI: 1 lbf=4.45 N.



PANELS



FIGURE 1—TYPICAL PANEL CONFIGURATION



ESR-5591 City of LA Supplement

Issued June 2025 This report is subject to renewal June 2026.

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DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION Section: 07 41 13—Metal Roof Panels Section: 07 42 13—Metal Wall Panels

REPORT HOLDER:

KPS GLOBAL LLC

EVALUATION SUBJECT:

WOOD-FRAME, INSULFRAME® AND FUSIONFRAME® WALK-IN COOLER AND FREEZER PANELS

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that the Wood-Frame, **INSUL**FRAME[®] and **FUSION**FRAME[®] Walk-In Cooler and Freezer Panels, described in ICC-ES evaluation report <u>ESR-5591</u>, have also been evaluated for compliance with the code noted below as adopted by the Los Angeles Department of Building and Safety (LADBS).

Applicable code editions:

■ 2023 City of Los Angeles Building Code (LABC)

2.0 CONCLUSIONS

The Wood-Frame, **INSUL**FRAME[®] and **FUSION**FRAME[®] Walk-In Cooler and Freezer Panels, described in Sections 2.0 through 7.0 of the evaluation report <u>ESR-5591</u>, comply with LABC Chapters 8, 14, 15 and 26, and are subject to the conditions of use described in this supplement.

3.0 CONDITIONS OF USE

The Wood-Frame, **INSUL**FRAME[®] and **FUSION**FRAME[®] Walk-In Cooler and Freezer Panels described in this evaluation report supplement must comply with all of the following conditions:

- All applicable sections in the evaluation report ESR-5591.
- The design, installation, conditions of use and identification of the Wood-Frame, **INSUL**FRAME[®] and **FUSION**FRAME[®] Walk-In Cooler and Freezer Panels are in accordance with the 2021 *International Building Code*[®] (IBC) noted in the evaluation report <u>ESR-5591</u>.
- The design, installation and inspection are in accordance with additional requirements of LABC Chapters 8, 14, 15, 16, 17 and 26, as applicable.

This supplement expires concurrently with the evaluation report issued June 2025.





ESR-5591 City of Chicago Supplement

Issued June 2025

This report is subject to renewal June 2026.

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DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION Section: 07 41 13—Metal Roof Panels Section: 07 42 13—Metal Wall Panels

REPORT HOLDER:

KPS GLOBAL LLC

EVALUATION SUBJECT:

WOOD-FRAME, INSULFRAME® AND FUSIONFRAME® WALK-IN COOLER AND FREEZER

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The purpose of this evaluation report supplement is to indicate that the Wood-Frame, **INSUL**FRAME[®] and **FUSION**FRAME[®] Walk-In Cooler and Freezer Panels, described in ICC-ES evaluation report <u>ESR-5591</u>, have also been evaluated for compliance with the Chicago Construction Codes (Title 14 of the Chicago Municipal Code) as noted below.

Applicable code edition(s):

■ 2019 Chicago Building Code (Title 14B)

2.0 CONCLUSIONS

The Wood-Frame, **INSUL**FRAME[®] and **FUSION**FRAME[®] Walk-In Cooler and Freezer Panels pedestals, described in Sections 2.0 through 7.0 of the evaluation report <u>ESR-5591</u>, comply with Title 14B, and are subject to the conditions of use described in this supplement.

3.0 CONDITIONS OF USE

The Wood-Frame, **INSUL**FRAME[®] and **FUSION**FRAME[®] Walk-In Cooler and Freezer Panels pedestals described in this evaluation report supplement must comply with all of the following conditions:

- All applicable sections in the evaluation report ESR-5591.
- The design, installation, conditions of use and identification of the Wood-Frame, INSULFRAME[®] and FUSIONFRAME[®] Walk-In Cooler and Freezer Panels are in accordance with the 2018 International Building Code[®] (IBC) provisions noted in the evaluation report <u>ESR-5591</u>.
- The design, installation and inspections are in accordance with additional requirements of Chapters 8,14,15,16, 17 and 26 of Title 14B, as applicable.

This supplement expires concurrently with the evaluation report, issued June 2025.





ESR-5591 CA Supplement

Issued June 2025 This report is subject to renewal June 2026.

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DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION Section: 07 41 13—Metal Roof Panels Section: 07 42 13—Metal Wall Panels

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WOOD-FRAME, INSULFRAME® AND FUSIONFRAME® WALK-IN COOLER AND FREEZER PANELS

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that the Wood-Frame, **INSUL**FRAME[®] and **FUSION**FRAME[®] Walk-In Cooler and Freezer Panels, described in ICC-ES evaluation report <u>ESR-5591</u>, have also been evaluated for compliance with the code noted below.

Applicable code edition(s):

■ 2022 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.

2.0 CONCLUSIONS

2.1 CBC:

The Wood-Frame, **INSUL**FRAME[®] and **FUSION**FRAME[®] Walk-In Cooler and Freezer Panels, described in Sections 2.0 through 7.0 of the evaluation report <u>ESR-5591</u>, comply with CBC Chapters 8, 14, 15 and 26, provided the design and installation are in accordance with the 2021 *International Building Code*[®] (IBC) provisions noted in the evaluation report and the additional requirements of CBC Chapters 15, 16, 17 and 26, as applicable.

The products have not been evaluated under Chapter 7A for use in the exterior design and construction of new buildings located in a Fire Hazard Severity Zone within State Responsibility Areas or any Wildland–Urban Interface Fire Area.

2.1.1 OSHPD:

The applicable OSHPD Sections and Chapters of the CBC are beyond the scope of this supplement.

2.1.2 DSA:

The applicable DSA Sections and Chapters of the CBC are beyond the scope of this supplement.

The products recognized in this supplement have not been evaluated for compliance with the *International Wildland–Urban Interface Code*[®].

This supplement expires concurrently with the evaluation report, issued June 2025.





ESR-5591 FL Supplement w/HVHZ

Issued June 2025 This report is subject to renewal June 2026.

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A Subsidiary of the International Code Council®

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION Section: 07 41 13—Metal Roof Panels Section: 07 42 13—Metal Wall Panels

REPORT HOLDER:

KPS GLOBAL LLC

EVALUATION SUBJECT:

WOOD-FRAME, INSULFRAME® AND FUSIONFRAME® WALK-IN COOLER AND FREEZER PANELS

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that Wood-Frame, **INSUL**FRAME[®] and **FUSION**FRAME[®] Walk-In Cooler and Freezer Panels, recognized in ICC-ES evaluation report <u>ESR-5591</u>, has also been evaluated for compliance with the codes noted below.

Applicable code editions:

2023 Florida Building Code—Building

2.0 CONCLUSIONS

The Wood-Frame, **INSUL**FRAME[®] and **FUSION**FRAME[®] Walk-In Cooler and Freezer Panels, described in Sections 2.0 through 7.0 of ICC-ES evaluation report <u>ESR-5591</u>, comply with the *Florida Building Code-Building*. The design requirements must be determined in accordance with the *Florida Building Code-Building*. The installation requirements noted in ICC-ES evaluation report <u>ESR-5591</u> for the 2021 *International Building Code[®]* meet the requirements of the *Florida Building Code-Building* with the following conditions:

• Installation of foam plastic in areas subject to damage from termites must meet the requirements of Sections 1403.8 and 2603.8 of the *Florida Building Code-Building*.

Use of the **INSUL**FRAME[®] and **FUSION**FRAME[®] Walk-In Cooler and Freezer Panels for compliance with the High-Velocity Hurricane Zone provisions of the *Florida Building Code-Building* has not been evaluated and is outside the scope of this supplemental report.

Use of the Wood-Frame Walk-in Cooler and Freezer Panels has also been found to be in compliance with the High-Velocity Hurricane Zone provisions of the *Florida Building Code-Building* with the following conditions:

- The allowable positive or negative design wind load must not exceed 60 psf.
- Maximum unsupported panel span is 109 inches. Panel facer must be minimum 26 ga. galvanized steel. Minimum panel thickness is 3.5 inches. Maximum 43 inches on center camlock spacing and 13 inches from the panel edges. A maximum door size having 36" by 84" dimensions may be included.

In addition to the data noted in Section 6.0 of <u>ESR-5591</u>, data in accordance with *Florida Building Code* Test Protocols for High Velocity Hurricane Zones, TAS 201, TAS 202 and TAS 203, was submitted.

For products falling under Florida Rule 61G20-3, verification that the report holder's quality assurance program is audited by a quality assurance entity approved by the Florida Building Commission for the type of inspections being conducted is the responsibility of an approved validation entity (or the code official when the report holder does not possess an approval by the Commission).

This supplement expires concurrently with the evaluation report issued June 2025.

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ESR-5591 OR Supplement

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DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION Section: 07 41 13—Metal Roof Panels Section: 07 42 13—Metal Wall Panels

REPORT HOLDER:

KPS GLOBAL LLC

EVALUATION SUBJECT:

WOOD-FRAME, INSULFRAME® AND FUSIONFRAME® WALK-IN COOLER AND FREEZER

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that the Wood-Frame, **INSUL**FRAME[®] and **FUSION**FRAME[®] Walk-In Cooler and Freezer Panels, described in ICC-ES evaluation report <u>ESR-5591</u>, have also been evaluated for compliance with the codes noted below.

Applicable code edition(s):

■ 2022 Oregon Structural Specialty Code (OSSC) with Amendments Effective Oct. 2023

2.0 CONCLUSIONS

The Wood-Frame, **INSUL**FRAME[®] and **FUSION**FRAME[®] Walk-In Cooler and Freezer Panels, described in Sections 2.0 through 7.0 of the evaluation report <u>ESR-5591</u>, comply with the OSSC Chapters 8,14,15, and 26, and are subject to the conditions of use described in this supplement.

3.0 CONDITIONS OF USE

The Wood-Frame, **INSUL**FRAME[®] and **FUSION**FRAME[®] Walk-In Cooler and Freezer Panels pedestals described in this evaluation report supplement must comply with all of the following conditions:

- All applicable sections in the evaluation report <u>ESR-5591</u>.
- The design, installation, conditions of use and identification of the Wood-Frame, INSULFRAME[®] and FUSIONFRAME[®] Walk-In Cooler and Freezer Panels are in accordance with the 2021 International Building Code[®] (IBC) provisions noted in the evaluation report <u>ESR-5591</u>.
- The design, installation and inspection are in accordance with additional requirements of OSSC Chapters 8, 14, 15, 16, 17, and 26, as applicable.

This supplement expires concurrently with the evaluation report, issued June 2025.

