



DIVISION: 07 00 00— THERMAL AND MOISTURE PROTECTION

Section: 07 42 43— Composite Wall Panels

REPORT HOLDER:

WALL PANEL SYSTEMS INC

EVALUATION SUBJECT:

WALL PANEL SYSTEMS ARCHITECTURAL PANEL SYSTEMS: ES-400 EXPOSED FASTENER SYSTEM, ES-500 CONCEALED FASTENER SYSTEM AND HORIZONTAL FLUSH SIDING SYSTEM

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2021, 2018, 2015 and 2012 *International Building Code*® (IBC)
- 2021, 2018, 2015 and 2012 *International Residential Code*® (IRC)

For evaluation for compliance with codes adopted by the Los Angeles Department of Building and Safety (LADBS), see [ESR-4726 LABC and LARC Supplement](#).

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 State Architects (DSA), see [ESR-4726 CBC and CRC Supplement](#).

Properties evaluated:

- Wind load resistance
- Types I, II, III or IV construction

2.0 USES

The Wall Panel Systems Architectural Panel Systems are used as a nonload-bearing exterior wall covering in accordance with Chapter 14 of the IBC. The Wall Panel Systems Architectural Panel Systems may be installed on buildings of all construction types under the IBC and buildings constructed in accordance with the IRC. Use on buildings of Types I, II, III or IV construction must be in accordance with Section 4.4 of this report.

3.0 DESCRIPTION

3.1 General:

The Wall Panel Systems Architectural Panel Systems consist of the Trespa Meteon FR wall panels (ESR-1687) with either the ES-400 Exposed Fastener System, ES-500

Conceal Fastener System or Horizontal Flush Siding System. The Wall Panel Systems Architectural Panel Systems are open-jointed wall covering systems that allow air to circulate between the panels and the exterior face of the installed water-resistive barrier.

3.2 Components:

3.2.1 Panels: The panels used with the Wall Panel Systems Architectural Panel Systems are Trespa Meteon FR wall panels and are evaluated in current ICC-ES evaluation report ESR-1687.

3.2.2 Substructure Systems: Each substructure is a system of horizontal extruded ASTM B317, 6063-T5 aluminum rails, which are fastened to the existing exterior building substrate to provide support for the panels. The substructure system for the ES-400 Exposed Fastener System consists of horizontal rail (ES-801) and horizontal joint rail (ES-820). The substructure system for the ES-500 Conceal Fastener System consists of horizontal rail (ES-801), horizontal joint rail (ES-820) and panel clip (GEN-018). The substructure system for the Horizontal Flush Siding System consists of face mount rail (LFS 902), face mount clip (FMC 028), horizontal joint clip (LFS 920) and bottom rail (LFS 901). See Figure 1 for substructure component details.

4.0 DESIGN AND INSTALLATION

4.1 General:

The Wall Panel Systems Architectural Panel Systems must be installed in accordance with the report holder’s published installation instructions, the project specific structural calculations and details, and this report. A copy of the installation instructions must be available on the jobsite during construction.

4.2 Design:

The allowable wind loads for the Wall Panel Systems Architectural Panel Systems given in Table 1 and the wind-load capacity of the underlying wall and substrate must equal or exceed the design uniform transverse wind loads determined in accordance with Chapter 16 of the IBC or Section R301.2.1 of the IRC, as applicable. The substructure system connections used to connect the panels to the underlying wall or substrate must be designed by a registered design professional, and the details must be submitted to the code official for approval. The allowable loads must be reduced to the capacity of the attachment system connections if these are less than the values in Table 1.

4.3 Installation:

4.3.1 General: The Wall Panel Systems Architectural Panel Systems must be installed over wall assemblies complying with 2021 and 2018 IBC Section 1402.3 (2015 and 2012 IBC Section 1403.3), capable of supporting the imposed loads, including, but not limited to, transverse wind loads. The substructure components must be securely fastened to the supporting wall with corrosion-resistant fasteners that are compatible with the substructure materials and wall assembly substrate.

Exterior wall assemblies on which the system is to be installed must include flashing, a water-resistive barrier, a means of draining water, and protection against condensation in accordance with 2021 and 2018 IBC Section 1402.2 (2015 and 2012 IBC Section 1403.2). A ventilation path must be maintained to allow air to flow into, out of, and within the cavity between the water-resistive barrier and the panels. The panels must be cut and trimmed in accordance with the limitations described in the design documents and this report. Panel-to-panel joints and panel-to-penetration joints (such as at windows, doors, and air conditioning outlets) require a minimum nominal gap of $\frac{3}{8}$ inch (10 mm).

4.3.2 Substructure System Installation: Connection of the substructure components (ES-801, ES-820, LFS 902, LFS 920 and LFS 901) to the existing exterior building substrate must be designed in accordance with Section 4.2 and this section. The ES-400 Exposed Fastener System substructure components must be installed horizontally at a spacing not to exceed 34 inches (864 mm) on center and fastened at a maximum of 16 inches (406 mm) on center along the horizontal length. The ES-500 Concealed Fastener System substructure components must be installed horizontally at a spacing not to exceed 24 inches (610 mm) on center and fastened at a maximum of 21 inches (533 mm) on center along the horizontal length. The Horizontal Flush Siding System substructure components must be installed horizontally at a spacing not to exceed 24 inches (610 mm) on center and fastened at a maximum of 16 inches (406 mm) on center along the horizontal length. The substructure components must be installed to the underlying substrate of the building to withstand the wind load noted in Table 1. Fasteners must be compatible with the aluminum substructure extrusions and the wall substrate. All fasteners used to connect the substructure system to the existing exterior building substrate must be corrosion-resistant.

4.3.3 Panel Fastening:

4.3.3.1 ES-400 Exposed Fastener System:

The panels must be connected to the substructure system using No. 12-by- $1\frac{3}{16}$ -inch (30.2 mm) long stainless steel self-drilling Torx head screws at a maximum spacing of 21 inches (533 mm) on center horizontally and a maximum spacing of 34 inches (864 mm) on center vertically. A minimum distance of $\frac{3}{8}$ -inch (9.5 mm) must be maintained between each panel on all sides. Each panel, at the panel attachment points, must be predrilled and a minimum fastener edge distance of 2 inch (50.8 mm) must be maintained. See Figure 2 for details.

4.3.3.2 ES-500 Conceal Fastener System:

The panel clips (GEN-018) must be fastened to the back of the panels at a maximum spacing of 21 inches (533 mm) on center horizontally and a maximum spacing of 24 inches (610 mm) on center vertically, using two $10\frac{1}{32}$ -by- $\frac{3}{8}$ -inch (9.5 mm) long stainless steel pan head screws per panel clip (GEN-018). A fixing point $\frac{9}{32}$ -by- $\frac{3}{4}$ -inch (19.1 mm) long stainless steel pan head screws is fastened through the panel clips (GEN-018) to fix the panel clips to the horizontal

rail and horizontal joint rail of the substructure system for each panel clip (GEN-018) fastened to the panel at the top. See Figure 3 for details.

4.3.3.3 Horizontal Flush Siding System:

The horizontal joint clips (LFS 920) are used to connect the siding panels to the substructure system. A fixing point 4d box nail is fastened through the siding panel and each horizontal joint clip (LFS 920) at predrilled attachment point. The face mount clips (FMC 028) must be fastened to the back of the top edge siding panel at a maximum spacing of 16 inches (406 mm) on center horizontally using four $10\frac{1}{32}$ -by- $\frac{3}{8}$ -inch (9.5 mm) long stainless steel pan head screws fastener. See Figure 4 for details.

4.4 Types I, II, III or IV Construction:

When installed as described in ICC-ES listing report, ESL-1287, the Wall Panel Systems Architectural Panel Systems may be used on the exterior face of exterior walls of buildings required to be of Type I, II, III or IV construction.

5.0 CONDITIONS OF USE

The Wall Panel Systems Architectural Panel Systems described in this report comply with, or are 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 Installation must comply with this report, the project specific structural calculations, details, and instructions, and the applicable code. If there is a conflict between the installation instructions and this report, this report governs.
- 5.2 The underlying support structure and substrate must be adequate to resist the positive and negative transverse wind loads shown in Table 1.
- 5.3 Drawings, design details and calculations verifying compliance with this report and adequacy of the connections and supporting framing must be submitted to the code official for approval. The drawings and calculations must be prepared by a registered design professional when required by the statutes of the jurisdiction in which the project is to be constructed.
- 5.4 The Wall Panel Systems Architectural Panel Systems must be installed by installers qualified by Wall Panel Systems Inc.
- 5.5 The maximum allowable wind pressure for the Wall Panel Systems Architectural Panel Systems is shown in Table 1. The capacity of the supporting wall or substrate, and the capacity of the connections used to attach the cladding system to the wall, must equal or exceed these wind pressures.
- 5.6 A water-resistive barrier complying with IBC Section 1403.2 must be installed behind the wall panel system and over the wall sheathing.
- 5.7 The Wall Panel Systems Architectural Panel Systems are manufactured under a quality control program with inspections by ICC-ES.

6.0 EVIDENCE SUBMITTED

Data in accordance with Section 4.7 of the ICC-ES Acceptance Criteria for Polymer-based, Polymer-modified and High-pressure Laminate Exterior and Interior Wall Cladding (AC92), dated December 2013 (editorially revised August 2021).

7.0 IDENTIFICATION

- 7.1 The Wall Panel Systems Architectural Panel Systems are labeled with the name of the report holder, the product name, batch number and the ICC-ES mark of conformity. The evaluation report number (ICC-ES ESR-4726) may be used in lieu of the mark of conformity.

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

WALL PANEL SYSTEMS INC
 1815 RUSTIN AVENUE, SUITE A
 RIVERSIDE, CALIFORNIA 92507
 (909) 307-8888
www.wpsusa.com

TABLE 1—MAXIMUM FASTENER/SUPPORT SPACING AND ALLOWABLE TRANSVERSE LOADS

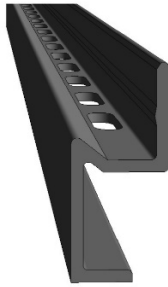
SYSTEM TYPE	PANEL THICKNESS	MAXIMUM FASTENER/SUPPORT SPACING ^{2,3}	ALLOWABLE TRANSVERSE LOAD ¹ (psf)	
			Positive	Negative
ES-400 Exposed Fastener System	5/16 inch (8 mm)	16 inches (406 mm) / 34 inches (864 mm)	50	58
	3/8 inch (10 mm)			
	1/2 inch (13 mm)			
ES-500 Concealed Fastener system	3/8 inch (10 mm)	21 inches (533 mm) / 24 inches (610 mm)	38	33
	1/2 inch (13 mm)			
Horizontal Flush Siding System	5/16 inch (8 mm)	16 inches (406 mm) / 24 inches (610 mm)	54	34
	3/8 inch (10 mm)			
	1/2 inch (13 mm)			

For **SI**: 1 inch = 25.4 mm; 1 psf = 47.9 N/m².

¹Maximum transverse wind load capacity determined from ASTM E330 testing.

²Testing was carried out in a multispans support configuration.

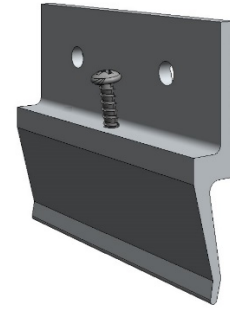
³See Section 4.3.3 for panel fastening spacing.



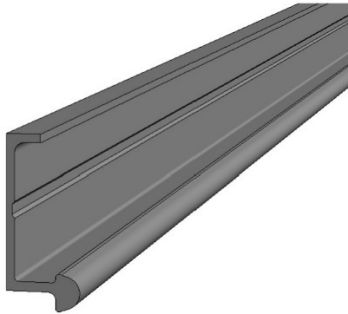
Horizontal Rai (ES-801)



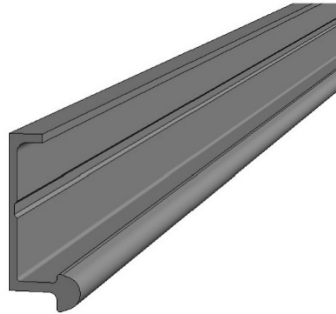
Horizontal Joint Rail ES-820



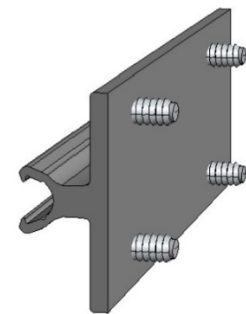
Panel Clip (GEN-018)



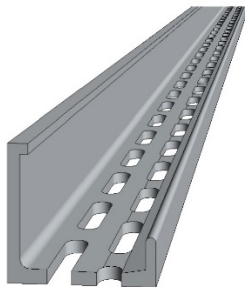
Face Mount Rail (LFS 902)



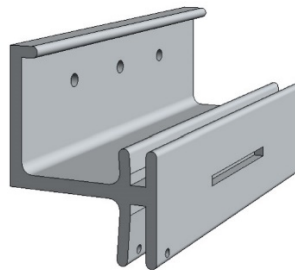
Face Mount Rail (LFS 902)



Face Mount Clip (FMC 028)



Bottom Rail (LFS 901)



Horizontal Joint Clip (LFS 920)

FIGURE 1 SUBSTRUCTURE SYSTEM COMPONENTS (CONTINUED)

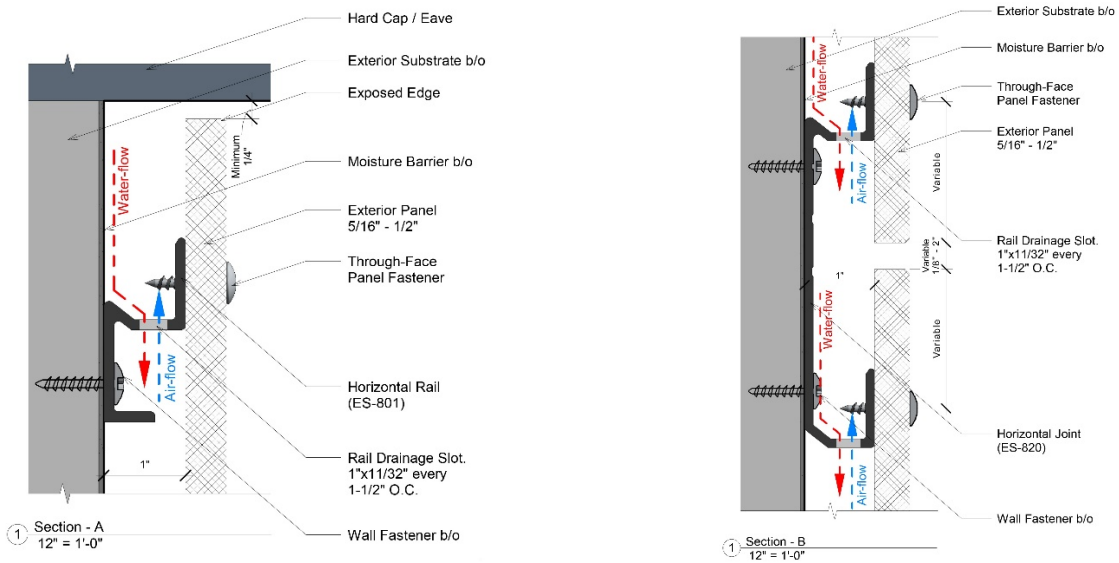


FIGURE 2 TYPICAL ES-400 EXPOSED FASTENER SYSTEM INSTALLATION

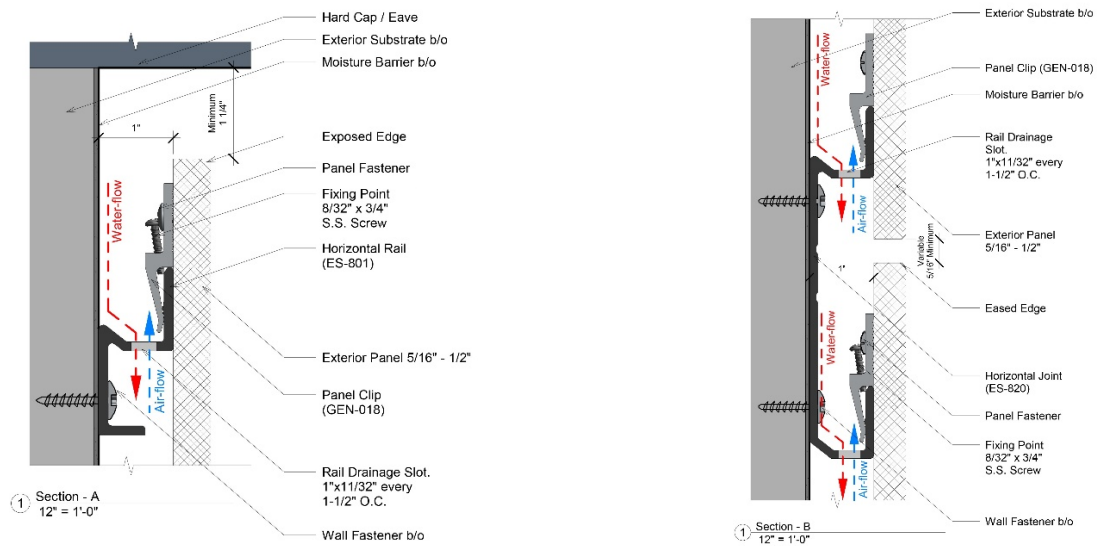


FIGURE 3 TYPICAL ES-500 CONCEAL FASTENER SYSTEM INSTALLATION

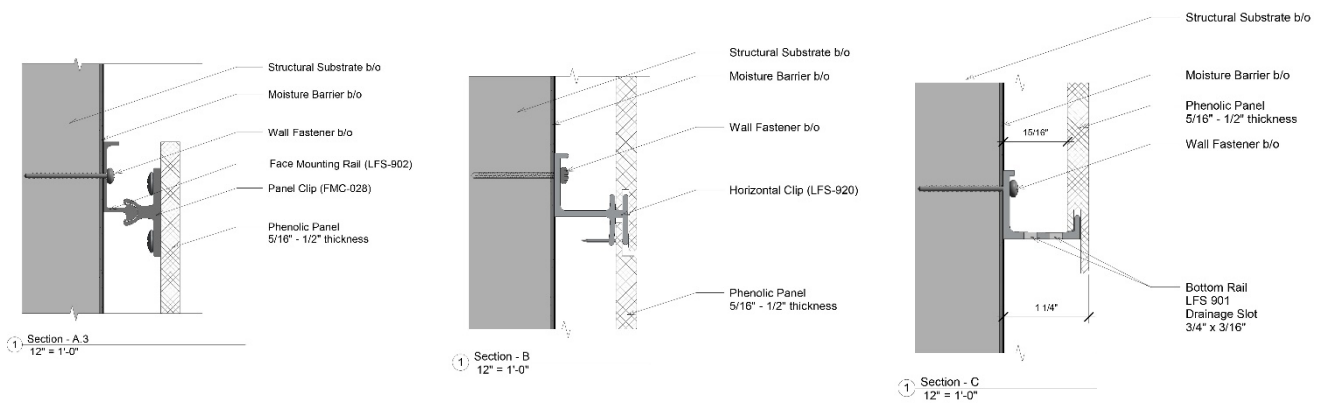


FIGURE 4 TYPICAL HORIZONTAL FLUSH SIDING SYSTEM INSTALLATION

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1.0 REPORT PURPOSE AND SCOPE**Purpose:**

The purpose of this evaluation report supplement is to indicate that the Wall Panel Systems Architectural Panel Systems: ES-400 Exposed Fastener System, ES-500 Concealed Fastener System and Horizontal Flush Siding System, described in ICC-ES evaluation report [ESR-4726](#), 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 edition:

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

2.0 CONCLUSIONS

The Wall Panel Systems Architectural Panel Systems: ES-400 Exposed Fastener System, ES-500 Concealed Fastener System and Horizontal Flush Siding System, described in Sections 2.0 through 7.0 of the evaluation report [ESR-4726](#), comply with the LABC Chapters 7, 14 and the LARC Chapter 7, and are subject to the conditions of use described in this supplement.

3.0 CONDITIONS OF USE

The Wall Panel Systems Architectural Panel Systems: ES-400 Exposed Fastener System, ES-500 Concealed Fastener System and Horizontal Flush Siding System described in this evaluation report supplement must comply with all of the following conditions:

- All applicable sections in the evaluation report [ESR-4726](#).
- The design, installation, conditions of use and identification of the Wall Panel Systems Architectural Panel Systems: ES-400 Exposed Fastener System, ES-500 Concealed Fastener System and Horizontal Flush Siding System are in accordance with the 2018 *International Building Code*® (IBC) provisions noted in the evaluation report [ESR-4726](#).
- The design, installation and inspection are in accordance with additional requirements of LABC Chapters 14, 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, issued November 2022.

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1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that the Wall Panel Systems Architectural Panel Systems: ES-400 Exposed Fastener System, ES-500 Concealed Fastener System and Horizontal Flush Siding System, described in ICC-ES evaluation report ESR-4726, have also been evaluated for compliance with the code noted below.

Applicable code editions:

- 2022 and 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.

- 2022 and 2019 *California Residential Code (CRC)*

2.0 CONCLUSIONS

2.1 CBC:

The Wall Panel Systems Architectural Panel Systems: ES-400 Exposed Fastener System, ES-500 Concealed Fastener System and Horizontal Flush Siding System, described in Sections 2.0 through 7.0 of the evaluation report ESR-4726, comply with CBC Chapters 7 and 14, provided the design and installation are in accordance with the 2021 and 2018 *International Building Code*® (IBC) provisions noted in the evaluation report and the additional requirements of CBC Chapters 7, 14, 17 and 16, as applicable.

2.1.1 OSHPD:

The Wall Panel Systems Architectural Panel Systems: ES-400 Exposed Fastener System, ES-500 Concealed Fastener System and Horizontal Flush Siding System, described in Sections 2.0 through 7.0 of the evaluation report ESR-4726, comply with CBC Chapter 7 and Chapter 14 with applicable amendments [OSHPD 1, 1R, 2, 4 and 5], provided the design and installation are in accordance with the 2021 and 2018 *International Building Code*® (IBC) provisions noted in the evaluation report and the additional requirements in CBC Chapters 14, 16, 16A, 17 and 17A, as applicable.

2.1.2 DSA: The Wall Panel Systems Architectural Panel Systems: ES-400 Exposed Fastener System, ES-500 Concealed Fastener System and Horizontal Flush Siding System, described in Sections 2.0 through 7.0 of the evaluation report ESR-4726, comply with CBC Chapter 7 and Chapter 14 with amendments [DSA-SS, DSA-SS/CC], provided the design and installation are in accordance the 2021 and 2018 *International Building Code*® (IBC) provisions noted in the evaluation report and the additional requirements in with CBC Chapters 14, 16, 16A and 17A, as applicable.

2.2 CRC:

The Wall Panel Systems Architectural Panel Systems: ES-400 Exposed Fastener System, ES-500 Concealed Fastener System and Horizontal Flush Siding System, described in Sections 2.0 through 7.0 of the evaluation report ESR-4726, comply with CRC Chapters 3 and 7, provided the design and installation are in accordance with the 2021 and 2018 *International Residential Code*® (IRC) provisions noted in the evaluation report and the additional requirements of CRC Chapter 3 and 7.

This supplement expires concurrently with the evaluation report, issued November 2022.

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1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that the Wall Panel Systems Architectural Panel Systems: ES-400 Exposed Fastener System, ES-500 Concealed Fastener System and Horizontal Flush Siding System, evaluated in ICC-ES evaluation report ESR-4726, have also been evaluated for compliance with the codes noted below.

Applicable code edition:

- 2020 *Florida Building Code—Building*
- 2020 *Florida Building Code—Residential*

2.0 CONCLUSIONS

The Wall Panel Systems Architectural Panel Systems: ES-400 Exposed Fastener System, ES-500 Concealed Fastener System and Horizontal Flush Siding System, described in Sections 2.0 through 7.0 of ICC-ES evaluation report ESR-4726, comply with the *Florida Building Code—Building* and the *Florida Building Code—Residential*. The design requirements must be determined in accordance with the *Florida Building Code—Building* or the *Florida Building Code—Residential*, as applicable. The installation requirements noted in ICC-ES evaluation report ESR-4726 for the 2018 *International Building Code*® meet the requirements of the *Florida Building Code—Building* or the *Florida Building Code—Residential*, as applicable, with the following condition:

- Installation must meet the requirements of Section 1403.8 of the *Florida Building Code—Building* and Section R318.7 of the *Florida Building Code—Residential*, as applicable.

Use of the Wall Panel Systems Architectural Panel Systems: ES-400 Exposed Fastener System, ES-500 Concealed Fastener System and Horizontal Flush Siding System have also been found to be in compliance with the High-Velocity Hurricane Zone provisions of the *Florida Building Code—Building* or the *Florida Building Code—Residential* with the following condition:

- The allowable design wind loads must be in accordance with Table 1 of the evaluation report ESR-4726.

In addition to the data noted in Section 6.0 of the evaluation report ESR-4726, data in accordance with *Florida Building Code* Test Protocols for High-Velocity Hurricane Zones, 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 November 2022.