

ICC-ES Evaluation Report

ESR-5041

Reissued December 2024


This report also contains:

- CA Supplement

Subject to renewal October 2025

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<p>DIVISION: 06 00 00— WOOD, PLASTICS AND COMPOSITES</p> <p>Section: 06 12 00— Structural Panels</p>	<p>REPORT HOLDER: DALIAN QUACENT CO., LTD.</p>	<p>EVALUATION SUBJECT: QUACENT STRUCTURAL INSULATED PANELS</p>	
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1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2021 and 2018 [International Building Code® \(IBC\)](#)
- 2021 and 2018 [International Residential Code® \(IRC\)](#)

Property evaluated:

- Structural

2.0 USES

The Quacent Structural Insulated Panels (SIPs), described in the report are intended for use as structural panels in floors, roofs, and load-bearing/non-load-bearing walls of Type V construction. When Quacent SIPs are installed under the IRC, an engineered design is required in accordance with IRC Section R301.1.3 and Section 4.1.1 of this report. Use of Quacent SIPs under 2021 and 2018 IRC Section R610 is outside the scope of this evaluation report.

3.0 DESCRIPTION

3.1 General:

The Quacent SIPs are factory-laminated sandwich panels consisting of oriented strand board (OSB) facings with an expanded polystyrene (EPS) foam plastic core. The SIPs vary in thickness from 4½ inches (114 mm) to 10¼ inches (260 mm), in width from 4 to 8 feet (1.22 m to 2.44 m) and in length from 8 to 24 feet (2.44 m to 7.32 m).

3.2 Materials:

3.2.1 Facing: The facing is Exposure 1 Oriented Strand Board (OSB) Rated Sheathing, having a nominally 7/16-inch-thick (11.1 mm) and a 24/16 span rating, and complies with U.S. DOC PS 2, and additional requirements as specified in the approved quality control manual. The OSB facings are continuous for each SIP. The OSB facings are supplied by manufacturers listed in the approved quality documentation.

3.2.2 Core: The core material is expanded polystyrene (EPS) foam plastic complying with ASTM C578, Type VIII. The EPS foam plastic has a nominal density of 1.15 pcf (18 kg/m³) and a flame-spread index not exceeding 25 and a smoke-developed index not exceeding 450 when tested in accordance with ASTM E84. The nominal EPS core thicknesses are 3⅝, 5⅝, 7⅝, and 9⅝ inches (92, 143, 187 and 238 mm).

3.2.3 Adhesive: Adhesives comply with Type II, Class 2, performance requirements set forth in the ICC-ES Acceptance Criteria for Sandwich Panel Adhesives (AC05). The adhesives are supplied by manufacturers listed in the approved quality documentation.

3.2.4 Splines:

3.2.4.1 OSB Block Splines: The OSB block splines are made of two 3-inch-wide-by- $7/16$ -inch-thick (76 mm by 11.1 mm) OSB facings, as described in Section 3.2.2, laminated to an EPS core by using adhesive, complying with Sections 3.2.1 and 3.2.3, respectively, of this report. Block splines are fabricated in the thicknesses, matching the core thicknesses of SIPs. See [Figure 1](#) for an illustration of the block spline.

3.2.4.2 Dimensional Lumber Splines: Dimensional lumber splines are double nominally 2-by No. 2 or better Spruce-pine-fir sawn lumber, nailed together using 10d Box nails at 8 inches (203 mm) on center spacing in two staggered rows. The lumber has a minimum specific gravity of 0.42. See [Figure 1](#) for an illustration of the double dimensional lumber spline.

3.3 Wall Panels:

The $4^{1/2}$ -, $6^{1/2}$ - and $8^{1/4}$ -inch-thick (114 mm, 165 mm, and 210 mm) Quacent SIPs are used as wall panels. The panel core is recessed at the ends of the panels to receive nominal 2-by solid sawn dimensional lumber sized to match the thickness of the panel core. The panel core is recessed along the panel longitudinal edges for installation of factory-made OSB block splines, as described in Section 3.2.4.1 or double dimensional lumber splines, as described in Section 3.2.4.2.

3.4 Floor and Roof Panels:

The $10^{1/4}$ -inch-thick (260 mm) Quacent SIPs are used as floor and roof panels. The panel core is recessed along the longitudinal edges to receive factory-made double dimensional lumber splines, as described in Section 3.2.4.2, and OSB block splines, as described in Section 3.2.4.1. The panel core is recessed at the panel ends to receive nominally either single or double 2-by solid sawn dimensional lumber sized to match the core thickness of the panel.

4.0 DESIGN AND INSTALLATION

4.1 Design:

The allowable uniform axial compressive and transverse load design values for load-bearing walls given in [Tables 1](#) through [4](#) are for Allowable Stress Design (ASD) and are for SIPs installed under simply supported, single span conditions and do not include consideration of the elements supporting the SIPs, which must be designed, detailed, and constructed to comply with the requirements of the IBC or IRC, as applicable.

The allowable racking shear load given in [Table 5](#) is applicable to the panels used as shearwalls in Seismic Design Categories A, B and C. The seismic-force-resisting system of structures consisting of the Quacent SIPs as shear walls, in whole or in part, must be designed and detailed in accordance with IBC Sections 2305 and 2306 by a registered design professional.

Where loading conditions result in the panels resisting combined stresses, the sum of the ratios of actual load over allowable load must be less than 1.0.

The allowable uniform transverse load design values for floor and roof panels shown in [Tables 3](#) and [4](#) are for Allowable Stress Design (ASD) and are for SIPs installed under simply supported, single span conditions and do not include consideration of the elements supporting the SIPs, which must be designed, detailed, and constructed to comply with the requirements of the IBC or IRC, as applicable.

4.2 Installation:

4.2.1 General: Quacent SIPs must be installed in accordance with the manufacturer's published installation instructions, this evaluation report and the plans and specifications approved by the code official. The manufacturer's published installation instructions and this report must be strictly adhered to, and a copy of the instructions must be available at all times on the jobsite during installation.

Panels must be connected to each other along their edges with splines described in Section 3.4.4. Splines must be connected to the SIPs by fastening through the OSB facings of panels, as specified by the applicable tables in this report.

4.2.2 Walls: The core of SIPs is recessed $1^{1/2}$ inches (38 mm) from top and bottom panel ends to receive a single nominally 2-by spruce-pine-fir No. 2 or better dimensional lumber having a width matching the core thickness. The panel facers must be fastened to the recessed lumber with 8d Box nails at 6 inches (152 mm) on center.

The core of SIPs is recessed along the longitudinal edges to receive splines or vertical boundary members. A continuous bead of an EPS-compatible sealant in $1/2$ inch (12.7 mm) diameter is applied at each side of

plates that are in contact with the EPS core, panel facers and/or cap plates. The panel facers must be fastened to splines or vertical boundary members with 8d Box nails at 6 inches (152 mm) on center.

The SIPs may have factory-cut, 1 $\frac{1}{2}$ -inch-diameter (38 mm) wiring chases centered within the core: a horizontal chase at receptacles height, a horizontal chase at switch height, and vertical chases spaced a minimum of 48 inches (1219 mm) from one another.

The SIP wall panels must be installed with both panel facers supported by supporting foundation or structure. [Figures 2](#) and [3](#) provide illustrations of typical installations of the wall panels.

4.2.3 Floors and Roofs: SIPs used for floors or roofs are a maximum of 8 feet (2.44 m) wide when joined with OSB block splines or dimensional lumber splines at the longitudinal panel edges. The SIP core is recessed along the longitudinal edges to receive splines and is recessed 1 $\frac{1}{2}$ inches (38 mm) from panel ends to receive a single nominally 2-by spruce-pine-fir No. 2 or better dimensional lumber (boundary members) having a width matching the core thickness. A continuous bead of an EPS-compatible sealant in $\frac{1}{2}$ inch (12.7 mm) diameter is applied to the EPS core as indicated in [Figure 1](#) of this report. The splines and boundary members must be to the facings with 8d Box nails at 6 inches (152 mm) on center.

4.2.4 SIP Protection:

4.2.4.1 Thermal Barrier at Wall, Roof and Floor: A $\frac{1}{2}$ -inch-thick (12.7 mm), regular gypsum wallboard, complying with ASTM C36 or ASTM C1396, must be installed on the interior surface of wall and roof panels, and the bottom side of floor panels having occupied space below the floor panel. The wallboard must be fastened to the face of the panels with minimum 1 $\frac{1}{4}$ -inch-long (31.7 mm), No. 6, Type W drywall screws spaced in accordance with ASTM C840 for use under the IBC, or Table R702.3.5 of the IRC, using 16-inch-on-center (406 mm) framing spacing guidelines.

4.2.4.2 Thermal Barrier at Floor Surface: An approved thermal barrier must be installed over the top surface of the floor panels, such as minimum $\frac{7}{16}$ -inch-thick (11.1 mm) wood-based structural sheathing installed in accordance with the applicable code.

4.2.4.3 Roof Exterior: SIPs must be protected by a code-approved roof covering, underlayment, and flashing installed in accordance with the IBC or IRC, as applicable, as indicated for $\frac{7}{16}$ -inch-thick (11.1 mm) solidly sheathed decks.

4.2.4.4 Wall Exterior: SIPs must be protected on the exterior by weather protection consisting of a water-resistant **barrier** and wall covering as required by the IBC or IRC, as applicable.

4.3 Special Inspections:

Periodic special inspection shall be required by IBC Section 1707.3.

5.0 CONDITIONS OF USE:

The Quacent SIPs as described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 The SIPs are fabricated, identified, and erected in accordance with this report and the manufacturer's published installation instructions. In the event of a conflict between this report and the manufacturer's instructions, the more restrictive governs.
- 5.2 The construction documents specifying the SIPs must comply with the design limitations 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 construction documents must be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed.
- 5.3 Design loads to be resisted by the SIPs must be determined in accordance with the IBC or IRC, as applicable, and must not exceed the allowable loads noted in this report.
- 5.4 The allowable design values for panels used as wall panels with panel ends supported to resist out of plane transverse loads shall be determined by a registered design professional and must not exceed the reported values in [Tables 3](#) and [4](#).
- 5.5 Connections and attachments of the SIPs to supporting structures and foundation are outside the scope of this report and must be addressed by a registered design professional in the construction documents.
- 5.6 The transfer of vertical and lateral loads from the roof or floor diaphragm into the shear wall and from the shear wall to the foundation must be addressed by a registered design professional in the calculations.
- 5.7 When SIP shear walls are used in buildings that are more than one story tall, calculations and details must be submitted to the code official showing the load path for the transfer of lateral and overturning forces from the upper-story shear walls to the foundation.

- 5.8 Use of the foam plastic in areas subject to damage from termites must be in accordance with IBC Section 2603.8 and IRC Section R320.5.
- 5.9 The SIPs must be installed such that the panel facings are protected against decay and termite in accordance with IBC Sections 2304.12.1.2 and 2304.12.1.5, and IRC Sections R317 and R318, as applicable.
- 5.10 The SIPs must be limited to use in buildings of Type V construction.
- 5.11 The SIPs and their attachments to supporting structure and foundation are subject to inspection by the code official prior to covering with an approved water-resistive barrier or approved roof covering.
- 5.12 Shear walls constructed with the SIPs described in the report and used under the IBC and IRC must be limited Seismic Design Categories A, B and C.
- 5.13 Use of SIPs in occupancies that require concentrated floor live loads under IBC Section 1607.4 is outside scope of this report.
- 5.14 For use of the SIPs under the IRC, the SIPs are limited to an engineered design under IRC Section R301.1.3, with engineering performed in accordance with this evaluation report. Use of SIPs under 2021 and 2018 IRC Section R610 is outside the scope of this evaluation report.
- 5.15 The SIPs are manufactured under a quality control program with inspections by ICC-ES.

6.0 EVIDENCE SUBMITTED

- 6.1 Data in accordance with the [ICC-ES Acceptance Criteria for Sandwich Panels \(AC04\)](#), dated June 2019 (editorially revised December 2020).
- 6.2 Report of fire test in accordance with ASTM E84.
- 6.3 Report of a fire test conducted in accordance with NFPA 286.

7.0 IDENTIFICATION

- 7.1 The ICC-ES mark of conformity, electronic labeling, or the evaluation report number (ICC-ES ESR-5041) along with the name, registered trademark, or registered logo of the report holder (Dalian Quacent Co., Ltd.) must be included in the product label.
- 7.2 In addition, each Quacent SIP is identified by a product label bearing the product name, batch number, and the evaluation report number (ESR-5041). Bundles of OSB block splines and dimensional lumber splines delivered with Quacent SIPs to the jobsite must have a shipping documentation.
- 7.3 The report holder's contact information is the following:

DALIAN QUACENT CO., LTD.
DALIAN FREE TRADE ZONE
NO. 10 QUAN NAN STREET
DALIAN, LIAONING PROVINCE
CHINA
86 411 87187755
www.quacent.com

TABLE 1—ALLOWABLE UNIFORM AXIAL COMPRESSIVE LOADS FOR WALL PANELS WITH BLOCK SPLINES (plf)^{1,2,3,4,5}

THICKNESS (inches)		WALL PANEL HEIGHT (feet)								
Panel	Core	8	9	10	11	12	13	14	15	16
6 ¹ / ₂	5 ⁵ / ₈	3,570	3,510	3,445	3,385	3,325	3,260	3,200	3,140	3,080

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 plf = 14.6 N/m.

¹The tabulated loads are uniform axial loads applied concentrically to the full thickness of the panels, including panel facings supported by foundation or supporting structure.

²The tabulated values are for panels installed with the strong axis of the OSB panel facers parallel to the wall height (panel span) and with the block splines described in Section 3.2.4 installed at 4 feet on center.

³The tabulated values are for wall panels that are fabricated with either a single or a double 2-by dimensional lumber top plate recessed into the panel core and installed underneath a single 2-by nominal dimensional lumber cap plate having a width equal to, or greater than, the panel thickness. The dimensional lumber top and cap plates must be No. 2 spruce-pine-fir, or better.

⁴The tabulated values are for wall panels that are fabricated with a single 2-by dimensional lumber bottom plate recessed into the panel core and installed over a single 2-by nominal dimensional lumber sill plate having a width equal to, or greater than, the panel thickness. The dimensional lumber bottom and sill plates must be No. 2 spruce-pine-fir, or better.

⁵The panel facers must be attached to the 2-by dimensional lumber recessed into the panel core plates as described in Section 4.2.2.

TABLE 2—ALLOWABLE UNIFORM AXIAL LOADS FOR WALL PANELS WITH DIMENSIONAL LUMBER SPLINES (plf)^{1,2,3,4,5}

THICKNESS (inches)		WALL PANEL HEIGHT (feet)												
Panel	Core	8	9	10	11	12	13	14	15	16	17	18	19	20
6 ¹ / ₂	5 ⁵ / ₈	4,525	4,555	4,580	4,610	4,635	4,665	4,695	4,720	4,750	4,775	4,805	4,835	4,860

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 plf = 14.6 N/m.

¹The tabulated loads are uniform axial loads applied concentrically to the full thickness of the panels, including panel facings supported by foundation or supporting structure.

²The tabulated values are for panels installed with the strong axis of the OSB panel facers parallel to the wall height (panel span) and with the dimensional lumber splines described in Section 3.2.4 installed at 4 feet on center.

³The tabulated values are for wall panels that are fabricated with either a single or a double 2-by dimensional lumber top plate recessed into the panel core and installed underneath a single 2-by nominal dimensional lumber cap plate having a width equal to, or greater than, the panel thickness. The dimensional lumber must be No. 2 spruce-pine-fir, or better.

⁴The tabulated values are for wall panels that are fabricated with a single 2-by dimensional lumber bottom plate recessed into the panel core and installed over a single 2-by nominal dimensional lumber sill plate having a width equal to, or greater than, the panel thickness. The dimensional lumber must be No. 2 spruce-pine-fir, or better.

⁵The panel facers must be attached to the 2-by dimensional lumber recessed into the panel core plates as described in Section 4.2.2.

TABLE 3—ALLOWABLE UNIFORM TRANSVERSE LOADS FOR FACE SUPPORTED PANELS WITH BLOCK SPLINES (psf)^{1,2,3,4,5}

THICKNESS (inches)		DEFLECTION LIMITS	PANEL SPAN (feet)												
Panel	Core		4	5	6	7	8	9	10	11	12	13	14	15	16
6 ¹ / ₂	5 ⁵ / ₈	L/360	—	—	—	—	38	33	30	27	25	23	20	18	16
		L/240	—	—	—	—	38	33	30	27	25	23	21	20	18
		L/180	—	—	—	—	38	33	30	27	25	23	21	20	18
8 ¹ / ₄	7 ³ / ₈	L/360	—	—	—	—	53	47	42	38	35	—	—	—	—
		L/240	—	—	—	—	53	47	42	38	35	—	—	—	—
		L/180	—	—	—	—	53	47	42	38	35	—	—	—	—
10 ¹ / ₄	9 ³ / ₈	L/360	<i>164</i>	<i>128</i>	<i>104</i>	<i>88</i>	<i>76</i>	<i>67</i>	<i>60</i>	<i>54</i>	<i>49</i>	—	—	—	—
		L/240	<i>164</i>	<i>128</i>	<i>104</i>	<i>88</i>	<i>76</i>	<i>67</i>	<i>60</i>	<i>54</i>	<i>49</i>	—	—	—	—
		L/180	<i>164</i>	<i>128</i>	<i>104</i>	<i>88</i>	<i>76</i>	<i>67</i>	<i>60</i>	<i>54</i>	<i>49</i>	—	—	—	—

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 psf = 47.9 Pa.

¹The tabulated values are for panels with single span, simply supported conditions, with the panel faces supported each end on minimum 1¹/₂-inch-wide continuous supports, such as roof and floor panels. The allowable design values for panels used as wall panels with panel ends supported shall be determined by a registered design professional.

²Tabulated values are applicable to panels installed with the strong axis of OSB panel facer parallel to the panel span, and with OSB block splines described in Section 3.2.4 installed at 4 feet on center along the longitudinal panel edges and parallel to the span.

³The OSB panel facers must be attached to the splines as described in Section 4.2.4.

⁴The values in *italic* are based on average peak loads divided by a factor of 3.0.

⁵The 6¹/₂-inch-thick roof panels, subject to concentrated roof maintenance live loads and a total uniform dead load of 20 psf, must be limited to a maximum span of 15 feet.

TABLE 4—ALLOWABLE UNIFORM TRANSVERSE LOADS FOR FACE SUPPORTED PANELS WITH DIMENSIONAL LUMBER SPLINES (psf)^{1,2,3,4,5}

THICKNESS (inches)		DEFLECTION LIMITS	PANEL SPAN (feet)												
Panel	Core		8	9	10	11	12	13	14	15	16	17	18	19	20
6 ¹ / ₂	5 ⁵ / ₈	L/360	102	82	66	54	45	37	31	27	23	20	17	15	13
		L/240	120	95	77	64	55	48	42	38	34	29	25	22	19
		L/180	120	95	77	64	55	48	42	38	34	31	28	26	25
8 ¹ / ₄	7 ³ / ₈	L/360	127	102	85	72	62	55	48	41	35	30	26	23	20
		L/240	127	102	85	72	62	55	49	44	40	37	34	32	30
		L/180	127	102	85	72	62	55	49	44	40	37	34	32	30
10 ¹ / ₄	9 ³ / ₈	L/360	153	130	113	100	90	82	75	69	60	52	45	39	35
		L/240	153	130	113	100	90	82	75	69	64	60	56	53	50
		L/180	153	130	113	100	90	82	75	69	64	60	56	53	50

For **SI**: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 psf = 47.9 Pa.

¹The tabulated values are for panels with single span, simply supported conditions, with the panel faces supported each end on minimum 1¹/₂-inch-wide continuous supports, such as roof and floor panels. The allowable design values for panels used as wall panels with panel ends supported shall be determined by a registered design professional.

²The tabulated values are applicable to panels installed with the strong axis of OSB panel facer parallel to the panel span, and with the dimensional lumber splines described in Section 3.2.4 installed at 4 feet on center along the longitudinal edges and parallel to the panel span.

³The OSB panel facers must be attached to the splines as described in Section 4.2.4.

⁴The tabulated values in *Italic* are based on average peak loads divided by a factor of 3.0.

⁵The 6¹/₂-inch-thick roof panels, subject to concentrated roof maintenance live loads and a total uniform dead load of 20 psf, must be limited to a maximum span of 18 feet.

TABLE 5—ALLOWABLE LATERAL IN-PLANE RACKING SHEAR LOADS FOR SHEAR WALL ASSEMBLIES CONSISTING OF QUACENT SIPS^{1,2,3,4,5,6,7,8}

SPLINE TYPE	MIN SIP THICKNESS (inches)	Bottom Plate	Top Plate	End Posts	NAIL SPACING (inches)	ALLOWABLE SHEAR LOADS (plf)
OSB Block	4.5	Single 2-by	Double 2-by	Single 4-by or Double 2-by	4"	378
Double 2-by	4.5	Single 2-by	Double 2-by	Single 4-by or Double 2-by	6"	294

For **SI**: 1 inch = 25.4 mm, 1 plf = 14.6 N/m.

¹The panels must be installed with the strong axis of the OSB facers oriented vertically.

²The maximum shear wall height-to-length ratio is 1:1.

³The double top plates and double end posts must be nailed together with 10d Box nails spaced at 8 inches on center in two staggered rows.

⁴The shear wall end posts and splines must be continuous between and bearing on the top and bottom plates.

⁵The dimensional lumber bottom plates, top plates and end posts must be No. 2 spruce-pine-fir, or better.

⁶The splines must be as described in Section 3.2.4.

⁷The nails used to attach the OSB facers of the panels to the bottom plates, top plates, splines and end posts must be 8d Box nails spaced at the tabulated on center spacing along the panel perimeters, ³/₄ inch from the edges and 2 inches from the ends of the sandwich panels. The nails must have a minimum bending yield strength, F_{yb}, of 100 ksi (689 MPa) and must comply with ASTM F1667.

⁸The shear wall configurations are recognized for use in Seismic Design Categories A, B and C.

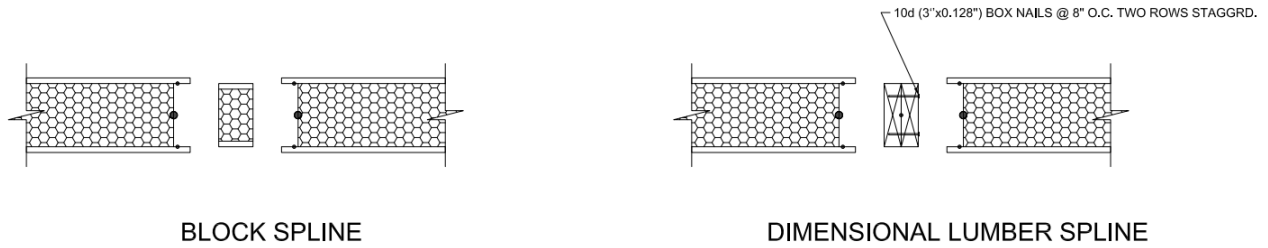


FIGURE 1—TYPE OF LONGITUDINAL SPLINES

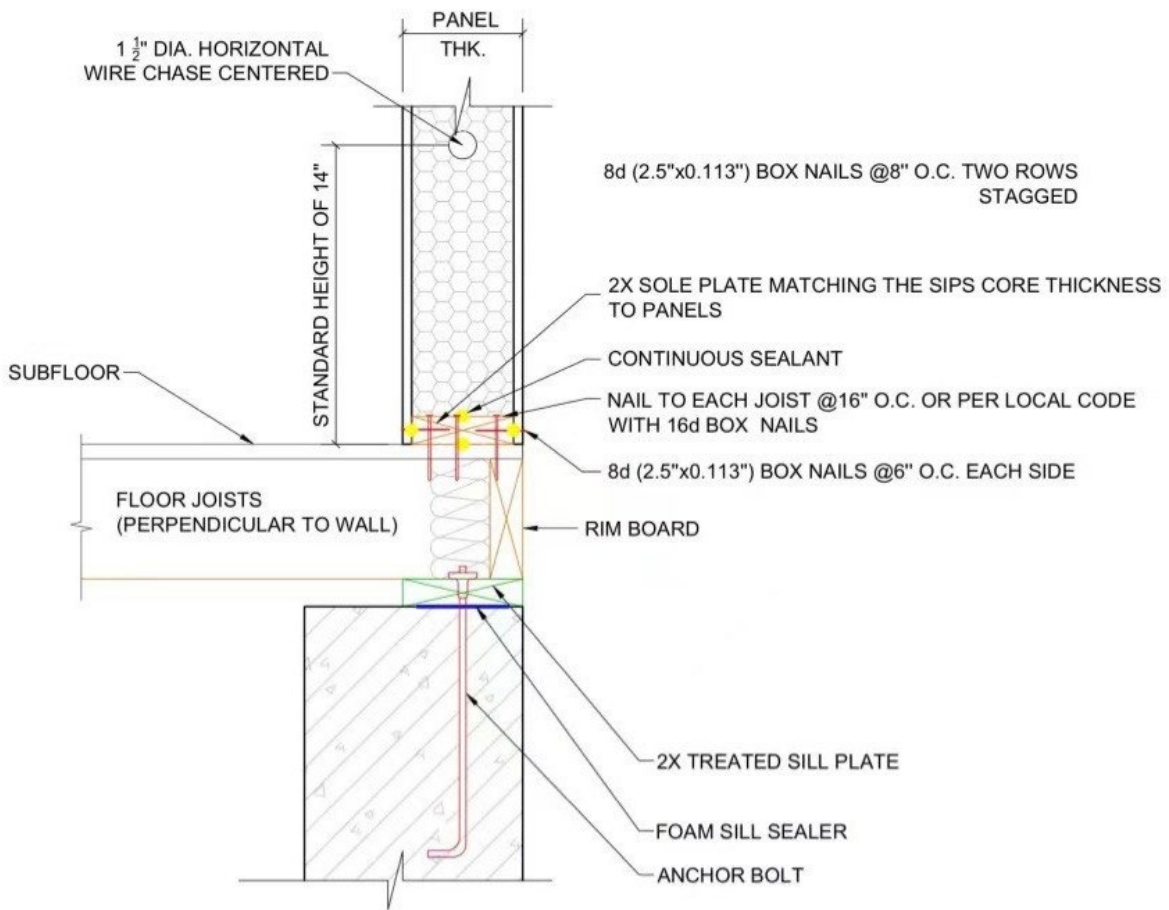


FIGURE 2—TYPICAL WALL PANEL ON FLOOR

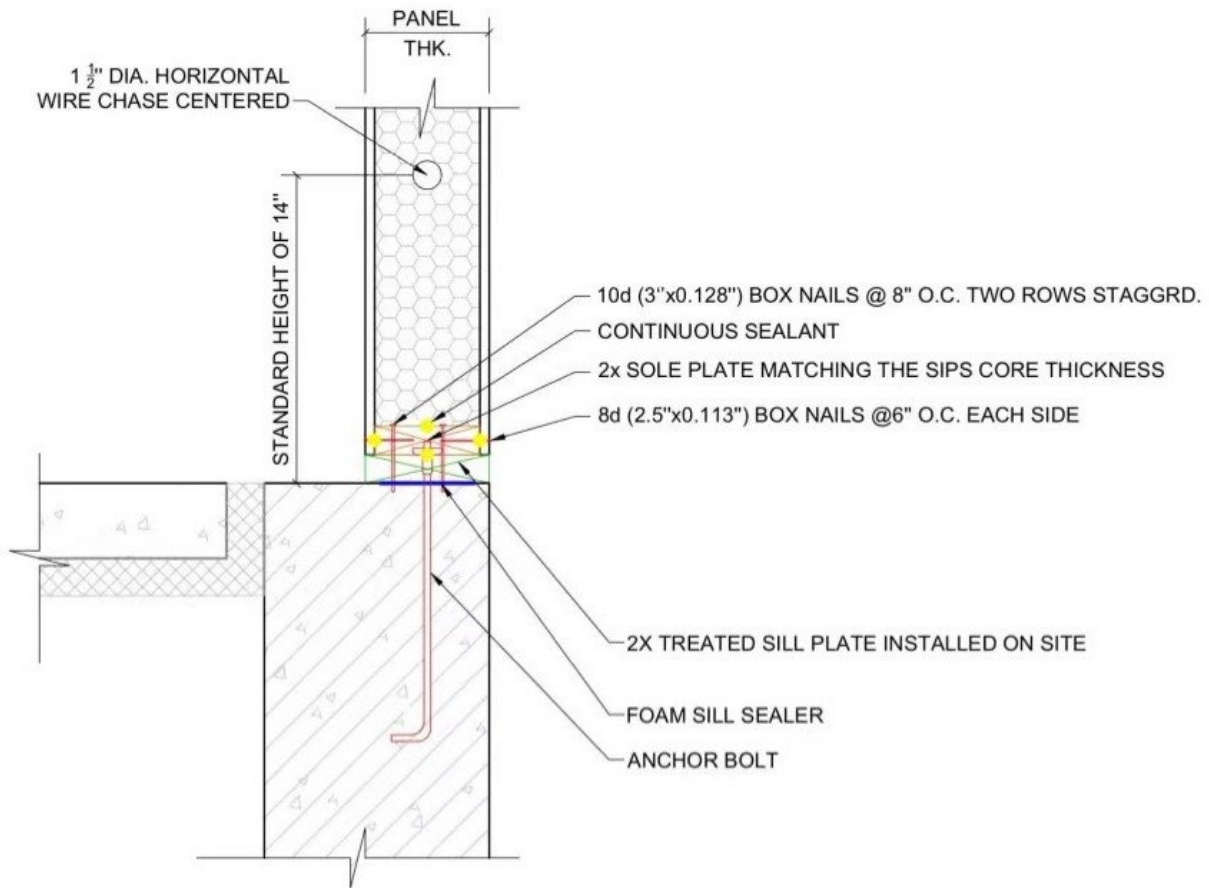


FIGURE 3—TYPICAL WALL PANEL ON FOUNDATION

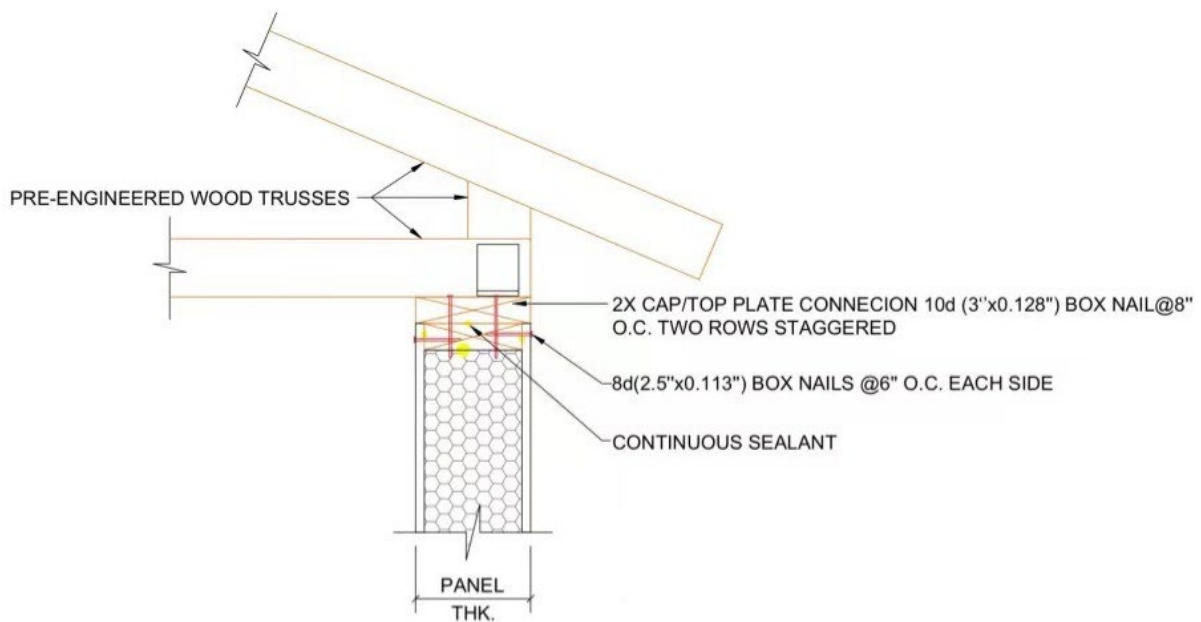


FIGURE 4—TYPICAL ROOF TRUSS TO WALL PANEL

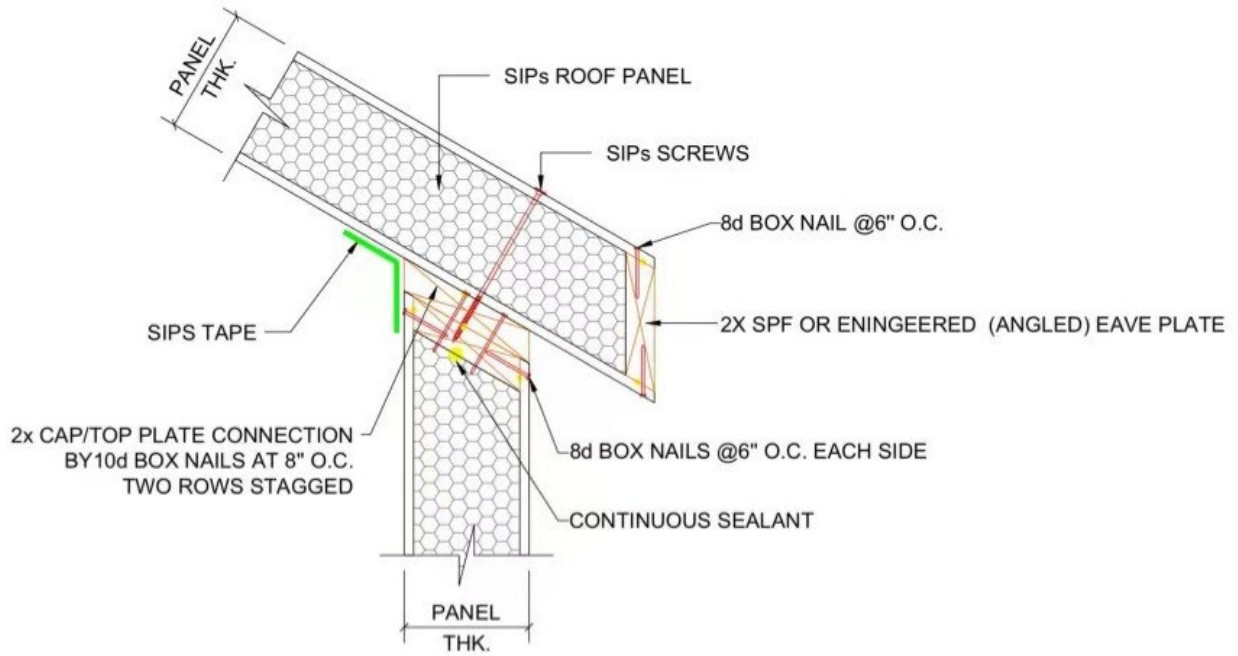


FIGURE 5—WALL PANEL TO ROOF PANEL WITH BEVELED TOP PLATE

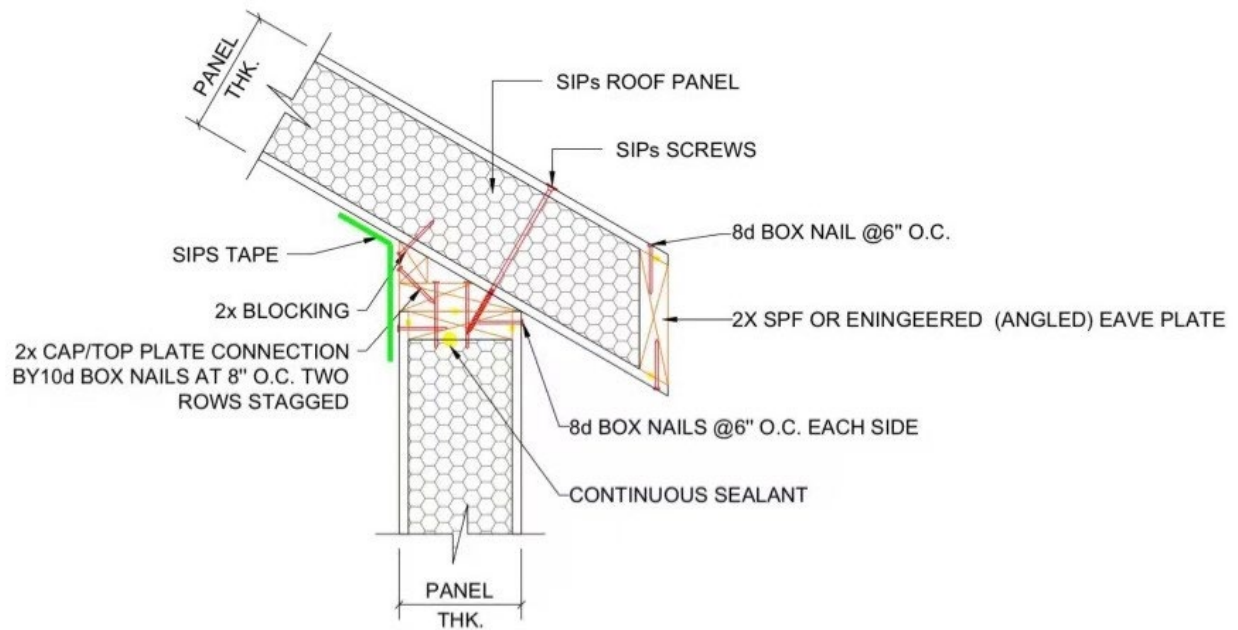


FIGURE 6—WALL PANEL TO ROOF PANEL WITH 2X BLOCKING

DIVISION: 06 00 00—WOOD, PLASTICS AND COMPOSITES
Section: 06 12 00—Structural Panels

REPORT HOLDER:

DALIAN QUACENT CO., LTD.

EVALUATION SUBJECT:

QUACENT STRUCTURAL INSULATED PANELS

1.0 REPORT PURPOSE AND SCOPE**Purpose:**

The purpose of this evaluation report supplement is to indicate that Quacent Structural Insulated Panels (SIPs), described in ICC-ES evaluation report ESR-5041, have also been evaluated for compliance with the code(s) 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.

- 2022 *California Residential Code* (CRC)

2.0 CONCLUSIONS**2.1 CBC:**

The Quacent SIPs, described in Sections 2.0 through 7.0 of the evaluation report ESR-5041, comply with CBC Chapters 7, 16, 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 16 and 26, as applicable.

The Quacent SIPs 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.

2.2 CRC:

The Quacent SIPs, described in Sections 2.0 through 7.0 of the evaluation report ESR-5041, comply with CRC Sections R301 and R316, provided the design and installation are in accordance with the 2021 *International Residential Code*® (IRC) provisions noted in the evaluation report.

The Quacent SIPs have not been evaluated under CRC Section R337 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.

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

This supplement expires concurrently with the evaluation report ESR-5041, reissued December 2024.