



CERTIFICATION



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ISO/IEC 17065
Product Certification Body



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Technical Evaluation Report

TER 0804-01

OX-IS®, OX-IS® HS,
and SI-Strong Structural Insulation

Ox Engineered Products, LLC

Product:

**OX-IS® Structural Insulation,
OX-IS® HS (High Shear)
Structural Insulation, and
SI-Strong Structural Insulation**

Issue Date:

April 26, 2008

Revision Date:

November 15, 2019

Subject to Renewal:

April 1, 2020

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Insulation

TER No. 0804-01

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Issue Date: April 26, 2008
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DIVISION: 06 00 00 – WOOD, PLASTICS AND COMPOSITES

Section: 06 12 00 – Structural Panels
Section: 06 12 19 – Shear Wall Panels
Section: 06 16 00 – Sheathing

DIVISION: 07 00 00 – THERMAL AND MOISTURE PROTECTION

Section: 07 21 00 – Thermal Insulation
Section: 07 25 00 – Water-Resistive Barriers/Weather Barriers
Section: 07 27 00 – Air Barriers

1. Products Evaluated:

- 1.1. OX-IS® Structural Insulation
- 1.2. OX-IS® HS (High Shear) Structural Insulation
- 1.3. SI-Strong Structural Insulation
- 1.4. For the most recent version of this Technical Evaluation Report (TER), visit drjcertification.org. For more detailed state professional engineering and code compliance legal requirements and references, visit drjcertification.org/statelaw. DrJ is fully compliant with all state professional engineering and code compliance laws.
- 1.5. This TER can be used to obtain product approval in any country that is an IAF MLA Signatory (all countries found [here](#)) and covered by an [IAF MLA Evaluation](#) per the [Purpose of the MLA](#) (e.g., see [letter to ANSI](#) from the Standards Council of Canada). Manufacturers can go to jurisdictions in the U.S., Canada and other [IAF MLA Signatory Countries](#) and have their products readily approved by authorities having jurisdiction using [DrJ's ANSI accreditation](#).
- 1.6. Building code regulations require that evaluation reports are provided by an approved agency meeting specific requirements, such as those found in [IBC Section 1703](#). Any agency accredited in accordance with ANSI ISO/IEC 17065 meets this requirement within ANSI's scope of accreditation. For a list of accredited agencies, visit ANSI's [website](#). For more information, see [drjcertification.org](#).
- 1.7. Requiring an evaluation report from a specific private company (i.e., ICC-ES, IAPMO, CCMC, DrJ, etc.) can be viewed as discriminatory and is a violation of international, federal, state, provincial and local anti-trust and free trade regulations.
- 1.8. DrJ's code compliance work:
 - 1.8.1. Conforms to code language adopted into law by individual states and any relevant consensus based standard such as an ANSI or ASTM standard.

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- 1.8.2. Complies with accepted engineering practice, all professional engineering laws and by providing an engineer's seal DRJ takes professional responsibility for its specified scope of work.

2. Applicable Codes and Standards:¹

- 2.1. 2012, 2015 and 2018 International Building Code (IBC)
- 2.2. 2012, 2015 and 2018 International Residential Code (IRC)
- 2.3. 2012, 2015 and 2018 International Energy Conservation Code (IECC)
- 2.4. 2014 and 2017 Florida Building Code (FBC) (FL 16410)
- 2.5. 2016 California Building Standards Code
- 2.6. ANSI/AWC SDPWS – Special Design Provisions for Wind and Seismic
- 2.7. ASCE/SEI 7 – Minimum Design Loads and Associated Criteria for Buildings and Other Structures
- 2.8. ASTM C518 – Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus
- 2.9. ASTM E2126 – Standard Test Methods for Cyclic (Reversed) Load Test for Shear Resistance of Vertical Elements of the Lateral Force Resisting Systems for Buildings
- 2.10. ASTM E2178 – Standard Test Method for Air Permeance of Building Materials
- 2.11. ASTM E330 – Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference
- 2.12. ASTM E331 – Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference
- 2.13. ASTM E564 – Standard Practice for Static Load Test for Shear Resistance of Framed Walls for Buildings
- 2.14. ASTM E72 – Standard Test Methods of Conducting Strength Tests of Panels for Building Construction
- 2.15. ASTM E84 – Standard Test Method for Surface Burning Characteristics of Building Materials
- 2.16. NFPA 286 – Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth

3. Performance Evaluation:

- 3.1. OX-IS® and SI-Strong were evaluated to determine:
 - 3.1.1. Structural performance under lateral load conditions (wind and seismic) for use as an alternative to the IRC Intermittent Wall Bracing provisions of [IRC Section R602.10](#), method WSP (Wood structural panel), and the IRC Continuous Wall Bracing provisions of [IRC Section R602.10.4](#), method CS-WSP (Continually sheathed wood structural panel) and CS-PF (Continually sheathed portal frame).
 - 3.1.2. Structural performance under lateral load conditions for use as an alternative to the Conventional Wall Bracing provisions, [IBC Section 2308.6](#)², Method 3, for Type V construction.
- 3.2. OX-IS®, OX-IS® HS, and SI-Strong were evaluated to determine:
 - 3.2.1. Structural performance under lateral load conditions for both wind and seismic loading for use with the performance-based provisions, [IBC Section 2306.1](#) and [2306.3](#), for light-frame wood wall assemblies.
 - 3.2.1.1. [Table 4](#) provides seismic design coefficients (SDC) that conform to the requirements in ASCE 7 Section 12.2.1 and Table 12.2-1 for design of wall assemblies in buildings that require seismic design in accordance with ASCE 7 (i.e., all seismic design categories).

¹ Unless otherwise noted, all references in this code compliant technical evaluation report (TER) are from the 2018 version of the codes and the standards referenced therein, including, but not limited to, ASCE 7, SDPWS and WFCM. This product also complies with the 2000-2015 versions of the IBC and IRC and the standards referenced therein. As required by law, where this TER is not approved, the building official shall respond in writing, stating the reasons this TER was not approved. For variations in state and local codes, if any see [Section 8](#).

² [2012 IBC Section 2308.9.3](#)

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3.2.1.2. The basis for equivalency testing is outlined in Section 12.2.1.1³ of ASCE 7:

Alternative Structural Systems. Use of seismic force-resisting systems not contained in Table 12.2-1 shall be permitted contingent on submittal to and approval by the Authority Having Jurisdiction and independent structural design review of an accompanying set of design criteria and substantiating analytical and test data. The design criteria shall specify any limitations on system use, including Seismic Design Category and height; required procedures for designing the system's components and connections; required detailing; and the values of the response modification coefficient, R ; overstrength factor, Ω_o ; and deflection amplification factor, C_d .

3.2.1.3. The SDC evaluation uses the approach found in documentation entitled "Equivalency Characteristics and Parameters for Proprietary Shear Walls Used in Wood Framed or Cold-formed Steel Construction"⁴ and "Seismic Design Coefficients: How they are determined for light-frame components"⁵ using code-defined accepted engineering procedures, experience, and good technical judgment.

3.2.2. Structural performance under lateral load conditions for use as an alternative to SDPWS Section 4.3 Wood-Frame Shear Walls.

3.2.3. Resistance to uplift loads for wall assemblies used for light-frame wood construction in accordance with [IRC Section R301.2.1](#) and [IBC Section 1609](#).

3.2.4. Resistance to transverse loads for wall assemblies used in light-frame wood construction in accordance with [IRC Section R301.2.1](#) and [IBC Section 1609.1.1](#).

3.2.5. Performance for use as foam plastic insulation in accordance with the [IRC Section R316](#) and [IBC Section 2603](#).

3.2.6. Performance for use as insulated sheathing in accordance with the [IECC Section C402.1](#).

3.2.7. Performance for use as an air barrier in accordance with the [IECC Section C402.5.1.2.1](#).⁶

3.2.8. Performance for use as a water-resistive barrier (WRB) in accordance with the [IRC Section R703.2](#) and [IBC Section 1403.2](#).⁷

3.3. Use in an IRC Method PFH (portal frame with hold-downs) braced wall panels is outside the scope of this TER. For this application, see [TER No. 1101-01](#).

3.4. Any code compliance issues not specifically addressed in this section are outside the scope of this TER.

³ ASCE 7-5 and 7-10 Section 12.2.1

⁴ <http://www.structuremag.org/wp-content/uploads/2014/08/C-StructuralPerformance-Nelson-Aug081.pdf>

⁵ <http://www.sbcmag.info/article/2014/seismic-design-coefficients-how-they-are-determined-light-frame-components>

⁶ 2009 IECC Section 402.4.2, 2012 IECC Section C402.4.1.2.1

⁷ 2015 IBC Section 1404.2

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4. Product Description and Materials:



Figure 1: OX-IS® Logo

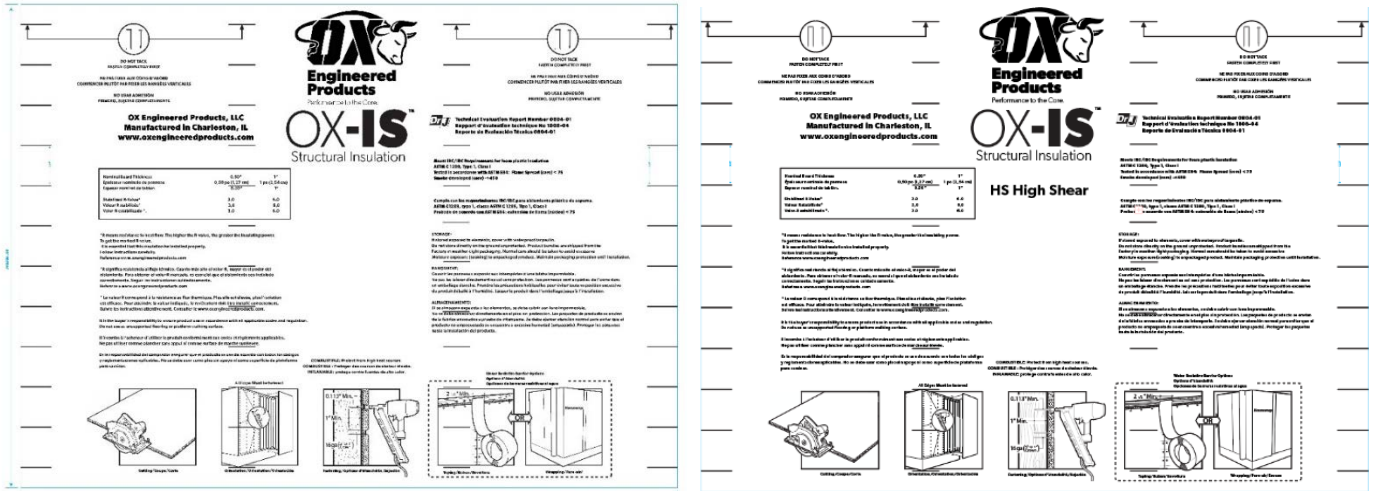


Figure 2: OX-IS® and OX-IS® HS Structural Insulation Product Labels



Figure 3: SI-Strong Structural Insulation Product Label

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- 4.1. OX-IS® and SI-Strong are structural, rigid insulation sheathing products consisting of a proprietary fibrous sheathing board laminated to one side of a proprietary rigid foam plastic insulation.
 - 4.1.1. The proprietary fibrous sheathing is made of specially treated plies that are pressure-laminated with a water-resistant adhesive. The surface finish consists of a facer on one or both sides, either using a 0.113" (2.9 mm) nominal thickness or a 0.135" (3.4 mm) nominal thickness fibrous sheathing board.
 - 4.1.2. The rigid foam plastic insulation is a proprietary polyisocyanurate, which can have facings on one or both sides.
- 4.2. OX-IS® HS is a structural, rigid insulation sheathing product consisting of a proprietary fibrous sheathing board laminated to one side of a proprietary rigid foam plastic insulation.
 - 4.2.1. The proprietary fibrous sheathing is made of specially treated plies that are pressure-laminated with a water-resistant adhesive. The surface finish consists of a facer on one or both sides, either using a 0.135" (3.4 mm) nominal thickness fibrous sheathing board.
 - 4.2.2. The rigid foam plastic insulation is a proprietary polyisocyanurate, which can have facings on one or both sides.
- 4.3. **Material Availability**
 - 4.3.1. Thickness: 0.5" (12.7 mm) up to 1.5" (38.1 mm)
 - 4.3.2. Standard product width: 48" (1219 mm)
 - 4.3.3. Standard lengths: 96", 108" and 120" (2438, 2743 and 3048 mm)

5. Applications:

5.1. General

- 5.1.1. OX-IS®, OX-IS® HS, and SI-Strong are structural insulated sheathing panels for use in the following applications as:
 - 5.1.1.1. Wall sheathing in buildings constructed in accordance with the *IRC* and *IBC* for light-frame wood and steel construction.
 - 5.1.1.2. Structural wall sheathing to provide lateral load resistance (wind and seismic) for braced wall panels used in light-frame construction.
 - 5.1.1.3. Structural wall sheathing to provide resistance to transverse loads for wall assemblies used in wood construction.
 - 5.1.1.4. Insulating sheathing applied as in-fill to portions of walls that are not designed as braced wall panels or shear walls.
 - 5.1.1.5. Insulated sheathing in accordance with the [IRC Section N1102](#) and [IECC Section C402](#).
 - 5.1.1.6. An approved WRB in accordance with [IRC Section R703.2](#) and [IBC Section 1403.2](#)⁸ when installed with approved Construction Tape on all sheathing seams, see [Section 5.3.3](#). See the manufacturer's product information for further details.
 - 5.1.1.6.1. Where the joints are not taped, a separate WRB shall be installed in accordance with the WRB manufacturer's installation instructions.
 - 5.1.1.7. An air barrier material as part of an air barrier assembly in accordance with [IRC Section N1102.4](#) and [IECC Section 402](#) in accordance with the manufacturer's installation instructions and this TER.
- 5.1.2. OX-IS®, OX-IS® HS, and SI-Strong contain foam plastics complying with [IRC Section R316](#) and [IBC Section 2603](#).

⁸ 2015 *IBC* Section 1404.2

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5.2. Structural Applications

5.2.1. General Provisions

- 5.2.1.1. Except as otherwise described in this TER, OX-IS®, OX-IS® HS, and SI-Strong shall be installed in accordance with the applicable building codes listed in [Section 2](#) using the provisions set forth therein for the design and installation of wood structural panels (WSP).
 - 5.2.1.1.1. OX-IS®, OX-IS® HS, and SI-Strong shall be permitted to be designed in accordance with *SDPWS* for the design of shear walls using the methods set forth therein, including the perforated shear wall methodology, and subject to the *SDPWS* boundary conditions, except as specifically allowed in this TER.
- 5.2.1.2. Anchorage for in-plane shear shall be provided to transfer the induced shear force into and out of each shear wall.
 - 5.2.1.2.1. For wind design, anchor bolt spacing shall not exceed 6' o.c.
 - 5.2.1.2.2. For seismic design, anchor bolt spacing shall not exceed 4' o.c.
- 5.2.1.3. The maximum aspect ratio for OX-IS®, OX-IS® HS, and SI-Strong shall be 4:1.
- 5.2.1.4. The minimum full height panel width shall be 24".
- 5.2.1.5. All panel edges shall be blocked with a minimum 2" nominal lumber.
- 5.2.1.6. Fasteners may be countersunk beneath the outer surface of the foam plastic sheathing layer.
- 5.2.1.7. Installation is permitted for single top plate (advanced framing method) or double top plate applications.
- 5.2.1.8. Where the application exceeds the limitations set forth herein, design shall be permitted in accordance with accepted engineering procedures, experience and technical judgment.

5.2.2. Simplified *IRC* Bracing Provisions

- 5.2.2.1. OX-IS® and SI-Strong are permitted to be used in accordance with the *IRC* simplified bracing method of [IRC Section R602.12](#) as modified by [Table 1](#). All other provisions of the *IRC* simplified bracing method shall be met.

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Table 1: OX-IS® and SI-Strong Protective Sheathing Simplified Bracing Table

Structural Sheathing Product	Ultimate Design Wind Speed (mph)	Story Level	Eave to Ridge Height (ft)	Minimum Number of Bracing Units Required (Long Side)						Minimum Number of Bracing Units Required (Short Side)						
				Length of Short Side (ft)						Length of Long Side (ft)						
				10	20	30	40	50	60	10	20	30	40	50	60	
½" OX-IS® or ½" SI-Strong	115	One Story or Top of Two or Three Story	10	1	2	2	2	3	3	1	2	2	2	3	3	
		First of Two Story or Second of Three Story		2	3	3	4	5	5	2	3	3	4	5	5	
		First of Three Story		2	3	4	6	7	8	2	3	4	6	7	8	
		One Story or Top of Two or Three Story	15	1	2	3	3	3	4	1	2	3	3	3	4	
		First of Two Story or Second of Three Story		2	3	4	5	6	6	2	3	4	5	6	6	
		First of Three Story		2	4	5	6	7	9	2	4	5	6	7	9	
1" OX-IS® or 1" SI-Strong		130	One Story or Top of Two or Three Story	10	1	1	2	2	3	3	1	1	2	2	3	3
			First of Two Story or Second of Three Story		1	2	3	4	4	5	1	2	3	4	4	5
			First of Three Story		2	3	4	5	6	7	2	3	4	5	6	7
			One Story or Top of Two or Three Story	15	1	2	2	3	3	4	1	2	2	3	3	4
			First of Two Story or Second of Three Story		2	2	3	4	5	6	2	2	3	4	5	6
			First of Three Story		2	3	4	6	7	8	2	3	4	6	7	8
½" OX-IS® or ½" SI-Strong	130		One Story or Top of Two or Three Story	10	1	2	2	3	3	4	1	2	2	3	3	4
			First of Two Story or Second of Three Story		2	3	4	5	6	7	2	3	4	5	6	7
			First of Three Story		2	4	5	7	8	10	2	4	5	7	8	10
			One Story or Top of Two or Three Story	15	2	3	3	4	4	6	2	3	3	4	4	6
			First of Two Story or Second of Three Story		2	3	4	6	7	8	2	3	4	6	7	8
			First of Three Story		3	4	6	8	9	11	3	4	6	8	9	11
1" OX-IS® or 1" SI-Strong		130	One Story or Top of Two or Three Story	10	1	2	2	3	3	3	1	2	2	3	3	3
			First of Two Story or Second of Three Story		2	3	4	4	5	6	2	3	4	4	5	6
			First of Three Story		2	4	5	6	8	9	2	4	5	6	8	9
			One Story or Top of Two or Three Story	15	1	2	3	3	4	5	1	2	3	3	4	5
			First of Two Story or Second of Three Story		2	3	4	5	6	7	2	3	4	5	6	7
			First of Three Story		2	4	5	7	8	10	2	4	5	7	8	10

1. This simplified bracing table is based on the provisions of [IRC Section R602.12](#). All provisions therein shall be observed, except that this table shall replace [IRC Table R602.12.4](#), and OX-IS® or SI-Strong shall replace the sheathing material.
2. Interpolation shall not be permitted.
3. Cripple walls or wood-framed basement walls in a walk-out condition shall be designated as the first story and the stories above shall be re-designated as the second and third stories, respectively, and shall be prohibited in a three-story structure.
4. Actual lengths of the sides of the circumscribed rectangle shall be rounded to the next highest unit of 10 when using this table.
5. For Exposure Category C, multiply bracing units by a factor of 1.20 for a one-story building, 1.30 for a two-story building and 1.40 for a three-story building.
6. Maximum stud spacing is 16" o.c.
7. OX-IS® and SI-Strong attached with minimum 7/16" crown x 1 1/2" leg staples fastened 3" o.c. at panel edges and 3" o.c. in the field.
8. Minimum ½" gypsum wallboard attached to the interior side of the wall in accordance with [IRC Section R702.3.5](#) and [Table R702.3.5](#).
9. Where gypsum wallboard is not applied to the interior side of the wall assembly, bracing lengths in [IRC Table R602.10.3\(1 and 3\)](#), as modified by all applicable factors in [Table R602.10.3\(2 and 4\)](#), shall be used, except the factor for omitting the gypsum wallboard shall be 1.5 when using 16:16 gypsum wallboard fastening and 1.8 when using 8:8 fastening.

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5.2.3. Prescriptive IRC Bracing Applications

5.2.3.1. OX-IS® and SI-Strong may be used:

- 5.2.3.1.1. On braced wall lines as an equivalent alternative to the IRC Method WSP, when installed in accordance with [IRC Section R602.10](#) and this TER.
- 5.2.3.1.2. To brace walls of buildings as an alternative to the IRC Method CS-PF (continuously sheathed portal frame) braced wall panels provision of [IRC Section R602.10.4](#).
- 5.2.3.1.3. Required braced wall panel lengths shall be as determined by the equivalency factor shown in [Table 2](#) and [IRC Tables R602.10.3\(1\)](#) and [R602.10.3\(3\)](#)⁹, including all footnotes.

5.2.3.2. All other IRC prescriptive bracing minimums, spacing requirements and rules must still be met.

Table 2: IRC Braced Wall Panel Equivalency for OX-IS® and SI-Strong

Structural Sheathing Product	Thickness (in)	Maximum Stud Spacing (in)	Fastener	Maximum Fastener Spacing (edge:field) (in)	Gypsum Wallboard Fastening Schedule (blocked or unblocked)	Wind
						SPF Framing
						Equivalency Factors to IRC WSP or CS-WSP
OX-IS® or SI-Strong	½	16 o.c.	Minimum 16 ga, Staple, 7/16" Crown x 1½" Leg	3:6	16:16 ⁵	1.00
				3:3	8:8	0.81
		24 o.c.		3:3	16:16	1.10
				3:3	8:8	0.91
				0.113" Dia. Nail (min. 3/8" head or 2" cap)	8:8	0.92
					8:8	1.10
	1	16 o.c.	Minimum 16 ga, Staple, 7/16" Crown x 1½" Leg	3:3	16:16	0.91
				3:3	8:8	0.75
		24 o.c.		3:3	16:16	1.00
				3:3	8:8	0.82

1. Equivalency factors allow the user to determine the length of bracing required, by multiplying the equivalency factor above by the length of bracing shown in the WSP or CS-WSP columns in [IRC Table R602.10.3\(1 and 3\)](#), as modified by all applicable factors in [Table R602.10.3\(2 and 4\)](#) respectively.
2. Where gypsum wallboard is not applied to the interior side of the wall assembly, bracing lengths in [IRC Table R602.10.3\(1 and 3\)](#), as modified by all applicable factors in [Table R602.10.3\(2 and 4\)](#), shall be used, except the factor for omitting the gypsum wallboard shall be 1.5 when using 16:16 gypsum wallboard fastening and 1.8 when using 8:8 fastening.
3. Valid for single top plate (advanced framing method) wall installations or double top plate wall installations.
4. Fastener penetration into the stud shall be a minimum of 1".
5. The first number indicates the required fastener spacing at panel edges. The second number indicates the fastener spacing at intermediate framing members.

5.2.4. OX-IS® and SI-Strong CS-PF Portal Frame

- 5.2.4.1. OX-IS® and SI-Strong CS-PF was tested and evaluated for equivalency to the IRC Method CS-PF in accordance with [IRC Section R602.10.6.4](#) and [Table R602.10.5](#).
- 5.2.4.2. [Table R602.10.5](#) establishes the contributing length of bracing of the CS-PF as equivalent to its actual length and that it contributes this length of bracing to that required by method CS-WSP.
- 5.2.4.3. The capacity of the OX-IS® and SI-Strong Sheathing CS-PF exceeds the capacity of the IRC Method CS-WSP and is, therefore, permitted to be substituted for an equivalent length of bracing.

⁹ 2009 IRC Table R602.10.1.2(1) and R602.10.1.2(2)

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5.2.4.4. The OX-IS® and SI-Strong CS-PF is described as follows:

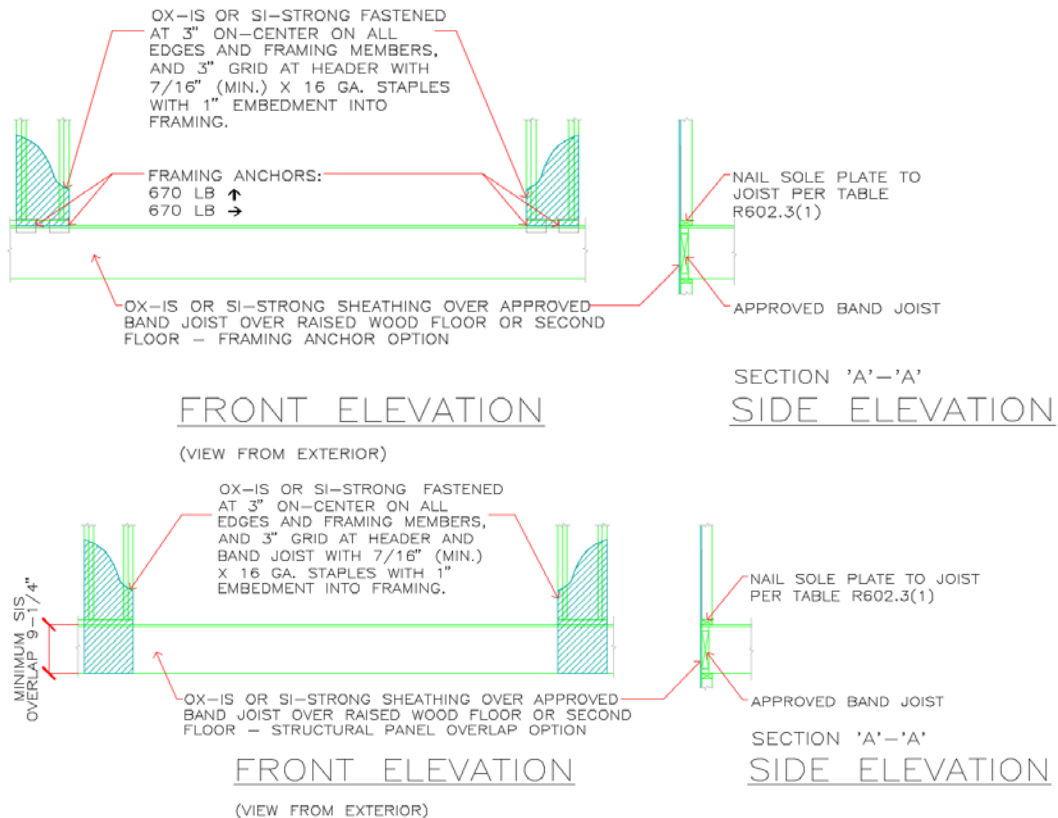
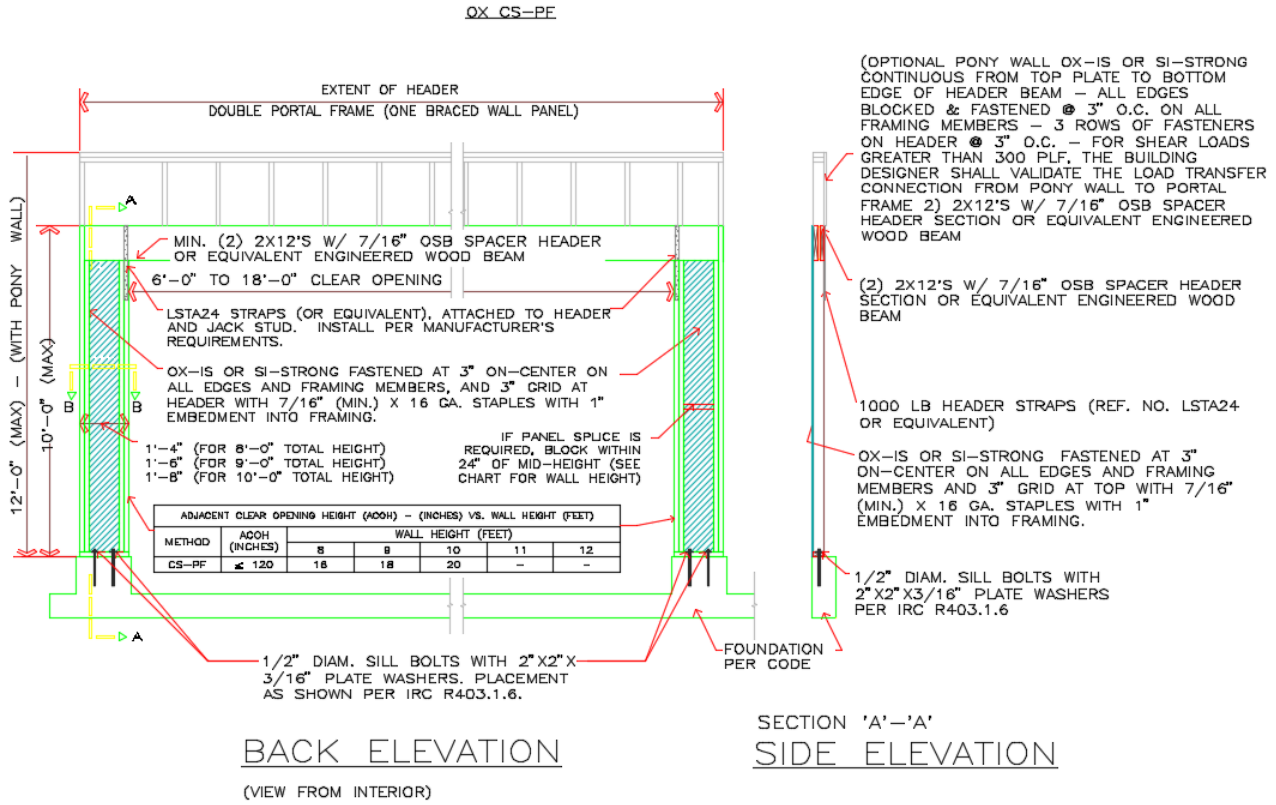


Figure 4: Construction Details of OX-IS® or SI-Strong CS-PF

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5.2.5. Prescriptive *IBC* Conventional Light-Frame Wood Construction

- 5.2.5.1. OX-IS® and SI-Strong may be used to brace exterior walls of buildings as an equivalent alternative to Method 3 of the *IBC* when installed with blocked or unblocked ½" gypsum fastened with a minimum 5d cooler nail or #6 Type W or S screw spaced a maximum of 16" o.c. at panel edges and 16" o.c. in the field. Bracing shall be in accordance with the conventional light-frame construction method of [IBC Section 2308.6](#)¹⁰ and this TER.

5.2.6. Performance-Based Wood-Framed Construction

- 5.2.6.1. OX-IS®, OX-IS® HS, and SI-Strong panels used in wall assemblies designed as shear walls:
- 5.2.6.1.1. Are permitted to be designed in accordance with the methodology used in *SDPWS* for WSP using the capacities shown in [Table 3](#).
 - 5.2.6.1.2. Resist lateral wind load forces using the allowable shear loads (in pounds per linear foot) set forth in [Table 3](#).
 - 5.2.6.1.3. Resist seismic load forces using the seismic allowable unit shear capacities set forth in [Table 4](#) when seismic design is required in accordance with [IBC Section 1613](#).
 - 5.2.6.1.3.1. The response modification coefficient, R ; system overstrength factor, Ω_0 ; and deflection amplification factor, C_d , indicated in [Table 4](#) shall be used to determine the base shear, element design forces, and design story drift in accordance with *ASCE 7* Chapter 12 and Section 14.5.
- 5.2.6.2. OX-IS®, OX-IS® HS, and SI-Strong panels are permitted to resist transverse wind load forces using the allowable transverse loads (in pounds per linear foot) set forth in [Table 6](#). Required component and cladding loads to be resisted are found in [IRC Table R301.2\(2\)](#) and [R301.2\(3\)](#) and [IBC Section 1609.1.1](#).

¹⁰ [2012 IBC Section 2308.9.3](#)

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Table 3: Nominal Unit Shear Capacity (NUSC) & Allowable Strength Design (ASD) Capacity for OX-IS®, OX-IS® HS, and SI-Strong – Wind

Structural Sheathing Product	Thickness (in)	Fastener Spacing (edge/field) (in)	Maximum Stud Spacing (in)	Gypsum Wallboard (GWB)	Gypsum Wallboard Fastener Spacing (edge/field)	Allowable Unit Shear Capacity (plf)
OX-IS® or SI-Strong	½	3/3 ¹	16 o.c.	½" GWB	8/8	440
					16/16	370
		3/6			8/8	425 ¹
		3/3 ¹	24 o.c.		8/8	350 ³
		3/6 ¹			8/8	385
					½" GWB ⁴	8/12
	1	3/3 ¹	16 o.c.	No GWB	-	300
			24 o.c.		-	275
		3/3 ¹	16 o.c.	½" GWB	8/8	475
					16/16	400
			24 o.c.		8/8	450
					16/16	380
		3/3 ¹	16 o.c.	No GWB	-	325
			24 o.c.		-	295
		3/3 ³	16 o.c.	½" GWB	8/8	390
			24 o.c.		8/8	370
	1-½	3/3 ⁶	16 o.c.	No GWB	-	305
			24 o.c.		-	275
		3/6 ⁶	16 o.c.	½" GWB	8/8	415
			24 o.c.		8/8	370
OX-IS® HS	½	3/3 ¹	24 o.c.	½" GWB	8/8	420

1. OX-IS®, SI-Strong, and OX-IS® HS attached with a minimum 16 gauge, 7/16" crown staples shall penetrate a minimum of 1" into the stud. Fasteners are to be installed with the crown parallel to the framing. Fastener edge distance shall be a minimum of 3/8". Fastener head shall be in contact with the panel surface. Alternately, fastener heads are permitted to be overdriven into foam portion of the panel with no reduction in shear capacities.

2. Gypsum attached with minimum #6 type W or S screws 1 1/4" long with a minimum edge distance of 3/8".

3. OX-IS® fastened with a minimum 0.113" diameter roofing nail with 0.280" minimum head size. 2" cap nails having a minimum 0.113" diameter are also permitted.

4. ½" GWB adhered with wall and floor adhesive (ASTM C557) and #6 (6" x 1 1/4") bugle head, coarse thread drywall screws, edges blocked.

5. Install Thermo-Ply Red on opposite side of wall from the OX-IS® or SI-Strong with minimum 16 gauge, 1" crown staples fastened 3" o.c edge/ 3" o.c. field. Separately attach ½" gypsum over Thermo-Ply Red with minimum #6 type W or S screws 1 1/4" long fastened 8" o.c edge/ 8" o.c. field.

6. OX-IS® fastened with a minimum 0.113" diameter roofing nail with 0.280" minimum head size.

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Table 4: Seismic Performance of OX-IS® and SI-Strong

Seismic Force Resisting System	Thickness (in)	Gypsum Wallboard Fastening Schedule	Maximum stud spacing (in)	Seismic Allowable Unit Shear Capacity (plf)	Apparent Shear Stiffness, G_a (kips/in)	Response Modification Factor, R^5	System Overstrength Factor, Ω_0^6	Deflection Amplification Coefficient, C_d^7	Structural System Limitations and Building Height Limit ⁸ (ft)				
									Seismic Design Category				
									B	C	D	E	F
Light-Frame (Wood) Walls Sheathed with OX-IS® or SI-Strong	½	16:16	16 o.c.	295	23	6.5	3	4	NL	NL	65	65	65
		8:8		350									
	1	16:16	16 o.c.	320	26	6.5	3	4	NL	NL	65	65	65
		8:8		380									
		16:16	24 o.c.	300	14	6.5	3	4	NL	NL	65	65	65
		8:8		355									
Light-Frame (Wood) Walls Sheathed with OX-IS® HS	½	8:8	24 o.c.	335	12.5	6.5	3	4	NL	NL	65	65	65

1. OX-IS® and SI-Strong attached with a minimum 16 gauge, 7/16" crown staples shall penetrate a minimum of 1" into the stud. Fasteners are to be installed with the crown parallel to the framing and spaced a maximum of 3" o.c. at the panel edges and 3" o.c. in the field. Fastener edge distance shall be a minimum of 3/8". Fastener head shall be in contact with the panel surface. Alternately, fastener heads are permitted to be overdriven into foam portion of the panel with no reduction in shear capacities.
2. Walls installed with minimum ½" Gypsum wallboard attached with minimum #6 type W or S screws 1¼" long. Fasteners shall maintain a minimum edge distance of 3/8".
3. All seismic design parameters follow the equivalency as defined in Section 3 of this TER.
4. The allowable unit shear capacity is calculated using a factor of safety of 2.5 per ASCE 7.
5. Response modification coefficient, R, for use throughout ASCE 7. Note: R reduces forces to a strength level, not an allowable stress level.
6. The tabulated value of the overstrength factor, Ω_0 , is permitted to be reduced by subtracting one-half (0.5) for structures with flexible diaphragms.
7. Deflection amplification factor, C_d , for use with ASCE 7 Sections 12.8.6, 12.8.7, and 12.9.1.2¹¹.
8. Heights are measured from the base of the structure as defined in ASCE 7 Section 11.2.
9. NL = Not Limited

Table 5: Uplift Performance of OX-IS®, OX-IS® HS, and SI-Strong

Structural Sheathing Product	Allowable Uplift Capacity (plf)	Maximum Stud Spacing (in)	Fastener Schedule
½" OX-IS®, ½" OX-IS® HS, or ½" SI-Strong: Single Bottom Plate	220	16 o.c.	7/16" crown, 1½" leg 16 gage galvanized staples or 0.120" x 1¼" roofing nails, 3" o.c. to perimeter/field. Staple crowns to be installed parallel to grain.
1" OX-IS® or 1" SI-Strong: Single Bottom Plate	275		
1" OX-IS® or 1" SI-Strong: Double Bottom Plate	540		
1-½" OX-IS® or 1-½" SI-Strong: Single Bottom Plate	275		
1-½" OX-IS® or 1-½" SI-Strong: Double Bottom Plate	540		

1. The capacities shown are for the purpose of providing information on the hold-down capacity of the sheathing to the bottom plate connection independent of lateral loading. Where combined shear and uplift loading is needed, consult a professional engineer.

¹¹ ASCE 7-10 Section 12.9.2

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Table 6: OX-IS®, OX-IS® HS, and SI-Strong Nominal Uniform Load Capacities (psf) for Resisting Out-of-Plane Wind Loads

Structural Sheathing Product	Transverse Wind Load Resistance			
	Negative	Positive	Maximum Stud Spacing (in)	Fastener Schedule
	Allowable Design Value (psf)	Allowable Design Value (psf)		
OX-IS®, OX-IS® HS, and SI-Strong	95	95	24 o.c.	⁷ / ₁₆ " crown, 1½" leg 16 gage galvanized staples, 3" o.c. at the perimeter, 3" o.c. in the field. Staple crowns to be installed parallel to grain.

Table 7: Basic Wind Speed for OX-IS®, OX-IS® HS, and SI-Strong Used in Exterior Wall Covering Assemblies

Structural Sheathing Product	Allowable Components & Cladding Basic Wind Speed V_{asd} per ASCE 7-05 (mph)	Allowable Components & Cladding Basic Wind Speed V_{ult} per ASCE 7-10 and 7-16 (mph)
	16" o.c. Framing	16" o.c. Framing
OX-IS®, OX-IS® HS, and SI-Strong	190	245

1. Allowable wind speeds are based on the following: Mean roof height 30', Exposure B, 10 sq. ft. effective wind area. See the applicable building code for any adjustment need for specific building location and configuration.

5.2.7. Steel-Framed Construction

Table 8: Allowable Shear Values for OX-IS®, OX-IS® HS, and SI-Strong on 20 ga 50 KSI Metal Studs

Structural Sheathing Product	Thickness (in)	Framing Condition ⁴	Maximum Stud Spacing (in)	Allowable Design Value (plf) ^{1,2}			
				0.100 Pins ³ 3" o.c. edges 6" o.c. field	0.100 Pins ³ 3" o.c. edges 3" o.c. field	#8 Screws ⁴ 3" o.c. edges 6" o.c. field	#8 Screws ⁴ 3" o.c. edges 3" o.c. field
½" OX-IS®, OX-IS® HS, or ½" SI-Strong	½	No GWB	24 o.c.	NT ⁶	NT	300	NT
		½" GWB Fasten 8"/12" ⁵		245	295	NT	380
		½" GWB Fasten 6"/12" ⁴		340	NT	480	NT
1" OX-IS® or 1" SI-Strong	1	½" GWB Fasten 8"/12" ⁵		280	285	NT	465
1-½" OX-IS® or 1-½" SI-Strong	1-½	½" GWB Fasten 8"/12" ⁵	280	285	NT	465	

1. 20 gauge 50 ksi 3.5" metal studs @ 24" o.c. Mid height horizontal brace installed every other cavity space.
 2. Allowable unit net shear values reflect a safety factor of 2.0.
 3. Aerosmith® 2359 0.100" diameter pins.
 4. No. 8-18 × 1¼ Phillips modified truss head self-drilling screws.
 5. No. 6-20 × 1¼ Phillips Bugle D/W SDS self-drilling screws.
 6. NT = Not Tested

5.3. Water-Resistive Barrier (WRB)

- 5.3.1.** OX-IS®, OX-IS® HS, and SI-Strong may be used as a WRB as prescribed in [IBC Section 1403.2](#)¹² and [IRC Section R703.2](#) when installed on exterior walls as described in this section.
- 5.3.2.** OX-IS®, OX-IS® HS, and SI-Strong shall be installed with board joints placed directly over exterior framing spaced a maximum of 24" (610 mm) o.c. The fasteners used to attach the board shall be installed in accordance with [Table 2](#) through [Table 6](#) and [Section 6](#) as applicable.

¹² 2015 IBC Section 1404.2

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- 5.3.3.** All seams and joints between boards shall be sealed with an approved construction tape in accordance with [Section 6](#). Approved construction tape includes 2-½" wide construction tape by 3M™ (8087) or Venture (1585-P2). 4" wide self-adhered flashing tape meeting AAMA 711 (3M™ All Weather Flashing Tape 8067 or equivalent) may be required for effectively taping of inside and outside corners.
- 5.3.4.** A separate WRB may also be provided. If a separate WRB method is used, overlapping or taping of the sheathing joints is not required.
- 5.3.5.** Flashing of penetrations shall comply with the applicable code and must be installed at all sheathing penetrations. Use qualified flashing material such as self-adhered flashing tape meeting AAMA 711 (3M™ All Weather Flashing Tape 8067 or equivalent). See [Figure 5](#), [Figure 6](#) and [Figure 7](#) for typical penetration flashing details.
- 5.3.6.** Flashing Details – Typical Flanged and Unflanged Penetration and Window

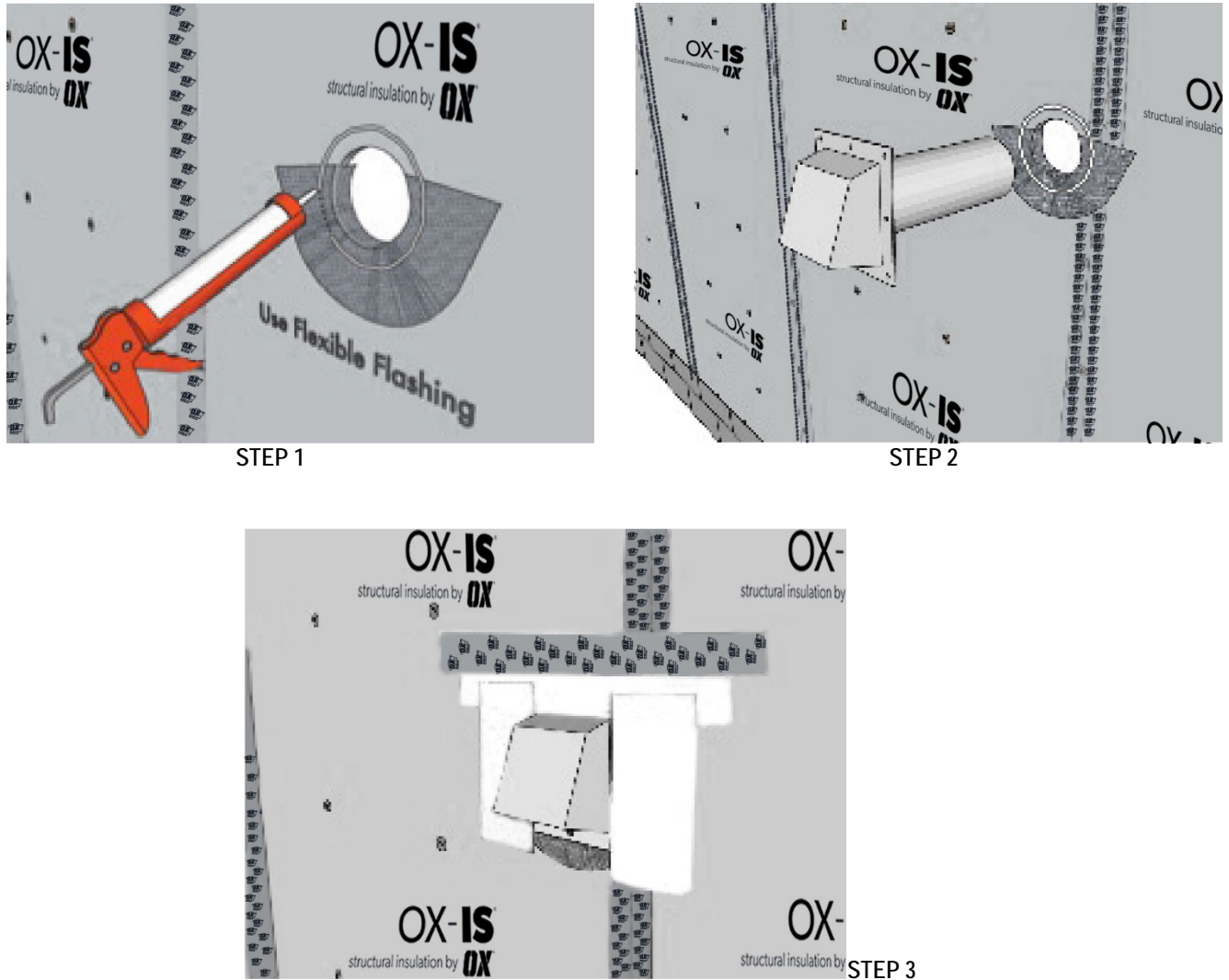


Figure 5: Typical Penetration Flashing Detail – Flanged

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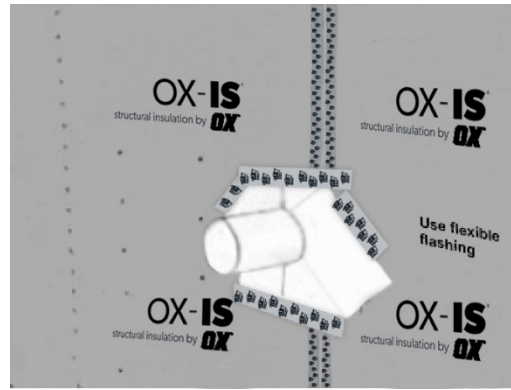


Figure 6: Typical Penetration Flashing Detail – Unflanged

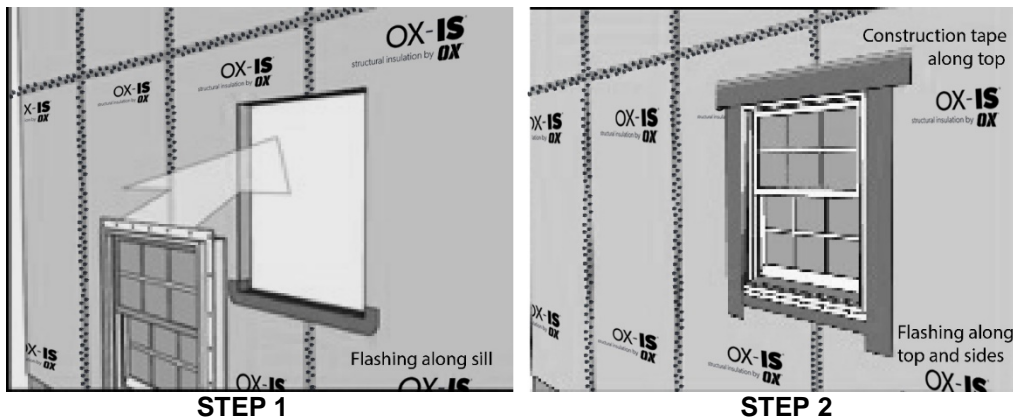


Figure 7: Typical Window Flashing Detail

5.4. Thermal Resistance (R-Value)

- 5.4.1. OX-IS®, OX-IS® HS, and SI-Strong meet the continuous insulated sheathing requirements complying with the provisions of [IECC Section C402](#).
- 5.4.2. OX-IS®, OX-IS® HS, and SI-Strong have the thermal resistance shown in [Table 9](#).

Table 9: OX-IS®, OX-IS® HS, and SI-Strong Thermal Resistance Properties

Thickness	R-Value (h-ft ² . °F/Btu)
½" OX-IS® or SI-Strong	3.0
½" OX-IS® HS	3.0
1" OX-IS® or SI-Strong	6.0
1-½" OX-IS® or SI-Strong	9.0

5.5. Air Barrier

- 5.5.1. OX-IS®, OX-IS® HS, and SI-Strong meet the requirements of [IECC Section C402](#) for use as a component of the air barrier when installed in accordance with the manufacturer's installation instructions and this TER with all seams, including the top and bottom edges, taped. See [Table 10](#).

Table 10: OX-IS®, OX-IS® HS, and SI-Strong Air Barrier Properties

ASTM E2178	< 0.02 (L/s.m ²) ¹
1. Liter per second per square meter	

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5.6. Surface Burn Characteristics

Table 11: Surface Burn Characteristics of OX-IS®, OX-IS® HS, and SI-Strong

Structural Sheathing Product	Flame Spread ¹	Smoke Developed ¹
OX-IS®	≤ 75	≤ 450
OX-IS® HS	≤ 75	≤ 450
SI-Strong	≤ 75	≤ 450

1. Tested in accordance with *ASTM E84*, with maximum foam thickness of 2.25", foam core only.

5.7. Thermal Barrier Requirements – Attic, Crawlspace or Other Uninhabitable Space Applications

5.7.1. Installation shall be fully protected from the interior of the building by an approved 15-minute thermal barrier or ignition barrier as required by [IRC Section R316.4](#) and [IBC Section 2603.4](#), except as follows:

5.7.1.1. When installed in an attic, crawlspace or other uninhabitable spaces, OX-IS®, OX-IS® HS, and SI-Strong, at a maximum thickness of 1.5", are approved for use without a thermal barrier or ignition barrier. This includes, but is not limited to, knee and gable end walls.

5.7.1.2. Use without an approved thermal barrier or ignition barrier is limited to areas where:

5.7.1.2.1. OX-IS®, OX-IS® HS, and SI-Strong are installed on the walls only.

5.7.1.2.2. Access to the space is required by [IRC Section R807.1](#) or [R408.4](#).

5.7.1.2.3. Entry is made only for the purposes of repairs or maintenance.

5.8. Non-Structural Applications

5.8.1. Where other means of wall bracing are provided, or are not required, and an approved exterior wall covering capable of separately resisting loads perpendicular to the face of the walls is installed over the sheathing, OX-IS®, OX-IS® HS, and SI-Strong may be installed in accordance with [Section 6.6](#).

6. Installation:

6.1. General

6.1.1. Installation shall comply with the manufacturer's installation instructions and this TER. In the event of a conflict between the manufacturer's installation instructions and this TER, the more restrictive shall govern.

6.2. Orientation

6.2.1. OX-IS®, OX-IS® HS, and SI-Strong may be installed vertically or horizontally over studs, with framing that has a nominal thickness of not less than 2" (50.8 mm) and spaced a maximum of 24" (610 mm) o.c.

6.2.2. Sheathing joints must be butted at framing members, and all panel edges shall be blocked. A single row of fasteners must be applied to each panel edge into the stud or blocking below. Do not tack product to framing, but fasten each panel completely after fastening begins.

6.3. Attachment

6.3.1. General

6.3.1.1. Fasteners shall be installed with a nominal edge distance of $\frac{3}{8}$ " (9.5 mm) for gypsum.

6.3.1.2. Where used, always fasten staples parallel to the framing member.

6.3.2. OX-IS®, OX-IS® HS, and SI-Strong Structural Insulation

6.3.2.1. Minimum $\frac{7}{16}$ " crown by $1\frac{1}{2}$ " leg, 16 ga staples with a 1" minimum embedment into the stud unless otherwise stated in [Section 5](#).

6.3.2.2. Fastener spacing shall be a maximum of 3" o.c. (76.2 mm) along the edge and 3" o.c. in the field unless otherwise permitted in [Section 5](#).

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6.3.3. Gypsum Wallboard

6.3.3.1. Where required, gypsum wallboard shall be a minimum ½" thickness and shall be attached with one of the following.

6.3.3.1.1. #6 x 1¼" Type W or S screws

6.3.3.1.2. 5d cooler nails

6.3.3.1.3. Fastener spacing shall be as shown in [Section 5](#).

6.4. Treatment of Joints

6.4.1. OX-IS®, OX-IS® HS, and SI-Strong sheathing joints must be butted at framing members, and a single row of fasteners must be applied to each panel edge into the stud below. Run staples parallel to framing.

6.5. Window Treatments

6.5.1. OX-IS®, OX-IS® HS, and SI-Strong must be installed with appropriate flashing and counter flashing in conformance with accepted building standards and in compliance with local building codes and the flashing manufacturer's installation instructions.

6.6. Non-Structural Applications

6.6.1. Install panels with nails that have a 0.113" (2.87 mm) minimum shank diameter, a ⅜" (9.53 mm) head diameter, and a 1" (25.4 mm) minimum stud embedment length; or 16 gauge 7/16" (11.1 mm) crown staples and a 1" (25.4 mm) minimum stud embedment length.

6.6.2. The fastener spacing shall be 6" o.c. along the top, bottom and vertical panel edges and 12" o.c. in the field. Do not tack product to framing, but fasten each panel completely after fastening begins.

7. Test and Engineering Substantiating Data:

- 7.1. Lateral load testing and data for determining comparative equivalency for use as an alternative material in accordance with *ASTM E72*, *E564* and *E2126*.
- 7.2. Transverse load testing in accordance with *ASTM E330*.
- 7.3. Test reports and data for determining use as a WRB material in accordance with *ASTM E331*.
- 7.4. Test reports and data for determining use as a component of an air barrier in accordance with *ASTM E2178*.
- 7.5. Test reports and data for determining surface burning characteristics in accordance with *ASTM E84*.
- 7.6. Test reports and data for determining use in attics and crawlspaces without a thermal barrier or ignition barrier in accordance with *NFPA 286*.
- 7.7. Test reports and data for determining comparative equivalency for use as an alternative material in accordance with [IRC Section R104.11](#) and [IBC Section 104.11](#).
- 7.8. Manufacturer installation recommendations for structural sheathing on exterior walls.
- 7.9. Quality Control Manual in accordance with a third-party quality control program with inspections conducted by an approved agency.
- 7.10. The product(s) evaluated by this TER fall within the scope of one or more of the model, state or local building codes for building construction. The testing and/or substantiating data used in this TER is limited to buildings, structures, building elements, construction materials and civil engineering related specifically to buildings.
- 7.11. The provisions of model, state or local building codes for building construction do not intend to prevent the installation of any material or to prohibit any design or method of construction. Alternatives shall use consensus standards, performance-based design methods or other engineering mechanics based means of compliance. This TER assesses compliance with defined standards, accepted engineering analysis, performance-based design methods, etc. in the context of the pertinent building code requirements.
- 7.12. Some information contained herein is the result of testing and/or data analysis by other sources, which DrJ relies on to be accurate, as it undertakes its engineering analysis.
- 7.13. DrJ has reviewed and found the data provided by other professional sources are credible. The information in this TER conforms to DrJ's procedure for acceptance of data from approved sources.

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- 7.14. DrJ's responsibility for data provided by approved sources conforms to [IBC Section 1703](#) and any relevant professional engineering law.
- 7.15. Where appropriate, DrJ's analysis is based on design values that have been codified into law through codes and standards (e.g., *IRC*, *WFCM*, *IBC*, *SDPWS*, *NDS*[®], *ACI*[®], *AISI*, *PS-20*, *PS-2*, etc.). This includes review of code provisions and any related test data that aids in comparative analysis or provides support for equivalency to an intended end-use application. Where the accuracy of design values provided herein is reliant upon the published properties of commodity materials (e.g., lumber, steel, concrete, etc.), DrJ relies upon grade/properties provided by the raw material supplier to be accurate and conforming to the mechanical properties defined in the relevant material standard.

8. Findings

- 8.1. When installed in accordance with the manufacturer's installation instructions and this TER, OX-IS[®] and SI-Strong comply with the applicable sections of the codes listed in [Section 2](#) for the following applications.
- 8.1.1. Lateral load resistance due to wind and seismic loads carried by shear walls.
 - 8.1.2. Use as an equivalent alternative to the CS-PF as described in [IRC Section R602.10.5](#) and [R602.10.6.4](#).
 - 8.1.3. Transverse load resistance due to components and cladding pressures on building surfaces.
 - 8.1.4. Performance of the foam plastic component for conformance to [IRC Section R316](#) and [IBC Section 2603](#).
 - 8.1.5. Performance for use as insulating sheathing in accordance with [IRC Sections N1102.1](#) and [N1102.2](#) and [IECC Section C402](#).
 - 8.1.6. Performance for use as a WRB in accordance with [IRC Section R703.2](#) and [IBC Section 1403.2](#)¹³.
 - 8.1.7. Performance for use as an air barrier in accordance with [IRC Section N1102.4](#) and [IECC Section C402](#).
- 8.2. When installed in accordance with the manufacturer's installation instructions and this TER, OX-IS[®] HS complies with the applicable sections of the codes listed in [Section 2](#) for the following applications.
- 8.2.1. Lateral load resistance due to wind and seismic loads carried by shear walls.
 - 8.2.2. Transverse load resistance due to components and cladding pressures on building surfaces.
 - 8.2.3. Performance of the foam plastic component for conformance to [IRC Section R316](#) and [IBC Section 2603](#).
 - 8.2.4. Performance for use as insulating sheathing in accordance with [IRC Sections N1102.1](#) and [N1102.2](#) and [IECC Section C402](#).
 - 8.2.5. Performance for use as a WRB in accordance with [IRC Section R703.2](#) and [IBC Section 1403.2](#)¹⁴.
 - 8.2.6. Performance for use as an air barrier in accordance with [IRC Section N1102.4](#) and [IECC Section C402](#).
- 8.3. [IBC Section 104.11](#) ([IRC Section R104.11](#) and [IFC Section 104.9](#) are similar) states:
- 104.11 **Alternative materials, design and methods of construction and equipment.** The provisions of this code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative has been *approved*. An alternative material, design or method of construction shall be *approved* where the *building official* finds that the proposed design is satisfactory and complies with the intent of the provisions of this code, and that the material, method or work offered is, for the purpose intended, not less than the equivalent of that prescribed in this code. ... Where the alternative material, design or method of construction is not *approved*, the *building official* shall respond in writing, stating the reasons the alternative was not *approved*.
- 8.4. This product has been evaluated in the context of the codes listed in [Section 2](#) and is compliant with all known state and local building codes. Where there are known variations in state or local codes that are applicable to this evaluation, they are listed here:
- 8.4.1. No known variations

¹³ [2015 IBC Section 1404.2](#)

¹⁴ [2015 IBC Section 1404.2](#)

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8.5. This TER uses professional engineering law, the building code, ANSI/ASTM consensus standards and generally accepted engineering practice as its criteria for all testing and engineering analysis. Dr.J's professional engineering work falls under the jurisdiction of each state Board of Professional Engineers, when signed and sealed.

9. Conditions of Use:

- 9.1.** Where required by the authority having jurisdiction (AHJ) in which the project is to be constructed, this TER and the installation instructions shall be submitted at the time of permit application.
- 9.2.** Any generally accepted engineering calculations needed to show compliance with this TER shall be submitted to the code official for review and approval.
- 9.3.** Design loads shall be determined in accordance with the building code adopted by the jurisdiction in which the project is to be constructed and/or by the Building Designer (e.g., Owner, Registered Design Professional, etc.).
- 9.3.1.** This report and the installation instructions shall be available to the jurisdiction in which the project is to be constructed.
- 9.3.2.** Walls shall not be used to resist horizontal loads from concrete and masonry walls.
- 9.3.3.** OX-IS®, OX-IS® HS, and SI-Strong shall not be used as a nailing base.
- 9.3.4.** Except as provided in [Section 5.6](#), this product shall be fully protected from the interior of the building by an approved 15-minute thermal barrier where required by the applicable code.
- 9.3.5.** In areas where the probability of termite infestation is very heavy, in accordance with [IBC Section 2603.8](#) or [IRC Section R318.4](#), the product must not be placed on exterior walls located within 6" (152 mm) of the ground.
- 9.3.6.** Allowable shear loads shall not exceed values in [Table 3](#) for wind loads and [Table 4](#) for seismic loads.
- 9.3.7.** Transverse design loads shall not exceed those described in [Table 6](#) unless an approved exterior wall covering capable of separately resisting loads perpendicular to the face of the walls is installed over the sheathing.
- 9.3.8.** OX-IS®, OX-IS® HS, and SI-Strong are manufactured under a quality control program with quality control inspections in accordance with [IRC Section R109.2](#) and [IBC Sections 110.3.8](#) and [110.4](#).
- 9.4.** When installed as a wall sheathing but not installed per structural requirements, light-framed walls shall be braced by other means.
- 9.5.** When used as a WRB, installation shall be in accordance with [Section 5.3](#).
- 9.5.1.** When used in accordance with the *IBC* in high wind areas, special inspections shall comply with [IBC Section 1705.11](#)¹⁵.
- 9.5.2.** When used in accordance with the *IBC* in Seismic Design Categories C, D, E or F, special inspections shall comply with [IBC Section 1705.12](#)¹⁶.
- 9.6.** Design
- 9.6.1.** Building Designer Responsibility
- 9.6.1.1.** Unless the AHJ allows otherwise, the Construction Documents shall be prepared by a Building Designer for the Building and shall be in accordance with [IRC Section R106](#) and [IBC Section 107](#).
- 9.6.1.2.** The Construction Documents shall be accurate and reliable and shall provide the location, direction and magnitude of all applied loads and shall be in accordance with [IRC Section R301](#) and [IBC Section 1603](#).
- 9.6.2.** Construction Documents
- 9.6.2.1.** Construction Documents shall be submitted to the Building Official for approval and shall contain the plans, specifications and details needed for the Building Official to approve such documents.

¹⁵ [2012 IBC Section 1705.10](#)

¹⁶ [2012 IBC Section 1705.11](#)

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9.7. Responsibilities

- 9.7.1. The information contained herein is a product, material, detail, design and/or application TER evaluated in accordance with the referenced building codes, testing and/or analysis through the use of accepted engineering practice, experience and technical judgment.
- 9.7.2. DrJ TERs provide an assessment of only those attributes specifically addressed in the Products Evaluated or Code Compliance Process Evaluated sections.
- 9.7.3. The engineering evaluation was performed on the dates provided in this TER, within DrJ's professional scope of work.
- 9.7.4. This product is manufactured under a third-party quality control program in accordance with [/IRC Section R104.4](#) and [R109.2](#) and [/IBC Section 104.4](#) and [110.4](#).
- 9.7.5. The actual design, suitability and use of this TER, for any particular building, is the responsibility of the Owner or the Owner's authorized agent, and the TER shall be reviewed for code compliance by the Building Official.
- 9.7.6. The use of this TER is dependent on the manufacturer's in-plant QC, the ISO/IEC 17020 third-party quality assurance program and procedures, proper installation per the manufacturer's instructions, the Building Official's inspection and any other code requirements that may apply to demonstrate and verify compliance with the applicable building code.

10. Identification:

- 10.1. All OX-IS®, OX-IS® HS, and SI-Strong boards described in this TER are identified by a label on the board or packaging material bearing the manufacturer's name, product name, TER number, label of the third-party inspection agency, and other information to confirm code compliance.
- 10.2. Additional technical information can be found at oxengineeredproducts.com.

11. Review Schedule:

- 11.1. This TER is subject to periodic review and revision. For the most recent version of this TER, visit drjcertification.org.
- 11.2. For information on the current status of this TER, contact [DrJ Certification](#).



- [Mission, Belief and Independence](#)
- [Product Evaluation Policies](#)
- [Product Approval – Building Code, Administrative Law and P.E. Law](#)