

DIVISION: 07 00 00 – THERMAL AND MOISTURE PROTECTION

Section: 07 42 43 – Composite Wall Panels

REPORT HOLDER:

Parklex USA, Inc.
218 River Park North Drive
Woodstock, Georgia 30188
www.parklex.com

REPORT SUBJECT:

Parklex FACADE F Wall Panel Cladding System

1.0 SCOPE OF EVALUATION

1.1 This Research Report addresses compliance with the following Codes:

- 2021 and 2018 *International Building Code*® (IBC)
- 2021 and 2018 *International Residential Code*® (IRC)
- 2019 *California Building Code* (see Section 9)

NOTE: This report references the most recent Code editions noted. Section numbers in earlier editions may differ.

1.2 The Parklex FACADE F Wall Panel Cladding System has been evaluated for the following properties (see Table 1):

- Physical properties
- Weather resistance
- Wind load resistance
- Surface burning characteristics

1.3 The Parklex FACADE F Wall Panel Cladding System has been evaluated for the following uses (see Table 1):

- Use as exterior wall covering on buildings of Types I, II, III, IV and V construction
- Use as interior finish

2.0 STATEMENT OF COMPLIANCE

The Parklex FACADE F Wall Panel Cladding System complies with the Codes listed in Section 1.1, for the properties stated in Section 1.2 and uses stated in Section 1.3, when installed as described in this report, including the Conditions of Use stated in Section 6.

3.0 DESCRIPTION

3.1 Parklex FACADE F Wall Panels: The panels are decorative high-pressure laminates (HPL) complying with IBC Section 1408. The panels are supplied in the following nominal dimensions:

- 8mm, 10mm and 12mm thicknesses and a 4-foot by 8-foot panel dimension when using concealed and exposed installation systems.
- 8 mm thickness and 6-inch, 8-inch and 12-inch by 8-foot panel dimensions when using the siding installation system.

The panels have an integrated decorative wood-grain surface in a variety of colors.

3.2 Substructure System: The substructure may use the following components. See Table 2 for dimensions of these components:

- Z-girts of 20 ga. (0.0396 in.) galvanized steel (min yield strength of 35 ksi) or ASTM B317, 6063-T5 aluminum
- L-profile rails, J-channels, Hat channels, hanging rails, hangers, of ASTM B317, 6063-T5 aluminum
- Treated lumber complying with Chapter 23 of the IBC and fixing clips (for use with the siding system)

3.3 Fasteners:

- Concealed Fasteners: Hangers are attached to the back of the FACADE F panels at 24 inches on center using two TB-A2 TX30 fasteners per hanger
- Exposed Fasteners: Fasteners used for the exposed fastening system are SX3 #12-11 irius Drive E420 or



545 E. Algonquin Road • Arlington Heights • Illinois • 60005
intertek.com/building





Torx Drive D12 pan-head, stainless steel self-drilling screws.

- Fasteners for Fixing Clips: Aluminum fixing clips are attached with DIN7505B M3.5 screws for wood battens.

4.0 PERFORMANCE CHARACTERISTICS

4.1 Flame Spread Characteristics: The panels have a Class A classification (flame spread index of 25 or less and a smoke developed index of 450 or less) when tested in accordance with ASTM E84 (UL 723)

4.2 Wind Resistance: Assemblies tested in accordance with ASTM E330 are described in Section 5.3.

4.3 Ignition Resistance: The panels, when installed in accordance with this report, comply with NFPA 268 when tested at an incident heat flux of 12.5 kW/m².

5.0 INSTALLATION

5.1 General:

The Parklex FACADE F Wall Panel Cladding System must be installed in accordance with the manufacturer's published installation instructions, the applicable Code, and this Research Report. A copy of the manufacturer's instructions must be available on the jobsite during installation.

The panels are installed as an open-jointed wall covering that allows air to circulate behind the panels. The cladding system must be installed over flashing and a water-resistive barrier complying with IBC Section 1402 or IRC Section R703.

The base wall to which the system is attached must be capable of supporting the applied loads.

The panels are installed over one of the following systems:

- Exposed fasteners: horizontal and vertical Z-girts
- Exposed fasteners: horizontal L-profile rails, J-channels and hat channels
- Concealed fasteners: vertical J-channels, horizontal hanging rails and hangers
- Siding: 2x preservative treated lumber attached to supporting wall; lumber is covered with a strip of EPDM membrane

The attachment system is designed to create space for insulation and to provide a 1-inch air space between the insulation or water-resistive barrier and the back of the wall panel. See Figures 1 through 10.

5.2 Interior Walls:

The Parklex FACADE F wall panels may be used where a Class A, B or C interior finish is required. When installed with space between panels, the panels must be installed over a substrate having an equal classification.

5.3 Wind Resistance:

See Table 3 for allowable wind loads when installed as described in this report.

Anchorage of the Parklex FACADE F system and the supporting wall structure must be designed for each jobsite. Calculations must be provided to the building official demonstrating the system anchorage and supporting wall meets project specified design loads and local code requirements. Design loads must not exceed the allowable wind loads for the system, as described in Table 3.

5.4 Exterior Walls of Types I, II, III and IV Construction:

Construction of exterior walls incorporating the FACADE F Wall Panel Cladding System are described in Intertek Design Listings PUI/CWP 30-01 and PUI/CWP 30-02. See Intertek Listing Report 28296 on the Intertek Directory (<https://bpdirectory.intertek.com>).

5.5 Exterior Walls of Type V Construction:

When installed in accordance with this report, the Parklex FACADE F Wall Panel Cladding System may be used on exterior walls of buildings permitted to be of Type V construction.

6.0 CONDITIONS OF USE

6.1 Installation must comply with this Research Report, the manufacturer's published installation instructions, and the applicable Code. In the event of a conflict, this report governs.



6.2 Wind design loads determined from nominal design wind speeds (V_{asd}) in accordance with Section 1609.3.1 of the IBC shall not exceed the maximum allowable wind loads given in Table 3.

6.3 Drawings, design details and calculations verifying compliance with this report and the adequacy of 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.

6.4 Use on walls required to be of fire-resistance-rated construction is outside the scope of this report.

6.5 The cladding system must be installed by qualified installers acceptable to Parklex USA, Inc.

6.6 The FACADE F wall panels are manufactured under a quality control program with inspections by Intertek Testing Services NA, Inc.

7.0 SUPPORTING EVIDENCE

7.1 Reports of tests in accordance with ASTM E330, NFPA 268 and NFPA 285.

7.2 Data in accordance with the ICC-ES Acceptance Criteria Polymer-Based, Polymer-Modified and High-Pressure Laminate Exterior and Interior Wall Cladding (AC92), dated December 2013.

7.3 Intertek Listing Report "Parklex FACADE F HPL Wall Panels," on the [Intertek Directory of Building Products](#).

8.0 IDENTIFICATION

The Parklex FACADE F Wall Panels are identified with the manufacturer's name (Parklex USA, Inc.), the product name, the Intertek Mark as shown below, the Intertek Control Number and the Code Compliance Research Report number (CCRR-0431).



9.0 OTHER CODES

9.1 CALIFORNIA BUILDING CODE

9.1 Scope of Evaluation:

The Parklex FACADE F Wall Panel Cladding System was evaluated for compliance with the 2019 *California Building Code* and 2019 *California Residential Code*.

9.2 Conclusion:

The system described in Sections 2 through 8 of this report comply with the 2019 *California Building Code* and 2019 *California Residential Code*. Section numbers referenced for the IBC and IRC are the same for the CBC and CRC, respectively.





CODE COMPLIANCE RESEARCH REPORT USE

9.3 Approval of building products and/or materials can only be granted by a building official having legal authority in the specific jurisdiction where approval is sought.

9.4 Code Compliance Research Reports shall not be used in any manner that implies an endorsement of the product by Intertek.

9.5 Reference to the <https://bpdirectory.intertek.com> is recommended to ascertain the current version and status of this report.

This Code Compliance Research Report ("Report") is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this Report. Only the Client is authorized to permit copying or distribution of this Report and then only in its entirety, and the Client shall not use the Report in a misleading manner. Client further agrees and understands that reliance upon the Report is limited to the representations made therein. The Report is not an endorsement or recommendation for use of the subject and/or product described herein. This Report is not the Intertek Listing Report covering the subject product and utilized for Intertek Certification and this Report does not represent authorization for the use of any Intertek certification marks. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek.





TABLE 1 - PROPERTIES EVALUATED

PROPERTY	2021 IBC SECTION	2021 IRC SECTION	2019 CBC SECTION	2019 CRC SECTION
Physical properties / durability	1408.7	104.11	1407.8	104.11
Weather resistance	1408.6	R703.1.1	1408.6	R703.1.1
Wind load resistance	1408.4	R301	1408.41	R301
Surface burning characteristics	803.1 1408.9 1408.10.1	R302.9	803.1 1408.9 1408.10.1	F302.9
Use in Types I-IV construction	1408.10	Not applicable	1408.10	Not applicable

TABLE 2 – ATTACHMENT SYSTEM COMPONENTS

Component	Description
Horizontal Z-girt	1-1/2" x 3-1/2" x 2-1/2"
Vertical Z-girt	1-1/2" x 1" x 2-1/2"
Wall bracket	3/16" x 3-9/16" x 5-5/16"
L-profile rails	3/32" x 2-1/8" x 1-9/16"
J-channels, Hat channels	1/8" x 1"

¹See Section 3.2 for material specifications.



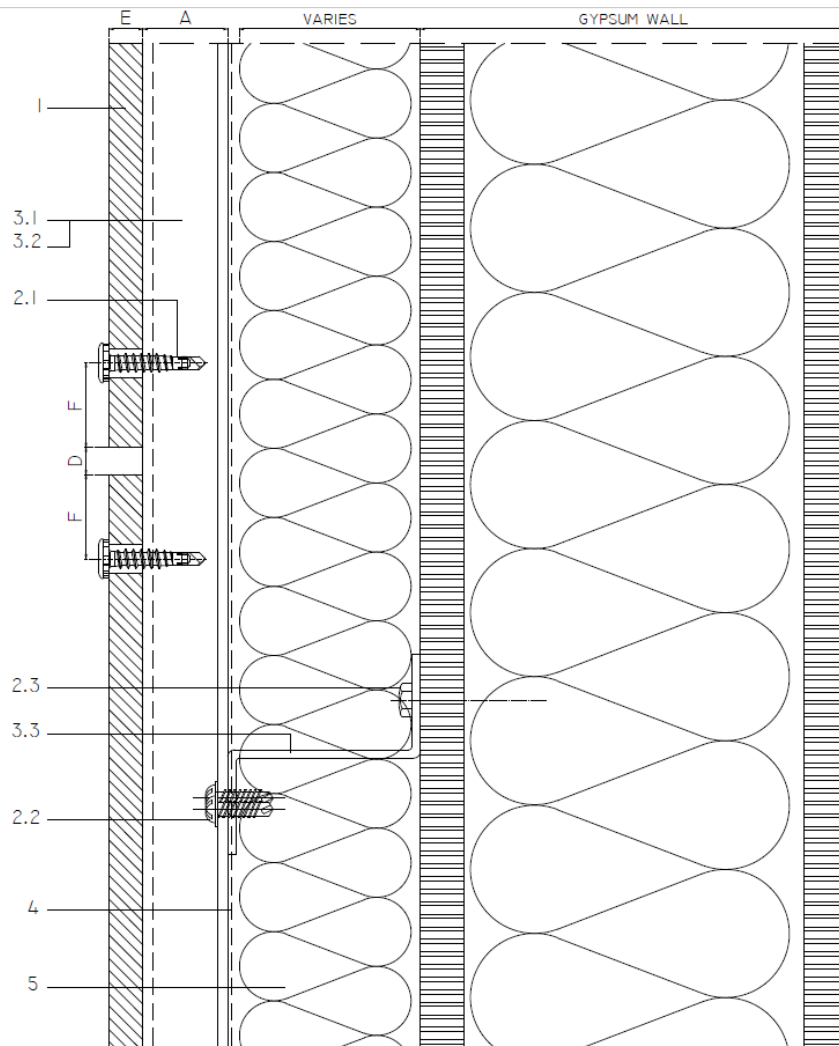
TABLE 3 – ALLOWABLE WIND RESISTANCE

FASTENING SYSTEM	PANEL THICKNESS	MAXIMUM SPACING OF FASTENERS AND SUPPORTS ¹	ALLOWABLE WIND RESISTANCE (psf)	
			Positive	Negative
Exposed – 20 Ga. (0.0396 in.) galvanized-steel Z-Girts	10 mm	24 inches ²	30	25
	12 mm			
Exposed – 1/8-inch-thick aluminum J-channels and hat channels placed vertically	8 mm		32	20
Concealed – Panel hang over horizontal hanging rails attached to J-channels	10 mm		27	17
	12 mm			
Siding – Panels attached to treated wood battens using a fixing clip ³	8 mm	16 inches	62	20

¹Testing was carried out in a multi-span support configuration.

²Maximum spacing for girts, channels, fasteners, and panel span is 24 inches.

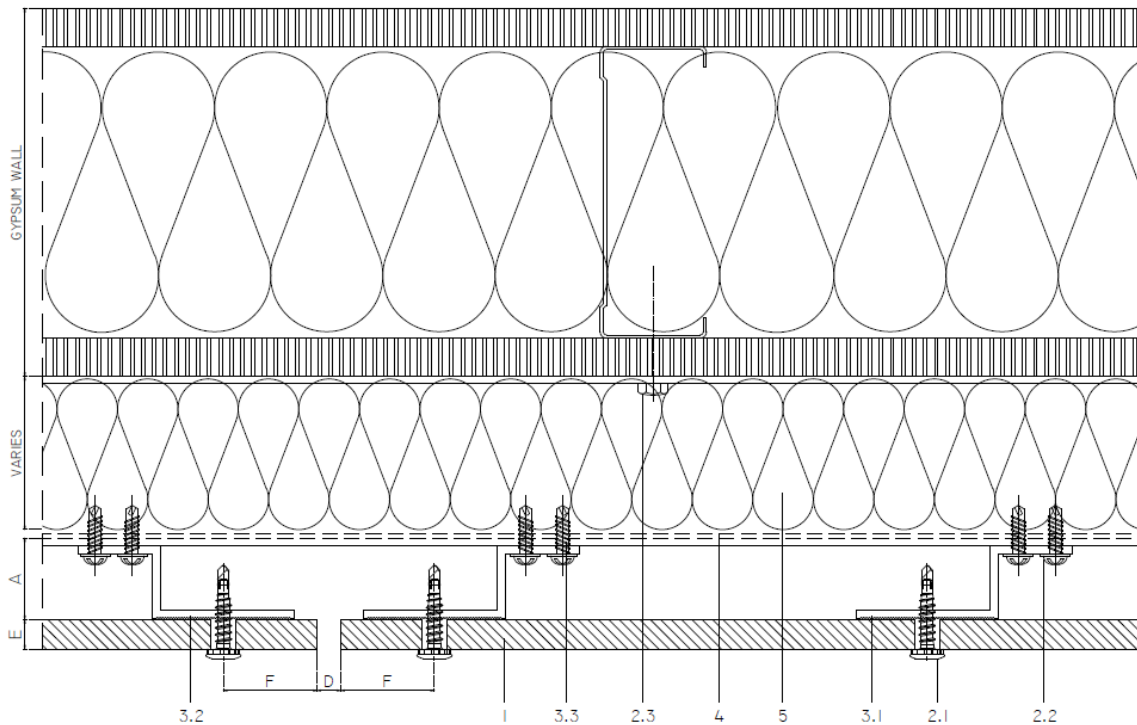
³Values based on SYP wood or other species with specific gravity equal or greater than 0.50.



1	FACADE
2	SCREWS
2.1	PANEL FASTENER METAL
2.2	CHANNEL FASTENER - BY OTHERS
2.3	WALL FIXING SCREW - BY OTHERS
3	PROFILES
3.1	ALUMINUM J PROFILE
3.2	ALUMINUM HAT PROFILE
3.3	Z-GIRT - BY OTHERS
3.4	JAMB PROFILE - BY OTHERS
3.5	SILL PROFILE - BY OTHERS
3.6	CORONATION PROFILE - BY OTHERS
4	WATER RESISTANT BARRIER - BY OTHERS
5	THERMAL INSULATION - BY OTHERS
6	VENT. SCREEN - BY OTHERS

A	REQUIRED MIN. AIR CHAMBER $\geq 1"$ (25.4MM)
B	CIRCULATION OF AIR $\geq 1"$ (25.4MM)
D	EXPANSION JOINT $1/4" - 3/8"$ (6-10MM)
E	PANEL THICKNESS $\geq 5/16"$ (8MM)
F	DISTANCE FROM THE SCREWS TO THE PANEL EDGES $3/4" - 1 1/2"$ (20-40MM)

Figure 1 – Typical Installation - Horizontal Joint – Z-girts, Exposed Fasteners



1	FACADE
2	SCREWS
2.1	PANEL FASTENER METAL
2.2	CHANNEL FASTENER - BY OTHERS
2.3	WALL FIXING SCREW - BY OTHERS
3	PROFILES
3.1	ALUMINUM J PROFILE
3.2	ALUMINUM HAT PROFILE
3.3	Z-GIRT - BY OTHERS
3.4	JAMB PROFILE - BY OTHERS
3.5	SILL PROFILE - BY OTHERS
3.6	CORONATION PROFILE - BY OTHERS
4	WATER RESISTANT BARRIER - BY OTHERS
5	THERMAL INSULATION - BY OTHERS
6	VENT. SCREEN - BY OTHERS

A	REQUIRED MIN. AIR CHAMBER $\geq 1"$ (25.4MM)
B	CIRCULATION OF AIR $\geq 1"$ (25.4MM)
D	EXPANSION JOINT $1/4" - 3/8"$ (6-10MM)
E	PANEL THICKNESS $\geq 5/16"$ (8MM)
F	DISTANCE FROM THE SCREWS TO THE PANEL EDGES $3/4" - 1 1/2"$ (20-40MM)

Figure 2 – Typical Installation – Vertical Joint – Z-girts, Exposed Fasteners

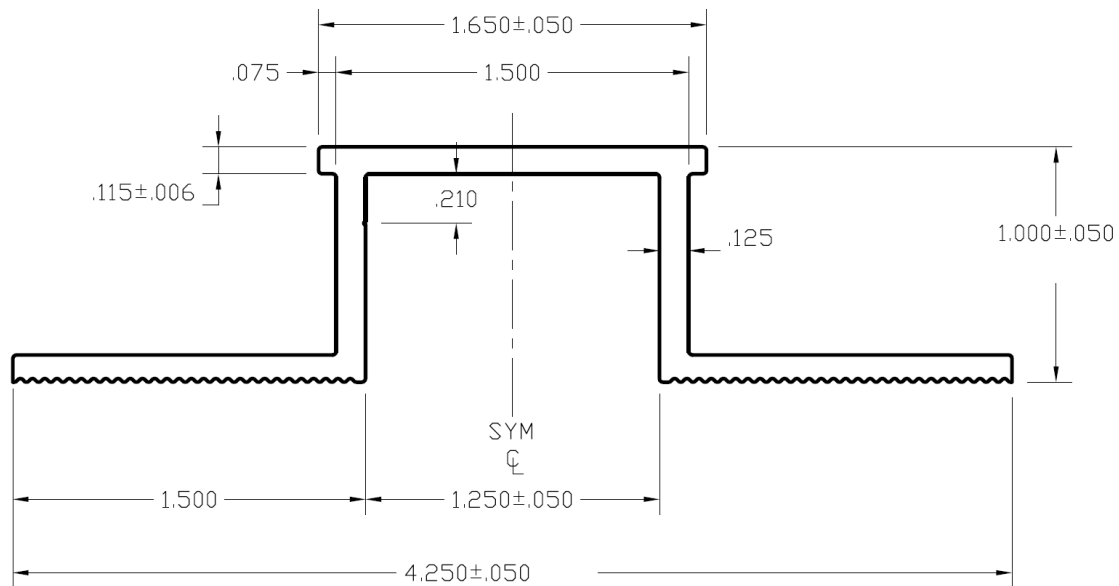


Figure 3 – Hat Channel

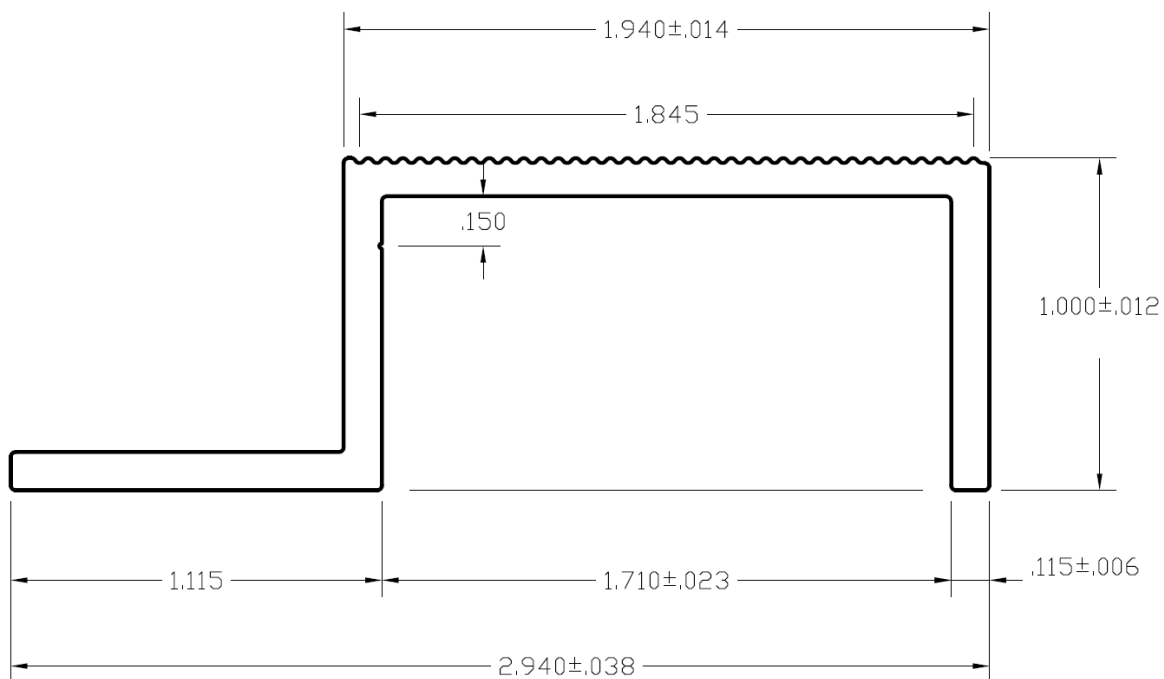
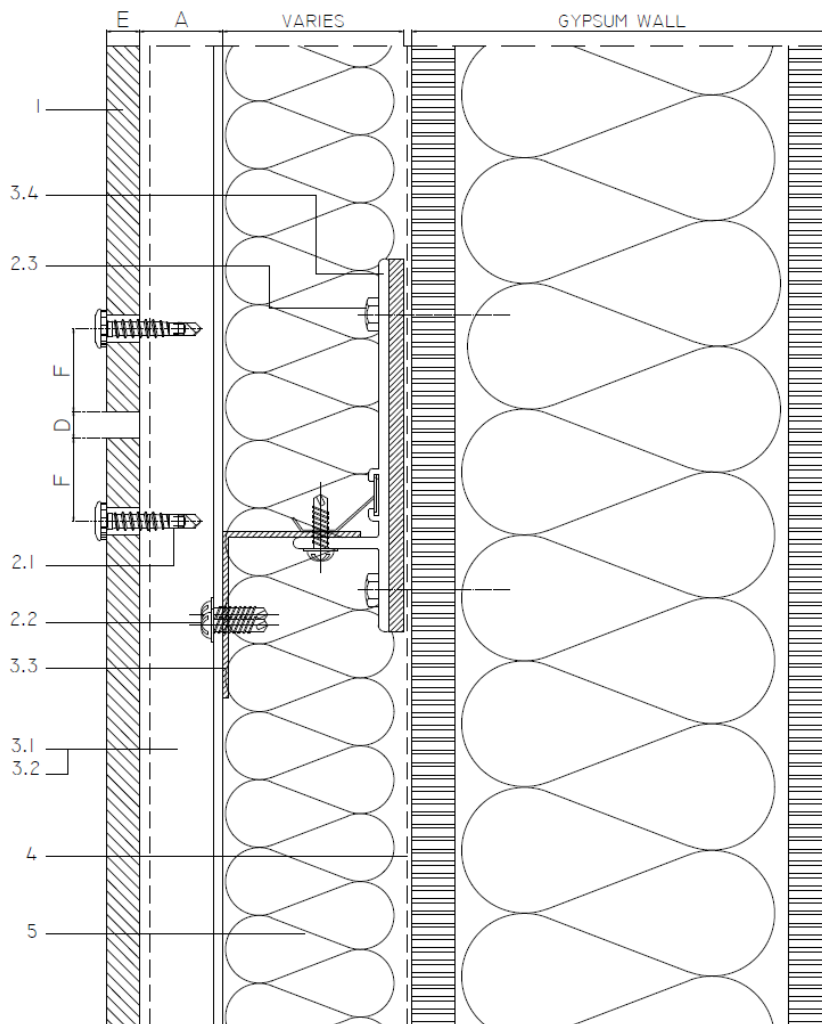


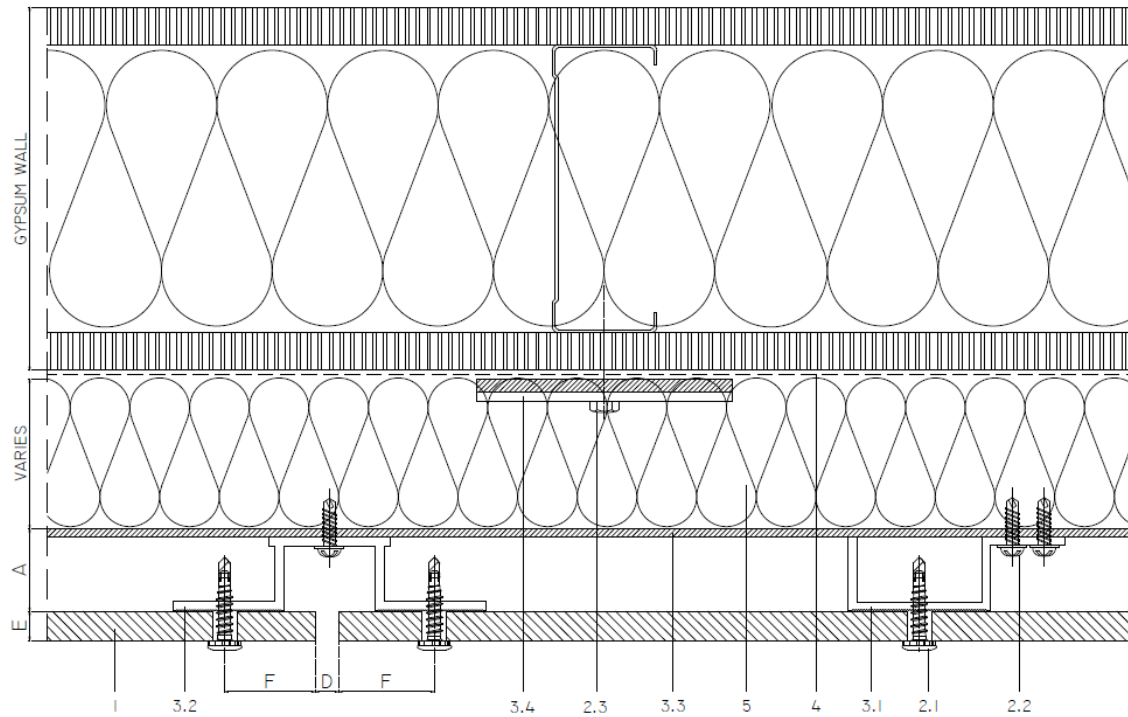
Figure 4 – J-channel



1	FACADE
2	SCREWS
2.1	PANEL FASTENER METAL
2.2	CHANNEL FASTENER - BY OTHERS
2.3	WALL FIXING SCREW - BY OTHERS
3	PROFILES
3.1	ALUMINUM J PROFILE
3.2	ALUMINUM HAT PROFILE
3.3	ALUMINUM L PROFILE
3.4	ALUM. WALL BRACKET + INSULATOR PAD
3.5	JAMB PROFILE - BY OTHERS
3.6	SILL PROFILE - BY OTHERS
3.7	CORONATION PROFILE - BY OTHERS
4	WATER RESISTANT BARRIER - BY OTHERS
5	THERMAL INSULATION - BY OTHERS
6	VENT. SCREEN - BY OTHERS

A	REQUIRED MIN. AIR CHAMBER $\geq 1"$ (25.4MM)
B	CIRCULATION OF AIR $\geq 1"$ (25.4MM)
D	EXPANSION JOINT $1/4" - 3/8"$ (6-10MM)
E	PANEL THICKNESS $\geq 5/16"$ (8MM)
F	DISTANCE FROM THE SCREWS TO THE PANEL EDGES $3/4" - 1 1/2"$ (20-40MM)

Figure 5 – Typical Installation – Horizontal Joint – Aluminum J and Hat Channel, Exposed Fastener



1	FACADE
2	SCREWS
2.1	PANEL FASTENER METAL
2.2	CHANNEL FASTENER - BY OTHERS
2.3	WALL FIXING SCREW - BY OTHERS
3	PROFILES
3.1	ALUMINUM J PROFILE
3.2	ALUMINUM HAT PROFILE
3.3	ALUMINUM L PROFILE
3.4	ALUM. WALL BRACKET + INSULATOR PAD
3.5	JAMB PROFILE - BY OTHERS
3.6	SILL PROFILE - BY OTHERS
3.7	CORONATION PROFILE - BY OTHERS
4	WATER RESISTANT BARRIER - BY OTHERS
5	THERMAL INSULATION - BY OTHERS
6	VENT. SCREEN - BY OTHERS

A	REQUIRED MIN. AIR CHAMBER $\geq 1"$ (25.4MM)
B	CIRCULATION OF AIR $\geq 1"$ (25.4MM)
D	EXPANSION JOINT $1/4" - 3/8"$ (6-10MM)
E	PANEL THICKNESS $\geq 5/16"$ (8MM)
F	DISTANCE FROM THE SCREWS TO THE PANEL EDGES $3/4" - 1 1/2"$ (20-40MM)

Figure 6 – Typical Installation – Vertical Joint – Aluminum J and Hat Channel, Exposed Fastener

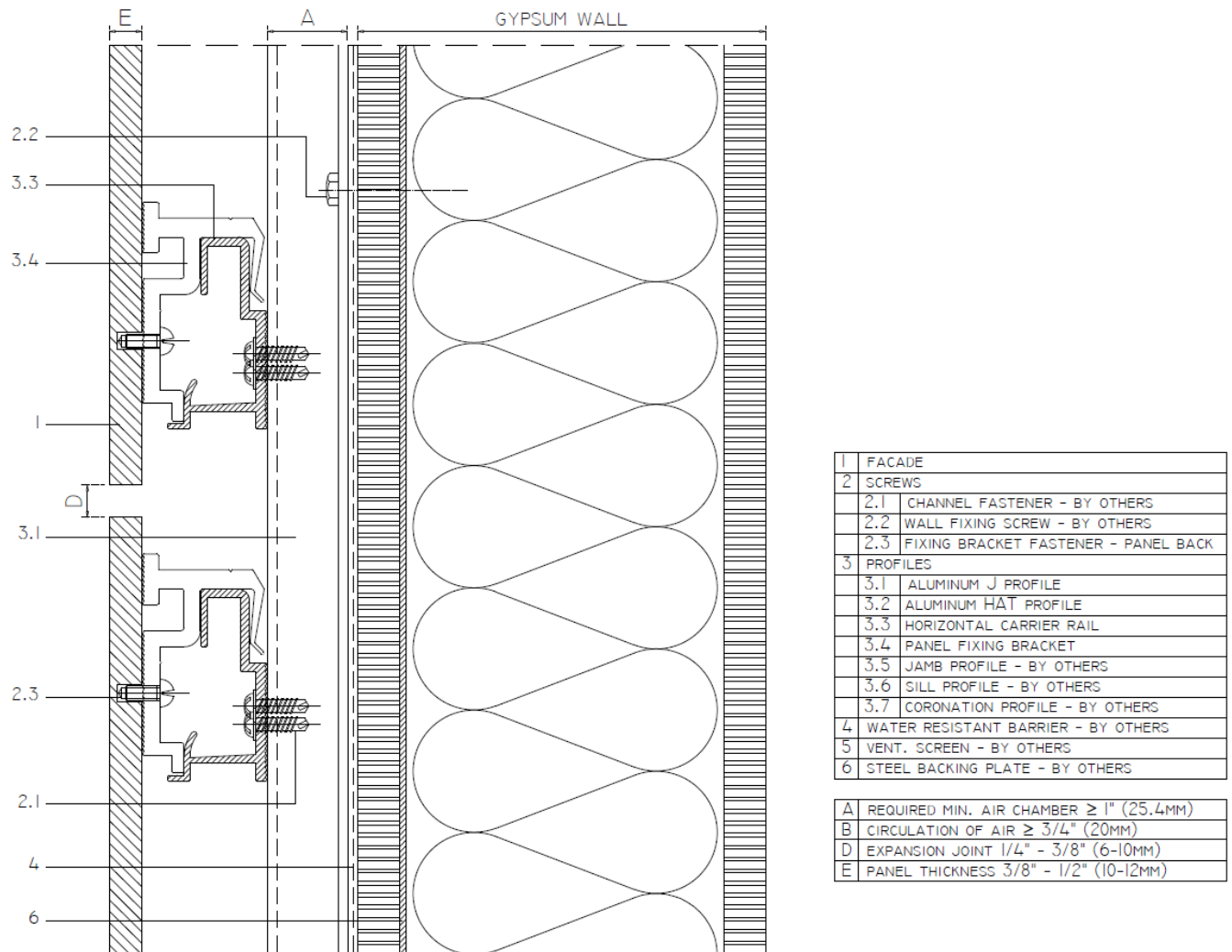
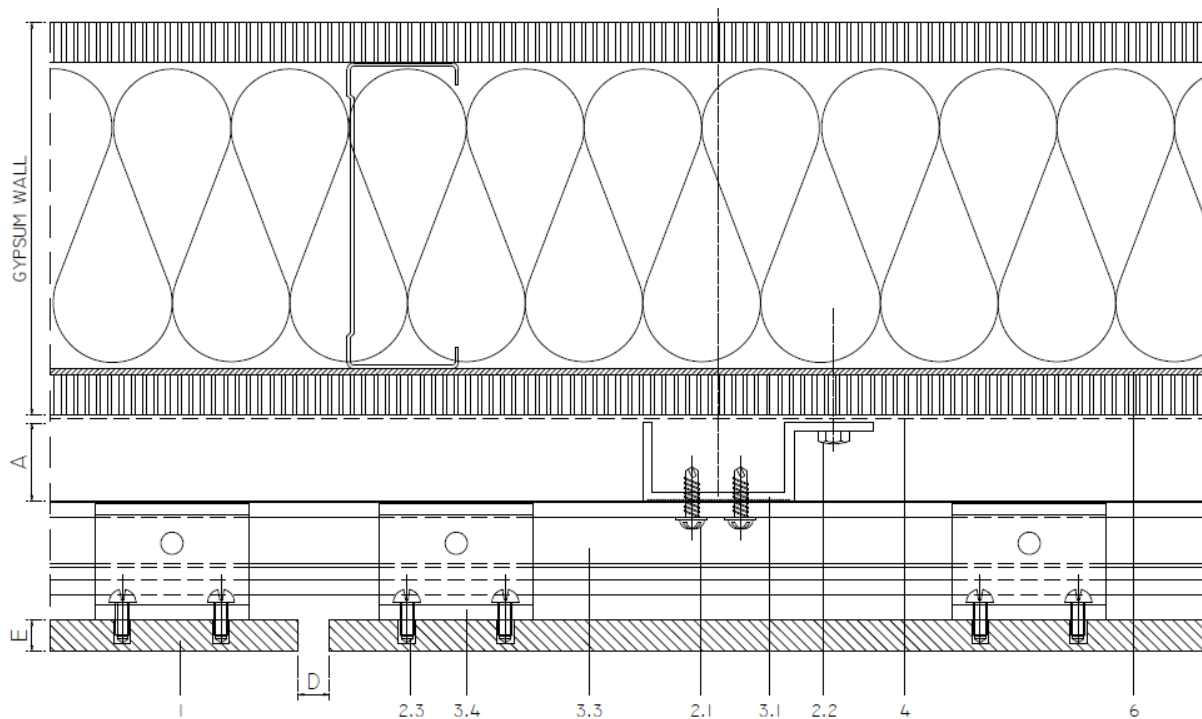
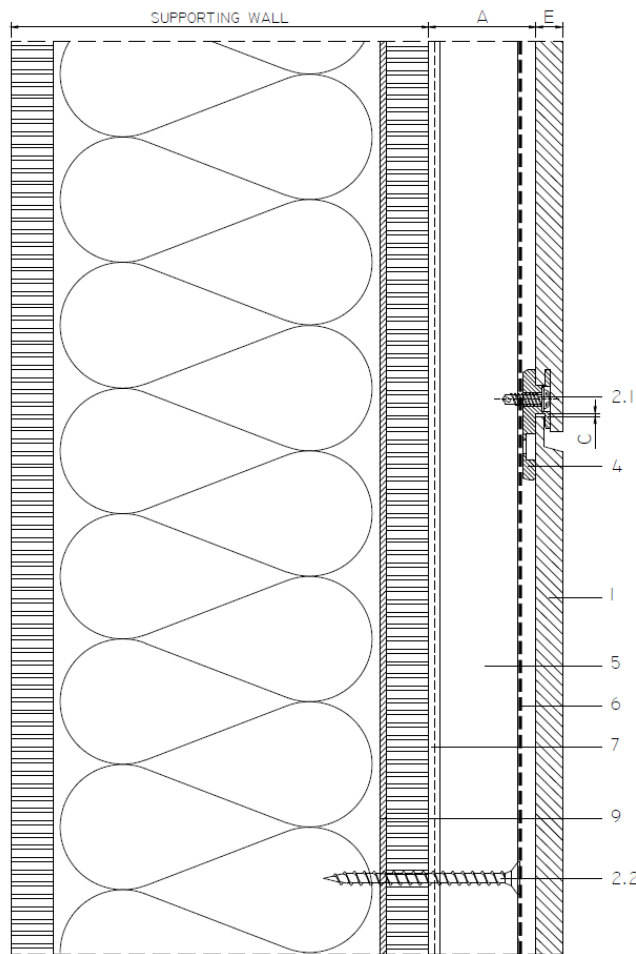


Figure 7 – Typical Installation – Horizontal Joint – Concealed Fasteners with Hangers



1	FACADE
2	SCREWS
2.1	CHANNEL FASTENER - BY OTHERS
2.2	WALL FIXING SCREW - BY OTHERS
2.3	FIXING BRACKET FASTENER - PANEL BACK
3	PROFILES
3.1	ALUMINUM J PROFILE
3.2	ALUMINUM HAT PROFILE
3.3	HORIZONTAL CARRIER RAIL
3.4	PANEL FIXING BRACKET
3.5	JAMB PROFILE - BY OTHERS
3.6	SILL PROFILE - BY OTHERS
3.7	CORONATION PROFILE - BY OTHERS
4	WATER RESISTANT BARRIER - BY OTHERS
5	VENT. SCREEN - BY OTHERS
6	STEEL BACKING PLATE - BY OTHERS
A	REQUIRED MIN. AIR CHAMBER $\geq 1"$ (25.4MM)
B	CIRCULATION OF AIR $\geq 3/4"$ (20MM)
D	EXPANSION JOINT $1/4" - 3/8"$ (6-10MM)
E	PANEL THICKNESS $3/8" - 1/2"$ (10-12MM)

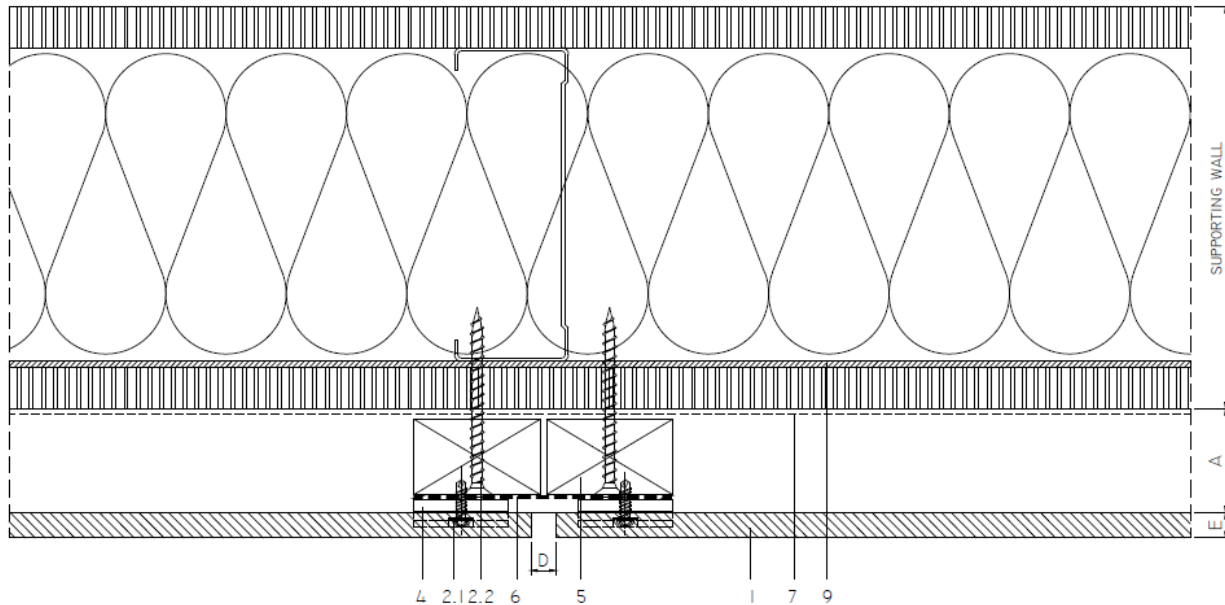
Figure 8 – Vertical Joint – Concealed Fasteners with Hangers



1	FACADE
2	SCREWS
2.1	CLIP FIXING SCREW
2.2	WALL FIXING SCREW - BY OTHERS
2.3	TWD-S SCREW
2.4	WASHER 1/8" (3MM) - BY OTHERS
2.5	VENT. SCREEN FIXING SCREW - BY OTHERS
3	PROFILES
3.1	CORONATION PROFILE - BY OTHERS
3.2	SILL PROFILE - BY OTHERS
3.3	JAMB PROFILE - BY OTHERS
3.4	CORNER PROFILE - BY OTHERS
4	FIXING CLIP
5	WOOD BATTEN - BY OTHERS
6	EPDM TAPE - BY OTHERS
7	WATER RESISTANT BARRIER - BY OTHERS
8	VENT. SCREEN - BY OTHERS
9	STEEL BACKING PLATE - BY OTHERS

A	REQUIRED MIN. AIR CHAMBER $\geq 1"$ (25.4MM)
B	CIRCULATION OF AIR $\geq 1"$ (25.4MM)
C	HORIZONTAL EXPANSION JOINT 1/16" (1MM)
D	VERTICAL EXPANSION JOINT 5/16" (8MM)
E	PANEL THICKNESS 5/16" (8MM)

Figure 9 – Typical Installatoin – Horizontal Joint - Siding System



1	FACADE
2	SCREWS
2.1	CLIP FIXING SCREW
2.2	WALL FIXING SCREW - BY OTHERS
2.3	TWD-S SCREW
2.4	WASHER 1/8" (3MM) - BY OTHERS
2.5	VENT. SCREEN FIXING SCREW - BY OTHERS
3	PROFILES
3.1	CORONATION PROFILE - BY OTHERS
3.2	SILL PROFILE - BY OTHERS
3.3	JAMB PROFILE - BY OTHERS
3.4	CORNER PROFILE - BY OTHERS
4	FIXING CLIP
5	WOOD BATTEN - BY OTHERS
6	EPDM TAPE - BY OTHERS
7	WATER RESISTANT BARRIER - BY OTHERS
8	VENT. SCREEN - BY OTHERS
9	STEEL BACKING PLATE - BY OTHERS
A	REQUIRED MIN. AIR CHAMBER $\geq 1"$ (25.4MM)
B	CIRCULATION OF AIR $\geq 1"$ (25.4MM)
C	HORIZONTAL EXPANSION JOINT 1/16" (1MM)
D	VERTICAL EXPANSION JOINT 5/16" (8MM)
E	PANEL THICKNESS 5/16" (8MM)

Figure 10 – Vertical Joint – Siding System