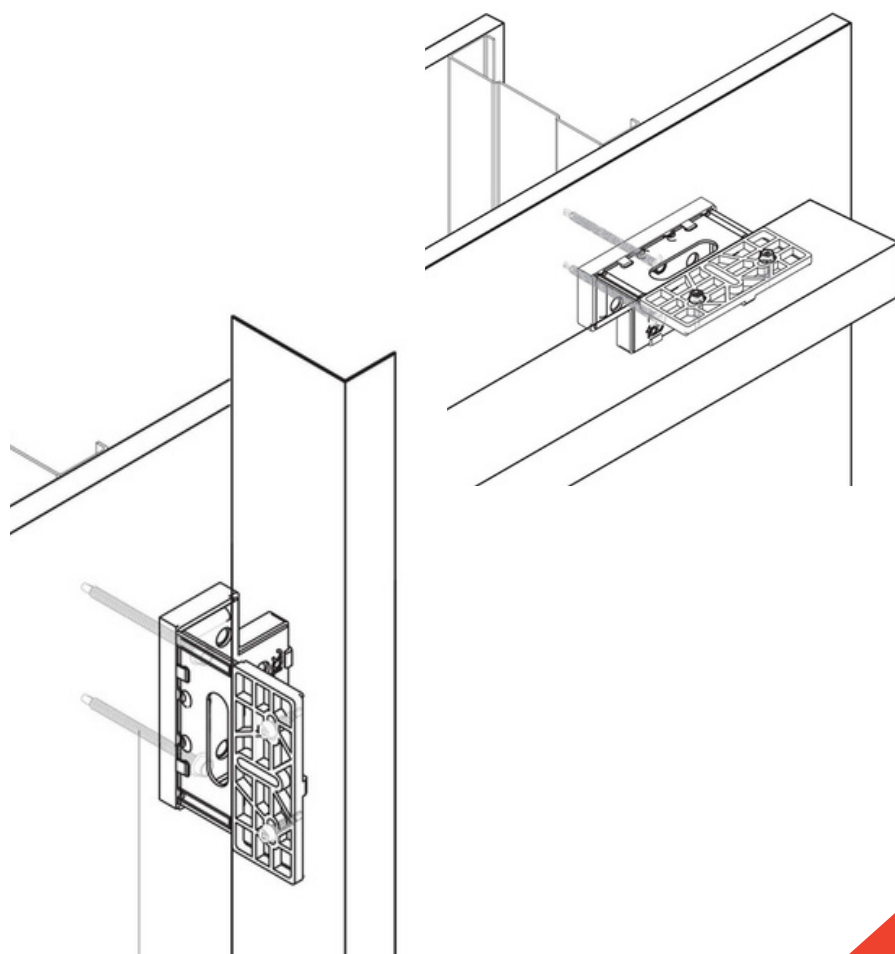


TAC2.1 THERMAL ASSEMBLY CLIP

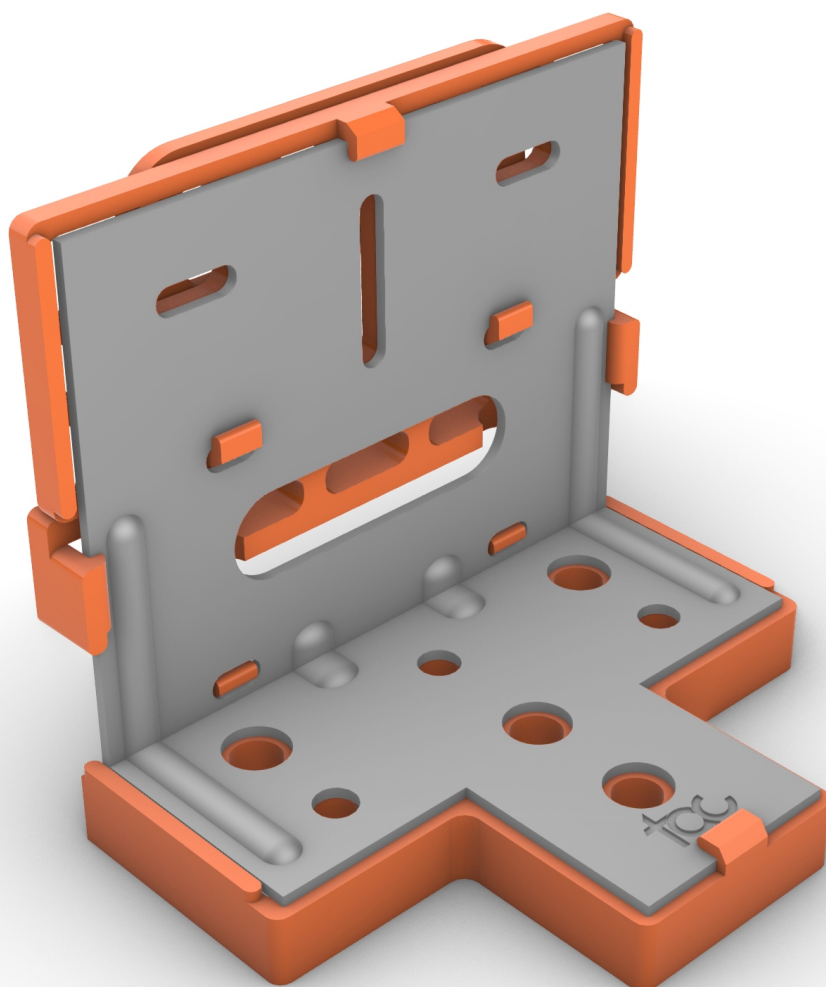


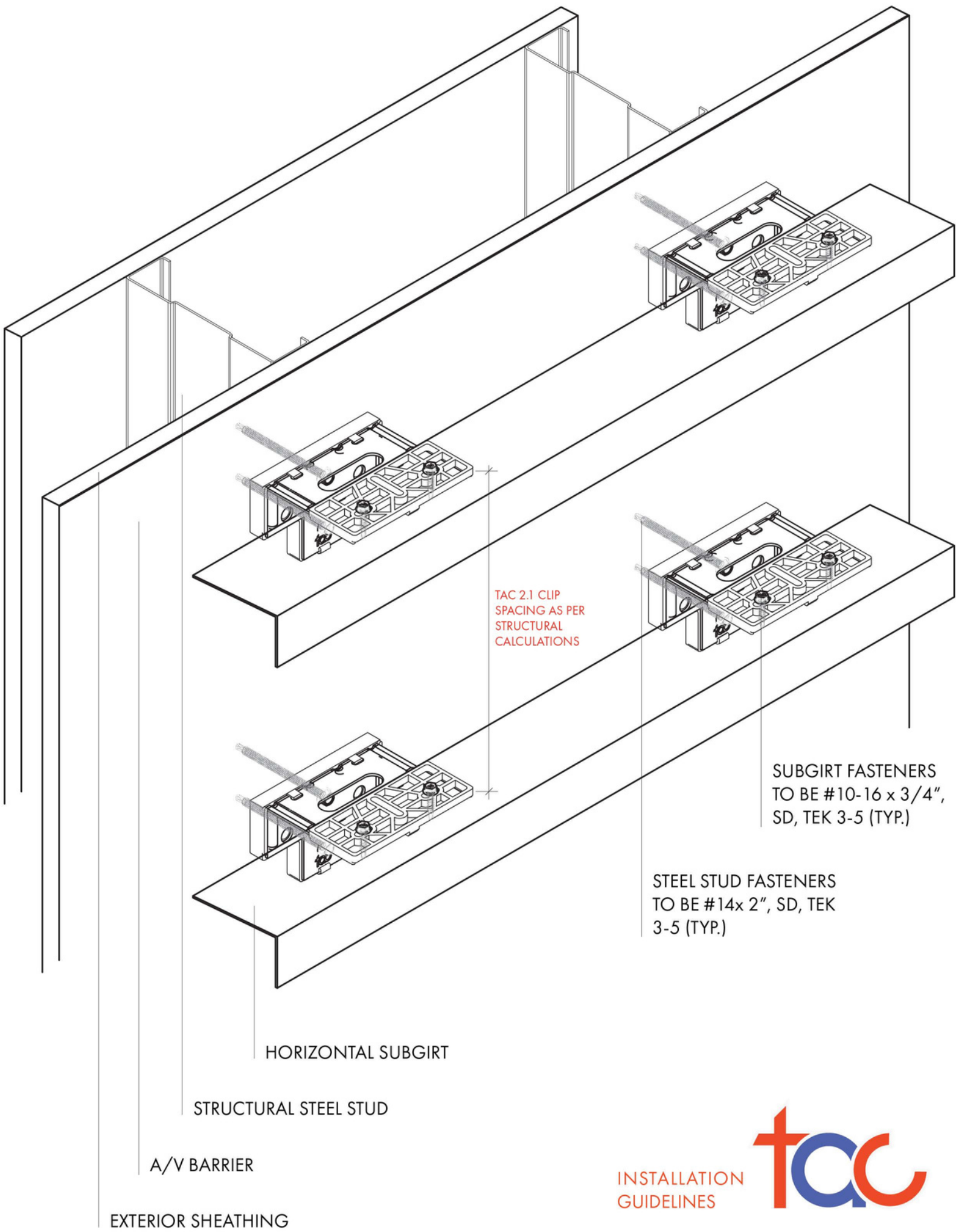


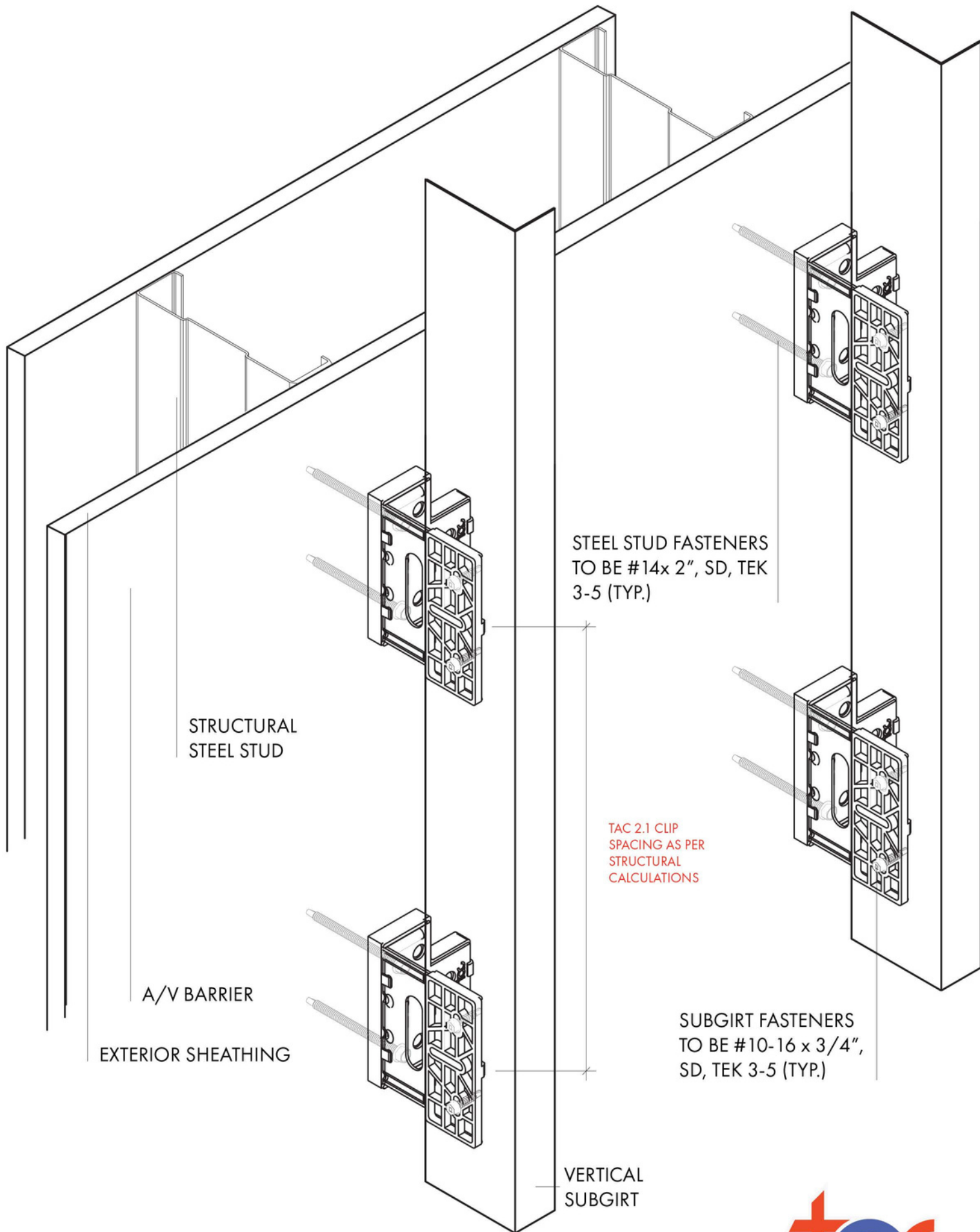
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TAC2.1 THERMAL ASSEMBLY CLIP







STRUCTURAL
STEEL STUD

A/V BARRIER

EXTERIOR SHEATHING

STEEL STUD FASTENERS
TO BE #14x 2", SD, TEK
3-5 (TYP.)

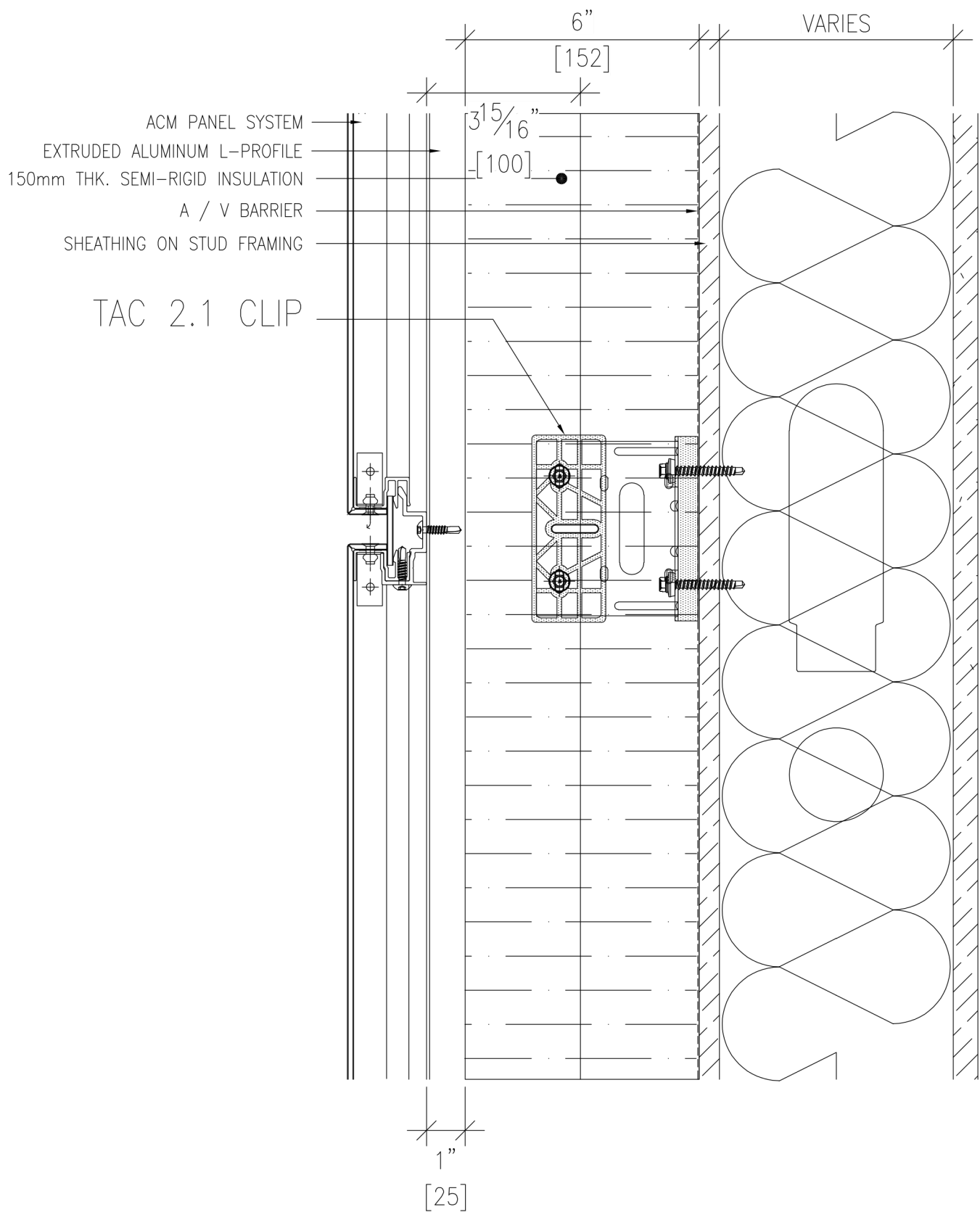
TAC 2.1 CLIP
SPACING AS PER
STRUCTURAL
CALCULATIONS

SUBGIRT FASTENERS
TO BE #10-16 x 3/4",
SD, TEK 3-5 (TYP.)

VERTICAL
SUBGIRT

INSTALLATION
GUIDELINES

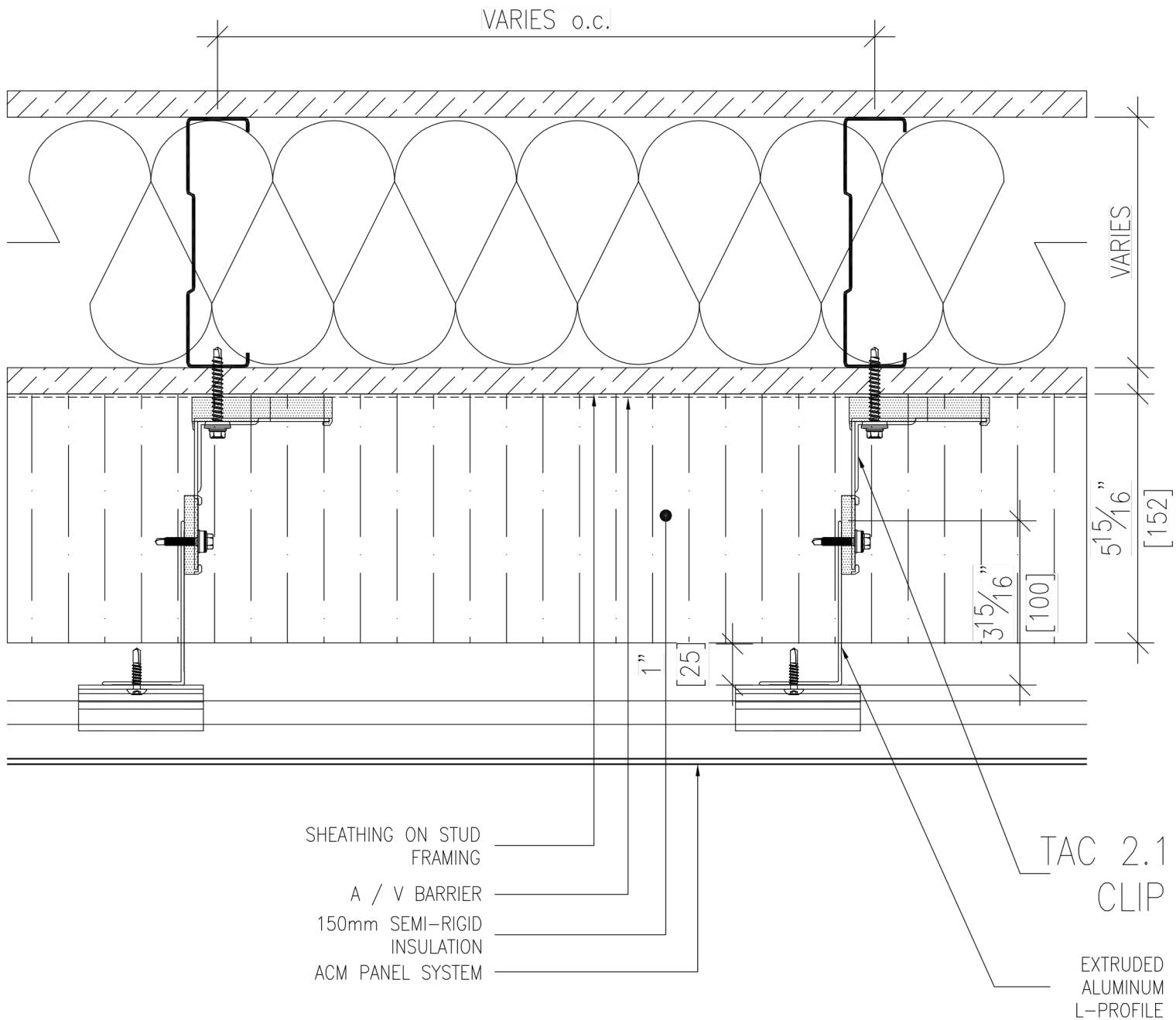




1B
D02

TAC 2.1 CLIP PANEL CONNECTION SECTION DETAIL

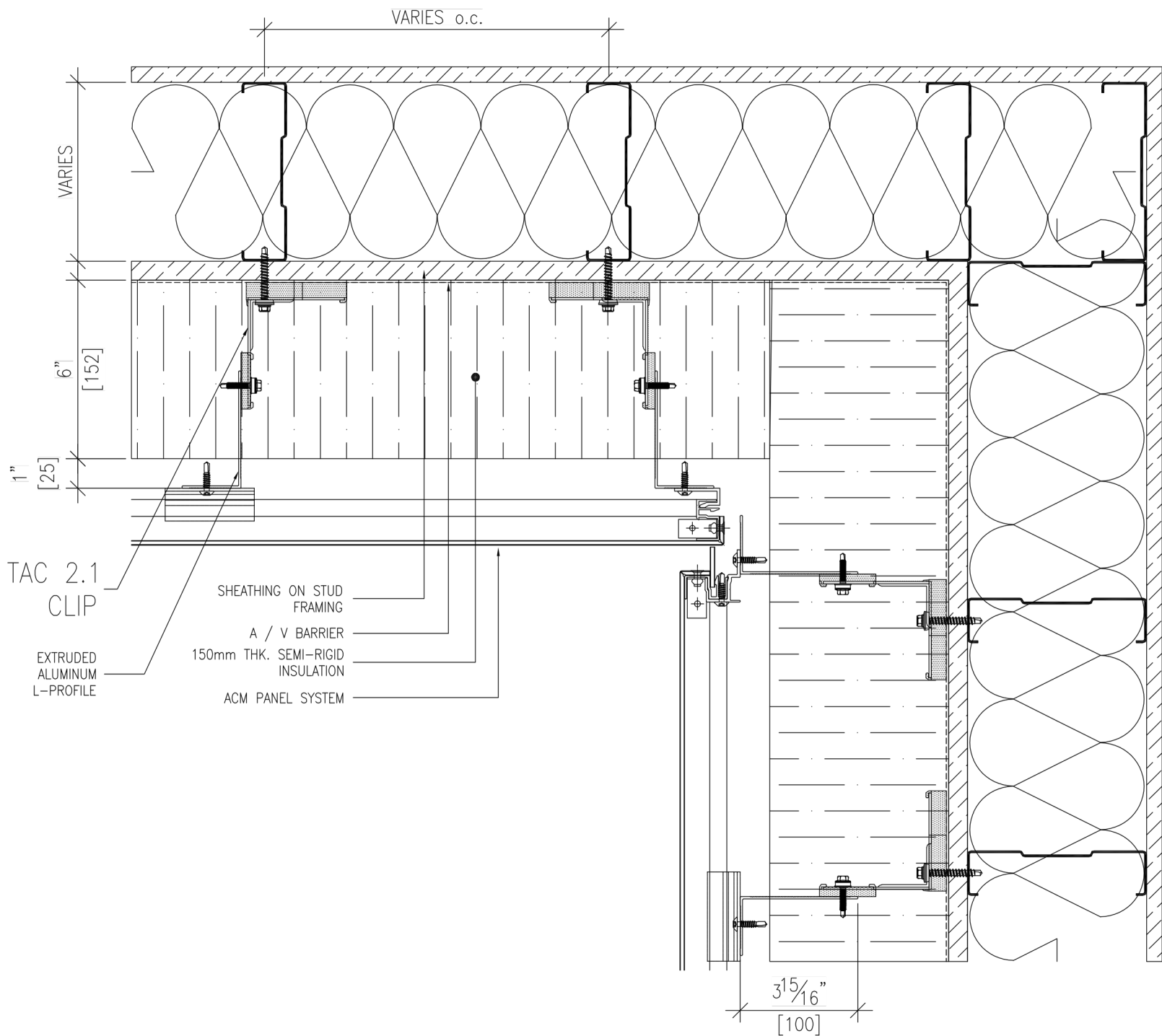
ACM PANEL SYSTEM – VERTICAL SUBGIRTS



1B
D01

TAC 2.1 CLIP PANEL CONNECTION PLAN DETAIL

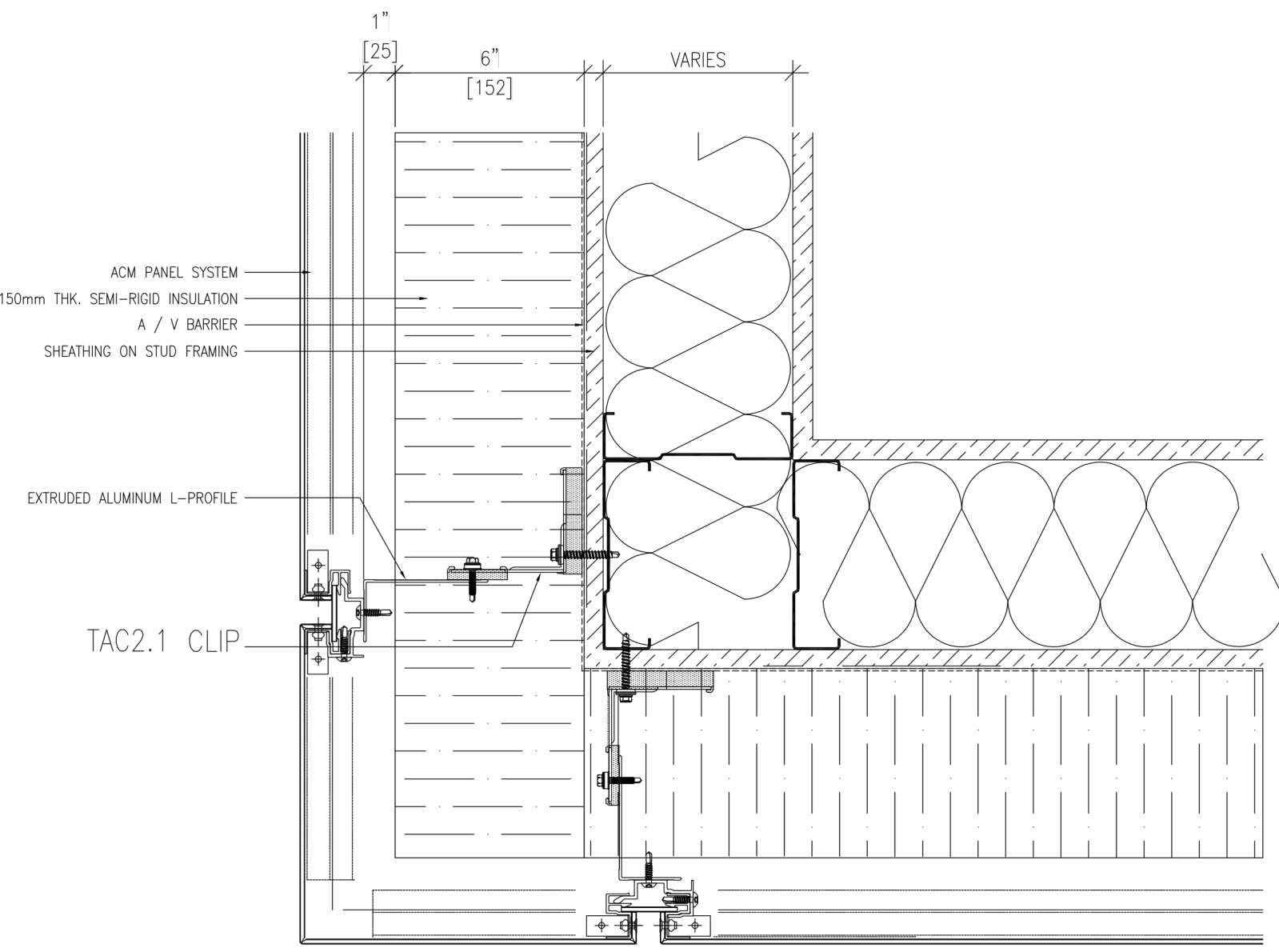
ACM PANEL SYSTEM – VERTICAL SUBGIRTS



1B
D03

TAC 2.1 CLIP INSIDE CORNER PLAN DETAIL

ACM PANEL SYSTEM - VERTICAL SUBGIRTS



1B
D04

TAC2.1 CLIP OUTSIDE CORNER PLAN DETAIL
ACM PANEL SYSTEM – VERTICAL SUBGIRTS

3. THERMAL RESULTS FOR TAC2.1 THERMAL ASSEMBLY CLIP

The assembly U-values and effective R-values for the evaluated wall assemblies are shown below in Table 3.1 to 3.4. Further assembly information, including dimensions and materials are given in Appendix C. Example temperature profiles for each configuration are provided in Appendix D.

Table 3.1: Thermal Performance of **Exterior Insulated Steel Stud Wall Assemblies** with TAC2.1 Thermal Assembly Clip and **Horizontal Girt** Cladding Attachment System

Exterior Insulation Thickness inch (mm)	Exterior Insulation Nominal R-value ft ² hr °F/Btu (m ² K/W)	Bracket Spacing		Overall U-value Btu/h ft ² °F (W/m ² K)	Effective R-value ft ² hr °F/Btu (m ² K/W)
		Horizontal inch (mm)	Vertical inch (mm)		
4 (102)	R-16.8 (2.96 RSI)	16 (406)	24 (610)	0.067 (0.38)	R-14.9 (2.62 RSI)
4 (102)	R-16.8 (2.96 RSI)	16 (406)	36 (914)	0.062 (0.35)	R-16.2 (2.86 RSI)
4 (102)	R-16.8 (2.96 RSI)	16 (406)	48 (1219)	0.059 (0.33)	R-17.0 (3.00 RSI)
5 (127)	R- 21.0 (3.70 RSI)	16 (406)	24 (610)	0.059 (0.34)	R-16.8 (2.96 RSI)
5 (127)	R- 21.0 (3.70 RSI)	16 (406)	36 (914)	0.053 (0.30)	R-18.8 (3.32 RSI)
5 (127)	R- 21.0 (3.70 RSI)	16 (406)	48 (1219)	0.050 (0.29)	R-19.8 (3.49 RSI)

Table 3.2: Thermal Performance of **Exterior Insulated Steel Stud Wall Assemblies** with TAC2.1 Thermal Assembly Clip and **Vertical Girt** Cladding Attachment System

Exterior Insulation Thickness inch (mm)	Exterior Insulation Nominal R-value ft ² hr °F/Btu (m ² K/W)	Bracket Spacing		Overall U-value Btu/h ft ² °F (W/m ² K)	Effective R-value ft ² hr °F/Btu (m ² K/W)
		Horizontal inch (mm)	Vertical inch (mm)		
4 (102)	R-16.8 (2.96 RSI)	16 (406)	24 (610)	0.070 (0.40)	R-14.3 (2.52 RSI)
4 (102)	R-16.8 (2.96 RSI)	16 (406)	36 (914)	0.063 (0.36)	R-15.9 (2.80 RSI)
4 (102)	R-16.8 (2.96 RSI)	16 (406)	48 (1219)	0.062 (0.35)	R-16.2 (2.86 RSI)
5 (127)	R- 21.0 (3.70 RSI)	16 (406)	24 (610)	0.063 (0.36)	R-15.9 (2.80 RSI)
5 (127)	R- 21.0 (3.70 RSI)	16 (406)	36 (914)	0.057 (0.33)	R-17.4 (3.07 RSI)
5 (127)	R- 21.0 (3.70 RSI)	16 (406)	48 (1219)	0.055 (0.31)	R-18.3 (3.22 RSI)

Table 3.3: Thermal Performance of **Exterior Insulated Concrete Block Wall Assemblies** with TAC2.1 Thermal Assembly Clip and **Horizontal Girt** Cladding Attachment System

Exterior Insulation Thickness inch (mm)	Exterior Insulation Nominal R-value ft ² hr °F/Btu (m ² K/W)	Bracket Spacing		Overall U-value Btu/h ft ² °F (W/m ² K)	Effective R-value ft ² hr °F/Btu (m ² K/W)
		Horizontal inch (mm)	Vertical inch (mm)		
4 (102)	R-16.8 (2.96 RSI)	16 (406)	24 (610)	0.071 (0.40)	R-14.1 (2.49 RSI)
4 (102)	R-16.8 (2.96 RSI)	16 (406)	36 (914)	0.065 (0.37)	R-15.5 (2.72 RSI)
4 (102)	R-16.8 (2.96 RSI)	16 (406)	48 (1219)	0.061 (0.35)	R-16.3 (2.87 RSI)
5 (127)	R- 21.0 (3.70 RSI)	16 (406)	24 (610)	0.063 (0.36)	R-16.0 (2.81 RSI)
5 (127)	R- 21.0 (3.70 RSI)	16 (406)	36 (914)	0.056 (0.32)	R-17.8 (3.14 RSI)
5 (127)	R- 21.0 (3.70 RSI)	16 (406)	48 (1219)	0.052 (0.30)	R-19.1 (3.36 RSI)

Table 3.4: Thermal Performance of **Exterior Insulated Concrete Block Wall Assemblies** with TAC2.1 Thermal Assembly Clip and **Vertical Girt** Cladding Attachment System

Exterior Insulation Thickness inch (mm)	Exterior Insulation Nominal R-value ft ² hr °F/Btu (m ² K/W)	Bracket Spacing		Overall U-value Btu/h ft ² °F (W/m ² K)	Effective R-value ft ² hr °F/Btu (m ² K/W)
		Horizontal inch (mm)	Vertical inch (mm)		
4 (102)	R-16.8 (2.96 RSI)	16 (406)	24 (610)	0.074 (0.42)	R-13.6 (2.39 RSI)
4 (102)	R-16.8 (2.96 RSI)	16 (406)	36 (914)	0.068 (0.38)	R-14.8 (2.61 RSI)
4 (102)	R-16.8 (2.96 RSI)	16 (406)	48 (1219)	0.065 (0.37)	R-15.5 (2.72 RSI)
5 (127)	R- 21.0 (3.70 RSI)	16 (406)	24 (610)	0.066 (0.38)	R-15.1 (2.66 RSI)
5 (127)	R- 21.0 (3.70 RSI)	16 (406)	36 (914)	0.060 (0.34)	R-16.6 (2.93 RSI)
5 (127)	R- 21.0 (3.70 RSI)	16 (406)	48 (1219)	0.057 (0.32)	R-17.5 (3.08 RSI)

3. THERMAL RESULTS FOR TAC 2.1 THERMAL ASSEMBLY CLIP

The assembly U-values and effective R-values for the evaluated wall assemblies are shown below in Table 3.1 to 3.6. Further assembly information, including dimensions and materials are given in Appendix C. Example temperature profiles for each configuration are provided in Appendix D.

Table 3.1: Thermal Performance of **Exterior Insulated Steel Stud Wall Assemblies** with TAC 2.1 Thermal Assembly Clip and **Horizontal Girt**

Exterior Insulation Thickness inch (mm)	Exterior Insulation Nominal R-value ft ² hr °F/Btu (m ² K/W)	Bracket Spacing		Overall U-value Btu/h ft ² °F (W/m ² K)	Effective R-Value ft ² hr °F/Btu (m ² K/W)
		Horizontal inch (mm)	Vertical inch (mm)		
6 (152)	R-25.2 (4.44 RSI)	16 (406)	24 (610)	0.053 (0.30)	R-19.0 (3.34 RSI)
6 (152)	R-25.2 (4.44 RSI)	16 (406)	36 (914)	0.047 (0.27)	R-21.3 (3.75 RSI)
6 (152)	R-25.2 (4.44 RSI)	16 (406)	48 (1219)	0.043 (0.25)	R-23.1 (4.06 RSI)

Table 3.2: Thermal Performance of **Exterior Insulated Steel Stud Wall Assemblies** with TAC 2.1 Thermal Assembly Clip and **Vertical Girt**

Exterior Insulation Thickness inch (mm)	Exterior Insulation Nominal R-value ft ² hr °F/Btu (m ² K/W)	Bracket Spacing		Overall U-value Btu/h ft ² °F (W/m ² K)	Effective R-Value ft ² hr °F/Btu (m ² K/W)
		Horizontal inch (mm)	Vertical inch (mm)		
6 (152)	R-25.2 (4.44 RSI)	16 (406)	24 (610)	0.056 (0.32)	R-17.9 (3.15 RSI)
6 (152)	R-25.2 (4.44 RSI)	16 (406)	36 (914)	0.051 (0.29)	R-19.7 (3.47 RSI)
6 (152)	R-25.2 (4.44 RSI)	16 (406)	48 (1219)	0.048 (0.27)	R-20.8 (3.66 RSI)

Table 3.3: Thermal Performance of **Split Insulated Steel Stud Wall Assemblies** with **R-20 Batt Insulation**, TAC 2.1 Thermal Assembly Clip and **Horizontal Girt**

Exterior Insulation Thickness inch (mm)	Exterior Insulation Nominal R-value ft ² hr °F/Btu (m ² K/W)	Bracket Spacing		Overall U-value Btu/h ft ² °F (W/m ² K)	Effective R-Value ft ² hr °F/Btu (m ² K/W)
		Horizontal inch (mm)	Vertical inch (mm)		
6 (152)	R-25.2 (4.44 RSI)	16 (406)	24 (610)	0.038 (0.21)	R-26.5 (4.66 RSI)
6 (152)	R-25.2 (4.44 RSI)	16 (406)	36 (914)	0.035 (0.20)	R-28.9 (5.10 RSI)
6 (152)	R-25.2 (4.44 RSI)	16 (406)	48 (1219)	0.032 (0.18)	R-30.8 (5.43 RSI)

Table 3.4: Thermal Performance of **Split Insulated Steel Stud Wall Assemblies with R-20 Batt Insulation**, TAC 2.1 Thermal Assembly Clip and **Vertical Girt**

Exterior Insulation Thickness inch (mm)	Exterior Insulation Nominal R-value ft ² hr °F/Btu (m ² K/W)	Bracket Spacing		Overall U-value Btu/h ft ² °F (W/m ² K)	Effective R-Value ft ² hr °F/Btu (m ² K/W)
		Horizontal inch (mm)	Vertical inch (mm)		
6 (152)	R-25.2 (4.44 RSI)	16 (406)	24 (610)	0.040 (0.23)	R-25.3 (4.45 RSI)
6 (152)	R-25.2 (4.44 RSI)	16 (406)	36 (914)	0.037 (0.21)	R-27.3 (4.81 RSI)
6 (152)	R-25.2 (4.44 RSI)	16 (406)	48 (1219)	0.035 (0.20)	R-28.4 (5.00 RSI)

Table 3.5: Thermal Performance of **Exterior Insulated Concrete Block Wall Assemblies** with TAC 2.1 Thermal Assembly Clip and **Horizontal Girt**

Exterior Insulation Thickness inch (mm)	Exterior Insulation Nominal R-value ft ² hr °F/Btu (m ² K/W)	Bracket Spacing		Overall U-value Btu/h ft ² °F (W/m ² K)	Effective R-Value ft ² hr °F/Btu (m ² K/W)
		Horizontal inch (mm)	Vertical inch (mm)		
6 (152)	R-25.2 (4.44 RSI)	16 (406)	24 (610)	0.055 (0.31)	R-18.2 (3.20 RSI)
6 (152)	R-25.2 (4.44 RSI)	16 (406)	36 (914)	0.049 (0.28)	R-20.6 (3.62 RSI)
6 (152)	R-25.2 (4.44 RSI)	16 (406)	48 (1219)	0.045 (0.26)	R-22.1 (3.89 RSI)

Table 3.6: Thermal Performance of **Exterior Insulated Concrete Block Wall Assemblies** with TAC 2.1 Thermal Assembly Clip and **Vertical Girt**

Exterior Insulation Thickness inch (mm)	Exterior Insulation Nominal R-value ft ² hr °F/Btu (m ² K/W)	Bracket Spacing		Overall U-value Btu/h ft ² °F (W/m ² K)	Effective R-Value ft ² hr °F/Btu (m ² K/W)
		Horizontal inch (mm)	Vertical inch (mm)		
6 (152)	R-25.2 (4.44 RSI)	16 (406)	24 (610)	0.059 (0.33)	R-17.0 (3.00 RSI)
6 (152)	R-25.2 (4.44 RSI)	16 (406)	36 (914)	0.053 (0.30)	R-18.8 (3.32 RSI)
6 (152)	R-25.2 (4.44 RSI)	16 (406)	48 (1,219)	0.050 (0.28)	R-20.1 (3.54 RSI)