28 August 2019

WINTECH
TESTING & CERTIFICATION
by UL

UKAS TESTING 2223

Technical Report – R20129
CWCT – Standard for systemised building envelopes – 2005

Wienerberger Ltd

SVK Fibre Cement Facades

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www.wintechtesting.com | Tel: +44 (0)1952 586580

Contents

1. Introduction

This report describes tests carried in order to determine the weather tightness of the sample with respect to water penetration, wind and impact resistance on sample supplied as follow:

Test Details	
Customer:	Wienerberger Ltd Wienerberger House Brooks Drive Cheadle Royal Business Park Cheadle Cheshire SK8 3SA
Product Tested:	SVK Fibre Cement Facades
Date of Test:	11th, 25th and 26th July 2019
Test Conducted at:	Wintech Engineering Limited Halesfield 2 Telford Shropshire TF7 4QH
Test Conducted by:	R Cadwallader- Test Engineer K Alden- Test Technician/Fabrication Support D Reynolds – Senior Test Engineer J Dove – Laboratory Apprentice
Test Supervised by:	M Cox – Engineering Leader
Test Witnessed by:	M Franklin – Wienerberger Ltd

Report Authorisation	
Report Compiled by:	D Price – Senior Test Engineer
Authorised by:	M Wass – Technical Manager

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2. Summary of Results

2.1 The test methods

The test methods were in accordance with the following standards:

CWCT Standard Test Methods for Building Envelopes - December 2005	
Water Penetration – Dynamic Aero Engine	CWCT Section 7
Water Penetration – Hose	CWCT Section 9
Wind Resistance – Serviceability	CWCT Section 11
Wind Resistance – Safety	CWCT Section 12
Impact – Retention to Performance & Safety to Persons	CWCT TN 76

2.2 Summary of Results

The following summarises the results of testing carried out, in accordance with the relevant testing and classification standards.

The performance of the sample tested has been assessed against the criteria described in below standards. The results as reported will be used to determine the conformance or non-conformance with the specification without making any consideration of the uncertainty.

Test Type	Peak Test Pressure	Result	Date of Test
Test 1 – Water Penetration (Dynamic Aero Engine)	600 Pa	Pass	11.07.19
Test 2 – Water Penetration - Hose	-	Pass	11.07.19
Test 3 – Wind Resistance (Serviceability) – Backing Wall	2400 Pa	Pass	25.07.19
Test 4 – Wind Resistance (Serviceability) – Cavity	2400 Pa	Pass	25.07.19
Test 5 - Wind Resistance – Safety – Backing Wall	3600 Pa	Pass	25.07.19
Test 6 - Wind Resistance – Safety – Cavity	3600 Pa	Pass	25.07.19
Test 7 - Impact Resistance – Retention of Performance	Cat B	Class 1	25.07.19 26.07.19
Test 8 - Impact Resistance – Safety to Persons	Cat B	High Risk	25.07.19 26.07.19
Dismantle, Inspect & Report	**Sample Passed**		

More comprehensive details are reported in Section 6.

These results are valid only for the conditions under which the test was conducted.

All measurement devices, instruments and other relevant equipment were calibrated and traceable to National Standards.

3. Description of Test Sample

The description of the test sample in this section has been supplied by the customer and has not been verified by Wintech Engineering Limited.

See Section 7 for test sample drawings as supplied by Wienerberger Ltd.

Product Description

Full product name:	SVK Fibre Cement Façades
Product type:	Fibre cement
Product description:	Façade cladding panels
Manufactured by:	SVK, Aerschotstraat 114, B-9100 Sint-Niklaas, Belgium

Support Framing and bracketry

Material:	Aluminium
Finish:	None
Vertical rail Ref:	FastFrame FIX/ANG/HD/60/40 FastFrame FIX/TEE/HD/100/60
Horizontal rail Ref:	Secret Fix C Rail, FastFrame ref: G-C06602020
Fixing method (rail to backing wall):	NA
Fixing Ref:	NA
Fixing method (rail to rail):	A2 Austenitic stainless-steel fasteners
Fixing Ref:	JT4-6-5.5X22 A14
Max Span between vertical rails:	634mm
Max Span between horizontal rails:	293mm
Brackets ref:	FastFrame FF FIX/BR/65, FF FIX/BRD/65, FF FIX/BR/80, FF FIX/BRD/80

Panels/tiles

Material:	Fibre cement
Material ref (source, spec):	Puro Plus
Finish:	None
Thickness:	8mm
Reinforcing:	None
Max height of panel:	3070mm
Max width of panel:	1220mm
Max size of panel by area (m2):	3.75m^2
Fixing method:	rivets
Bracket/clip ref:	NA
Screws/fixings ref:	ALU/RVS HEAD 16mm 5.0x18mm
Fixing method:	Invisible Mechanical Fix
Bracket/clip ref:	Standard panel hangers - FastFrame ref: G-C06602220.80.20 Adjustable/fixed hangers - FastFrame ref: G-C06602220.80.22 With neoprene washers, ref: Z-ZG06005020
Screws/fixings ref:	Keil Undercut Anchors, ref: 555 020 856

Interface Details (curtain wall to window/door inserts)

Window interface detail:	Refer to detail drawings 8 and 9

Backing Wall

Structural support type:	Metsec SFS Framing
Insulation type:	None
Insulation thickness:	None
Airtight membrane:	NA
Watertight membrane:	A Proctor Group Ltd Wraptite Breather Membrane
Particle board detail:	Euroform 10mm A2 Versapanel cement bonded particle board
Sealants and tapes:	A Proctor Group Ltd Wraptite Breather Membrane
Fixings ref:	SFS to SFS - Ejot JT2-LH-6- 5.5 x 22 Particle board to SFS - Euroform Metal Fixings EMF1 Brackets to SFS - PCF/33/5.5x55

Drainage

Drainage type (pressure equalised etc.):	Open jointed rainscreen

Drawings

Drawing/s must be provides covering the below; -Full drawing of sample including front elevation -Cross Sections (Panels/Rails Etc.) -Hardware Locations -Fixings -Drainage Points Note: drawings are required to show all relevant dimensions.	Elevation and Sections Horizontal Sections SFS Layout Cladding Rails Bracket Layout Wall Build Up – Invisible Mechanical Fix Wall Build Up – Rivets Window Head and Cill Details Window Jamb Details Perimeter Closure Detail Panel Dimensions P1-P5 Panel Dimensions P6-P9 Panel Dimensions P10-P18
Test sample size:	7.7m H x 6.0m W

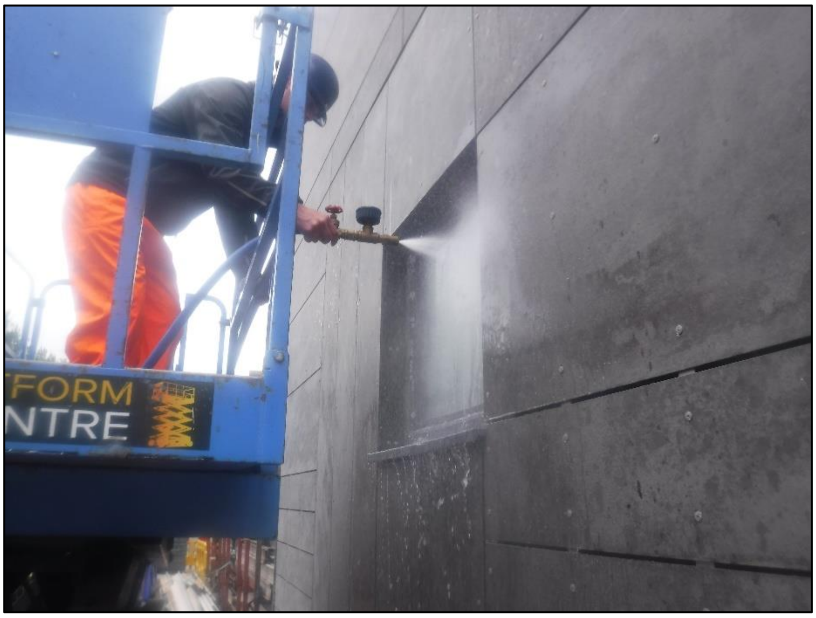
Confirmation

Please confirm that the samples provided for testing are representative of standard production?	Yes

Sample during testing

Photograph No. 1

Photograph No. 2



4. Test Arrangement

4.1 Test Chamber

A specimen, supplied for testing in accordance with CWCT requirements, was mounted on to a rigid test chamber constructed from steel, timber and plywood sheeting.

The pressure within the chamber was controlled by means of a centrifugal fan and a system of ducting and valves. The static pressure difference between the outside and inside of the chamber was measured by means of a differential pressure transmitter.

4.2 Instrumentation

4.2.1 Static Pressure

A differential pressure transmitter capable of measuring rapid changes in pressure to an accuracy within 2%, was used to measure the pressure differential across the sample.

4.2.2 Water Flow

An in-line flowmeter, mounted in the spray frame water supply system, was used to measure water flow to the test sample to an accuracy of ± 5%.

4.2.3 Deflection

Digital linear measurement devices with an accuracy of +/- 0.1 mm were used to measure deflection of principle framing members.

4.2.4 Temperature & Humidity

A digital data logger capable of measuring temperature with an accuracy of ± 1°C and humidity with an accuracy of ± 5 %Rh was used.

4.2.5 Barometric Pressure

A digital barometer capable of measuring barometric pressure with an accuracy of ± 1 kPa was used.

4.2.6 General

Electronic instrument measurements were scanned by a computer-controlled data logger, which processed and recorded the results.

4.3 Pressure Generation

4.3.1 Static Air Pressure

The air supply system comprised of a centrifugal fan assembly and associated ducting and control valves and was used to create both positive and negative static pressure differentials. The fan provided a constant airflow at the required pressure and period required for the tests.

Note: References are made to both positive and negative pressures in this document, it should be noted that in these instances, positive pressure is when pressure on the weather face of the sample is greater than that on the inside face and vice versa.

4.3.2 Dynamic Aero Engine

A wind generator was mounted adjacent to the external face of the test sample and used to create positive pressure differential during dynamic testing.

4.4 Water Spray System

4.4.1 Spray frame arrangement

A water spray system was used which comprised of nozzles spaced on a uniform grid, not more than 700 mm apart and mounted approximately 400 mm from the face of the sample. The nozzles provided a full cone pattern, as per the requirements outlined by CWCT. The system delivered water uniformly to the entire surface of the test sample at a rate of not less than 3.4 lt/m^2/min.

4.4.2 Hose arrangement

The water was applied using a brass nozzle which produced a solid cone of water droplets with a nominal spread of 30°. The nozzle was provided with a control valve and a pressure gauge between the valve and the nozzle. The water flow to the nozzle was adjusted to produce 22 $\pm$ 2 litre/min when the water pressure at the nozzle inlet was 220 $\pm$ 20kPa

4.5 Impactors

4.5.1 Soft (S1) Body Impactor

A spherical/conical, glass bead filled impactor with a mass of 50 Kg, as required in CWCT TN76

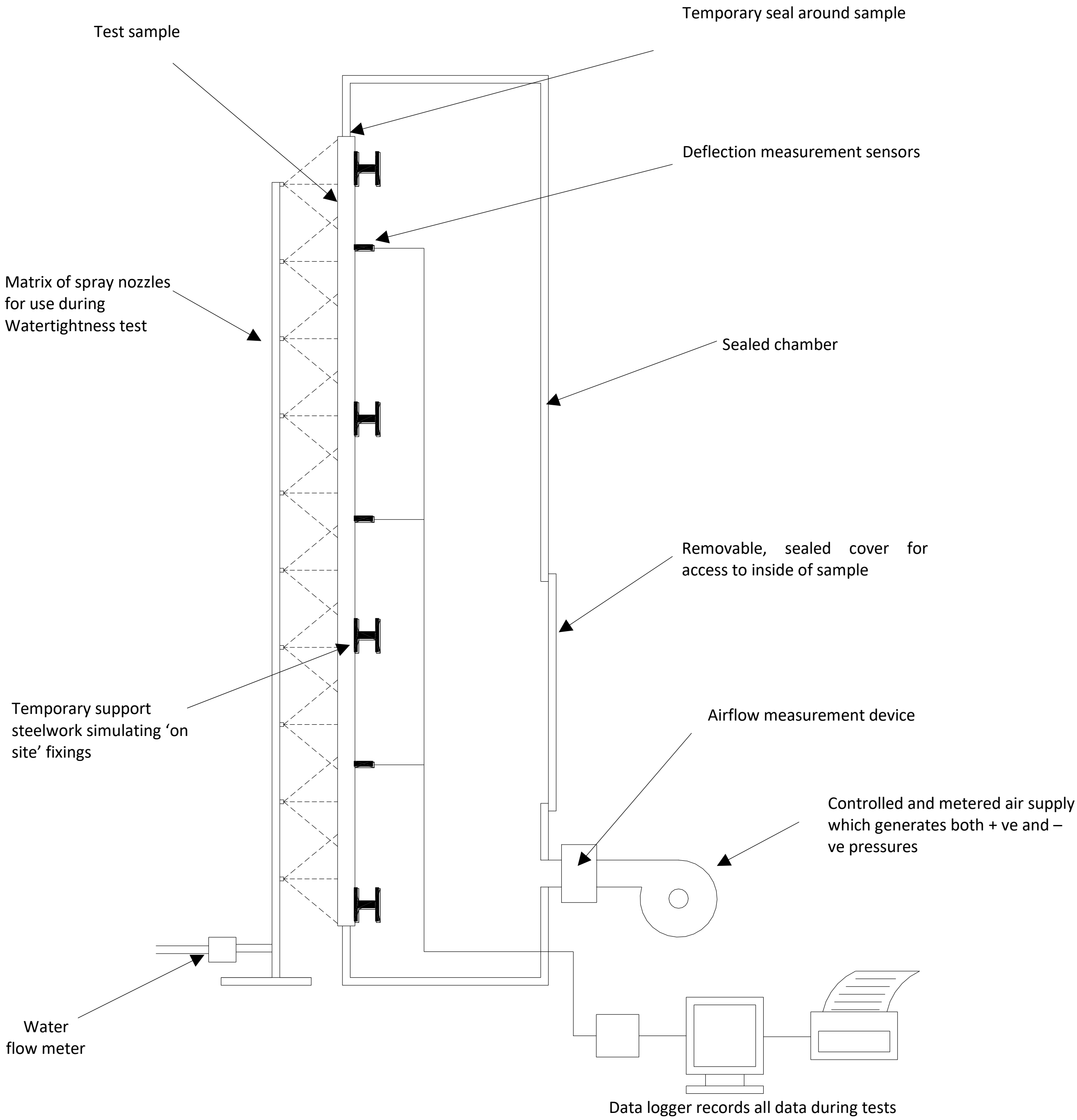
4.5.2 Hard (H2) Body Impactor

A steel ball with a diameter of 62.5 mm and a mass of 1.135 Kg, was released from the height, calculated to result in the required impact energies and allowed to fall under gravity until it impacted the designated test zone of the sample.

All measurement devices, instruments and other relevant equipment were calibrated and are traceable to National Standards.

Figure 1 – Test arrangement

General Arrangement of a Typical Test Assembly



5. Test Procedures

5.1 Sequence of Testing

Test 1 – Water Penetration - Dynamic Aero Engine
Test 2 – Water Penetration - Hose
Test 3 – Wind Resistance - Serviceability – Backing Wall
Test 4 – Wind Resistance - Serviceability - Cavity
Test 5 – Wind Resistance – Safety – Backing Wall
Test 6 – Wind Resistance – Safety – Cavity
Test 7 – Impact Resistance – Retention of Performance
Test 8 – Impact Resistance - Safety to Persons

5.2 Water Penetration

5.2.1 Water Penetration – Dynamic Aero Engine

Water was sprayed on to the sample as described in section 4.4.1.

The sample was subjected to airflow from the wind generator, as described in 4.3.2, which achieved average deflections equal to those produced at a static pressure differential of 600 Pa and these conditions were met for the specified 15 minutes.

The interior face of the sample was continuously monitored for water ingress throughout the test.

5.2.2 Water Penetration – Hose

Working from the exterior, the window pod interface detail between the window and SFS backing wall was wetted from the bottom up, progressing from the lowest horizontal joint then the intersecting vertical joints.

Water was applied to the sample for 5 mins per 1.5 m length of joint, as described in section 4.4.2.

Throughout the water penetration testing, and for 30 minutes following the cessation of spraying, the internal face of the sample was examined for water penetration. The emergence of any water on the inside face would be recorded, and the location and extent of any leakage noted on a drawing of the test specimen.

5.3 Wind Resistance

5.3.1 Wind Resistance - Serviceability

Three (3) preparatory pulses of 1200 Pa (50% of design wind load) positive pressure were applied to the test sample. Upon returning to 0 Pa, any opening parts of the test specimen were opened and closed five (5) times, secured in the closed position. All deflection sensors were then zeroed.

The sample was then subjected to positive pressure stages of 600, 1200, 1800 and 2400 Pa (25%, 50%, 75% and 100% of design wind load) and held at each step for 15 seconds (± 5 secs).

The deformation status of the sample was recorded at each step at characteristic points as stated in the standard, following which the pressure was reduced to 0 Pa and any residual deformations recorded within 1 hour of the test.

The above test sequence was then repeated, including preparation pulses, at a negative pressure differential.

Following each of the above tests, the sample was inspected for permanent deformation or damage.

5.3.2 Wind Resistance - Safety

Three preparatory positive air pressure pulses of 1200 Pa (50% of design wind load) positive pressure were applied to the test sample, and the deflection sensors were zeroed.

The sample was subjected to a positive pressure pulse of 3600 Pa (2400 Pa x 150%). The pressure was applied as rapidly as possible but in not less than 1 second and was maintained for 15 seconds (± 5 secs).

Following this pressure pulse and upon returning to zero (0) pressure, residual deformations were recorded and any change in the condition of the specimen was noted.

After the above sequence, a visual inspection was conducted, any moving parts were operated and any damage or functional defects noted.

The above test sequence was then repeated, including preparation pulses, at a negative pressure differential. The deflection sensors were zeroed following the preparation pulses.

Following each of the above tests, the sample was inspected for any permanent deformation or damage.

5.4 Impact Resistance

5.4.1 Impact Test Procedure – Retention of performance – CWCT TN 76

The test sample was tested using a drop height which corresponded with the required performance level.

The Impactors, as described in section 4.5.1 and 4.5.2, were suspended on a wire/Nylon cord and allowed to swing freely, without initial velocity, in a pendulum motion until they hit the sample normal to its face. Only one impact was performed at any single position during the hard body impacting and three times at each position during the soft body impacting.

Tests were conducted at the required impact energies as shown in section 6.3.1 and 6.3.2 to the selected impact points.

Drop heights were set to an accuracy of ± 10 mm.

5.4.2 Impact Test Procedure – Safety to persons – CWCT TN 76

The test sample was tested using a drop height which corresponded with the required performance level.

The Impactors, as described in section 4.5.1 and 4.5.2 were suspended on a wire/Nylon cord and allowed to swing freely, without initial velocity, in a pendulum motion until they hit the sample normal to its face. Only one impact was performed at any single position.

Tests were conducted at the required impact energies as shown in section 6.3.3 and 6.3.4 to the selected impact points and the impactors were not allowed to strike the sample more than once.

Drop heights were set to an accuracy of ± 10 mm.

6. Test Results

6.1 Water Penetration

6.1.1 Test 1 - Water Penetration – Dynamic Aero Engine

Temperatures (°C)	Water	9.7
	Ambient	17.8

Time Tested - Minutes	15
Water Collected - Litres	78.5

Observations

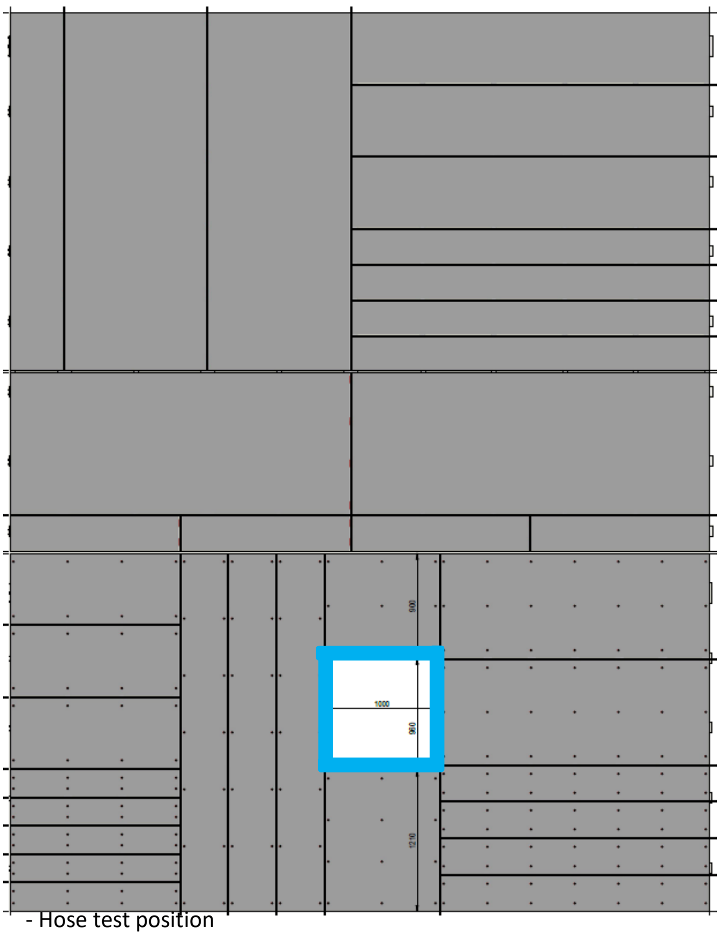
The sample was subjected to testing as described in section 5.2.1, for a period of not less than 15 minutes, during which no water leakage was observed through the sample. The water was also collected by means of a drainage system at the bottom of the sample, which was then weighed at the end of the test.

6.1.2 Test 2 – Water Penetration – Hose

The sample was subjected to hose testing, as described in section 5.2.2. During the test, and for 30 minutes following the cessation of spraying, the sample was monitored for water ingress and none was found.

Figure 2

Hose Test Areas



- Hose test position

View from Outside
Not to Scale

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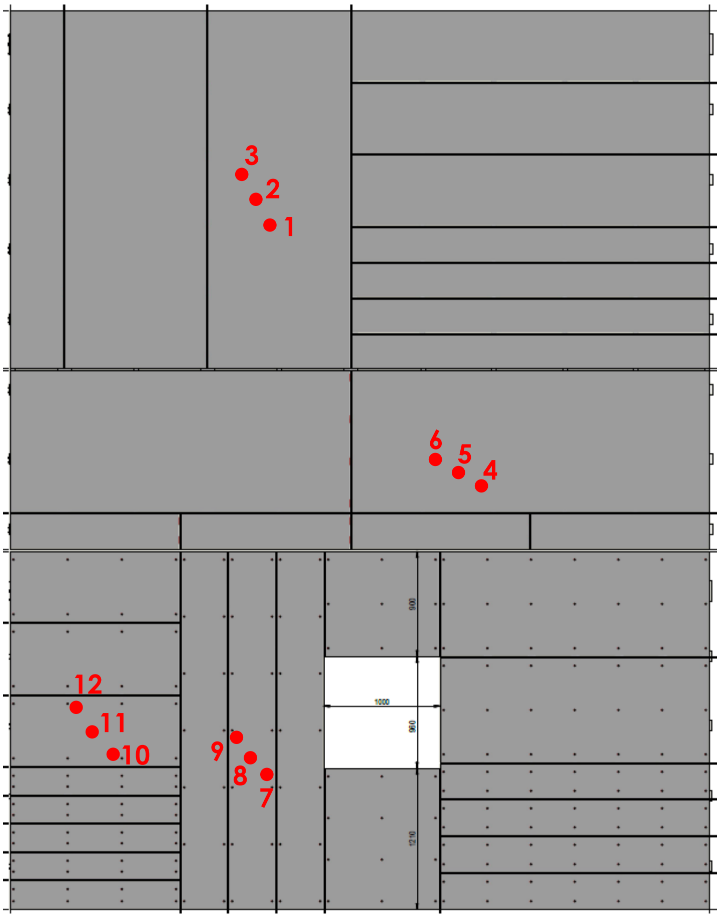
6.2 Wind Resistance

Probe Group Identification	Calculation of deflection
Group A comprised of probes 1, 2 & 3	= Probe 2 – ((Probe 1 + Probe 3)/2)
Group B comprised of probes 4, 5 & 6	= Probe 5 – ((Probe 4 + Probe 6)/2)
Group C comprised of probes 7, 8 & 9	= Probe 8 – ((Probe 7 + Probe 9)/2)
Group D comprised of probes 10, 11 & 12	= Probe 11 – ((Probe 10 + Probe 12)/2)

An inspection carried out following tests 3, 4, 5 and 6, after both positive and negative pressure testing, showed no evidence of any permanent deformation or damage to the test sample.

Figure 3

Positions of Deflection Measurement Probes



View from Outside
Not to Scale

- Deflection probe position

6.2.1 Tests 3 & 4 - Wind Resistance, Serviceability

Temperatures (°C)	Ambient	25.5

Measured Length of Framing Member (mm)		Allowable Deflection	
		Ratio	Calculated (mm)
Group A	400	L/360	1.1
Group B	380	L/360	1.1
Group C	560	L/360	1.6
Group D	640	L/360	1.8

Frontal deflection shall recover by either 95%, or 1mm, whichever the greater.

6.2.1.1 Wind Resistance, Serviceability - Positive Pressure

Positive Pressure Pa	Results			
	Group A	Group B	Group C	Group D
0	0.0	0.0	0.0	0.0
600	0.1	0.1	0.1	0.2
1200	0.1	0.0	0.1	0.3
1800	0.0	0.1	0.3	0.2
2400	0.0	0.0	0.3	0.2
Residuals Immediately following test	0.0	0.0	0.1	0.0

6.2.1.2 Wind Resistance, Serviceability - Negative Pressure

Negative Pressure Pa	Results			
	Group A	Group B	Group C	Group D
0	0.0	0.0	0.0	0.0
600	0.1	-0.1	0.1	0.4
1200	0.1	0.0	0.1	0.7
1800	0.1	0.0	0.5	1.1
2400	0.1	0.0	0.6	1.4
Residuals Immediately following test	0.0	0.1	0.0	0.1

6.2.2 Tests 5 & 6 - Wind Resistance, Safety

Temperatures (°C)	Ambient	28.3

Measured Length of Framing Member (mm)		Allowable Residual Deformation	
		Ratio	Calculated (mm)
Group A	400	L/500	0.8
Group B	380	L/500	0.8
Group C	560	L/500	1.1
Group D	640	L/500	1.3

6.2.2.1 Wind Resistance, Safety - Positive Pressure

Positive Pressure Pa	Results			
	Group A	Group B	Group C	Group D
0	0.0	0.0	0.0	0.0
3600	0.1	0.1	0.6	0.2
Residuals Immediately following test	0.1	0.0	0.0	0.0

6.2.2.2 Wind Resistance, Safety - Negative Pressure

Negative Pressure Pa	Results			
	Group A	Group B	Group C	Group D
0	0.0	0.0	0.0	0.0
3600	0.2	0.1	1.1	3.4
Residuals Immediately following test	0.0	0.1	0.1	0.1

Note: The standard uncertainty multiplied by a coverage factor k = 2, providing a level of confidence of approximately 95%, for the above measurements is ± 2.4 % of the reading

6.3 Impacting

6.3.1 Test 7 – Impact – Retention of performance (Soft Body S1)

Ambient Temperatures (°C)	28.1
Humidity (%RH)	61

Impact Energy	120 Nm
Class Achieved	Class 1

Photograph No. 3

Showing Soft Body (S1) impact of 120Nm.

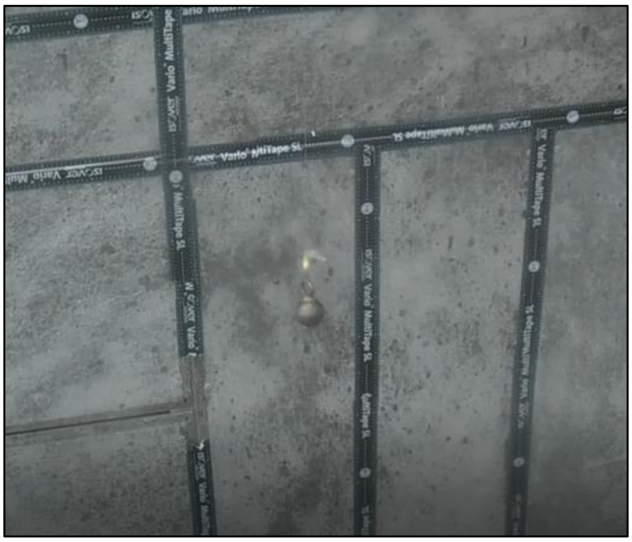
During the above test, no damage was observed.

6.3.2 Test 7 – Impact – Retention of performance (Hard Body H2)

Ambient Temperatures (°C)	27.2
Humidity (%RH)	60

Impact Energy	10 Nm
Class Achieved	Class 1

Photograph No. 4



Showing Hard Body (H2) impact of 10 Nm.

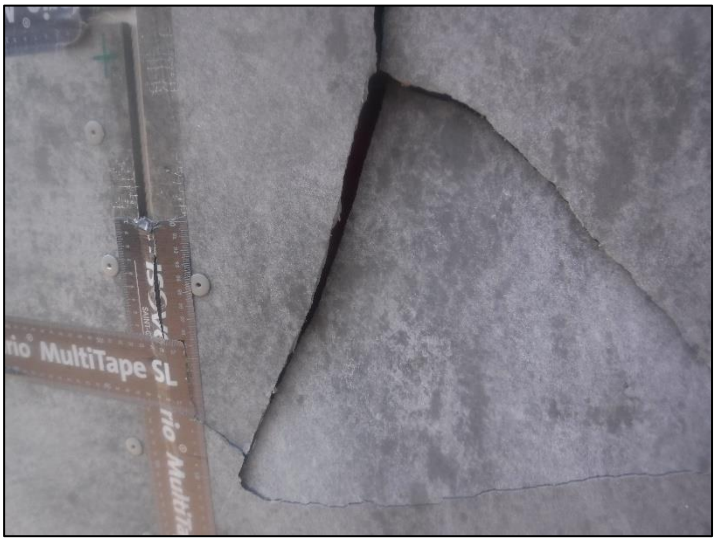
During the above test, no damage was observed.

6.3.3 Test 8 - Impact – Safety to Persons (Soft Body S1)

Ambient Temperatures (°C)	20.2
Humidity (%RH)	65

Impact Energy	500 Nm
Risk Category	High Risk

Photograph No. 5



Showing damage caused following Soft Body (S1) impact of 500 Nm.

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Photograph No. 6

Showing damage caused following Soft Body (S1) impact of 500 Nm.

Photograph No. 7

Showing damage caused to backing wall following Soft Body (S1) impact of 500 Nm.

Photograph No.8

Showing damage caused to backing wall following Soft Body (S1) impact of 500 Nm.

Photograph No. 9

Showing damage caused following Soft Body (S1) impact of 500 Nm.

Photograph No. 10

Showing weight of pieces that fell off following Soft Body (S1) impact of 500 Nm.

Photograph No. 11

Showing weight of pieces that fell off following Soft Body (S1) impact of 500 Nm.

Photograph No. 12

Showing extent of damage caused following Soft Body (S1) impact of 500 Nm.

6.3.4 Test 8 – Impact – Safety to Persons (Hard Body H2)

Ambient Temperatures (°C)	27.2
Humidity (%RH)	60

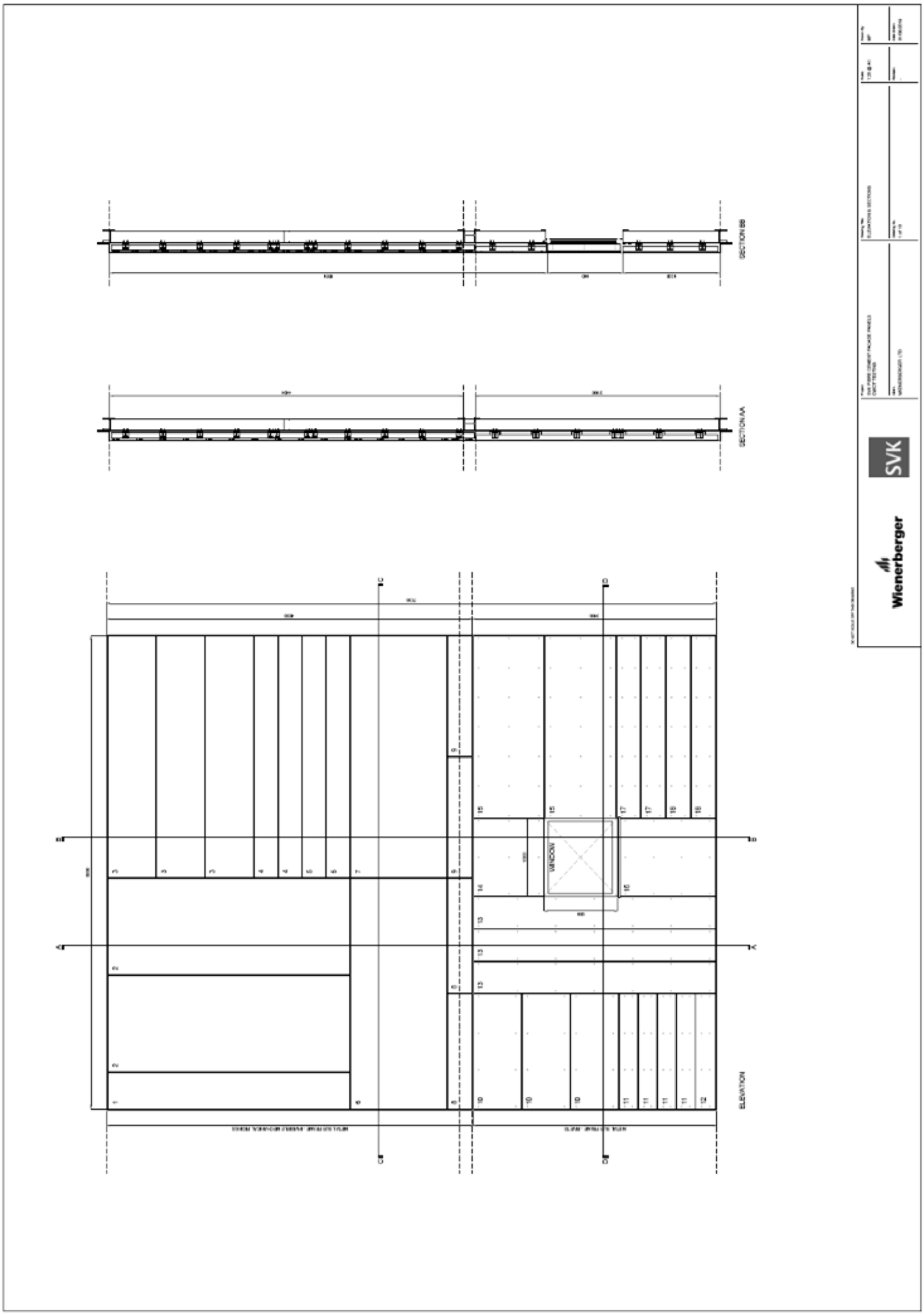
Impact Energy	10 Nm
Risk Category	Negligible Risk

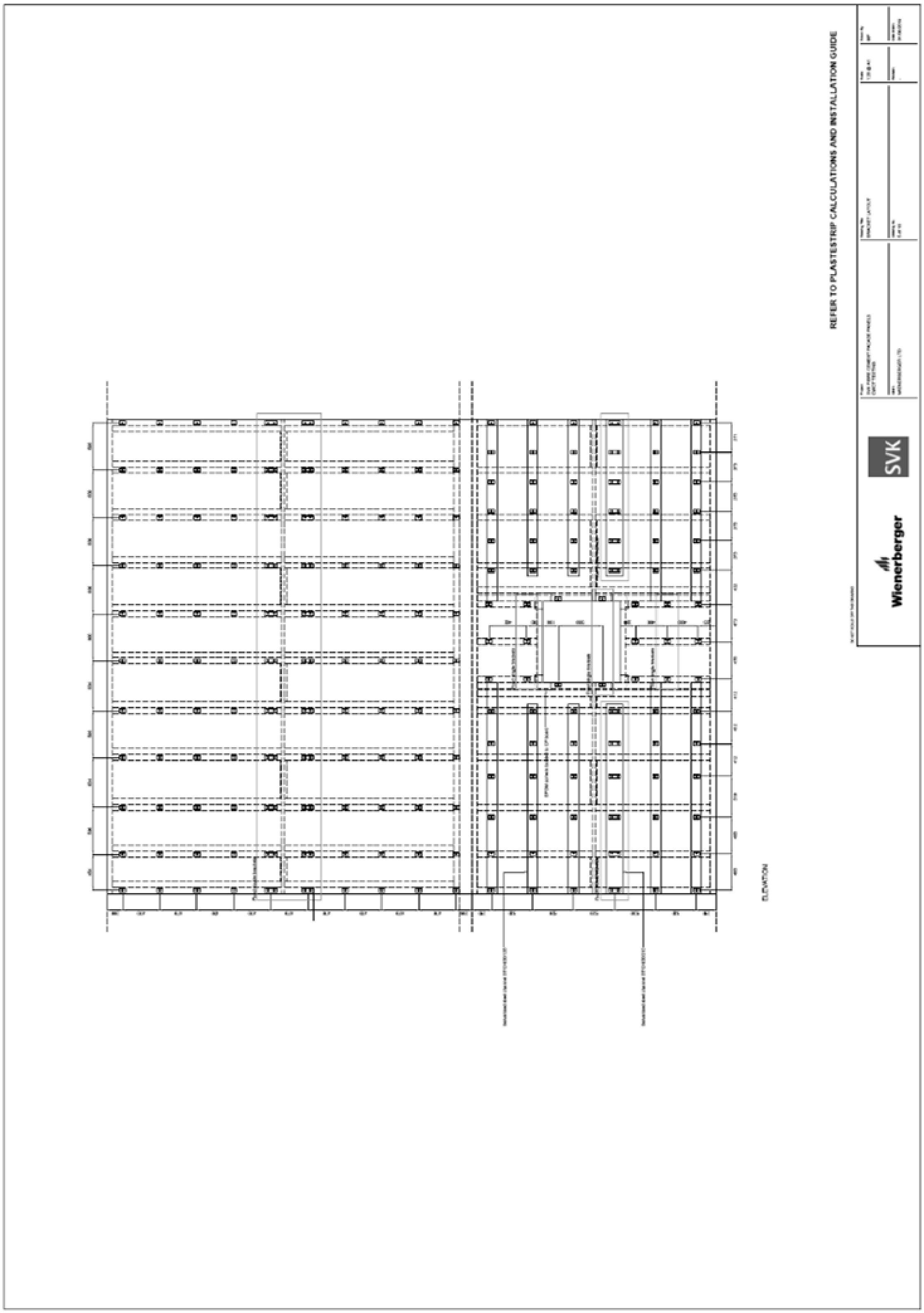
Photograph No. 13

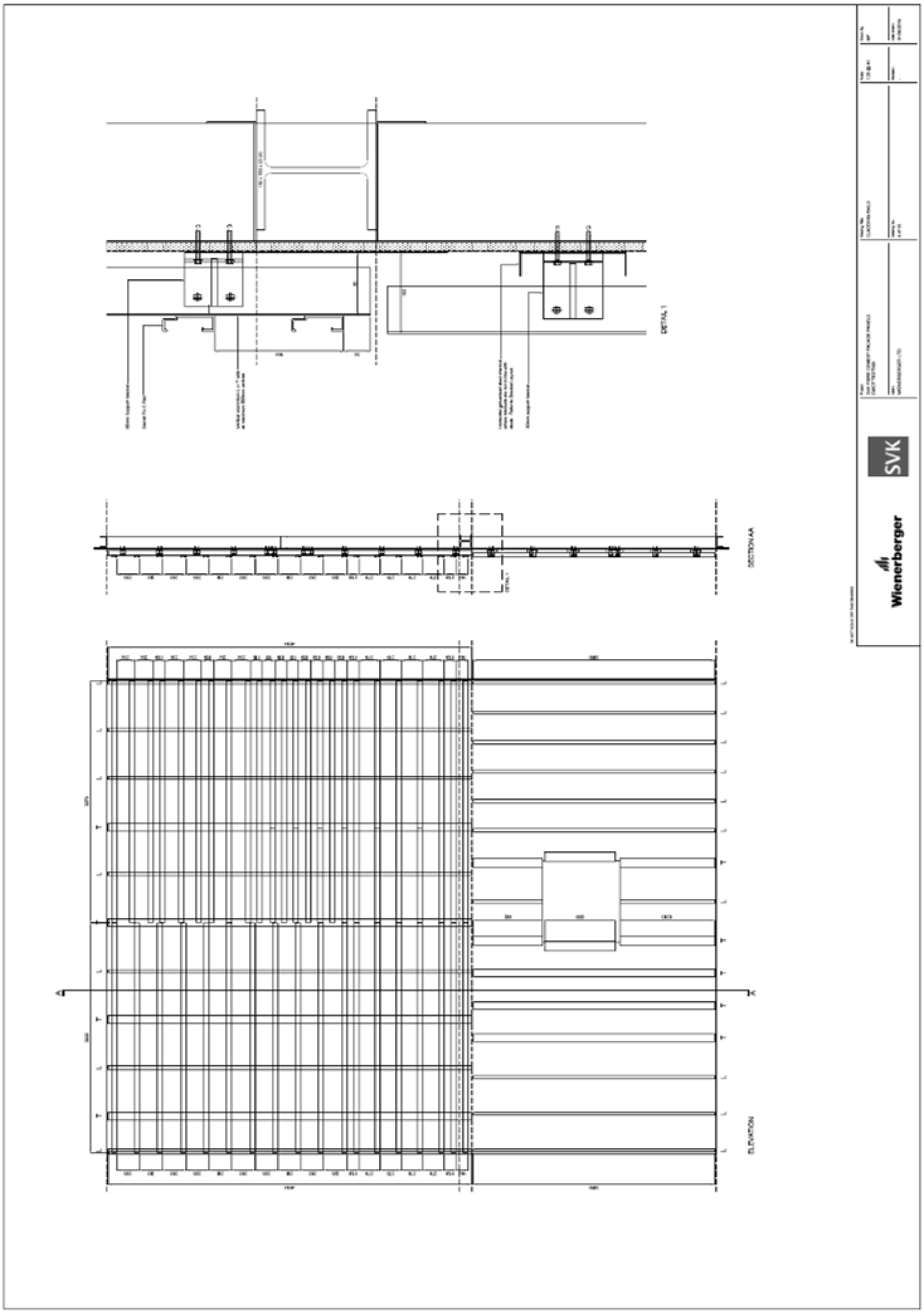
Showing Hard Body (H2) impact of 10 Nm.

During the above test, no damage was observed.

7. System Drawings




REFER TO PLASTESTRIP CALCULATIONS AND INSTALLATION GUIDE
Wienerberger
SVK
ELEVATION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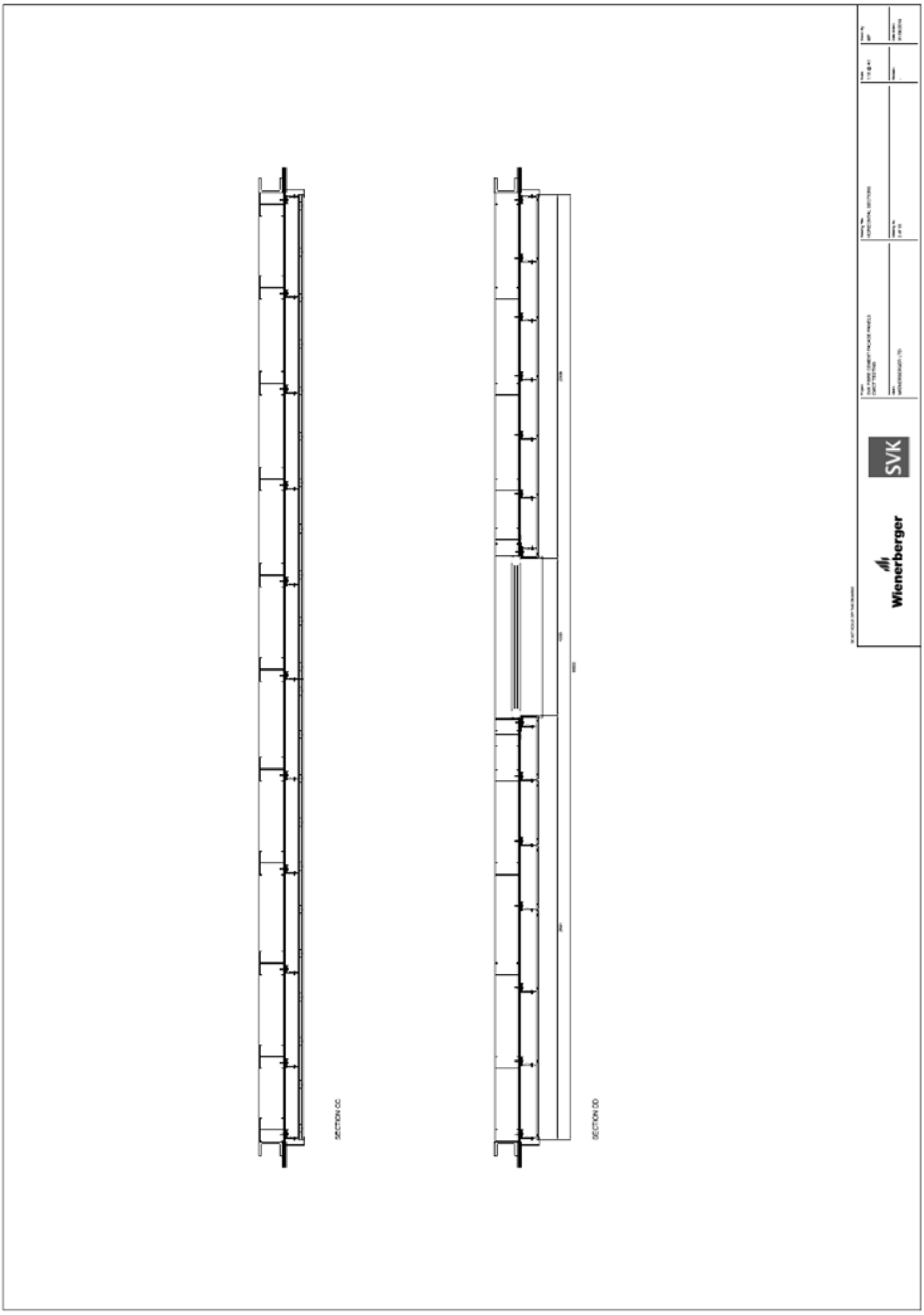
SECTION AA
ELEVATION
SVK
Wienerberger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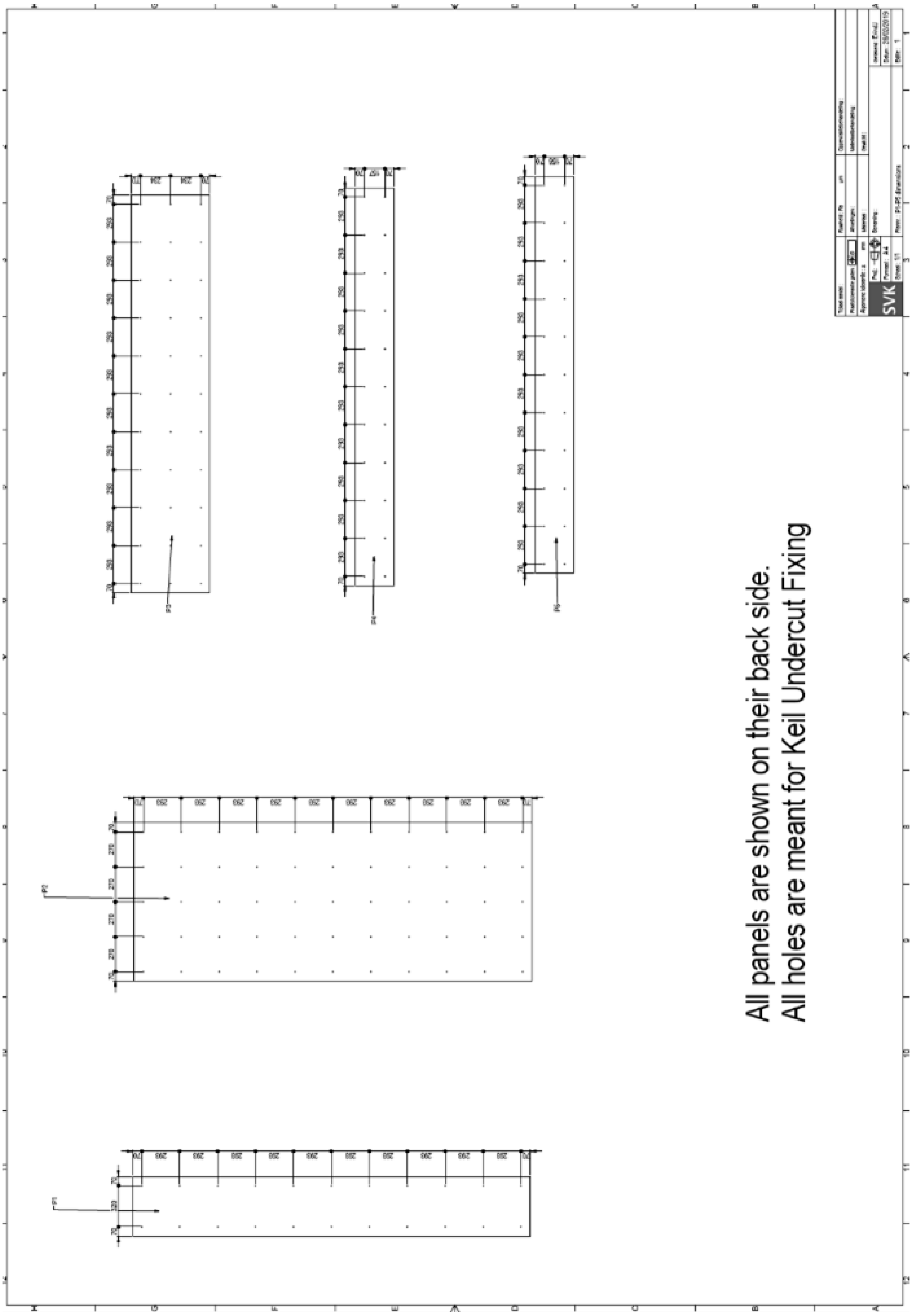
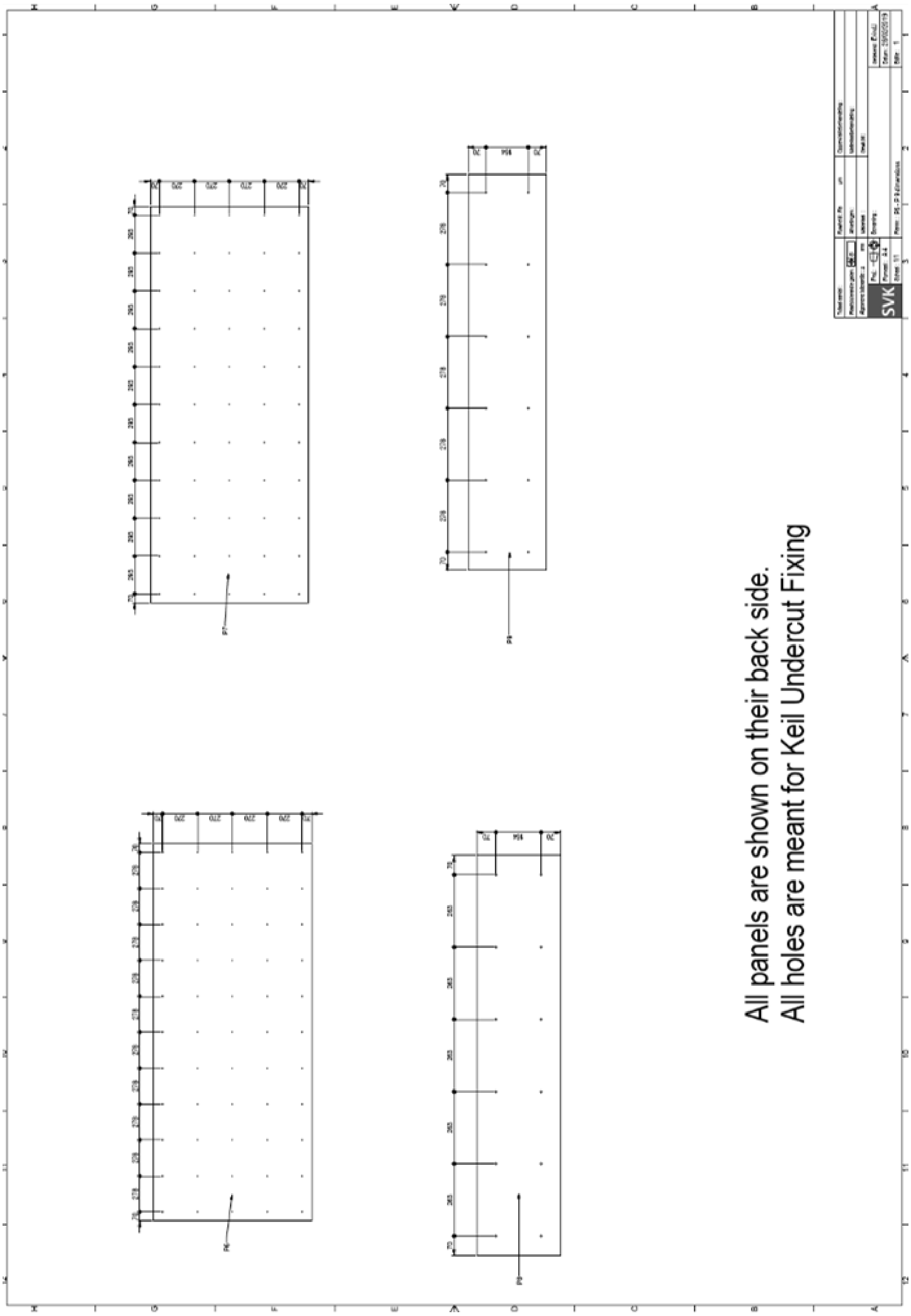
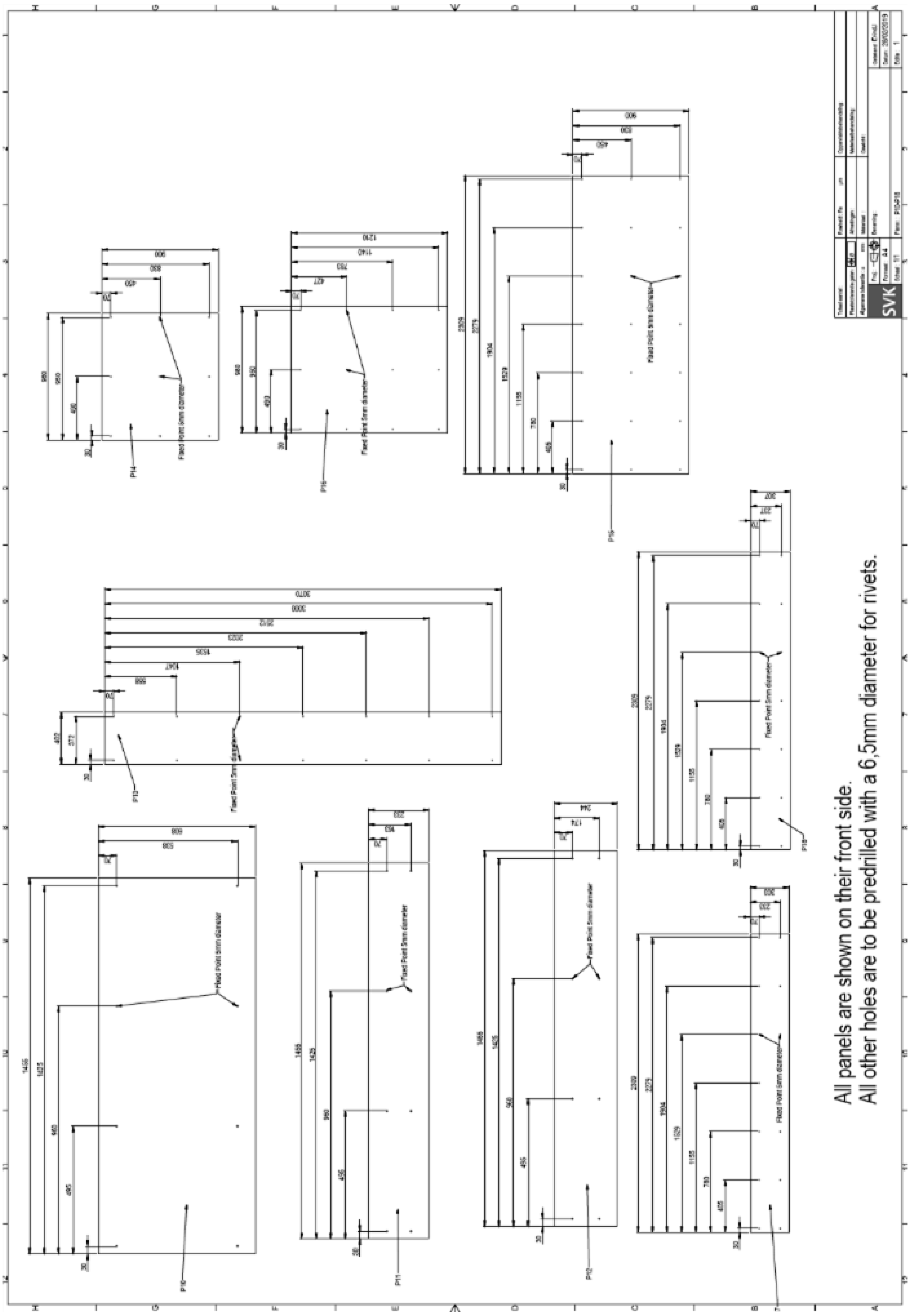
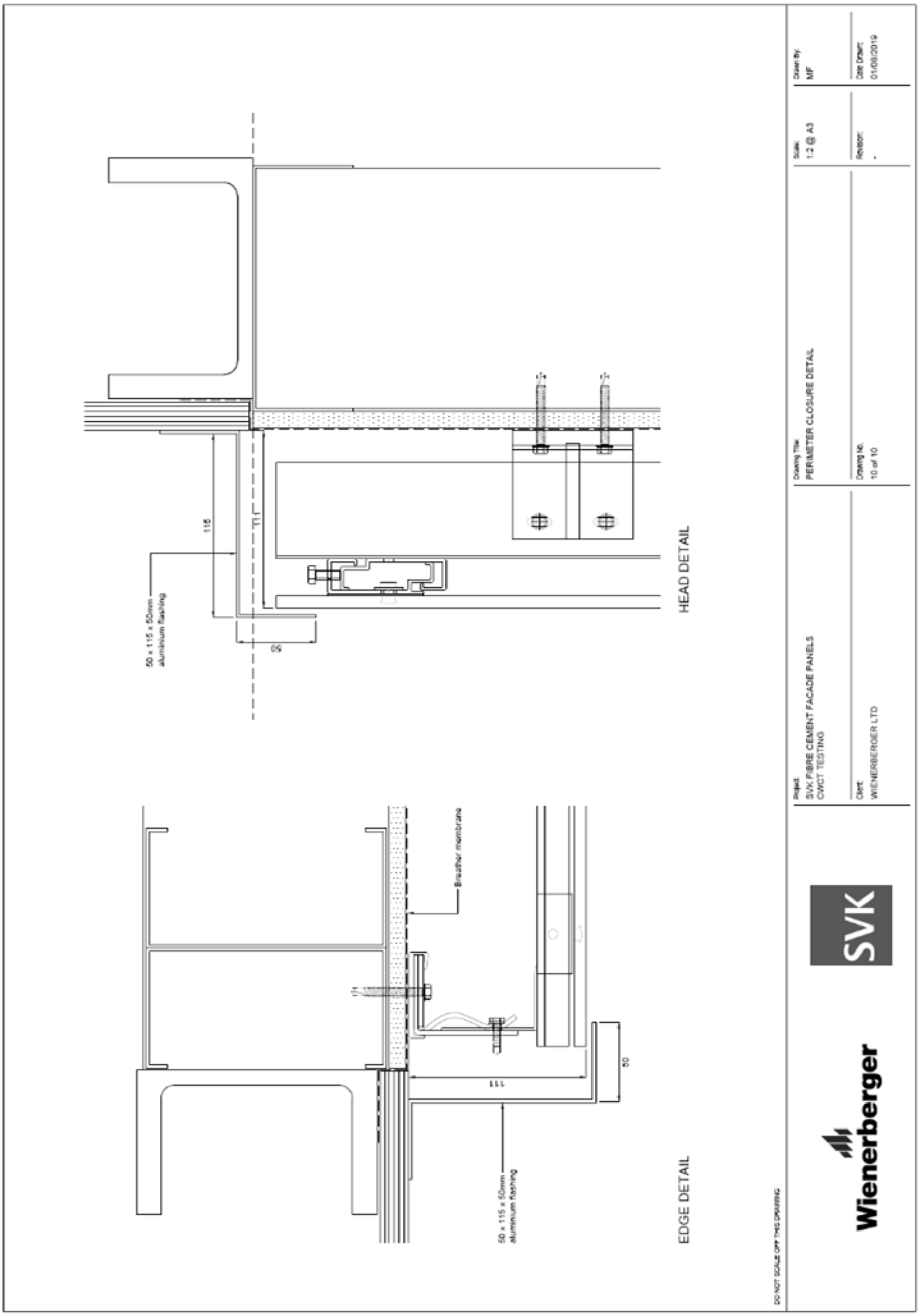
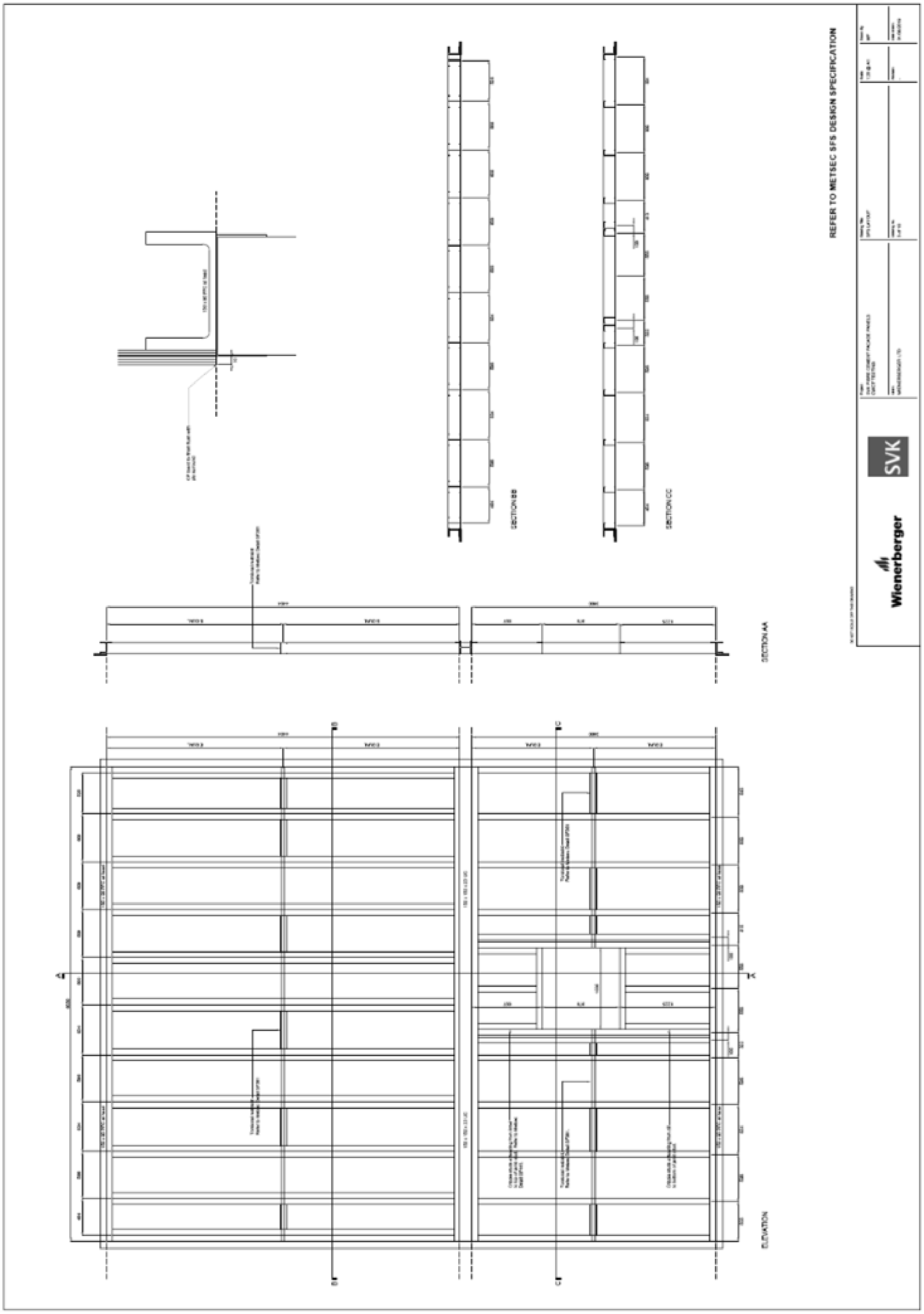
SECTION DD
SVK
Wienerberger

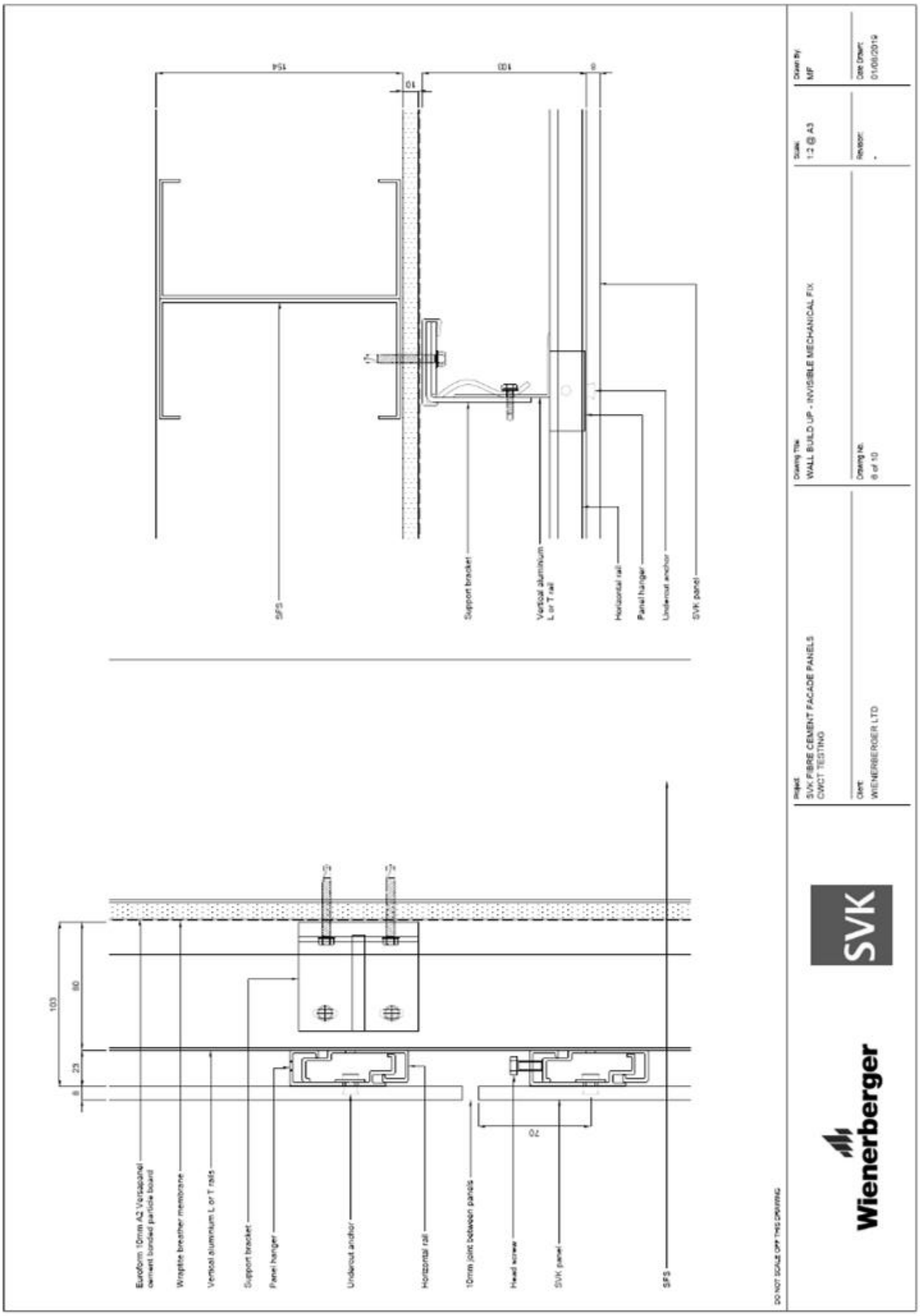

All panels are shown on their back side.
All holes are meant for Keil Undercut Fixing
SVK

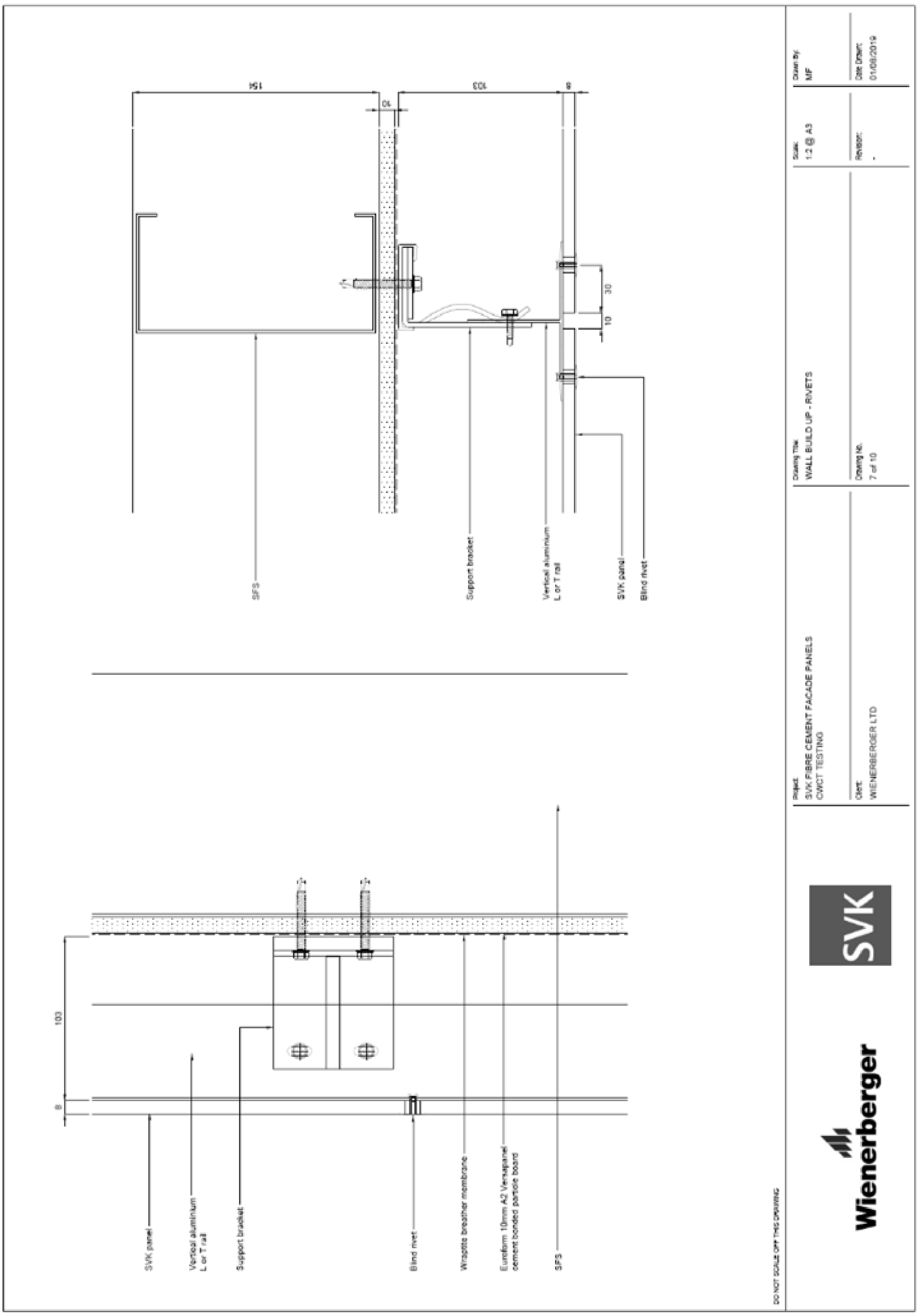

All panels are shown on their back side.
All holes are meant for Keil Undercut Fixing
SVK

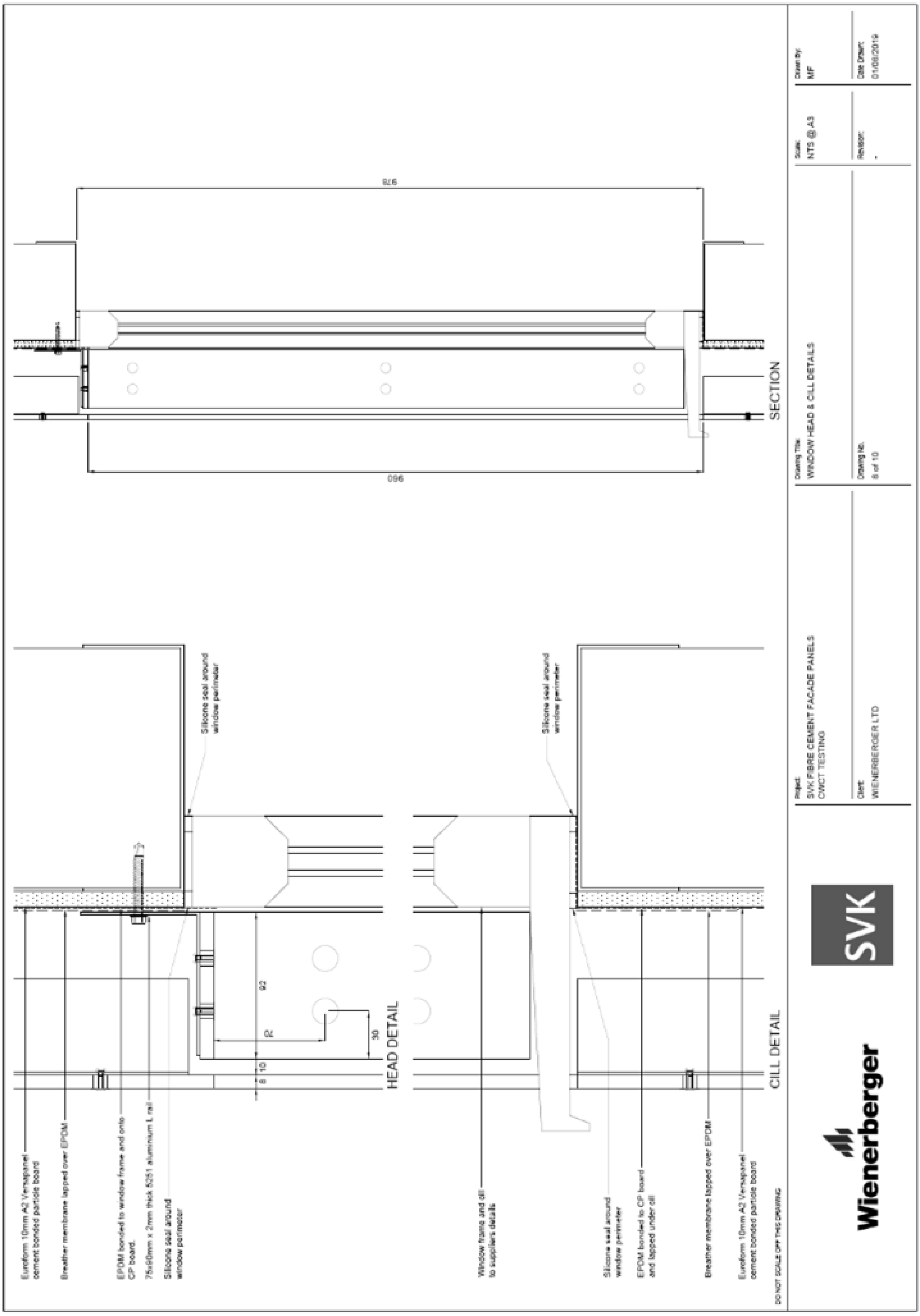

All panels are shown on their front side.
All other holes are to be predrilled with a 6,5mm diameter for rivets.

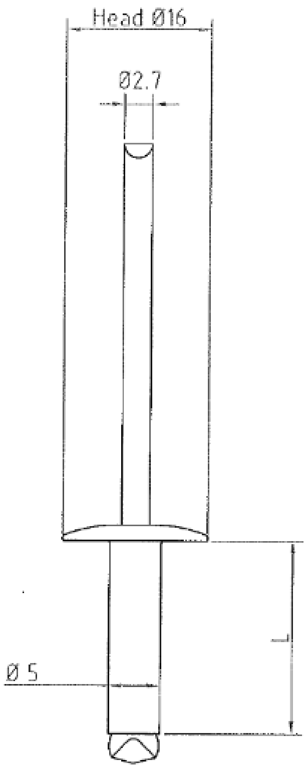

HEAD DETAIL
EDGE DETAIL
50 x 115 x 50mm
aluminium flashing
Breather membrane
115
111
50
Drawn By:
MF
Date Drawn:
01/08/2019
Scale:
1:2 @ A3
Revision:
-
Drawing Title:
PERIMETER CLOSURE DETAIL
Drawing No.
10 of 10
Project:
SVK FIBRE CEMENT FACADE PANELS
CWCT TESTING
Client:
WIENERBERGER LTD
SVK
Wienerberger
DO NOT SCALE OFF THIS DRAWING


REFER TO METSEC SFS DESIGN SPECIFICATION
SECTION BB
SECTION CC
SECTION AA
ELEVATION
SVK
Wienerberger


154
10
100
8
SFS
Support bracket
Vertical aluminium L or T rail
Horizontal rail
Panel hanger
Undercut anchor
SVK panel
103
80
23
8
70
Euroform 10mm A2 Versapanel cement bonded particle board
Wraptite breather membrane
Vertical aluminium L or T rails
Support bracket
Panel hanger
Undercut anchor
Horizontal rail
10mm joint between panels
Head screw
SVK panel
SFS
DO NOT SCALE OFF THIS DRAWING
Wienerberger
SVK
Project
SVK FIBRE CEMENT FACADE PANELS
CWCT TESTING
Client
WIENERBERGER LTD
Drawing Title
WALL BUILD UP - INVISIBLE MECHANICAL FIX
Drawing No.
8 of 10
Scale
1:2 @ A3
Revision
-
Drawn By
MF
Date Drawn
01/08/2019


154
10
103
8
30
10
SFS
Support bracket
Vertical aluminium L or T rail
SVK panel
Blind rivet
103
8
SVK panel
Vertical aluminium L or T rail
Support bracket
Blind rivet
Wraptite breather membrane
Euroform 10mm A2 Versapanel cement bonded particle board
SFS
DO NOT SCALE OFF THIS DRAWING
Drawn By: MF
Scale: 1:2 @ A3
Date Drawn: 01/08/2019
Revision: -
Drawing Title: WALL BUILD UP - RIVETS
Drawing No. 7 of 10
Project: SVK FIBRE CEMENT FACADE PANELS CWCT TESTING
Client: WIENERBERGER LTD
SVK
Wienerberger


Euroform 10mm A2 Versapanel cement bonded particle board
Breather membrane lapped over EPDM
EPDM bonded to window frame and onto CP board.
75x90mm x 2mm thick 5251 aluminium L rail
Silicone seal around window perimeter
Silicone seal around window perimeter
8
10
70
92
30
HEAD DETAIL
Window frame and cill to suppliers details
Silicone seal around window perimeter
Silicone seal around window perimeter
EPDM bonded to CP board and lapped under cill
Breather membrane lapped over EPDM
Euroform 10mm A2 Versapanel cement bonded particle board
DO NOT SCALE OFF THIS DRAWING
CILL DETAIL
960
978
SECTION
Wienerberger
SVK
Project:
SVK FIBRE CEMENT FACADE PANELS
CWCT TESTING
Client:
WIENERBERGER LTD
Drawing Title:
WINDOW HEAD & CILL DETAILS
Drawing No.
8 of 10
Scale:
NTS @ A3
Revision:
-
Drawn By:
MF
Date Drawn:
01/08/2019

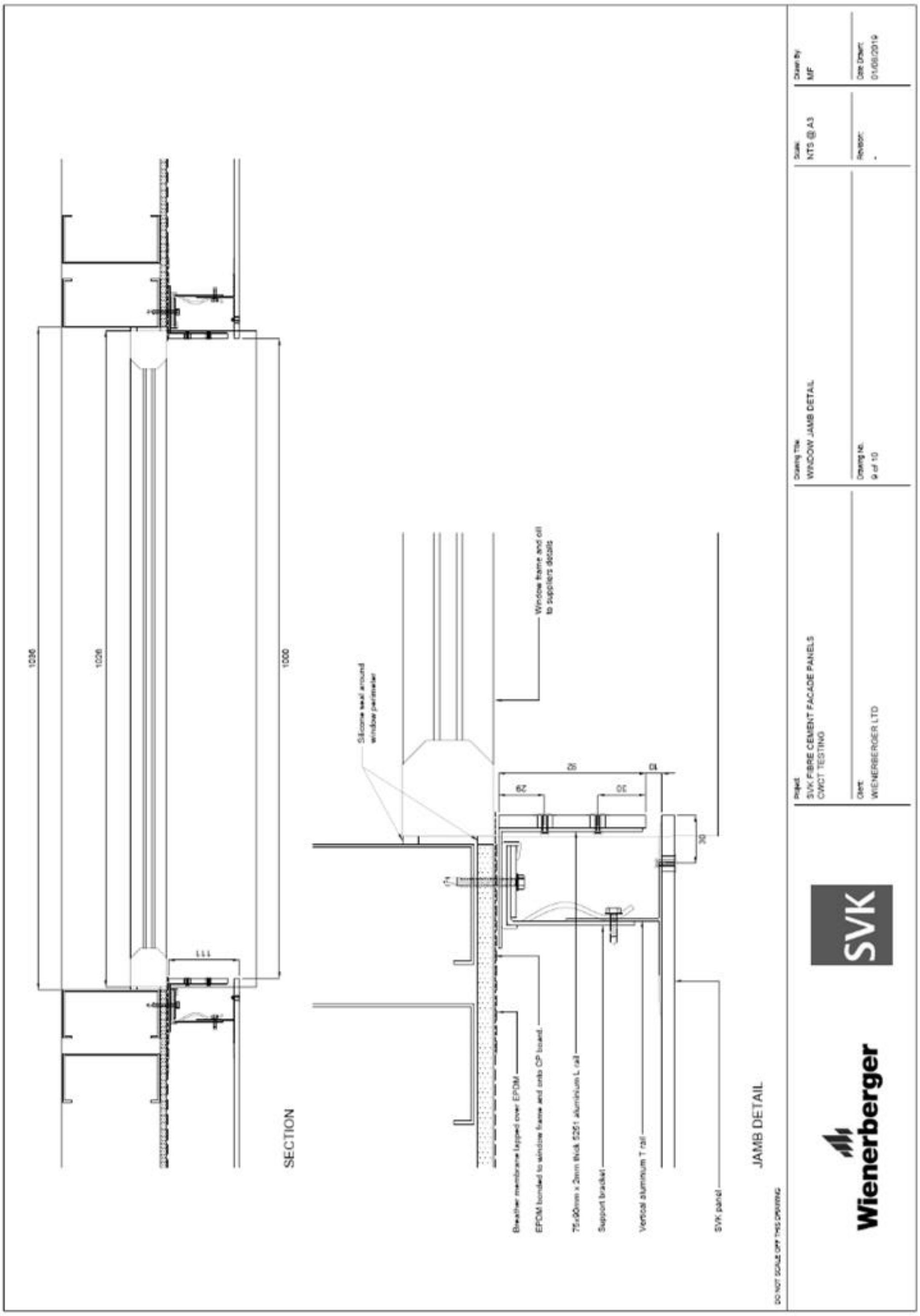


L (mm)	clamping (mm)
16	7,0-10,5
18	9,0-12,5
21	12,0-15,5

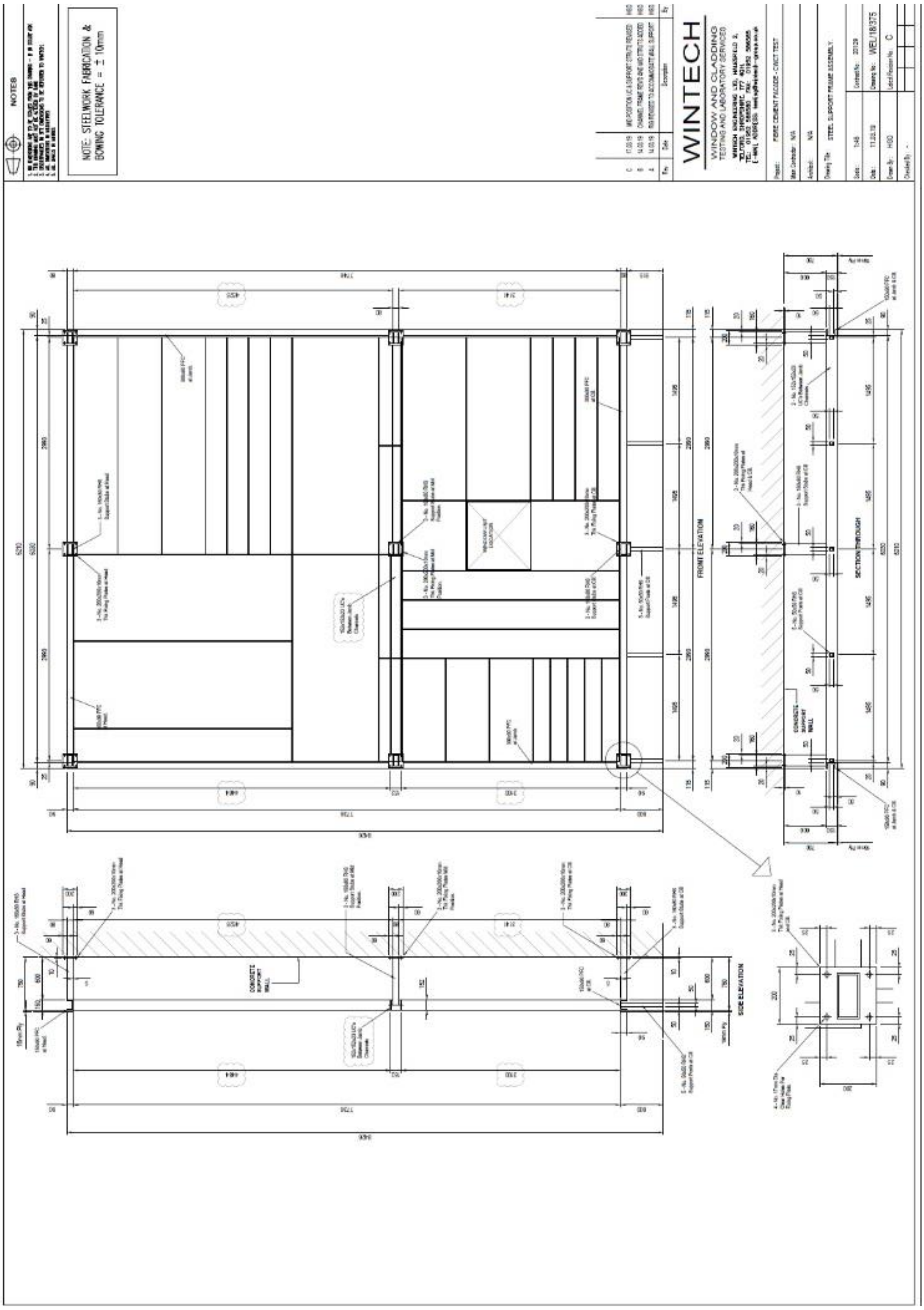
Material Sleeve: Al Mg 5 (EN AW-5019)
Material Mandrel: 1.4541 (EN 10263)
Surface: blank / painted

	Datum	Name	
Bearb.	07.07.2010	FS	Rivet Alu / Niro 5,0 x L - KØ16 Hülse: Almg 5 / Nietdorn: 1.4541
Gepr.			
Norm			
MBE Moderne Befestigungs-Elemente GmbH 58706 Menden			Maßstab: M2:1
EDV Nr. KN01502-			

Index | Änderung | Datum | Name


SECTION
1036
1026
1000
111
JAMB DETAIL
Silicone seal around window perimeter
Window frame and cill to suppliers details
92
29
30
10
30
Breather membrane lapped over EPDM
EPDM bonded to window frame and onto CP board
75x90mm x 2mm thick 5251 aluminium L rail
Support bracket
Vertical aluminium T rail
SVK panel
DO NOT SCALE OFF THIS DRAWING
Wienerberger
SVK
Project: SVK FIBRE CEMENT FACADE PANELS CWCT TESTING
Client: WIENERBERGER LTD
Drawing Title: WINDOW JAMB DETAIL
Drawing No: 9 of 10
Scale: NTS @ A3
Revision: -
Drawn By: MF
Date Drawn: 01/08/2019

8. Support Steelwork Drawing



9. Dismantling

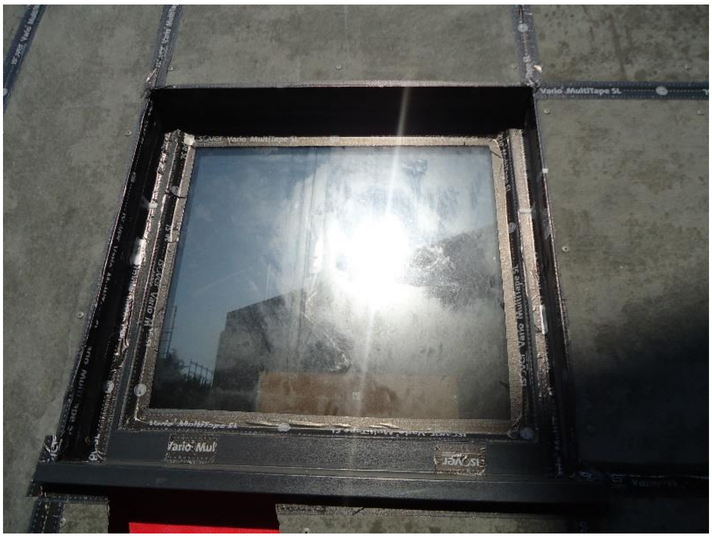
The dismantling was conducted on 7th August 2019 by representatives of Wienerberger Ltd and was witnessed by representatives of Wintech Engineering Ltd.

There was no water evident in the system in parts designed not to be wetted, and it was found that the system fully complied with the system drawings in Section 7 provided by Wienerberger Ltd at the time of the dismantle.

Photograph No. 14

Sample prior to dismantle

Photograph No. 15



Window pod detail

Photograph No. 16

Internal window pod interface detail

Photograph No. 17

Internal window pod interface detail

Photograph No. 18

Helping hand bracket and L-rail

Photograph No. 19

Backing support rail layout

Photograph No. 20

Sealant on underside of window cill

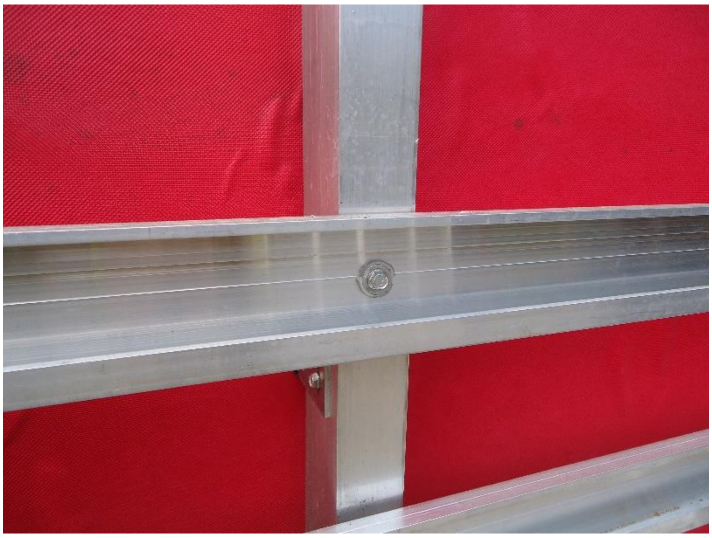
Photograph No. 21

Large helping hand bracket and L-rail

Photograph No. 22

Large helping hand bracket and L-rail

Photograph No. 23



Top secret fix rail

Photograph No. 24

Expansion joint on secret fixing rail on T-rail

Photograph No. 25

Helping hand full layout

Photograph No. 26

EPDM around window pod detail

----- END OF REPORT -----

WINTECH

TESTING & CERTIFICATION

Wintech Testing & Certification is an independent UKAS accredited testing laboratory and certification body. We provide a comprehensive range of services to the building and construction industries, either onsite or at our own state-of-the-art test laboratory in Telford, Shropshire, in the heart of industrial England.

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