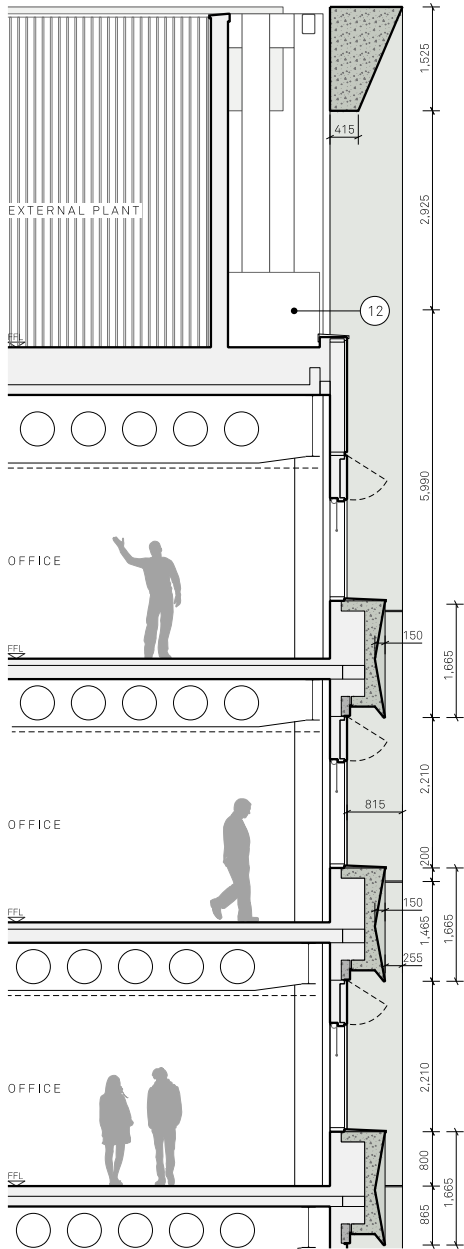
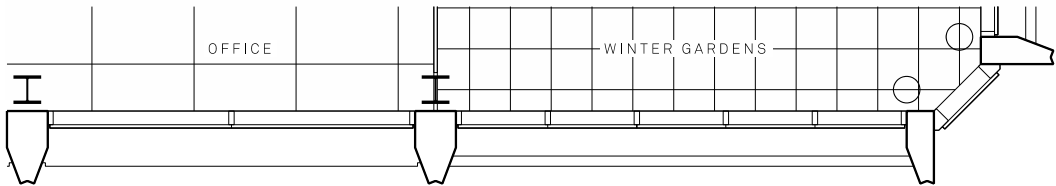
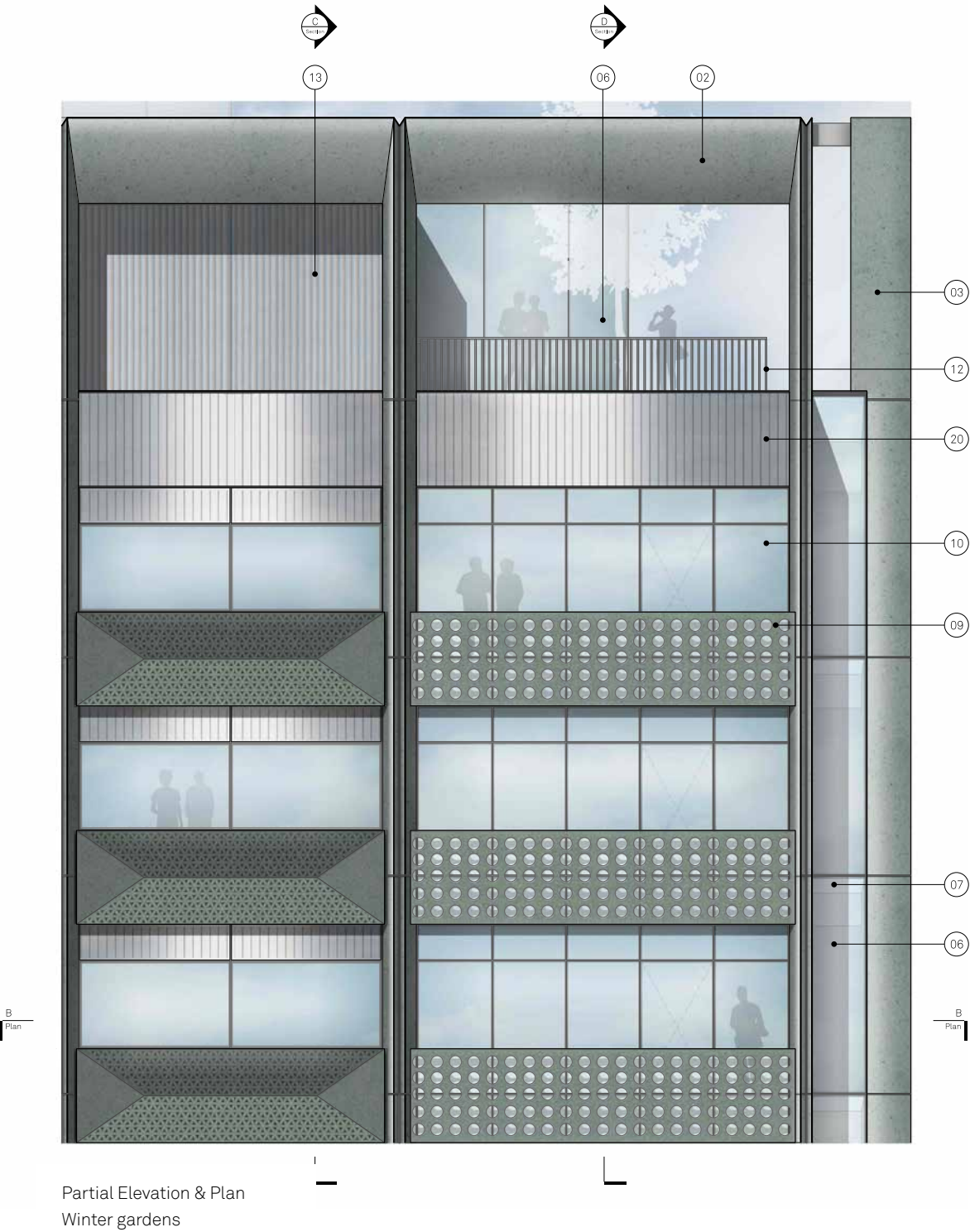


2.2 Bay Study Winter Gardens

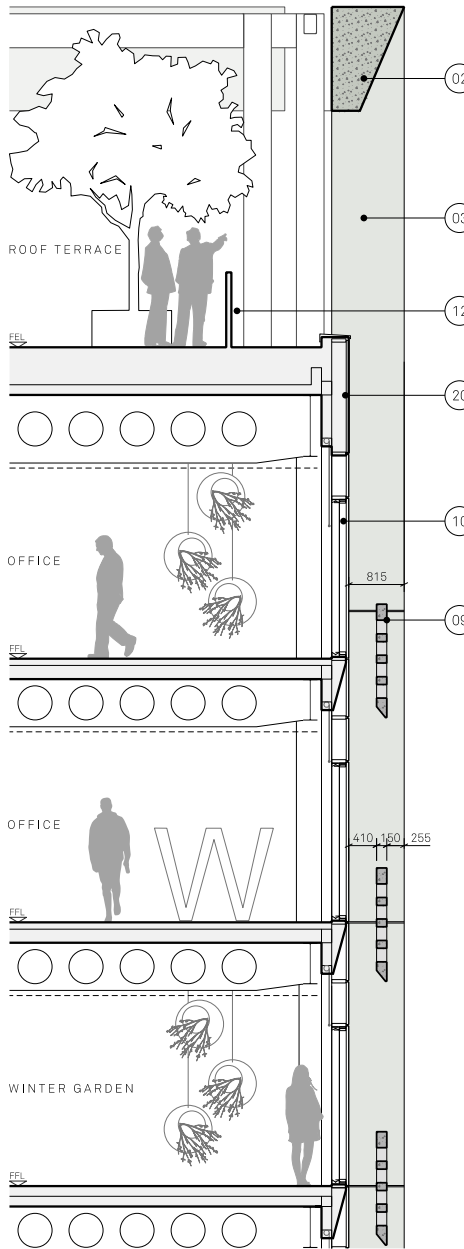
Key

- 1. Horizontal green pre cast concrete cladding articulated with an inverted envelope profile and ornamental pattern. Acid etched finish.
- 2. Horizontal green pre cast concrete forming an angled crown at top. Polished finish.
- 3. Vertical green pre cast concrete cladding. Polished finish.
- 4. Capless fixed glazing set out on a 3m module. Mid-dark grey frames with clear glass.
- 5. Capless opening solid vent panel with decorative profile. Metallic mid-dark silver finish.
- 6. Capless glass to glass curtain walling system on a 1.5m & 3m module. Mid-dark grey frames with clear glass. Module width changes to suit full height glazing at building corners.
- 7. Recessed PPC insulated metal spandrel panel behind glass masking floor construction.
- 8. Fully glazed automatic powered detection curved sliding doors at office entrance, incorporated in to curtain walling system.
- 9. Horizontal green pre cast concrete panel with decorative perforations. Panel sits in front of winter garden curtain walling system. Acid etched finish.
- 10. Capless curtain walling system to winter gardens with automated parallel opening panels. Mid-dark grey frames with clear glass.
- 11. Back painted glass in a curtain walling system, mid-dark grey frames.
- 12. PPC Metal balustrade.
- 13. Vertical metal louvre system, mid grey metallic PPC, screening external plant.
- 14. Grey vertical pre cast concrete cladding articulated with a decorative ribbed profile. Acid etched finish.
- 15. Back painted glass screen concealing plant at roof level.
- 16. Vertical metal louvre system, mid grey metallic PPC with integrated service doors as part of system.
- 17. Metallic ventilation louvres at high level. Metallic mid-dark silver finish.
- 18. Decorative metal panel for solar shading with perforated pattern. Metallic mid-dark silver finish.
- 19. PPC Aluminium flashing, colour to match green PCC.
- 20. Metal panel with decorative profile, metallic mid-dark silver finish.
- 21. Grey pre cast concrete plinth, polished finish.

View Location



Section C
Through office & external plant

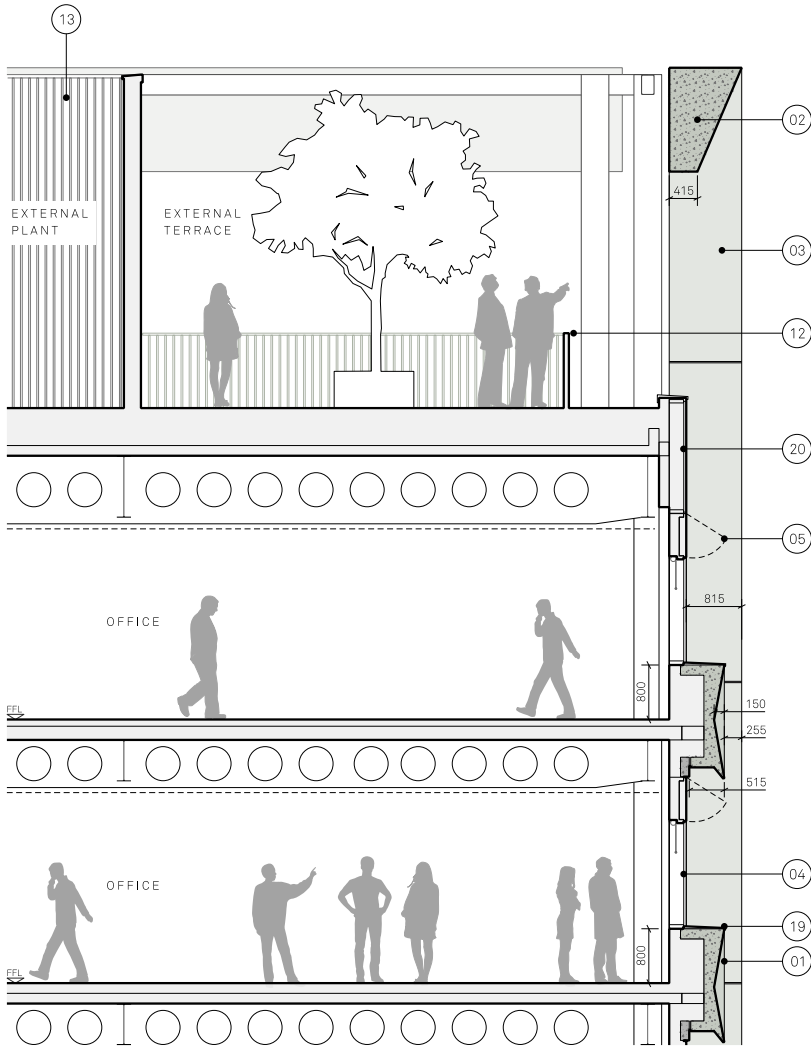


Section D
Through winter gardens & roof terrace

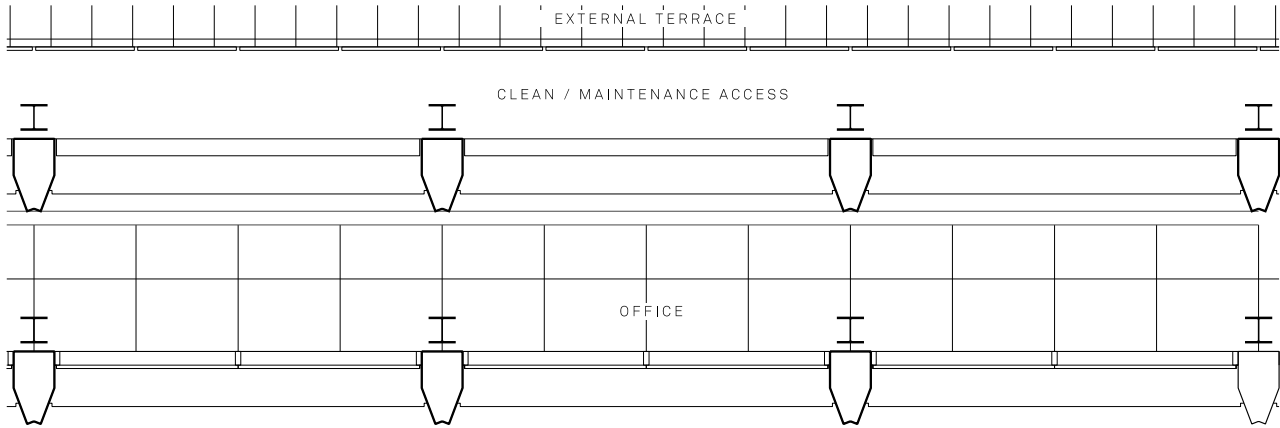
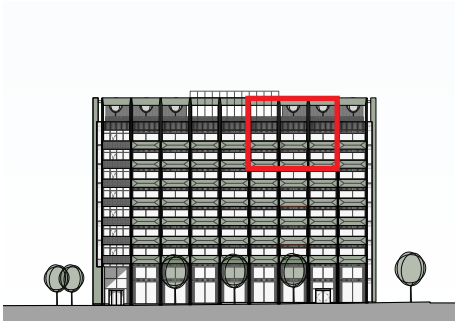
2.2 Bay Study
External Roof Terrace

Key

- 1. Horizontal green pre cast concrete cladding articulated with an inverted envelope profile and ornamental pattern. Acid etched finish.
- 2. Horizontal green pre cast concrete forming an angled crown at top. Polished finish.
- 3. Vertical green pre cast concrete cladding. Polished finish.
- 4. Capless fixed glazing set out on a 3m module. Mid-dark grey frames with clear glass.
- 5. Capless opening solid vent panel with decorative profile. Metallic mid-dark silver finish.
- 6. Capless glass to glass curtain walling system on a 1.5m & 3m module. Mid-dark grey frames with clear glass. Module width changes to suit full height glazing at building corners.
- 7. Recessed PPC insulated metal spandrel panel behind glass masking floor construction.
- 8. Fully glazed automatic powered detection curved sliding doors at office entrance, incorporated in to curtain walling system.
- 9. Horizontal green pre cast concrete panel with decorative perforations. Panel sits in front of winter garden curtain walling system. Acid etched finish.
- 10. Capless curtain walling system to winter gardens with automated parallel opening panels. Mid-dark grey frames with clear glass.
- 11. Back painted glass in a curtain walling system, mid-dark grey frames.
- 12. PPC Metal balustrade.
- 13. Vertical metal louvre system, mid grey metallic PPC, screening external plant.
- 14. Grey vertical pre cast concrete cladding articulated with a decorative ribbed profile. Acid etched finish.
- 15. Back painted glass screen concealing plant at roof level.
- 16. Vertical metal louvre system, mid grey metallic PPC with integrated service doors as part of system.
- 17. Metallic ventilation louvres at high level. Metallic mid-dark silver finish.
- 18. Decorative metal panel for solar shading with perforated pattern. Metallic mid-dark silver finish.
- 19. PPC Aluminium flashing, colour to match green PCC.
- 20. Metal panel with decorative profile, metallic mid-dark silver finish.
- 21. Grey pre cast concrete plinth, polished finish.



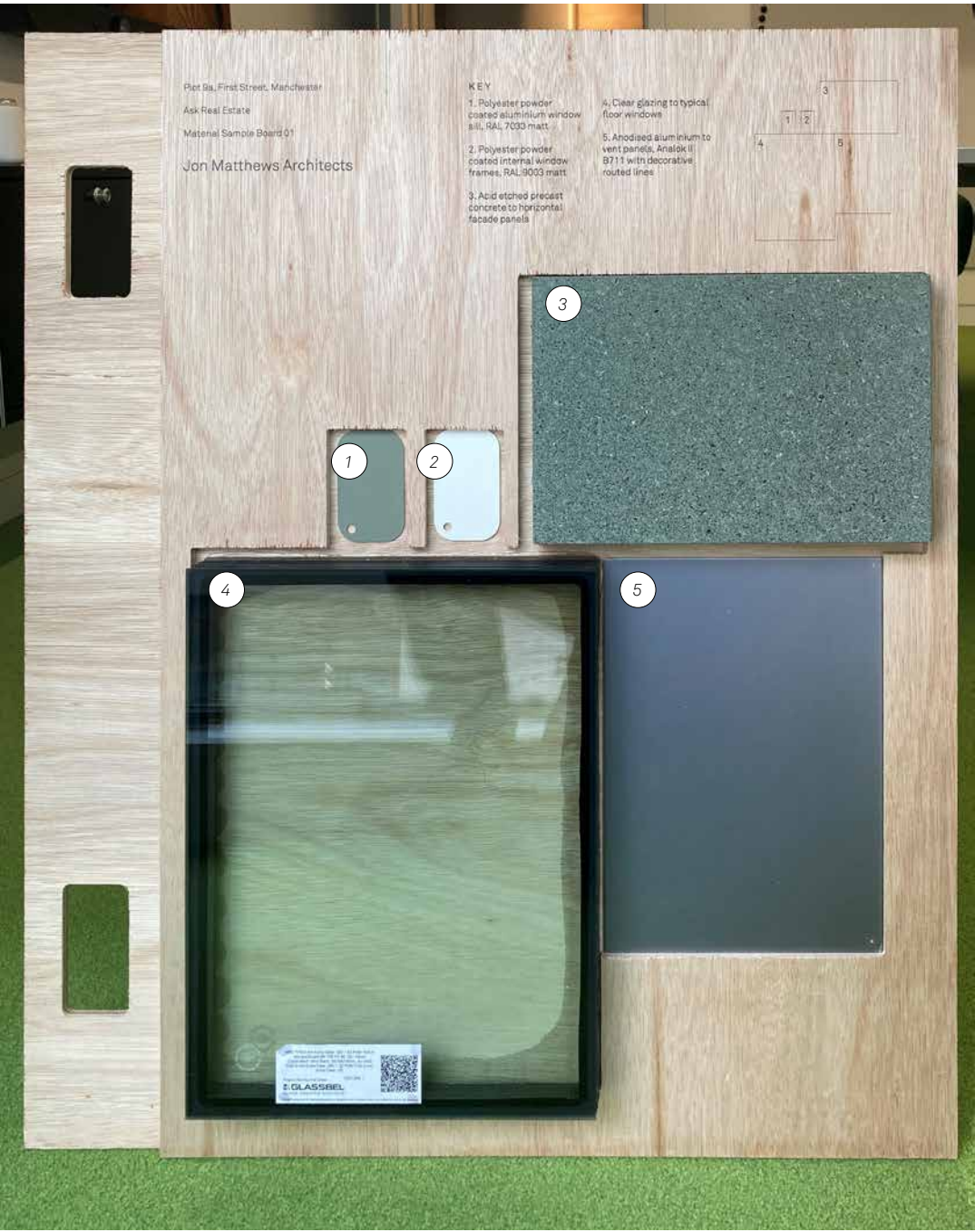
View Location



3.0

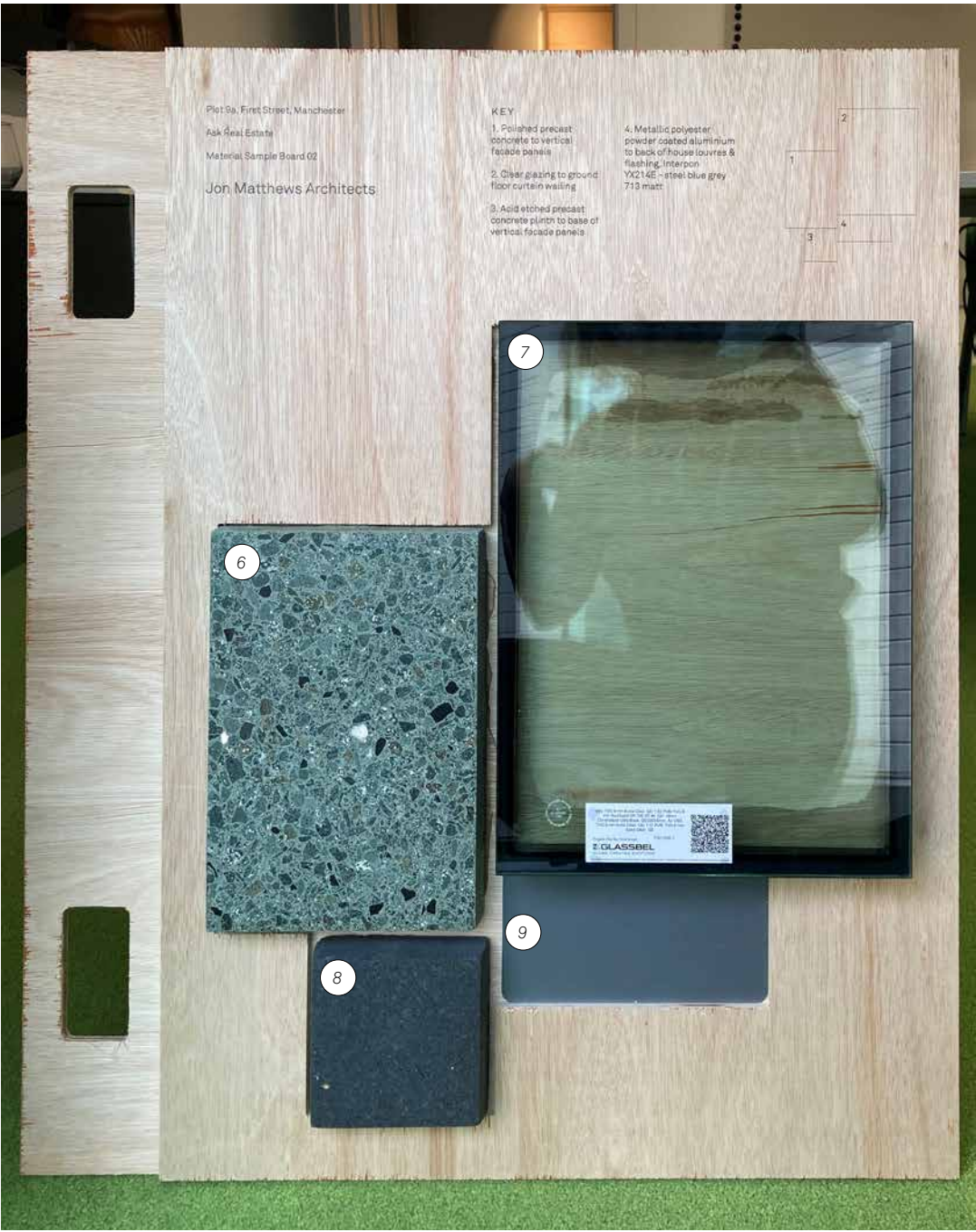
Baseline Samples & Specification

3.1 Sample Panels



Sample Board 01

- 1. Polyester powder coated aluminium window sill, RAL 7033 matt
- 2. Polyester powder coated internal window frames, RAL 9003 matt
- 3. Acid etched precast concrete to horizontal facade panels
- 4. Clear glazing to typical floor windows
- 5. Anodised aluminium to vent panels, Analok II B711 with decorative routed lines



Sample Board 02

- 6. Polished precast concrete to vertical facade panels
- 7. Clear glazing to ground floor curtain walling
- 8. Acid etched precast concrete plinth to base of vertical facade panels
- 9. Metallic polyester powder coated aluminium to back of house louvres & flashing, Interpon YX214E - steel blue grey 713 matt

Two sample boards have been assembled, compiling hand samples of the primary facade materials.

4.0 Full Size Sample Panel

4.1 Full Sized Sample Panel



View of sample panel showing scale

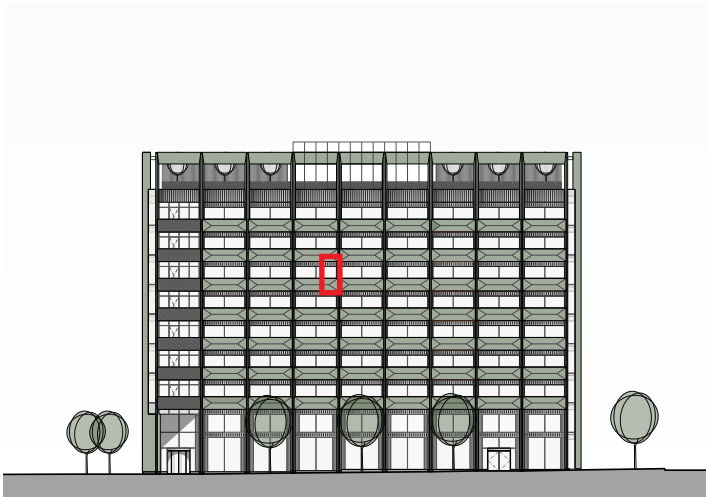


View of sample panel showing colour in wet and dry

A full size sample panel was produced prior to the planning submission to demonstrate the craft that would be achieved.

A report to document this was issued in November 2021. The photos on this page and the following page were taken at that time.

The panel is now on site and will be presented to Manchester City Council. The proposed windows, vent panels and sill have now been installed.



Key elevation

The following items were to be explored in further detail following the planning submission:

- › Precast concrete pattern
- › Precast concrete joints
- › Vent panel design

Pattern

A bespoke pattern has been designed, tailored to the geometry of the facade. The pattern chosen has been abstracted from the cross bracing of the historic gas holders that once occupied the site.



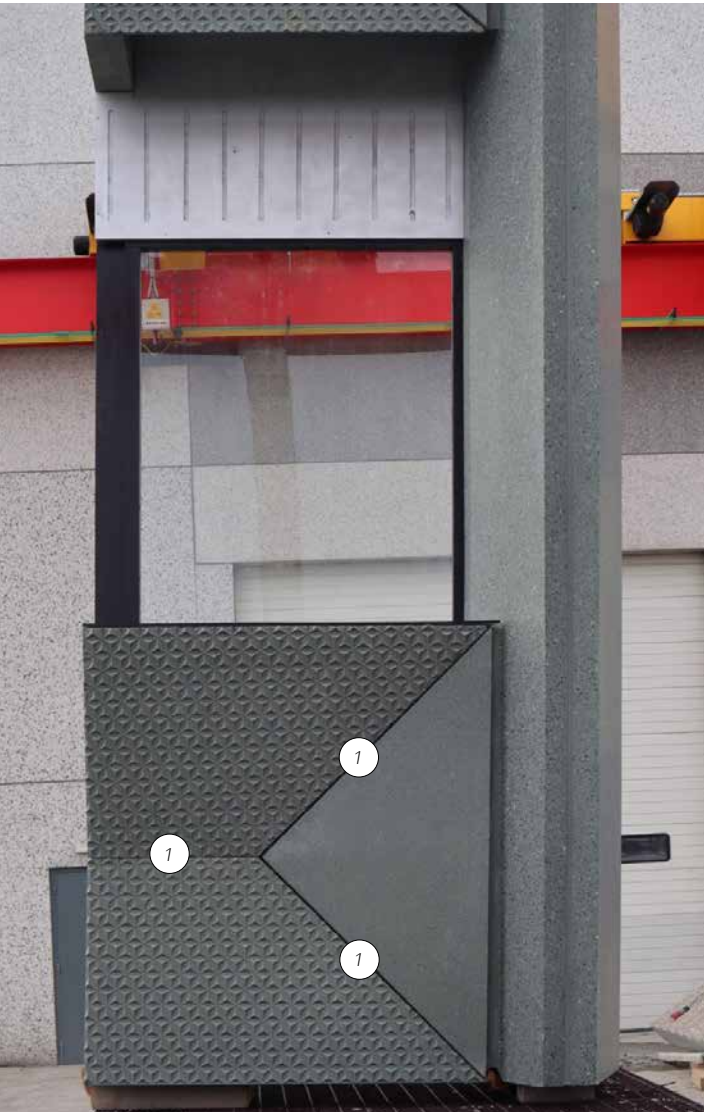
Vent Panel

The vent panel is made from anodised aluminium, and can be seen in the hand samples and on the full sized sample. The spacing and depth of the texture has been carefully designed and mocked up.



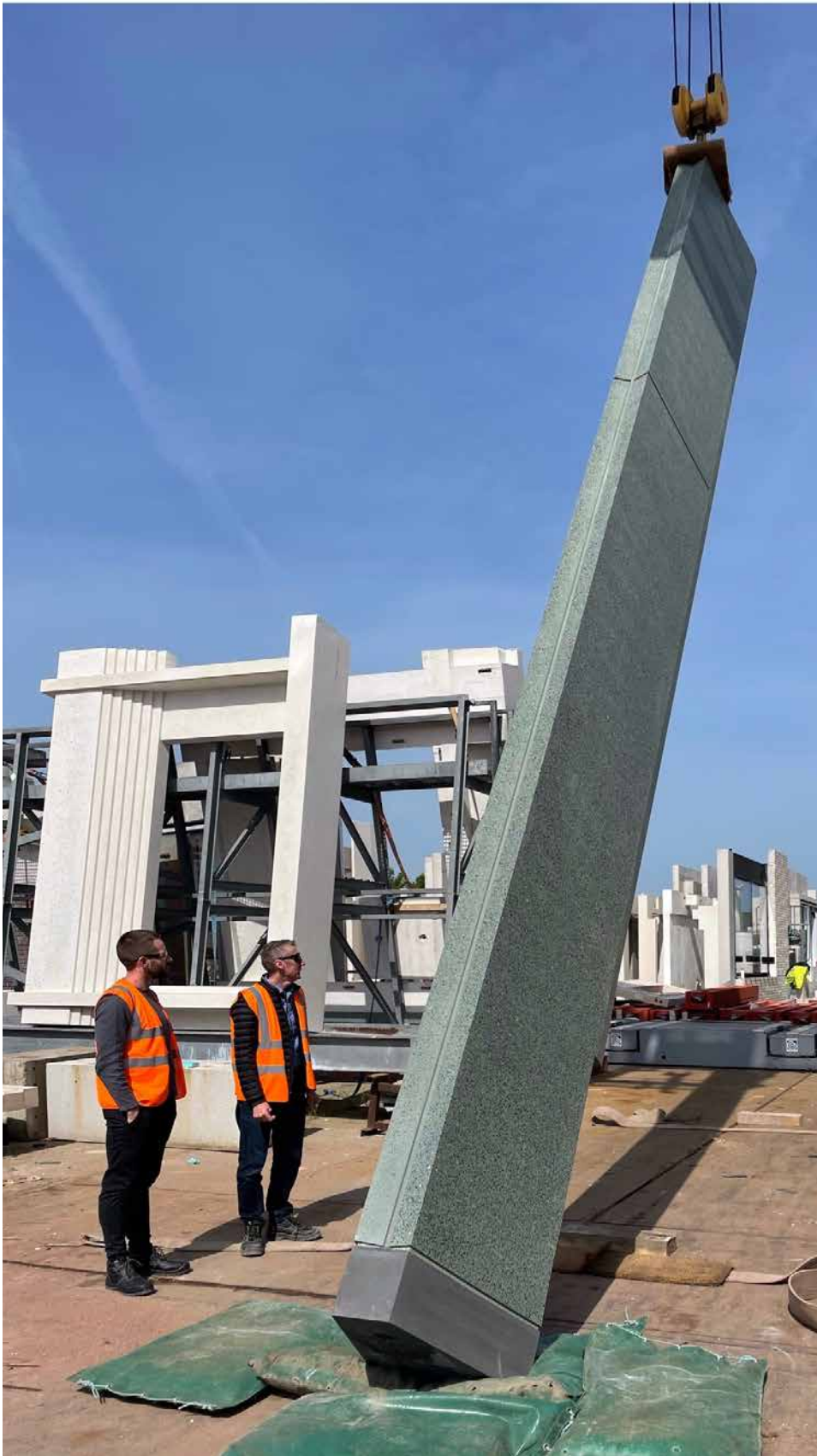
Joints

The joints between the different planes of the horizontal precast panels have been omitted (labelled “1” on the image below). In between panels, varying options for the mastic colour have been investigated. Three colours for this are shown on the full sized sample panel. The preferred colour for the mastic is Basalt Grey.



4.3 Precast Concrete Manufacture

The photographs on this page show the manufacturing progress by Techrete, and illustrate the richness and craft of the precast concrete.



Completed ground floor column at Techrete's factory in Dublin



Texture and richness of the polished concrete finish



Base detail of the precast concrete columns



Winter garden panel sample

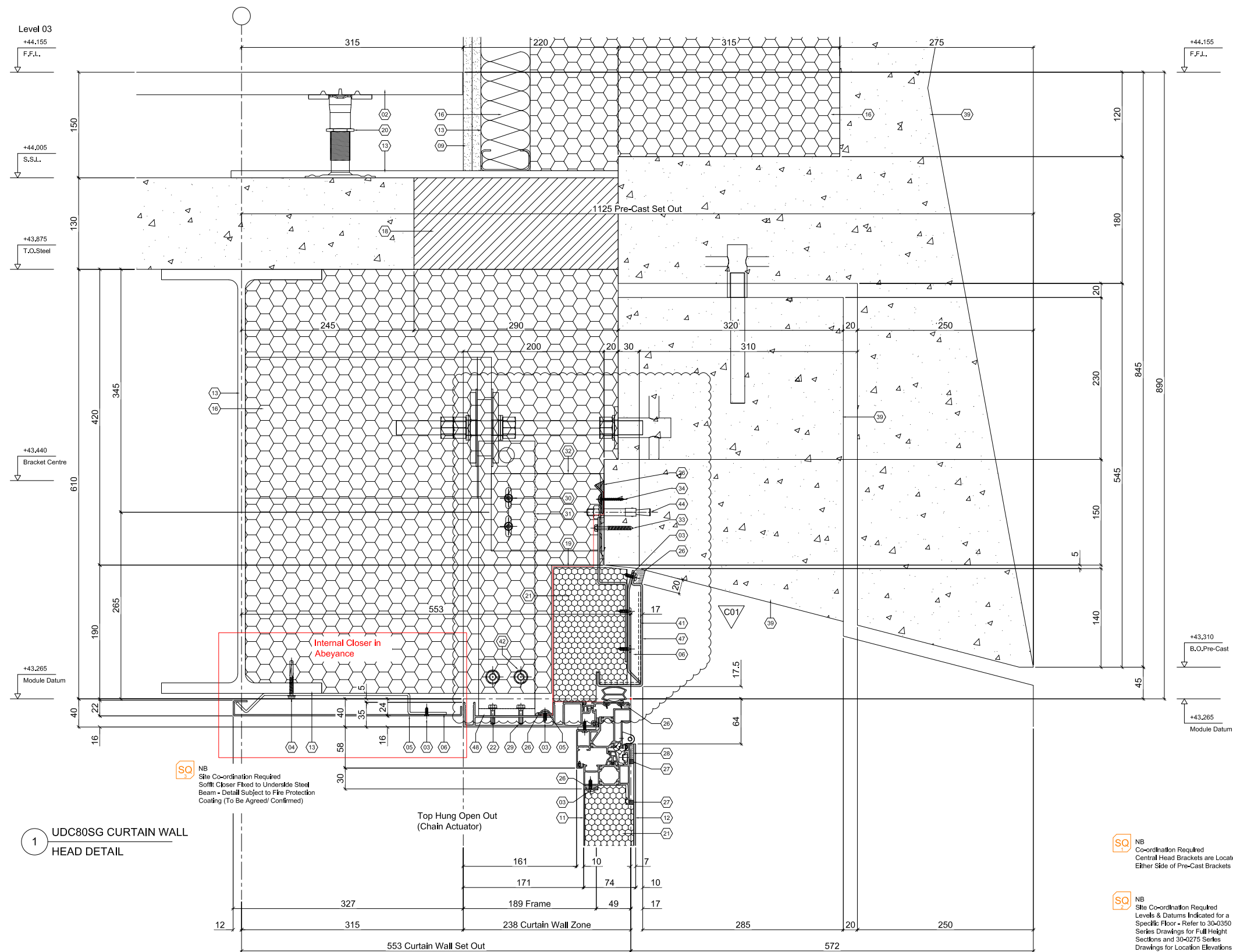


Precast pattern mould

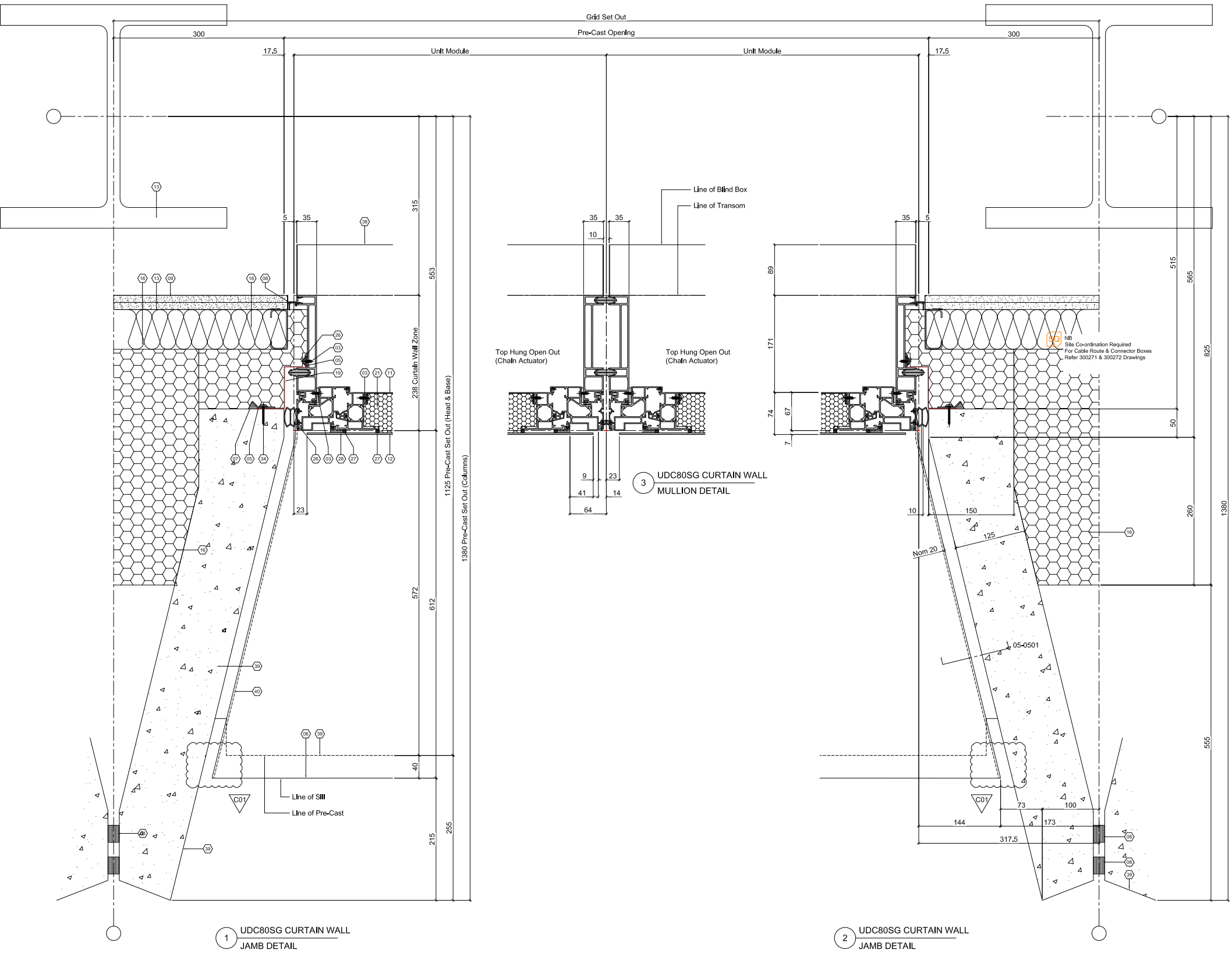
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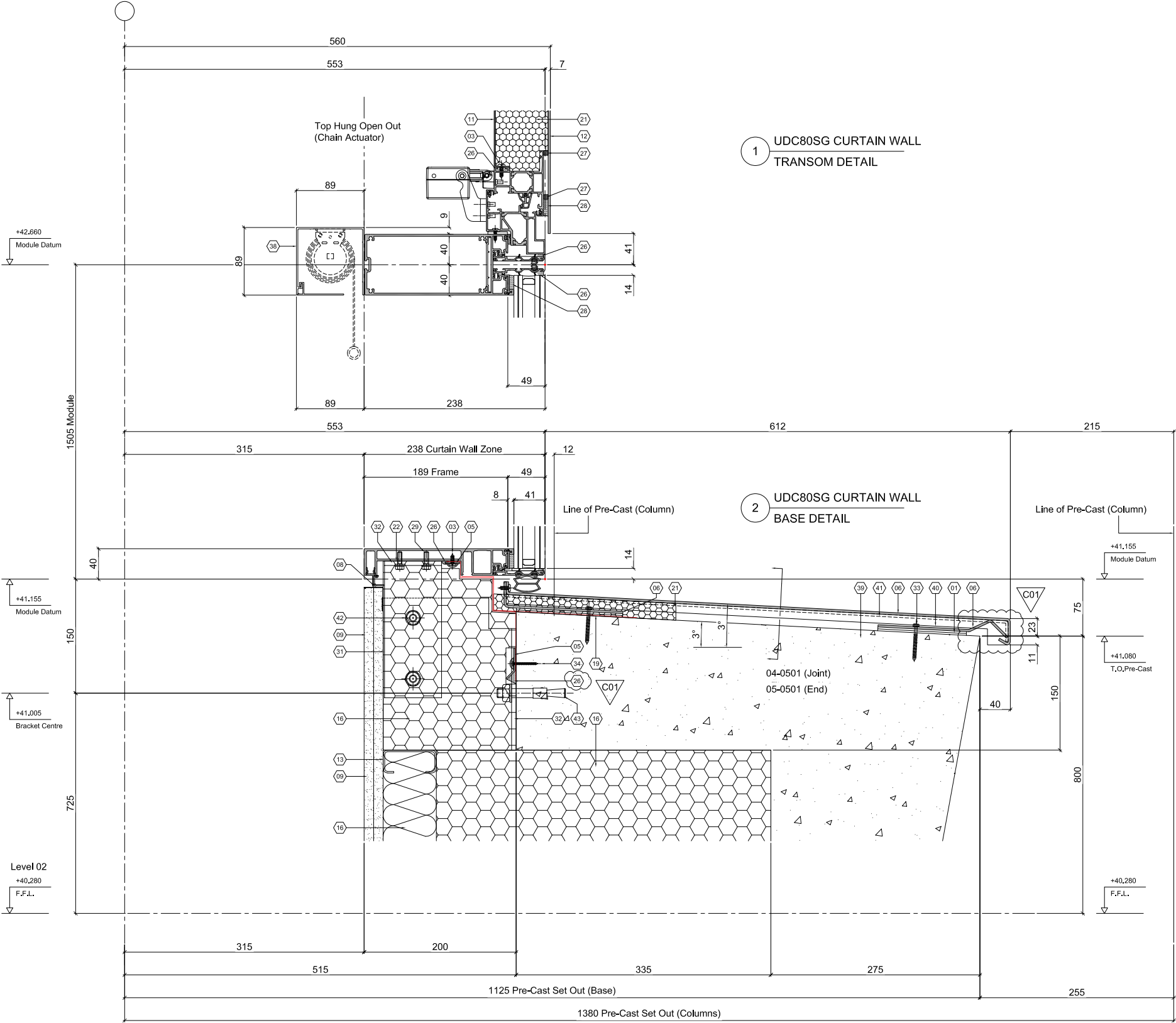
Proposed Details

5.1 Typical Floor Vent Panel to Techrete Section Detail



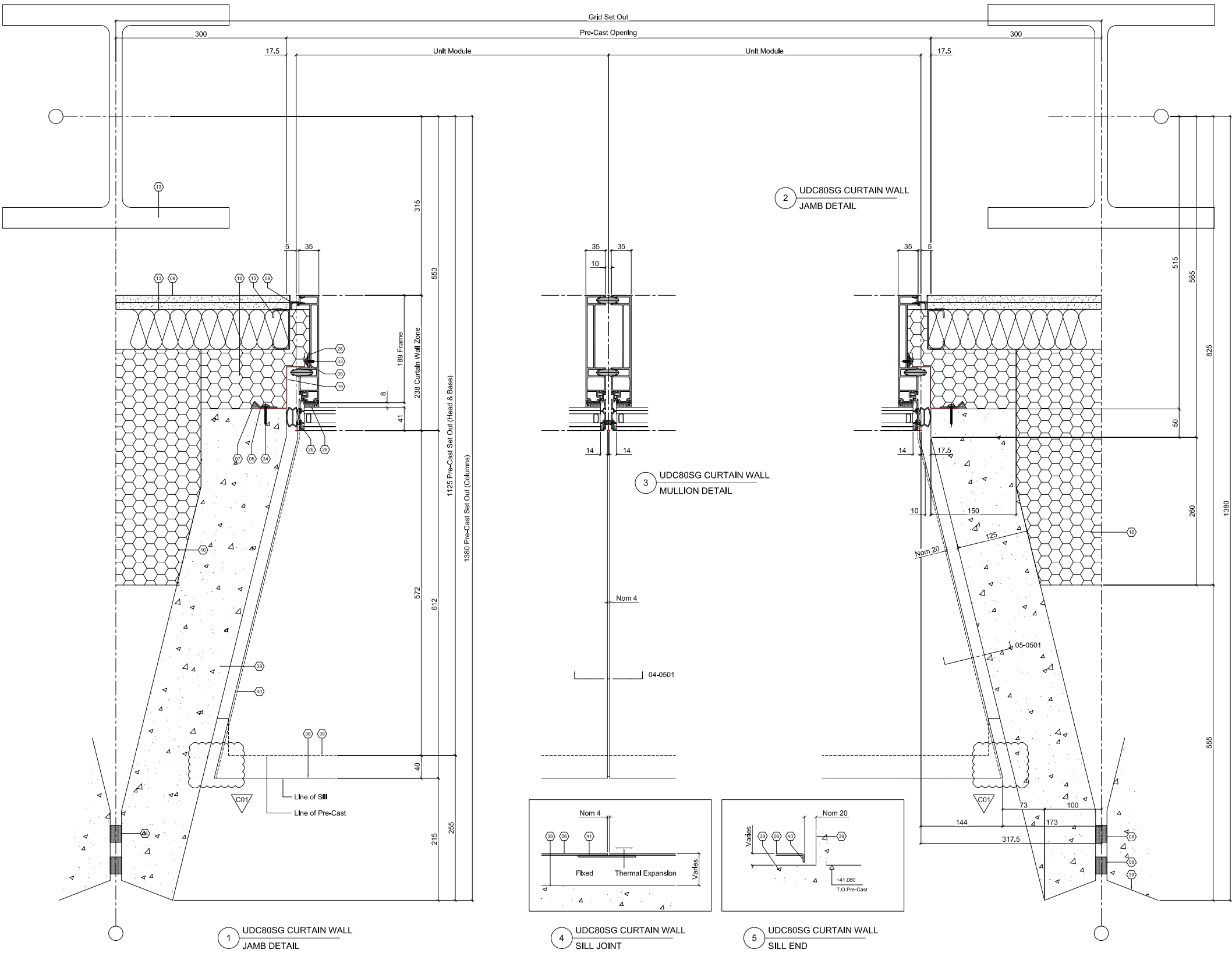
5.2 Typical Floor Vent Panel to Techrete Plan Detail

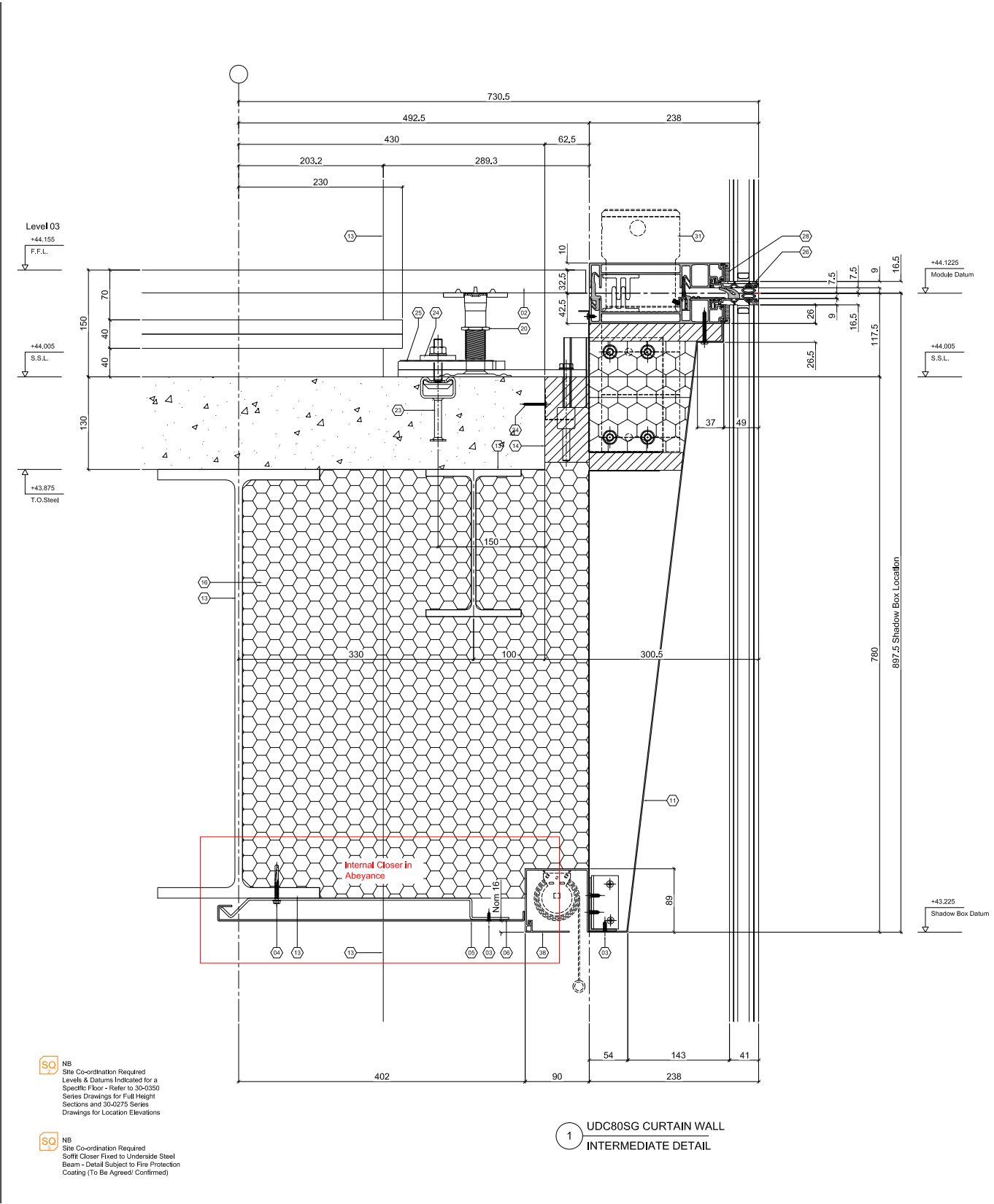




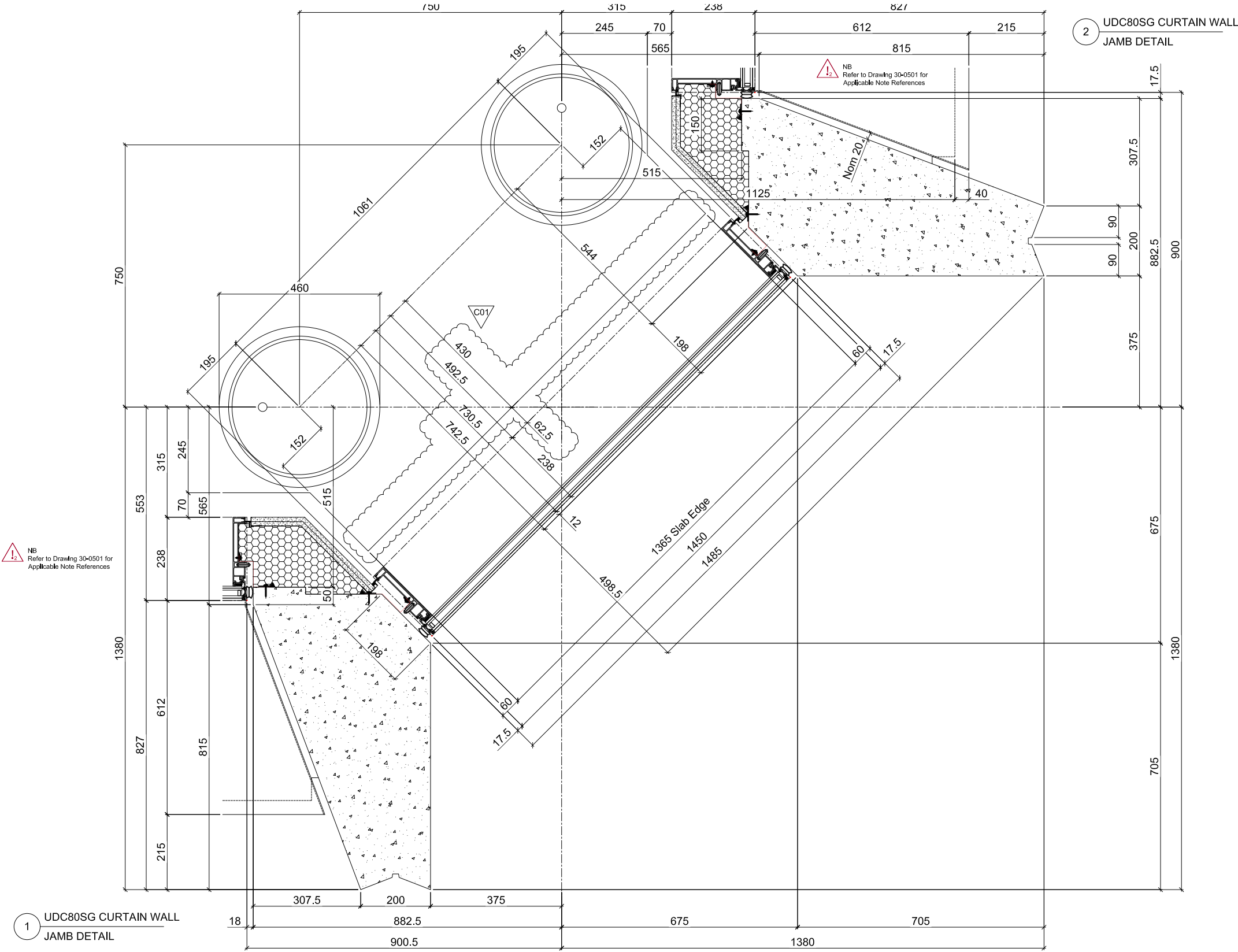
sq NB
Site Co-ordination Required
Levels & Datums Indicated for a
Specific Floor - Refer to 30-0350
Series Drawings for Full Height
Sections and 30-0275 Series
Drawings for Location Elevations

5.4 Typical Floor Glazing to Techrete Plan Detail

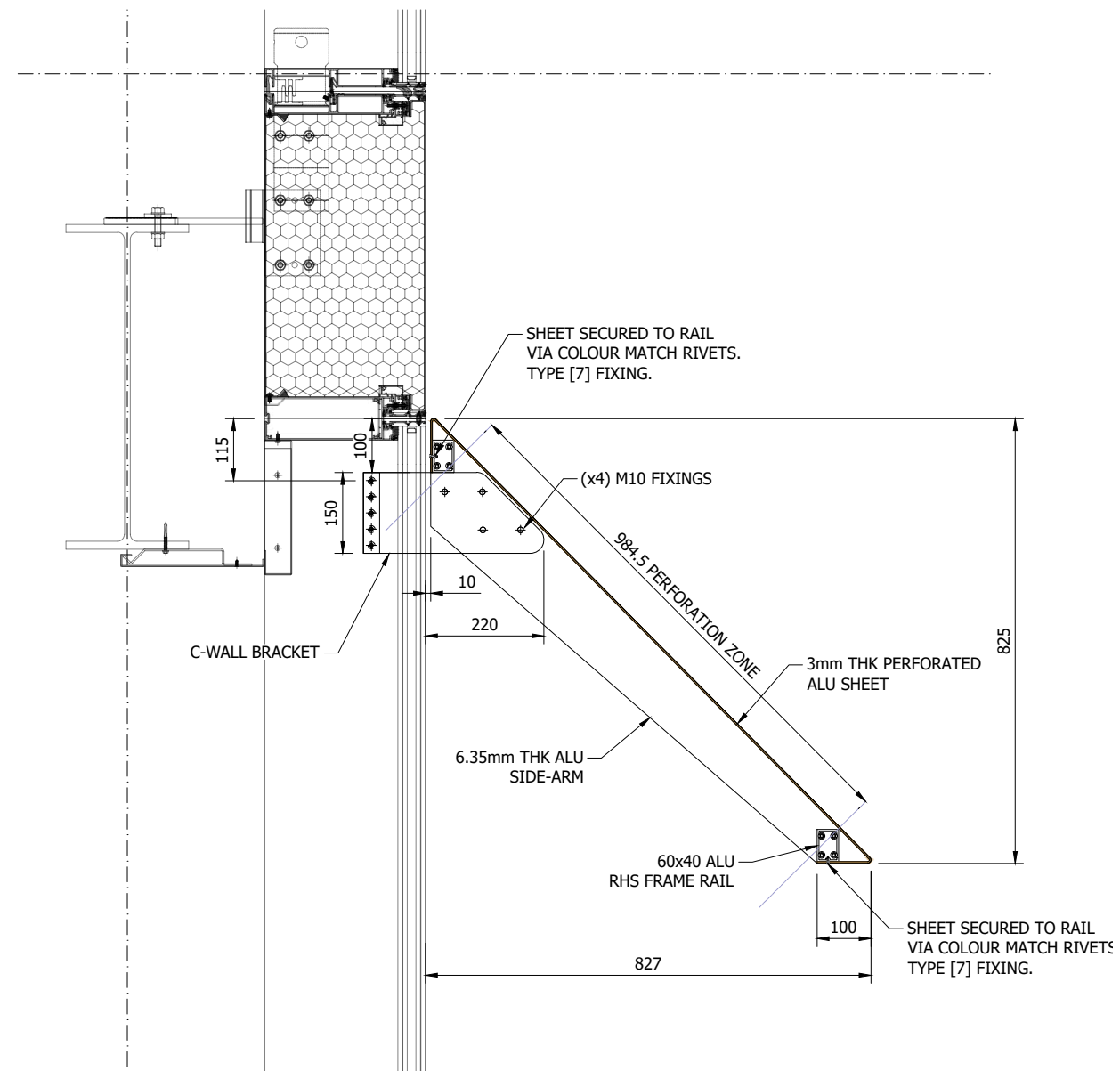




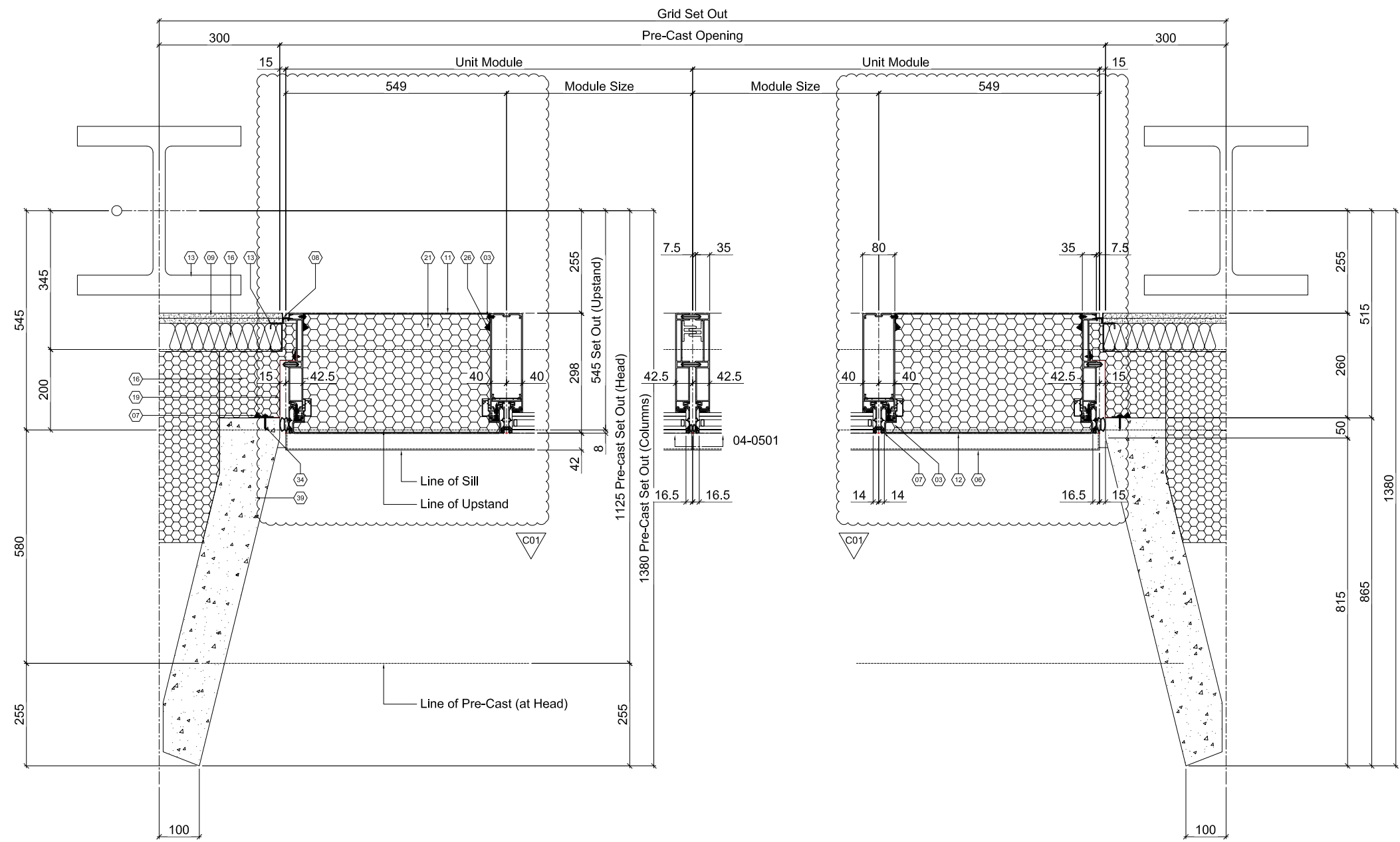
5.6 Corner Glazing Plan Detail



5.7 First Floor Slab Edge Section Detail



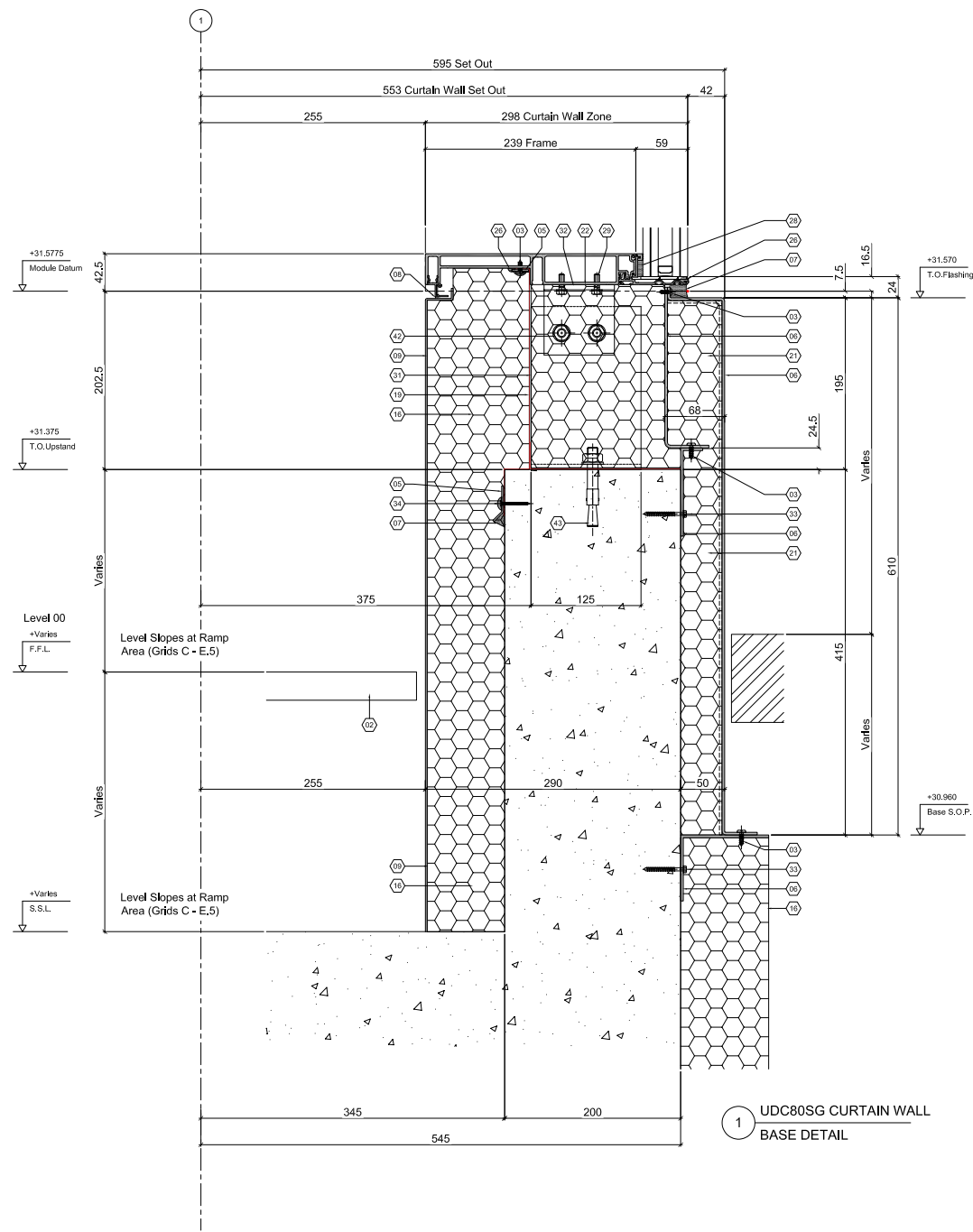
5.8 Ground Floor Curtain Walling Plan Detail



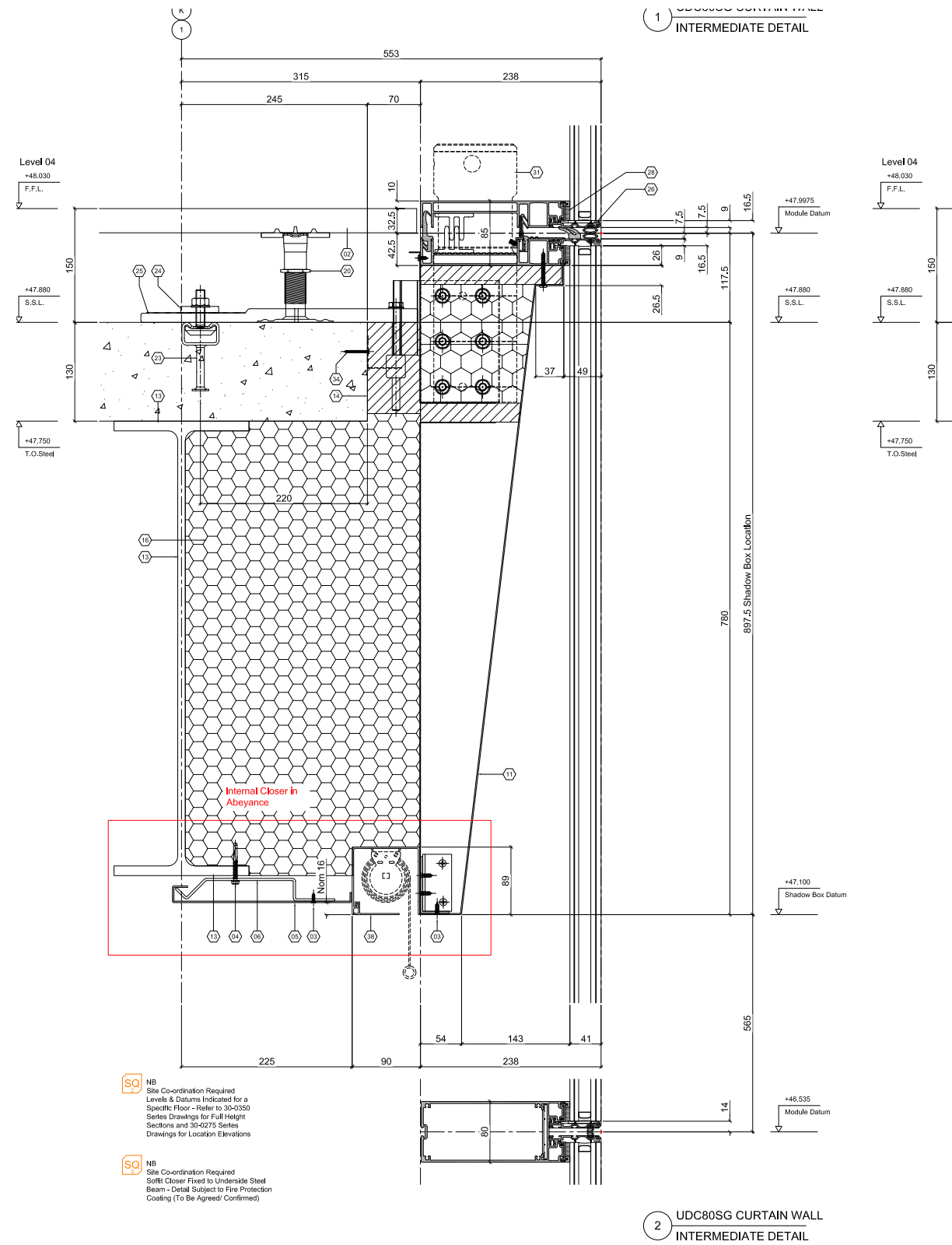
1 UDC80SG CURTAIN WALL
JAMB DETAIL

3 UDC80SG CURTAIN WALL
MULLION DETAIL

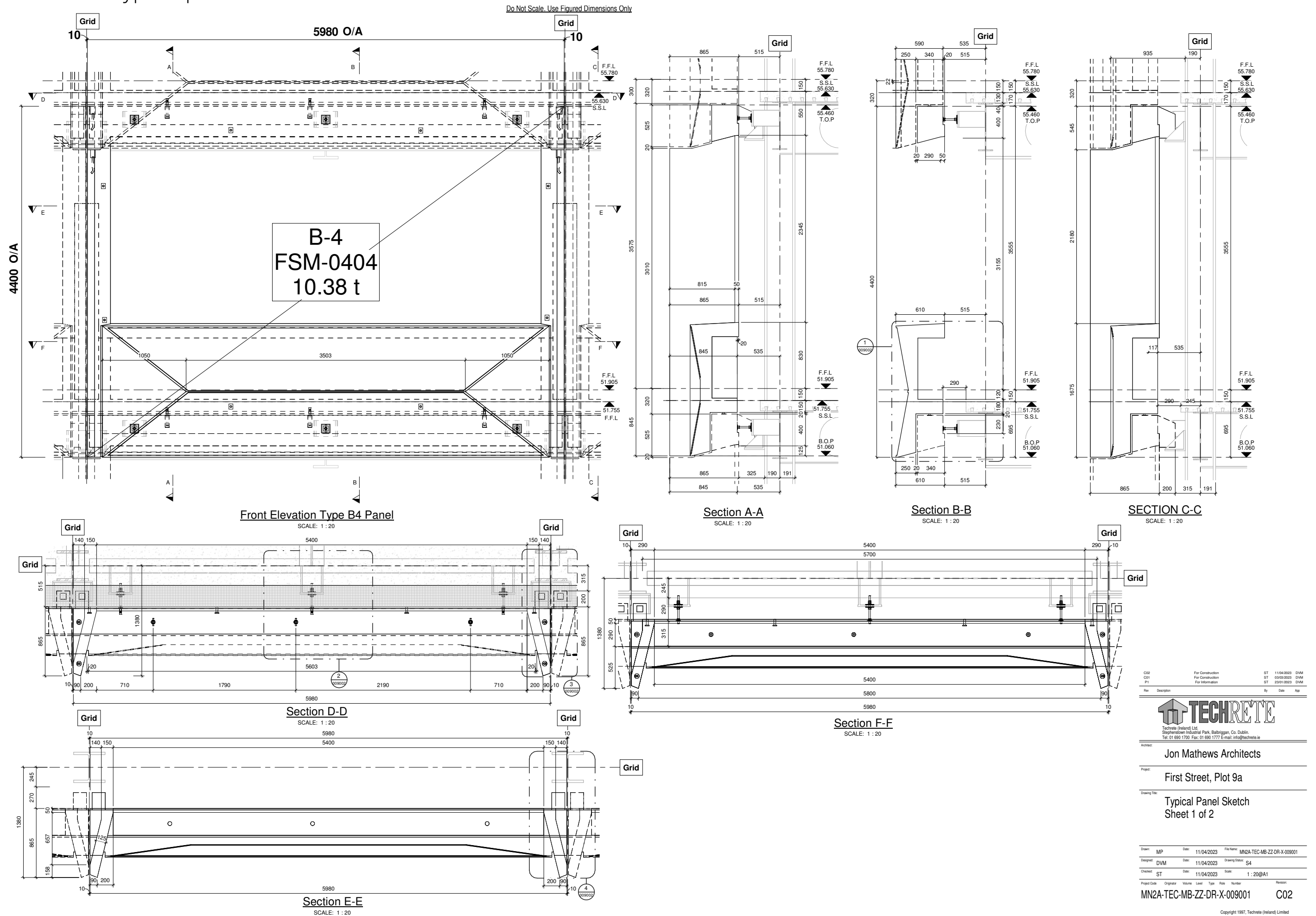
2 UDC80SG CURTAIN WALL
JAMB DETAIL



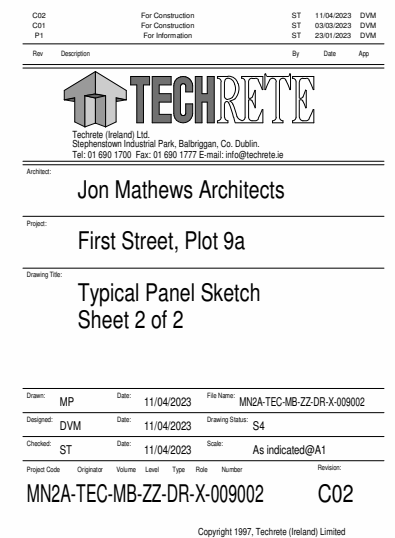
5.10 Winter Garden Curtain Walling Section Detail



5.11 Techrete typical panel details

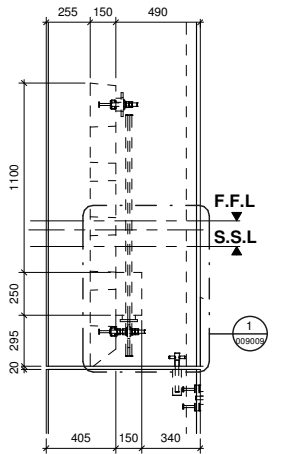


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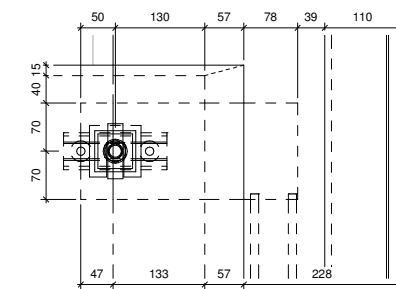


34

Do Not Scale. Use Figured Dimensions Only

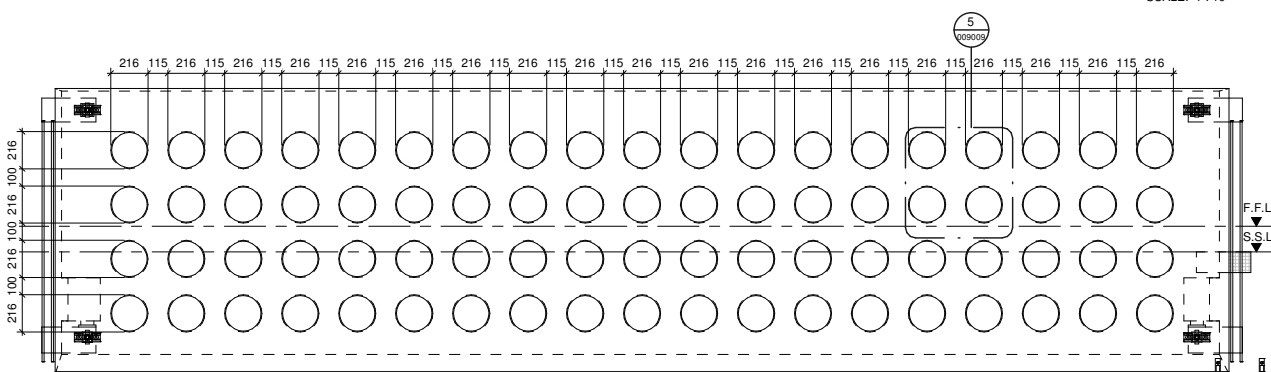


Section C-C
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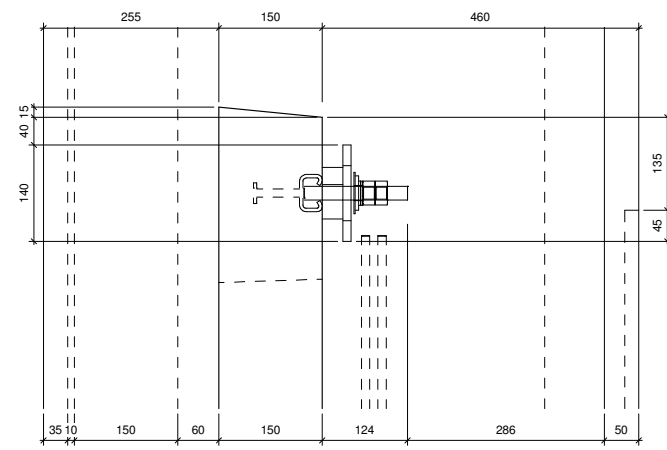


Detail 3

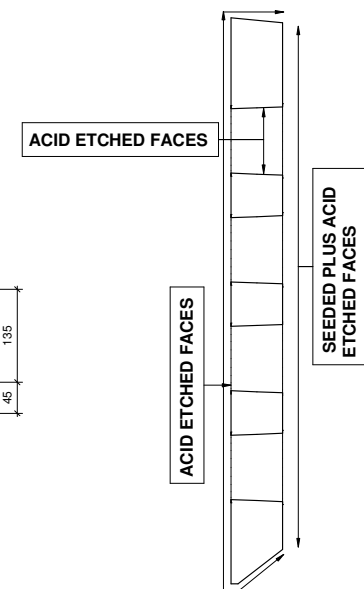
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Void Detail
SCALE: 1 : 20



DETAIL 4
SCALE: 1 : 5

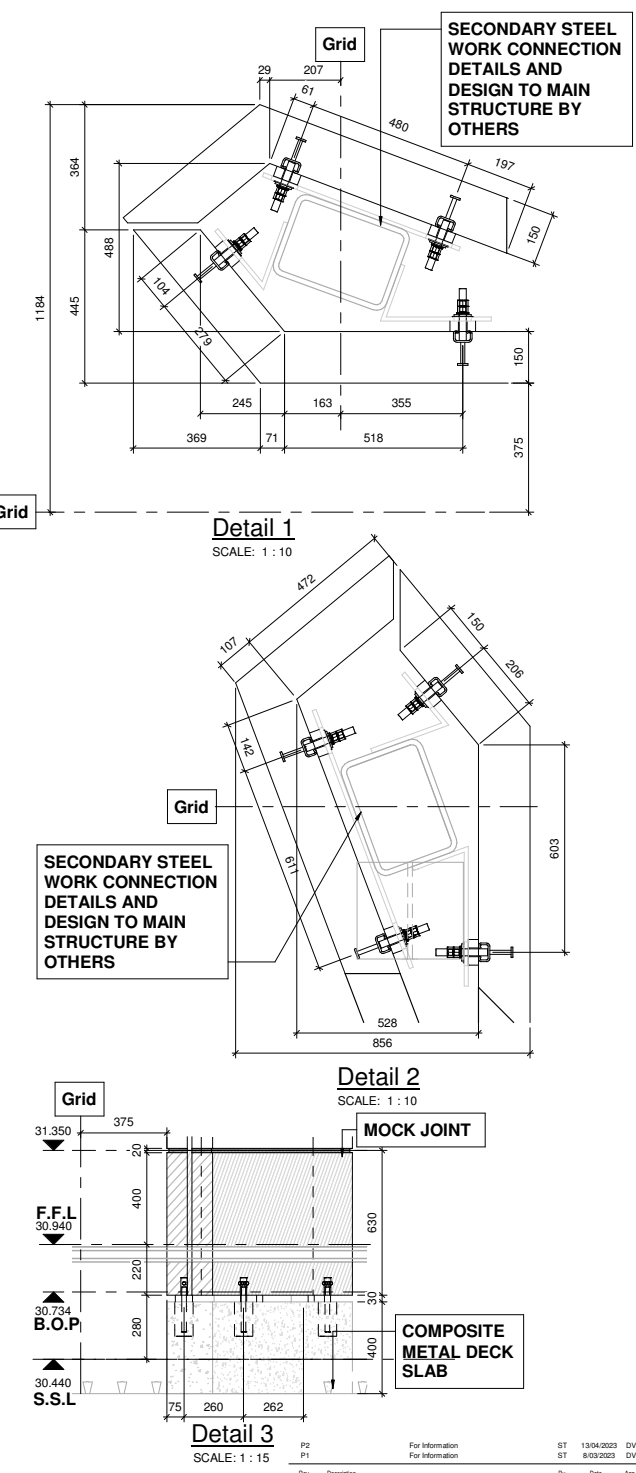
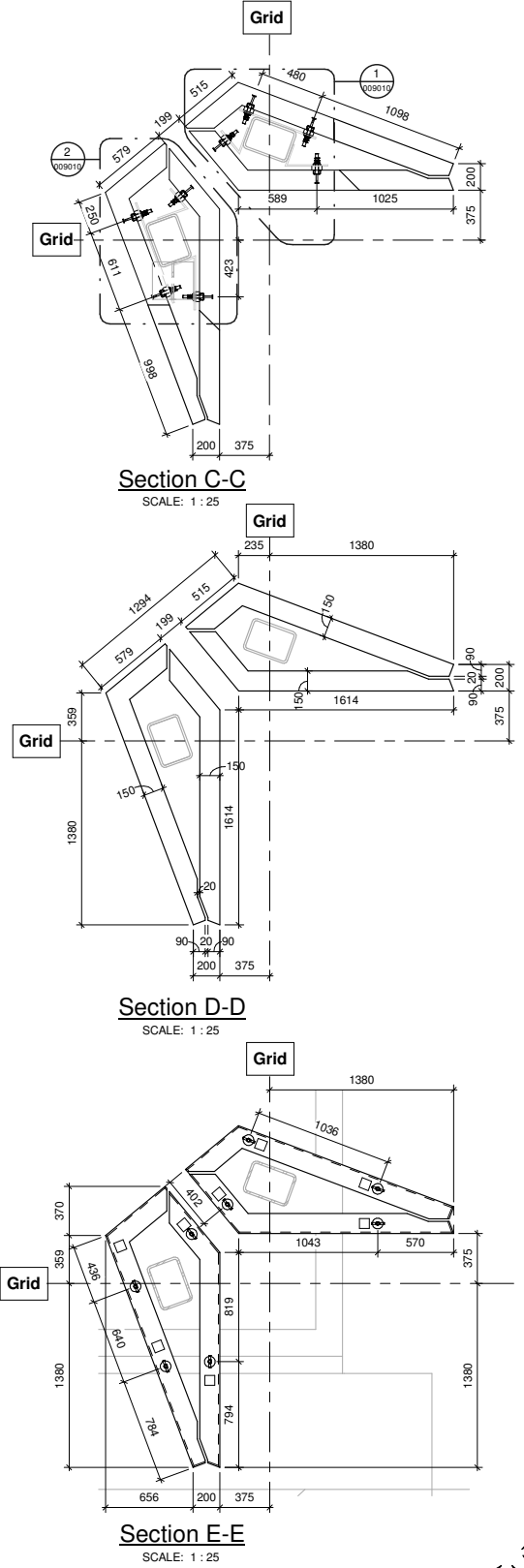
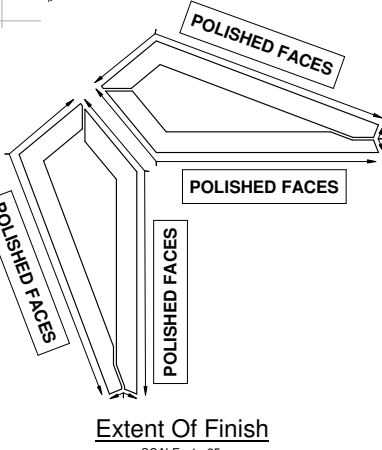
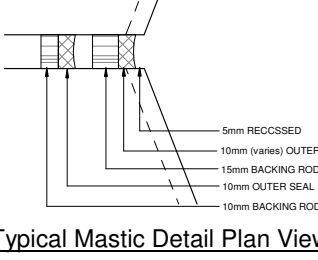
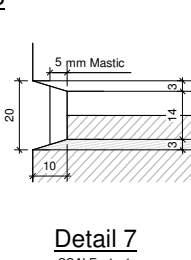
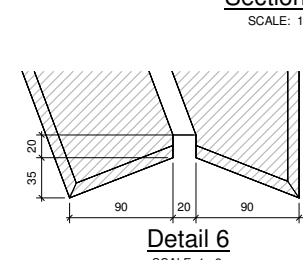
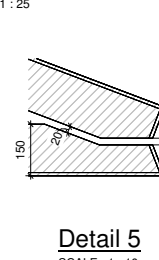
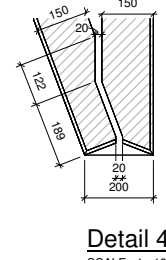
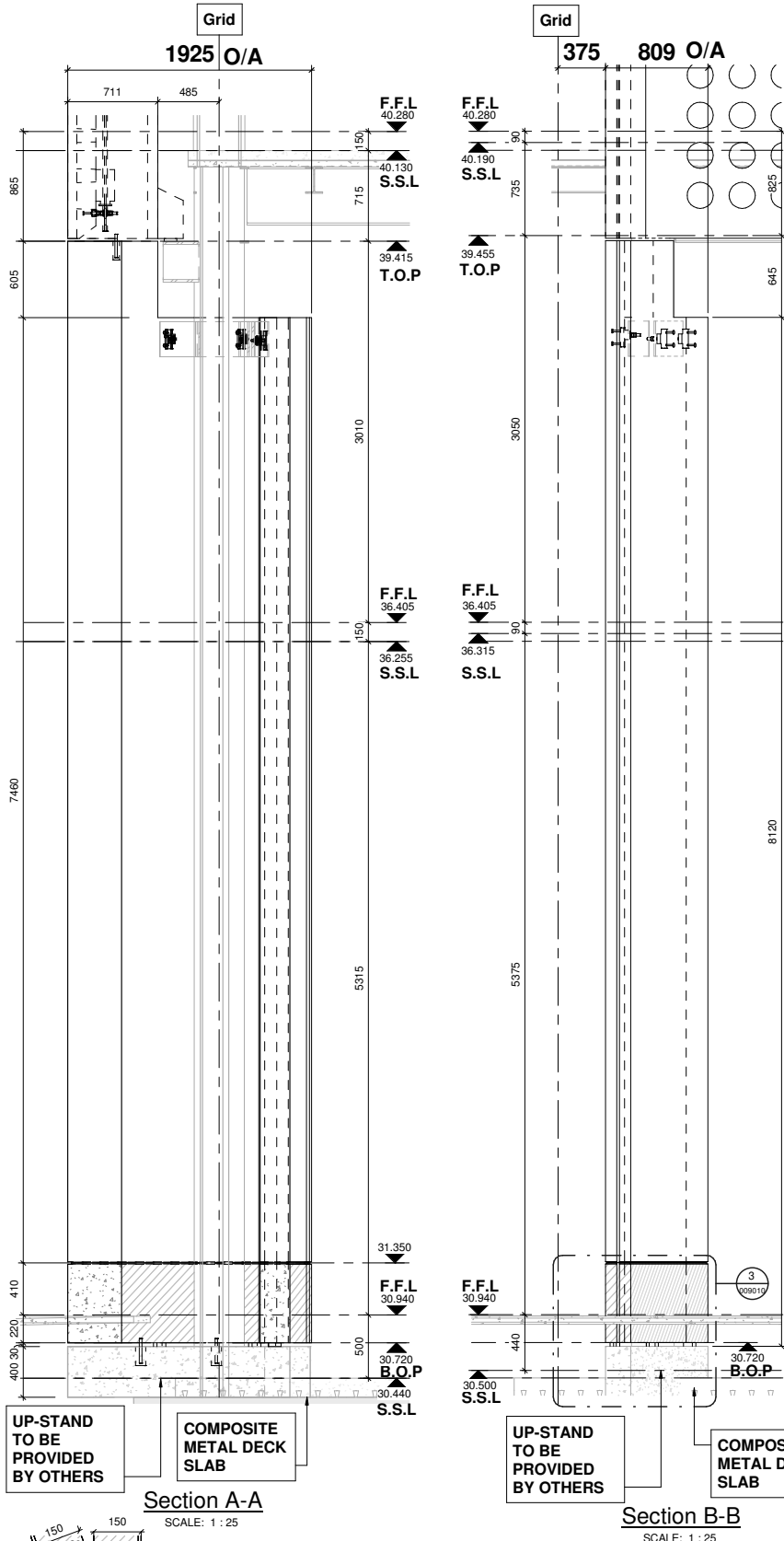
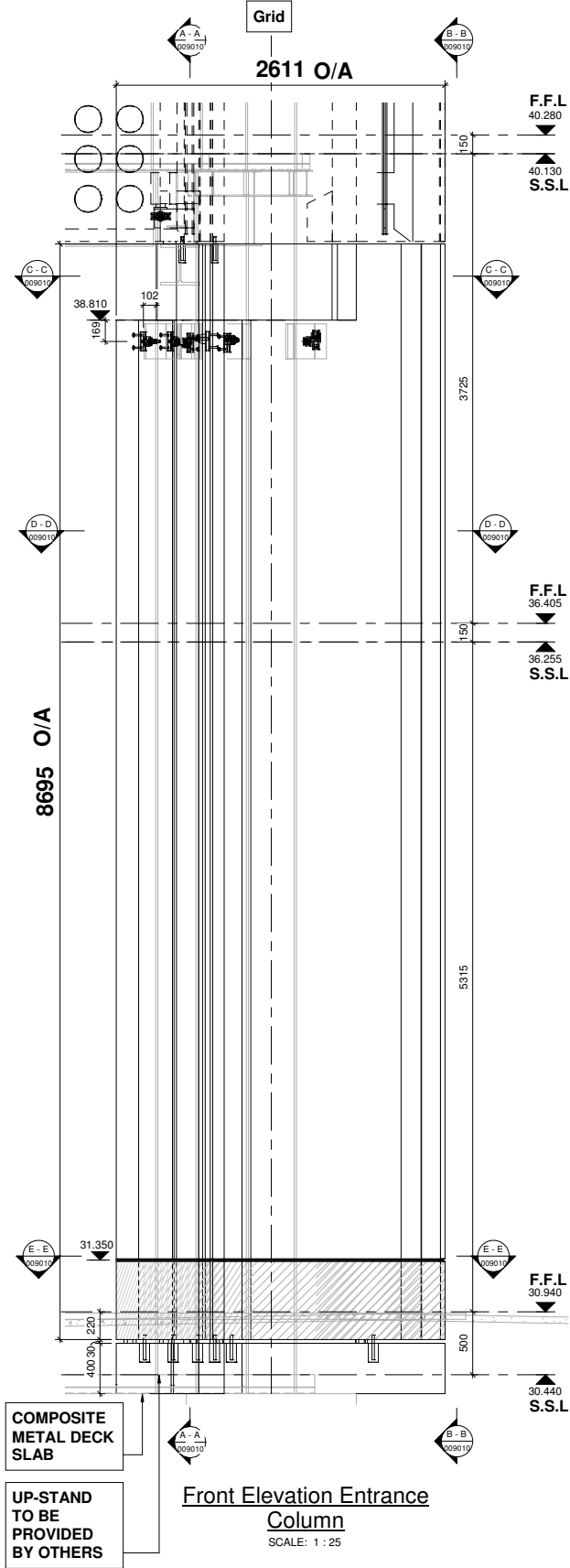


Extent Of Finish
Detail 6
SCALE: 1 : 10

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5.14 Techrete Entrance Column Details

Do Not Scale. Use Figured Dimensions Only



TECHRETE
Techrete (Ireland) Ltd.
Shepherdstown Industrial Park, Ballybrigan, Co. Dublin.
Tel: 01 690 1700 Fax: 01 690 1777 E-mail: info@techrete.ie

Architect:
Jon Matthews Architects
Project:
First Street, Plot 9a
Drawing Title:
Entrance columns

Rev	Description	By	Date	App
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P1	For Information	ST	8/03/2023	DVM

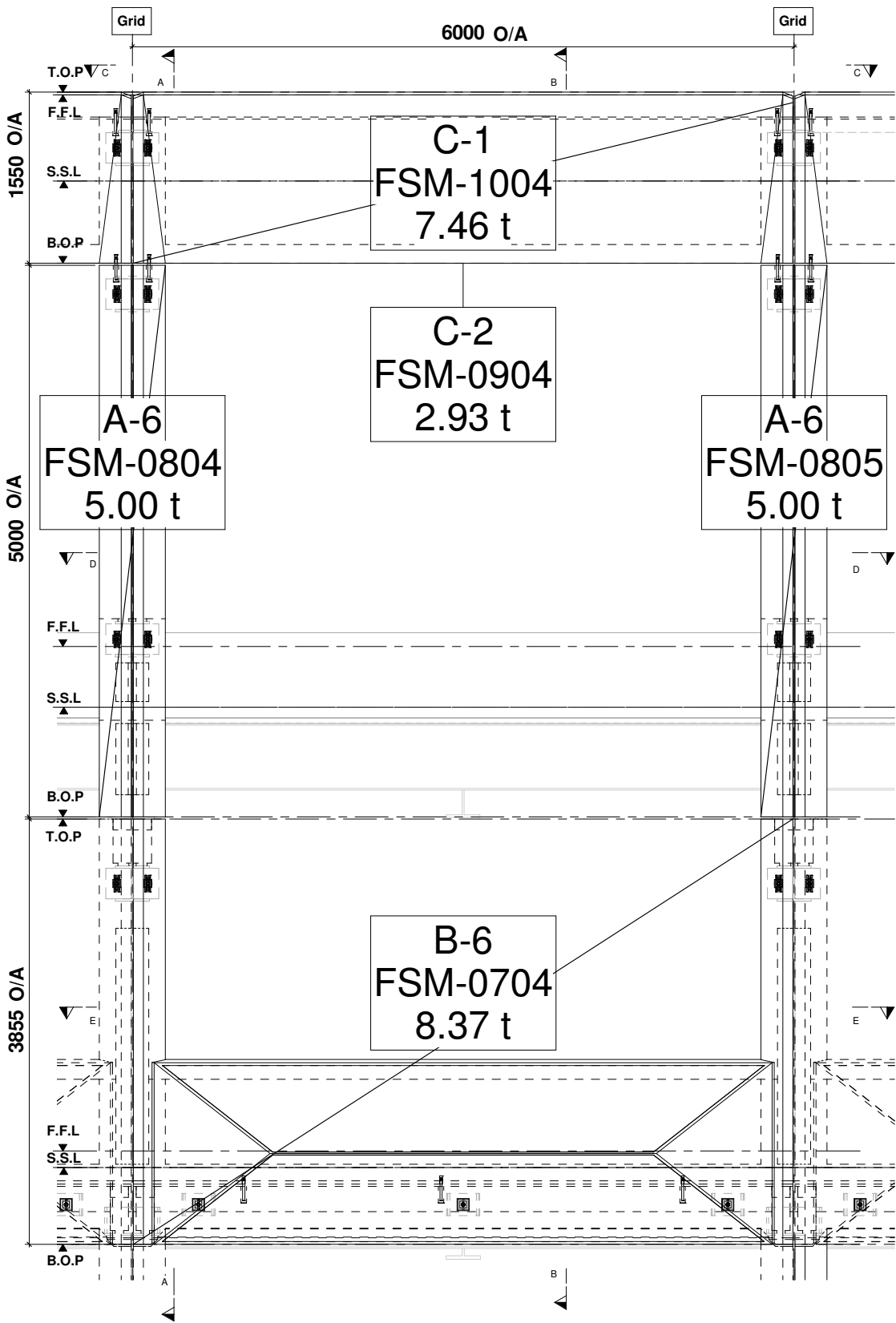
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Designed: DVM Date: 13/04/2023 Drawing Status: S3
Checked: ST Date: 13/04/2023 Scale: As indicated@A1

Project Code: MN2A-TEC-MB-ZZ-DR-X-009010 P2

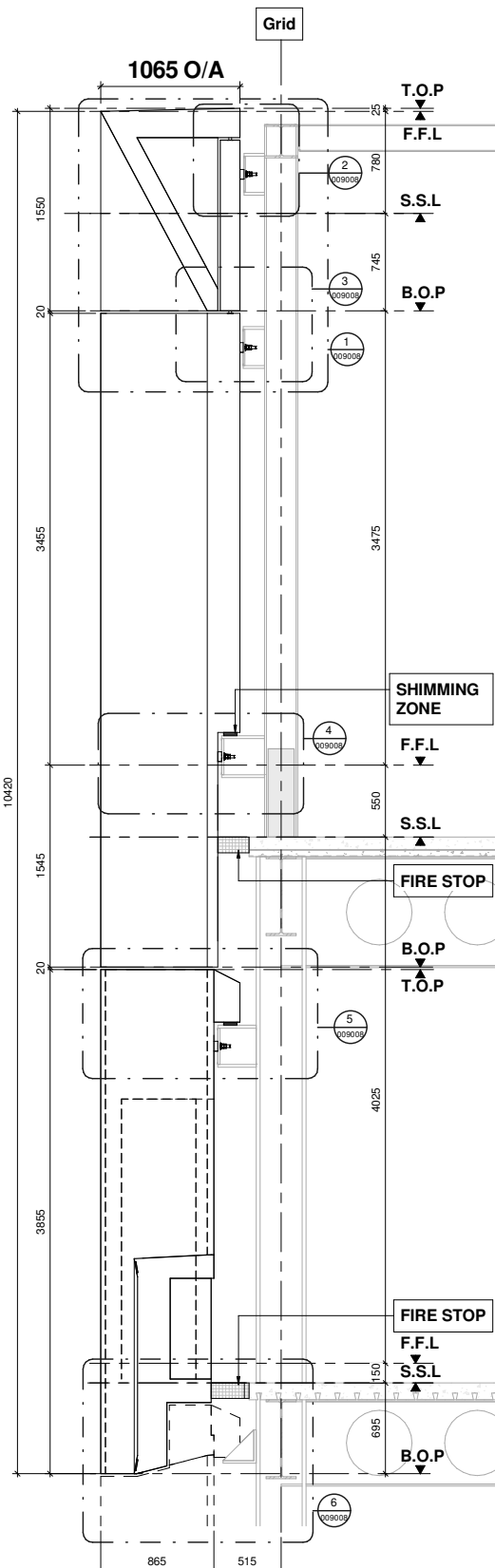
Copyright 1997, Techrete (Ireland) Limited

5.15 Techrete Roof Panel Details

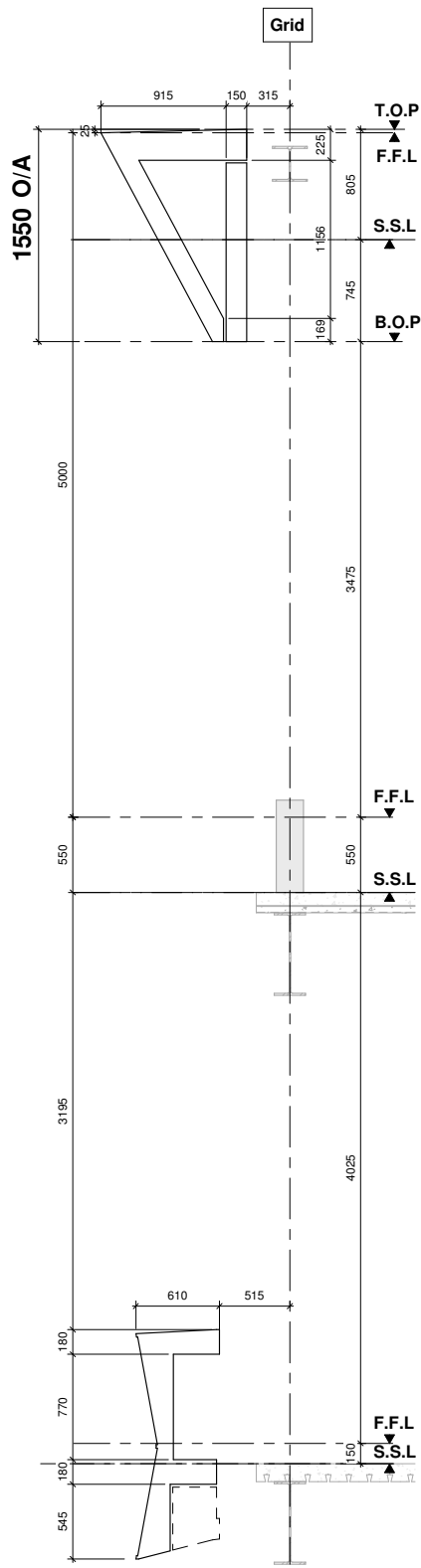
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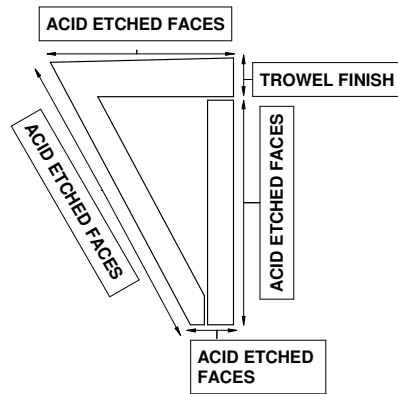
Front Elevation Roof Panels
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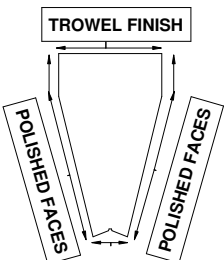
Section A-A
SCALE: 1 : 25



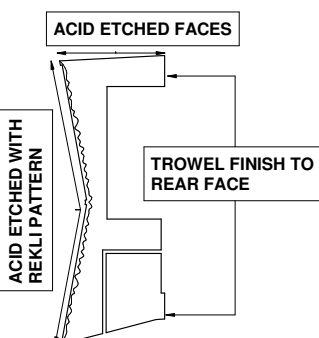
Section B-B
SCALE: 1 : 25



Extent Of Finish
Top Spandrel
SCALE: 1 : 20



Extent Of Finish
Right Side Mullion (Middle Portion)
SCALE: 1 : 20

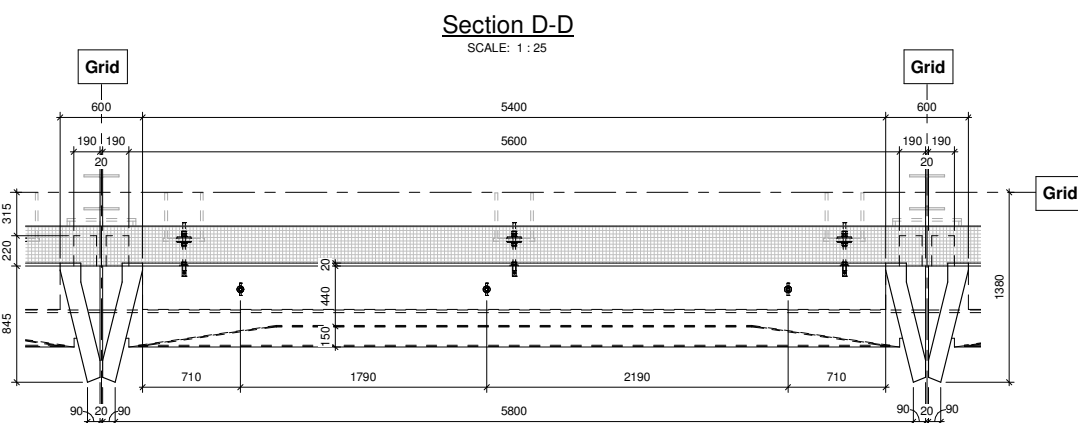
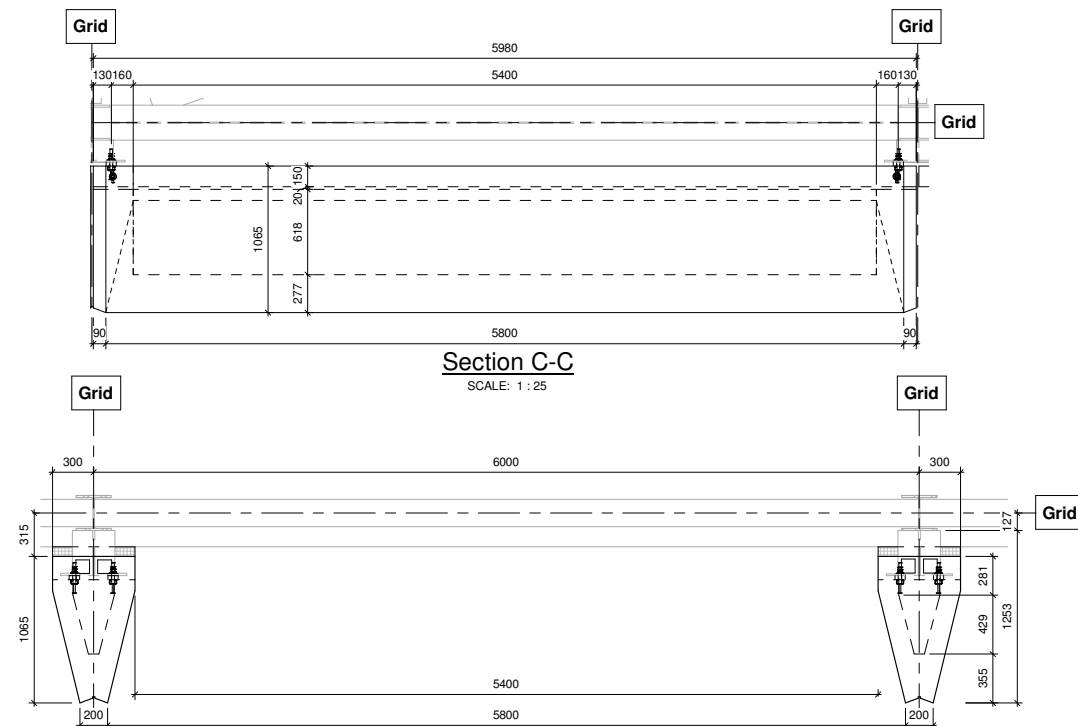


Extent Of Finish
Left Side Mullion At Bottom Spandrel
SCALE: 1 : 20

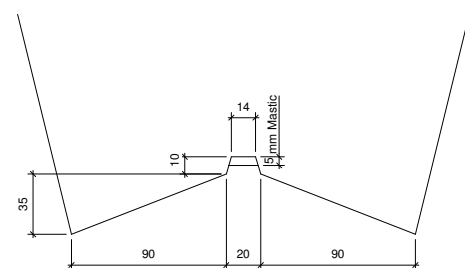
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P1	For Information	ST	13/02/2023	DVM
Rev	Description	By	Date	App
TECHRETE Techrete (Ireland) Ltd. Shannon Industrial Park, Ballyragan, Co. Dublin. Tel: 01 690 1700 Fax: 01 690 1777 E-mail: info@techrete.ie				
Architect: Jon Matthews Architects				
Project: First Street, Plot 9a				
Drawing Title: Roof Panels Sketch Sheet 1 of 2				
Drawn	MP	Date	19/04/2023	File Name
Designed	DVM	Date	19/04/2023	Drawing Status
Checked	ST	Date	19/04/2023	Scale
Project Code	Originator	Volume	Level	Type
MN2A-TEC-MB-ZZ-DR-X-009007				Revision
				P2

5.16 Techrete Roof Panel Details

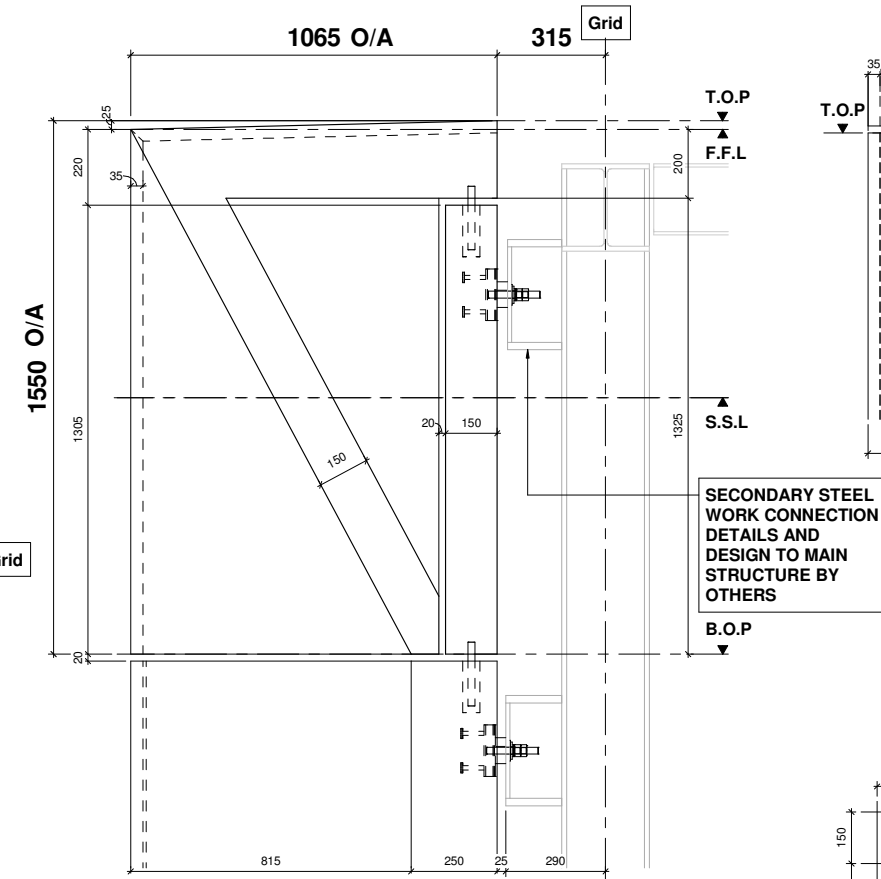
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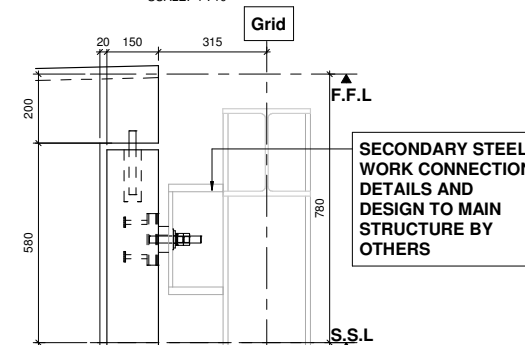
Section E-E
SCALE: 1 : 25



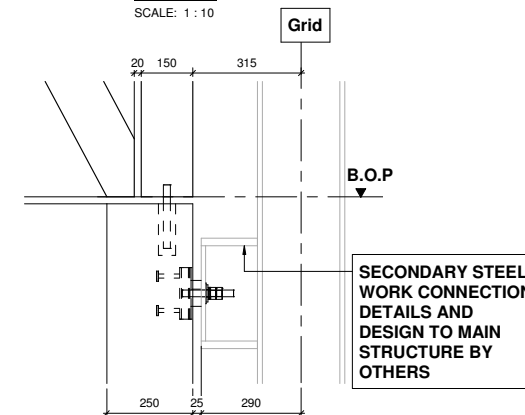
Typical Groove Detail
SCALE: 1 : 2



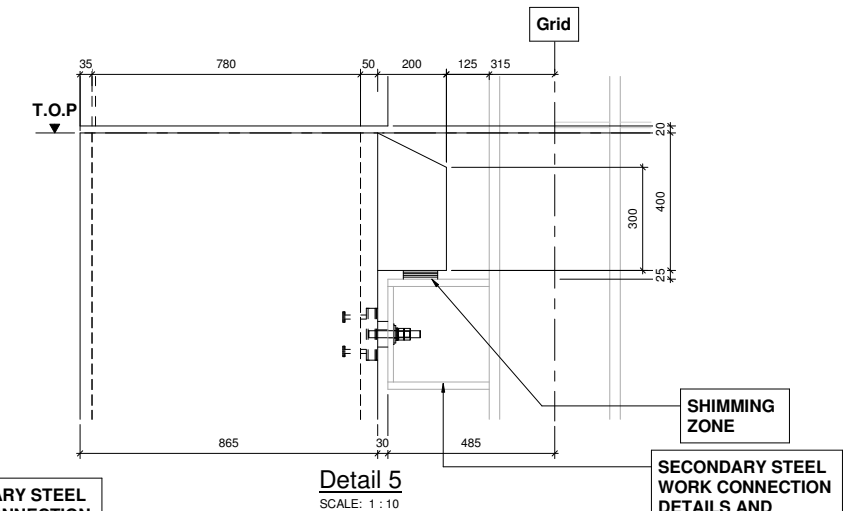
Detail 1
SCALE: 1 : 10



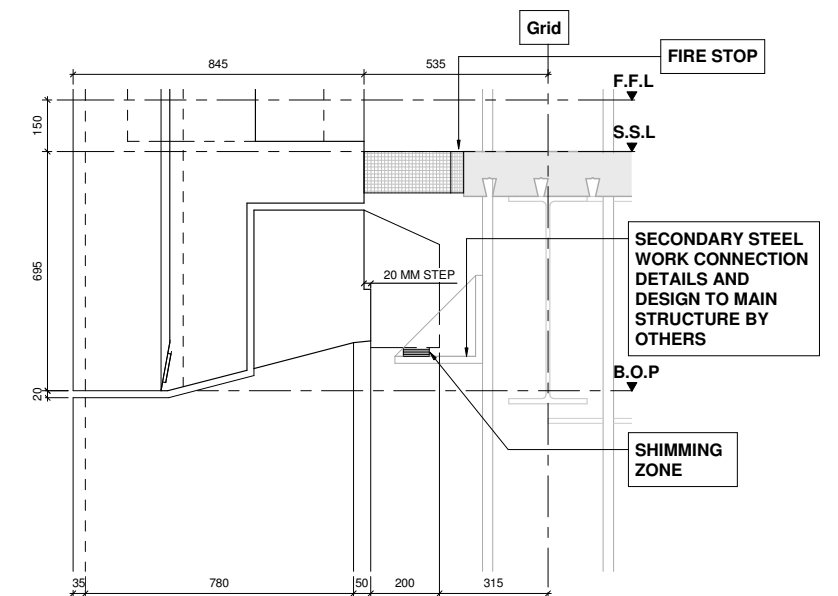
Detail 2
SCALE: 1 : 10



Detail 3
SCALE: 1 : 10



Detail 5
SCALE: 1 : 10



Detail 6
SCALE: 1 : 10

P2	For Information	ST	19/04/2023	DVM
P1	For Information	ST	13/02/2023	DVM
Rev	Description	By	Date	App



Techrete (Ireland) Ltd.
 Stephenstown Industrial Park, Balbriggan, Co. Dublin.
 Tel: 01 690 1700 Fax: 01 690 1777 E-mail: info@techrete.ie

Jon Mathews Architects

First Street, Plot 9a

Drawing Title: _____

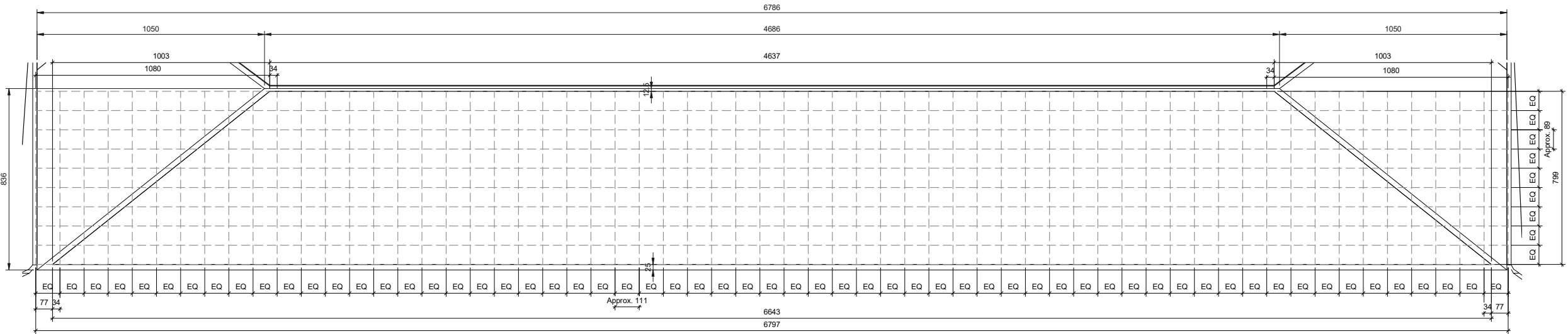
Roof panels sketch sheet
2 of 2

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Designed:	DVM	Date:	19/04/2023	Drawing Status:	S3
Checked:	ST	Date:	19/04/2023	Scale:	As indicated@A1

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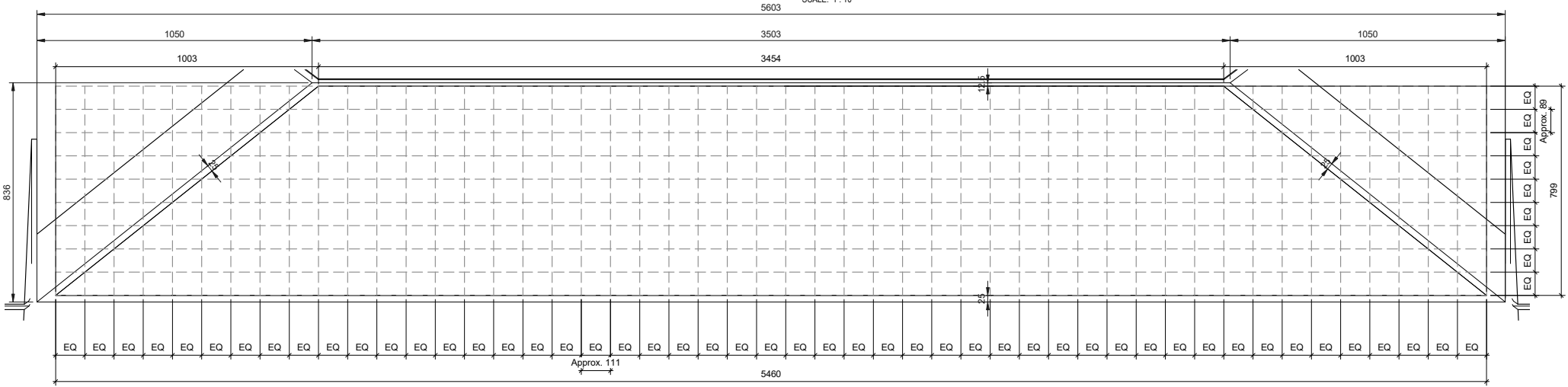
5.17 Techrete Pattern Details

Do Not Scale. Use Figured Dimensions Only



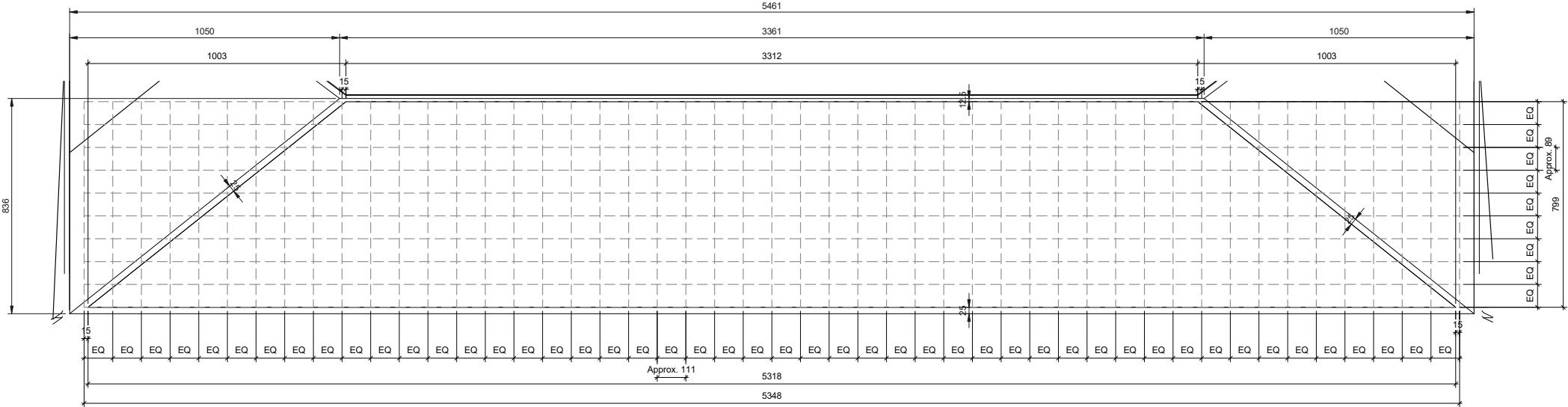
Reckli Detail 3

SCALE: 1 : 10



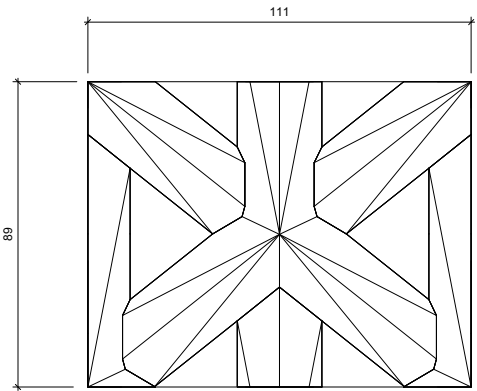
Reckli Detail 1

SCALE: 1 : 10



Reckli Detail 2

SCALE: 1 : 10



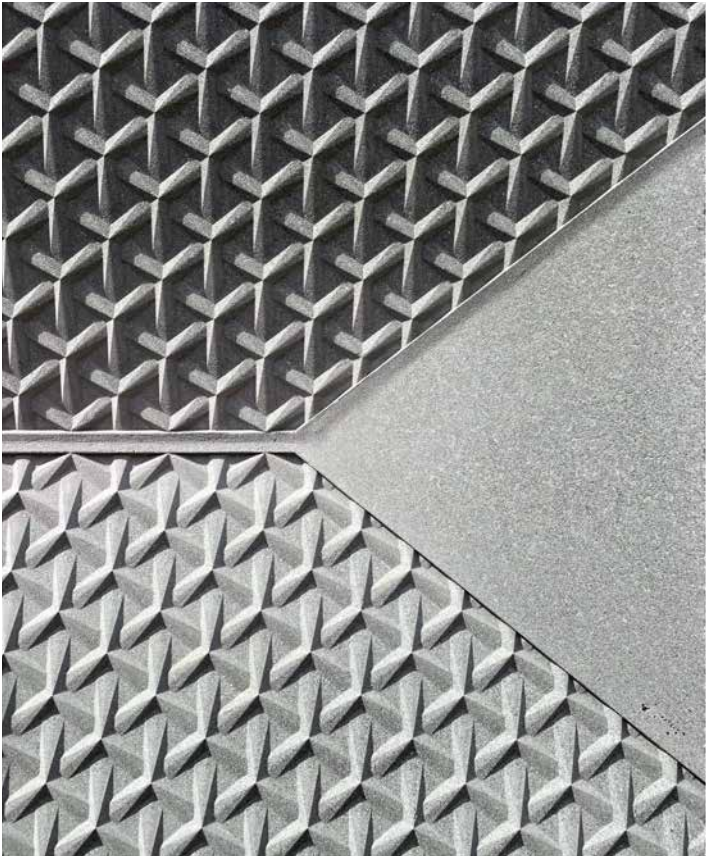
Reckli Detail

P1	For Approval			SV	08/03/2023	DVM
Rev	Description	By	Date	App		
 TECHRETE Techrete (Ireland) Ltd. Stephinstown Industrial Park, Ballyragan, Co. Dublin. Tel: 01 690 1700 Fax: 01 690 1777 E-mail: info@techrete.ie						
Architect:						
Jon Mathews Architects						
Project:						
First Street, Plot 9a						
Drawing Title:						
RECKLI SETTING OUT AND DETAIL						
Drawn:	DVM	Date:	08/03/2023	File Name:	MN2A-TEC-MB-ZZ-DR-X-009050	
Designed:	DVM	Date:	08/03/2023	Drawing Status:	S3	
Checked:	ST	Date:	08/03/2023	Scale:	As indicated@A1	
Project Code	Original	Volume	Level	Type	Rate	Revision
MN2A-TEC-MB-ZZ-DR-X-009050						P1

6.0 Addendum



A full panel showing the scale of the components



The pattern catching light in different ways

The photographs on this page show the benchmark pre cast concrete cladding panels by Techrete.

These panels will then be transported to England for the windows and vent panels to be added before being installed on the building.



A detail of the junction between the polished pier and the acid etched horizontal panel.



METHOD STATEMENT

AT

Plot 9a First street Manchester

Method Statement No: BH – Fin – MS001

This method statement has been reviewed by the Principal Contractor and is considered complete and correct in order that initial works can proceed – Addendums maybe added from time to time as the works progress.				
Status	A	B	C	
Signed				
Name : A Fotheringham			Date; 12/07/2023	



This method statement is intended to describe the procedures and a safe system of work required when Techrete are repairing and cleaning down the Pre-cast panels to the facades. These works take place after the PCC panels have been erected to completion on each elevation.

FII

1. Scope and Explanation of works

LOCALISED CLEANING OF CONTAMINATED UNITS

These procedures to be carried out by trained operative. Any use of chemicals or equipment to be as manufacturer's instructions and control of substances hazardous to health. (COSHH). Protective equipment to be worn at all times when carrying out this procedure.

Method Statement for Cleaning Finished Units.

Wash panels with Water to remove dirt. If rust or stubborn stains use safety clean as per enclosed manufacturers instructions where required. Note repaired sections should be allowed to cure for a minimum of one day.

Environmental management: The resulting solution is harmless and can go to normal surface water drains.

Once applied - to specific small areas at a time - the areas being worked on are then washed down – this wash down dilutes the material to such an extent there is negligible if any environmental impact.

Repair of Reconstituted Stone

This procedure to be carried out by a trained operative any use of chemicals or equipment to be as manufacturers instructions and control of substances hazardous to health (COSHH). Protective equipment to be worn at all times when carrying out this procedure. Proof of training includes COSHH training and quality training and years of experience in the factory.

This repair procedure is intended for the repair of the reconstituted stone that has suffered minor physical damage of a cosmetic nature i.e. damage to arrises, chipping of corners etc. using approved same repair mix only. If damage has been broken out deeper than the surface layer of reinforcing the damaged area will be assessed further, and a decision made whether the panel can be repaired, or another method used.

1. Repair Procedure

Preparation

The object of the surface preparation is to achieve a clean sound surface with a good mechanical key. All cracked and loose concrete should be cut away. This will usually be chiselled using either; a hammer and chisel, angle grinder fitted with a stone cutting blade or by using a mechanical chisel. The work will be of short duration for repairs and will not reach the HAVS point limit as set by the HSE and also detailed in our vibration tools risk assessment attached.

All substrates should be free of dust and any other deleterious material. Smooth substrates must be mechanically roughened by scabbling to provide a mechanical key. The edges of the damaged area should be cut back to minimise feather edging.

2. Priming

The concrete should be thoroughly dampened with water and any excess materials removed prior to applying a slurry coat.

Avoid puddling of the slurry coat. The topping must be applied onto the wet slurry. If the slurry dries out it must be removed and the surface reprimed.

3. Mixing

A patching mortar will be mixed using the constituent's proportions given on the mix design sheet attached. Patching mortar is made from 'Tenax' and / or Akemi resin-based semi solid mixed with appropriate coloured mix to match.

4. Application

The patching mortar is to be trowelled into the repair area. It is to be finished to match existing line and level of adjacent work.

5. Repairs to blow holes. (If applicable)

Blow holes in return faces are only to be filled if excessive in depth, this is done as follows:

- a) A fine repair mix is produced as per the appropriate mix design sheet.
- b) The surface is to be primed by thoroughly wetting with clean water.
- c) The repair mix, which consists of Tenax a semi solid resin and appropriately coloured sand, is applied to the surface and thoroughly worked into the surface using a sponge, rag, wooden float or fine stone until all the blow holes are filled with repair mix.
- d) Once the surface has initially dried any excess repair mix should be removed by lightly rubbing with a rag taking care that the repair mix is not pulled from the blow holes.

- e) Once the repaired surface has cured for a minimum of 1 day it can be finished off.

5. Repairs to fine surface cracks.

Fine surface cracks should be repaired as below:

- a) Firstly, the crack should be sealed by.
- b) Once the crack has been sealed it should be filled in using a fine repair mix as per the appropriate mix design sheet.
- c) The repair mix, which consists of Tenax a semi solid resin and appropriately coloured sand, should be worked into the crack using a fine stone; any excess repair mix should be removed.
- d) Once the repair has cured the repaired area can be finished off.

REPAIR OF RETARDED PANELS

This procedure to be carried out by a trained operative (Records will be sent to site) any use of chemicals or equipment to be as manufacturers instructions and control of substances hazardous to health (COSHH). Protective equipment to be worn at all times when carrying out this procedure.

PPE

- Hard hat.
- Steel cap boots with steel mid soles.
- High visibility clothing.
- Gloves
- Safety glasses.

This repair procedure is intended for the repair of the reconstituted panels with a retarded finish that has suffered minor physical damage of a cosmetic nature i.e. damage to arrises, chipping of corners etc. using approved same repair mix only. It is not to be used where the damage is extensive or where the concrete has been broken out deeper than the surface layer of reinforcing. Alternatively use same mix directly from the batching plant. In all cases the damage is to be inspected by a Techrete Engineer who will recommend an appropriate solution.

1. Repair Procedure

Preparation

The object of the surface preparation is to achieve a clean sound surface with a good mechanical key. All cracked and loose concrete should be cut away. All substrates should be free of dust and any other deleterious material. Smooth substrates must be mechanically roughened by scabbling to provide a mechanical key. The edges of the damaged area should be cut back to minimise feather edging.

2. Priming

The concrete should be thoroughly dampened with water and excess removed before being primed by thoroughly scrubbing in a slurry coat of 1 volume Nitobond SBR (by Fosroc) to 1 volume water to 3 volumes of white cement.

Avoid puddling of the slurry coat. The topping must be applied onto the wet slurry. If the slurry dries out it must be removed and the surface reprimed.

3. Mixing

A patching mortar will be mixed using the constituent's proportions given on the mix design sheet attached or as instructed from Techrete UK Ltd. Brigg factory.

General Access

Direct foot traffic access to the low-level column panels will be provided via existing pathways.

Access equipment to be utilised will be either MEWP's , the Site Cradles , Mast Climbers or if at ground ladders may be utilised if footed and for a short period of time.

Resources

Competent and experienced operatives will undertake all operations. They will read and comply with this statement and undertake all works in a safe and controlled manner.

Certificates and Training

Requirements

CSCS Operatives Cards

All operatives will be familiar with the hazards of working at height.

When working from or operating either a cradle/man-rider basket or MEWP all personnel will wear a full body harness. This harness will consist of a fixed length lanyard not exceeding 2mts.

Reporting of Accidents

Any accident/incidents will be reported in accordance with the requirements of the "Reporting of Injuries Diseases and Dangerous Occurrences Regulations (RIDDOR) 1995.

All safety issues including accidents, dangerous occurrences and site hazards will be discussed with the Construction Managers Representatives at the time of occurrence.

In the event of an accidents and/or dangerous occurrences including "near misses" Techrete will carry out an investigation. A copy of the same will be forwarded onto the CM who in turn will report to the Group Safety/Safety Consultant.
All and any incidents will be reported to the Techrete Safety Officer at the earliest opportunity.

Plant & Equipment

Scaffold towers can be utilised where required however generally access to be utilised will be MEWP's , Site Cradles , Mast Climbers.

All tools to carry out tasks as detailed in this statement – Generally these consist of small hand tools. (ie trowels, brushes, buckets water hoses).

A pressure washer can be used if necessary to clean contaminated areas of panels.

Work Areas

Mock Up area , West, South , North and East Elevations where and if necessary.

Risk Assessments

This Method Statement is an addendum to the current Method Statement and as such and where applicable the Risk Assessments in the current Method Statement apply.

COSHH Assessments

The following COSHH assessments are attached for reference as required:

1. Safety Klean (cleaning material)
2. Tenax resin.

Product Data Sheets & Safety Data Sheets

1. Safety Klean
2. Tenax resin

Control Measures

Only quantities for use during a single day's work will be used at any one time.

Operatives will only carry enough materials for use at their particular work area.

Personnel Protective Equipment

All operative will be issued with, but not limited to the following mandatory PPE.

Safety Hard Hat
Steel Toe Capped Boots
Yellow Hi-vis vest
Safety goggles
Suitable Gloves

The following PPE will be made available for use as required,

MEWP's) Full Body Harness (Mandatory to be attached in the
Ear Defenders
Face Mask or goggles for potential dust.

6.3 Photos of Repair Work

The following photos illustrate the repair work carried out on the pre cast concrete cladding to the mock up cladding panel on site. The panel was intentionally damaged to demonstrate the repair methodology described on the previous pages.

01
10cm wide (5cm deep) cut out on exposed column section.



02
Repair mix in place



03
Repair finished. Note there will be a curing time until repair mix sets entirely to match existing column blend.



Simple, elegant design.