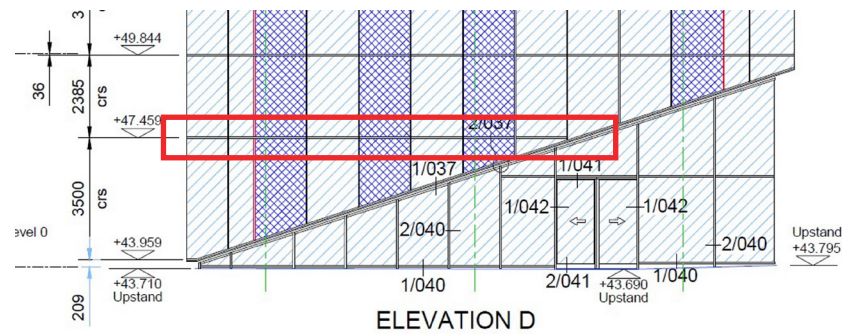


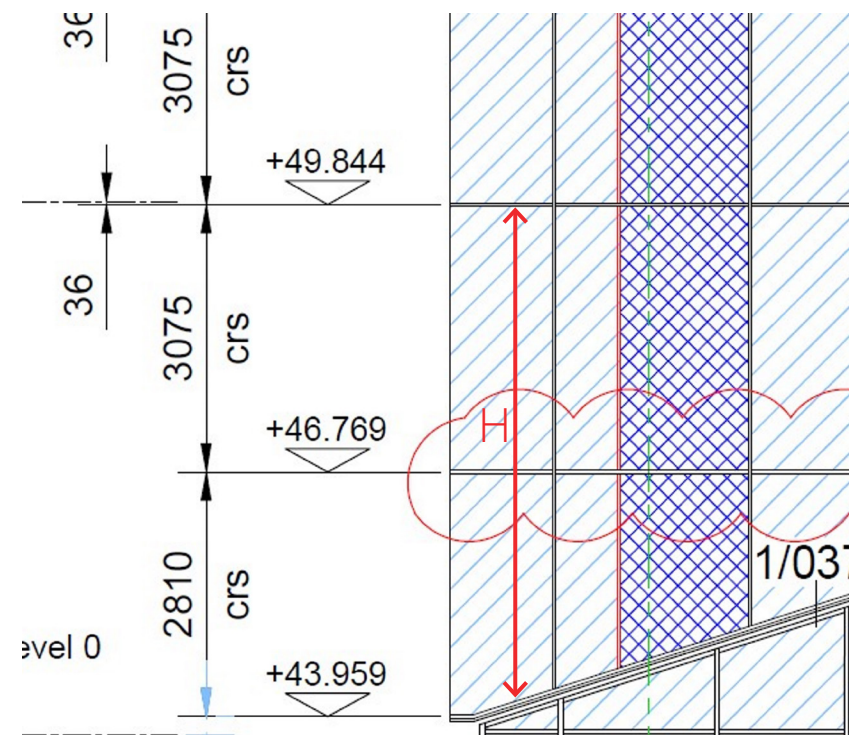
2.5 Glazing Technical Note: Shudehill Elevation Block A

This page provides the Technical Rationale for the proposed changes.

- “The system profile section properties limit the overall distance the profile can span between fixings. The system has been designed to span maximum $H = 3700\text{mm}$ (based Upon the maximum calculated wind load).”
- “Removing the transom will exceed this, at nearly 6m tall.
- The system is tested to set criteria limits of deflection that can not be exceeded.”

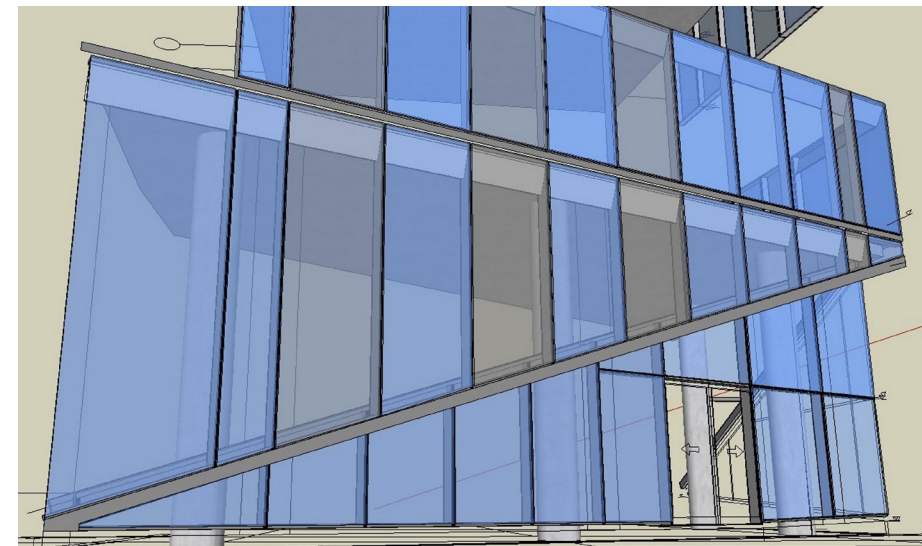


Extract of Ground Floor Shudehill Elevation - 01

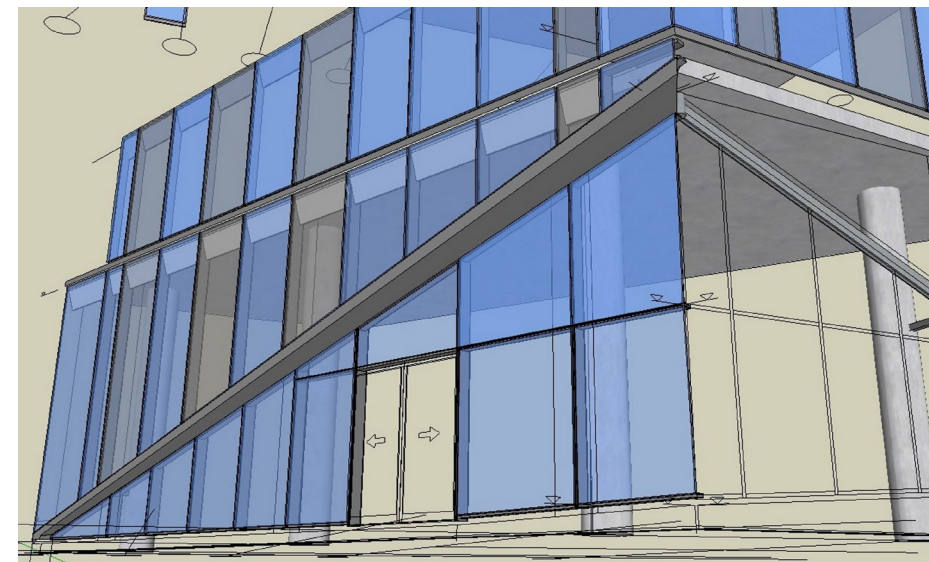


Extract of Ground Floor Shudehill Elevation - 02

- *“Alternative approach is to use standard stick curtain walling. The mullions can be reinforced internally with steel to span the required distance. The glass, although very large can be supplied in one piece.”*
- However this will result in a wide horizontal joint from separating level 1 from the upper floors as demonstrated in below images.



Visual from Shudehill



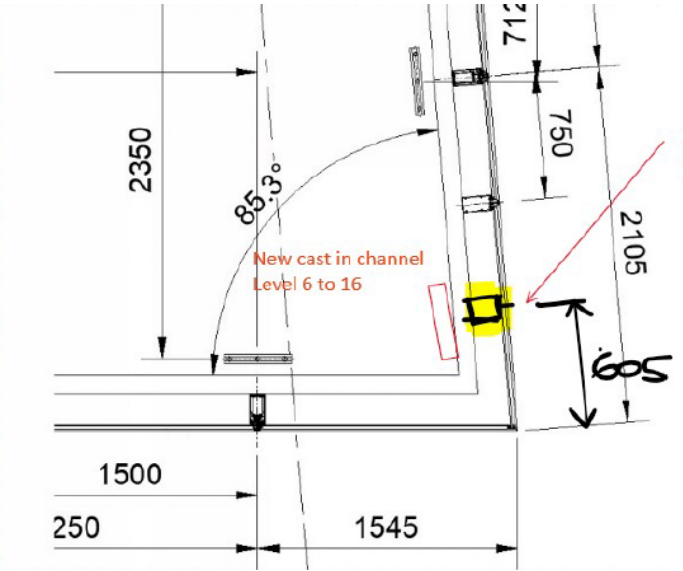
Visual from corner of Shudehill with Back Turner Street

2.6 Glazing Technical Note High Street Elevation Block A

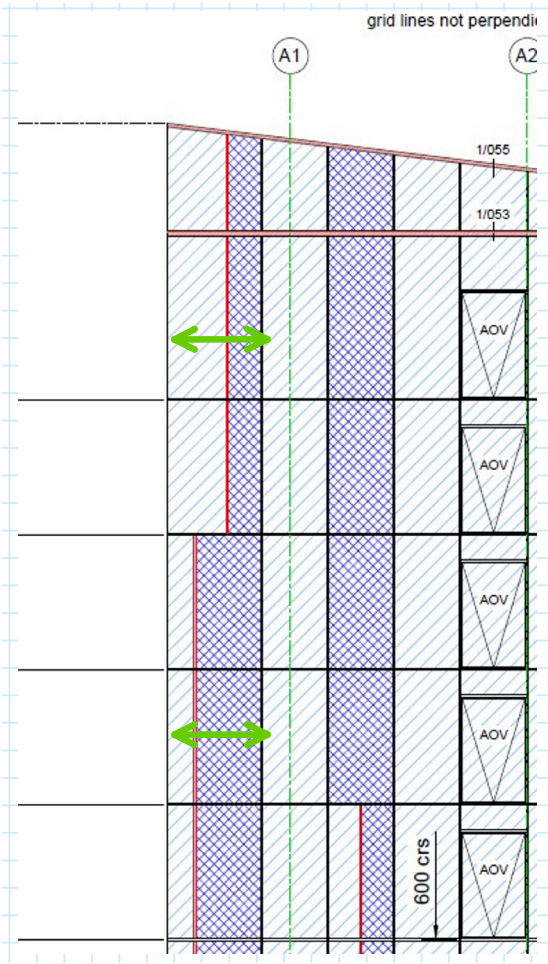
This page provides the Technical Rationale for the proposed changes.

The current size of corner glazing (1545mmx2105mm) exceeds the system fabrication limits. This poses difficulty in site lifting of the corner panel on only two lifting points which imparts excessive loads to the frame and glass bond during lifting.

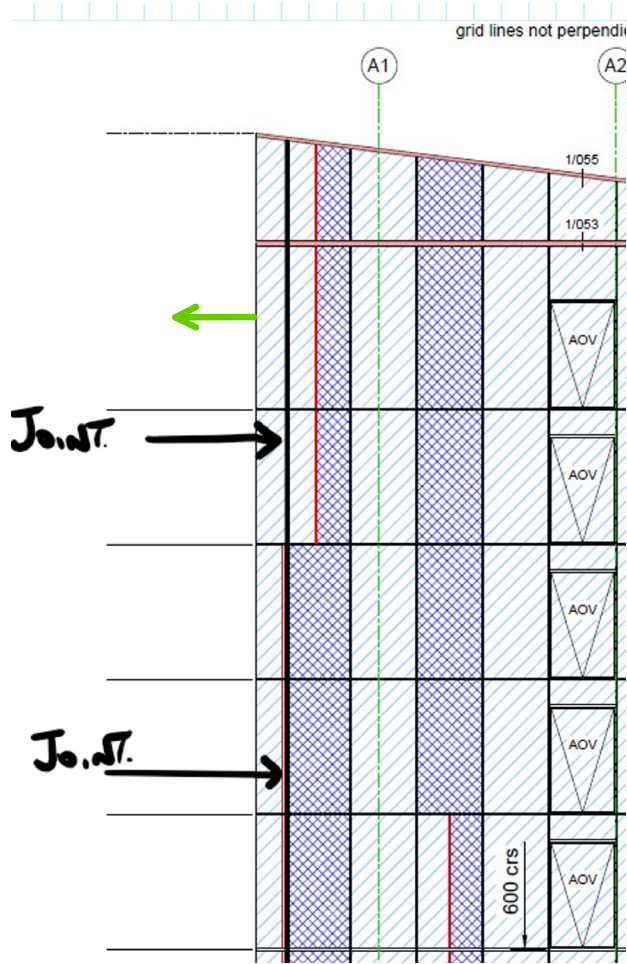
CSI (Sub-contractor) have requested to reduce the size of this corner by introducing a full height joint, resulting in a corner size of 1545mm X 605mm



Corner Plan - Level 15-16



Extract of Level 15 - 16th Elevation High Street - Existing



Extract of Level 15 - 16th Elevation High Street - Proposed

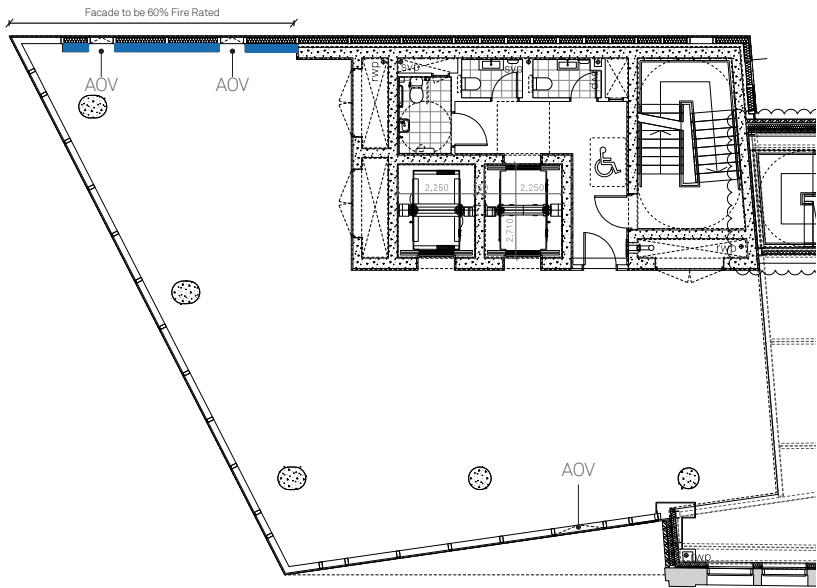
2.7 Technical Note - Fire Requirements + AOV Precedent Image Facade

Fire Consultant Assessment

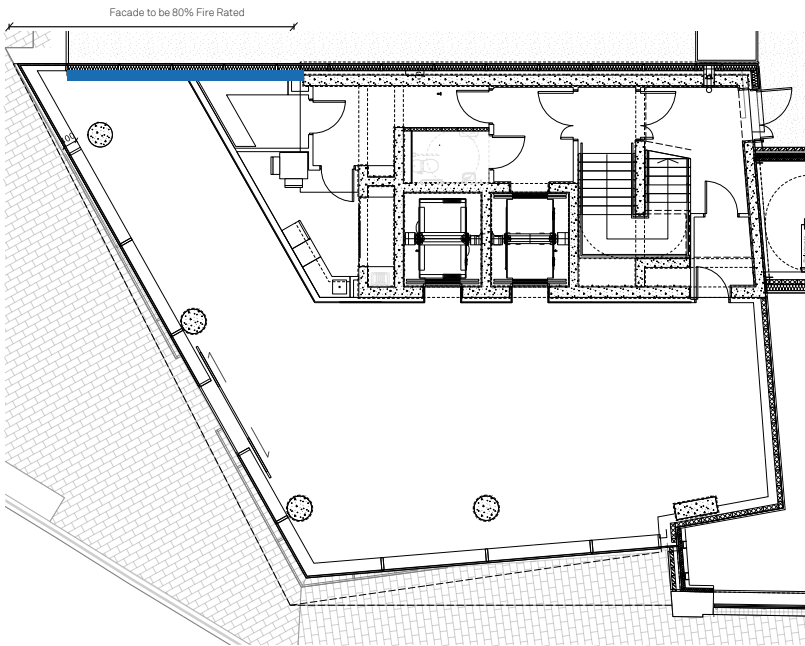
As identified on the Soap St Elevation there is now a requirement for an area of this façade to be Fire Rated due to the proximity of the existing building.
Below is the extract + relevant images from the Engineers Report

“The Ground Floor North Façade is approximately 1.0m from the site boundary therefore 80% of the façade is required to be fire resistant. The required fire resistance is illustrated in Figure 9. The Podium and Tower North Façade is approximately 1.0m from the site boundary therefore 60% of the façade is required to be fire resistant. The required fire resistance is illustrated in Figure 10.
Where fire resistant façade is required it is to achieve 120 fire resistant construction from the inside of the building.”

Tower Plans



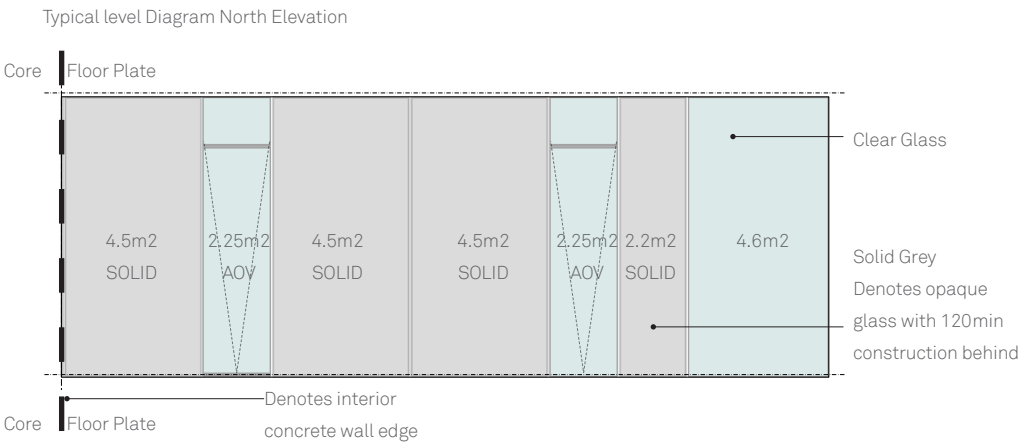
Floor Plan - Levels 1 to 16



Ground Floor Plan

Denotes Interior construction to achieve 120min FR

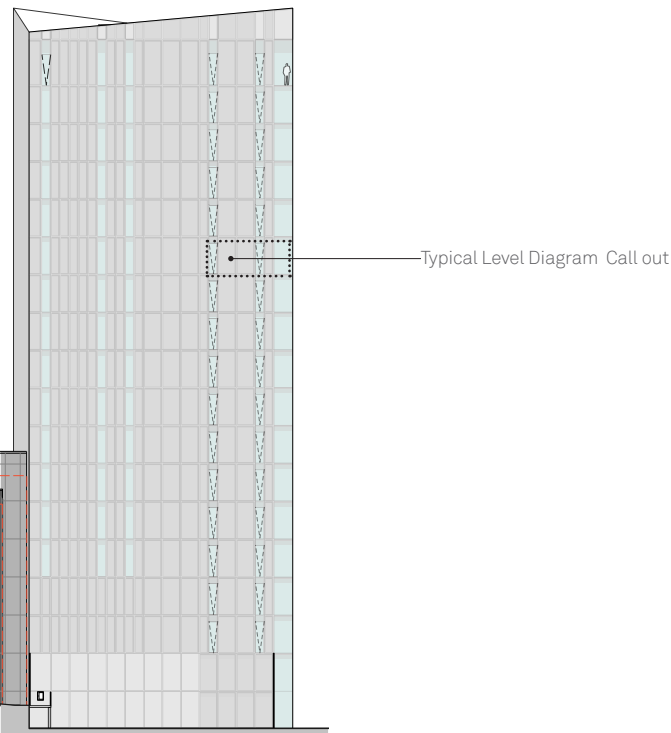
Fire Rate Diagram



Fire Requirement calculations:

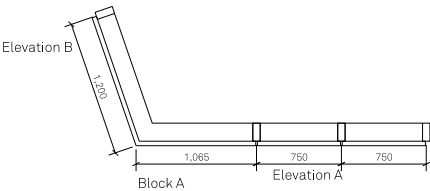
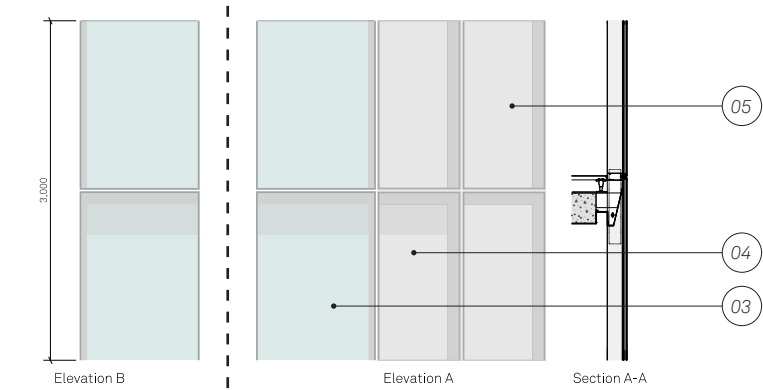
Total Facade Bay -	100% = 24.8m2
Min. Req. - 60% FR -	60% = 14.8m2
2 No. AOV's + Corner Glass -	36.7% = 9.1m2
Solid panels -	63.3% = 15.7m2

North Elevation

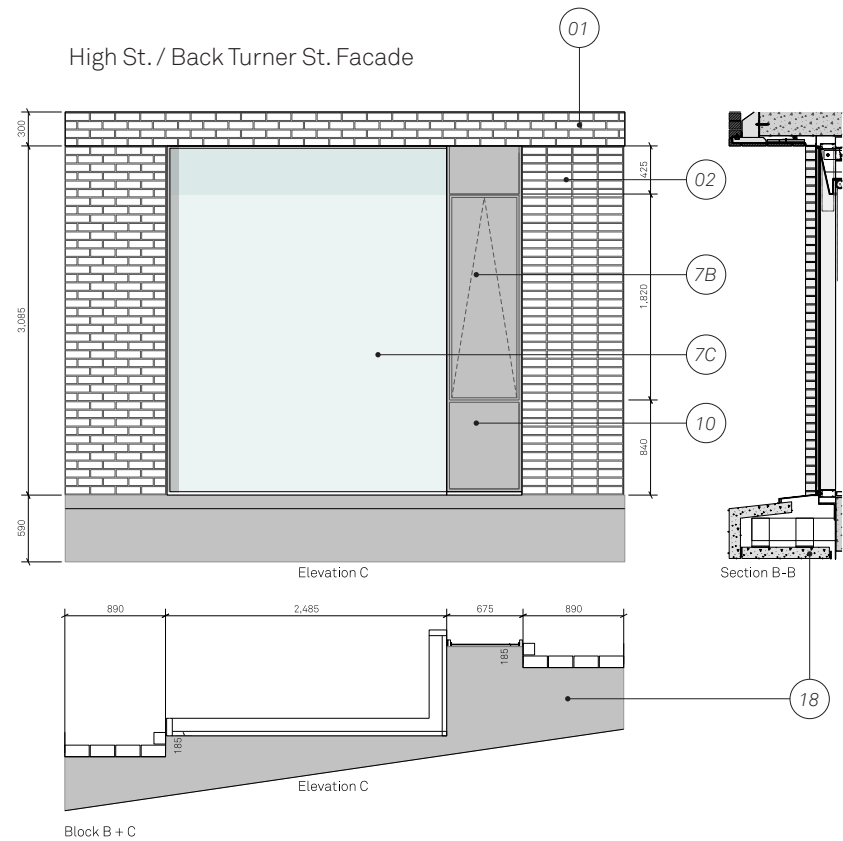


2.8 Sample Panel Drawing

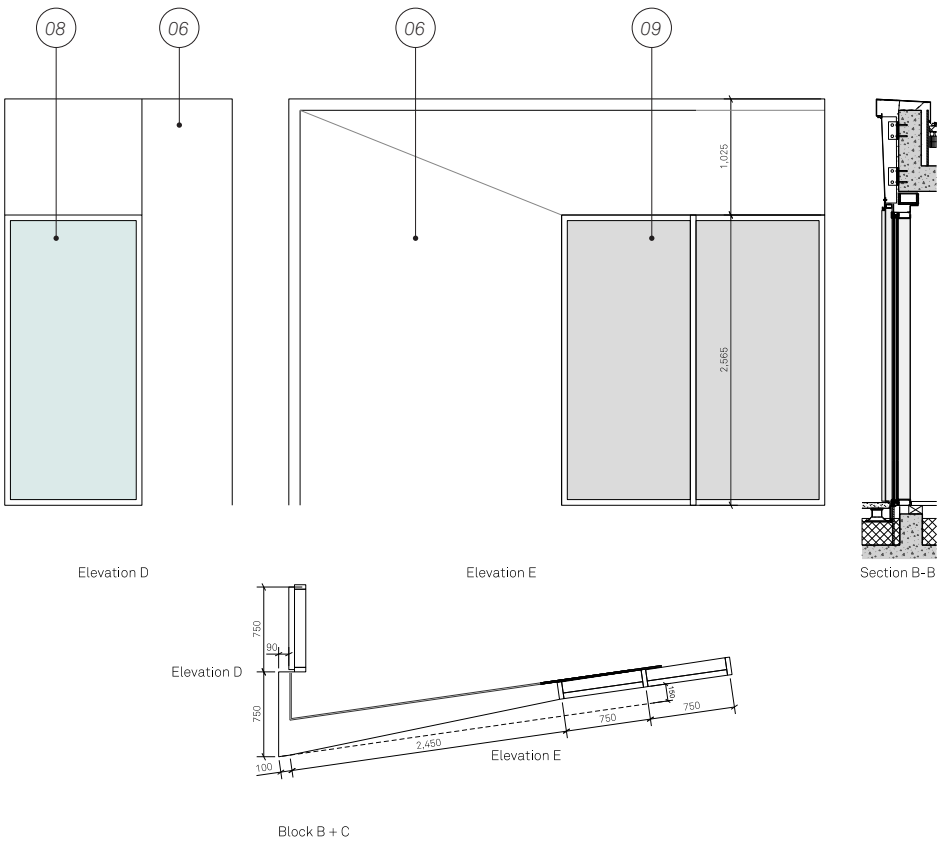
Tower facade



High St. / Back Turner St. Facade



High St. / Back Turner St. Roof top



Proposed Material Key

- 01- Stretcher Bond Clay Facing Brickwork, Wienerberger Dakota Red Multi with Lime Flushed Mortar
- 02- Stack Bond Clay Facing Brickwork, Wienerberger Dakota Red Multi with Lime Flushed Mortar
- 03 - Frameless Unitised Curtain Wall System With Glass Infill Panel - Extra Clear
- 04 - Frameless Unitised Curtain Wall System With Satin Etch Glass
- 05 - Frameless Unitised Curtain Wall System - Spandrel Glazing 38mm DGU Satin Etch Glazing to outer and Solid frit to Face 4
- 06 - PPC aluminium Cladding Panel with concealed fixings. Fully integrated coping with colour to match. Bronze Colour - RAL TBC Via Sample
- 07 - Capless Stick Built Curtain Wall System with Glass Infill Panel - Extra Clear
- 7A - Capped Stick Built Curtain Wall System with Glass Infill Panel - 30% diffuse
- 7B - Capped Stick Built Curtain Wall System with Metal Infill Panel Openable Window System Bronze Colour - RAL TBC -Via Sample
- 7C - Capless Stick Built Curtain Wall System (Capped Stick to Soap Street) with integrated sliding doors - Bronze Colour - RAL TBC -Via Sample
- 08 - Capped Stick Built Curtain Wall System with extra clear glass - Bronze Colour - RAL TBC
- 09 - Capped Stick Built Curtain Wall System with Solid frit to Face 4 - Bronze Colour - RAL TBC
- 10 - Capless Stick Built Curtain Wall System - Metal Infill Panel PPC - Bronze Colour - RAL TBC -Via Sample
- 11 - Oriel window glazing system - Structurally glazed curtain walling with integrated Glass Infill Panel Extra clear, Metal soffit & Spandrel at Slab edge level. Bronze Colour - RAL TBC -Via Sample
- 12 - Stone Coping to be confirmed via sample
- 13 - PPC Metal Balustrade - Bronze Colour - RAL TBC -Via Sample
- 14 - External Vertical Aluminium Feature Fins - Rectangular profile fins spaced at equal centres with brickwork & high-level louvres behind (19). - Bronze Colour - RAL TBC -Via Sample
- 15- Aluminium Louvred Door to Refuse Store Finish: PPC Dark Grey Colour - RAL TBC -Via Sample
- 16 - Tower Cladding Metal Panel. Finish: PPC Silver Colour - RAL TBC -Via Sample
- 17 - Substation Doors Finish: PPC Bronze Colour - RAL TBC -Via Sample
- 18 - Pre-Cast Stone lintel - Final Material to be agreed VIA Sample
- 19 - Soap St High Level ground floor louvres - Fully weathered angular small pitch profile. Located behind (14). Bronze Colour - RAL TBC -Via Sample
- 20 - Existing building opening curtain walling system - Capless Stick Built Curtain Wall System with Glass Infill Panel Extra Clear. PPC dark grey to match new Timber Windows
- 21- Existing building window openings Sash Timber frame windows. PPC dark grey - RAL TBC Via sample
- 22- Infill Metal panel - Finish PPC - Colour Dark Grey - to match Timber Windows colour RAL TBC Via Sample
- 23 - Brickwork - Header Course of reclaimed existing brick
- 24 Metal Coping flashing to new upstand above existing Stone Coping Dark Grey Colour - RAL TBC Via Sample
- 25 - Metal Gate Flat Bar - Finish PPC - Silver Colour - RAL TBC Via Sample
- 26- Denotes Trellis and Bat Box - Finish PPC - Bronze Colour RAL TBC
- 27 - Escape Door in Timber - Finish PPC - Dark Grey Colour to match Timber Windows RAL TBC Via Sample

2.8 Elevation Comparison Soap Street
Visuals



NMA Approved



Stage 5 Proposed

3.0 Elevation Comparison - Block B+C

3.1 Elevation Comparison Back Turner Street
Block B+C

Approved
Material Key -
NMA Reference:
128851/
MMC/2020



Approved Material Key - NMA Reference: 128851/MMC/2020

- 01 - BTS floor 01 glazing system with sliding doors – Structurally glazed system stick curtain wall system with integrated sliding doors. PPC Dark bronze
- 05 - High St oriel window glazing system – Structurally glazed curtain walling with integrated back painted spandrel & Metal soffit. PPC dark bronze
- 06 - Soap St curtain wall glazing system – Capped curtain walling with a mix of 7a/b/c. PPC dark bronze
- 08 - Soap St ground floor louvres – Fully weathered angular pitch profiles. Located behind (9). PPC dark bronze
- 09 - Soap St floor 01-04 Curtain wall system – Capped curtain walling with diffused glazing. PPC dark bronze
- 11 - Floor 01 Pre-Cast lintel - Re-constituted stone pre-cast cladding. Buff colour to match existing built context
- 12 - Floor 05 Stone coping - Re-constituted stone pre-cast coping. Buff colour to match existing built context

Planning Material change Key

- A - Stone Coping. To be agreed VIA sample
- B - Pre-cast lintel (1st fl). To be agreed VIA sample

Proposed Material Key

- 01- Stretcher Bond Clay Facing Brickwork, Wienerberger Dakota Red Multi with Lime Flushed Mortar
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- 13 - PPC Metal Balustrade - Bronze Colour - RAL TBC -Via Sample
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- 18 - Pre-Cast Stone lintel - Final Material to be agreed VIA Sample
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- 26- Denotes Trellis and Bat Box - Finish PPC - Bronze Colour RAL TBC
- 27 - Escape Door in Timber - Finish PPC - Dark Grey Colour to match Timber Windows RAL TBC Via Sample

Proposed

