FALCONER
CHESTER
HALL

BENGAL STREET, MANCHESTER

—

COMMERCIAL & RESIDENTIAL DEVELOPMENT

—

EXTERNAL MATERIALS APPROVAL BROCHURE

—

NORTHERN GROUP

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P16082-FCH-XX-XX-RP-A-0001

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JUNE 2020

FCH

FALCONER
CHESTER
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External Materials Approval Brochure

Commercial & Residential Development

Northern Group

Bengal Street
Manchester
M4 6LR

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INTRODUCTION
BENGAL STREET, MANCHESTER

This document outlines the selection process and final proposals for the external construction materials to be used at the new development on Bengal Street, Manchester (Planning Application no. 120893/FO/2018), and is to be submitted to Manchester City Council for approval in connection with the discharge of associated Planning Condition no. 8;

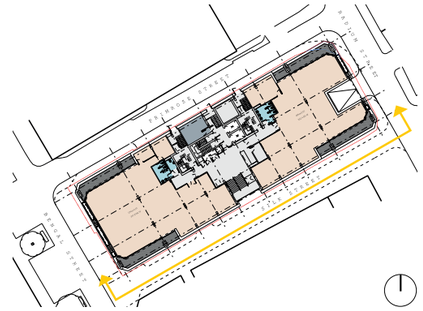
"Prior to the commencement of development,
(a) a programme for the issue of samples and specifications of all material to be used on all external elevations of the development shall be submitted for approval in writing by the City Council, as Local Planning Authority, the programme shall include timings for the submission of samples and specifications of all materials to be used on all external elevations of the development along with jointing and fixing details, details of the drips to be used to prevent staining in and a strategy for quality control management.
(b) All samples and specifications shall be submitted to and approved in writing in accordance with the programme as agreed under part (a). The approved materials shall then be implemented as part of the development."



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ELEVATIONAL DRAWINGS

SOUTH (FRONT) ELEVATION - SILK STREET



1 **Imperial bespoke handmade brick**
Colour: 'Weathered Red Multi Linear'
Dimensions: 288 x 88 x 48mm
Mortar: Dark grey recessed horizontal joints with flush perpends
A **Bond:** Stretcher
B **Bond:** Stretcher hit-and-miss (for ventilation to Lower Ground Floor)
OR
Perforated metal panel (colour to match brickwork)
C **Bond:** Soldier (stepped window reveals)
D **Bond:** Stretcher (window reveals)
E **Bond:** Stretcher (soffit)
F **Bond:** Stretcher (corbel detail)

2 **Aluprof MB-Slimline window system**
Glazing: Clear
Frame: Black

3 **Aluprof MB-SR50N curtain walling system**
A **Glazing:** Clear & black opaque ceramic
Joints: Horizontal & vertical capped, black
Fins: None
B **Glazing:** Clear, black opaque ceramic above brick piers and below dark grey opaque
ceramic between piers
Joints: 250mm expressed
cap at head/base of transoms and all mullions.
Standard cap to all other transoms
Joint/Cap Colour: PPC Dark Grey

4 **Expressed steel feature entrance with steel cladding reveal**
Colour: PPC Dark Grey
Finish: Matt

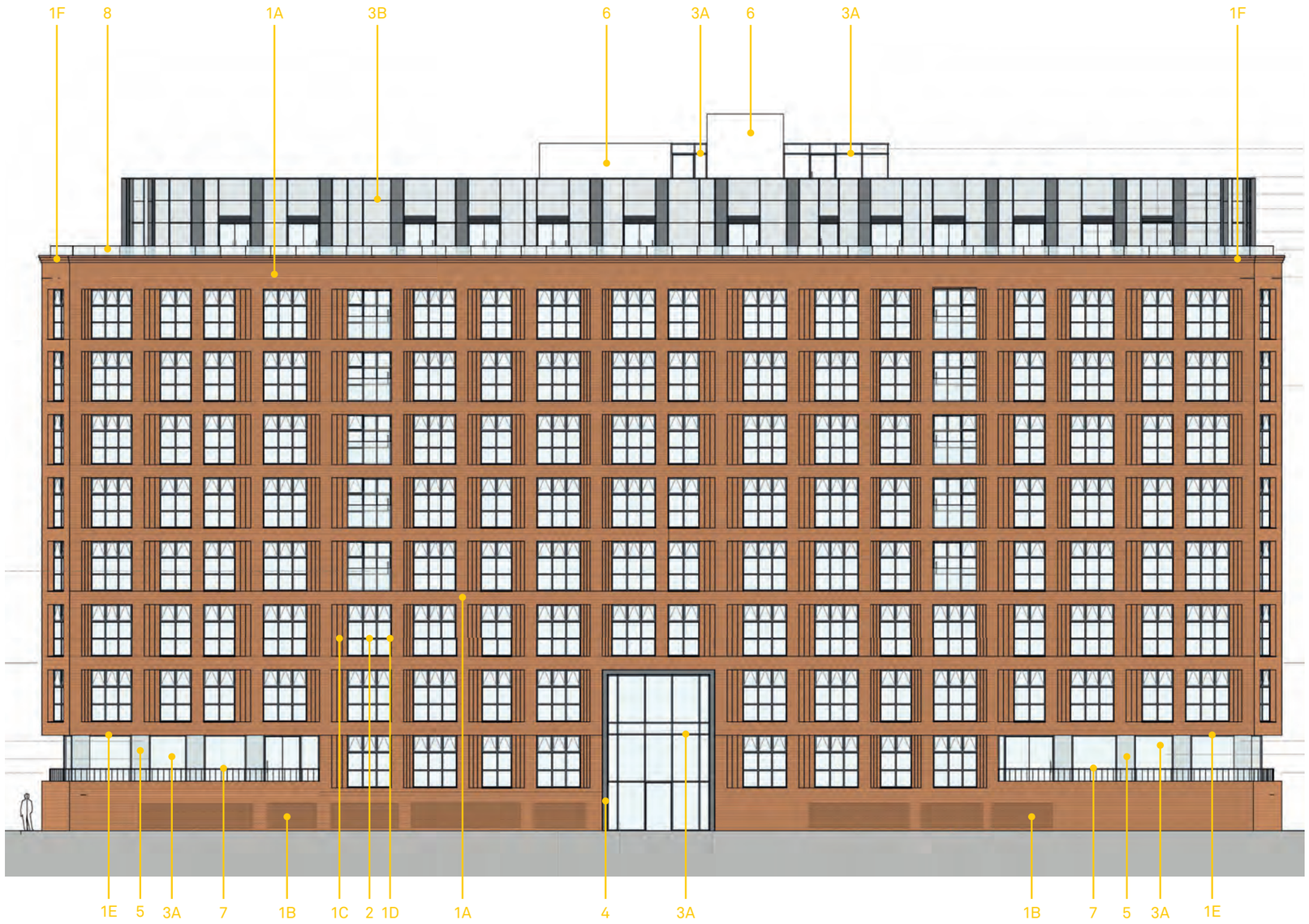
5 **Exposed structural concrete columns**
Finish: Smooth Natural

6 **Rainscreen cladding system**
Colour: PPC Dark Grey
Finish: Matt

7 **Metal flat plate balustrading**
Colour: Black

8 **Glazed balustrading**
Glazing: Clear, laminated
Frame: None

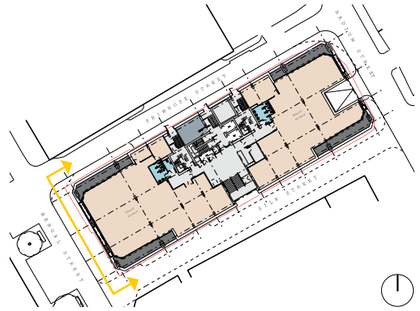
8 Glazed balustrading



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ELEVATIONAL DRAWINGS

WEST (SIDE) ELEVATION - BENGAL STREET



1 **Imperial bespoke handmade brick**
Colour: 'Weathered Red Multi Linear'
Dimensions: 288 x 88 x 48mm
Mortar: Dark grey recessed horizontal joints with flush perpends
- A **Bond:** Stretcher
- B **Bond:** Stretcher hit-and-miss (for ventilation to Lower Ground Floor)
  OR
  Perforated metal panel (colour to match brickwork)
- C **Bond:** Soldier (stepped window reveals)
- D **Bond:** Stretcher (window reveals)
- E **Bond:** Stretcher (soffit)
- F **Bond:** Stretcher (corbel detail)

2 **Aluprof MB-Slimline window system**
Glazing: Clear
Frame: Black

3 **Aluprof MB-SR50N curtain walling system**
- A **Glazing:** Clear & black opaque ceramic
  Joints: Horizontal & vertical capped, black
  Fins: None
- B **Glazing:** Clear, black opaque ceramic above brick piers and below dark grey opaque ceramic between piers
  Joints: 250mm expressed cap at head/base of transoms and all mullions.
  Standard cap to all other transoms
  Joint/Cap Colour: PPC Dark Grey

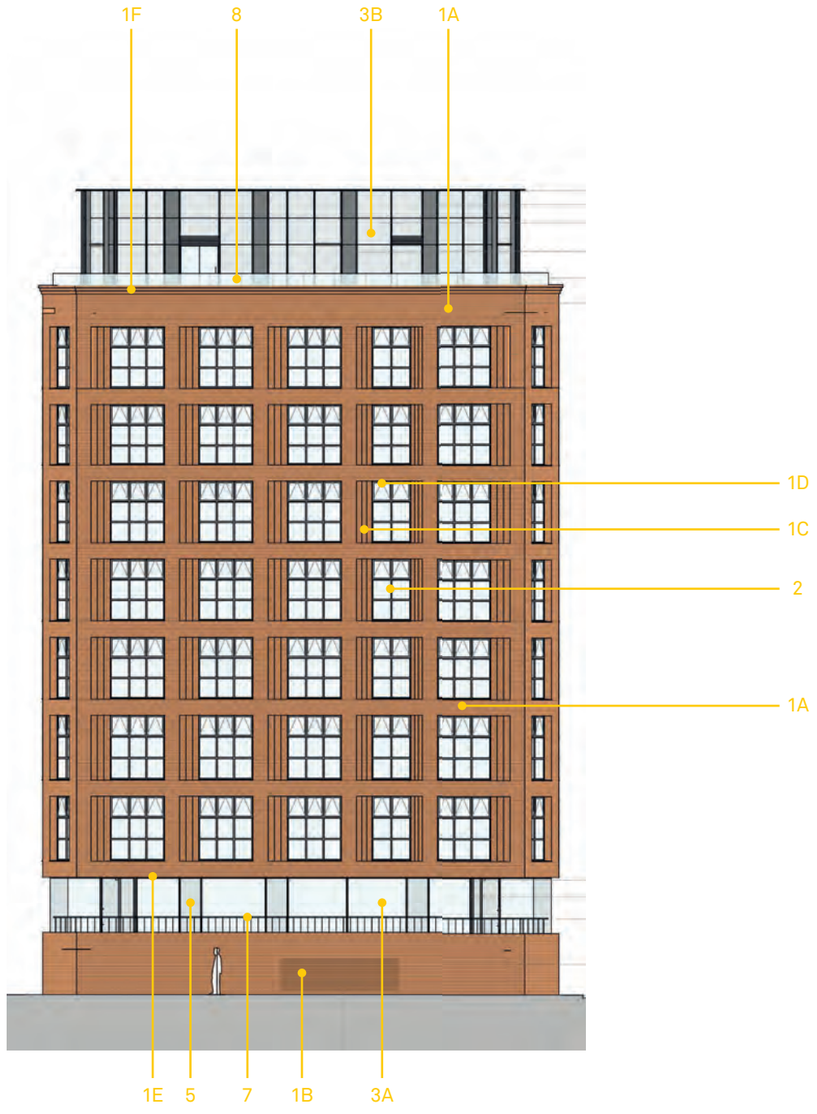
4 **Expressed steel feature entrance with steel cladding reveal**
Colour: PPC Dark Grey
Finish: Matt

5 **Exposed structural concrete columns**
Finish: Smooth Natural

6 **Rainscreen cladding system**
Colour: PPC Dark Grey
Finish: Matt

7 **Metal flat plate balustrading**
Colour: Black

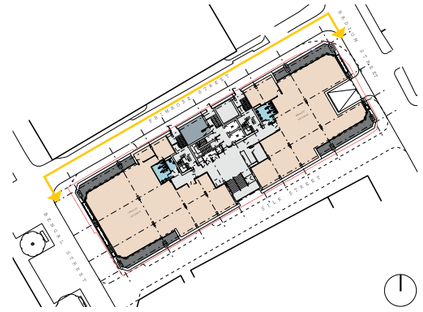
8 **Glazed balustrading**
Glazing: Clear, laminated
Frame: None



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ELEVATIONAL DRAWINGS

NORTH (REAR) ELEVATION - PRIMROSE STREET



1 **Imperial bespoke handmade brick**
Colour: 'Weathered Red Multi Linear'
Dimensions: 288 x 88 x 48mm
Mortar: Dark grey recessed horizontal joints with flush perpends
A **Bond:** Stretcher
B **Bond:** Stretcher hit-and-miss (for ventilation to Lower Ground Floor)
OR
Perforated metal panel (colour to match brickwork)
C **Bond:** Soldier (stepped window reveals)
D **Bond:** Stretcher (window reveals)
E **Bond:** Stretcher (soffit)
F **Bond:** Stretcher (corbel detail)

2 **Aluprof MB-Slimline window system**
Glazing: Clear
Frame: Black

3 **Aluprof MB-SR50N curtain walling system**
A **Glazing:** Clear & black opaque ceramic
Joints: Horizontal & vertical capped, black
Fins: None
B **Glazing:** Clear, black opaque ceramic above brick piers and below dark grey opaque
ceramic between piers
Joints: 250mm expressed
cap at head/base of transoms and all mullions.
Standard cap to all other transoms
Joint/Cap Colour: PPC Dark Grey

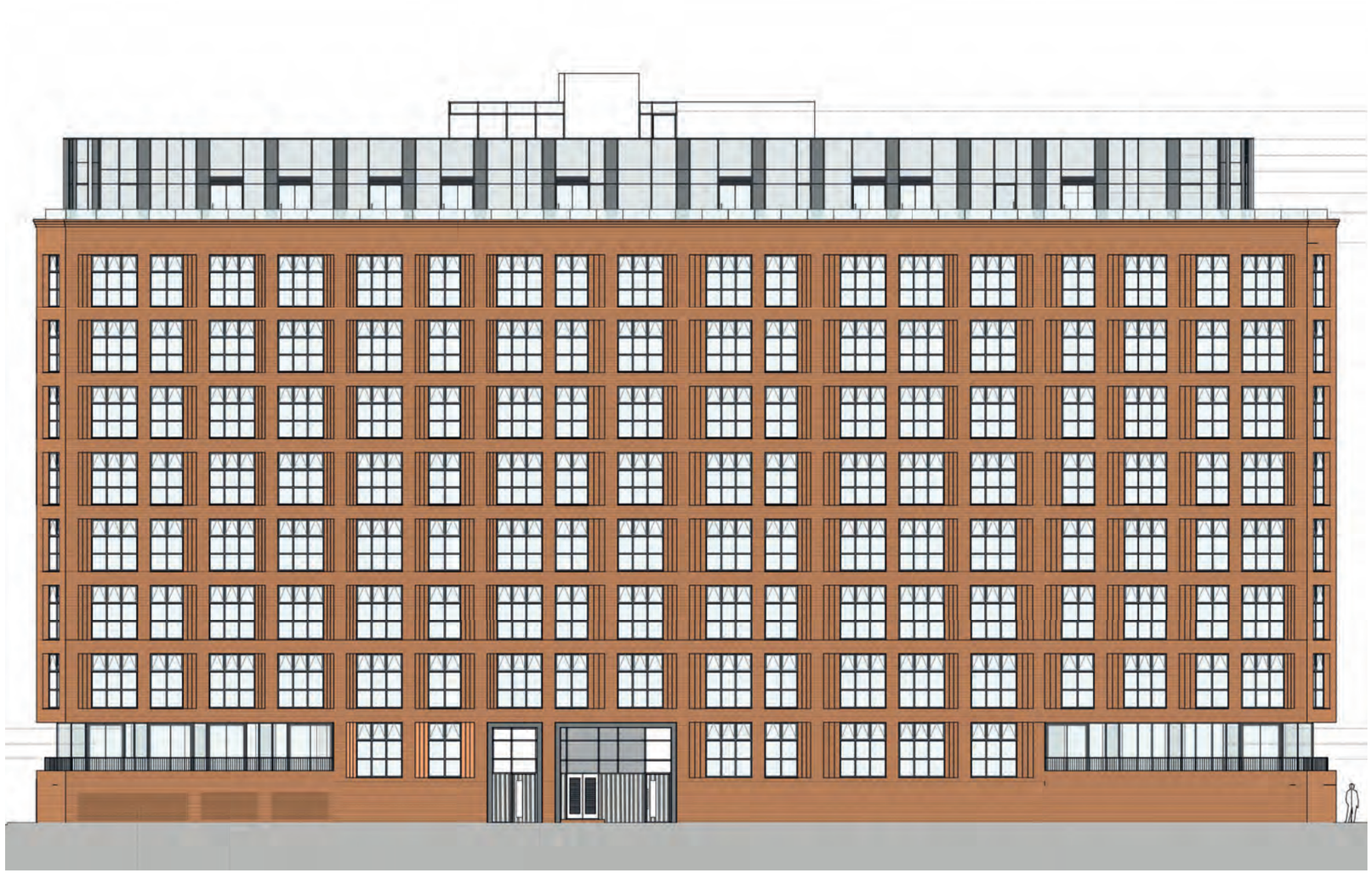
4 **Expressed steel feature entrance with steel cladding reveal**
Colour: PPC Dark Grey
Finish: Matt

5 **Exposed structural concrete columns**
Finish: Smooth Natural

6 **Rainscreen cladding system**
Colour: PPC Dark Grey
Finish: Matt

7 **Metal flat plate balustrading**
Colour: Black

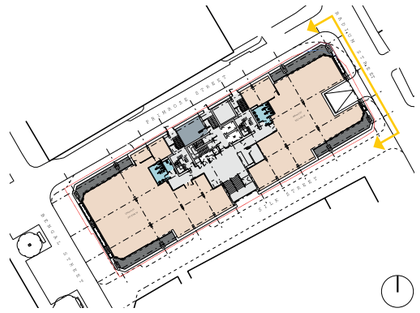
8 **Glazed balustrading**
Glazing: Clear, laminated
Frame: None



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ELEVATIONAL DRAWINGS

EAST (SIDE) ELEVATION - RADIUM STREET



1 **Imperial bespoke handmade brick**
Colour: 'Weathered Red Multi Linear'
Dimensions: 288 x 88 x 48mm
Mortar: Dark grey recessed horizontal joints with flush perpends
- A **Bond:** Stretcher
- B **Bond:** Stretcher hit-and-miss (for ventilation to Lower Ground Floor)
  OR
  Perforated metal panel (colour to match brickwork)
- C **Bond:** Soldier (stepped window reveals)
- D **Bond:** Stretcher (window reveals)
- E **Bond:** Stretcher (soffit)
- F **Bond:** Stretcher (corbel detail)

2 **Aluprof MB-Slimline window system**
Glazing: Clear
Frame: Black

3 **Aluprof MB-SR50N curtain walling system**
- A **Glazing:** Clear & black opaque ceramic
  Joints: Horizontal & vertical capped, black
  Fins: None
- B **Glazing:** Clear, black opaque ceramic above brick piers and below dark grey opaque ceramic between piers
  Joints: 250mm expressed cap at head/base of transoms and all mullions.
  Standard cap to all other transoms
  Joint/Cap Colour: PPC Dark Grey

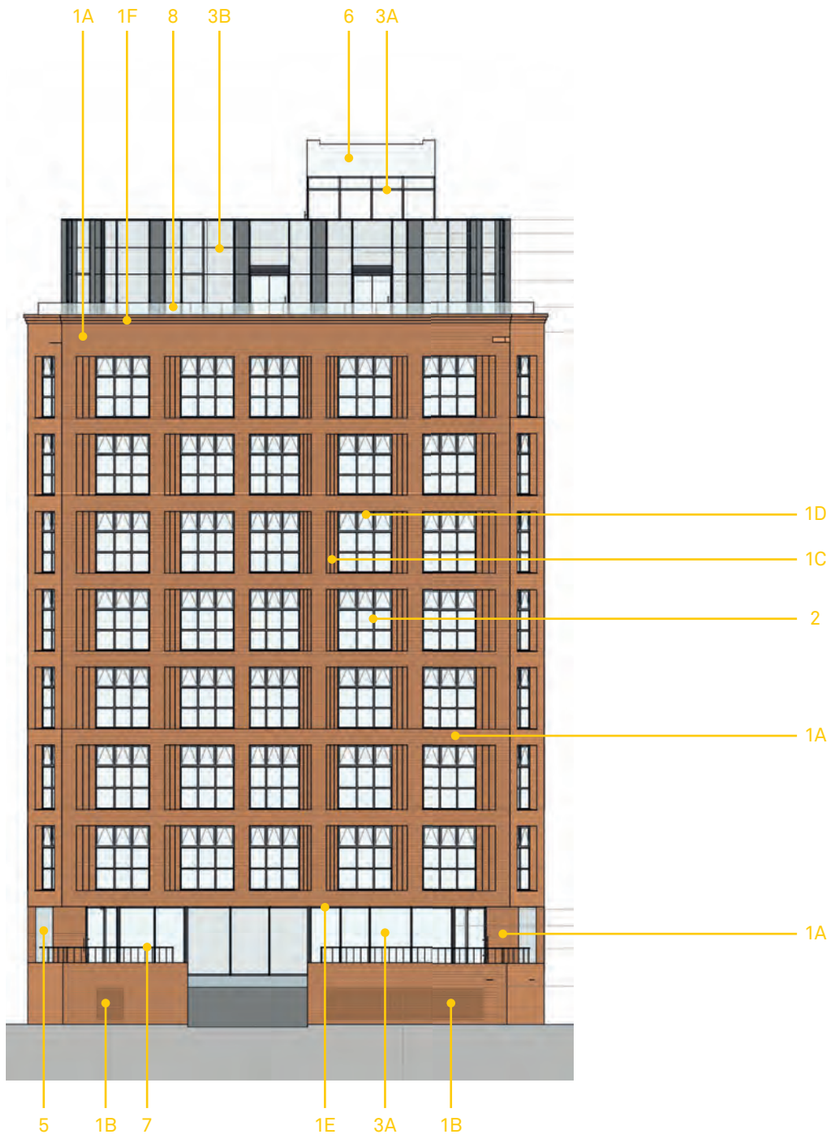
4 **Expressed steel feature entrance with steel cladding reveal**
Colour: PPC Dark Grey
Finish: Matt

5 **Exposed structural concrete columns**
Finish: Smooth Natural

6 **Rainscreen cladding system**
Colour: PPC Dark Grey
Finish: Matt

7 **Metal flat plate balustrading**
Colour: Black

8 **Glazed balustrading**
Glazing: Clear, laminated
Frame: None



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BRICK CONSIDERATION

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BRICK CONSIDERATION
INITIAL BRICKWORK SAMPLES REVIEW



1 Wienerberger 'Agita Special' sample photo



2 Imperial 'Red Linear' sample photo



3 Imperial 'Red Multi Linear' sample photo



4 Imperial 'Weathered Red Linear' sample photo



5 Wienerberger 'Sedona' sample photo



6 Wienerberger 'Metropolis Rouge Aula' sample photo



7 Wienerberger 'Metropolis Aula Rood' sample photo

The brickwork selection process began with a review of a range of small, board-mounted samples, with the aim of constructing larger panels on site using the preferred brick ranges.

▲ 1
The first brick sample was considered as an attempt to resemble the mixed tones shown in the planning-approved visuals, however the contrast between the red and grey bricks here proved too harsh, giving an overall darker appearance than desired. There was particular concern regarding the appearance of the piers given the contrast.

▶ 2, 3, 4
The following red brick samples gave a softer overall appearance, and various degrees of weathering were examined in an effort to create the required variation across the facade. However, these examples ultimately fell short due to their lack of tonal range.

▶ 5, 6, 7
In an effort to find an appropriate middle-ground between samples 1 and 2-4, samples 5, 6, and 7 were considered. Whilst sample 5 gave an appearance closer to the planning-approved visuals in terms of tonal range, we felt the rigid edges and corners of the individual bricks were too severe. Conversely, the weathered edges of sample 6 proved more appropriate, but its tonal range gave an overall more purple appearance. However, sample 7 married the desired tones and weathering of the previous samples to give what we felt to be a more fitting aesthetic for the development.

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TEST

BRICK CONSIDERATION

WIENERBERGER 'METROPOLIS AULA ROOD' SITE SAMPLE PANELS

Further to the initial review of smaller sample panels, we had a large site sample panel constructed using the Wienerberger 'Metropolis Aula Rood'. This sample panel included reviewing the brick bond of the corbel detail located at Level 08 parapet.

The site sample panels included a dark grey mortar colour, along with a 15mm recessed joint.

The 'Aula Rood' elongated brick is relatively traditional in appearance, but the linear proportions do portray a modern interpretation. The arrises are rounded, which also soften the appearance and allows the brick to sit well within the existing context.

1. Stack bond joint corbel
This option employs the principle used to the feature brick 'stepped' reveals articulated within the window bays. The stack bonded coursing would highlight this corbel detail as a feature.

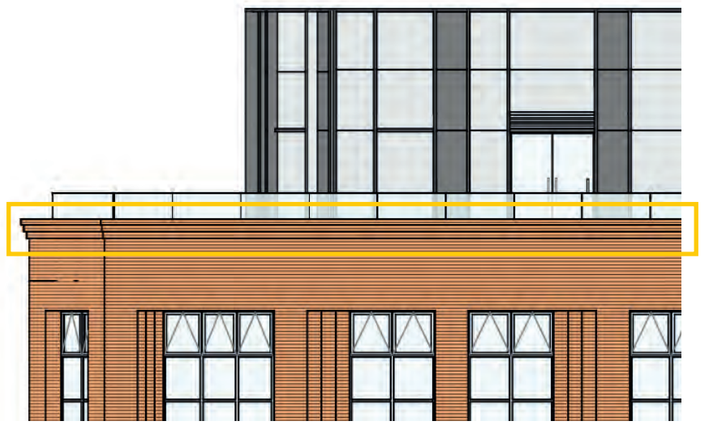
2. Stretcher bond joint corbel
This alternative option would be to continue the stretcher bond coursing through the main facade and allow the corbel to be a subtle horizontal feature detail.



1 Stack bond corbel detail



2 Stretcher bond corbel detail



TYPICAL CORBEL DETAIL LOCATION





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BRICK CONSIDERATION
ADDITIONAL WIENERBERGER SITE SAMPLE PANELS



In addition to the site sample panels of the Wienerberger 'Metropolis Aula Rood', we reviewed 4no. further options, which we considered to be more modern alternatives to the 'Aula Rood' brick.

1. 'Megaline Dark Red'
This brick has a subtle variation/blend of tones of deep orange/brown, both between bricks and within each brick. It would generally sit well within the immediately surrounding buildings and context.

2. 'Rood Amarante'
This brick is quite rich and deep in colour with purple, red, and less orange; more modern in its appearance than the 'Megaline'. There is limited variation between dark, medium, and light. It would have a crisp contrast between black window frames and grey curtain walling frames, and so can be considered similar to the 'Megaline Dark Red' in this respect.

3. 'Sedona'
This brick type was one of the preferred options when reviewing small sample boards. However, whilst tonally similar to the 'Megaline', the brick is of poorer quality. Additionally, the sample bricks were all quite light/pale, with few darks.

4. 'Oranje Crème'
The sample panel highlighted the poor quality of this brick; a very rough finish and minimal variation.



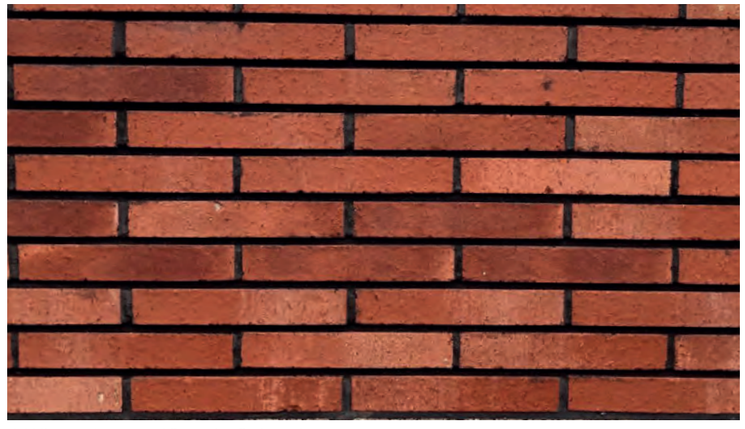
1 Wienerberger 'Megaline Dark Red'



2 Wienerberger 'Rood Amarante'



3 Wienerberger 'Sedona'



4 Wienerberger 'Oranje Crème'

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BRICK CONSIDERATION

IMPERIAL 'WEATHERED RED MULTI LINEAR' BESPOKE HANDMADE BRICK

Further to reviewing the Wienerberger sample panels constructed on-site, the decision was made to revisit a number of the Imperial brick options that were initially considered when viewing the smaller, board-mounted samples.

Whilst we originally preferred the appearance of the Wienerberger bricks due to their wider tonal ranges, one of the main reasons for moving away from the Weinberger options was that they were all machine-made (extruded) and simulated to reflect a handmade finish, which we did not feel was appropriate given the building's context.

Additionally, the method of manufacturing the brick specials used to construct the building's chamfered corners would have involved cutting and bonding were a Wienerberger brick chosen. We did not believe this would result in the required standard of finish, nor that the Authority would find this approach acceptable.

By contrast, the Imperial brick is a solid handmade clay brick, fired in coal-fire kilns to achieve the aesthetic of a genuine coal-fired product. As such, the Imperial brick is an authentic masonry product which we believe to be a truer representation of the historic brick buildings in this area of Manchester.

In order to overcome the limited tonal ranges in the Imperial brick identified at the initial stage, we are proposing a specific blend of the 'Weathered Red Linear' and 'Red Multi Linear' brick types, as can be seen in the latest images opposite. Furthermore, the brick is to be a bespoke size, specific to this building, in order to achieve the proportions as represented on the planning-approved elevations.

ORIGINAL SAMPLE PHOTOS



'Weathered Red Linear'

+



'Red Multi Linear'

BESPOKE 'WEATHERED RED MULTI LINEAR' HANDMADE BRICK SAMPLE PHOTOS





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BRICK CONSIDERATION

IMPERIAL BESPOKE HANDMADE BRICK PRECEDENT
HALLÉ ST. PETER'S OGLESBY CENTRE, MANCHESTER

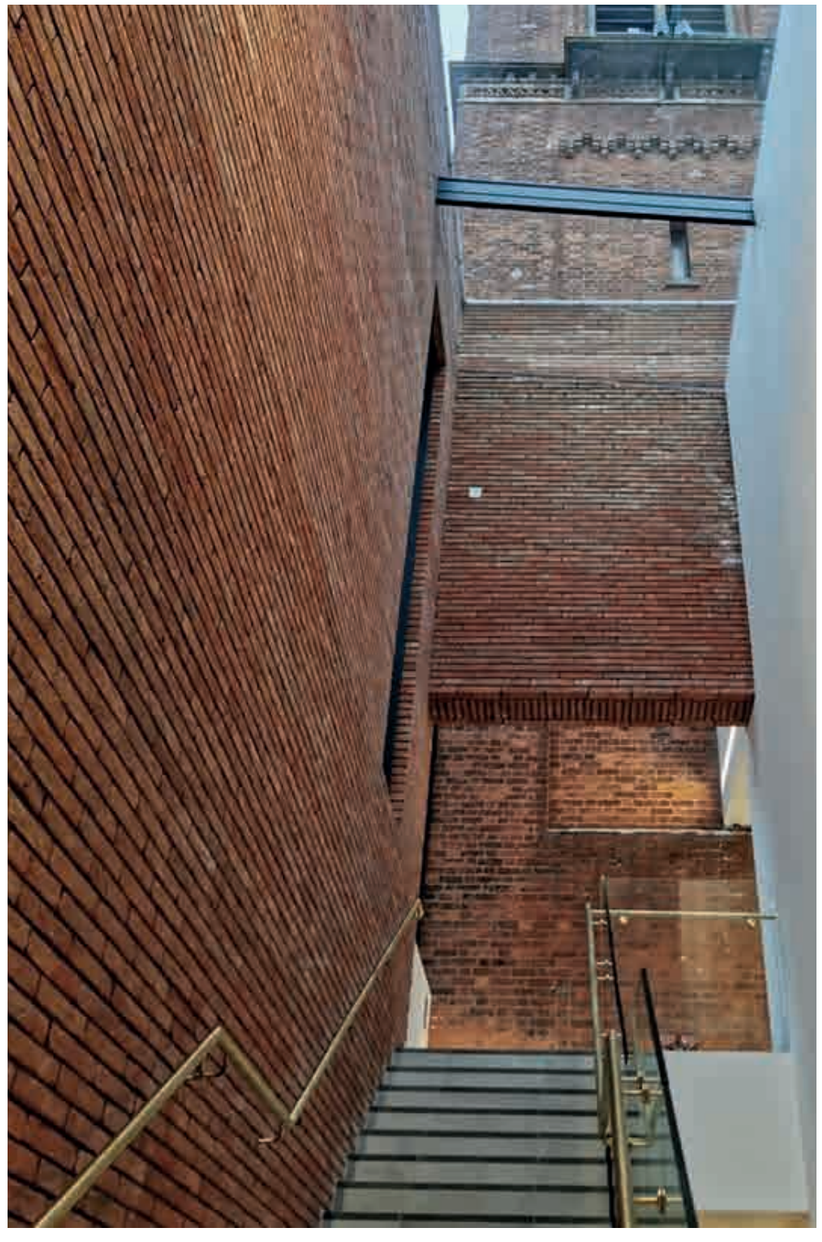
Whilst not the exact same blend of brick as proposed for Bengal Street, a bespoke combination of 'Weathered Linear' and 'Multi Linear' Imperial brick has previously been used for the construction of the Hallé St. Peter's extension in Manchester.

The handmade bricks selected for the extension were manufactured using traditional methods, and were supplied in a 'Regal Blend' with natural shade variations of red to orange that was created specifically for the project in order to match the clay colour of the existing building and historic surroundings.

Additionally, a wide range of bespoke special shapes were manufactured to realise the project's angular design.

We believe the successful implementation of a bespoke blend of Imperial handmade bricks in this precedent serves to illustrate the benefits of using a similar technique at Bengal Street.







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MATERIAL SPECIFICATION
BRICK & MORTAR SELECTION



Imperial 'Weathered Red Multi Linear' bespoke handmade brick

We believe the tonal variation of this unique blend of 'Weathered Red Linear' and 'Red Multi Linear' Imperial brick is soft enough not to give too dark an overall appearance, yet varied enough to echo the planning-approved visuals. The imperfections and inconsistencies across the individual handmade bricks, coupled with the bespoke brick size, will ensure the development's rustic homage to Manchester's traditional red brick.

Bespoke brick dimensions:
288 x 88 x 48mm

SELECTED BRICK



A 'Natural' mortar sample photos



B 'Glasgow Grey' mortar sample photos

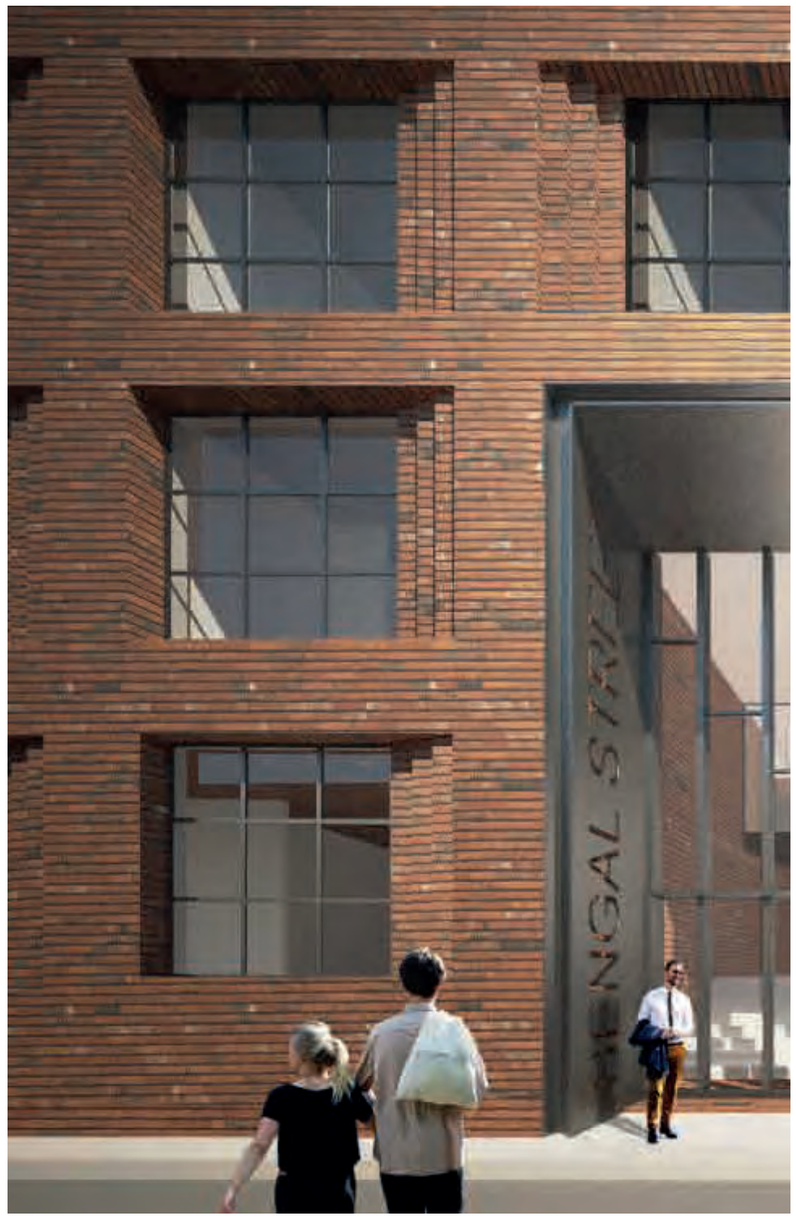


C 'Cambridge Dark Grey' mortar sample photos

Following consideration of a selection of samples, a dark grey mortar was decided upon to emphasise the tones within the chosen brickwork. Additionally, the mortar will be recessed at the horizontal joints and feature flush perpends, so as to accentuate the horizontality of the brick and the building's overall design.

The 8-10mm will be recessed to a minmum of 10mm or 20mm, subject to review on the mockup sample panels.

SELECTED MORTAR



Planning-approved visual

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