4. SITE & CONTEXT

| 4.2 CONTEXTUAL ELEVATIONS |

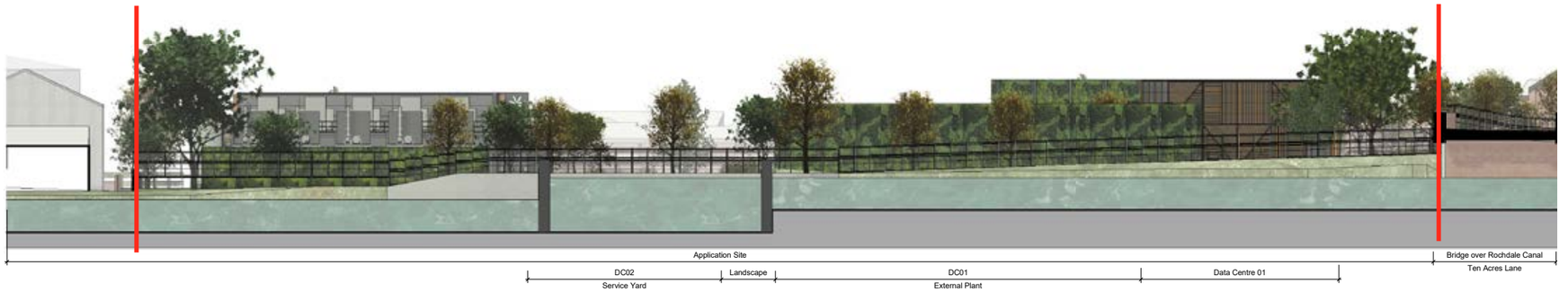
4.2.1 It is considered that the new development fits appropriately within the existing context, with a suitable design and scale that reflects that of the wider surrounding area.

4.2.2 As part of the design process we have undertaken a desktop study, reviewing existing heights within the area. The proposal sits comfortably below the height of the neighbouring industrial units and within the ridge line of the residential houses.

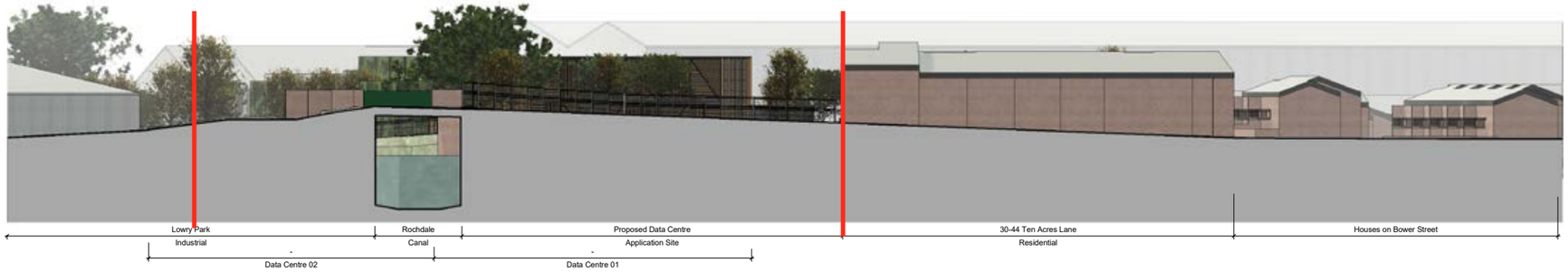
4.2.3 The design of the building and landscape is considered to be sensitive to the surrounding residential housing, through the materiality and enhancement of the existing plants and trees.



01 BOWER STREET ELEVATION (NORTH WEST)



02 ROCHDALE CANAL TOWPATH (SOUTH EAST)



03 TEN ACRES LANE (NORTH EAST)



Site Boundary

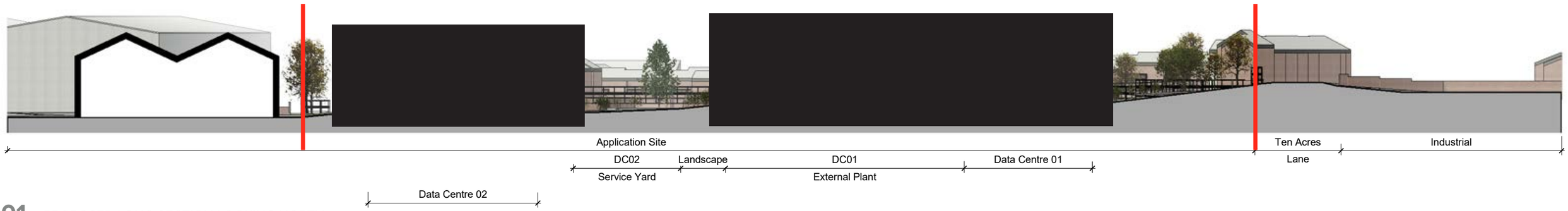


04 BOUNDARY WITH INDUSTRIAL WAREHOUSE (SOUTH WEST)

4. SITE & CONTEXT

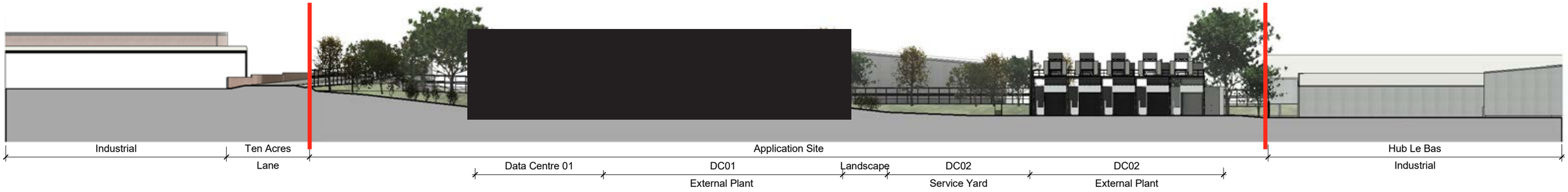
| 4.3 PROPOSED SITE SECTIONS |

4.3.1 The sections show how the proposed development sits in context and comfortably within the existing datum of the ridge lines of the surrounding buildings.



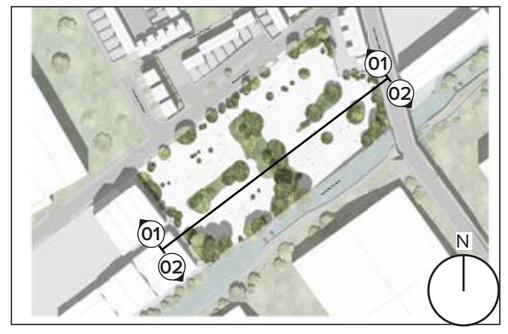
01 PROPOSED LONG SECTION LOOKING NORTH

4.3.2 These long sections through the site also highlight that between the data centres, there is a visual connection from Bower Street towards the canal area.



02 PROPOSED LONG SECTION LOOKING SOUTH

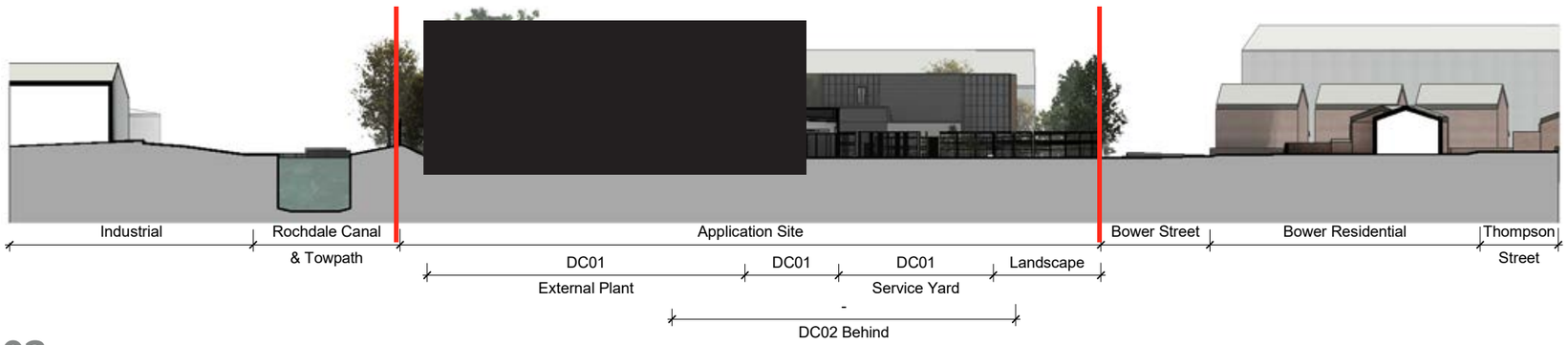
Site Boundary



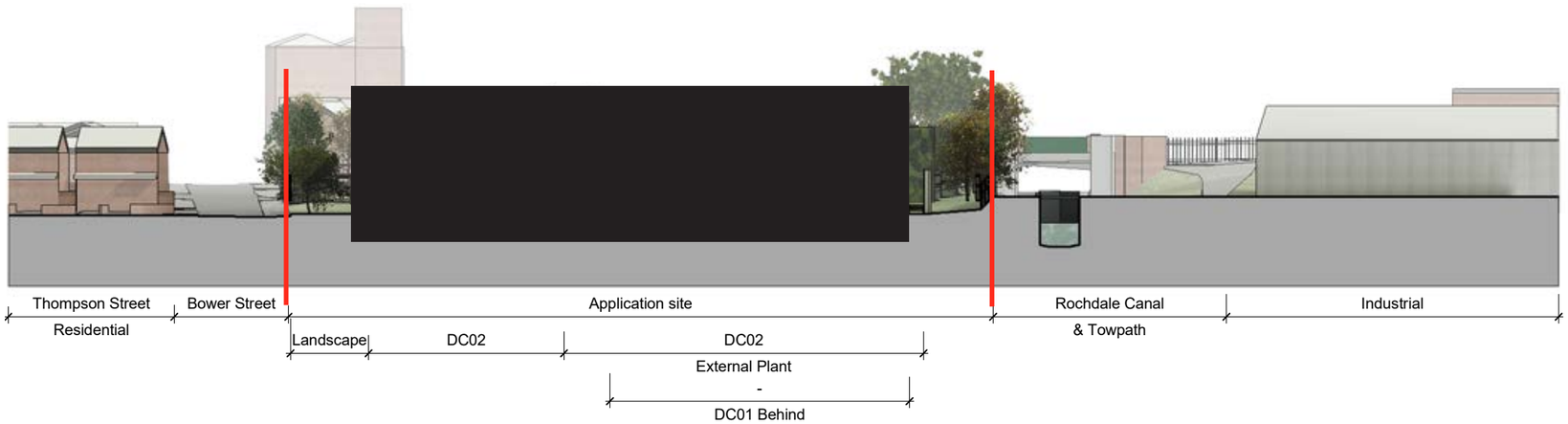
4. SITE & CONTEXT

| 4.3 PROPOSED SITE SECTIONS |

4.3.3 The sections show how the proposed development sits in context and comfortably within the existing datum of the ridge lines of the surrounding buildings.



03 PROPOSED SITE SECTION LOOKING EAST



04 PROPOSED SITE SECTION LOOKING WEST



4. DESIGN

| 4.4 MASS AND SCALE|

4.4.1 The masterplanning of the site has taken into careful consideration the positioning of the buildings and associated external plant to have minimal daylighting, sun-lighting and acoustic effects on the neighbouring residential sites.

4.4.2 The massing is essentially two neighbouring blocks of the same height. A simple form allows for a decorative facade without the design becoming too elaborate.

4.4.3 By separating the data halls into two buildings it allows daylight through the site and the street side massing doesn't become overbearing.

4.4.4 The scale of the building is representative of the function of the internal space. The double height element of the massing is the area of the data hall and its height aids the servicing and ventilation of the space. The front of house is only required to be single storey as it holds small office spaces, so the internal height of the space feels proportional to its function.

4.4.5 The data halls have been positioned to provide an acoustic separation between the associated plant and surrounding residential areas. The buildings will also act as a visual buffer to the neighbouring residential houses.



KEY

01. Data Centre
02. External Plant
03. Attenuated Plant screening
04. Front of House
05. Service Yard
06. Security Fence
07. Enhanced landscaping / verge
08. Existing Dwellings
09. Existing commercial / warehousing
10. Canal

4. DESIGN

| 4.5 MASSING - 3D MASSING VIEW|



KEY

01. Data Centre
02. External Plant
03. Attenuated Plant screening
04. Front of House
05. Service Yard
06. Security Fence
07. Enhanced landscaping / verge
08. Existing Dwellings
09. Existing commercial / warehousing
10. Canal
11. Substation
12. Site Entrance & Security Gate

4. DESIGN

| 4.6 SIZE & LAYOUT|

4.6.1 The size of the overall site red line boundary is 12200m^2 / 131319.7ft^2 (1.22 hectares (3.02 acres)).

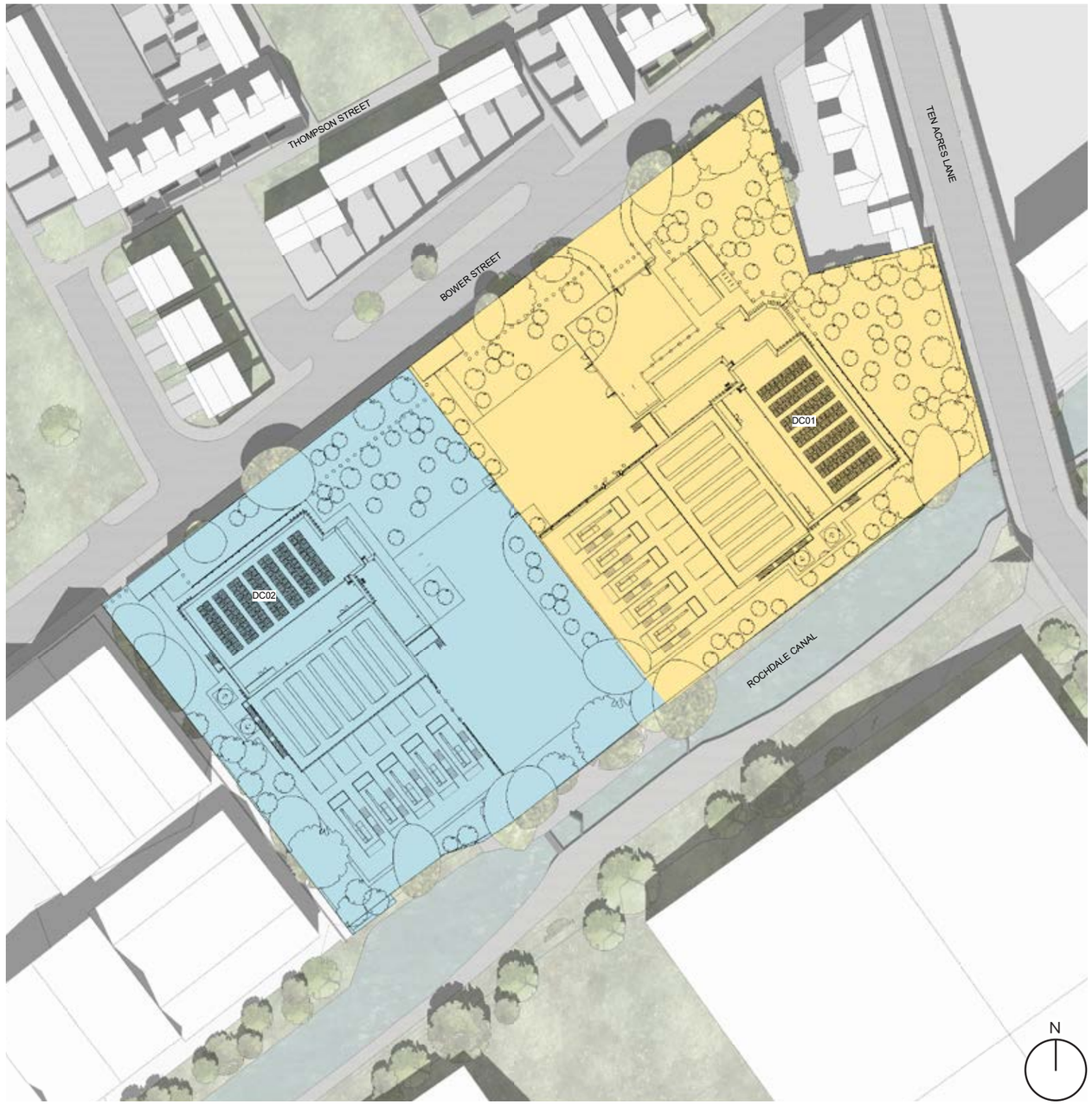
4.6.2 The overall GEA of the proposed buildings, substations & high voltage rooms (power pods) are 2645m^2 / 28471ft^2. The remainder of the site will be consist of external modular plant, parking, landscape and service route.

4.6.3 The single most significant factor in determining the size of the facility is the clients requirement for a specific sized data hall. This data hall accounts for 33% of the proposed building. The remainder is sized to accommodate customer, personnel and ancillary staff, with all of their welfare needs and internal plant and ancillary spaces.

4.6.4 The site is split into 2 phases. Phase 1 could be built first and will include a data hall (DC 01) with all associated plant, front of house spaces and all external landscaping and service routes to accommodate the whole development. Phase 2 will include the data hall (DC 02) with all associated ancillary and plant.

4.6.5 Site proposals:

- 8 no. Parking bays all which have access to EV charging.
- 1 no. Accessible EV parking space included within the total.
- 10 no. Cycle spaces.
- Security fencing surround the entirety of the Data Centre site.
- Vehicle holding security gates
- Secure pedestrian turnstile gates.
- Refuse collection area
- 2No. Substation



|PROPOSED PHASE PLAN|

4. DESIGN

| 4.7 PROPOSED DC01 FLOOR PLAN|

4.7.1 The proposed layout demonstrates the design intention. In both Data Centre 01 (DC01) & Data Centre 02 (DC02) the plant is kept externally and to the rear of the buildings. The buildings have 1 individual Data Hall.

4.7.2 Data Centre 01 (DC01) has security personnel, and office facilities for staff and customers to the front of house.

4.7.3 Data Centre 02 (DC02) has minimal front of house and consists of a secure lobby and WC.

4.7.4 Each Hall will feature a double height storey. There will be external plant on a gantry above other modular plant so that the efficient use of space can also be attenuated to minimise impact to the surrounding residents. The external plant at ground floor will allow for ease of access and maintenance due to its proximity to the service road.

4.7.5 A well-designed AI ready data centre floor plan is critical for the efficient operation and management of IT infrastructure. It considers factors such as airflow management, power distribution, security, and scalability to create a robust and adaptable facility that meets the needs of the organization.



|PROPOSED DC01 GROUND FLOOR PLAN|

4. DESIGN

| 4.7 PROPOSED DC01 ROOF PLAN|

4.7.8 The design has various roof heights which are utilised with plant equipment sitting behind the parapet line.

4.7.9 The data hall roof will carry PV panels, whilst the gantry to the rear of the site will carry the cooling mechanical equipment.



|PROPOSED DC01 ROOF PLAN|

4. DESIGN

| 4.8 PROPOSED DC02 FLOOR PLAN|

4.8.1 The building of phase 2 of the project is a mirrored and rotated 90 degree version of DC01 with reduced front of house areas.

4.8.2 The replica of the building in phase 1 into phase 2 demonstrates how the modular nature and progression of quality design can be standardised across various sites.



|PROPOSED DC02 GROUND FLOOR PLAN|

4. DESIGN

| 4.8 PROPOSED DC02 ROOF PLAN|



|PROPOSED DC02 ROOF PLAN|

4. DESIGN

| 4.9 APPEARANCE - DC01 SECTIONS & 3D VIEW |

4.9.1 The main massing of the building will sit on a brick plinth base with the double height space cladding above, and living wall acoustically and visually screening the chillers on a raised gantry to the rear of the building.

4.9.2 The front of house brick facade will extrude out from the plinth, with glazed elements to allow daylight to office spaces.

4.9.3 The entrance to the building will be celebrated with the use of a contrasting brick and branded signage.

4.9.4 The customer office will have architectural fins to highlight the corner of the customer zone.

4.9.5 Stair wells are expressed externally further breaking the mass of the Data Halls.



|PROPOSED SECTION OF DATA CENTRE 1|



|PROPOSED 3D VIEW OF DATA CENTRE 1|



|PROPOSED SECTION OF DATA CENTRE 1|

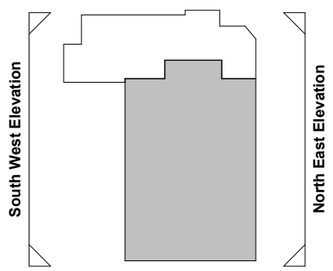
4. DESIGN

| 4.10 SCALE - DC01 ELEVATIONS|

4.10.1 The scale of the building is representative of the function of the internal space. The double height is the area of the data hall and aids the servicing and ventilation of the space. The front of house is only single storey as it holds small office spaces, so the internal height of the space feels proportional.

4.10.2 The scale of the building is respectful of the height of the neighbouring building.

Elevation Key:

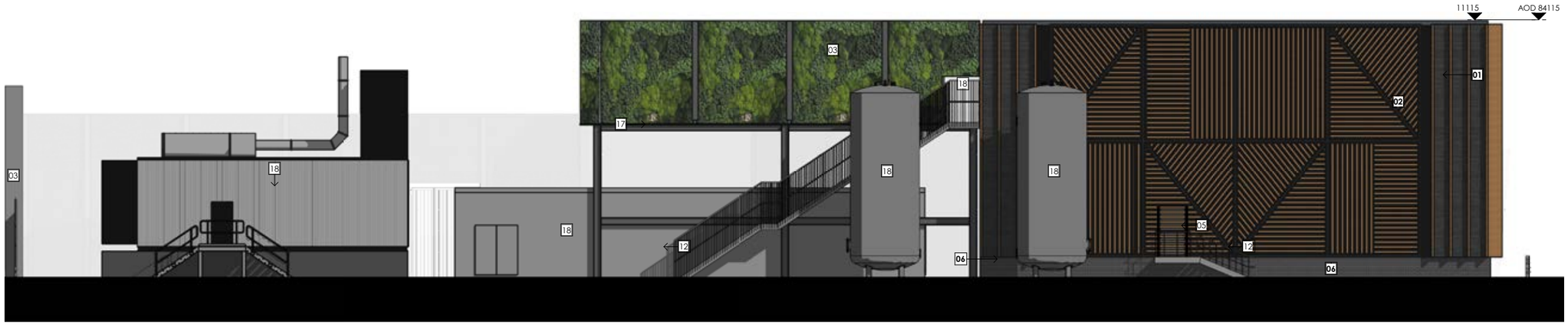




Material Key:

- 01 Cladding Backing Panel System - Colour: Black
- 02 Feature Cladding System - Colour: Timber Effect
- 03 Feature Living Wall System - Local Species
- 04 Curtain Wall System - Colour: Black PPC Aluminium
- 05 External Door System - Colour: Black
- 06 Brick Wall System Type A - Colour: Black Brick
- 07 Brick Wall System Type B - Colour: White Glazed Brick
- 08 External Signage - Colour: Black / White PPC Aluminium
- 09 Architectural Fins - Colour: Black PPC Aluminium
- 10 External Loading Bay Door - Colour: Black
- 11 Overhead Canopy System - Colour: Black
- 12 Fire Escape Stair
- 13 Loading Bay Stair
- 14 Roof Access Stair
- 15 Dock Leveller
- 16 Wall Mounted Louvres
- 17 Gantry for Mechanical Equipment
- 18 Mechanical + Electrical Equipment
- 19 Mesh Plant Screening

|PROPOSED NORTH WEST ELEVATION OF DATA CENTRE 1|

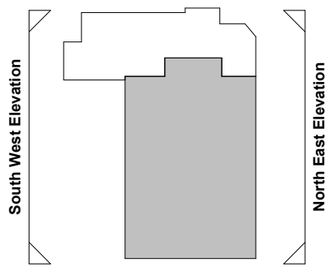


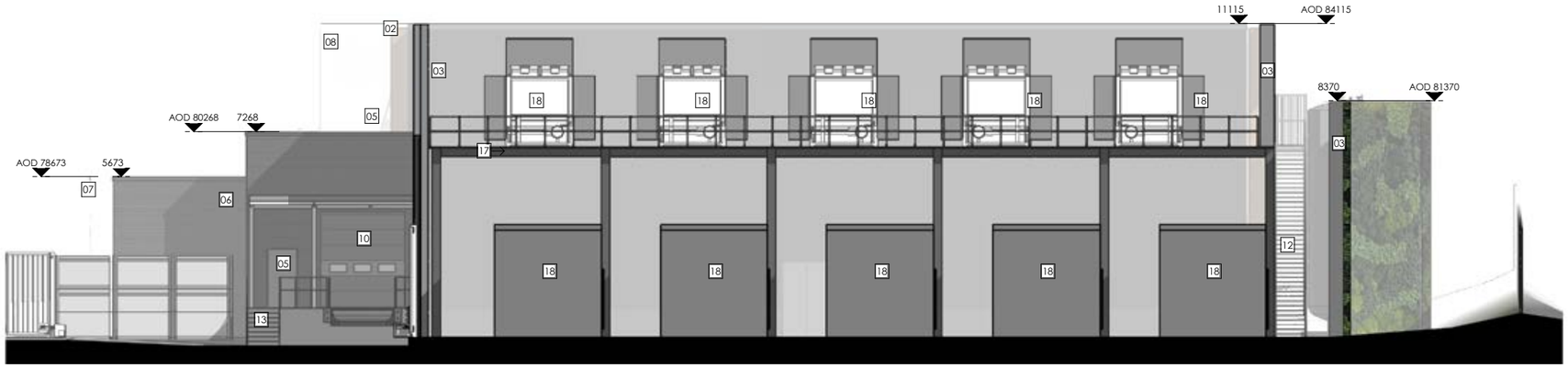
|PROPOSED SOUTH EAST ELEVATION OF DATA CENTRE 1|

4. DESIGN

| 4.10 SCALE - DC01 ELEVATIONS|

Elevation Key:

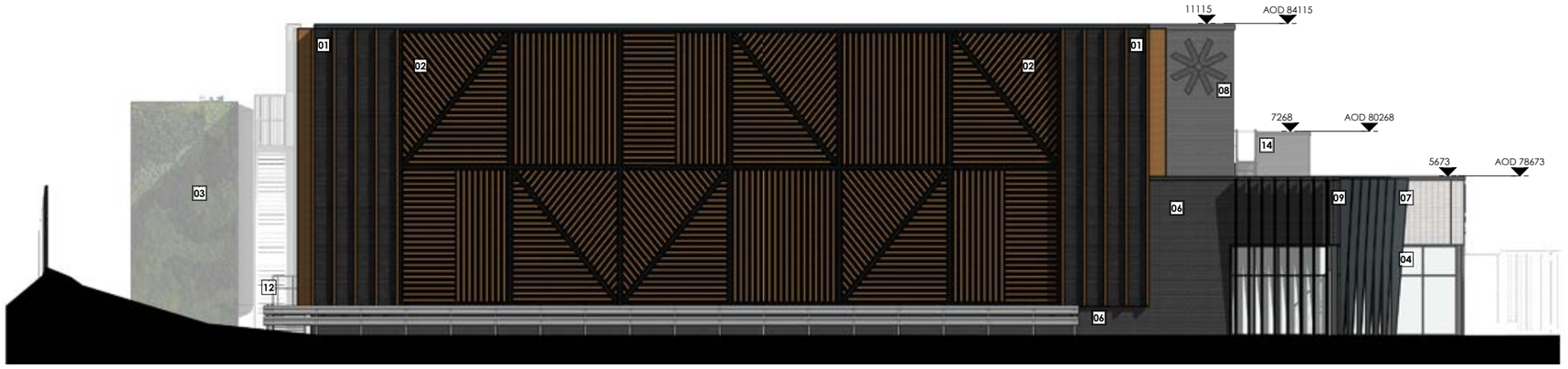




|PROPOSED SOUTH WEST ELEVATION OF DATA CENTRE 1|

Material Key:

01 Cladding Backing Panel System - Colour: Black
02 Feature Cladding System - Colour: Timber Effect
03 Feature Living Wall System - Local Species
04 Curtain Wall System - Colour: Black PPC Aluminium
05 External Door System - Colour: Black
06 Brick Wall System Type A - Colour: Black Brick
07 Brick Wall System Type B - Colour: White Glazed Brick
08 External Signage - Colour: Black / White PPC Aluminium
09 Architectural Fins - Colour: Black PPC Aluminium
10 External Loading Bay Door - Colour: Black
11 Overhead Canopy System - Colour: Black
12 Fire Escape Stair
13 Loading Bay Stair
14 Roof Access Stair
15 Dock Leveller
16 Wall Mounted Louvres
17 Gantry for Mechanical Equipment
18 Mechanical + Electrical Equipment
19 Mesh Plant Screening



|PROPOSED NORTH EAST ELEVATION OF DATA CENTRE 1|

4. DESIGN

| 4.11 APPEARANCE - DC02 SECTIONS & 3D VIEW |

4.11.1 The geometric pattern of facade is in keeping with the client design guide whilst the choice of material and colour pallet are sensitive to its context.

4.11.2 The corners of the building are articulated differently to reduce the visual weight of the data hall.

4.11.3 The exposed black carrier panel adds depth and interest to the facade whilst the expanded mesh through the timber effect fins to the corners give texture.



|PROPOSED 3D VIEW OF DATA CENTRE 2|



|PROPOSED SECTION OF DATA CENTRE 2|



|PROPOSED SECTION OF DATA CENTRE 2|

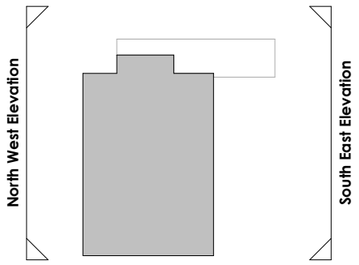
4. DESIGN

| 4.12 SCALE - DC02 ELEVATIONS |

4.12.1 The scale of the building is much the same as DC01. However, the front of house massing is reduced as the need for office space and ancillary is not required in this block.

4.12.2 The scale of the entrance white brick is similar to DC01 to create uniformity and brand recognition between the two buildings.

Elevation Key:



Material key:

01 Cladding Backing Panel System - Colour: Black

02 Feature Cladding System - Colour: Timber Effect

03 Feature Living Wall System - Local Species

04 Curtain Wall System - Colour: Black PPC Aluminium

05 External Door System - Colour: Black

06 Brick Wall System Type A - Colour: Black Brick

07 Brick Wall System Type B - Colour: White Glazed Brick

08 External Signage - Colour: Black / White PPC Aluminium

09 Architectural Fins - Colour: Black PPC Aluminium

10 External Loading Bay Door - Colour: Black

11 Overhead Canopy System - Colour: Black

12 Fire Escape Stair

13 Loading Bay Stair

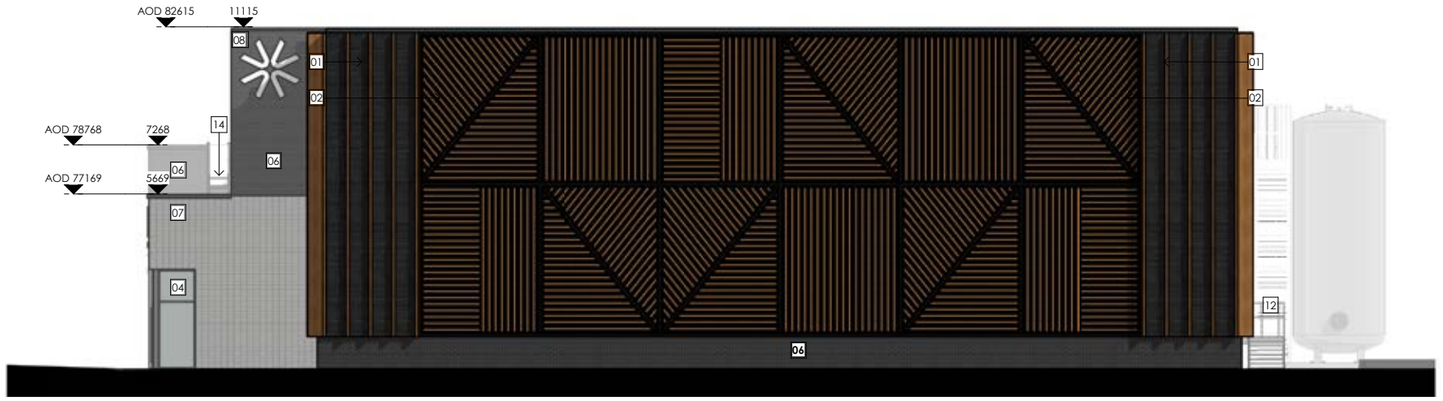
14 Roof Access Stair

15 Dock Leveller

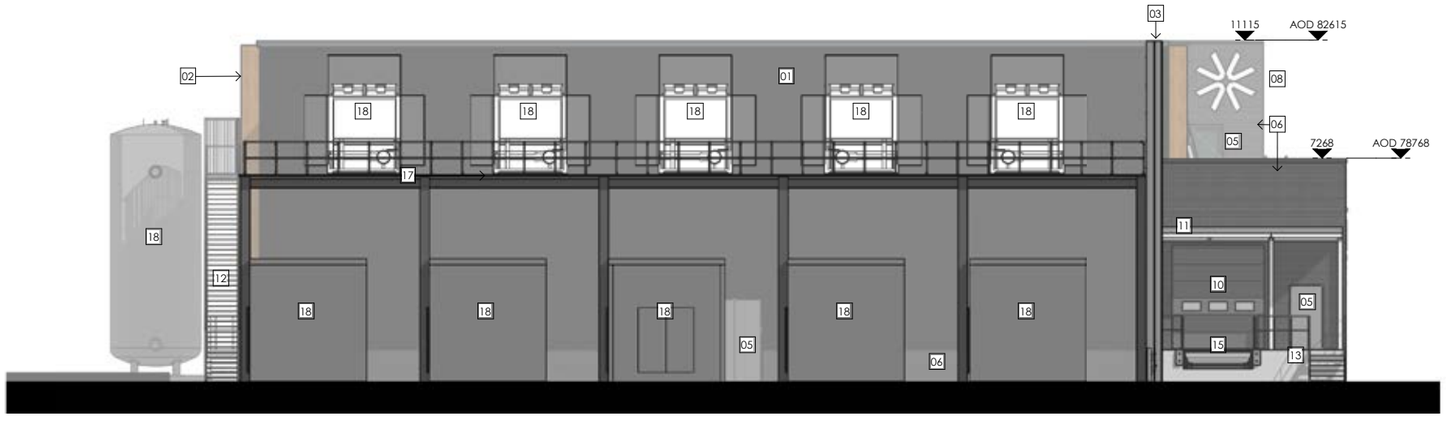
16 Wall Mounted Louvres

17 Gantry for Mechanical Equipment

18 Mechanical + Electrical Equipment



|PROPOSED NORTH WEST ELEVATION OF DATA CENTRE 2|



|PROPOSED SOUTH EAST ELEVATION OF DATA CENTRE 2|