

DATA CENTRE DEVELOPMENT

AT UNIT 4, SILVERDALE
INDUSTRIAL ESTATE,
SILVERDALE ROAD, HAYES
UB3 3BL

DESIGN AND ACCESS
STATEMENT

FOR MULHAVEN PROPERTIES LLC

Contents

1. Introduction

- 1.a. Purpose of this Document
- 1.b. Project Team Overview

2. Site Context

- 2.a. Site Description
- 2.b. Existing Site Photographs
- 2.c. Site Opportunities / Constraints
- 2.d. Existing Site Access / Connectivity

3. Background / Context for Site

- 3.a. Cloud Computing, The Operator & UK Investment

4. Proposed Development

- 4.a. Description of Proposals
- 4.b. Masterplan/Arrangement of buildings on site,
- 4.c. Scale Height and Massing
- 4.d. Materiality
- 4.e. Area Schedule
- 4.f. Landscape Masterplan and Details
- 4.g. Boundary Treatment and Fences

5. Access

- 4.a. Access to the site
- 4.b. Access within the Site
- 4.c. Access around the Building
- 4.d. Operational Waste

6. Lighting

7. Sustainability

Summary / Conclusions

1. Introduction

This Design and Access Statement (DAS) has been prepared by MCA Architects to accompany a full planning application for the redevelopment of Unit 4, Silverdale Industrial Estate, Hayes to provide a data centre development.

The application is submitted on behalf of Mulhaven Properties LLC

1.a. Purpose of the Document

This DAS has been prepared to demonstrate the design and access strategies for the Data Centre development proposed.

The development will provide a new Data Centre and associated ancillary buildings, new landscaping and planting.

The DAS includes information on:

- the design principles and concepts that have been applied to the development
- how issues relating to access to the development have been dealt with
- how the design principles and concepts that have been applied to the development
- steps taken to appraise the context of the development
- how the design of the development takes that context into account
- the policy adopted as to access
- how policies relating to access in relevant local development documents have been taken into account
- how any specific issues which might affect access to the development have been addressed.

Full details and scope of the planning application is described in the Planning Statement prepared by Lichfields Planning Consultants.

This document contains summaries of the contributions made by the professional team. More detail regarding these facets of the proposal are available in separate reports that form part of the complete planning submission.



Aerial view of the proposed development site (outlined in red)



Artistic impression of the proposed development

1.b. Project Team overview

Architect / Lead Consultant:

MCA Architects is a Dublin based Architecture practice specialised in designing and delivering complex buildings on challenging sites. With over 35 years' experience working in Ireland, the UK, and EMEA; we have a proven track record of working within the Technological and Data Centre sectors.

Our architectural philosophy is a direct response to the aims and ambitions of our clients, while responding to the specific context of each project. We are a socially and environmentally responsible practice that puts sustainability at the core of our design approach.

Professional Team:

This proposal has been developed by a multidisciplinary project team.

The team have worked together to develop a proposal which optimises the potential of the site and creates a high quality, architectural, environmental and ecological response to the specific characteristics offered by this site.

Project Team:

Planning Consultant	Lichfields
Lead Architect	MCA Architects
Local Architect	3D Reid
Landscape Architect	Hyland Edgar Driver
Ecology	E3P
Air Quality	Redmore Environmental
Acoustics	Cahill Design Consultants
Building Control Consultant	Sweco
Civil / Structural / Transportation Engineers	CSEA Engineers
Local Civil / Structural / Transportation Engineers	Simple Works
Mechanical / Electrical Engineers	Ethos
Local Mechanical / Electrical Engineers	Chapman BDSP
Security	Securitas
Environmental	EHS Projects
Accessibility	David Bonnet
Fire Engineering	Cahill Design Consultants

2. Site Context

2.a. Site Description

The site comprises a 0.44ha brownfield site at Silverdale Industrial Estate, Hayes.

The existing site includes a vacant warehouse with a service yard / forecourt to the north of the building, a narrow access lane to the west of the building and a small service yard to the rear (south) of the building.

Whilst currently vacant, the lawful use of the existing warehouse on site (Unit 4) is Class B8 (storage and distribution).

The surrounding area is predominantly characterised by industrial and warehouse units located at Silverdale Industrial Estate, varying between 1-2 storeys. In the immediate vicinity of the site, a small car park is located to the north; 2 no. industrial warehouses are located to the east; the London – Reading railway line is located adjacent to the southern site boundary; and Hillingdon Borough Central Mosque, an industrial warehouse and a single lane road accessed off Silverdale Road are located west of the site.

With respect to heritage and conservation, Botwell Nestles Conservation Area is located approximately 150m south-west of the site which includes 4 no. locally listed buildings, whilst the Grade II listed ‘Benlow Works’ factory building (listing ID – 1080121) is approximately 100m west of the site. No further statutory heritage assets are within the immediate vicinity of the site.

Neighbouring occupiers within the industrial estate comprise cash-and-carry retailers, freight shipping providers and food distribution facilities. The Hillingdon Borough Central Mosque, located west of the site, is a former industrial building currently operating as a place of worship (Class F1).

The site forms part of a Strategic Industrial Location (SIL), as designated within the London Plan and Local Plan Part 2 (LPP2). Land to the east and a small portion of the land to the immediate south of the site is allocated within LPP2 for minerals use (RSA 1 - Railhead Safeguarding Area including mixed concrete batching plant).

Across the train line, a Data Centre campus is currently under construction, the approx. height to parapet is 32m.



Aerial view of the proposed development site (outlined in red)

2.b. Existing Site Photographs



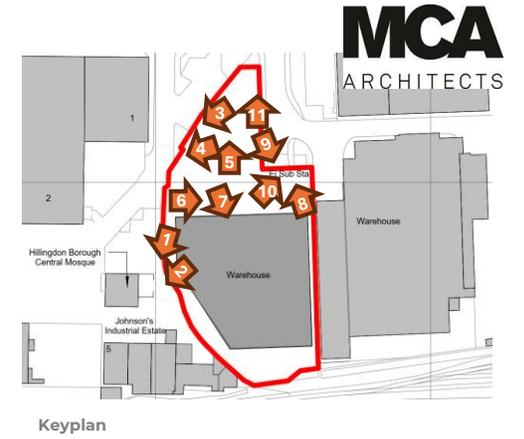
1. View from site access road to Hillingdon Borough Central Mosque



2. View from site access road to Hillingdon Borough Central Mosque



3. View from site of western boundary fence



Keyplan



4. View from site of western boundary fence



5. View from site to the northern boundary



6. View along the northern elevation of the existing warehouse to be demolished



7. View of existing warehouse building to be demolished



8. View of existing power pillars



9. View of eastern boundary beside power pillars



10. View of power pillar enclosure



11. View of western boundary of the site with building to be demolished to the left



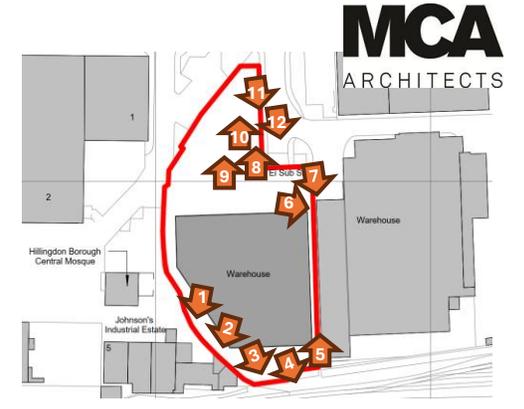
1. View from site to Johnson's Industrial Estate to the southwest



2. View from site to Johnson's Industrial Estate to the southwest



3. View from site to the retaining wall to the southwest corner



Keyplan



4. View from site to the retaining wall to the southeast corner



5. View from the south of site boundary to the east



6. View from the site to the neighbouring warehouse to the east



7. View from the north of site boundary to the east



8. View of eastern boundary of the site looking north



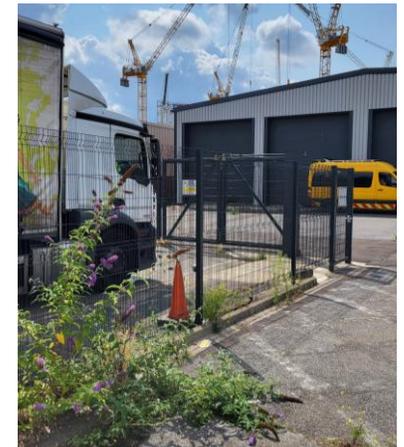
9. View across the existing forecourt to be demolished



10. View of northern boundary of the site



11. View of northeastern boundary of the site

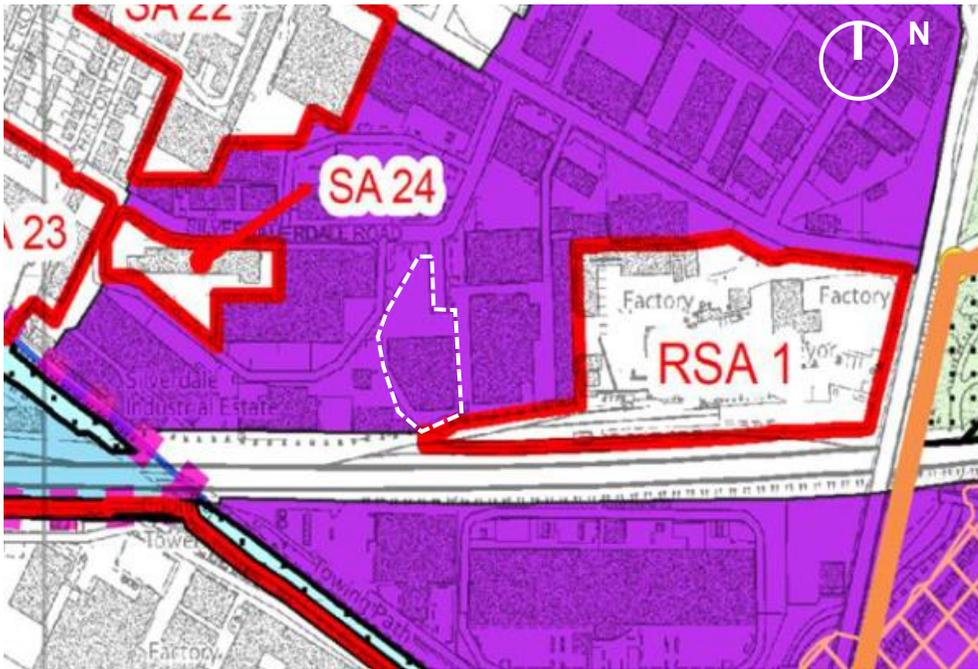


12. View of existing entrance gates to the site



-  Application Site
-  Walking Distance 5min / 10min
-  Hillingdon Borough Central Mosque
-  Industrial
-  Residential
-  Minet Country Park
-  Botwell: Nestles, Conservation Area
-  Listed Building: Benlow Works, Silverdale Rd
-  Listed Building: Former Canteen, former Nestles Factory
-  Listed Building: Gates and Railings Nestles Factory
-  Listed Building: Truscon building, former Nestles Factory

Desktop study looking at surrounding site uses



The site shown within the designated Strategic Industrial Location shaded in purple.

2.c. Site Opportunities / Constraints

General:

The previous section of this report (2.a) describes the site and its surrounds. Below is a list of constraints and opportunities that this context imposed on the development:

Constraints:

- The scale of development is limited by the size and shape of the site and its relationship with the neighbouring industrial units and Mosque.
- The nearest residential properties are a residential development which is currently under construction 145m southwest of the site referred to as Laurina Apartments. The Waterloo-Reading railway line and the Grand Union canal separate our site from this residential site.

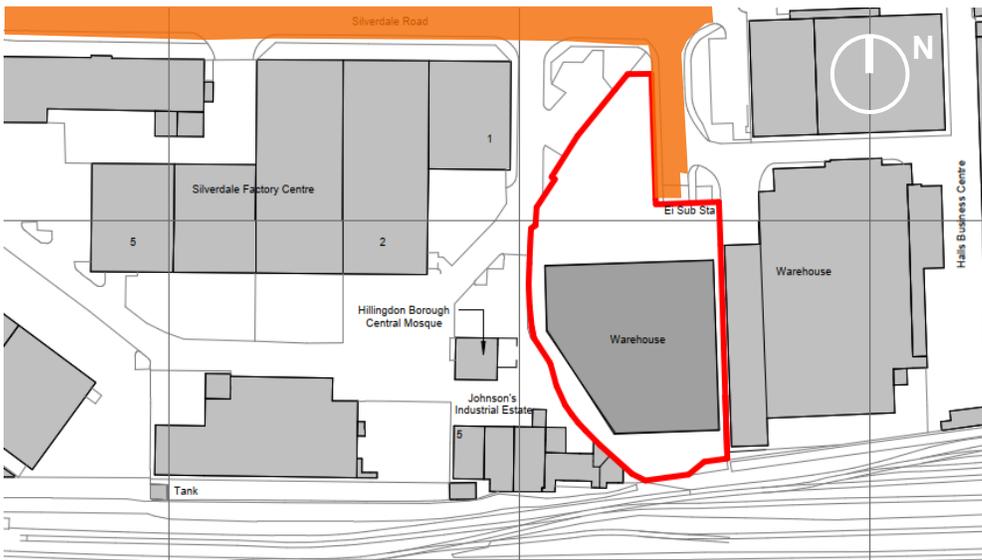
Opportunities:

- The development site is reasonable in area and capable of accommodating a significant development.
- The scale and the massing of the existing neighboring industrial / commercial buildings means that new appropriately designed development can be accommodated sensibly.
- Situated near major transport links, including the M4, Heathrow Airport, and public transit, the site offers excellent connectivity.
- Being part of an established industrial estate, the site benefits from a ready-built infrastructure.
- The site does not contain any designated archaeological assets or listed buildings.
- There are no protected habitats or nature reserves in the site. The limited green space can be protected and enhanced through landscaping using appropriate planting.

2.d. Existing Site Access / Connectivity

The existing site access is via a two-lane road off Silverdale Road, accessible via Pump Lane. Pump Lane connects to Botwell Lane and the A312 via Bilton Way (c. 400m east of the site), providing direct access to the strategic road network of the M4 to the south and A40 to the north. Heathrow Airport is located c. 6.1km south of the site.

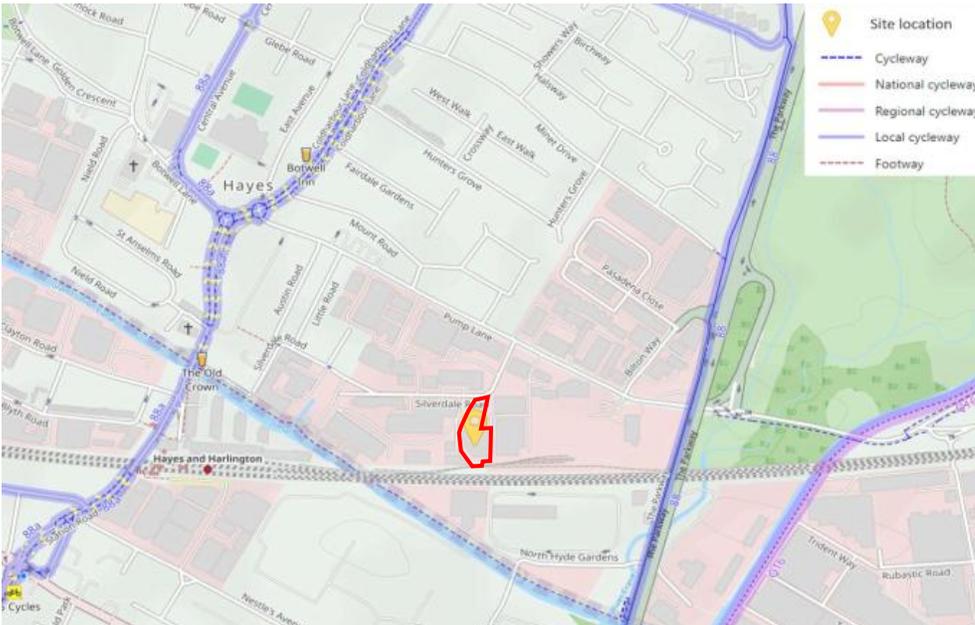
To the east of the site, A312 The Parkway runs north-south between Harrow in the north and Hounslow in the south. Close to the site, A312 The Parkway is dual carriageway with two lanes in each direction, connecting with the M4 motorway at junction 3 to the south and A4020 Uxbridge Road to the north.



Site location map showing public right of way (shaded orange)



Estate road which runs to the west of the site (photo taken looking south)



Existing Cycle Network

2.d. Existing Site Access / Connectivity (ctd.)

To the north of the M4 Junction 3, A312 The Parkway passes through Yeading, Northolt enroute to Harrow.

To the south of the site, A312 The Parkway links with A4 Bath Road and A30 Great South-West Road towards Heathrow Airport and passes through Cranford, Hatton, Feltham, Hanworth and Hampton.

Pedestrian Accessibility:

Silverdale Road has footways along one or both sides of the road along its full length with streetlights in place. Dropped kerbs and tactile paving is provided adjacent to the Pump Lane / Silverdale Road priority junction. There is good quality, wide footway provided on both sides of Pump Lane, however both Pump Lane and Silverdale Road lack active frontage as the area is industrial in character with warehouse facades along both roads.

A pedestrian only link located to the west provides connection between Silverdale Road and Crown Close which leads to Station Road (Hayes & Harlington rail station). Although well lit, this pedestrian link lacks active frontage.

Cyclist Accessibility:

A number of roads in the vicinity of the site are signed for cyclists including:

- Cycle route along part of the A312 The Parkway, which is segregated from the carriageway by hedges, which provides connection between Uxbridge Road and the Grand Union Canal.
- Pump Lane is subject to a 30mph speed limit; therefore, it is suitable for cyclists.
- Station Road is classified as being a cycle route signed or marked for use by cyclists on a mixture of quiet and busier roads.
- The Grand Union Canal towpath, located to the south of the site and to the south of the railway line, and can be accessed via a designated cycle lane along the Parkway, is shared with pedestrians and it forms part of the Blue Ribbon route. It also accommodates the start of Cycleway 16 which forms part of the London cycle network.
- Cycleway 16 runs north via the Paddington branch of the Grand Union Canal and leads to West Drayton, Stockley Park, North Circular Road, Old Oak Lane, and the Regent's Canal.

Two of the roundabouts in proximity of the site include marked cycle lanes to facilitate safer cyclist movements:

- Pump Lane/ Coldharbour Lane/ East Avenue/ Botwell Lane roundabout.
- Botwell Lane/ Station Road roundabout.

3. Background / Context for Site

3.a. Cloud Computing, The Future Operator and UK Investment

The proposed Data Centre provides vital infrastructure to allow for a robust future of Cloud Computing.

Cloud computing has not only reduced costs and increased innovation, it also helps businesses and the public sector to improve their energy efficiency and sustainability too.

Cloud computing has enabled startups, small businesses and public sector bodies to have access to the same technologies as the largest enterprises, which has helped them to drive innovation faster, reduce costs, and compete on a global stage.

The total economic impact of cloud computing in the UK accounted for over £42 billion in 2023, according to independent analysis by Telecom Advisory Services. That's equivalent to 1.6% of GDP, or larger than the UK's automotive manufacturing sector.

The Operator for the proposed Data Centre plans to invest £8 billion over the next five years (2024-2028) building, operating, and maintaining data centres in the UK. This investment is part of the company's long-term commitment to supporting growth and productivity across the country and is estimated to contribute £14 billion to the UK's total Gross Domestic Product (GDP) through to 2028 and support an average of more than 14,000 full-time equivalent (FTE) jobs on an annual basis at local UK businesses. These positions all form part of the AWS data centre supply chain, ranging from construction, facility maintenance, engineering, telecommunications, and other jobs within the broader local economy.

Since the start of the decade (2020-2023), The Operator has invested over £3 billion in the UK to help meet the growing needs of its customers. This investment is estimated to have supported an average of more than 6,000 FTE jobs at local businesses. Combined with today's announcement, this will bring the Operators total planned investment in the UK from 2020-2028 to more than £11 billion.

If the UK can help just half of small and medium businesses (SMBs) who aren't currently Digital Leaders to adopt technologies such as cloud computing and AI, this could create an estimated £38 billion in additional value for the UK economy over the next five years. These benefits would be spread across all nations and regions of the UK, creating, for example, an additional £2.5 billion in economic value in the West Midlands, and £3.9 billion in economic value in the Northwest, both over the next five years.

To help prepare the UK's workforce for the future, and address the growing need for digitally skilled talent, in December 2020 The Operator committed to investing hundreds of millions of pounds to provide free cloud computing skills training for 29 million people by the end of 2025. The Operator surpassed this ambitious goal in July 2024, more than a year ahead of schedule, having helped more than 31 million learners with all levels of technical knowledge across 200 countries, including the UK.

As a whole, The Operator has made direct investments of more than £56 billion in the UK between 2010 and 2022. This includes both capital expenditure and operating expenditure. The Operator employs 75,000 people in the UK



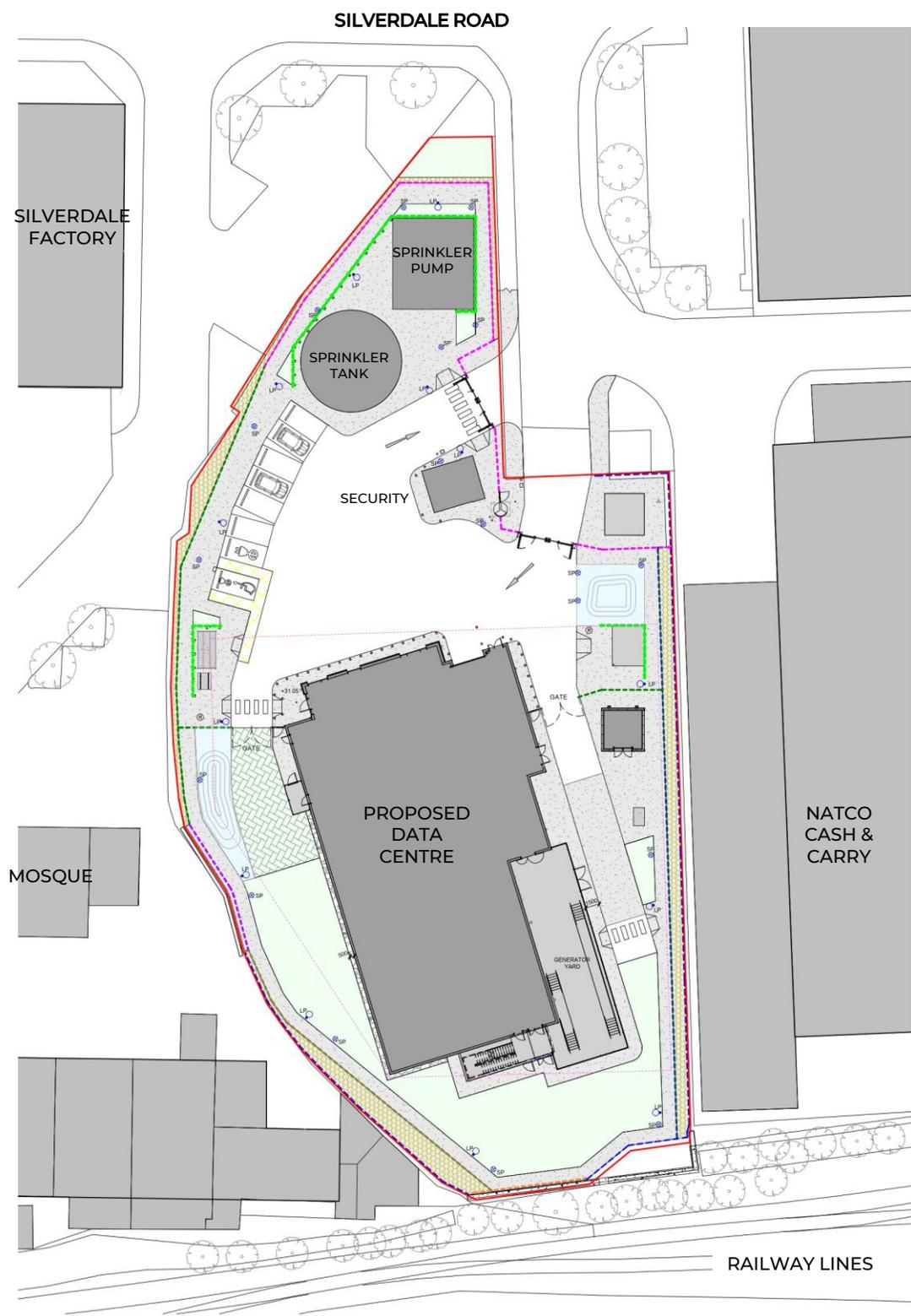
4. Proposed Development

4.a. Description of Proposal

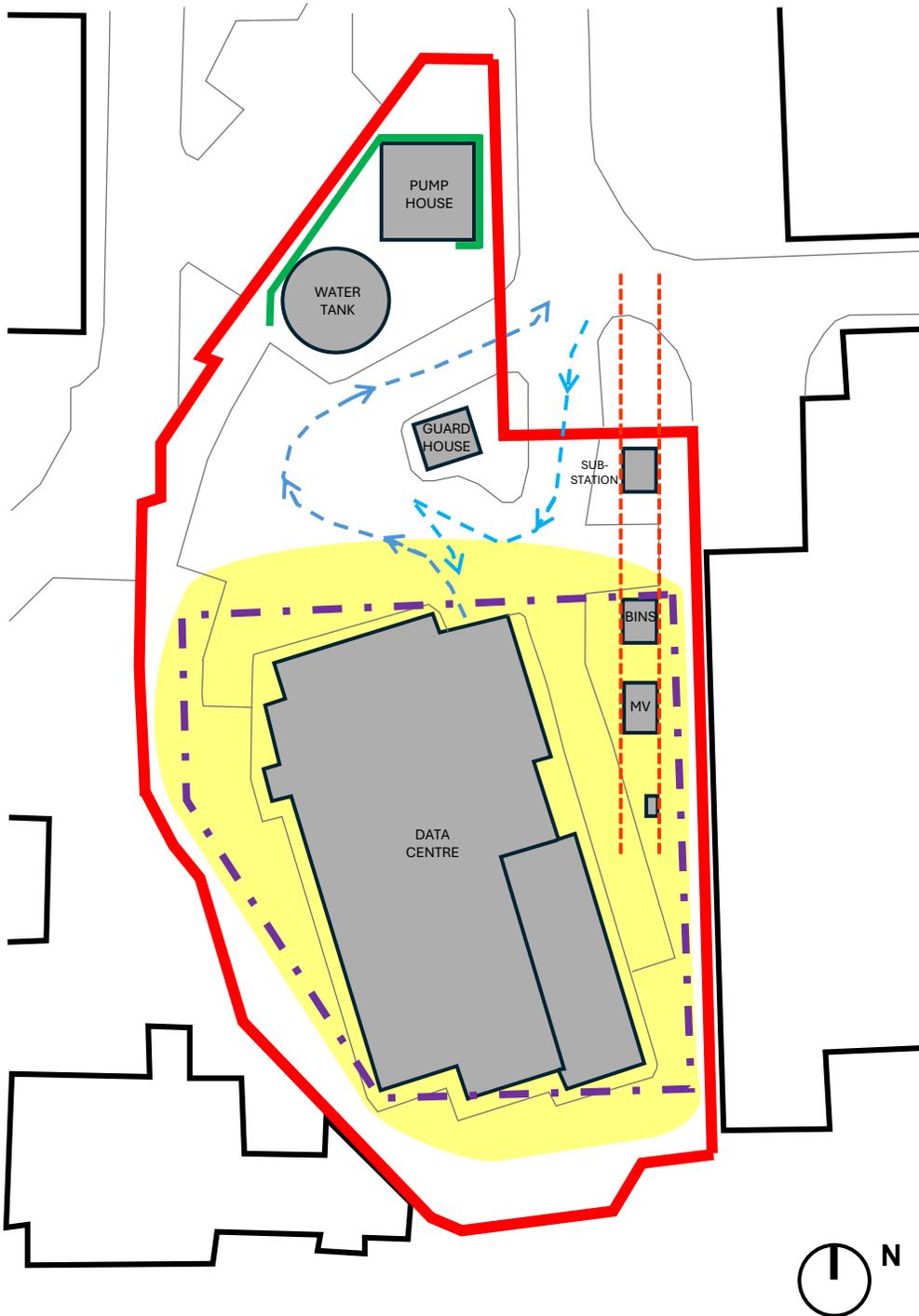
The proposed redevelopment of the site includes the demolition of the existing building and the erection of a data centre building. The proposed description of development is as follows:

- Demolition of the existing building and structures on site, and all other associated site clearance works.
- Construction of a data centre building (Class B8) with plant at roof level with an emergency generator (1no.) and associated flue (provided within an external compound adjoining the data centre building), sprinkler tank and pumphouse, security guard house, and provision of one kiosk substation and MV Building.
- The development also comprises the construction of a new access and internal road and circulation areas, footpaths, provision of car and bicycle parking, hard and soft landscaping and other associated works and ancillary site infrastructure.

This data Centre will be a data repository which requires significantly less power consumption than typical data centres. This building will be designed to house tape media that provides a long-term data storage solution for our customers. It will utilise magnetic tape media which requires environmental conditions such as temperature, humidity and particulate-free (ISO 14644-1 Class B for cleanliness levels) to be maintained in a narrow band (16-25oC and 20-50% Relative Humidity). As such this Data Centre will have a negligible cooling water demand (< 150 m3 per annum) and lower operational power demand with only one back-up generator (1.08MW) required for this building



4.b. Masterplan – Arrangement of Buildings on the Site



Site layout diagram

The proposed Data Centre Building sits within the footprint of the existing on-site warehouse.

The shape of the site dictates that the most usable portion is to the center / south of the site, where the current warehouse building is located.

The site access, and safe vehicle movements for trucks are a key consideration for the positioning of the building on the site. As part of the truck movements, it was established that separating the entrance and exit gateways would improve the safety and usability of the site. Securing these gateways is a key consideration of the future occupier, and so a guard house is proposed between these two gates. The ancillary buildings associated with the data center (sprinkler pump house, sprinkler tank, fuel kiosks, waste store and MV room) are located adjacent to the internal site road. The parking and bicycle storage are close to the main entrance of the building. The waste store is close to the loading bay.

As discussed with the Officers at pre-app meeting, an option was explored to locate some of the ancillary buildings to the rear of the buildings to the rear of main building, but this was not feasible given access and security constraints.

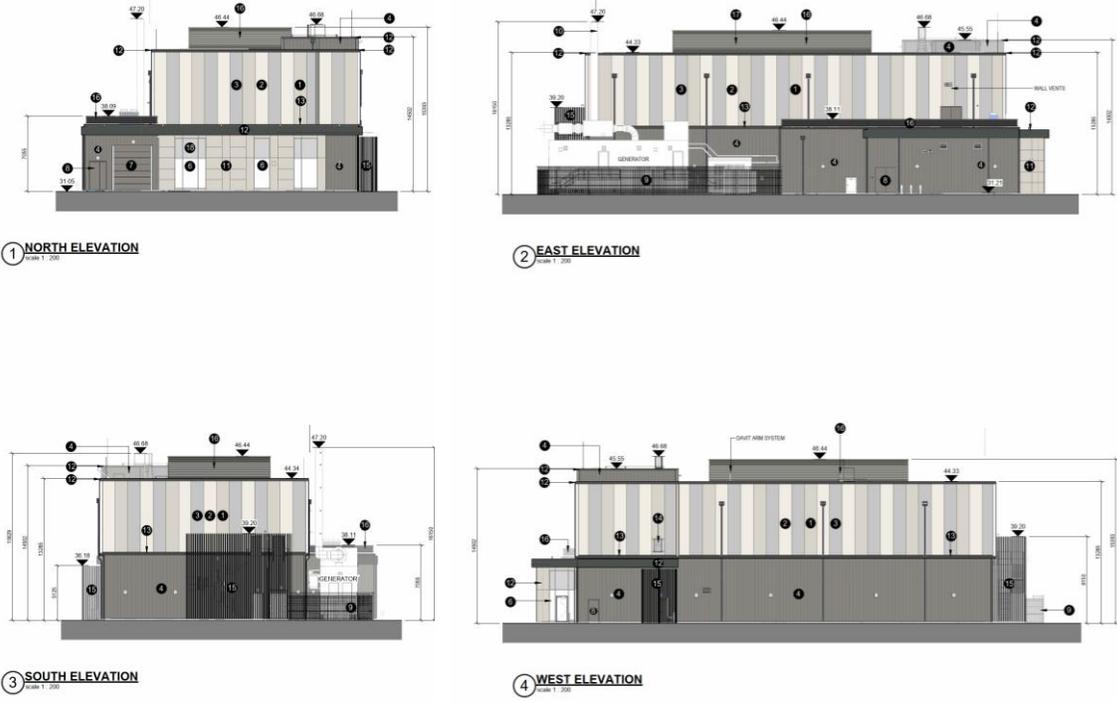
As a result, the sprinkler tank and pump room are cited at the northern section of the site. The pump room is orientated to align with Silverdale Road and is supported by a single water tank, rather than two. These structures are proposed to be enclosed with a living wall screen. This green visual serves to unify them as a single form when seen from outside this prominent part of the site. The green wall also complements the existing large mature trees on Silverdale Road providing, providing a planted backdrop and a more welcoming approach. A pocket of landscaping fills the space between front of pump room and secure fence, which allows for low shrubbery to provide a green space anchoring the screen to the site.

In its current form, the area around the existing building is concrete hardstanding in its entirety. We have sought to maximise landscaping across the site, where possible, providing significant uplift in soft landscaping compared to existing.

The bicycle and bin store have been located on either side of the building and are cited so that the bicycle shelter is proximate to the main building entrance and the bin store proximate to the loading dock.

We have provided a similar architectural screening to both, with front of these architectural screens also forming a medium for some additional greening to further soften the main building frontage. These screens are anchored in pockets of planting. The screened area beside bicycle storage extends to provide an external seating amenity for staff.

Along the western side of the site, we have aligned all ancillary buildings to create an order along this boundary.



Elevation drawings of the proposed Data Centre Building



Sketch of the massing concept of the proposed Data Centre, note the admin / entrance is stepped down and canopy wraps around

4.c. Scale, Height, Massing

The massing of the building responds to the neighbouring context on the site. The larger form of the data storage hall (13.135m high) is located to the center of the site. Existing adjoining warehouse buildings range in height from 8m to 10.1m high approximately.

The building has been carefully designed to modulate mass into two separate forms with a consistent horizontal band to express two forms and reduce overall impact of building height, dividing the overall mass between the lower 'busier' areas where the majority of access points/service areas, and projections to the base form are located, from the cleaner/uninterrupted form of the upper-level data hall.

At lower level, a dark grey metal panel is proposed where the technical areas are located, with a vertical microrib profile to provide a consistent rhythm and base of building.

In contrast, the front of house/entrance area is clad in a flat metal panel curtain wall cladding broken with large areas of clear and spandrel glazing. This provides a more open and sharply detailed expression to where the entrance is located facing towards Silverdale Road, and to the areas where staff will spend the majority of their working day.

The building is visually broken by a dark horizontal metal band to the front, which also extends as a canopy over building entrances. This band masters the busier ground floor as a separation from the simple rectangular form of the upper floor. The building steps down to the west, to 5.9m, which is less imposing to the neighbours on that adjoining site.

The upper-level also overhangs the lower level to accentuate the break in form, and a vertical pattern is provided using 3 alternating white to light grey colours in the flat metal panel system to provide some visual interest and animation. This also serves to provide a lighter expression to the upper volume when viewed against the sky, in contrast to the busy base which anchors the building.

The entrance is a simple flat rainscreen panel system which accentuates the building entrance with its overhang canopy to define a welcoming entrance to building. This is at a more intimate scale than the larger data storage behind. The canopy offers shelter to anyone entering the building.

The roof plant area is located centrally on the roof on a raised gantry and visually controlled by a horizontal metal louvred screen.

Cumulatively, these elements result in a high-quality design, responsive to feedback from LB Hillingdon.

4.c. Scale, Height, Massing

A selection of existing / proposed images have been compiled using the VU City software. These images are included to demonstrate the scale, height, and massing of this application in its surrounding context.

Views to demonstrate massing only.



VU City Birds Eye image looking from South to North – Existing condition.



VU City Birds Eye image looking from South to North – Proposed condition.



VU City Birds Eye image looking from North to South – Existing condition.



VU City Birds Eye image looking from North to South – Proposed condition.

4.c. Scale, Height, Massing



VU City Birds Eye image looking from South to North – Existing condition.

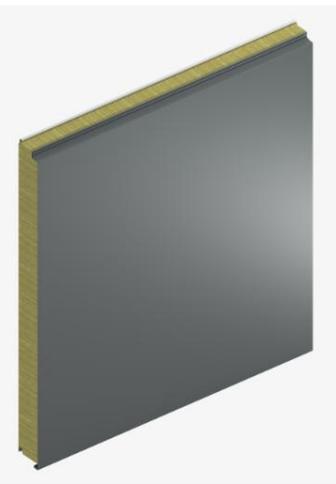


VU City Birds Eye image looking from South to North – Proposed condition.



View from Silverdale Road – existing and proposed





Pure White R9010
Polyester SP25 0.5/0.6
Foodsafe 0.5
Gloss: 11

Grey White R9002
Polyester SP25 0.5
Gloss: 35

Light Grey R7035
Polyester SP25 0.5
Gloss: 35

Dark Silver Matt 9007M
Matt PVDF 0,6

4.d. Materiality

It is important for the building to offer interesting and attractive views, contributing to the area's overall visual appeal. To achieve this, the building's form is thoughtfully detailed and designed, using a carefully chosen mix of materials. These materials create a clear rhythm with subtly varied textures and complimentary colors, accented with well-placed highlights where needed. Different cladding profiles are used to subtly highlight the various internal functions of the building.

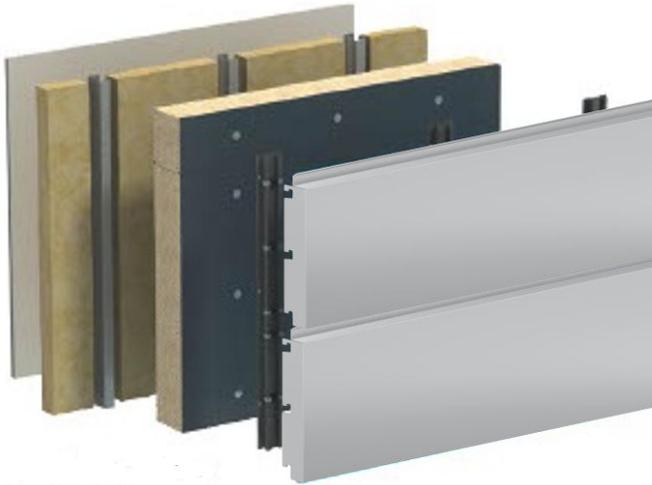
The primary form and mass of the data centre is clad in high-quality metal cladding panels, their colour gradates through hues of grey. The vertical barcode pattern adds interest and articulation to the building. The design of the main office facades focuses on creating a high-quality business park feel, with glass panels emphasizing the main entrances, making them clear focal points that are easily visible as you approach the buildings.

Care has been taken to limit material choice to keep a simple considered design. All elements are either metal or glass which reflects the technical use of the building.

The entrance canopy as it wraps around the front of the building, it is a charcoal painted aluminum finish. The rainwater downpipes are light grey polyester powder coated finish.

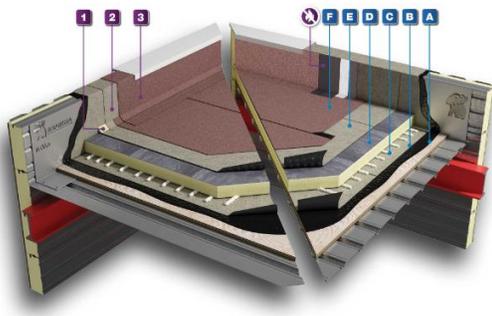
The existing site fences are to be maintained, and an additional secure site fence line with vehicle gates and pedestrian turnstiles is proposed. The site fence is also to be a charcoal grey paint finish

Insulated metal cladding panels – Range of PPC colour finishes proposed



Aluminium rainscreen panel fixed to rockwool core backing panel

Curtain walling – Grey PPC finish



Insulated roof finish



Louvers – charcoal grey finish



Security fence – charcoal grey finish



Artistic impression of the proposed development – aerial view from south

4.e. Area Schedule

SITE:

OVERALL SITE AREA: 0.4491ha approx. (measured 0.37 from planning cover letter)

BUILDINGS:

PROPOSED BUILDINGS (sqm):

GROSS EXTERNAL AREA:		GROSS INTERNAL AREA:		NET INTERNAL AREA:	
DATA CENTRE:		DATA CENTRE:		DATA CENTRE:	
GROUND FLOOR	944	GROUND FLOOR	862		
FIRST FLOOR	782	FIRST FLOOR	670	NET OFFICE AREAS	396
ROOF PENTHOUSES	52	ROOF PENTHOUSES	23	NET WAREHOUSING AREA	1086
ANCILLIARY BUILDINGS:		ANCILLIARY BUILDINGS:		ANCILLIARY BUILDINGS:	
SECURITY HUT	27	SECURITY HUT	16	SECURITY HUT	16
SPRINKLER PUMPHOUSE	88	SPRINKLER PUMPHOUSE	72	SPRINKLER PUMPHOUSE	71
MV BUILDING	21	MV BUILDING	14		
TOTAL GROSS EXTERNAL AREA	1,914	TOTAL GROSS INTERNAL AREA	1,657	TOTAL NET INTERNAL AREA	1,569



Artistic impression of the proposed development – view from Silverdale Road



Artistic impression of the proposed development – front view from carparking

4.f. Landscape Masterplan and Details

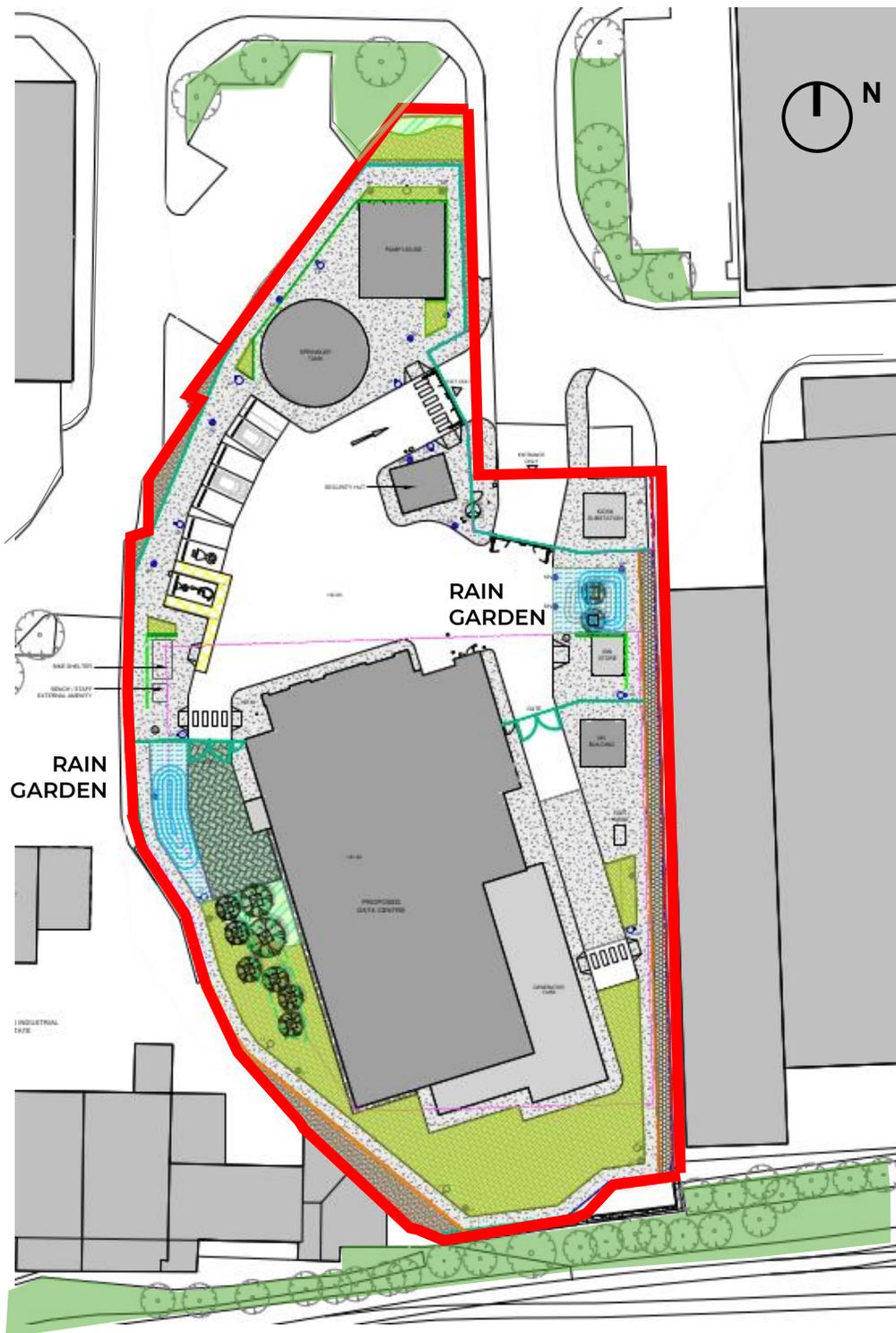
The design intent for the project is to maximise the potential green space while maintaining an efficient, safe, secure usable data centre site.

The existing site is fully sealed and contains no material vegetation (there are overgrown weeds and buddleia around the site). There is currently no landscaping on the site so what we are proposing is a significant improvement and in excess of planning policy requirements. The proposed development improves the habitat and urban drainage of the site.

Planting zones of robust flowering shrubs and bushes are proposed to the north, south and east of the site. These plants have been chosen as they are drought tolerance and low maintenance, while still attracting and supporting pollinators.. No tree removals are proposed. The car parking spaces are proposed to have grass-crete finish.

Two landscaped areas of the site will function as rain gardens to facilitate sustainable collection of rainwater.

A full description of the illustrative landscape design is contained within the Landscape Drawings prepared by HED and submitted as part of this application.



DROUGHT TOLERANT AND LOW MAINTENANCE PLANTING



4.f. Green screening

Site frontage to Silverdale Road

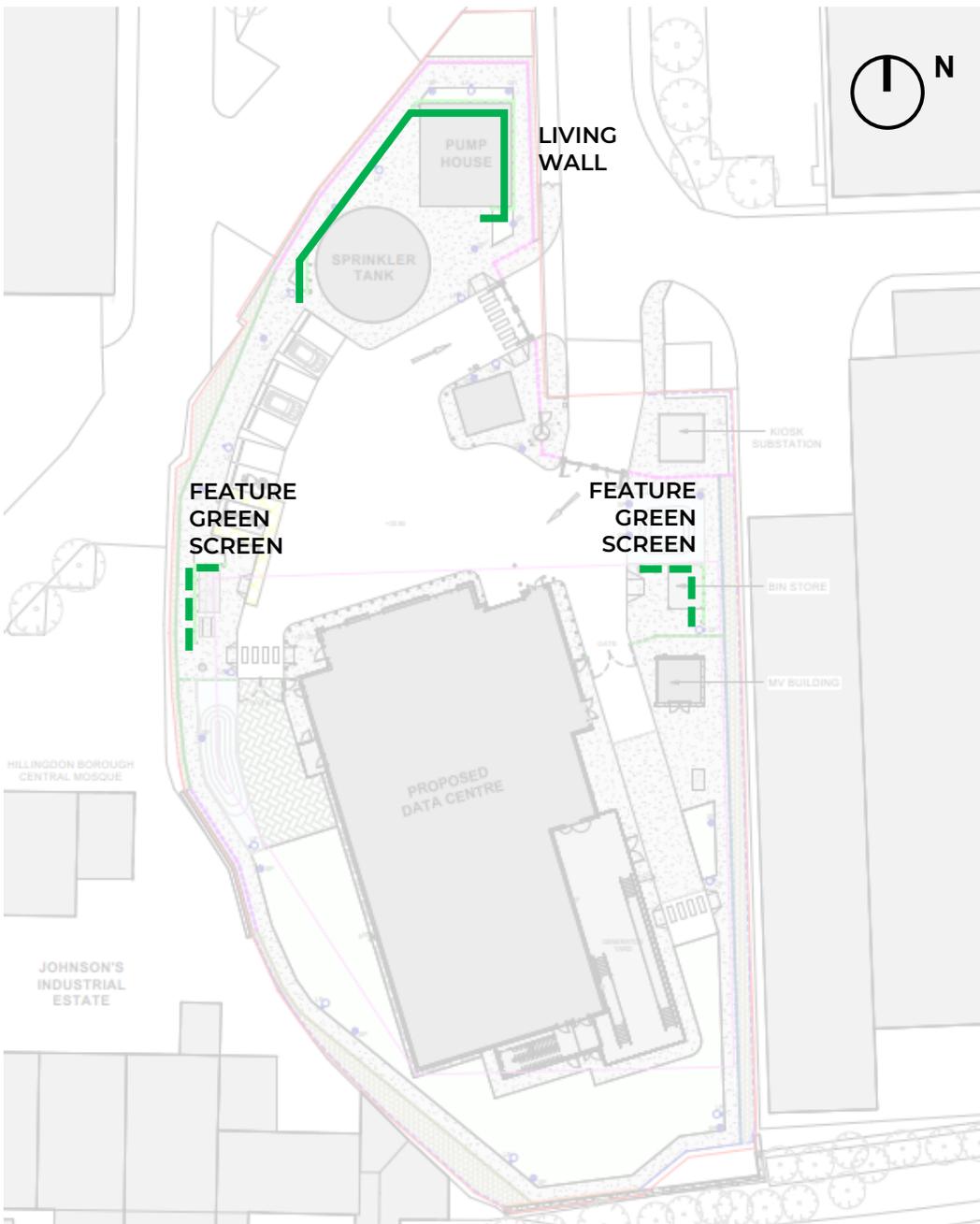
To soften the main site frontage to Silverdale Road and to screen ancillary sprinkler buildings, a living wall has been incorporated to wrap these buildings in this corner of the site.



Feature green screens

To frame entrance into building we propose a steel framed architectural screen with mesh panels, which can support some localised vertical planting to provide a screen to bicycle and waste storage areas.

The screen adjacent to main building entrance will also provide a comfortable external breakout space for employees.



4.g. Boundary Treatment and Fences

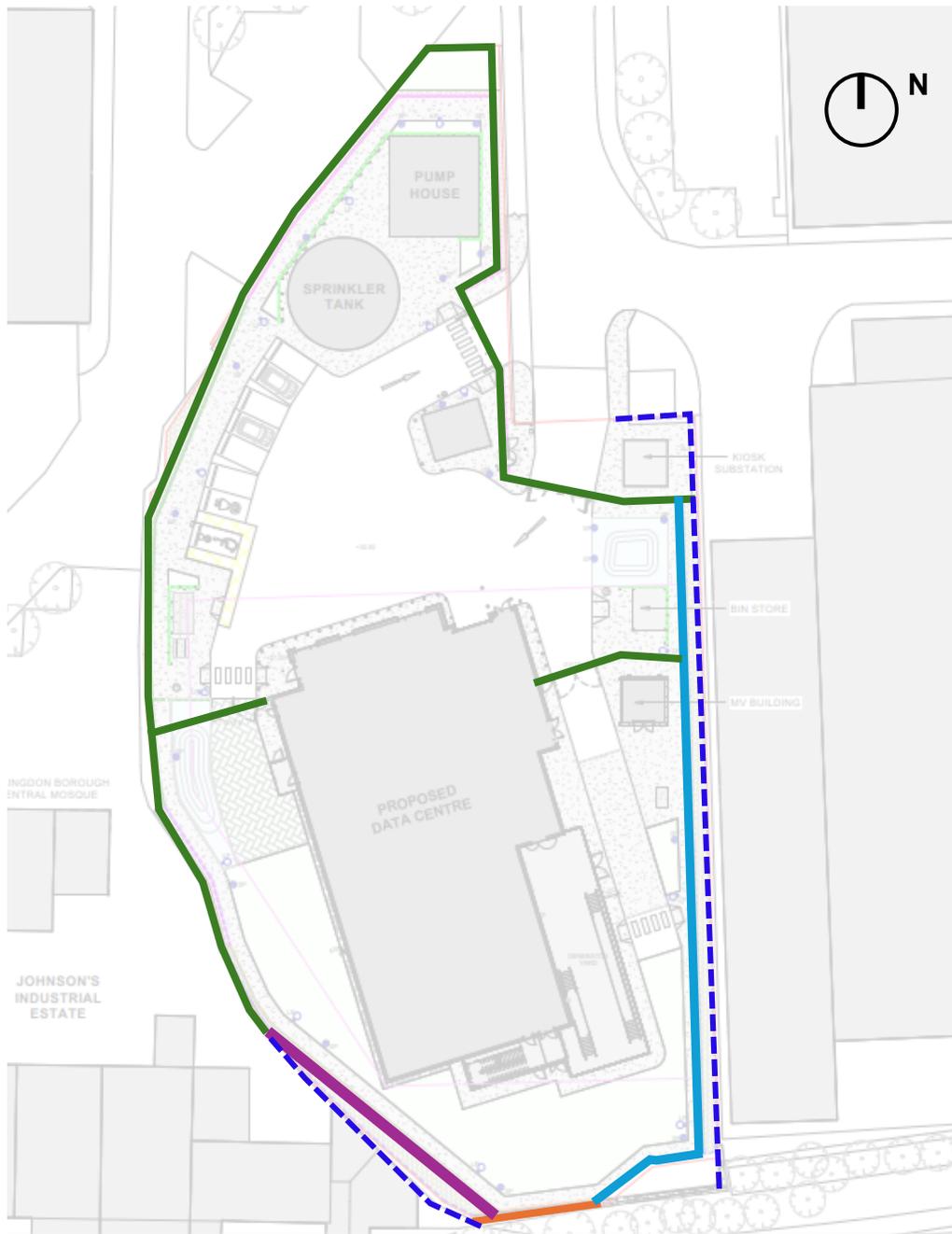
Site security is a key concern for the future operator of this site.

The design intent for securing the boundary is:

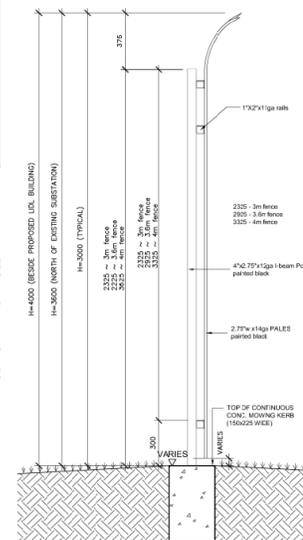
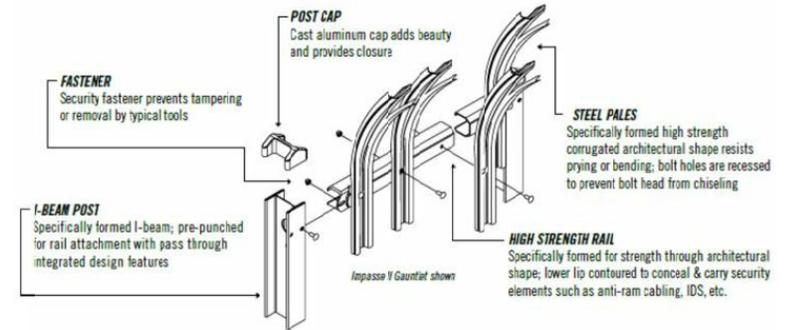
- retain the existing fence along the western boundary,
- reinforce the western boundary with a 3m high fence,
- install a 2.4m high fence along the top of the retaining wall to the southern boundary,
- addition of a 4m high fence to the south east (where the neighboring building abuts the site)
- and for the northern portion the site, install a 2.4m high fence.

The finish to the proposed fences will be a charcoal grey polyester powder coated paint. The top of the fence is proposed to be curved (towards the site) for added security/protection, see below image and detail for clarity.

Two no. vehicular gates are proposed for site access and egress, and one no. pedestrian turnstile.



- - - EXISTING SITE FENCE TO BE RETAINED
- 2.4M HIGH FENCE
- 2.4M HIGH FENCE INSIDE EXISTING RETAINING WALL
- 4M HIGH FENCE
- 3.5m HIGH FENCE
- 3M HIGH FENCE



5 Access

5.a. Access to the Site

The development is accessed via the estate road which serves the service yard and car parking to the unit via separate entrances. The estate road access to the car parking and service areas have been segregated for both operational and health and safety reasons, vehicles can also turn within the curtilage of the site.

A new pedestrian footpath / cycleway access to the site from the estate road has been illustrated within the development site. This links the site to the wider neighbourhood, ensuring safe access for pedestrians and cyclists alike.

The site access gate is located inboard of the site red line by approx. 5.9m – this allows for a queuing / waiting vehicle to be pulled off into the site, not blocking the estate road, and not blocking the site exit route.

5.b. Access Within the Site

All pedestrian crossing locations will have dropped kerbs and will incorporate contrasting tactile paving to make visually impaired pedestrians aware of the crossing.

Vehicular access will be clearly signaled, and line marked on the driveways. The lighting scheme will be designed to ensure suitable illumination levels exist across the scheme ensuring a safe provision for all users in particular the visually impaired.

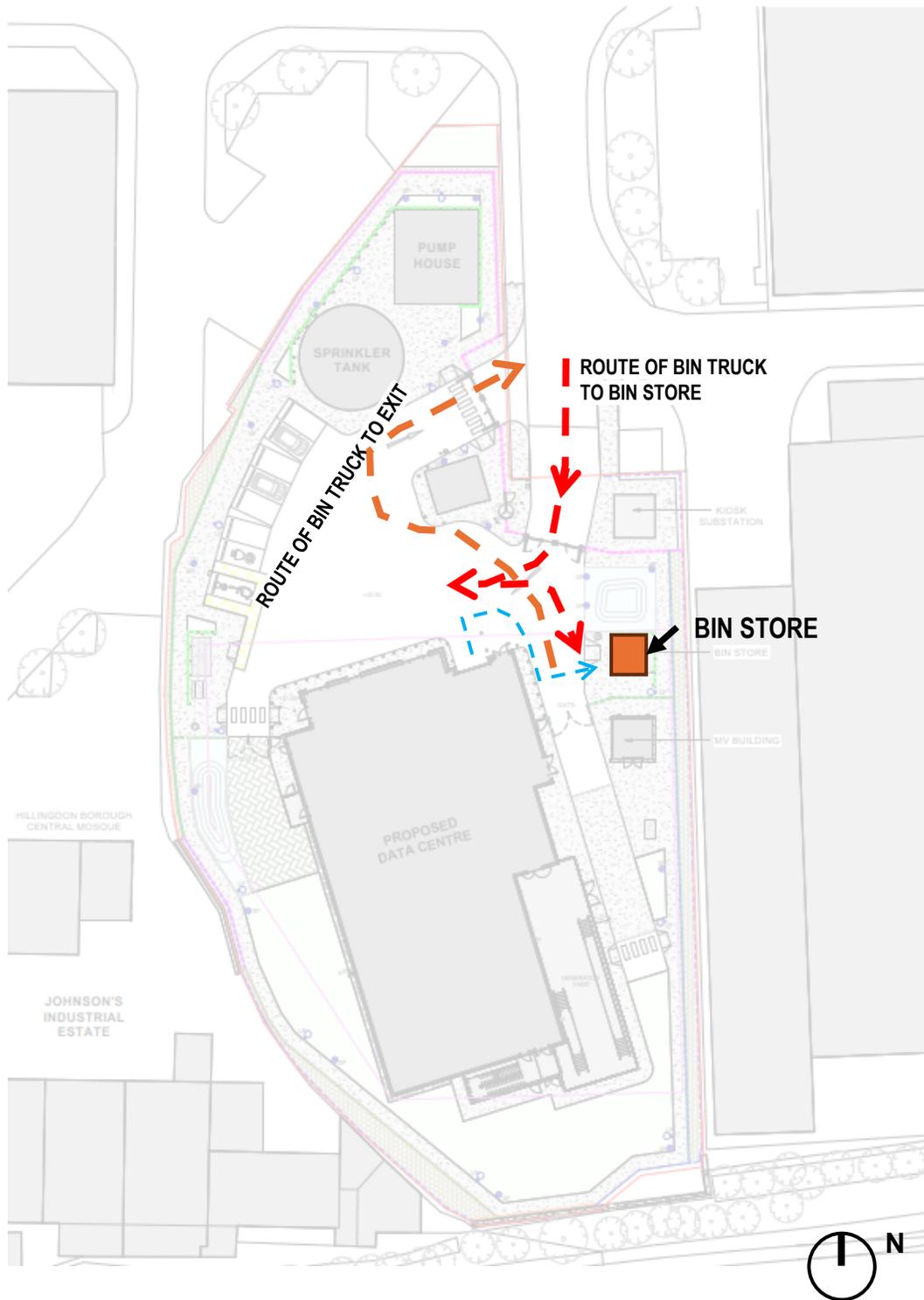
Accessible parking has been illustrated adjacent to the main building entrance. Levels will be appropriate to allow safe and convenient access for all.

5.c. Access around the Building

The new development will be fully DDA compliant, ensuring complete accessibility throughout. Entrances and exits will feature level thresholds, and vertical access will be provided for all floors. The admin areas have been designed to comply with Part M of the Building Regulations.

5.d. Operational Waste

Provision of external recycling and waste storage has been identified on the site plan. The waste storage is accessible by a truck for waste pick-ups, and it is located adjacent to the building loading bay for ease of operations for the building. Further information on the waste strategy for the development can be reviewed in the Operational Waste Management Strategy, prepared by EHS, included in this application



Site Plan Diagram highlighting the route to and from the bin store



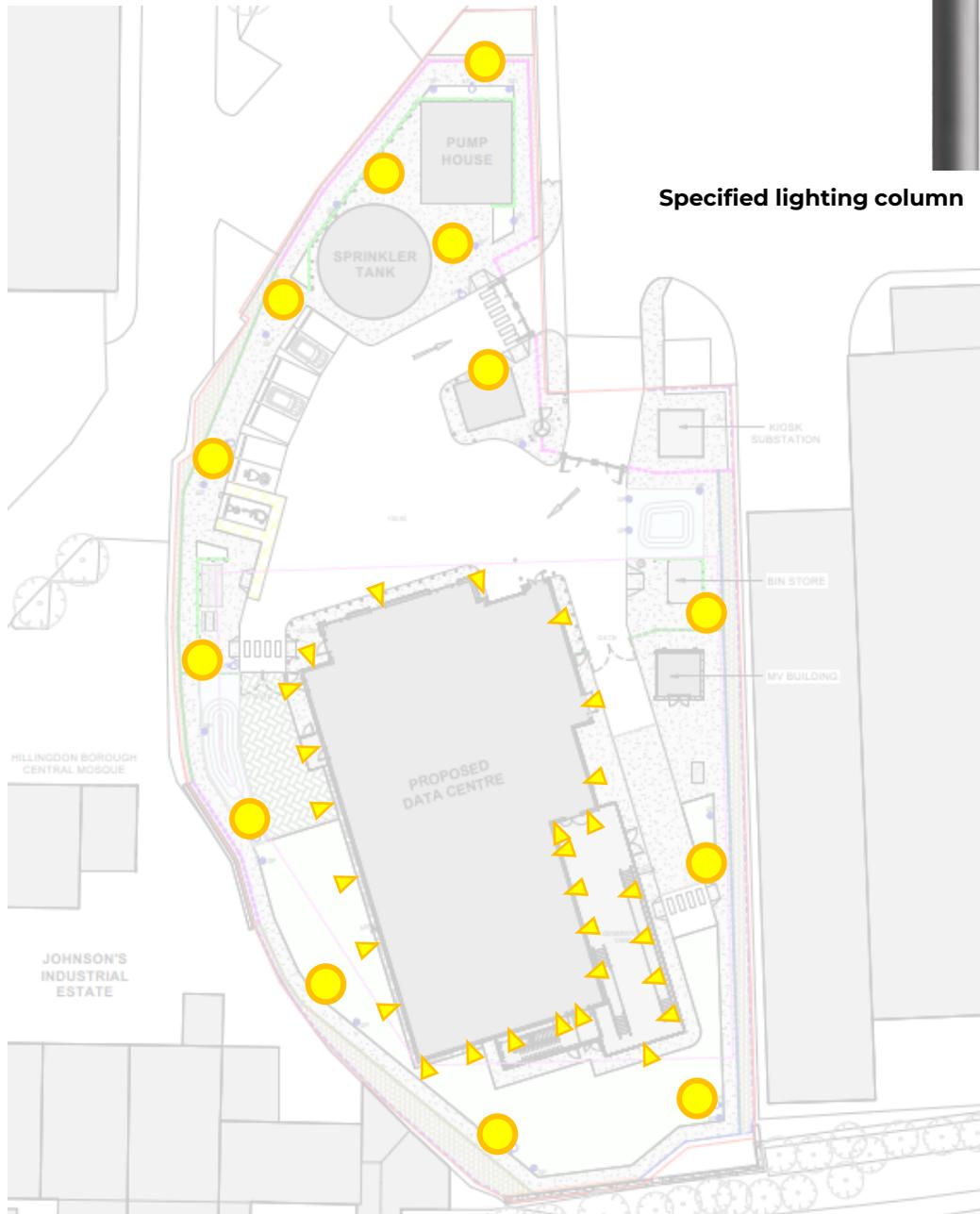
Artistic impression of the proposed development – front elevation



Artistic impression of the proposed development – view from rear of building



Specified lighting column



Lighting diagram, lamp standards indicated as a circle, building mounted lights indicated as a triangle

6. Lighting

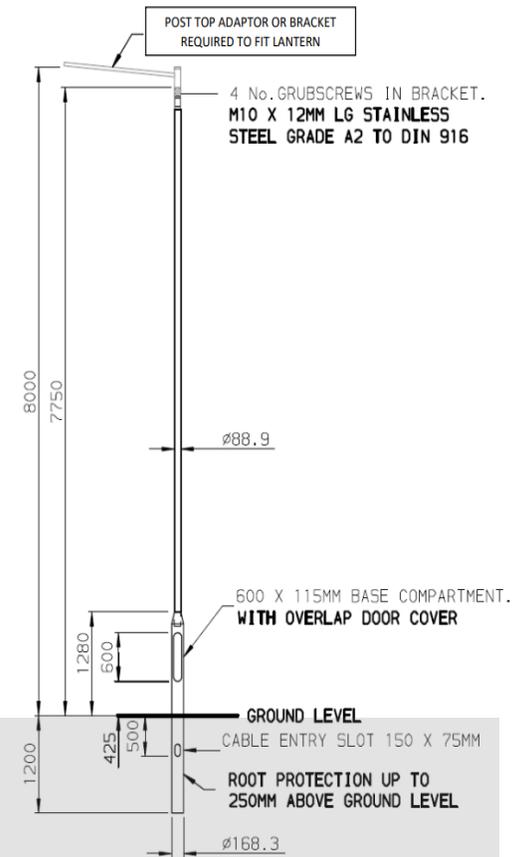
The principles of the external lighting scheme design will be based upon the current Design Standard for Exterior Lighting in conjunction with the following:

- BS 5489-1:2020 Code of Practice for the Design of Road Lighting
- BS EN 12464-2:2014 Light and Lighting – Lighting of workplaces
- Chartered Institution of Building Service Engineers (CIBSE) LG6 – The Outdoor Environment
- The Institute of Lighting Professionals: Guidance Notes for the Reduction of Obtrusive Light GN 01/20, covering Environmental Zones E0 to E 4

Lighting will be a combination of building mounted and column mounted lighting units. The lighting design will utilise good quality, attractive fittings, directed downwards to avoid light pollution, in accordance with airport safeguarding best practice measures.

The car parking spaces, and service areas will be illuminated during the hours of darkness to an appropriate lighting level for both operation and safety.

Refer to lighting report, reference LHR600-ETH-XX-XX-RP-E-0009 prepared by Ethos Engineering.



Indicative section through lighting column



Artistic impression of the proposed development – view to loading dock



Artistic impression of the proposed development – aerial view from north

7. Sustainability

The Proposed Development seeks to provide a development capable of minimal energy consumption and low resultant carbon emissions. The design has been developed in line with the Greater London Authority's (GLA) energy hierarchy, i.e. being '*lean, clean, green and seen*'.

Stand-out targets which the development is designed to include:

- Achieving a minimum 'Excellent' rating under relevant BREEAM data centre assessment.
- Maximising the provision of on-site renewables and offsetting the outstanding carbon emissions through offsite measures via cash in lieu contribution.
- Minimising overheating risk in line with CIBSE TM52 guidance.
- Monitoring and verifying predicted energy performance through GLA's online portal
- A 15% reduction in regulated CO₂ emissions through energy efficiency measures alone (Be Lean), below those of a development compliant with Part L 2021 of the Building Regulations.

Refer to Energy Statement, prepared by Ethos Engineering / Chapmanbdsp.

Summary and Conclusions

We consider that a comprehensive proposal has been set out for this Data Centre at Silverdale Industrial Estate. Summarised below are the key considerations.

- The building's form responds to its surrounding area, with facades that have been designed and detailed to a very high standard.
- The landscape proposal will enable integration of the proposed Data Centre into its environment and will reduce the potential visual impacts on the surrounding area.
- The development is targeting BREEAM Excellent for Data Centres.
- A rainwater harvesting system will be used to reduce the demand on public mains.