

06 Design Proposal

Landscape strategy | Proposed landscape plan

Landscape strategy

The proposed landscaping scheme will completely transform the site from a poorly maintained harsh environment, finished almost entirely in hardstanding, to a high quality environment combining hard landscaping and planting areas that will provide visual interest and create a welcoming environment creating some respite from the harshness of the existing context.

The landscaping strategy divides the site into three areas:

- The public realm facing Edgware Road and the Staples Corner west roundabout.
- The River Brent verge.
- The car parking and service area.

These areas are designed to respond to their specific environment and associated needs, but are designed to ensure that they read and act as interconnected elements in the overall masterplan.

The public realm to the south of the building combines hard landscaping along the desire lines and pedestrian routes with generous planting beds with filled with soft landscaping, adding visual and environmental interest to the site. These areas are also designed to respond to the geometry of the building, ensuring the public realm and building architecture create a cohesive design.

The service areas and car parking are more utilitarian spaces and are designed to respond to the standard operator requirements. Soft landscaping is introduced to create a soft edge to the railway tracks to the northeast and as a transition to the river edge to the northwest.

The River Brent edge is designed to give priority to biodiversity with the intention of creating a natural corridor to improve the natural environment along the river and strengthen its connection to the Welsh Harp Local Nature Reserve (SSSI).

Proposed landscape plan



Proposed landscape masterplan

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Flood mitigation strategy

Flood mitigation strategy

As outlined in the analysis section of this document, under fluvial/ tidal flooding, the site is located within flood zone 2 with a portion along the river Brent located in flood zone 3a.

As in planning terms the proposed use is classed as 'less vulnerable', the proposed development is considered appropriate in these flood zones, subject to passing the sequential test.

In order to mitigate the risk associated with flooding, the proposed ground floor level will be set 300mm above the highest flood level in the vicinity of the site. Based on EA data, this level is determined at 39.96m AOD, therefore the proposed ground floor level will be set at 40.260m AOD.

There is no mitigation required for groundwater flooding, sewer flooding or surface water flooding, but the use of SuDS will be prioritised to deal with surface water flooding.

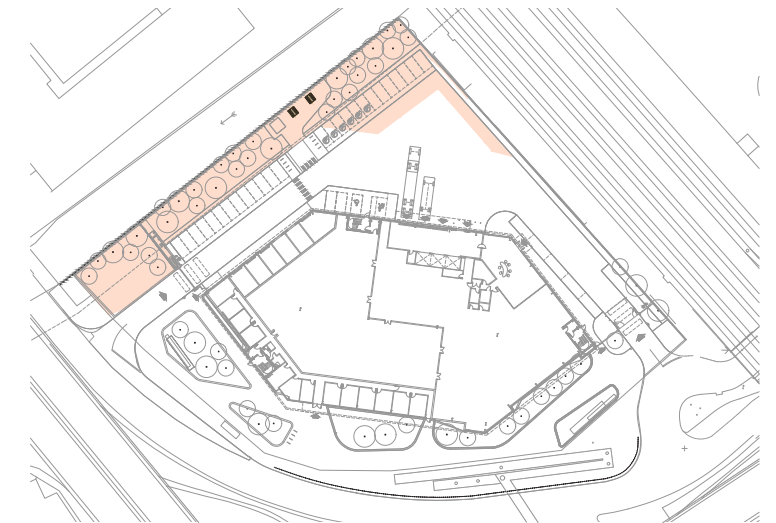
Another aspect of flooding that needs to be taken into account in the design is that as the site partially floods in its existing configuration, the proposed scheme will need to be able to accommodate equivalent flood volumes, ensuring that flood water can be accommodated within the site instead of being displaced towards other sites in the vicinity. These diagrams compare the existing and proposed flood volumes at three key levels.

The bottom-right diagram demonstrates that, in the worst case scenario of the site flooding up to the 39.96m AOD level, the flood water would be accommodated within the site and away from the proposed building footprint.

Please refer to the Flood Risk Assessment that accompanies this planning application for further details.



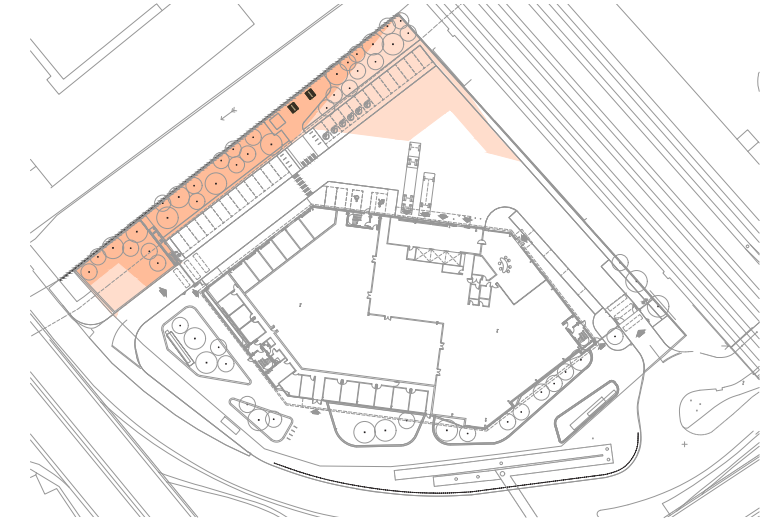
Existing floodplain @ 39.81m AOD



Proposed floodplain @ 39.81m AOD



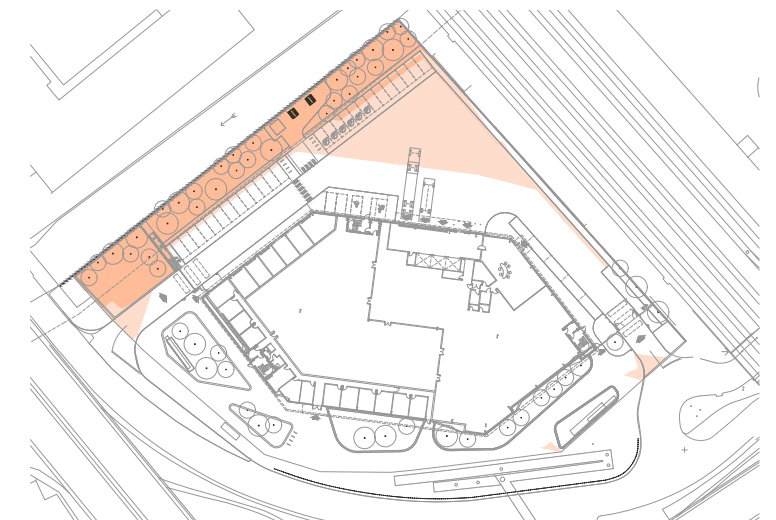
Existing floodplain @ 39.85m AOD



Proposed floodplain @ 39.85m AOD



Existing floodplain @ 39.96m AOD



Proposed floodplain @ 39.96m AOD

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Environmental considerations

The environmental impact of the proposals has been at the forefront of the design process from the beginning.

A Sustainability statement and an Energy statement accompany this application and full details on the environmental considerations for the development can be seen in these documents.

The building will be designed to minimise, wherever possible, its environmental footprint and will incorporate, in addition to passive design features like natural ventilation, the following energy efficient measures:

- Heating and cooling via air source heat pump system for heated spaces with full time and temperature zone controls, meaning energy is only used as and where required.
- Big Yellow do not heat the storage space and annual heating demand is far lower compared to other users. Proposed insulation values are equal to or better than the Notional Buildings, internal walls and floor slabs between the conditioned office/ reception spaces and unconditioned areas will be insulated.
- PV array will be installed at roof level to achieve 200 kWp production.
- LED luminaires will be installed throughout the site, including motion sensors and daylight compensation controls where appropriate.
- 50% target in water consumption reduction.

Materials will be locally sourced wherever possible, from companies holding EMS certifications such as ISO14001 and BES6001.

Construction waste will be minimised as part of the construction process with a comprehensive Site Waste Management Plan that will be in place prior to the start of construction.

In addition, a pre-demolition audit of all existing elements on site will be undertaken to maximise the recovery of materials for subsequent re-using, recycling or up-cycling. With this in mind, the life cycle carbon reduction and circularity targets are:

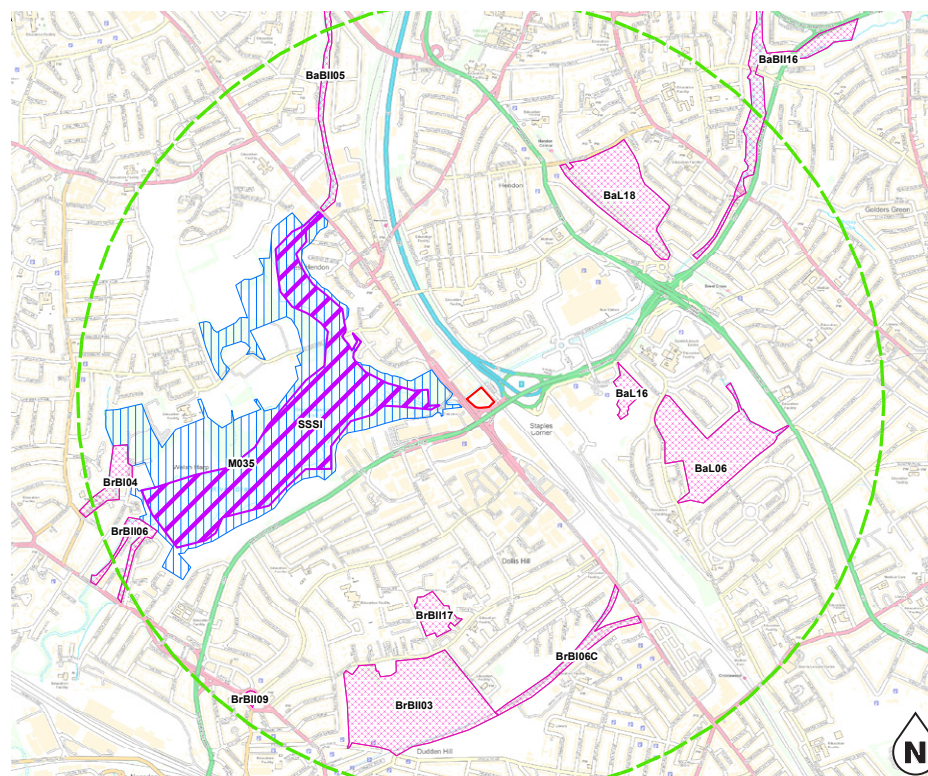
- 95% - 100% materials from demolition to be re-used or recycled either on site or at nearest waste management centre.
- 95% - 100% materials from excavation to be re-used or recycled either on site or at nearest waste management centre.
- 95% - 100% materials from construction to be re-used or recycled either on site or at nearest waste management centre.
- 20%+ of building materials to be comprised of recycled or reused content.

During construction, policies to prevent air, water, noise and light pollution will be implemented.

Once the building is in operation, noise and light pollution will be mitigated with the measures integrated into the proposed design and controlled via on-site management procedures and restrictions.



A PV array will be installed at roof level



RPS's diagram showing designated sites within 2km

Ecology and Biodiversity

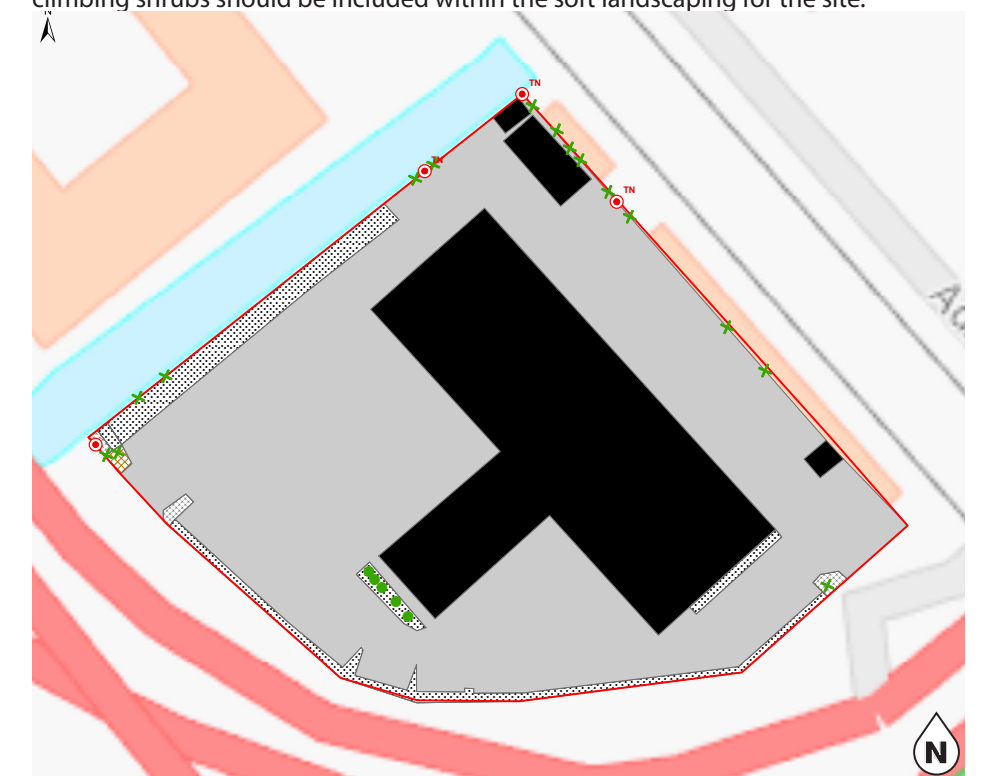
RPS's Preliminary Ecological Appraisal (PEA) accompanies this application. It comprises a desk study, Phase 1 Habitat Survey and an ecological scoping survey, which assessed the potential for the site to support species of conservation concern or other species which could present a constraint to the development of the site.

There are two overlapping statutory designated sites and 12 non-statutory sites located within the 2km search radius of the site. The closest of these was the Brent Reservoir (Welsh Harp) SINC, located 0.05 km from the site.

Whilst there are designated sites considered to be close to the proposed development, there is no green corridor connecting the site with nearby designated sites. The River Brent immediately north of the site boundary does feed into the Brent Reservoir SSSI, LNR, SINC and therefore recommendations will be made to mitigate and control the risk of pollutants from the construction and operational phase of the proposed development, from entering the river. With these recommendations it is considered that the proposals will have a negligible impact on neighbouring designated sites.

All of the habitats on site were considered to be of a low ecological value. The BNG assessment indicates that the development proposals for the site will deliver a net gain of 341.86% for habitats.

In order to enhance the site with respect to bird nesting opportunities, a series of bird boxes will be incorporated into the final scheme. These will be sited with the advice of a suitably qualified ecologist. Additionally, to encourage insect and bird foraging in proposed landscaping elements, five bee or bug hotels or one bug tower will be situated along the northern boundary within proposed new habitats suitable climbing shrubs should be included within the soft landscaping for the site.



RPS's baseline habitats map

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Fire safety | Security planning | Noise assessment | Lighting strategy | Ventilation, heating and cooling strategy

Fire safety

Fire safety measures together with the security of staff, customers, their possessions and premises, are taken very seriously at Big Yellow.

All of our new self-storage facilities are constructed and operated in a manner to fully comply with UK Building Regulations, Building Safety Act and Regulatory Reform Order (Fire Safety). In all of our purpose built stores, Big Yellow goes beyond minimum compliance standards. Big Yellow's approach to fire safety is to adopt robust construction details and by maintaining high operating standards and procedures, this means our fire safety regime is beyond minimum standards and fit for purpose.

The UK Regulatory Framework has developed over a considerable period of time and is based upon a pragmatic approach to the fire risk posed by different use classifications. The Regulations set out the physical properties required for the construction, with a focus on life safety, means of escape and fire detection in self storage buildings; whilst the Order covers the mandatory requirement for routine maintenance of fire safety systems and operational matters, such as testing controls and detection, fire drills and risk assessments.

The primary aim of the Regulations and Orders are focused on preventing a fire from starting in the first place, whilst also ensuring the buildings are constructed with adequate properties to allow safe and timely evacuation of people in an emergency.

Big Yellow's approach is to enhance property protection by compartmentalising larger footprints and include swift fire detection aiding prompt evacuation, i.e. a focus on life safety coupled with enhanced property protection measures.

Fire incidents within self-storage facilities are relatively rare and statistically, household goods stored in domestic premises represent a considerably higher risk. Each of Big Yellow's new self storage facilities and industrial buildings are constructed to comply with the requirements of the current Building Regulations and we exceed these minimum requirements in the following areas:

1. Mineral fibre insulation to roof and wall cladding systems. Typical industrial buildings are constructed of lightweight, PIR insulated panels.
2. Masonry cavity wall to entire perimeter of external walls.
3. Open perimeter enclosed with 2.4m high fence or retained existing fences with an equivalent level of security. Additional perimeter fences around the site.
4. Premises information boxes and familiarisation visits from the fire brigade. The provision of floor plans for the sole use of the fire brigade is not mandatory but hugely appreciated by the fire brigade.
5. Mezzanine floors as horizontal compartments are constructed to 60 mins fire resistance with smoke barriers at the perimeter.
6. Firefighting staircases enclosures 120 mins fire resistance with smoke vents and dry risers.
7. Enhanced smoke detection and fire alarm, by increasing the number of heads

in self storage building; this leads to faster detection of the fire and aids quick evacuation.

8. Improved fire safety signage to direct customers to emergency escape routes in self storage buildings.
9. Steel partitions to storage rooms are sealed to the soffit on three sides, channelling any smoke towards the detectors in the corridors.
10. PTI log provides supporting information on human occupancy at the point of the emergency.
11. Extensive active and passive security measures, with digital CCTV recording of vulnerable parts of the self storage building to deter those intent on causing trouble which have been independently verified by BRE as excellent.

Big Yellow's carefully considered approach to both the construction and operation of self-storage facilities developed in conjunction with the industry body and fire authorities means that the fire safety regime is robust and fit for purpose.

Security planning

In accordance with the National Planning Policy Framework, developers are required to demonstrate that their plans incorporate appropriate and proportionate security. Demonstrating this, Big Yellow Self Storage has adopted the BRE SABRE scheme across its new store portfolio ensuring that there are security professionals involved throughout the design and construction process, able to satisfy the requirements of the planning authorities.

Specific measures will be based on a Security Needs Assessment carried out by a qualified Security Assessor, and will include both passive and active security measures. From robust treatments along the perimeter of the site with welded mesh fencing and solid masonry construction at ground floor level to site access control and CCTV monitoring, the site will incorporate a wide range of appropriate and proportionate security measures.

Noise assessment

A noise assessment has been prepared by Sharps Acoustics and accompanies the application.

The assessment has shown that considering the context, noise from servicing activities associated with the Big Yellow store would be below the existing typical background noise levels and would have low impact at the closest noise-sensitive receptor during both the daytime and night-time periods.

Lighting strategy

External lighting will be designed to ensure appropriate lighting levels within the site whilst minimising light spillage to the surrounding areas. The strategy will be based on low level building mounted LED luminaires and the external lighting will be timer controlled in the service yard.

Ventilation, heating and cooling strategy

The majority of the development is not heated, ventilated or cooled. Only the administration, flexi-office area and back of house areas are proposed to have heating, cooling and ventilation.

The design will target highly efficient U-values for windows and U-values equal to or better than the limiting values for the building fabric as well as a good level of air tightness.

The ventilation, heating and cooling systems will be designed to suit the relatively small conditioned areas:

- Natural ventilation will be prioritised wherever possible.
- Mechanical ventilation will use supply and extract ventilation systems with heat recovery devices.
- Heating will be provided via air source heat pumps to the main spaces, whilst electric panel heaters will meet the limited heating demand of the circulation and ancillary areas of the self storage building.
- Cooling will be provided via reverse cycle heat pump systems.

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Access

Access

Access arrangements have been designed to accommodate a range of vehicles, from cycles to 16.5m articulated lorries, with these bigger vehicles accessing the site with less frequency.

Minor highways works just outside of the application red line will be required, via a S278 to ensure suitable access is provided. Access arrangements will be adjusted to suit the proposed scheme as well as introducing a logical approach to vehicular movement within the site.

All heavy vehicles will access the site via the east access point and egress via the west access point, ensuring a consistent movement pattern within the site.

Private vehicles can access and egress the site via both access points.

Vehicle tracking showing how vehicles can enter and exit the site in forward gear has been undertaken by the highways consultants, extracts of which are shown on this page.

Emergency & Service Vehicles

Emergency service vehicles can access the site via both access points and have access to the full perimeter of the building. In the event of an emergency, customers and staff will be able to congregate in the designated muster points in front of the buildings.

As part of the Refuse & Recycling Strategy, Big Yellow Self Storage encourages its users to take their waste away and to dispose of it sustainably themselves. For the small amount of refuse and recycling dealt with on site, the refuse storage area will be located in the service yard. Refuse and recycling storage will be located side by side.

Cyclists

Cyclists can access the site via the main vehicular entrances. The self storage building can be accessed by cyclists also via pedestrian gates near the vehicular accesses.

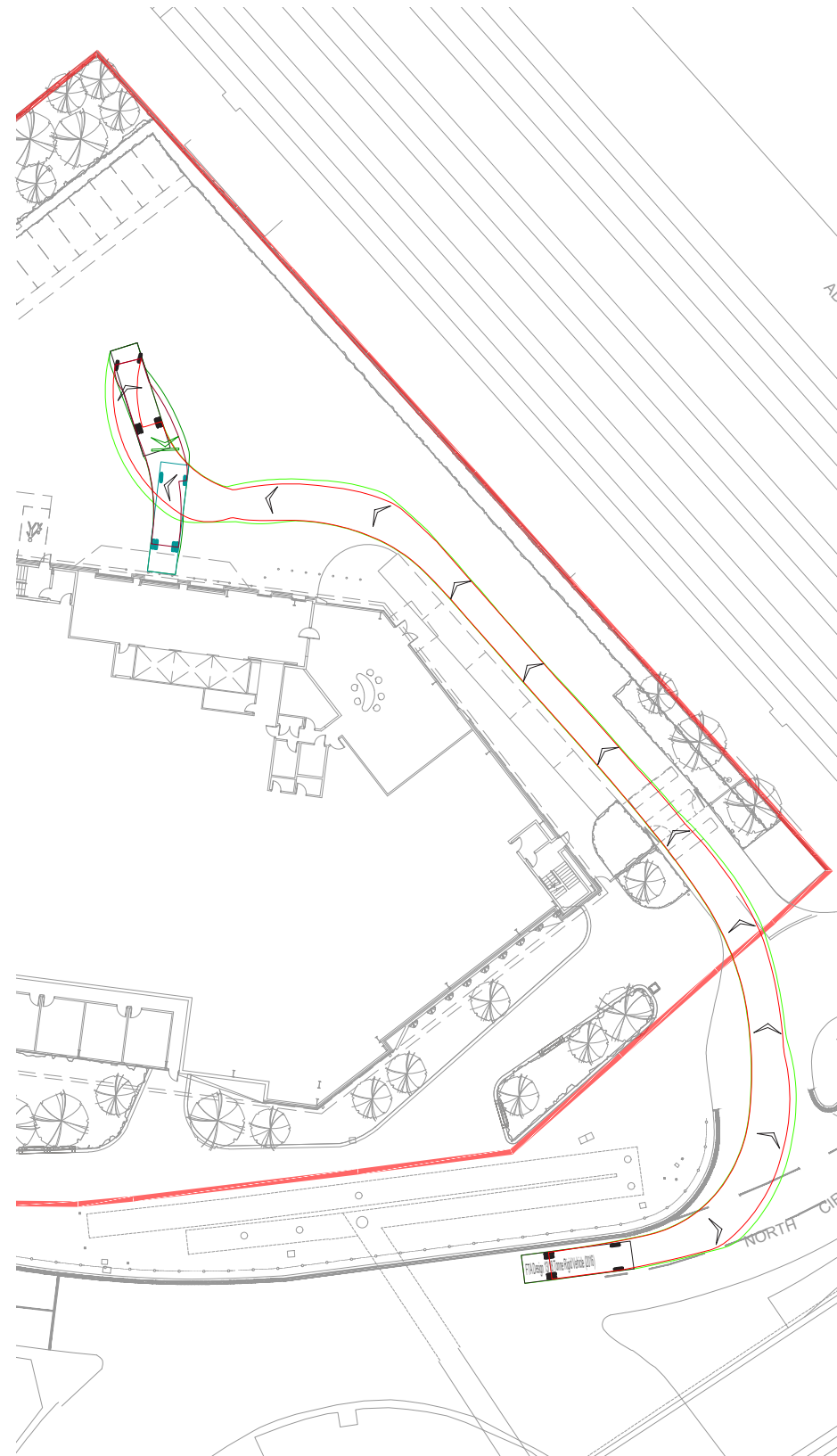
Twelve long stay cycle parking spaces for the self storage and flexi-office are provided within the enclosure of the service yard. Additionally, eight short stay cycle parking spaces are also provided.

Pedestrians

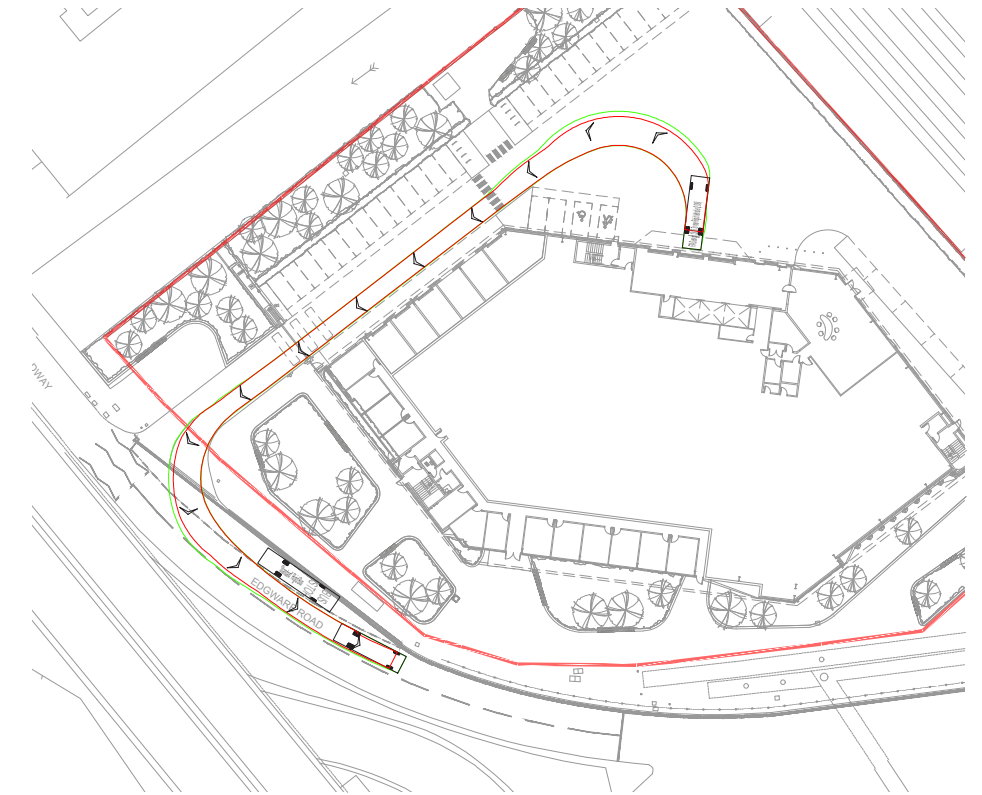
The access arrangements to all pedestrian entrances are step free.

Once within the building, lifts provide step free access to all levels.

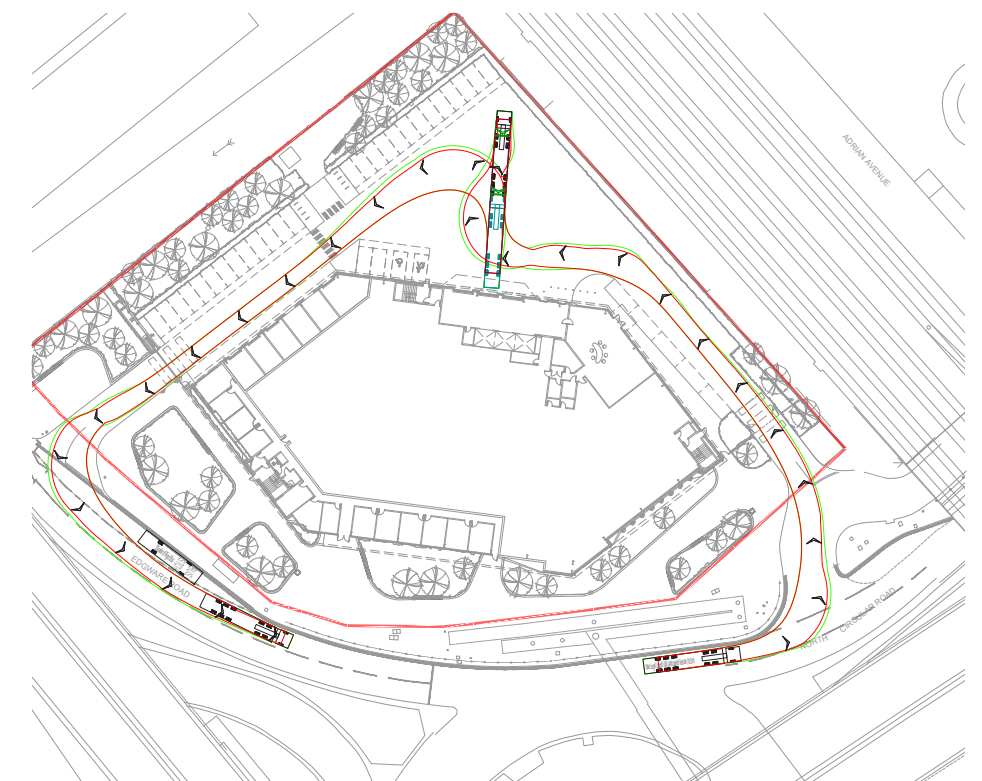
Finally, the sanitary accommodation has been designed to ensure all building users can access and use them as independently as possible.



Access diagram for 10m rigid vehicles



Egress diagrams for 10m rigid vehicles



Access and egress diagram for 16.5m articulated vehicles

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Visualisation

Visualisation

As explained previously in this document, the buildings will be seen from several vantage points, with several of these being raised and also in movement. All these viewpoint have been taken into account when carving the original volume.

However, the most important view of the building is from Staples Corner West roundabout, for which the proposed building creates its north visual enclosure.

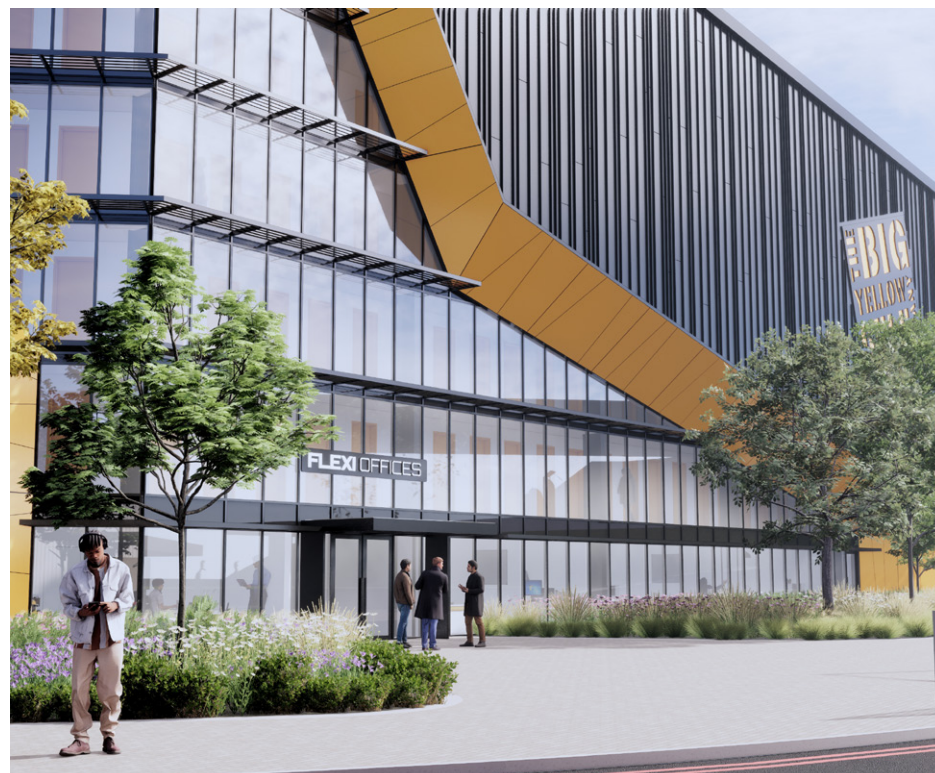
The angular carving of the southwest corner of the building creates a dramatically dynamic treatment, which is continuously changing as the public access, exit and move around the roundabout.

Although at a slower speed, the changing nature of the building is also experienced by pedestrians as they access and move around the vicinity of the site.

Lighting, as it changes throughout the day, introduces a further layer of dynamism to the scheme.



Illustrative visual from Staples Corner West roundabout at dawn



Illustrative visual of the public realm and the flexi-office entrance



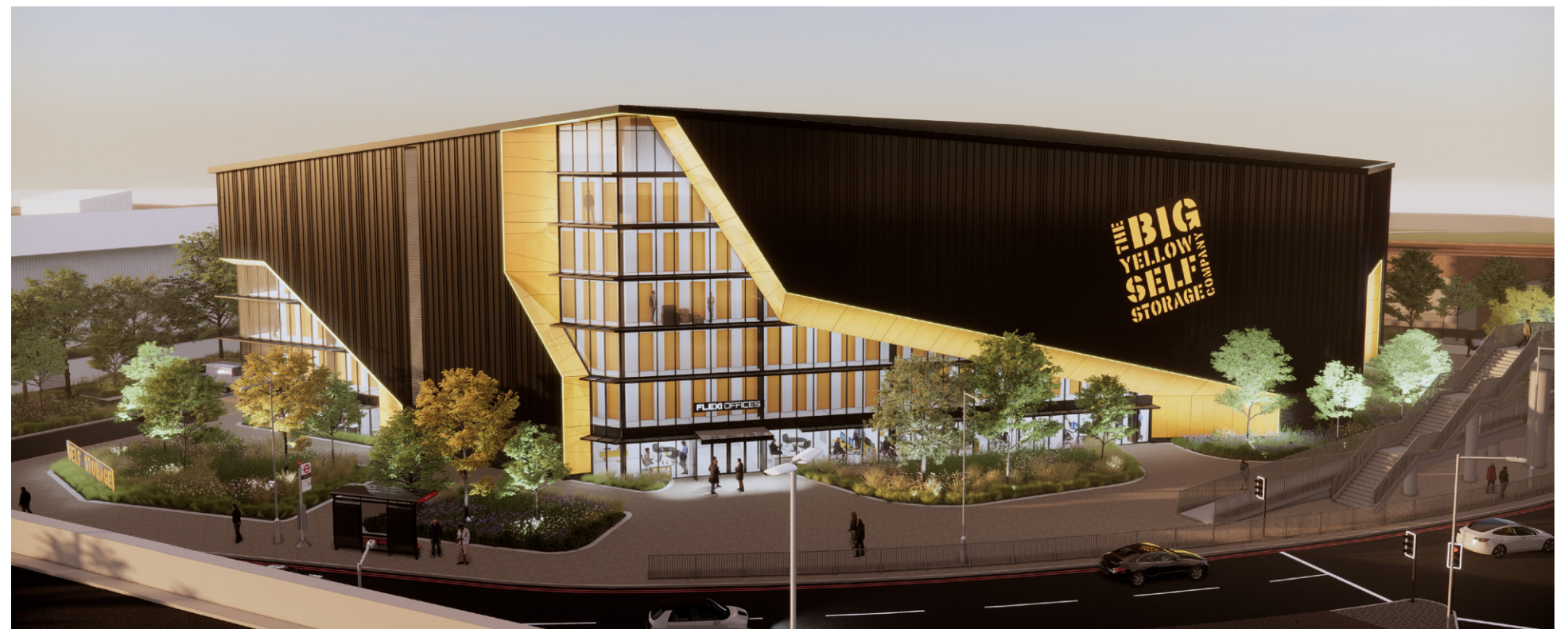
Illustrative visual from Staples Corner West roundabout during the day

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Visualisation

Visualisation

Travelling along North Circular Road, particularly eastbound, the south elevation of the building will also be very visible and will become a visual landmark on journeys along this route.



Illustrative elevated view from North Circular Road looking north at dusk



Illustrative elevated view from North Circular Road looking north during the day

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Visualisation

Visualisation

The scheme will also transform the view from Edgware Road travelling southbound towards Staples Corner West roundabout: the lower levels of the building open up at the corner with a glazed carved section, addressing one of the site accesses, but the high quality soft landscape scheme takes centre stage, particularly for pedestrian moving along the site, as it drastically transforms the site's contribution to visual amenity, biodiversity and wellbeing of the wider area.

The additional soft landscaping is also an important feature along the southwest elevation as it frames both the building and the second access point, whilst creating a continuous treatment along the pedestrian areas around the site.



Illustrative view from Edgware Road travelling southbound towards Staples Corner West roundabout



Illustrative view of the proposed building and the existing pedestrian stairs



Illustrative view from North Circular Road travelling westbound towards Staples Corner West roundabout

07 Conclusion