

# 6

## Sustainability

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	Domestic
<b>Exposed Floor U-value</b> (W/m2K)	0.10
<b>External Wall U-value</b> (W/m2K)	0.13
<b>Roof U-value</b> (W/m2K)	0.10
<b>Glazing U-value</b> (W/m2K)	1.29 (g-value 0.5)
<b>Air Permeability</b> (m3/h.m2) @ 50Pa	3.0

Target building fabric thermal parameters

## 6.0 Sustainability

### 6.1 Sustainability Strategy

The Sustainability aspiration for the project was to meet the target of the RIBA 2030 Climate Challenge (2025 target metric for domestic / residential). This ambition determined project goals for operational energy, embodied carbon and potable water use, as well as overheating, daylighting, and CO<sub>2</sub>, VOC & formaldehyde levels. These targets should comfortably exceed the typical planning condition requirement of a 19% improvement on Part L Regulations. With the sustainability consultant on board early, the design has continued to evolve in conjunction with the structural, mechanical and electrical engineers to meet these targets. Where possible, a circular approach to the design and specification will be employed to design out waste and maximise the future reuse of materials.

#### Structure

Several structural options for the building were initially considered, however the desire to achieve a lightweight, low carbon structure that could really reduce embodied carbon was chosen as the predominant structure. This is to be based on a closed or open pre fabricated timber panel system. Due to the nature of the site, the lower ground storey of the West Pavilion block has been designed to cut into the site to maximise the use and provide level access for the Community Centre. This section of the building will largely be concrete and provide a solid base for the structural timber and allow for maximum retention of thermal gain.

#### M&E

A ventilation strategy was designed alongside the overall consideration for opening sizes, which were balanced between providing plenty of natural daylight with openable size and low potential for overheating (to meet Part O). To this end, the design developed to incorporate a Mechanical Ventilation system with Heat Recovery, and Ground Source Heat Pumps to provide the main source of heating. To supplement the costs of electrical usage, the roofs have been designed to maximise PV usage.



## 6.0 Sustainability

### 6.2 Trees

Whilst great emphasis has been placed on enhancing the landscape through the site, and in the development of a strategy to inform connections with the local green infrastructure, many of the existing site trees are self-seeding, growing between wired fences and generally of a relatively low ecological value. Retaining such trees would not only inhibit the feasibility of the development, but potentially hinder the quality and quantity of an harmonised and considered planting strategy, which is steered towards establishing a species-rich native, biodiverse landscape.

 Tree to be removed

 Existing Trees

 Proposed Trees

Refer to arboriculture report and biodiversity net gain calculation for further details.



# 7

## Access Statement

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- Wheelchair Ground Floor Flats
- Accessible Parking Bays
- Accessible Pedestrian Surfaces
- Private Access
- Communal Access



## 7.0 Access Statement

### 7.1 Inclusivity

With inclusivity a significant issue both for the existing site landscape and building function, ensuring that the proposed development provided an openly accessible site, Community Centre and residential offer was paramount. To achieve this goal, workshops and consultations were held with an accessibility consultant, civil engineers, landscape architects, and BHCC adaptations team. This level of collaboration ensured that the proposal developed to incorporate inclusivity and accessibility into the very core of the design and is evident in the setting-out of each building, in particular the Community Centre to the lower level of the site, the location of parking and pedestrian routes and crossing points, and in providing a fully 'equality act' compliant pedestrian link between Windlesham Close and the Village Green.

The new pedestrian link into the site, with residential access, extends much further to provide accessibility for all members of the public, enabling public access through the site, and to and from the Village Green. This is presently impossible due to two locked gates and stepped access. Ensuring that there are safe and accessible routes to the community were also guided by these key site strategic decisions, which involved setting out the Community Centre parking to correspond to pavement side and providing a pedestrian route with crossings and tactile paving. Level access to and from the Community Centre is provided, both for the main entrance and the external space, so that everyone has the same access to these facilities. Gender neutral toilets within the Community Centre have been provided, along with an accessible WC, Hygiene Room, and 3 accessible parking bays for community use. Elsewhere on the site, there are 4 more accessible parking bays for residential use. With an emphasis on public wellbeing, the landscape offers a variety of functions and uses, such as public seating with set-down areas for prams or wheelchairs, raised beds in community / residential growing areas and pockets of spaces to promote interaction and play.

Within the residential offer, the scheme as been developed to treat all flats as M4(2) compliant, with the exception of 4 flats above the raised Community Hall.



## 7.0 Access Statement

### 7.1 Inclusivity

These 4 flats are accessed by an half-landing. In addition, there are 3 wheelchairs accessible M4(3) flats on the ground floor, divided between the two blocks and offering accommodation for 1, 2 and 3 bed demands. These units have been provided with independent access, parking, and refuse / recycling to ensure they are as comfortable as possible for their residents.

- Public Realm
- Controlled Public Amenity
- Private Amenity / Gardens or Balconies
- Natural screening boundary
- Green Buffer

Refer to architectural plans for layouts that include amenity spaces for each individual unit, and the site plan in conjunction with the landscape proposal for greater detailed layouts concerning site landscaping, nodes, features and types of public realm space.







## 7.0 Access Statement

### 7.2 Transport





Since the existing Community Centre has a known presence within the area, access to the new community facility is still via Windlesham Close. Parking for the Community Centre is provided with 10 dedicated spaces, 3 of which are accessible.

Vehicular access is distributed across the site, with residential use and Community Centre use separated to avoid congestion. The Community Centre access is gained from Windlesham Close (1) and will be clearly signposted. A turning head is provided (2) at the end of the access road to allow vehicles to turn and exit. This area will feature markings to ensure parking is prohibited. Additional parking is provided along the north of the site, with a single accessible residential space. The rest of the residential parking is located on the southeast corner of the site, where currently there exists parking for Kemp and Blakers Court. There are 3 proposed accessible bays provided within this area, closest to the building to enable accessibility (4). In total, there are 4 areas for cyclist to store bicycles, with one bicycle hub for residents, and 3 sets of Sheffield stand areas for visitors and Community Centre use.

#### Bicycle Transportation

-  Long Stay Cycle Store
-  Short Stay Cycle Store
-  Cycle Access Route
-  Demount and Walk Cycle Access

#### Vehicular

-  Community Centre Parking
-  Residential Parking
-  Community Centre Access
-  Residential Access





## 7.0 Access Statement

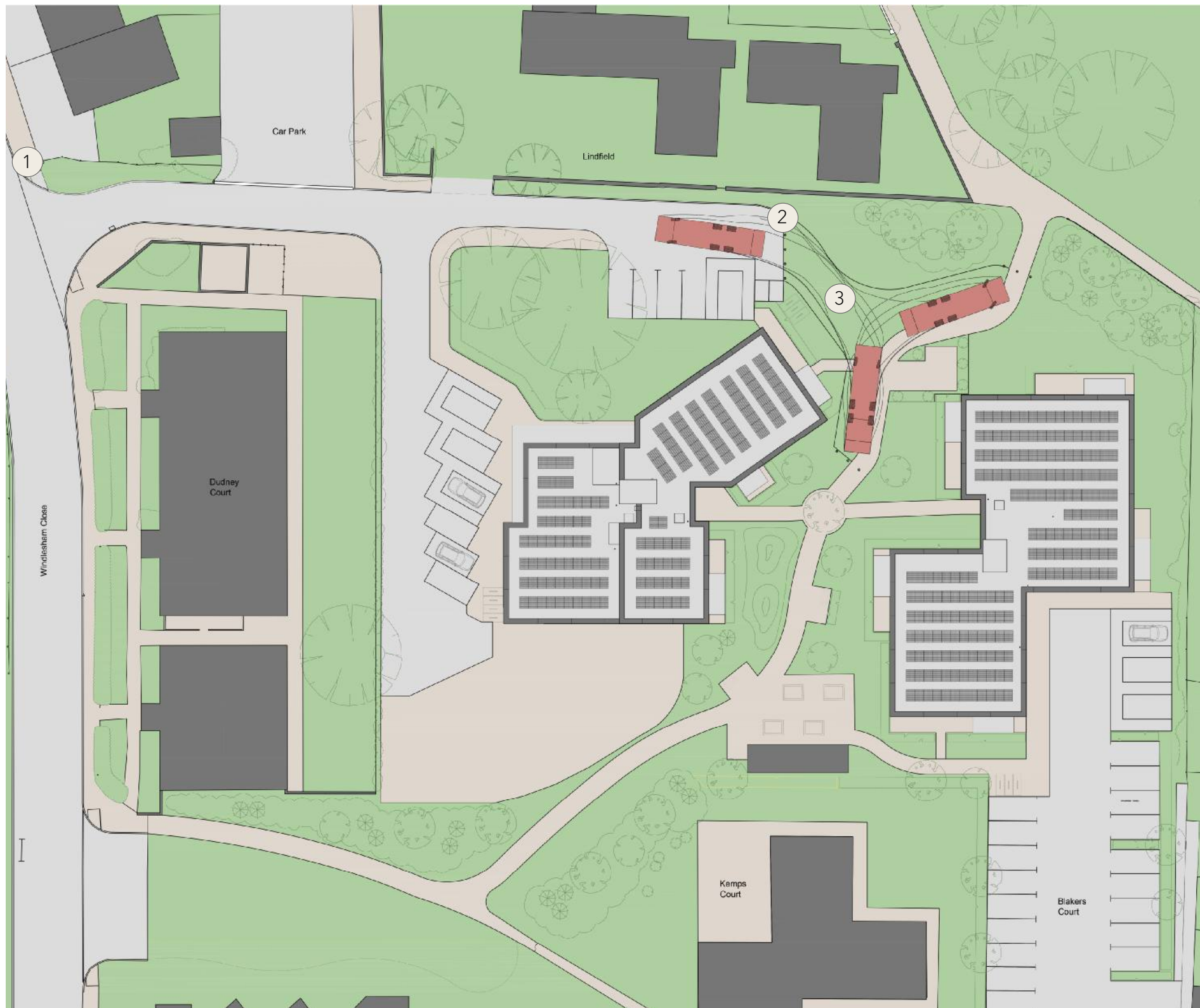
### 7.3 Refuse Collection

Refuse and recycling has been broken up between the Community Centre and residential areas. Primary access for refuse collection vehicles is gained from Windlesham Close, with a turning point at the junction with the Community Centre access road and a turning head provided at the northern end of the site. To help enhance the aesthetics of the bin store, planting and natural screening will enclose the area. A secondary residential collection point for accessible flats is located off Blakers Court, with existing refuse collection for Kemps Court and Blakers Court within the carpark.

1. Community Centre Bin store located adjacent from the entrance
2. Communal Residential Bin Store Located centrally, to the northern end of the pavilions. The location was determined by giving pedestrian priority access through the centre of the site. Since the bins are only accessed by the refuse vehicles once a week, access is controlled (3) and an area of closed cell grass paving provides the surface for access, without large areas of tarmac permeating far into the site.
3. Hinged lockable bollards prevent vehicles from accessing the inner pedestrian priority area of the proposed development, which only provide the infrequent access for fire and refuse vehicles.
4. With three wheelchair units across the site, two private wheelie-bin stores have been provided to make refuse and recycling much easier for those occupants (4).



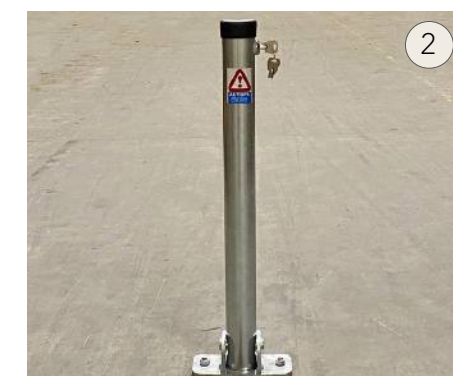




## 7.0 Access Statement

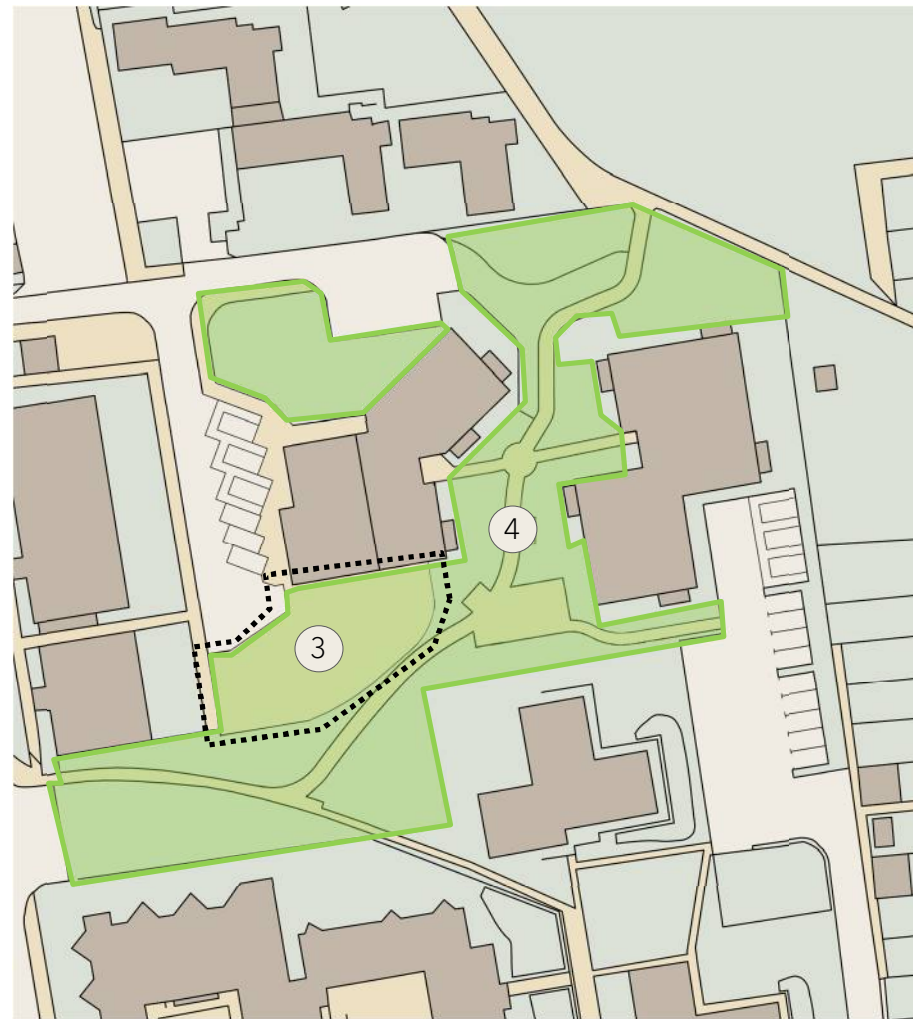
### 7.4 Access for Fire Service and Refuse

Alongside the proposal's environmentally friendly aspiration regarding the use and development of the site, maintaining a scheme that will be safe for all users and residents was always paramount. So, whilst the design strategy aims to achieve a pedestrianised central spine and enhanced public realm, it was equally important to ensure access for fire services and refuse collections was not overlooked. To create balance between two factors that are competing for space and access, an area of the footpath at the northeast end of the site will use a cellular grass paving system, designed to allow continuity to the green landscaping towards the Village Green, whilst simultaneously providing a link to the main access road. Visually, the soft landscaping and woodland buffer seamlessly permeates into and through the site, yet importantly, it means this area can still be used in an emergency, and for the weekly bin collection.





Existing Site Plan



Proposed Site Plan

- Existing Open Space (324m<sup>2</sup>)
- Proposed Open Space (298m<sup>2</sup>)
- Area of Restricted Access Open Space



## 7.0 Access Statement

### 7.5 Open Space Provision

The site features two large areas of open space, consisting of an area within the Community Centre boundary (1), and the other a long strip of amenity grass between buildings (2). Whilst the central area (1) features an hard standing play-surface with small areas of amenity grass, access is restricted and not open to the general public (indicated by the dash outline). This means that whilst the existing open space is large, it is not accessible to use. The quality of this existing landscaping is a of a low-quality.

Whilst the proposal features a second building on the site, the overall area of open space is only slightly reduced, however this will be compensated in the quality and accessibility of the site and open space enhancement. Safeguarding for future users is important, and so an area of restricted / controlled access still needs to be provided. However, this has been reduced to a size which better reflects the user numbers and needs (3). This allows the rest of the site to be opened up, allowing public and residential access and enjoyment of the space, and is greatly enhanced by a dedicated landscape scheme which provides quality planting, seating areas, play space and a growing area.