Planting Strategy

8.63 The planting strategy is focused primarily on creating a unifying informal planting structure of naturalistic planting, using a simple, robust pallet of species with a focus to create diverse habitats for biodiversity.

8.64 The existing semi-mature woodland belts on the site's northern and eastern boundaries forms a strong landscape framework and creates a degree of separation from the wider landscape setting. Small woodland groups to the south and west of the development will form a sense of enclosure and aid in softening the development edge, improving the integration of the development to the landscape setting. A break in these woodland groups to the west will allow for a strong visual connection between the development and Park View.

8.65 Consideration is to be given to the Civil Aviation Authority documents regarding wildlife hazard management and safeguarding the aerodrome, to determine the planting strategy, the planting species selection and locations.

Proposed Planting

8.66 The existing site vegetation will be supplemented with a few scattered specimen trees across the parkland, community orchards, native scrub swathes and a variety of grassland types.

8.67 In planting new trees, native species (or agreed cultivars) will be used. Species chosen will be used to match locally prevalent species that will benefit local bird, insect and mammal species. New trees within the development will be located to create an instant high-quality landscape feature and landmarks on street junctions and nodal points.

8.68 New woodland planting and infill tree planting along the belt is to be added to replace the loss for the proposed new junction to Upper Campsfield Road and strengthen the woodland belt. Sufficient space must be provided to ensure new trees can grow to their maturity, allowing the natural canopy to be realised.

8.69 As part of the proposals, the existing hedgerows will be retained and enhanced with infill planting and hedgerow trees. There is a preference to introduce new native strategic hedgerows into the greenways in order to integrate a wildlife corridor network, connecting the existing boundary vegetation through the development to species-rich grasslands, enhancing biodiversity.

Grasslands

8.70 A variety of grasslands will form a key element of the landscape proposals, responding to the local landscape character and the setting of the WHS. Species-rich wildflower meadow will form a 'light touch' approach, covering a significant wide expanse of the open parkland landscape, with smaller pockets found in the greenways and community park.

8.71 Smaller areas and pockets of amenity grass will be located within the community park, greenways and greenlinks and across the informal recreation space to the north of the parkland. Long grassland margins will be retained and enhanced along the existing boundaries and introduced along new native hedgerows through the greenways to diversify the hedgerow network for the benefit of wildlife.

Open space standards

8.72 In accordance with the Cherwell District Council standards, the table below sets out the open space requirements, based on the delivery of up to 500 homes. It demonstrates that the site is able to over provide on the minimum open space provision required by 500%. Given the sensitivity of the site and location of the development on the edge of Woodstock and the Blenheim Palace WHS, it has been considered that formal sport provision is not appropriate to the site's setting and therefore has not been accommodated within the development proposals.

Typology	Policy requirement Ha/1000 pop	Policy requirement based on 500 units* (ha)	Provided (ha)
Allotments	0.37ha	0.46ha	0.48ha
General green space (parks & gardens/natural semi-natural/amenity green space)**	2.4ha	2.98ha	31.263ha
Play space (children and youth)	0.78ha	0.971ha	0.974ha
Outdoor sports provision	1.13ha	1.407ha	N/A
TOTAL POS	4.68ha	5.818ha	32.717ha

*population multiplier of 2.49 people per household

** area includes sustainable urban drainage systems



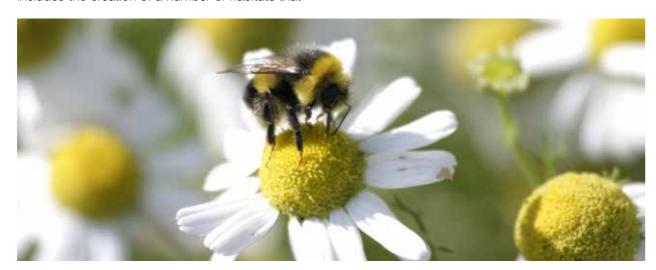
Indicative play provision plan

ECOLOGY AND BIODIVERSITY STRATEGY

- 8.73 During the design evolution of the proposed development, the initial findings of the ecological surveys and the previous surveys were considered and the mitigation hierarchy was applied to avoid and/or minimise impacts. The masterplan has therefore been designed to minimise the loss of important habitats and features and to incorporate and enhance these through the provision of new habitats and networks of green infrastructure.
- 8.74 The main habitats of conservation value that will be retained at the site are as follows:
- · The woodland in the north and east of the site
- Most of the hedgerows, although a section approximately 11 m long will be removed from H1 for footpaths and a section approximately 24 m long for the link road and footpaths.
- 8.75 In addition to the above, enhancements will be provided for several species present on the site and to provide habitats for other species. Extensive areas of green space have been incorporated into the Site and boundary features largely retained to ensure that connectivity within the site and to the surrounding habitats for wildlife is provided. It includes the creation of a number of habitats that

will strengthen and enhance the retained woodland and hedgerows. The retained hedgerows will be enhanced through infilling and bulking out with native tree species, and grassland and species-rich ground flora will be sown along the margins. A new 120 m long hedgerow will be planted along the south-eastern boundary, which will be native and species-rich and will enhance habitat connectivity between H1 and the woodland.

- 8.76 The planting scheme will provide:
- An overall increase in the area of habitats of conservation value within the site, including hedgerows, trees, woodland, scrub and wildflower grassland
- A mosaic of habitats, rather than individual habitats in discrete locations, to benefit a range of different species within the site during different stages of their life cycles and throughout the year
- Improved functional ecological corridors throughout the site for commuting, foraging and dispersal by a range of species to provide a continuous linkage for biodiversity within the area.
- 8.77 Based upon these measures, the proposal will deliver at least 30% biodiversity gain for both area habitats and hedgerows. Refer to the Natural Heritage technical appendix for an ecological review of the site, prepared by BSG Ecology.



DRAINAGE STRATEGY

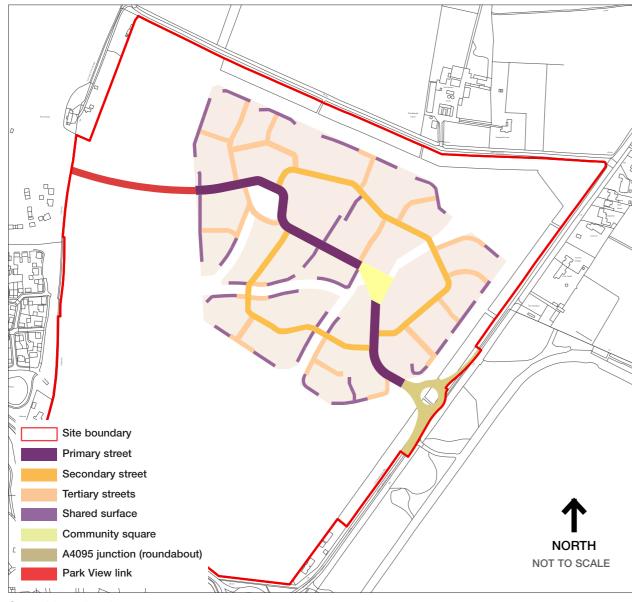
- **8.78** A Flood Risk Assessment (FRA) and drainage strategy (including foul and surface water) has been undertaken to accompany the planning application.
- 8.79 There are no sewers within the developable part of this site, only a Ø375mm drain along Oxford Road that collects runoff from the neighbouring site (Park View) and conveys it towards the southwest, across the roundabout and into a ditch. Thames Water sewer records show no assets within the site boundary or nearby.
- 8.80 The nearest main river watercourse to the site is the River Glyme, a tributary of the River Evenlode, and is located 120m to the west of the site. Reference to the Environment Agency Groundwater Protection Zone Map shows the area is sited outside all groundwater protection zones.
- 8.81 The flood map for the development site suggests that the site wholly falls within Flood zone 1, which is defined as land assessed as having a less than 1 in 1,000 annual probability of river flooding in any one year. The risk of flooding due to overland flood flows is considered low by the Environment Agency; and their online aquifer maps indicate the site is located within Secondary A bedrock aquifer.
- 8.82 As part of the site investigation carried out by Listers Geo in March 2022, infiltration testing was undertaken in eight trial pits in accordance with BRE 365. Results varied across the site although in general the infiltration rates can be considered moderately good.
- 8.83 A hierarchical approach has been undertaken in consideration of the application of SuDS in relation to the development. This is in order to meet the design philosophy of ensuring that surface water run-off is managed as close to its source as possible, and the existing situation is replicated as closely as possible.

- 8.84 Shallow infiltration techniques such as permeable paving, swales, rainwater gardens, trenches, soakaways, etc. are suitable to reduce the runoff leaving the site and address it at source.
- 8.85 The proposed sustainable drainage features for the development will accommodate the peak rainfall event for a 1 in 100 year storm event with an additional 40% allowance for climate change, in line with the Local Standards and Guidance for Surface Water Drainage on Major Development in Oxfordshire.
- **8.86** The parking bays will be permeable paved surfaces because this is where oil spillage is most likely to occur, and with adequate aggregate subbases, permeable paving can provide water quality treatment as it breaks down hydrocarbons.
- 8.87 For the main access roads, it is proposed to use dry swales and rainwater gardens to collect the runoff and discharge it into the ground. Where there is no room for this arrangement, a pipe network will be used to convey the water into infiltration basins.
- **8.88** Runoff from roofs will be collected within individual groups of houses and conveyed via pipe networks into cellular soakaways.
- 8.89 To deliver adequate treatment, the selected SuDS components should have a total pollution mitigation index for each contaminant type that equals or exceeds the pollution hazard index. In this project that is the case, the mitigation indices are above the hazard indices, which means the water quality treatment is adequate.
- **8.90** Foul water will be conveyed by a gravity pipe network towards a pumping station located along the eastern boundary, north of the entrance. From there, water will be pumped into the existing foul water sewer running westwards along Shipton Rd, 1Km to the northwest.
- **8.91** The on-site foul system should be offered for adoption to Thames Water under a Section 104 Agreement.

STREET HIERARCHY AND MOVEMENT

8.92 Streets should be designed in accordance with OCC's Residential Streets Design Guide as well as the Cherwell Residential Design Guide.

8.93 The masterplan features a hierarchy of streets of different widths and design through the masterplan, maximising the potential for people to walk and cycle along attractive routes connecting with the wider town. The street network is based upon a hierarchy of routes as illustrated below. The final alignment of these routes will be decided at detail design stage, however, the broad arrangement of connectivity and hierarchy should be followed. The community square is a flexible, well-overlooked space suitable for community events. Street materials and street furniture to be reviewed at detail design stage. Street sections are illustrated on the following pages.



Street hierarchy plan



Primary street

8.94 The primary street runs through the centre of the site, connecting to the A4095 roundabout to the east and the Park View link road to the west. The street is verge/tree lined, featuring a 6.75m carriageway (suitable for buses), a 2m footpath and a 3m cycleway/footpath.

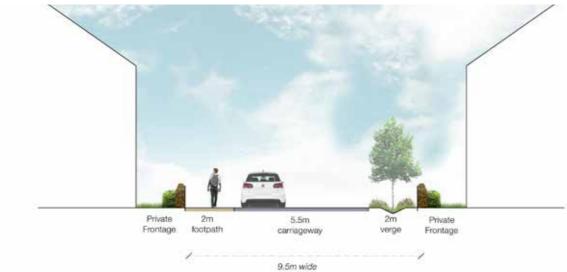
8.95 The primary street should feature high levels of enclosure and use a consistent palette of materials and front boundary treatments (low stone walling). Enclosure will be created through a consistent building line and boundary walls. In general, narrow frontages with occasional wider frontages at key locations, with small front gardens/spaces. Occasional street trees within verges or limited on-street parking. The street width can safely accommodate street planting and will not result in trees overhanging the public highway. Parking provided on-plot (including garages), or via rear courtyards. Street to have a 20mph design speed with traffic calming.



Park View link

8.96 The Park View link connects the western edge of the primary street to Park View, and Woodstock beyond. This street features a 6.75m carriageway (suitable for buses), 1x2m footpath and 1x3m footpath/cycleway. These active travel links through attractive parkland to Park View will help with the day-to-day needs of the new neighbourhood. Please refer to page 71 for sustainable connections to Woodstock.

8.97 Materials will be chosen to reflect a more informal "parkland ride' character, such as bound gravel or similar.



Secondary street

8.98 The secondary street forms an internal loop through the masterplan, with lower hierarchy streets connecting from it. Along the secondary streets there will be a combination of tree lined verges and swales, as part of the drainage strategy for the site. These features may alternate along opposite sides of the 5.5m carriageway. Boundary treatments will include low stone walling and varied depths of front gardens.

8.99 These streets will feature a medium level of enclosure, formed by building line and boundary walls, with a mix of narrow and wide frontages. Parking provided on-plot (including garages), or via occasional rear courtyards.



Tertiary street B

8.102 Tertiary street B features a single footpath on one side of a 5.5m carriageway. This could alternate along the length of street.

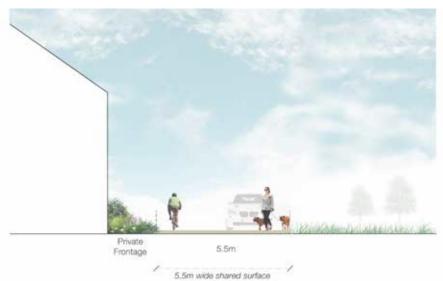
8.103 Boundary treatments will be more open, with front gardens featuring low level planting flowing up to the back of pavement/carriageway. Parking provided on-plot (including garages), or via occasional rear courtyards.



Tertiary street A

8.100 The tertiary streets are more informal and narrow than the primary and secondary streets. Tertiary street A features either 2m footpaths either side of a 5.5m carriageway, or an arrangement with a single footpath and verge. Boundary treatments will include low hedges and railings.

8.101 These streets will feature a medium-low level of enclosure, formed by building line and boundary treatments, with a mix of narrow and wide frontages. Parking provided on-plot (including garages), or via occasional rear courtyards.



Shared surface

8.104 This street type represents the lowest order within the masterplan, consisting of a shared space within which pedestrians and cyclists have priority. These streets should feel more rural in nature, and only feature built development on one side of the street with views out to open spaces and the wider town/countryside. Where these streets end, a pedestrian route must connect them into the wider movement network. Boundary treatments are open front gardens with low level planting.

8.105 These streets feature a lower level of enclosure and parking will be provided on plot or via garages.

Sustainable travel

8.106 The proposals will incorporate pedestrian and cycle linkages and improved access for the wider community to public rights of way connecting to Woodstock, as shown on page 71.

8.107 The development site will be connected to the A44 Oxford Road, Bladon roundabout and Park View through a network of 3m wide footways/cycleways. Cycle parking provision and electric vehicle charging points will be provided for every dwelling. The development site will be supported by a Travel Plan aimed at encouraging residents to travel by sustainable modes of transport.

8.108 The proposed scheme will deliver a highly sustainable site in terms of transport:

- The site is well located to encourage end occupiers of the proposed development to travel sustainably to and from the site
- The site has good access to key employment locations in the town, leisure facilities and the local primary and secondary school creating opportunities to maximise walking, cycling and bus trips
- Woodstock is well served by a number of bus services providing high frequency services to Oxford and the surrounding area
- The site is well located to the National Cycle Network which forms a nationwide network of paths and onto which a number of local routes link. National Cycle Network Route 5 runs along the A44 Oxford Road and the A44 Woodstock Road. Within Oxfordshire the route is largely offroad
- Hanborough rail station affords wider links to the surrounding settlements, including Oxford
- Safe, direct access for vehicular traffic can be delivered onto the A4095 Upper Campsfield Road.

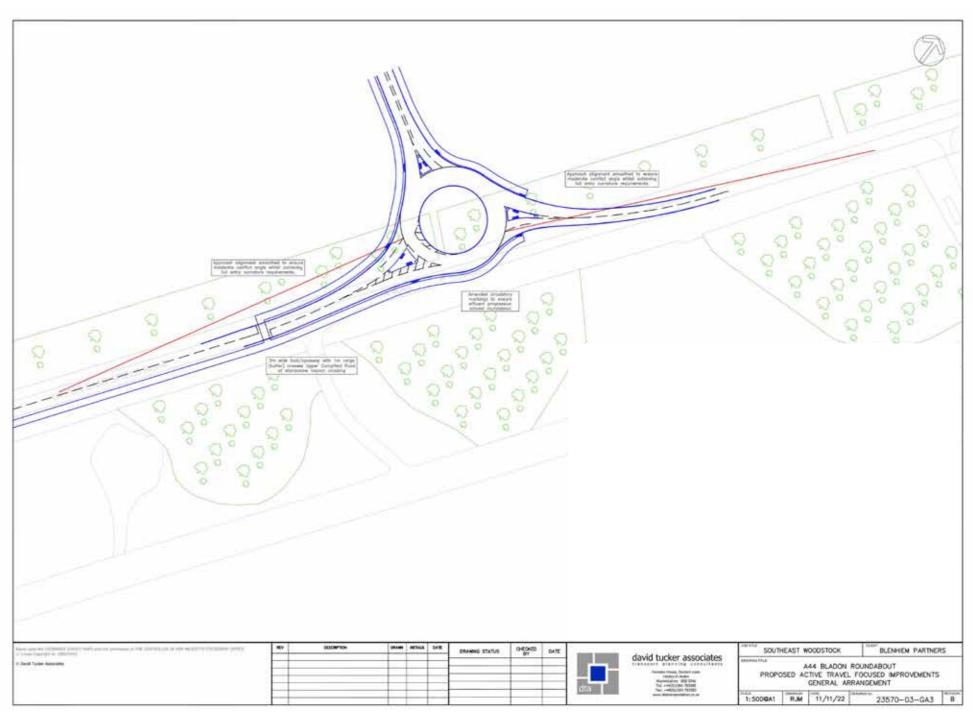
Site access

8.109 Vehicular access to the site will be taken from the A4095 Upper Campsfield Road which will provide a link to the new spine road provided within the adjacent Park View Development.

8.110 It is proposed the connection to the A4095 Upper Campsfield Road will be a roundabout junction to safely accommodate the forecast traffic turning movements whilst also creating a lower speed environment to allow pedestrians and cyclists to cross.



Key plan



Access strategy ©DTA

pedestrian and potential bus

pedestrian routes Proposed key pedestrian

Existing National Cycle

Existing key pedestrian

and potential bus access

Proposed pedestrian access

route

routes

Route (5)

access

PROPOSAL

SUSTAINABLE CONNECTIONS TO WOODSTOCK

8.111 The plan opposite illustrates where access to the wider movement network can be gained from the masterplan (please also refer to the access and movement parameter plan on page 54 and street hierarchy plan on page 68). The principal desire lines will be to the west and south, connecting to Park View local centre, Oxford Road, local schools in Woodstock, Woodstock town centre and the proposed Park and Ride off Bladon Roundabout.

8.112 Therefore these routes manifest within the masterplan to promote sustainable active modes of travel, including walking, cycling and bus use. East-west movement will principally be supported by a primary street that connects across the masterplan, from the A4095 to Park View. This route will include bus access (and potential new bus stop(s) at key public spaces), and footpath/cycleways. This will be the most direct and attractive route connecting to Park View.

8.113 The Park View link (see page 68) is formed of a 6.75m wide road with pedestrian/cycle link into the Park View development (and local centre) currently being implemented through s38. Turning to be removed and a 2m wide footway to be provided on the northern side of the carriageway, and a 3m wide footway/cycleway to be provided on the southern side of the carriageway.

8.114 Additional north-south routes run through the masterplan along attractive green corridors, which prioritise pedestrian and cycle access. Pedestrian and cycle routes will be convenient and safe.

8.115 The masterplan features a well connected permeable street, cycle and footpath network which connects into a much larger network of sustainable travel including existing bus stops and national cycle routes, offering connections through to the surrounding settlements.

8.116 Additional measures to promote sustainable connections will include easy to access bicycle storage and parking solutions, along with provision of electric car charging points.



Sustainable connections to Woodstock plan

PARK VIEW LINK

8.117 The proposed access to Park View (Park View link, see pages 68 and 71) has been developed in close consultation between DTA and TOR's heritage team to ensure that there will be sufficient distance to the scheduled monument. In addition, pre-development, limited and focussed archaeological investigation will be undertaken to ensure no adverse heritage impact resulting from the proposed access.

World Heritage Site consideration

8.118 In response to the Planning Inspector's decision regarding the draft PR10 allocation, and its perceived impact on setting and significance of the Blenheim Palace World Heritage Site (WHS), it is emphasised that since the Inspector's decision, the proposals have been further refined and supported by a full set of technical assessments. Historic England (HE) have reviewed the updated proposals that form the basis of this outline application, and concluded the following:

8.119 "The role of the development site in the setting of the WHS can be considered both in terms of national legislation and guidance, and as set out in the Blenheim Palace World Heritage Site Revised Management Plan (2017, hereinafter WHSMP). The Conservation Management Plan for the Blenheim Palace Gardens (2021, hereinafter CMP) is also relevant.

8.120 *In the WHSMP the sections of relevance focussed on significance are:*

8.121 The integrity of the property is well protected by its enclosing wall but important visual links do exist between the gates, the parkland buildings, buildings in the surrounding villages and landscape, and care needs to be taken to ensure these key visual links are protected. (from para 5.01) Our proposals achieve this.

8.122 Attribute 7. .. views into and out of the

WHS still provide key linkages between Blenheim Palace and the traditional English countryside and villages surrounding it.

8.123 Considering the description above of how the site and the WHS relate, it is clear that development of the site with housing screened by existing and new hedges & trees will not affect the outstanding universal value & primary significance of the WHS, ie there is no impact on the 'key linkages'.

8.124 HE advise that the site in its current state makes a very minor contribution to the significance of the WHS in that many visitors approach the WHS along the A44 road from the Oxford direction. The site is experienced as an agricultural field glimpsed through a hedge, at the same time as visitors become aware that they are approaching Woodstock. The experience of visitors approaching along the A44 will change if the site is developed to being glimpsed views of green space with possible distant glimpses or housing behind new green screening. The effect of this change on the communal significance of the WHS will be negligible.

8.125 The site is bordered to the north by a minor road (Shipton Rd). There is no experience of the WHS from this road nor is it a direct route to the WHS. It is not therefore considered to be part of the setting of the WHS.

8.126 The site does not form part of the setting for any designated heritage assets within the WHS. The nearest assets, the Grade II listed Cowyards and Eagle Lodge, are set within or behind mature woodland.

8.127 I agree with the applicant's assessment that: The changed character and appearance of the site as part of the setting of the Blenheim Park RPG, and the increase in built development perceptible will be a negligible change to an asset of high importance, which will be a permanent slight effect that is not significant. (5.150). I also agree, based on my discussion above, that the same assessment of a permanent slight effect that is not significant applies to the WHS."



Park View link



Key plan

CHARACTER AND FORMALITY

8.128 The aim of the character strategy is to establish a distinct new neighbourhood on the eastern edge of Woodstock with placemaking at its heart.

8.129 Three character areas are proposed, as shown opposite and detailed on page 74:

- · Park Edge
- Park Field
- · Park Core.

8.130 These areas are unified by common characteristics (such as a concise material palette, boundary treatments and building heights etc) and a landscape structure and form that flows through the masterplan.

Formality

8.131 Overlaid on these zones is a variation in formality. In the more dense part of the masterplan, along the primary street and at key openings, the urban form will be more formal. For example, the primary street will feature a greater level of street enclosure, with a regular building and roof line. In the more informal areas, which are the lower density parts of the masterplan, a more organic village character is proposed, with more informal streets and a subtle variety in building and roof line, and a variety in front garden sizes.



Character and formality plan

Masterplan character

8.132 The overall character for the masterplan will be defined as follows:

- Traditional in style/appearance
- 2-3 storey in height, but with some variation in roof height to provide visual interest to the roofscale. The scale of the masterplan will be clearly reduced from Park View, which features very large storey heights
- A variety of frontage widths (depending on block layout), but homes should always face the street
- A mixture of detached, semi-detached and terraced typologies (see page 58)
- Marker buildings to define key routes, corners, gateway and vistas
- Variation in building line depending on formality
- Variation in level of enclosure based on street hierarchy and around key spaces and formality
- · Use of chimneys on roof line
- · Variation in depth of front gardens
- Use of porches/door overhangs
- For materials please refer to page 58.

Sense of community

8.133 Due to the compact nature of the masterplan, set within a substantial provision of open space, there will be many opportunities for social interaction and events leading to even greater community cohesion.

8.134 These areas include the wider parkland, internal greenways, community square and the community park.

8.135 Importantly, these spaces cater for all ages and abilities, helping to create a strong sense of community. Please refer to page 60 for more information on the landscape and open space proposal.

Character	Area	Density	Building height	Notes
Park Edge		27.5dph (approx. 66 units)	Up to 2 storey (9m)	 Lower density, generally more informal Larger units with larger plot sizes, plus a higher percentage of planting to create a feathered, soft edge to the masterplan and adjoining parkland Soft boundary treatments will create transition between parkland and built form More fragmented/varied building line along edge and larger proportion of wider frontages Greenways allow surrounding parkland to flow into masterplan
Park Field		34dph (approx. 314 units)	Up to 2.5 storey (10m)	 Medium density Generally more informal, away from primary street High levels of enclosure and more formal along primary street Relatively tight urban grain Includes central public open space area (which includes a play space). Buildings carefully arranged around this space to emphasise its importance
Park Core		42dph (approx. 120 units)	Up to 3 storey (11.5m)	 Main focal point of new neighbourhood, as such building lines will be consistent, with a tighter urban grain Higher density and high levels of enclosure along primary street Generally more formal Use of 3 storey buildings will emphasise the importance of the community square

08

PROPOSAL

HOUSING MIX

8.136 The proposed housing mix is taken from the Cherwell Local Plan 2015. This is shown as an illustrative mix to be determined at Reserved Matters stage.

Unit type/No. Beds	Number	Policy mix	Actual mix
1 bed house	61	15%	13%
2 bed house	133	30%	25%
3 bed house	207	40%	42%
4 bed house	99	15%	20%
TOTAL	500	100%	100%

Proposed illustrative overall housing mix - 35% affordable housing with 70% affordable/social rented and 30% intermediate

Market mix

8.137 As a general guide, it is suggested that market housing in Cherwell should be sought in the following proportions:

- 5% 1-bed properties
- 25% 2-bed properties
- 45% 3-bed properties
- · 25% 4-bed properties.

8.138 Therefore the main focus should be 2,3 and 4-bed properties. The Oxfordshire SHMA does not provide any guidance on future housing requirements by property type (only by size) but having regard to the current breakdown set out above, the Council will in general terms continue to seek a balanced mix of property types in future housing schemes across the District.

Unit type/No. Beds	Number	Mix
1 bed house	17	5%
2 bed house	81	25%
3 bed house	146	45%
4 bed house	81	25%
TOTAL	325	65%

Proposed illustrative market housing mix

Affordable mix

8.139 The Council will seek, as a guide, an overall mix of 35% affordable housing in the following proportions:

- 70% (affordable/social rented) to be one and two bedroom homes to meet the needs of younger single and couple households, older people and small family households
- 30% (intermediate) to be three and four bedroom homes.

Unit type/No. Beds	Number	Policy mix	ECH mix
1 bed house	44	25-30%	25%
2 bed house	52	30-35%	30%
3 bed house	61	30-35%	35%
4 bed house	18	5-10%	10%
TOTAL	175	35%	

Proposed illustrative affordable housing mix

	1 bed	2 bed	3 bed	4 bed
Market	5%	25%	45%	25%
Affordable	25-30%	30-35%	30-35%	5-10%
All Dwellings	15%	30%	40%	15%

SHMA Table 67: Conclusions regarding Mix of Homes, HMA Level

PARKING

Car parking

8.140 Car parking should always look to maximise the quality of the street and public realm.

8.141 Car parking is mainly provided on-plot, through driveways or single/double garages or through courtyard parking.

8.142 On-plot parking should generally be located behind the building line to improve the street scene quality, and should be designed to avoid pavement hangover parking. Courtyard parking must be well-overlooked by the properties they serve, with a maximum of 12 parking spaces.

8.143 There may be some limited opportunities for on-street parking, and these should integrate and alternate with strategically placed street trees/verges.

8.144 The allotments to the north of the masterplan will require vehicular access and parking areas.

Unit type/No. Beds	Number	Allocated	Unallocated
1 bed house	61	61	24
2 bed house	133	266	40
3 bed house	207	414	83
4 bed house	99	124	59
TOTAL	500	875	207
TOTAL MAX			1072

Proposed illustrative car parking provision

8.145 The required allocation of parking is illustrated in the tables below.

Cycle parking/storage

8.146 Secure cycle parking facilities should be provided within the masterplan at key public spaces including the focal green space in the centre of the masterplan, and next to areas of open space. The parking should integrate with the surrounding public realm.

8.147 Cycle parking for residents must be provided in a secure, covered and lockable enclosure, preferably within the footprint of the building or garage/shed. For one bedroom apartments internal storage on the ground floor is preferred. If external residents/visitor cycle parking is used it should be covered and located close to building entrances.

Utilities

8.148 The utility systems will be installed in service corridors located within adoptable highway. Defined zones for utilities will be allocated at detail design stage.

Number of Maximum		Maximum number of spaces when two allocated space per dwelling is provided		Maximum number of spaces when one allocated space per dwelling is provided		Maximum number of unallocated
bedrooms per dwelling	number of allocated spaces	Allocated spaces	Unallocated spaces	Allocated spaces	Unallocated	spaces when no allocated spaces
1	1	N/A	N/A	1	0.4	1.2
2	2	2	0.3	1	0.6	1.4
2/3	2	2	0.3	1	0.8	1.6
3	2	2	0.4	1	0.9	1.8
3/4	2	2	0.5	1	1.1	2.1
4+	2	2	0.6	1	1.5	2.4

Proposed car parking table - source: "Transport for new developments, parking standards for new residential development", Appendix C - Parking standards for all areas in Oxfordshire (other than Oxford and Cherwell urban areas), Table C.1 Car parking provision.

ENERGY AND SUSTAINABILITY

8.149 Through the Land East of Park View Development, BEH are committed to achieving an exemplary development in terms of sustainability, with focus on environmental, social and economic measures to deliver this. The development will be designed to PassivHaus principles and will achieve large reductions in operational carbon down to zero through onsite energy generation.

8.150 The development will be constructed to achieve the highest economically viable energy efficiency and be designed to maximise the delivery of decentralised renewable or low-carbon energy generation. Set out a clear and robust energy strategy for the development (see Sustainability Statement).

- The project will be net zero carbon
- All homes will be built to PassivHaus principles
- All homes will be fitted with airsource heat pumps
- The incorporation of on-site renewable energy in the form of photovoltaics on every home
- All homes designed to use less than 105 litres of water per person/ per day
- · On-site biodiversity net gain of at least 20%
- Source local materials where possible as well as materials from sustainable sources
- Minimise or mitigate significant adverse effects on the environment and surrounding area
- Plant lots of climate resilient and wildlife friendly plants
- Monitor energy and water consumption from the site, as well as waste minimisation
- Employ a 'fabric first' approach to building design to minimise operational energy demand, consumption and CO2 emissions.

8.151 The development will achieve net zero carbon and be constructed to achieve the highest economically viable energy efficiency and be designed to maximise the delivery of

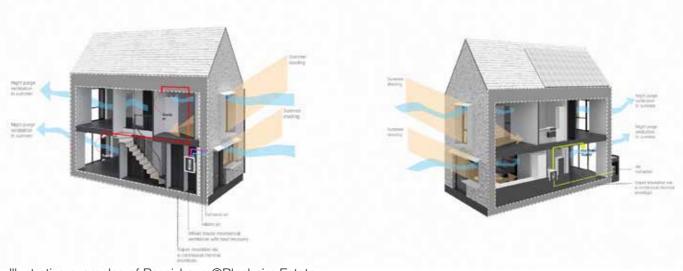
decentralised renewable or low-carbon energy generation. A feasibility study of the low and zero carbon technologies has been undertaken as part of the drive towards achieving carbon neutrality. Proposed measures to achieve this include:

- Improved thermal fabric performance to Passivhaus design principles - Improved fabric U-values through increased insulation thickness and improved dwelling air permeability rate through enhanced building sealing
- Improved buildings systems efficiencies
 Improving the heating and ventilation efficiencies to aspirational levels that align to Passivhaus design principles
- Air Source Heat Pump used for dwelling heating and hot water. Reducing the operational energy demand for the Dwellings using a highly efficient and low carbon energy source of air source heat pumps
- Photovoltaics, used to generate zero carbon electrical energy onsite - Option study of different PV solutions to generate onsite zero carbon electrical energy
- Ground to air/water heat pumps (Electric) System to provide low carbon heating and
 cooling. Ground conditions are suitable for the
 technology. Low maintenance requirements,
 medium-high carbon savings, Efficiency of the
 system is highly dependent on heating flow
 and return temperatures.

8.152 Car charging ports are a simple steel or timber structure that provides a covering for cars and frame on which PVs can be mounted. Usually situated over car parking bays to reduce obstruction for development planning and protection for cars overnight and during high summer temperatures. Typically, 6 panels can be placed in one parking spot and if all allocated parking spots had solar carport structures, 6,002, 400W peak panels could be incorporated within the design. This number of panels would generate 1,776,096 kWh of electrical energy.

Technology	Characteristics	Comments	Feasibility	
Solar Technologies	Gridi dotoriolio	Seminonia	rodominiy	
Photovoltaics (PV)	Photovoltaic (Solar PV) systems use solar cells to convert sunlight into electricity.	Requires careful orientation and tilt to obtain optimum generation performance. Note that specialist maintenance is required. Access considerations should be considered. Low carbon savings compared to capital cost of installation.	Feasible/suitable	
Air to air heat pumps (Electric or Gas)	Low-temperature heat, which occurs naturally in the air, is converted to high-grade heat by using an electrically driven or gas-powered pump.	Can provide both heating and cooling to an internal environment. Low. Specialist maintenance is required. Please note that refrigerants are often use and their impact on the environment requires consider Medium. System can provide both low carbon heating and cooling.	Feasible/Suitable	
Ground to air/water heat pumps (Electric)	The principle of operation revolves around the refrigerant (with a very low boiling point) being heated by the ground through an evaporator heat exchanger and pumped by a compressor to the indoor heat exchanger whereby it cools and condenses back to a liquid whilst expelling heat into the space	System to provide low carbon heating and cooling. Ground conditions are suitable for the technology. Low maintenance requirements Medium-High carbon savings. Efficiency of the system is highly dependent on heating flow and return temperatures. Ground investigation of the site found archaeological below ground constraints that a ground source specialist can work with. Please note it is often associated with high capital costs of installation. Likely to be more efficient if constructed on a site wide basis rather than for individual dwellings.	Feasible/Suitable	

Feasibility options for PV, air to heat pumps and ground to air/water heat pumps technologies.



Illustrative examples of Passivhaus ©Blenheim Estate

Sustainable construction, materials and waste

8.153 Careful selection of materials including sourcing local materials where possible as well as materials from sustainable sources. The material choice depends upon what is readily available from the surrounding areas. The materials at Land East of Park View have been chosen to respect the existing local character of Woodstock. The palette of materials comprises of yellow limestone, reconstituted stone and random coursed limestone for the walls. The roofscape includes natural slate, cardinal slates and clay tiled pitched roofs and brick chimneys providing roofscape interest. Homes front the street with both gable ends and side gables.

8.154 The following measures will be implemented where possible:

- Automated monitoring of energy and water consumption across the development through a management system
- Ensuring protection of landscape features, including important hedgerows and trees, throughout the construction period. – The project commits to protecting hedges and trees during the construction process
- Waste minimisation by 'designing out' from the project and limiting waste arising during the construction phase. This involves promoting the use of recycled materials, re-using on site where possible, and disposing of any waste in the most sustainable manner
- The project will commit to using local contractors where appropriate
- Adherence to a Construction Environmental Management Plan which will set out the project will avoid, minimise or mitigate effects on the environment and surrounding area. This will set out a framework within which the measures to maintain best practice procedures will be implemented throughout the project
- Efficient construction techniques and materials selection will prioritise low embodied carbon

where appropriate. As the design progresses, the embodied carbon of the products in the specification will be carefully considered to minimise the carbon impact of the material chosen.

- As part of the tender process, the contractor will be expected to sign up to the considerate constructors scheme
- All properties are provided with adequate external storage space for bins and recycling as well as vehicles and cycles.

Green and active travel

8.155 The project will focus on the following:

- The site is well located to encourage end occupiers of the proposed development to travel sustainably to and from the site, as shown on page 71, which highlights the connections to Park View and community facilities in Woodstock
- The site has good access to key employment locations in Woodstock, creating opportunities to maximise walking, cycling and bus trips
- Hanborough station and Oxford Parkway Station are located close by and provide direct rail services to Worcester (1 hour) to the north west and London Marylebone and Paddington (1 hour) to the south east. The project will utilise footways and cycle paths to ensure connectivity to the stations
- The site is well served by road access, with A-road links connecting the surrounding settlements and facilities, including Oxford Parkway Park and Ride (10 minutes away) and Oxford International Airport, the Thames Valley area's primary regional and business aviation airport, directly to the east
- The A44 is situated along the boundary of the site and is serviced by several bus routes
- Safe, direct access for vehicular traffic can be delivered onto the A44, and cycle access from the site to the wider National Cycle Network
- A new park and ride service will be located off the A4095 next to the airport
- · A network of pedestrian and cycle routes will

be created on the development that reach out towards the surrounding landscape, providing sustainable routes to Park View to the west and to Oxford Road in the south, connecting to existing bus routes and to the proposed park and ride on the A4095

- Secure cycle parking facilities will be provided within the masterplan at key public spaces including the focal green space in the centre of the masterplan, and next to areas of open space. The parking should integrate with the surrounding public realm
- Cycle parking for residents will be provided in a secure, covered and lockable enclosure, preferably within the footprint of the building or garage/shed. If external residents/visitor cycle parking is used it should be covered and located close to building entrances
- Charging points and secure parking facilities will be provided communally for electric bicycles to encourage greater use of these forms of personal transport
- Where cars are used, the intention is to provide car parking spaces with electric charging points, and infrastructure will be installed from the outset to allow for this
- The application will
 consider supporting a
 car club scheme during
 the operation of the
 development, for example car clubs (e.g.
 Zipcar), web-based ride-sharing (e.g.
 Liftshare), ride-pooling (e.g. UberPool),
 car-pooling and demand responsive
 transport (e.g. dial-a-ride).





Biodiversity

8.156 The development has been designed to be within a predominantly parkland landscape, with significant Green Infrastructure provision within the proposal, to assimilate the development into the landscape. An evaluation of the biodiversity of the site has been undertaken, with a mitigation hierarchy applied for the species that are appropriate for the site. The existing sensitive features within the site will be protected and retained wherever possible and enhanced with new features that are characteristic of the landscape.

8.157 Further measures include:

- Protect and enhance the existing landscape, heritage, and ecology assets
- Create an attractive and verdant landscape setting for the new homes
- Create a strong network of well-connected green spaces
- Provide an intrinsic green infrastructure creating a series of varied and attractive amenity spaces alongside important enhanced habitat areas and corridors to increase overall biodiversity on site
- Ensure that drainage solutions are positively integrated into the green network whilst delivering biodiversity benefits
- Retain and enhance the public right of way with new footpaths and cycle links creating accessible open space and connectivity through the site, to Land East of Park View and the wider countryside
- An overall increase in the area of habitats of conservation value within the site, including hedgerows, attenuation ponds, lines of trees, woodland and scattered scrub
- Improved functional ecological corridors throughout the site for commuting, foraging and dispersal by a range of species, including bats, birds, small mammals, amphibians, reptiles and invertebrates
- The proposal is targeting at least 20% biodiversity net gain.

Water use and flood risk

8.158 The development will be designed to conserve water. The primary aim will be to reduce potable water consumption as much as possible, and then having reduced the demand, to provide the water, where feasible, from non-potable water collected on site.

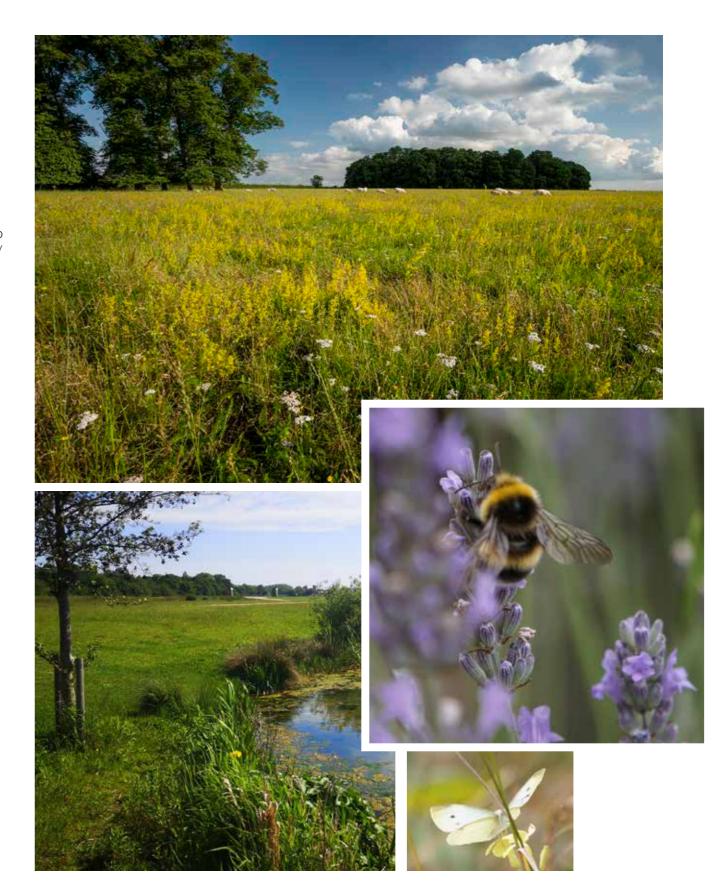
8.159 As the design develops, more specific targets will be set on the water rates of the development. As a minimum, the project will aim to specify fittings that use less than 105 litres/person/day in line with HQM level 4. Careful consideration of the design and products chosen will make sure that water efficiency is a priority on this project. Feasibility studies on water recycling systems will be undertaken as the design progresses. Rainwater butts will be provided.

Flood Risk and Surface Water Runoff

8.160 A hierarchical approach has been undertaken in consideration of the application of SuDS in relation to the development. This is in order to meet the design philosophy of ensuring that surface water run-off is managed as close to its source as possible and the existing situation is replicated as closely as possible.

8.161 Infiltration techniques such as permeable paving, swales, trenches, soakaways, etc. are suitable to reduce the runoff leaving the site and addressing it at source, particularly to the eastern side of the development. The project will ensure that drainage proposals are carefully integrated into the green network and deliver benefits for biodiversity.

8.162 All the private parking bays will be permeable paved surfaces because this is where oil spillage is most likely to occur and, with adequate aggregate sub-bases, permeable paving can provide water quality treatment as it breaks down hydrocarbons. Catchment areas for each SuDS feature will include 10% of urban creep as per LLFA guidance.



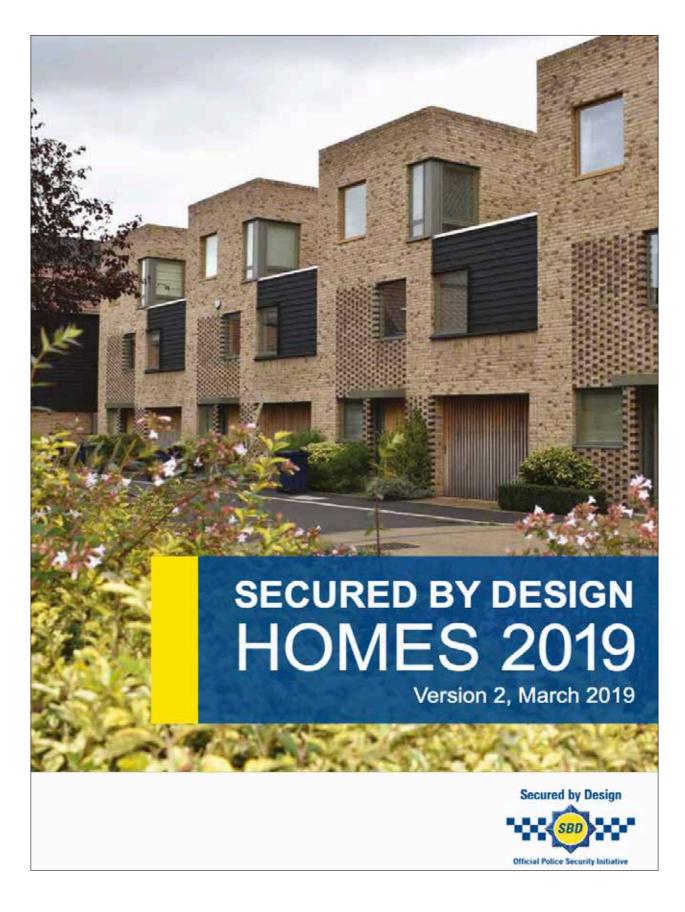
SECURED BY DESIGN

8.163 The layout is based upon a perimeter block structure, which maximises natural surveillance of the streets and public realm. The delineation between public and private areas is very well defined, with no internal parking courts or public access to the boundary at the rear of properties.

8.164 The development's detailed design and layout must follow Secured by Design (SBD) guidelines wherever possible, and all dwellings must achieve SBD Section Two compliance. Areas of incidental open space that are not overlooked or do not have a clear function should be avoided.

8.165 Particular attention should be paid to the design of corner and end-of terrace buildings, using elevational treatments to provide natural surveillance from habitable rooms and main entrances. Where public access to the side of properties is available, these spaces must be adequately overlooked.

8.166 The design criteria are laid out on the Secured by Design website: www.securedbydesign.com.





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