



Gloucestershire
COUNTY COUNCIL



WISLOE

Masterplan Report - Part 1

Stroud Local Plan – Regulation 19 Submission | JULY 2021



*'A sustainable garden community between
the Cotswolds and the Severn Estuary'*



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1. Wisloe

This document explains the proposed masterplan for a sustainable Garden Village Community of approximately 1,500 homes at Wisloe, Gloucestershire in support of a Regulation 19 submission to Stroud District Council's Local Plan review.

The report sets out the background, rationale and vision for the development of a new garden community at Wisloe that will be an exemplar of sustainable living and innovation.

The proposals will deliver approximately 1,500 homes, affordable housing, new employment provision, a new local centre comprising local community facilities, retail provision, health and education provision, and an integrated green and blue Infrastructure including public open space.

The proposed new community will also contribute to the achievement of district wide Zero Carbon targets and deliver considerable benefits for the wider community whilst achieving the draft Local Plan requirements for 'delivery of a new garden community incorporating housing, employment, shopping, community and open space uses, with the opportunity to improve access to Cam and Dursley railway station and to local facilities for existing residents and businesses whilst protecting the setting of existing villages.'

The masterplan has been developed through an Iterative Design Process including Stakeholder and Community Engagement, Design Review and Technical Studies which are set out in Appendices A and B.

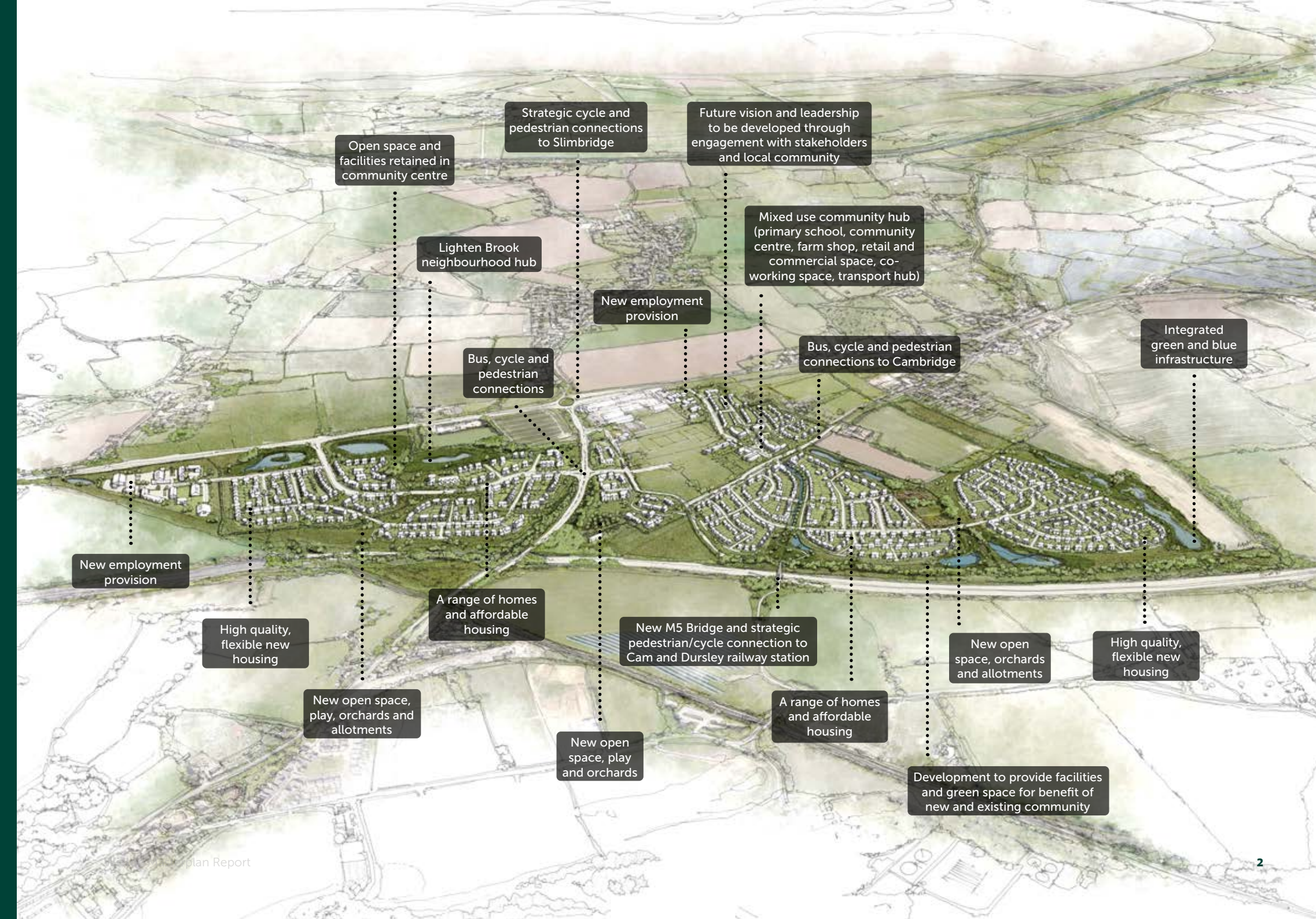
The site is being promoted by joint landowners The Ernest Cook Trust and Gloucestershire County Council.

1.1 Vision for a Garden Community

The Vision and Development Principles set out on the following pages have been developed with reference to the emerging Local Plan Policy and the Town and Country Planning Association's Garden City Principles. The TCPA defines Garden Cities as:

'...a holistically planned new settlement which enhances the natural environment and offers high-quality affordable housing and locally accessible work in beautiful, healthy and sociable communities.'

A summary of how the proposed community will achieve the Garden City Principles is set out in Appendix C of this report.



2. Vision and Development Values

Wisloe will be a sustainable new garden community which has a distinctive identity, is connected to its landscape setting, facilitates a healthy and high-quality life for its residents, and delivers enhanced facilities for existing communities.

The Vision and following development values have been developed to underpin the development of the masterplan for Wisloe and ensure that the project achieves high-quality outcomes in relation to the Garden City Principles and placemaking objectives.



Place

Wisloe will have a distinctive character and sense of place that draws on the character of the Severn Vale and surrounding villages, and its landscape context between the Cotswolds AONB (Area of Outstanding Natural Beauty) and Severn Estuary. It will have its own identity, with a clear and legible development form, beautifully and imaginatively designed spaces and homes, high-quality external spaces and an integrated landscape structure.

Connections

Wisloe will have an integrated green and blue infrastructure network with walkable neighbourhoods, walking and cycling links to facilities, surrounding communities and the wider landscape. The site will have excellent access to public transport and transport connections to the wider region with links to Cam and Dursley railway station secured through the development. The development will aspire to reduce the reliance on the car as a mode of transport, working with local communities on initiatives that will relieve existing and future potential pressure on the road network.

Facilities

The development will provide much needed facilities for residents and people within the surrounding villages, including a new primary school, shops and places of work. These facilities will be integrated within the new neighbourhoods to support a sustainable and healthy lifestyle, whilst creating a balanced community. Where possible, connections to existing facilities will be made to enhance their use and meet wider community objectives.



2. Vision and Development Values (continued)

Community

The new community will be healthy and active, with strong cultural, recreational and shopping facilities in walkable, vibrant, sociable neighbourhoods. The community will be balanced with mixed tenure homes and housing types that are genuinely affordable, potentially including self-build or custom-build plots, with access to work within the community and sustainable connections to surrounding employment sites and wider destinations.

Play and Learning

Wisloe will provide a green and blue infrastructure network that allows for formal and informal play and exercise, and provides opportunities for the community and school to benefit from outdoor activities and learning. Links and trails will enable access by foot and bike to the wider landscape and surrounding communities. There will orchards, allotments and neighbourhood gardens, and good quality private gardens throughout the community.

Working

The development will balance home and work life, through the creation of mixed-use neighbourhoods, with flexibility built into homes throughout the site to provide adaptable spaces that enable home working, or dedicated work spaces within homes or within their curtilage. Employment areas within the development will be designed to work harmoniously with their residential neighbours through careful consideration of built form and uses.



Health and Wellbeing

The development will create a green infrastructure network that will be accessible to new and existing residents; providing open space which enables people to maintain healthy lifestyles and to enjoy the landscape. Enhanced links to existing public transport will enable residents to access healthier options for movement within the wider area.

New homes will be designed to support flexible living and working to allow space for residents to adapt to changing situations. Good quality gardens and outdoor spaces will be provided throughout. It is envisaged that the proposed development will demonstrably meet 'Building for a Healthy Life' standards.



Environment

The community will be set within an accessible green and blue infrastructure network which provides high-quality public spaces, generates net biodiversity gains and wider ecosystem services, and connects with existing landscape features such as the River Cam, the Gloucester and Sharpness Canal and the Cotswold escarpment. The landscape framework within and around the community will include places for food production, play, learning, activity and quiet reflection. The option for the community to manage the green infrastructure network will be explored to secure long-term stewardship of its assets.



Zero Carbon

Stroud Local Plan sets out proposals for the District to be Zero Carbon by 2030. The new community will minimise carbon emissions and prioritise opportunities for sustainable living, benefiting the site and the surrounding area, integrating sustainability at all levels; regionally, locally and within individual homes. It will provide facilities and support public transport networks which will assist the existing communities in reducing their carbon footprints. Wisloe will utilise a multi-functional green and blue infrastructure network to ensure climate resilience, prioritise the use of sustainable and low carbon modes of transport and built forms, and use zero-carbon and energy positive technology where possible.

3. Wisloe - Masterplan

Wisloe will be a new garden community with an integrated green and blue infrastructure network; walkable neighbourhoods that have easy access to excellent community facilities, surrounding communities and the wider landscape; and high quality public transport and transport connections to the wider region.

The proposed masterplan builds upon our Vision for ‘a sustainable garden community between the Cotswolds and the Severn Estuary’ and the proposed development principles which set out our approach for the creation of a low-carbon settlement as part of a group of 5 villages (comprising Wisloe Village, Lighten Brook and the existing communities of Slimbridge, Cambridge and Cam and Dursley).

The masterplan has been developed through the iterative design process drawing upon a review of the baseline appraisals and concept plans, feedback from Stakeholders and the Community, and with specific technical input in relation to key issues such as the diversion of the High Pressure Gas Main and access requirements, noise mitigation and the proposed strategic Pedestrian/Cycle Bridge across the M5. Full details of the technical site appraisal are described in Appendix A, and the Iterative Design Process in Appendix B.

Key to the masterplan are the two new walkable neighbourhoods with mixed use centres within the northern and southern areas of the site, set within a new multifunctional green and blue infrastructure framework that provides a buffer to the M5, makes connections to the wider

area and provides separation between the new settlement and Cambridge and Slimbridge.

The primary centre, Wisloe Village, is proposed to provide a mix of uses around a new village square, including a new school, nursery, potential farm shop and community hub, community open space, workshops and workspaces, small shops, offices and cafés, and residential properties. This new centre will be within 10-15 minutes walking distance of the whole development, and existing properties in Slimbridge and Cambridge.

Forming part of the wider Wisloe Village neighbourhood, the River Cam Edge will be integrated with the newly created wetlands and the river corridor on the northern edge of the proposed development, creating a lower density residential area which overlooks a landscape corridor incorporating sustainable drainage features and meadows.

A secondary neighbourhood at Lighten Brook is more residential, but could still provide a mix of uses, with potential to include some small workspaces and Later Living accommodation, set around a green space with play and other facilities.

The masterplan demonstrates that the allocation for approximately 1,500 homes and 5 hectares of employments space is achievable on land wholly within The Ernest Cook Trust and Gloucestershire County Council ownership (which accounts for 92% of the land within the allocation). Notwithstanding this, the masterplan has been designed to accommodate the other land parcels within the allocation, allowing for access where this is required, should these come forward at a future date.

Proposed Accommodation Schedule

Option 1	Area (Ha)	No. Homes
Green Infrastructure	27.94	
Sports Pitches and Amenity Areas	4.09	
Infrastructure (Roads, Cycle Paths etc)	8.10	
Employment (E1, B2, B8)	5.02	
School	2.68	
Mixed Use Centre (Community, Retail, Employment - Class E)	1.39	54
Residential Development	27.70	1446
TOTAL	76.93	1500

Areas excludes Motorway Bridge and land south of M5



3. Wisloe – Masterplan (continued)

3.1 Green and Blue Infrastructure

Multi-functional green spaces throughout the community

A robust green and blue infrastructure (GI) network forms the framework for the proposed development, providing a multi-functional landscape network with strong physical and visual links to the wider landscape that benefit the community and wildlife.

Integrated green spaces and wetland areas have been demonstrated to have significant benefits in relation to health and wellbeing, climate change mitigation and adaptation and biodiversity. The proposed GI network will connect the different neighbourhoods and provide a range of amenity spaces, allotments and orchards, species rich meadows, wetlands and native hedgerows and woodlands that wrap around and through the community and provide strong physical and visual links to the wider landscape.

The GI framework will provide:

- A linked network of integrated wetlands and surface water attenuation features,
- Surface water attenuation and infiltration,
- New and improved habitats and biodiversity gain,
- Urban cooling and shelter,
- Air quality improvement,
- Walking and cycling routes,
- Informal and formal amenity areas,
- Places for natural play,
- Noise bund and visual screening to the M5,
- Enhanced and additional hedgerows and woodlands,

- Allotments and orchards,
- Views to the wider landscape including the Cotswold Escarpment and Welsh Marches, and
- Opportunities for exercise and learning.

The landscape will also be accessible from the existing communities around Wisloe, and provide a buffer and setting to the proposed development to prevent coalescence.

The blue infrastructure (drainage) strategy has been integrated throughout the masterplan and includes a series of linked features from potential on-plot capture of rainfall in micro-wetlands, through to raingardens and channels, swales and generous attenuation basins with permanent wetlands that provide significant potential for biodiversity gain, climate change mitigation and health/wellbeing benefits. The dendritic network of wetlands, formal ponds, smaller ponds, swales, swales with storage, and community ponds will be used to provide amenity, landscape and biodiversity enhancement. They will also can make a significant contribution to water storage and water quality improvement throughout and ensure that larger wetland basins receive cleaner water and experience more stability in water level, with additional wildlife benefits.

Surface water and roof run-off will be managed separately, with additional bio-remediation wetland areas to ensure that surface water runoff is cleaned to remove pollutants before entering the larger wetland areas which will ensure that run-off from the site is below that from the existing fields (allowing for future

climate change and storm events). Early discussions will be held with Stroud District Council and the Sewerage Undertaker (Severn Trent) to ensure that the investment plan allows for management of the future demand generated by the new community.

The design of the Noise Bund along the M5 is incorporated into the GI network and will include a 4-6m high planted bund (with a noise barrier within the planting) which would screen views of vehicles as well as noise, and will be designed through a combination of earth mounding with planting that will vary in height to be more naturalistic and maintain views to the Cotswold escarpment to the east. Existing views to the Cotswold escarpment will be retained from within the majority of the development site and the surrounding areas, whilst views to vehicles on the motorway will be hidden. Other views to the Parish Church of St John the Evangelist Church (Slimbridge) and the Forest of Dean will be captured in views from key spaces within the development, in particular Wisloe Village centre.

As the masterplan continues to progress, the green and blue infrastructure design will be developed to include detailed design considerations, with reference to Building for Nature standards, and a sustainable management strategy that prioritises community benefits, biodiversity gain, multifunctional landscape functions and climate change mitigation and adaptation. Community led management, along with interpretation, is essential to ensure the future community understands and fully benefits from the site’s green and blue infrastructure.



3. Wisloe - Masterplan (continued)



Landscape Edge

- Provides access for pedestrians and cyclists to the landscape - creating a range of pleasant routes away from vehicles that provide opportunities for exercise and wellbeing benefits
- Potential for integrated Sustainable Urban Drainage Systems and Landscape management.
- Attenuation basins as part of drainage strategy, leading to ponds which retain water and create rich wetland habitats designed with complex edge profiles and planting to benefit wildlife
- Species-rich wet-grassland and native woodland copse planting, with quiet areas designed to limit disturbance and provide added habitat benefits
- Potential for seating and incidental natural play experiences along routes



Landscape Edge to M5

- Provides access for pedestrians and cyclists to the landscape - creating a range of pleasant routes away from vehicles that provide opportunities for exercise and wellbeing benefits
- Relocated gas main is located within the landscape, away from potential conflicts
- Earth bunding to M5 edge to reduce noise pollution and negative visual impact whilst maintaining long distance views east to the Cotswolds escarpment and providing additional wildlife habitat through scrub and tree planting
- Species-rich grassland, scrub and woodland areas enhance biodiversity and improve habitat opportunities.

3.2 Biodiversity Net Gain

The Green Infrastructure (GI) Strategy will provide nearly 30 Hectares of multi functional landscape. The GI network is being developed through the incorporation of existing hedgerows, streams and woodlands into the landscape structure, which will provide strategic woodland planting, meadows, wetlands and areas of potential orchards/ allotments. Community hubs/buildings will be provided to enable future community interaction and participation in the management and monitoring of green and blue space.

In addition to the strategic GI network it is proposed to support biodiversity through the provision of on-plot features including roosting spaces for bats, nest boxes and bat boxes, hibernacula for reptiles and amphibians, invertebrate habitats, nesting banks (for sandmartins, kingfishers etc), hedgehog and mammal routes, and on-plot micro wetlands.

The site will deliver a net gain in biodiversity which will ensure habitats for wildlife are enhanced and left in a measurably better state than they were pre-development. An assessment has been carried out at this stage, based on the current masterplan and assumptions set out in this report. The indicates that the proposed development could result in a 16.78% net gain in habitats units and a 23.25% net gain in hedgerow units.



Plot

1. Downpipe feeding into on-plot micro wetlands
2. Water Butt and Green Roof to collect run-off from roof

Street

3. SUDs/Wetland channel (for clean water from on plot/roof run-off)
4. Shared Foot/Cycle Path
5. Raingarden with tree planting - to capture and bio-remediate run-off from road
6. Permeable paving to streets/ parking areas - filter surface water through paving/substrate

Public open space/Green Infrastructure

7. Open Shallow swale - damp and reedy with wet areas
8. Pond/Wetland Area
9. Boardwalk - pond dipping area
10. Stream/Channel to larger wetland



3. Wisloe - Masterplan (continued)

A minimum of 10% increase in habitat units is likely to be a requirement when the development is brought forward, mandated by the forthcoming Environment Bill, and through the planning system as part of the emerging Local Plan.

3.3 Connectivity

The proposed development is focused around the provision of two new walkable neighbourhoods that will provide community facilities, employment and leisure opportunities and high quality open space within close proximity to new residents, and the existing communities of Cambridge, Slimbridge and Cam and Dursley.

A new Motorway bridge and high quality walking and cycling link will provide a direct connection to Cam and Dursley railway station (which sits on the mainline between Gloucester and Bristol) allowing residents in the new community, and existing residents of Slimbridge and Cambridge, to benefit from easy access to direct alternative to vehicular travel options. This link will also connect the Cam, Dursley and Uley Greenway with National Cycle Route 41 – providing links to the Cotswolds to the east and to the Gloucester and Sharpness Canal and WWT Slimbridge to the west. New traffic light controlled pedestrian and cycle crossing points are proposed to enable access across the A38 to Slimbridge and the west.

An integrated bus route is proposed to run through each part of the site; connecting Cambridge and Slimbridge with the new neighbourhoods

and with the sustainable transport link where it connects to the bridge over the M5, and to wider destinations on the bus network. Designs for the M5 Bridge Link and active transport routes have been developed to a preliminary level to inform the masterplan and ensure the bridge can be integrated with the noise bund to minimise hard engineering and excavations.

A further key sustainable transport link will be provided in parallel with the A38 in the west, running through the southern and northern parts of the site and along Dursley Road to Cambridge, allowing for reduction of through traffic along Dursley Road and providing a pleasant green pedestrian and cycle link from Cambridge to the new community and its facilities.

Vehicular access is provided through two new gateway access points off the A38, with improved access across the A4135, including pedestrian and cycle facilities to link each part of the site.

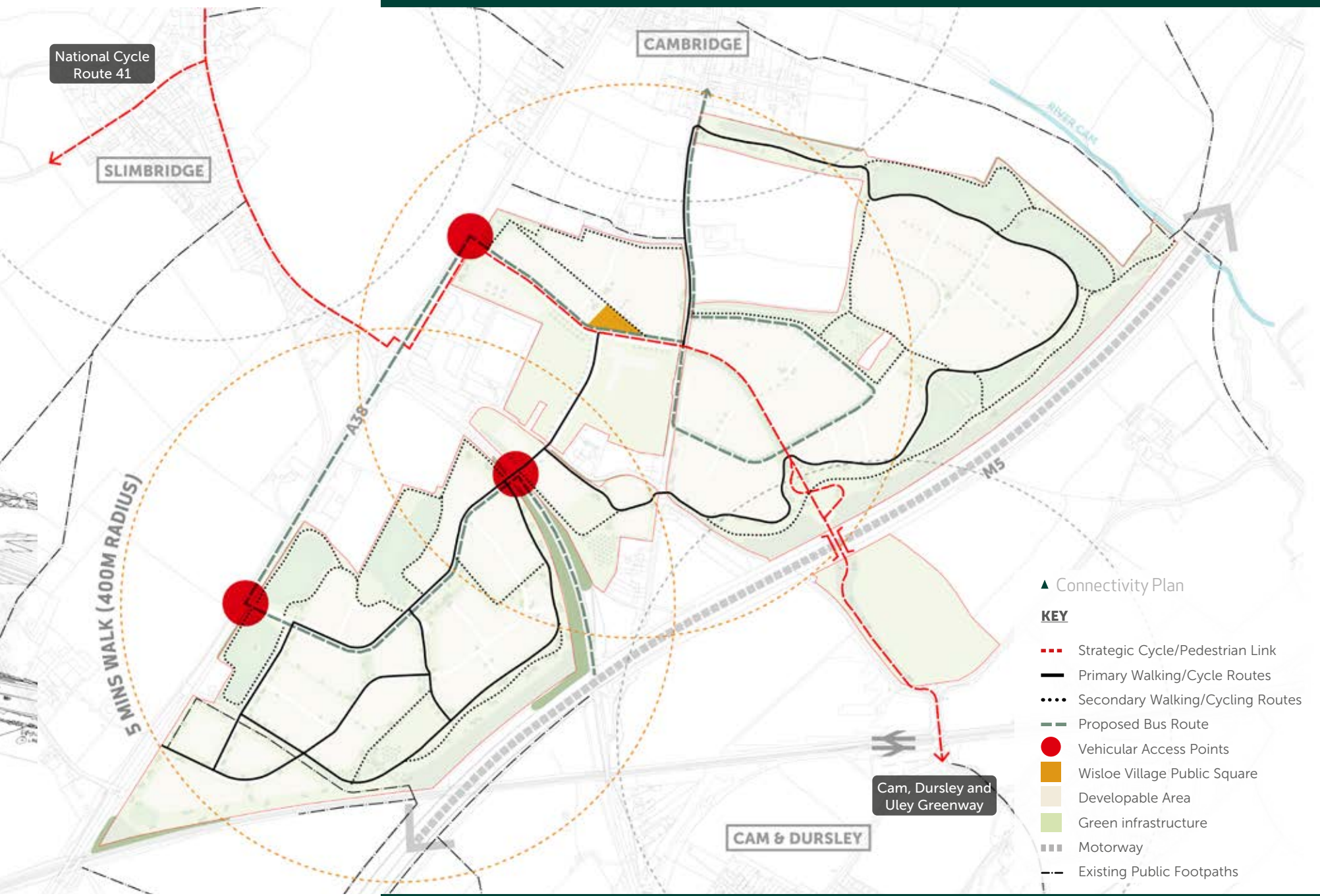
Further pedestrian and cycle routes have been designed to ensure clear and direct routes are available throughout the site for commuting and leisure use. The proposed routes are integrated within the masterplan, taking account of constraints such as the diverted Gas Main to maximise opportunities for attractive and high quality green space.

Electric vehicle charging will be provided to all properties within the scheme, with on-street charging facilities in the village centres and key

locations. Opportunities to provide bike hire facilities, car clubs, car-sharing schemes and other measures to support sustainable transport will be investigated as the project progresses.

The masterplan has been designed to accommodate current standards and best practice in terms of pedestrian and cycle access, connectivity, highways layouts, fire access, refuse and parking.

▼ M5 Cycle and Pedestrian Bridge



3. Wisloe – Masterplan (continued)

3.4 Community, Health and Wellbeing

Alongside the integrated GI network, a range of facilities are provided throughout the development to create a sustainable place with a strong community and a high standard of living for existing and future residents.

The primary centre, Wisloe Village, is proposed to provide a mix of uses around a new village square, including a new school, nursery, potential farm shop and community hub, community open space, workshops and workspaces, small shops, offices and cafés, and residential properties. This new centre will be within 10–15 minutes walking distance of the whole development, and existing properties in Slimbridge and Cambridge.

A secondary neighbourhood at Lighten Brook is proposed to have a more residential focus, but could still provide a mix of uses, including potential for homes with integrated workshops/workspaces and Later Living accommodation focused around a community green space and the enhanced stream.

Informal play facilities are proposed throughout the development, with a focus on natural play that is integrated within the GI network, with 4 larger natural play areas and amenity sports provision proposed at key locations within each neighbourhood. Within the residential areas pocket parks will provide a focus for each area and small scale play and informal open space provision.

Opportunities for community food production will be provided in key locations throughout the development including allotments, orchards (referencing historic

orchards in and around the site), edible landscape features and links to the wider farming community through the provision of the farm shop. Homes will have generous gardens to allow on-plot food production, as well as high quality private amenity spaces.

In addition we propose to progress discussions with Slimbridge AFC to consider how the football club could be better integrated within the masterplan, enabling the new development to contribute positively to existing community facilities.

3.5 Working in Wisloe

Two employment-focused areas are proposed in locations adjacent to the A38 and existing employment space in the north and south of the site. These will provide 5 Hectares of employment space with separate access from residential areas, with the potential to meet a range of local employment needs.

It is envisaged that small scale employment and commercial uses will be incorporated within the neighbourhood centres and include uses like small shops, café, workshops and office space (small office and co-working space) to support local working. House designs should also be developed to allow home working and flexible use of internal space (including capacity for loft conversion, extension and flexible future use).

High quality broadband and communications connections are proposed to serve all the properties at Wisloe to enable effective home and office working, and high quality living standards.



3. Wisloe – Masterplan (continued)

3.6 Living in Wisloe

The proposed development will provide approximately 1,500 homes in two neighbourhoods which are focused around the neighbourhood centres in Wisloe Village and Lighten Brook.

Higher density development is proposed within the neighbourhood centres and at key locations within the development to support facilities and sustainable transport provision. Lower density areas to the edges of the development are integrated with the landscape framework of the site.

Homes will be designed to meet National Space Standard requirements, and will be located to create attractive streets and spaces that are safe, overlooked and prioritise walking and cycling.

The housing mix is not fixed at this stage, but is envisaged to comprise a range of dwelling sizes to meet the local housing need, as set out in the table opposite, with affordable housing to be provided in agreement with Stroud District Council.

Homes will be located to maximise solar orientation for the use of renewables and good daylight and passive solar gain (whilst considering the potential effects of climate change and potential for overheating). Energy supply to all homes will be electric and make use of a fabric first approach to reduce energy use and provision of on-plot renewables and battery storage where appropriate.

Further measures to ensure new homes are sustainable will include:

- careful design of internal spaces to ensure good daylight and relations to garden spaces,
- careful sizing of windows and provision of shade structures to enable passive solar gain during the winter and prevent overheating during the summer,
- generous garden spaces to allow food production and drying areas, and
- provision of integrated bird and bat boxes throughout the development (prioritising areas which about primary GI areas).

House designs will also be developed to allow home working and flexible use of internal space (including capacity for loft conversion, extension and Lifetimes Homes modifications to allow flexible future use).

The scale of residential properties will be predominately 2 storey, with 2.5 to 3 storey homes adjacent to key routes and neighbourhood centres.

Homes will define and enclose the streets and spaces, and will be designed to reflect the local vernacular, using appropriate materials and proportions whilst allowing flexibility for development by different home-builders and character areas within the community. The architectural character and appearance is not fixed at this stage, but it is proposed that each neighbourhood has a distinctive character that draws upon local precedents in Slimbridge and Cambridge whilst meeting requirements for a contemporary and sustainable built form.

Bin and cycle storage will be designed and located on individual plots or in clearly defined communal areas which are secure and support the provision of tidy, well designed streets.

Boundaries will be treated appropriately with secure boundaries between private spaces and public areas, incorporating bee and invertebrate habitats and allowing for movement of mammals and other vertebrates between plots and landscape areas.

Parking will be provided through a mix of typologies including on-plot, in small flexible courtyards and on-street. Visitor parking will be provided on-street and, where appropriate, unallocated parking will be provided to minimise parking space requirements and allow flexibility for future use for Automatic Vehicles or conversion to other uses if parking requirements reduce.

Proposed Accommodation Schedule

Bed	Type	m2	Private	%	Afford	%	Total	%
1	Apartment	50	20	2%	99	23%	120	8%
2	Apartment	70	40	4%	95	22%	135	9%
2	House	79	101	10%	86	20%	187	12%
3	House (6p)	93	202	20%	86	20%	288	19%
3	House (8p)	102	343	34%	30	7%	373	25%
4	House (6p)	106	101	10%	26	6%	127	8%
4	House (8p)	124	101	10%	0	0%	101	7%
5	House	132	101	10%	9	2%	109	7%
1-2	Later Living						60	4%
Total Units							1500	



▲ Working and Living in Wisloe

3. Wisloe - Masterplan (continued)

3.7 Character Areas

We propose that each neighbourhood will have its own identity; with distinctive characteristics and uses that create a sense of ownership and belonging, aid orientation and wayfinding and reflect the character of the landscape and communities of the Severn Vale.

We have identified the following character areas based on the preferred emerging masterplan option, which we have developed over the following pages.

In addition to these key character areas, the identity of the landscape framework and residential streets and spaces has also been explored to establish how these areas can contribute to the overall character of the proposed development.

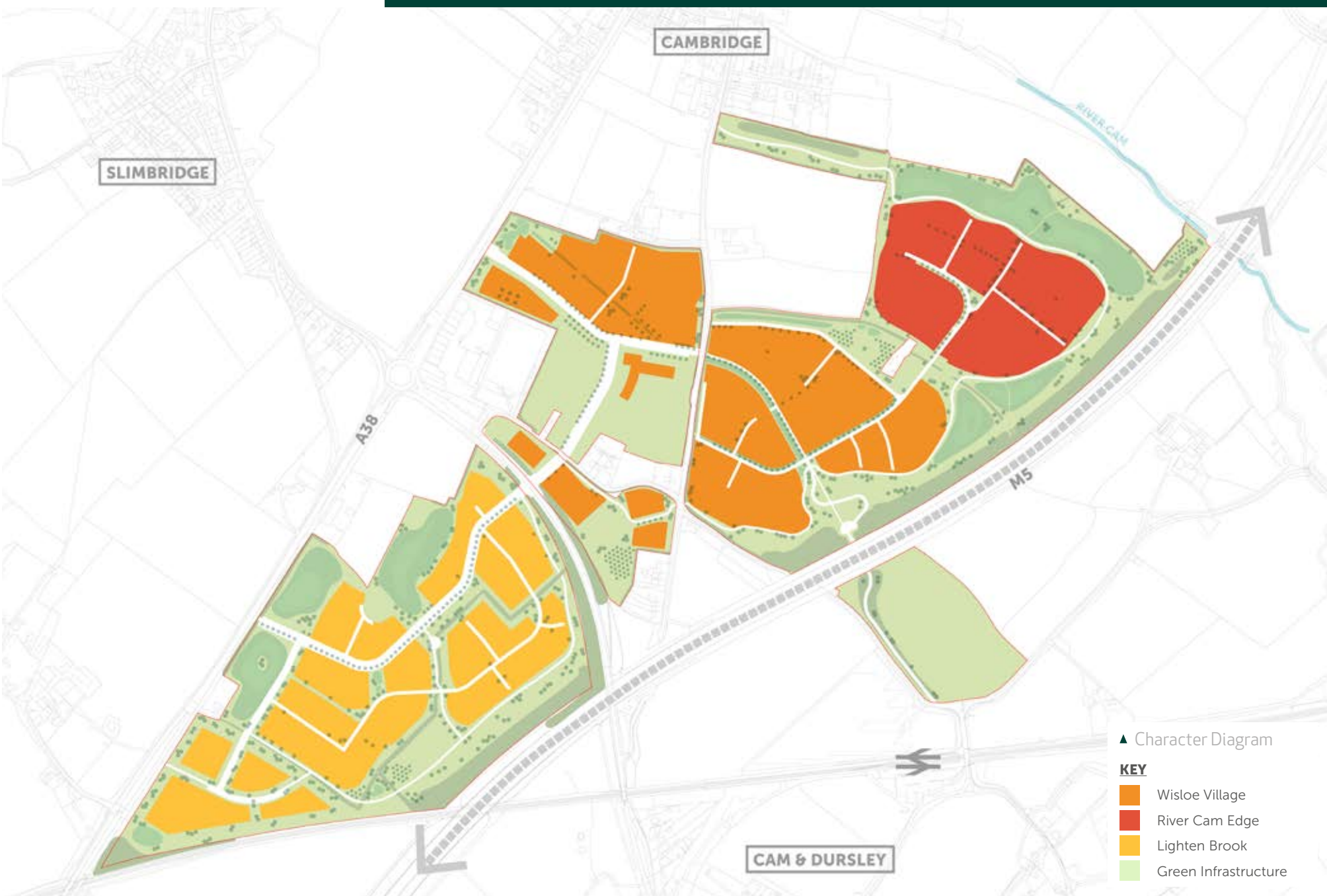
Wisloe Village



Lighten Brook



River Cam Edge



3. Wisloe – Masterplan (continued)

Character Areas – Wisloe Village

Wisloe Village will provide the community's heart with the main community facilities, primary school, and largest area of housing in the northern part of the site, directly connected to the east-west pedestrian-cycle corridor and the north-south sustainable transport route.

This mixed use neighbourhood centre will be focused around a public square which will accommodate community events and markets and be enclosed by a community building, farm shop and café, with potential health centre, work hub and employment facilities integrated with residential uses (which could include apartments above commercial uses and/or later living accommodation). It is proposed that the Primary School and Nursery is also located adjacent to the community centre and sustainable transport routes to the south of the neighbourhood centre.

There may be potential for enhanced provision for Slimbridge AFC to sit within the heart of the development, integrated with public open space and located adjacent to the school, allowing the existing and new community facilities to benefit one another and provide a central hub of activity for existing and new residents.

Lower density housing wraps around the north and west of the centre, where it interfaces with the River Cam and GI network, providing housing which is well connected with the surrounding landscape and enabling healthy, active lifestyles whilst providing a buffer to Cambridge to the north.



3. Wisloe - Masterplan (continued)

Character Areas – Lighten Brook

Lighten Brook will be a distinctive neighbourhood in the south of the community, centred around a linear green space which links through the site to the water network to the west and provides pedestrian links to Gossington and Slimbridge.

The existing watercourse will be retained and integrated into the drainage network; creating a distinctive riparian character for this area that forms part of the connected landscape structure of the site.

This neighbourhood centre could provide small scale employment facilities integrated with residential uses at its heart, alongside other community uses and potential for older persons' accommodation. All homes throughout the site should be designed to allow for flexible home uses including home working.



A new active
neighbourhood
centre in a landscape
setting

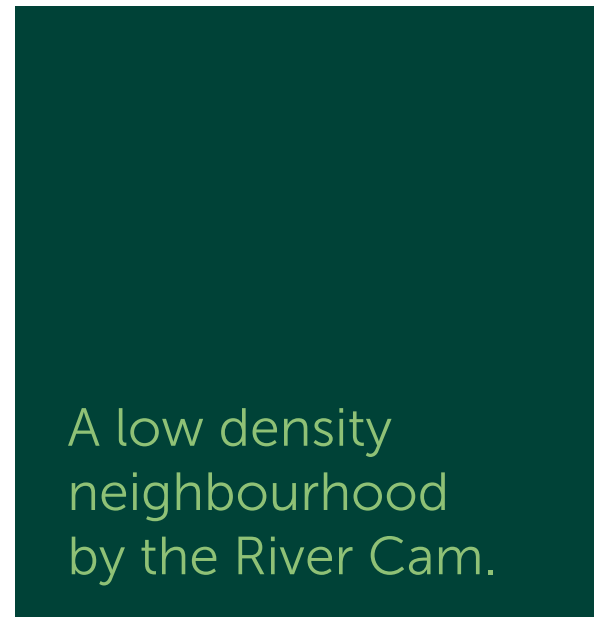


Lighten Brook Neighbourhood

3. Wisloe - Masterplan (continued)

Character Areas – River Cam Edge

Forming part of the wider Wisloe Village neighbourhood, River Cam Edge will be integrated with the newly created wetlands and the river corridor on the northern edge of the proposed development, creating a lower density residential area which overlooks a landscape corridor incorporating sustainable drainage features, meadows and riparian planting.



River Cam Edge

Wisloe Stage 1 Concept Design Report

3. Wisloe - Masterplan (continued)

Character Areas – Streets and Spaces

Streets and spaces within each neighbourhood will be designed to prioritise pedestrians and cyclists, with slow design speeds, active street frontages and clear definition of public and private spaces. Pocket parks, street tree planting, sustainable urban drainage systems and hedges will be incorporated into the streets to provide a green environment, with space created for key trees to mature and create a

robust future landscape framework for the community and help to mitigate the effects of climate change.

Streets will be aligned to capture views to the surrounding landscape and landmarks to aid placemaking and connectivity. Public art, seating and other street furniture will complement the character and reinforce the local distinctiveness of Wisloe.

▼ Typical Residential Street



↑ Main Street

- Shallow swales and features to collect water run-off and provide green corridors with the potential to act as bio-swales, with rain gardens at the bottom to help with filtering.
- Integration of tree planting and naturalistic features to provide wellbeing and environmental benefits
- Potential for permeable paving to clean water and remove pollutants
- Bridge crossing points along length of swale
- 6m road width with kerb upstands
- 3m dedicated cycle route to key connections, with separate 1.8m footway to one side
- 3-4m shared space path with potential vehicle access to homes

↑ Residential Street

- Streets and spaces within each neighbourhood will be designed to prioritise pedestrians and cyclists, with slow design speeds and active street frontages.
- Street tree planting, sustainable urban drainage systems and hedges will be incorporated into the streets to provide a green environment, with space created for key trees to mature and create a robust future landscape framework for the community and help to mitigate the effects of climate change.
- Homes will define and enclose the streets and spaces, and will be designed to reflect the local vernacular, using appropriate materials and proportions whilst allowing flexibility for development by different home-builders and character areas within the community.
- Tree planting staggered along road to remove straight through driving and reduce traffic speeds
- Potential for bioretention rain gardens within tree pits to aid water filtering before it reaches the attenuation areas, benefiting wildlife.
- Permeable layout for cyclists and pedestrians – potential for some limits to car permeability



← Secondary Centre with Watercourse

- Existing watercourse retained and enhanced with planted sloping banks and bridge crossing points
- Potential for wetland and marginal planting and rain-gardens along length of street
- One-way vehicle traffic on shared space surface



4. Toward Zero Carbon and Sustainable Development

The masterplan incorporates a number of approaches to minimising carbon emissions and opportunities for sustainable living, benefiting the site and the surrounding area. These are summarised below in relation to the themes in the Stroud District Council 2030 Carbon Neutral Strategy.



Built Environment:
The Efficient Use of Water and Power



Economy:
Supporting Low Carbon Living



Energy: Generation and Distribution Across the District



Waste: Minimising Waste Wherever Possible



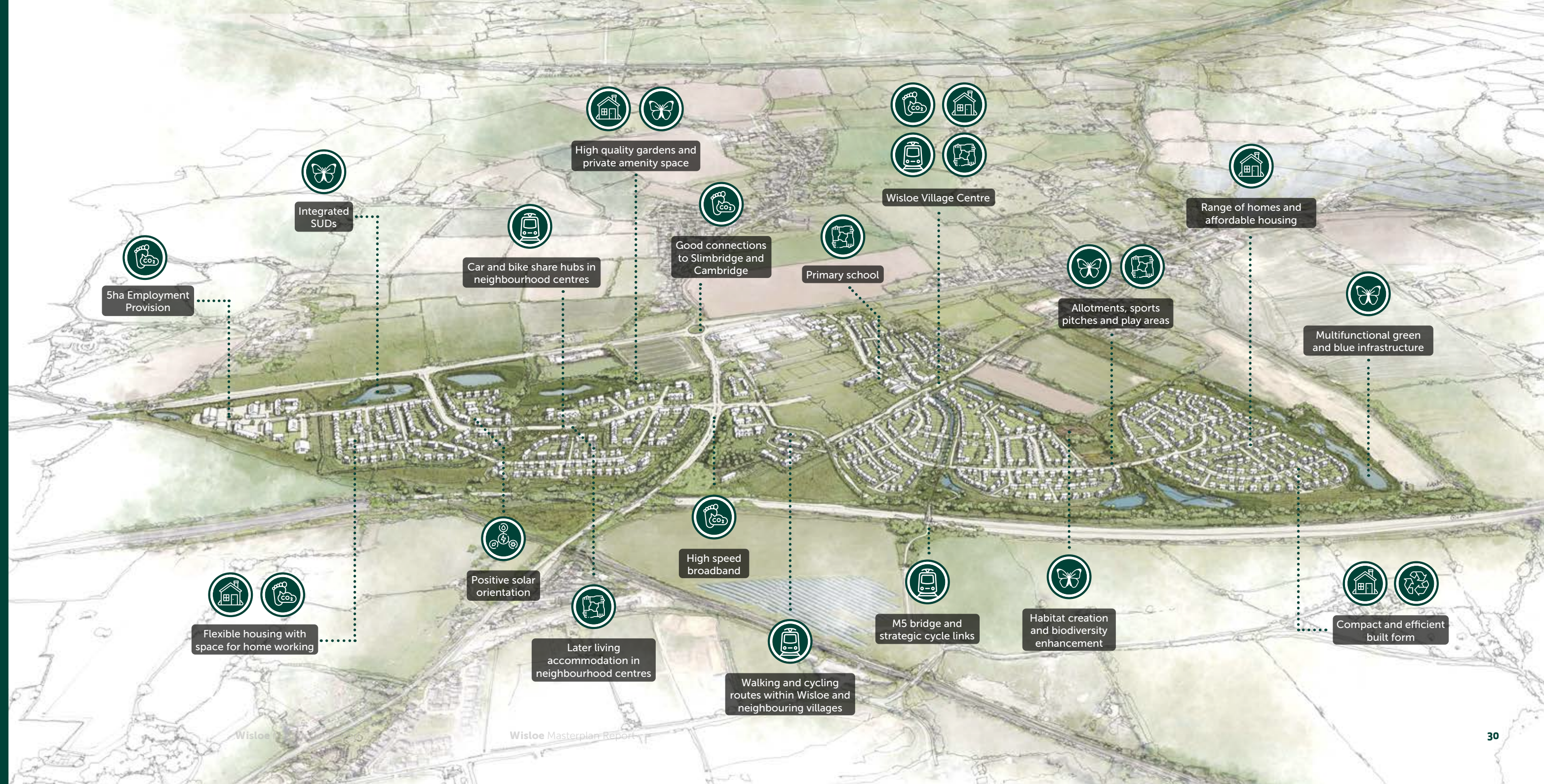
Natural Environment:
Positive Outcomes for all Species



Community:
How We Work Together



Mobility: Low Carbon Movement of People and Goods



4. Toward Zero Carbon and Sustainable Development (continued)



Built Environment: The Efficient Use of Water and Power

The development will have a compact, walkable built form that uses land efficiently. The proposed homes will be National Space Standards compliant and enable home working, and will use a fabric-first approach to building design to reduce energy use.

Opportunities to incorporate natural cooling/heating and integration of climate change resilience (including shade and structural resilience) will be taken. We will investigate the potential for the use of recycled and low-carbon materials and materials that capture carbon where possible, and opportunities for on plot water reuse, green roofs and carbon capture.

Opportunities to explore the use of off site and Modern Methods of Construction (MMC) technologies that could aid in speeding up the delivery of the development, whilst ensuring higher levels of quality and sustainability are achieved.



Energy: Generation and Distribution Across the District

The development will reduce energy use through energy efficient layout and buildings and maximisation of potential for on-plot renewables and passive solar gain through solar orientation. Buildings will be designed to be flexible to allow for future additions of renewables, battery storage etc and include external drying areas and low energy fittings and equipment for all homes.

Further investigation of the potential for solar PV shade structures to parking areas will be undertaken. Options for the site’s emerging Energy Strategy for the scheme (which includes potential for an electric only development, with community battery storage and on site renewables, smart energy network and potential opportunities for off-site renewables and connection to the wider estate) are being considered.



Natural Environment: Positive Outcomes for all Species

The masterplan will include an integrated green and blue Infrastructure with links to wider GI network and integrated movement, drainage and biodiversity networks. We are investigating opportunities for community-led long-term stewardship of the GI network. The development will retain and enhance existing biodiversity features and create new habitats and significant biodiversity enhancement throughout the development, including integrated nest boxes and habitat provision within buildings.

The Green Infrastructure will include:

- *Integrated Sustainable Urban Drainage Strategy which creates new wetland habitats at plot, street and neighbourhood levels*
- *Tree and woodland planting to provide habitat, shade and cooling, and wellbeing benefits*
- *Potential for incorporation of green roofs as part of landscape and drainage strategy*
- *Food production (Community Orchard, Allotments, Gardens, Edible landscape - potential links to The Ernest Cook Trust’s wider estate and local farmers (Farm Shop))*
- *A range of play and sports facilities within GI - LAP, LEAP, NEAP, MUGA, Natural Play, Trim Trail, links to Football Club, School playing fields*
- *Potential for carbon capture through off site planting or wetland creation*



Mobility: Low Carbon Movement of People and Goods

The masterplan will prioritise walking and cycling throughout the community, providing strong links to Slimbridge and Cambridge and facilitating wide connectivity through the wider area. We will provide a good range of local facilities within Wisloe and are investigating provision of a walking and cycling bridge over the M5 to Cam and Dursley railway station.

The masterplan will integrate public transport to all areas, and provide mobility hubs in village centres (including car share, community bike and electric vehicle hire and Electric Vehicle charging infrastructure). Bike Storage will be provided for all homes/businesses, and areas of communal parking with potential to prepare for future use of automatic vehicles will be provided.



Economy: Supporting Low Carbon Living

The scheme will provide a mix of high quality uses in local centres including co-working, office, retail and services, café, community and residential uses. A Farm Shop will provide links to local farm businesses. The scheme will provide a range of workspaces on site – including light industrial, office, co-working and retail opportunities. Home working will be facilitated

through building design and provision of high speed broadband, with potential for WiFi in public spaces.

There is potential for construction training and apprenticeships during the delivery stage and we will investigate opportunities to utilise the local supply chain during construction and operation. Further investigations into economic/funding models to enable community stewardship and ownership of key community assets are being undertaken.



Waste: Minimising Waste Wherever Possible

The development will minimise its development footprint and utilise landscape options for infrastructure where possible (e.g. soft SUDs channels and storage to maximise habitat benefits) that minimise the use of materials. All buildings will have high quality recycling facilities and appropriate storage space, and as part of the waste strategy we will consider potential for green waste recycling on site, integrated with site GI management.

Further investigation into the potential for building designs that are flexible, with potential for future adaptation, conversion and extension will be undertaken. Opportunities for off-site and zero waste construction and the use of recycled materials where possible will be investigated. The site’s sewerage strategy will be developed to ensure no surface water run-off enters sewers and will consider the potential to recycle grey water.



Community: How We Work Together

The masterplan will be focused around a high quality community hub (including communal outdoor space, meeting spaces, library, gym, health and wellbeing facilities) which meets the requirements of new residents and is integrated with and provides facilities for the wider area around Wisloe. The scheme will provide a range of community facilities including a primary school, farm shop, coffee shop, pub/restaurant and offer retail/services, shared/co-working spaces and integrated employment provision, play and sport facilities (including potential links to Slimbridge AFC). The mix of housing will provide for a range of people and families and include a range of appropriate affordable housing (including social rent, shared ownership and self-build), along with later living accommodation in village centres.

Further investigation into the potential for long term stewardship with community ownership of key assets and potential for income generation to support the community and manage facilities and facilitate a inclusive community leadership/ management organisation will be undertaken (with links to District/Parish Council and other groups).

<https://www.stroud.gov.uk/environment/2030-strategy-limiting-adapting-recovering-and-responding-in-a-changing-climate/2030-strategy>

5. Delivery Strategy

The Ernest Cook Trust and Gloucestershire County Council (GCC) are conscientious long term custodians of land (who have wider landholdings in the locality). For both landowners legacy is a key factor and the standard of urban design and consideration afforded to the ethos of the settlement are important objectives.



The landowners have a shared vision for a sustainable new community that has a distinctive identity, connected to its landscape setting, facilitates a healthy and high quality life for its residents, and delivers positive outcomes for existing communities.

The Ernest Cook Trust has a strong track record of delivering exemplar developments, most noticeably at Fairford Leys, Aylesbury where The Ernest Cook Trust were the driving force behind the evolution and delivery of this landmark scheme.

5.1 Initial Viability Appraisal Work

An overarching review of the evolving masterplan has been undertaken in order to ensure the viability and deliverability of the emerging site allocation. The appraisal is based on the information available to date and is considered proportionate to this stage of the plan making process.

The methodology supporting the assessment of viability in planning is governed by planning policy and professional guidance as well as non-adopted best practice guidance. The financial viability of development proposals is determined using the Residual Land Valuation (RLV) method. The methodology underpinning a RLV is a relatively simple concept whereby the Gross Development Value (GDV) of the completed development is assessed based upon the aggregated value of the proposed scheme. The associated cost of development is then deducted along with professional fees, finance costs and developer's profit etc.

If the RLV produced by a scheme is lower than an appropriate Site Value Benchmark (SVB), the scheme is deemed to be unviable in planning and, therefore, unlikely to come forward for development unless the level of affordable housing and/or planning obligations can be reduced. Conversely, if the RLV is higher than the SVB the scheme may theoretically provide additional affordable housing and/or other planning obligations.

Through scenario testing, it is possible to determine the reasonable level of affordable housing and other obligations that ensure a scheme remains viable in planning and retains the highest possible chance of coming forward, whilst balancing commercial requirements with policy requirements of the development plan.

The main site-specific considerations, namely the Gas Main diversion, M5 bridge and noise bund have been identified and technical work undertaken to establish the technical requirements, design principles and high-level costs.

Key development principles and requirements have been embodied in the proposed masterplan. Integrated green and blue infrastructure, provisions of a local centre and community facilities, priority to active transport modes and connectivity, and solar orientation to ensure that they are realistic and achievable. This will ensure that Wisloe will be able to deliver the garden community objectives and wider low-carbon and health and well-being benefits set out in the draft Local Plan.

It is acknowledged that the level of work carried out by the LPA and its appointed advisors at this stage represents a guide in determining proposals and that the LPA will take into account other relevant factors including market evidence and / or updated professional and planning guidance at the time of application. A high level approach to viability assessment is therefore considered appropriate at this stage in the planning process based on a high level understanding of the site specific constraints and technical issues.

It is intended that further detailed design development, cost appraisal, viability testing and consideration of funding opportunities for infrastructure delivery will be undertaken during the next stages of the planning process.



5. Delivery Strategy (continued)

5.2 Delivery Model Options

The design work and due diligence undertaken provides confidence that the opportunity would be attractive to delivery partners, be it specialist Promoters or Developers. An incoming partner would inherit the design of the scheme and align themselves with the landowners’ objectives, and, in doing so, become contractually bound to ensure the timely delivery of the scheme.

5.3 Stewardship

A clear strategy for long term ownership and stewardship of Community Facilities (including open space and green and blue infrastructure) is important to the delivery of successful Garden Communities.

At Wisloe a range of community facilities are proposed (including a Community Centre, Farm Shop and Café, retail, commercial, co-working and employment), along with extensive and integrated Green Infrastructure (including informal open space, play areas, allotments and orchards, wetlands and woodlands).

Models for Community Ownership and Management of these facilities are currently being considered, with potential for support for, and partnership with, other organisations during the initial development phases until there is sufficient and self-sustaining capacity within the community.

5.4 Phasing and Delivery Programme

The new community will benefit from the delivery of integrated infrastructure and facilities from the outset, ensuring that future residents and the wider community have access to high quality connectivity and facilities at an early stage in the delivery of the site and embedding potential sustainable lifestyle/behaviours into the community.

The phasing strategy demonstrates how the site could be delivered through the following key steps:

Phase 1 (2020-2024)

- Local Plan allocation
- Continuing Community and Stakeholder Engagement
- Potential Design Code SPD and Stewardship Strategy
- Outline Planning Approval

Phase 2 (2024-2026)

- Access from A38 (northern parcel)
- Delivery of first development parcel (W1) and public realm/access to Local Centre
- Diversion of Gas Main
- Construction of Noise Bund, Strategic attenuation areas, and Strategic Green Infrastructure
- Delivery of Active Transport Link and Motorway Bridge
- Delivery of Serviced Access to School site
- Delivery of Serviced Access to W1a – employment area

Phase 3 (2026-2031)

- Delivery of parcels W3, W4 (northern area), L1 and L2 (southern area)
- Access from A38 (southern)
- Delivery of Serviced Access to L5E – employment area

Phase 4 (2032-2040)

- Delivery of parcels W5-W8 (northern area)
- Delivery of parcels L3-L5 (southern area)

Wisloe Local Centre

Access and public realm to Wisloe Local Centre (within parcel W1) to be provided in Phase 1. Phasing for delivery of commercial and community facilities to be agreed with Stroud District Council – with priority to Community Building, Farm Shop/Café and Co-Working space (potential for phased delivery).

Employment

Serviced Access to employment sites to be provided as set out above. Development of employment buildings to be agreed with Stroud District Council in line with demand.

School

Serviced access to school site to be provided in Phase 2. Delivery of School to be agreed with Local Education Authority (potential for phased delivery of school as pupil numbers increase).

The phasing strategy assumes projected housing completions and sales of c60 homes per annum, initially from the northern parcel only, but increasing to a total c120 homes per annum across both the northern and southern parts of the site.



Phase 1 (2021-2025)

- Local Plan allocation
- Continuing Community and Stakeholder Engagement
- Potential Design Code SPD and Stewardship Strategy
- Outline Planning Approval



Phase 2 (2026-2030)

- Access from A38 (northern parcel)
- Delivery of first development parcels (W1, W3, W4 and L1) and public realm/access to Local Centre
- Diversion of Gas Main
- Construction of Noise Bund, Strategic attenuation areas, and Strategic Green Infrastructure
- Delivery of Active Transport Link and Motorway Bridge (subject to grant funding?)
- Delivery of Serviced Access to School site
- Delivery of Serviced Access to W1E – employment area

5. Delivery Strategy (continued)



- Phase 3 (2031-2035)**
- Delivery of parcels W2, W5 and W6 (northern area), L2, L3 and L4 (southern area)
 - Access from A38 (southern)
 - Delivery of Serviced Access to L5E – employment area



- Phase 4 (2036-2040)**
- Delivery of parcels W7 and W8 (northern area)
 - Delivery of parcels L5 (southern area)

				Phase 1					Phase 2					Phase 3					Phase 4				
Phase	Use	Area (Ha)	Number of Homes	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Pre Delivery																							
Local Plan Submission																							
Local Plan Examination and Adoption																							
Potential Design Code and SPD																							
Outline Planning (Whole Site)																							
Delivery (inc. Reserved Matters Planning)																							
Northern Area - Wisloe Village																							
W1	Housing/Mixed Use	3.85	150																				
Noise Bund																							
Strategic Green Infrastructure and Attenuation																							
M5 Bridge and Strategic Cycle/Pedestrian Link																							
Gas Main Diversion																							
W3	Housing (Clustered)	1.4	60																				
W1E	Employment	0.7																					
W4	Housing	3.59	165																				
W2 (subject to agreement with LPA, potential to phase)	School	4.2																					
W5	Housing	3.39	190																				
W6	Housing	1.87	75																				
W7	Housing	3.75	135																				
W8	Housing	3.5	145																				
Southern Area - Lighten Brook																							
L1	Housing/Mixed Use	1.08	110																				
L2	Housing/Mixed Use	1.43	75																				
L3	Housing	2.78	130																				
L4	Housing/Mixed Use	1.09	55																				
L5	Housing	4.53	210																				
L5E	Employment	4.3																					
		41.46	1500																				

KEY Planning/Preparation Delivery on Site Indicative Programme subject to demand/funding requirements

6. Next Steps

Following the submission of the masterplan and additional evidence as part of the Regulation 19 consultation the landowners intend to continue engagement with the local community and other stakeholders to progress the masterplan and development proposals in advance of the Local Plan Examination stage.



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