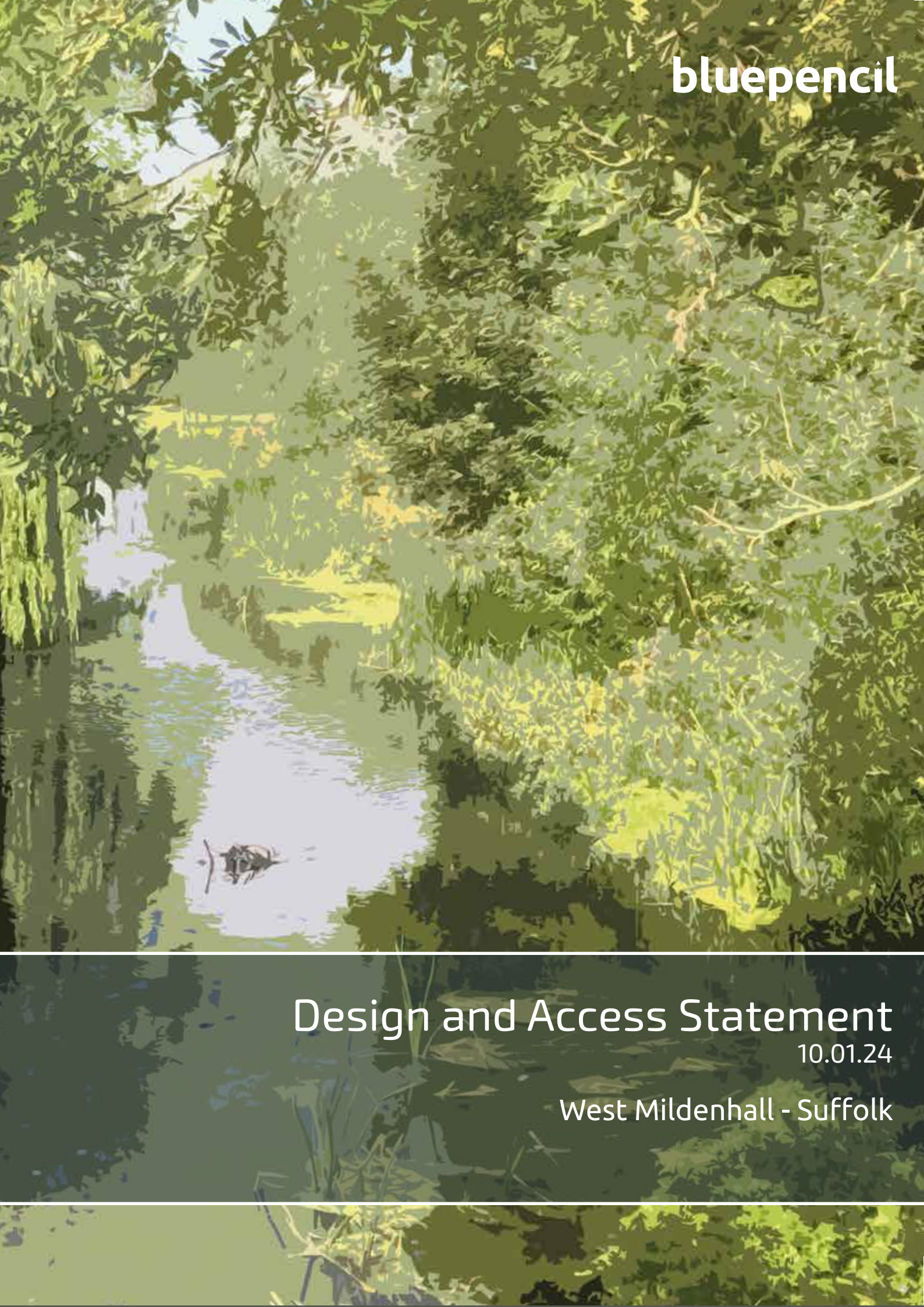


bluepencil

Design and Access Statement

10.01.24

West Mildenhall - Suffolk

Contents

Fig.1 Birds eye view of Illustrative Layout model

01 Introduction and Design Principles

Introduction

This Design and Access Statement has been prepared by Bluepencil Designs, Chartered Architects, with input from the consultant team (whose logos are on Page 2) on behalf of Suffolk County Council, the landowner, as part of an outline planning application for the site known as 'Land to the West of Mildenhall' (hereafter referred to as 'the site'), which is allocated for a comprehensive residential led mixed-use development within the Site Allocations Local Plan (SALP).

The Local Plan, specifically Policy SA4: Focus of growth 'Land West of Mildenhall', within the SALP identifies 'the site' as 97ha in area for mixed use development comprising of the following indicative capacity:

- 1,300 dwellings, 30% affordable;
- 5ha employment
- Primary School and Early Years;
- 10ha of Suitable Alternative Natural GreenSpace (SANG);
- Strategic Open Space, Allotments;
- Local Centre; and
- Public Services and Leisure Facilities

The West Suffolk Local Plan seeks the delivery of these proposed land uses and infrastructure in the period up to 2031. A Masterplan was produced in 2022 to establish a vision and delivery mechanism to achieve these policy requirements. The Masterplan was approved by West Suffolk County Council in November 2022. It is now adopted as Planning Guidance. This Design and Access Statement should be read with The Masterplan, which is referred to frequently throughout this document.

The site, located on the western fringe of Mildenhall, is positioned within the administrative area of West Suffolk Council. Mildenhall is large settlement in the West Suffolk District, with a population of approximately 16,000 residents as recorded in the 2011 Census.

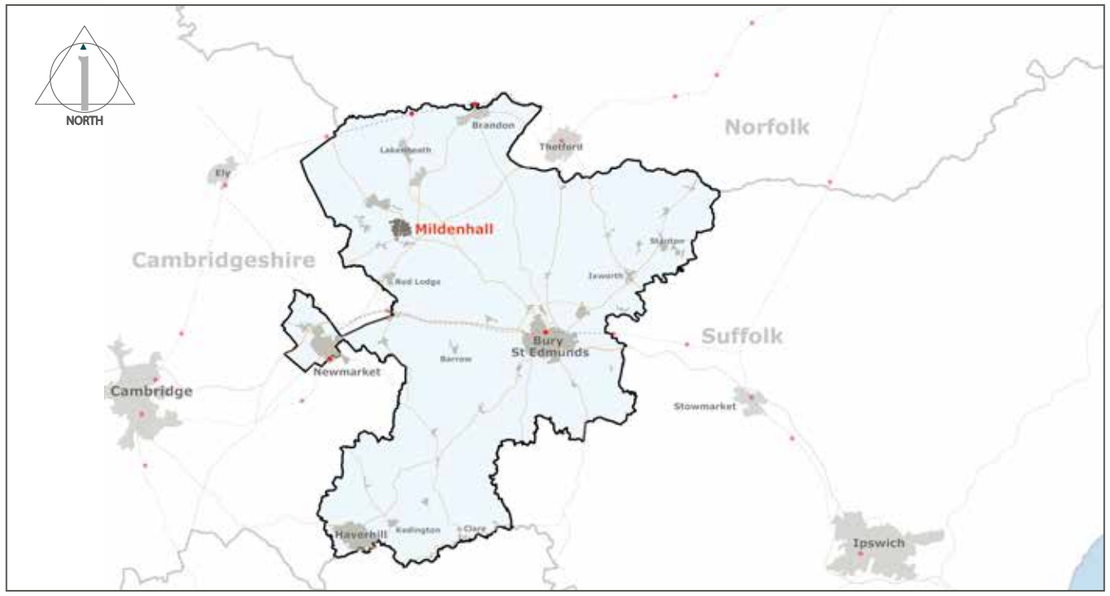
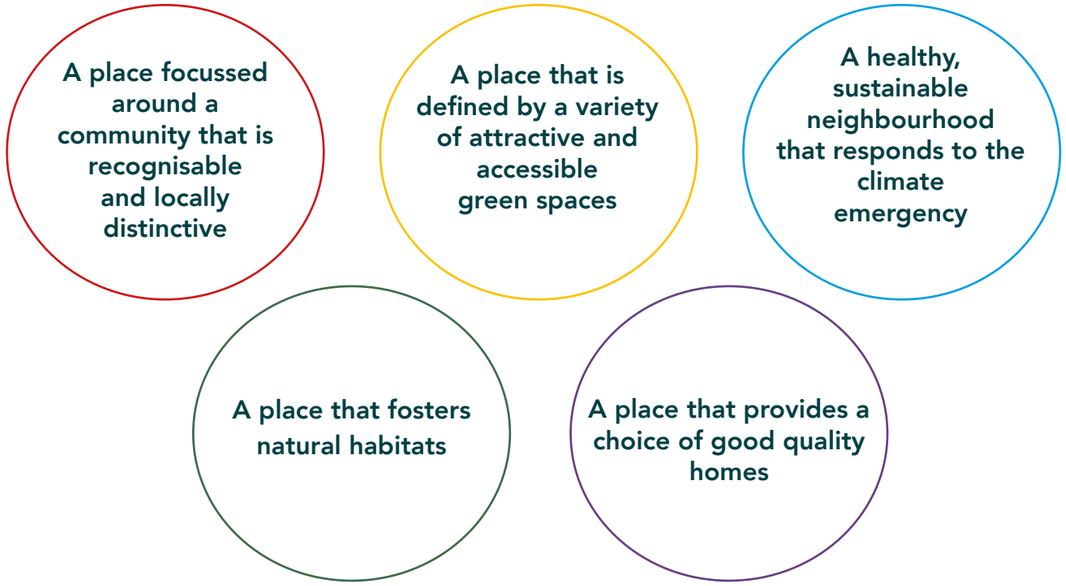


Fig.2 Area map showing location of Mildenhall

The West Mildenhall Vision

The vision for the new neighbourhood at West Mildenhall is to deliver a locally distinctive community that is integrated with the natural and built environment and creates an identity that is recognisable as Mildenhall.



The Vision For West Mildenhall is set out in The Masterplan. The neighbourhood will provide a network of green corridors that are a defining feature of the neighbourhood and will act as arteries, providing recreation and movement, connecting residents with a vibrant local centre at the heart of the new community and to the existing Mildenhall town centre.

The local centre will provide for the essential needs of the community and provide a central multi-functional public space that encourages social interaction within the community and compliments the existing public facilities at The Hub and the proposed new primary school and pre school setting.

Walking, cycling and public transport will take centre stage and will be prioritised over the car, promoting sustainable modes of transport and health and well being through active and healthy lifestyles for both new and existing residents.

Multi-functional open space will provide a high quality accessible green infrastructure network that protects and enhances existing vegetation, habitats, and achieves biodiversity net gain.

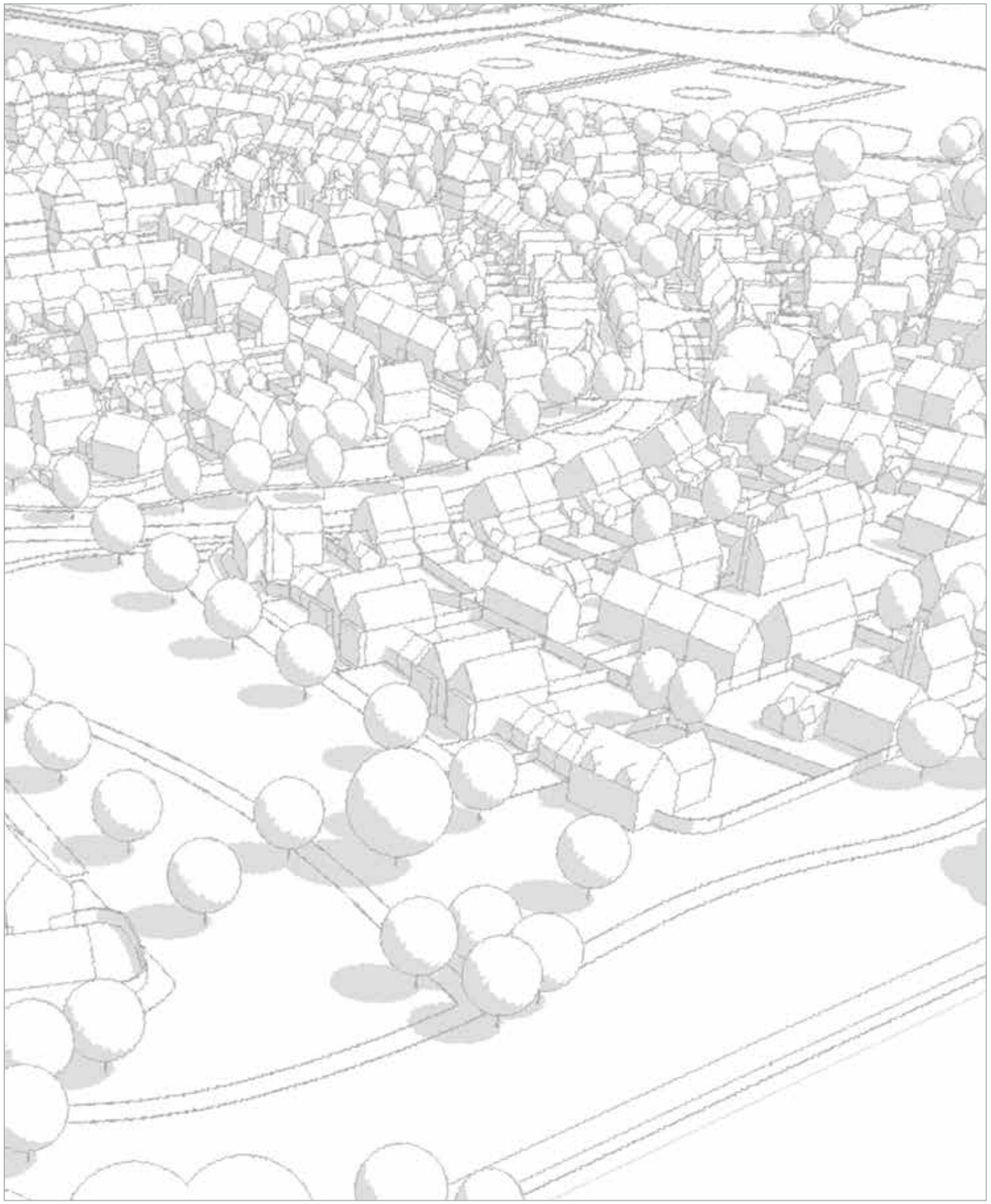
Building standards will be raised and will achieve adaptable and climate resilient design, which will drive down the carbon footprint of this development in response to the decision to call a Climate Emergency in the County and District.

Key principles of the design

This Design and Access Statement shows how the Frameworks set out in The Masterplan could be developed with the following key design principles:

- A New Gateway: Creating a sense of arrival to Mildenhall.
- Settlement Edge: Increasing significantly the level of tree cover in the area, using blocks of woodland along the western edge to help fragment views of the proposed development.
- Place Making: Seamlessly integrating with existing urban fabric and create locally distinctive sense of place.
- Connectivity and Movement: Integrating with surrounding residential areas and the town centre, Mildenhall Hub, the industrial estate, wider PROW network and River Lark corridor.
- Landscape: Providing an opportunity to integrate in the open and flat character.
- Views: Framing and enhancing views across the site.
- Green Corridors: Providing green corridors as a landscape structure and spine to the development with high levels of multi functional useable open space aiding movement around the development.
- Integrated West Row Road: Addressing the potential severance and barrier to movement between the north and south of the site.
- Habitat enhancement: Retaining and enhancing existing habitats through retention of existing vegetation and creation of new habitats within the SANG.
- Increased Accessibility: Through highly accessible walking and cycling network.
- Movement: Integrating vehicular access to the College Heath Road.
- Energy: Considering alternative heat and power systems.
- Streets and Spaces: creating a clear hierarchy of routes and spaces, underlining the importance of the community function of streets as spaces for social interaction.

01. Introduction and Design Principles



Consultation

Prior to commencement of work on this outline planning application, The Masterplan was consulted on through two public consultations the main responses to the community consultation comments were as follows:

- Principle - The site is allocated within the Site Allocations Local Plan (2019);
- Infrastructure - Infrastructure delivery or financial contributions be secured by way of a Section 106 Agreement as part of any outline planning application.;
- Impacts - Further technical studies will be performed at the planning application stage to ensure no adverse impacts upon the local highway network, however a separate technical note was prepared, discussed further below;
- Sustainability - The Masterplan indicates that sustainability measures will be incorporated into the proposed development;
- Connectivity - All existing footpaths are to be retained, with further consideration to be given to connections in the surrounding area;
- Ecology - Further survey work to be undertaken to better understand the status of protected species in the area and to ensure compliance with relevant legislation;
- Landscape - Further assessment work, such as a Landscape and Visual Impact Assessment, will be performed to better understand its potential impact and inform potential mitigatory measures; and
- Parking - Any planning application brought forward on the site will have to deliver a policy compliant level of parking.

Therefore, an extensive and comprehensive public and stakeholder consultation and communication took place through the Masterplan process and this resulted in the final Masterplan.

Fig.3 Easy Read consultation booklet

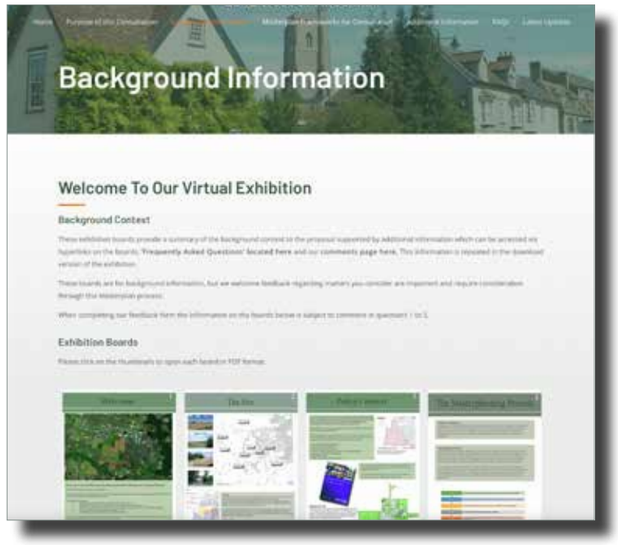


Fig.4 Consultation Website

Fig.5 Welcome roller banner from the in person consultation

Implementing Good Design - Local and National Design Guidance

The proposed design for West Mildenhall has been developed with regard to, amongst others, the following design guidance:

- The Suffolk Design Charter
- Suffolk Design - Streets Guide
- The National Design Guide
- The National Model Design Code
- Building for a Healthy life
- Residential Design Guide - Suffolk Constabulary
- Secured By Design
- Sport England - Active Design principles

The design guidance listed above seeks to ensure good quality, safe, healthy and sustainable developments that reflect the character of their neighbourhoods and respect their local setting. Through following this guidance the proposed illustrative layout will clearly express a 'story' as explained in the extract from the National Design Guide below:

> *'Well-designed places and buildings come about when there is a clearly expressed 'story' for the design concept and how it has evolved into a design proposal. This explains how the concept influences the layout, form, appearance and details of the proposed development. It may draw its inspiration from the site, its surroundings or a wider context. It may also introduce new approaches to contrast with, or complement, its context. This 'story' will inform and address all ten characteristics. It is set out in a Design and Access Statement that accompanies a planning application.'*
>
> National Design Guide January 2021
> Ministry of Housing, Communities & Local Government

Implementing Good Design

The National Design Guide (January 2021) created by the Ministry of Housing, Communities & Local Government states that a well designed place is formed through the design of three overlapping themes; Climate, Community and Character.

Within these three overlapping themes are ten characteristics which work together to create the physical character of a place.

References to each of these ten characteristics can be found throughout this Design and Access Statement.

A Well Designed Place

A Design Code for West Mildenhall will be produced following this Outline Planning Application. It will follow the guidance set out in The National Model Design Code and will expand upon the ten characteristics of well designed places set out in the National Design Guide.

- **Context** – enhances the surroundings.
- **Identity** – attractive and distinctive.
- **Built form** – a coherent pattern of development.
- **Movement** – accessible and easy to move around.
- **Nature** – enhanced and optimised.
- **Public spaces** – safe, social and inclusive.
- **Uses** – mixed and integrated.
- **Homes and buildings** – functional, healthy and sustainable.
- **Resources** – efficient and resilient.
- **Lifespan** – made to last.

The Ten Characteristics of Well Designed Places

02 Response to Context

Introduction

Mildenhall is large settlement in the West Suffolk District. It is a vibrant market town and centre for employment in manufacturing, engineering, pharmaceuticals and electronics.

Mildenhall is classified by the Forest Heath Core Strategy (2010) as a market town, representing a sustainable location for future growth due to its good access to services, facilities, and public transport. Thus, development in these locations helps to ensure that future residents will have an appropriate level of access to a range of services and facilities. The validity of this settlement hierarchy was confirmed, based upon an updated evidence base, in the Settlement Profiles Review (2016).

The site, measuring 71.3309ha in size, adjoins the existing settlement of Mildenhall on its western edge. It extends to the existing employment areas in the north of Mildenhall and adjoins to the built form of the town to its east. Open countryside, including the River Lark Corridor, is situated to its south with more open countryside situated to its west.

The map below shows the extent of the application site, edged in red, and its location in relation to the rest of Mildenhall.

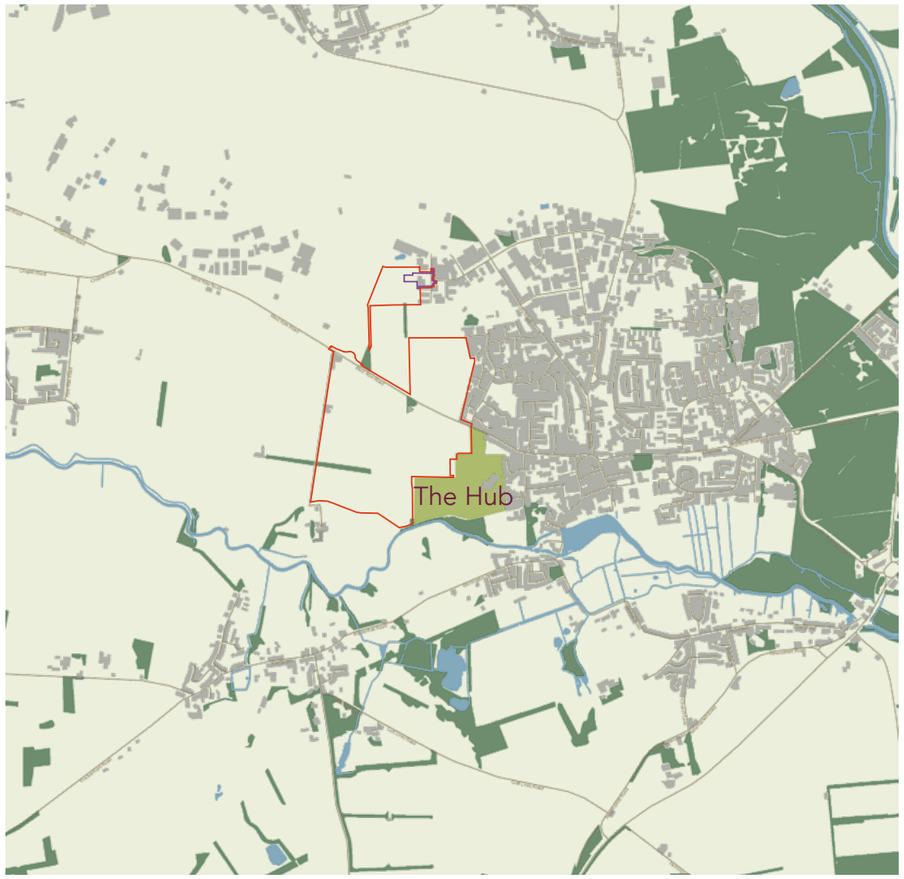


Fig.6 Site Location Plan

Description of this Application

This application is made in outline (with all matters reserved). It is for:

- up to 1000 dwellings (C3);
- up to 80 bed care (C2);
- up to 5 hectares of commercial (within Class E g, Class B2 and Class B8;)
- means of access and all associated highway infrastructure;
- public open space (including Suitable Alternative Natural Green space) and landscaping;
- new local centre (which could include the following uses Class E a), b), c), e), f); Class F2 a), b) and laundrette, hot food takeaway, and/or drinking establishment);
- primary school and 2 x early years facility;
- associated infrastructure and works (including access roads, foul and surface water drainage infrastructure, ground re-profiling, demolition, services, utilities including any ancillary buildings and substations).

It also includes detailed elements relating to the SafePac part of the site, including reconfiguration of James Carter Road and Fred Dannatt Road, alterations to Safe Pac site and construction of a new yard.

The application is therefore hybrid in form, and the plan on the following page shows the outline application land edged in red and the land subject to the detailed elements edged in purple."

With regard to the Folly Farm land, as identified as phase 5 on the phasing plan on page 134 of this document, this has been excluded from the application, despite being included within the overall Local Plan allocation, and within the approved Masterplan. The parameter plans, although excluding this area are consistent with the Masterplan in order to show that this area of the allocation will not be prejudiced when it does come forward, with identified linkages, school capacity etc, ensuring that this part of the Masterplan is 'future-proofed'. The applicants still intend to deliver Folly Farm as part of longer term strategy.

The applicants intend to deliver Folly Farm as Phase 5 of the development, as per the adopted Masterplan, and are actively working with the landowner to ensure necessary commercial arrangements will be in place for this.

KEY

Application Boundary (71.3309ha)

Area subject to detailed design (1.2683ha)

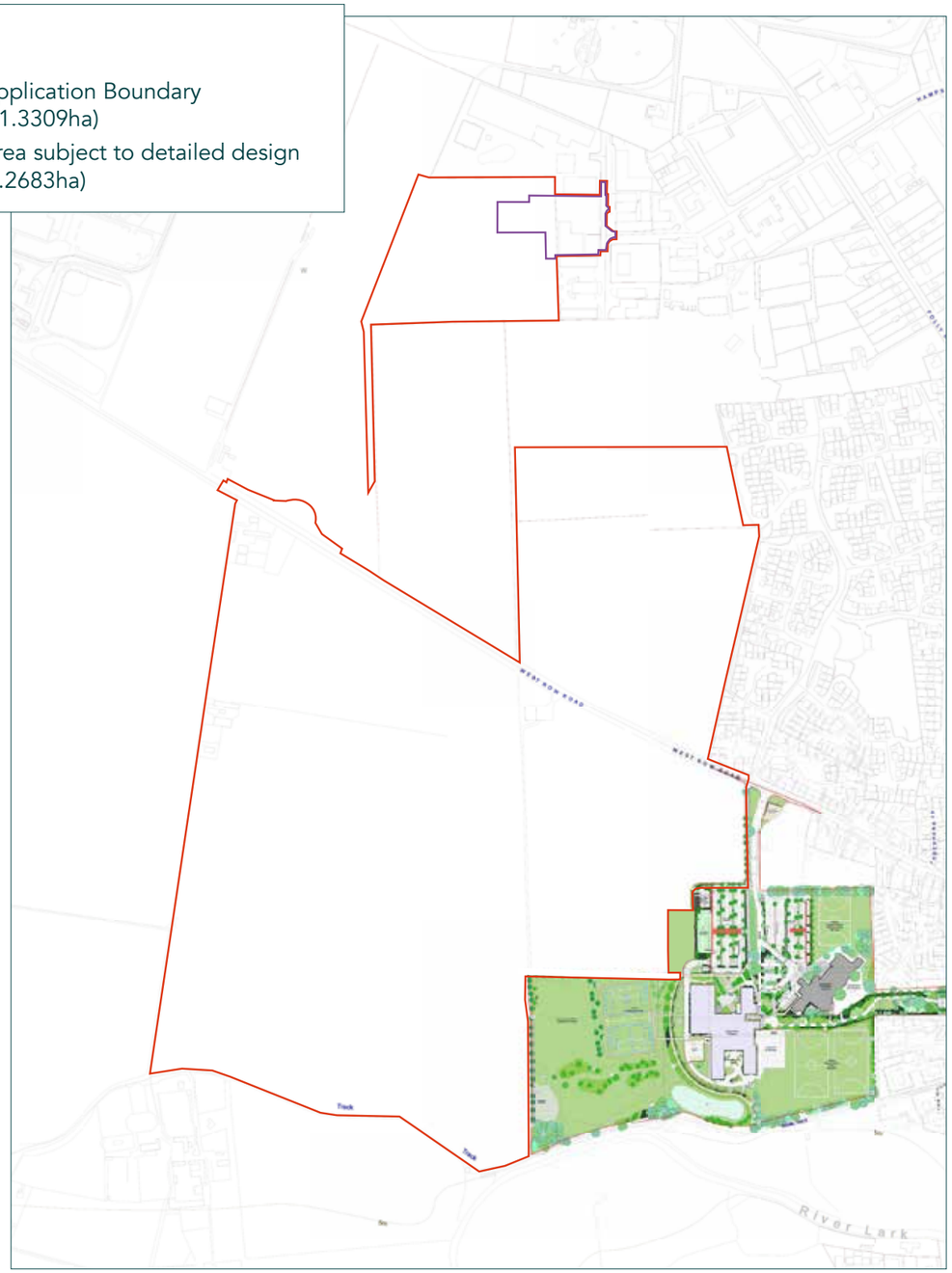


Fig.7 Red and Purple Line Boundary Plan

02. Response to Context

Planning Context

The policy context for this application is set out in the Masterplan document adopted by WSC in November 2022. A detailed analysis of relevant planning policy and guidance is set out in the supporting Planning Statement accompanying the application."

Policy SA4: Focus of growth 'Land West of Mildenhall' within the SALP identifies the site for mixed use development comprising of the following indicative capacity:

- 1,300 dwellings, 30% affordable;
- 5ha employment minimum
- Primary School and Early Years;
- 10ha of Suitable Alternative Natural Green Space (SANG);
- Strategic Open Space, Allotments;
- Local Centre; and
- Public Services and Leisure Facilities

Policy SA4 specifically requires that the development of this land provides measures for influencing recreation in the surrounding area to avoid a damaging increase in visitors to the Breckland SPA from other smaller developments locally. These measures include the provision of a 10ha SANG, which is well connected and promotes dog friendly facilities that are attractive to dog walkers. The policy seeks demonstration that measures result in no adverse effects to the integrity of the Breckland SPA.

The policy seeks protection and enhancement of existing hedgerows, scrub and woodland habitat through retention and connection to the River Lark corridor and wider landscape including the presence of flora species on the Suffolk Rare Plants List. A substantial buffer is sought adjacent to the River Lark, alongside protection of the setting to Wamil Hall listed building south-west of the site and archaeological evaluation.

The Local Plan seeks the delivery of these proposed land uses and infrastructure in the period up to 2031. The Masterplan establishes a vision and delivery mechanism to achieve these policy requirements.

The framework plans and illustrations in the Masterplan document cover the entire Local Plan allocation site.

This application follows the Local Plan allocation site boundary with the following exceptions:

- The Hub will be excluded;
- Folly Farm will be excluded;
- SafePac employment land will be included;
- Means of vehicular access to Fred Dannatt Road and James Carter Road will be included – see the red line boundary plan on the preceding page
- A small piece of land north of West Row Road providing for the inclusion of a roundabout junction.

The Parameter Plans and illustrations in this outline application focus on just the land within the red line boundary (on the facing page). However, all the design work in this application has been carefully developed to fit seamlessly with the remainder of the allocated land when it becomes available.

Ecology

There are no designations within the site boundary and the site comprises arable land, including potential habitats such as tall ruderal, broadleaved semi- natural woodland, species-poor hedgerow (intact and defunct), scattered trees, semi-improved grassland field margins, improved grassland, introduced shrubs, hardstanding, buildings and fencing.

A data search of Suffolk Biological Information Service records on protected species within 2km of the site, and a Phase 1 habitat survey, has identified suitable habitat or evidence of the potential for a number of protected species, for which further survey work will be undertaken. These include: Reptile, Bats (Foraging and Roosting) breeding bird, Stone Curlew and a botanical survey

The site is not considered suitable for Great Crested Newt or Hazel Dormouse. Otter and Water Vole are potentially present offsite, associated with the River Lark to the south.

The following mitigation principles will be followed:
- Retain existing trees and hedgerows where possible;
- Areas of semi-natural habitat such as meadows, ponds woodlands, hedgerows could be created within
- The scheme; and
- The development should incorporate plants that are beneficial to wildlife.

The majority of the habitats on site are arable land, which provides a low ecological baseline. The majority of the good quality habitat, such as field margins and hedgerows, will be retained.

Large areas of green space are proposed. Within these areas, the arable land will be converted to natural habitats such as grassland meadows and scrub which will provide an increase in biodiversity within the site. Preliminary calculations indicate the site will easily achieve the target 10% biodiversity net gain. These areas will also be managed to provide habitat for a variety of wildlife including notable plants, foraging bats, invertebrates and birds. Specific measures for protected species are summarised below:

- Landscaping will be designed to allow bats to continue foraging and roosting on the site;
- Any work to the river banks will be undertaken under a Natural England Licence, ensuring conservation benefit;
- Birds will continue to use the landscaping within the scheme to nest and forage; and
- there is a requirement to provide offsite measures to mitigate for the loss of farmland in particular in relation to ground nesting birds and arable plants.

A 10 ha area of Suitable Alternative Natural Greenspace (SANG) will be provided on the site providing ample opportunity for new residents to have access to recreational space within the local area. The SANG will need to meet the policy expectations of the SALP.

Accordingly, dog walking routes, infrastructure such as signage, and dog waste bins, and dogs-off-leads areas will be provided within the SANG and within the green corridors on site. Connections to the wider landscape and footpath network will be retained and new ones created to allow easy access to the local area, such as the bridleway along the River Lark.

These measures will encourage dog walkers to remain in the local area rather than routinely visiting the nearby SPA, reducing the potential for disturbance to Nightjar and Woodlark.

Water and Drainage

The proposed drainage strategy will accord with the Sustainable Urban Drainage Systems (SuDS) Design Guide produced by the Lead Local Flood Authority and will manage rainfall at source by ensuring that surface water is discharged into the ground via infiltration techniques, taking into account an allowance for future climate change.

To achieve this, a number of drainage measures are proposed to manage and control water flows across the site which include:

- Plot attenuation for the commercial land uses in the north of the site;
- Shallow, wide, swales (specifically designed drainage ditches) that convey surface water and allow infiltration; and
- Shallow, large, open, attenuation basins (dry basins) that hold water within the site at times of heavy rainfall. The dry basins will operate a 48 hour drain-down rate (but are otherwise dry and usable at all other times) and enable water to be released at a steady rate.

Green corridors will include large but shallow depressions acting as large dry swales. Dry basins are also located in other green areas. All drainage features will have a minimal depth and allow for a very usable and accessible area. A network of large diameter pipes, sat within an infiltrating granular trench, are sited below these depressions, linking the whole system. Water will be conveyed to this below ground network of granular trenches with pipes where most attenuation and all infiltration will occur.

These areas would only be required to function in an extreme rainfall event. Generally, the areas will be no different to any other area of public open space. They will only ever be temporarily wet (like a basin) during an extreme rare rainfall event. However, at its worst, the water depths will be of minimal depths and will drain-down within 48 hours.

An overflow pipe discharging into the River Lark has been shown to the south, for potential future use. This may be used should future and more infiltration testing prove insufficient for the proposals. An overflow discharge rate will be agreed with the LLFA at this time should it be required based on an agreeable Greenfield Run-off Rate.

Landscape

Landscape Character

The site is generally flat with a slight ridge in the southern part of the site. The site lies mostly within Landscape Character Areas (LCA) 21 Settled Chalklands with a small area on the southern edge in LCA 27 Valley meadows and fens.

LCA 21 lies to the west and south of Mildenhall and is relatively flat with little woodland cover. It displays a regular pattern of fields consistent with late enclosure, is comprehensively settled with small hamlets and has been the subject of considerable recent settlement expansion. The airbase is dominant in the landscape.

LCA 27 in this area is associated with the River Lark. Flat, narrow, river valley bottoms with ancient meres within the valley bottoms and important fen sites. Small grassland fields, bounded by dykes run at right angles to the main river with a sparse scattering of small alder carr and plantation woodlands.

https://suffolklandscape.org.uk/landscapes/valley-meadows-fens/

https://suffolklandscape.org.uk/landscapes/settled-chalklands/

Website links to the LCAs

KEY

Proposed Site Boundary

National Landscape Character
© Natural England 2022

National Character Area
46: The Fens
85: The Brecks
87: East Anglian Chalk

County Boundary

Landscape Character Types
© Suffolk Landscape Character Assessment 2008

- ES — Estate Sandlands
- REC — Rolling Estate Chalklands
- RES — Rolling Estate Sandlands
- SC — Settled Chalkland
- SF — Settled Fenlands
- U — Urban
- VMF — Valley Meadow & Fens
- WF — Wooded Fens

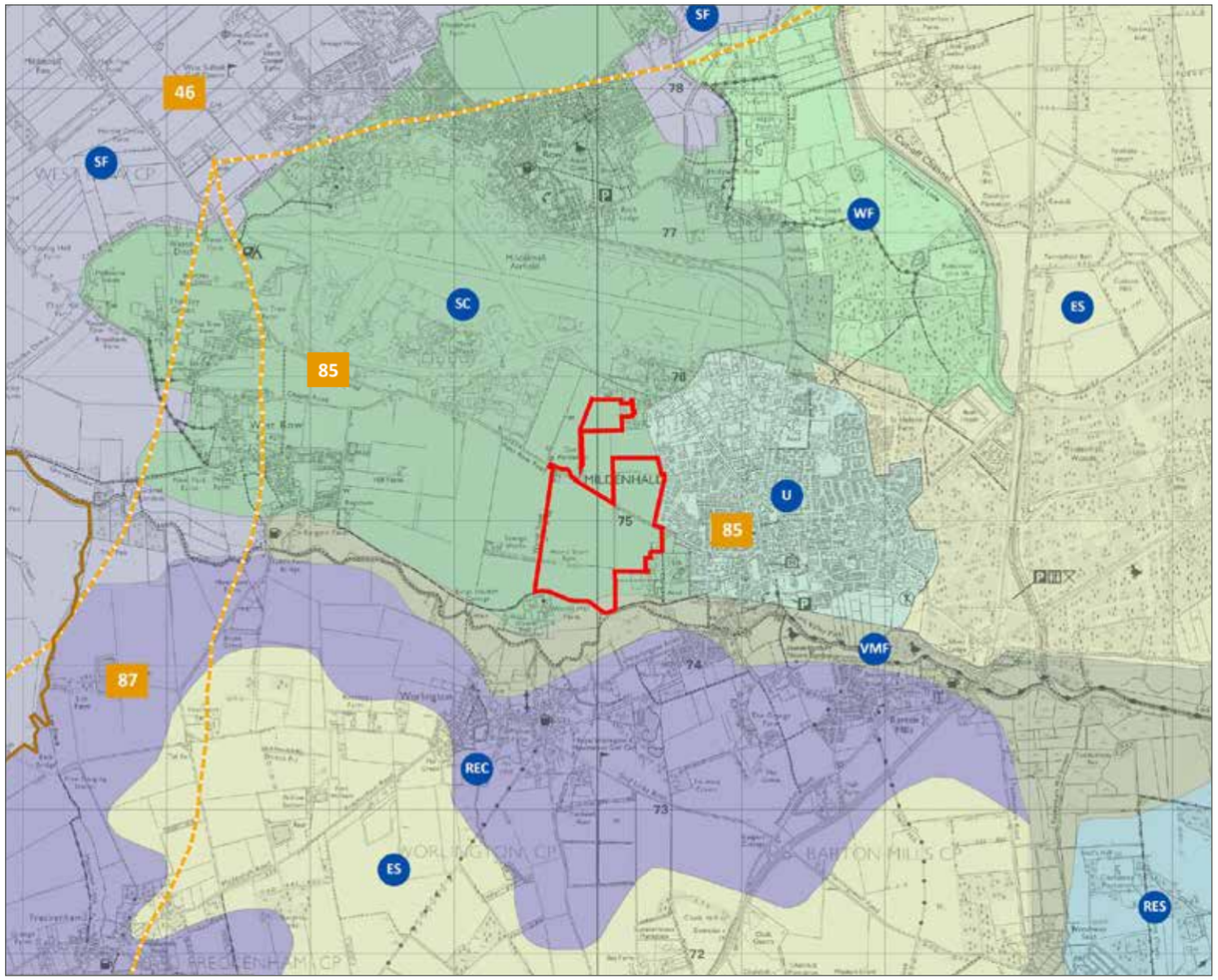


Fig.8 Landscape Character Map

Conservation and Heritage

Archaeology

An archaeological desk assessment and geophysical survey have been undertaken and has confirmed that there are no designated assets of archaeological interest within the site.

Records demonstrate that this part of Mildenhall has been inhabited/used in multiple periods from the Iron Age onward. The archaeological features identified by the geophysical survey are likely to be mainly associated with the agricultural history of the site and would most likely be of low to medium significance depending on the levels of preservation encountered. However, the potential for archaeology of high significance was concluded to be low.

Archaeological trial trenching would be undertaken at the planning application stage, pre-determination, and any further archaeological mitigation would be secured through an appropriately worded planning condition. With this mitigation in place no significant effects on archaeology are likely.

Built Heritage

The area surrounding the site contains a number of heritage assets. Wamil Hall is a Grade II listed building and a 16th-century house located to the south west of the site.

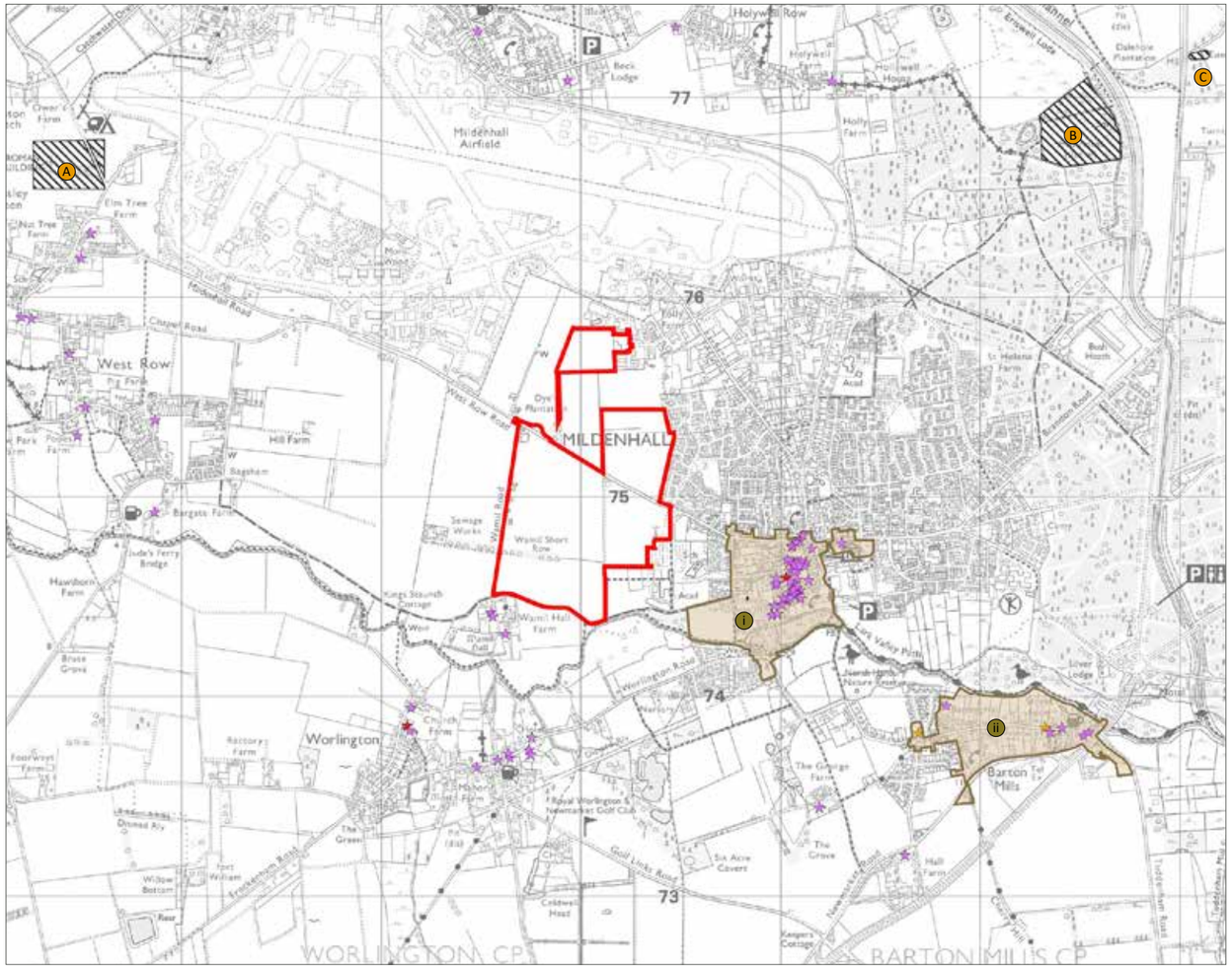
The site itself is characterised by its openness which permits for an appreciation of the Wamil Hall estate.

The proposed development should seek to protect the Wamil Short Row tree belt to protect the setting of Wamil Hall and elements within its curtilage and provide an absence of built form between it and the new neighbourhood. This will mitigate for any potential impacts from this development.

The Mildenhall Conservation Area is located to the south east and was designated by West Suffolk Council in 2009.

- The Conservation Area includes 46 listed buildings that are mostly inwardly focused, lining the principal thoroughfares of High Street and Mill Street.
- The exception to this pattern is the Grade I Listed Church of St. Mary, which is recognised as a significant landmark across the flat fen landscape.
- The site borders the south west boundary of the Conservation Area that is defined by open green spaces along the banks of the River Lark.
- There are some long ranging views from the site across the Conservation Area towards the tower of the distant Church of St Mary (Grade I listed). As such, retaining and framing views of the Church tower will be desirable.

Other than the Church and the Listed Buildings at Wamil Hall, there are no other heritage constraints.



KEY

Proposed Site Boundary

Scheduled Monument

Landscape Designations
© Historic England 2019

A. Mildenhall Roman Site (Ref: 1006037)
B. Hurst Fen Neolithic site (Ref: 1006056)
C. Two bowl barrows east of Dale Hole Plantation, 480m north of Pump House (Ref: 1018345)

Listed Buildings

Grade I

Grade II*

Grade II

Local Authority Designations

Conservation Areas
i. Mildenhall
ii. Barton Mills

Fig.9 Built Heritage Map

Connectivity and Movement

Existing Pedestrian and Cycle Network

A comprehensive network of traffic free walking and cycling routes exist throughout the town, providing convenient links to key destinations and open spaces within Mildenhall.

- Existing Public Rights of Way (PROW) are located within the south east corner of the site (Public Footpath 24 and Public Footpath 25) which connects the Mildenhall Hub and south east corner of the site with West Row Road to the north and towards the village of Worlington in the south.
- Mildenhall Public Bridleway 1 is routed along the southern boundary of the site and connects with Church Walk and onto the High Street. Bridleway 1 is a key movement corridor between the village of West Row and Mildenhall town centre.
- A new shared cycle and pedestrian path has been delivered at The Mildenhall Hub development, which provides enhanced connectivity to the town centre via connection with Church Walk and the High Street to the east, and the existing residential neighbourhood at Comet Way to the north of West Row Road.

Existing Public Transport Network

The site is also highly accessible in terms of public transport as illustrated at Figure 4.

- It is well located in relation to strategic bus links with 3 services in operation and providing connections between Bury St Edmunds, Newmarket, Thetford, Lakenheath and surrounding villages.
- A bus terminus is provided at the Mildenhall Hub and is within walking distance of the site.

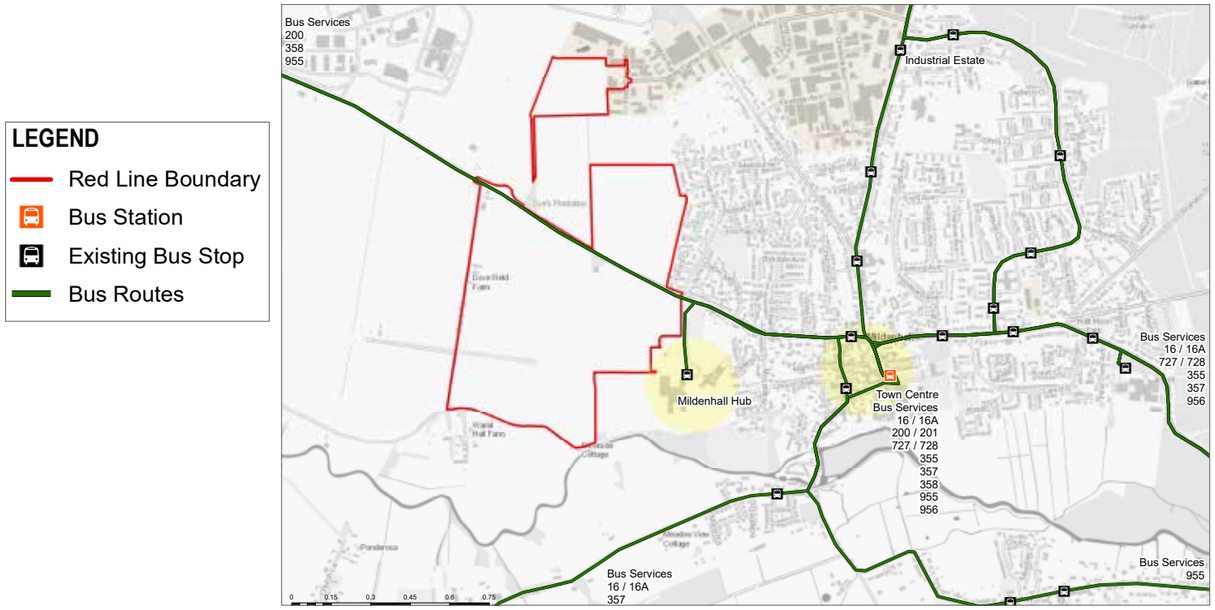


Fig.10 Mildenhall Map of bus services

Existing services

Mildenhall is a vibrant market town and centre for employment in manufacturing, engineering, pharmaceuticals and electronics. It is a sustainable location for future growth due to its good access to services, facilities, and public transport.

The map below shows the extent of the development, edged in red, and its location in relation to Mildenhall. Surrounding urban fringe influences include:

- The existing peripheral residential properties along the eastern edge of the site, which were added to the historic centre of the town during a 30 year period spanning from the 1970s to the 1990s and have resulted in expansion of the town west and an estate of primarily detached family housing.
- The Royal Air Force station, RAF Mildenhall is located north of the town. This is used by the United States Air Force, as the headquarters of its 100th Air Re-fueling Wing and 352nd Special Operations Group.
- To the west of the site is open arable farmland and beyond is the neighbouring village of West Row.

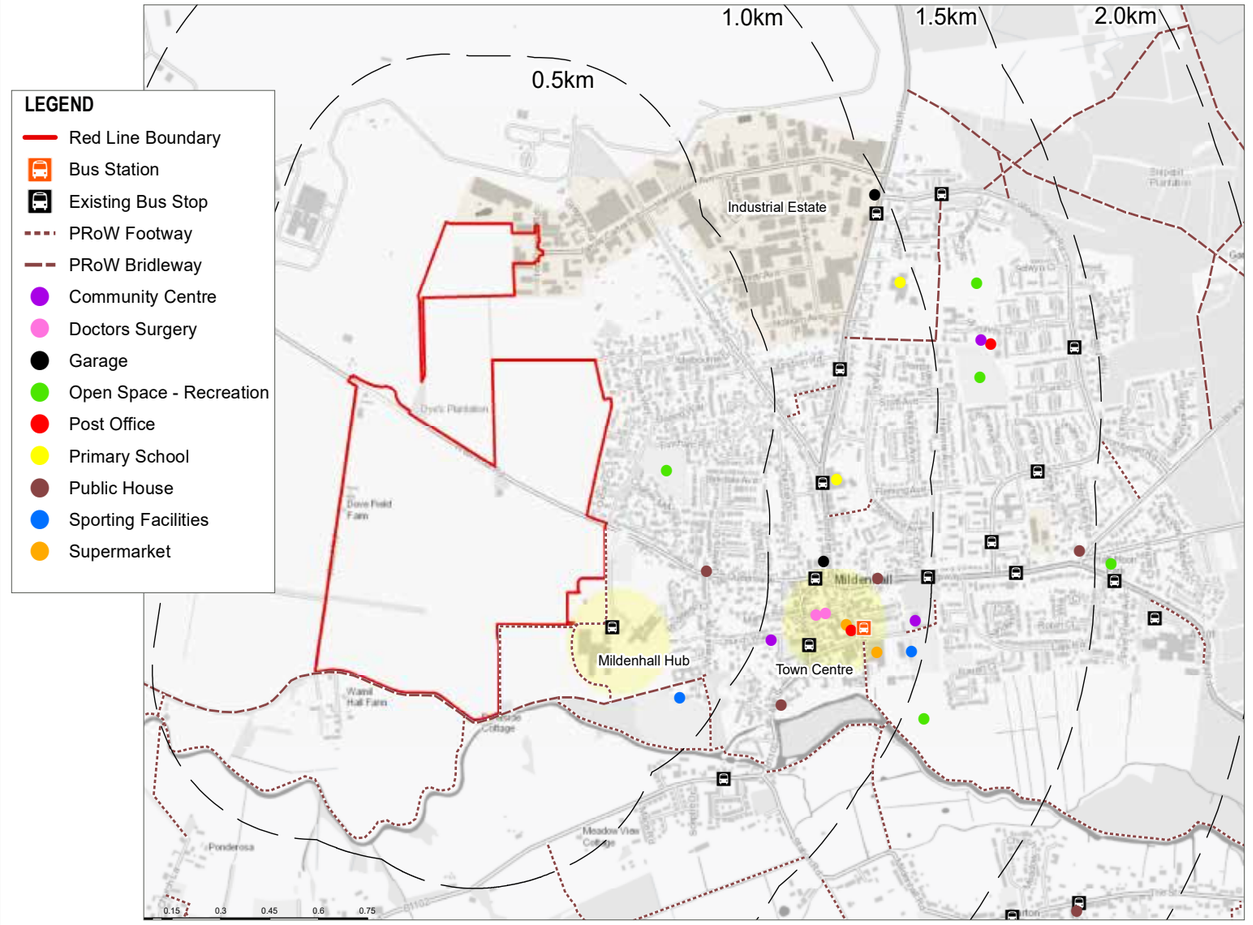


Fig.11 Mildenhall Map of Services

Local Character

In order to understand the local character an analysis of the townscape of Mildenhall and the surrounding villages was carried out during the masterplanning process.

There are three main aspects of Townscape Analysis. The first concerns the legibility of the urban structure. The second concerns the permeability of the environment. The third is a visual study conforming more closely to the traditional meaning of Townscape, including studies of urban space (scale, height and massing), the treatment of facades, pavements, roof-line, streetscape, landscape, materials and an analysis of the complexity of visual detail which distinguishes one place from another.

Mildenhall is a market town which centres on a market place with a 16th-century hexagonal market cross and town pump.The Church of St Mary's is a significant building in the town and its tower is visible from the surrounding countryside.

The Masterplan illustrates the townscape analysis that was carried out on Mildenhall and the surrounding villages. This was done in order to understand and extract the key features and characteristics that give the area its identity.

In Section 5 - Placemaking - Urban Form and Scale this analysis work is referred to and illustrations set out how these key features and characteristics could be incorporated into parts of the design of the new development.

The analysis work also helped to shape the disposition of different densities across the site as well as influencing the character areas.

The purpose of this is to ensure that the development West of Mildenhall fits seamlessly into its context and becomes part of the town.

With its position being west of The Fens and east of The Brecks, there are a wide range of materials used in buildings including gault brick, flint, red brick, render, white weatherboard and black weatherboard. The adjacent photographs give an indication of this variety. The subject of materials and appearance is developed in Section 6 Placemaking - Character and Appearance.

Common key characteristics found in all study areas are:

- Gateways
- Brick or flint walls
- Street Farms
- Vista stops
- Variety of materials
- Decorative chimney stacks
- Greens and swathes at junctions
- Soft interface between village and countryside

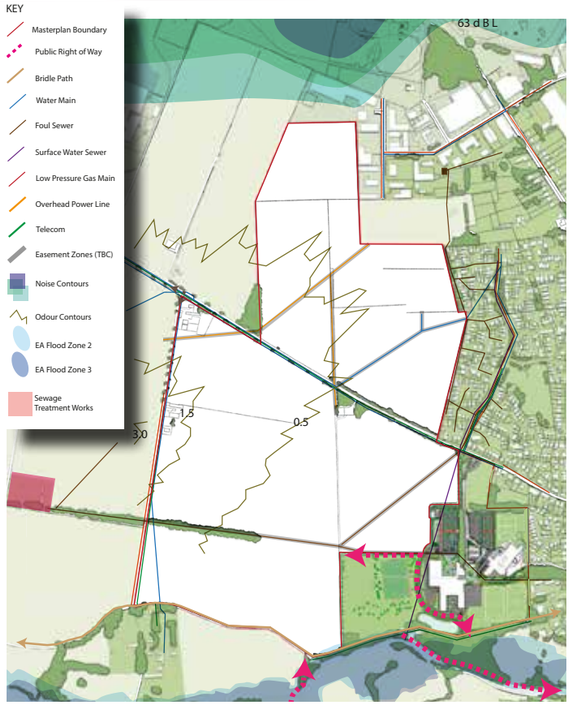
Constraints and Opportunities

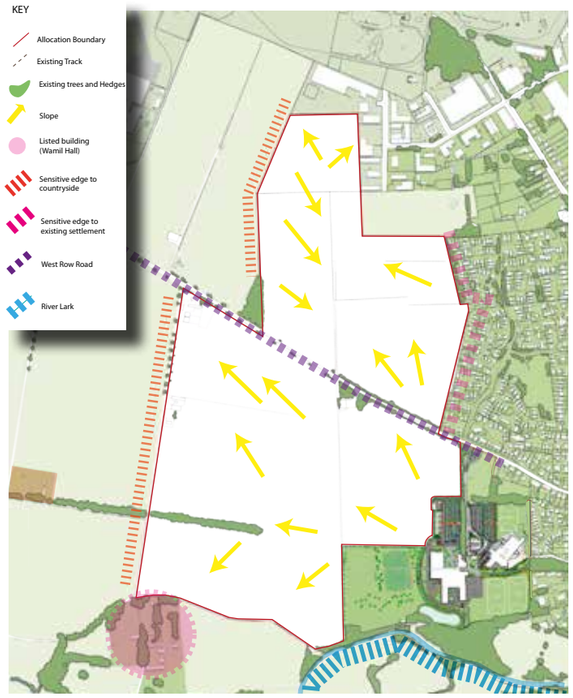
Constraints

The analysis set out in The Masterplan has provided an overview of the baseline conditions that has influenced this application. These layers of baseline information have been combined within a 'Technical Constraints' and 'General Constraints Plan' shown adjacent.

These plans illustrate that the primary constraints to be:

- West Row Road - addressing the potential severance and barrier to movement;
- Existing Vegetation - comprising existing hedgerows and boundary trees that offer locally distinctive landscape features and suitable habitats that warrant retention and protection;
- River Lark valley - sensitivity to change;
- Settlement Edge - both the existing settlement edge and new western boundary to the settlement created by this development are sensitive boundaries that should be integrated with the development;
- Views - development could retain long-ranging views of the St Mary's Church in the east;
- Heritage - preserving the significance of the Grade II listed Wamil Hall and any archaeology present;
- Surface Water Drainage - addressing site levels to provide a suitable surface water management;
- Bird Management - implementing design and management of water to discourage avian species hazardous to aviation safety; and
- Conservation Sites - potential adverse effects on Breckland SPA;
- Utilities - observing easements;
- Other technical matters considered have not been identified as a significant constraint to development.

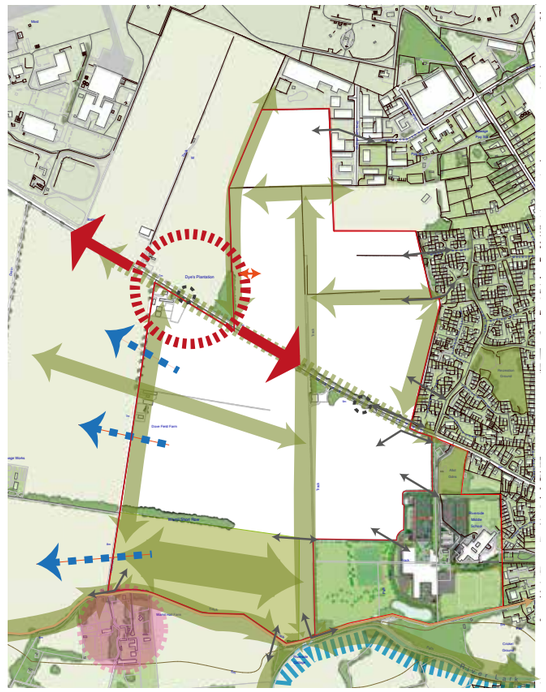


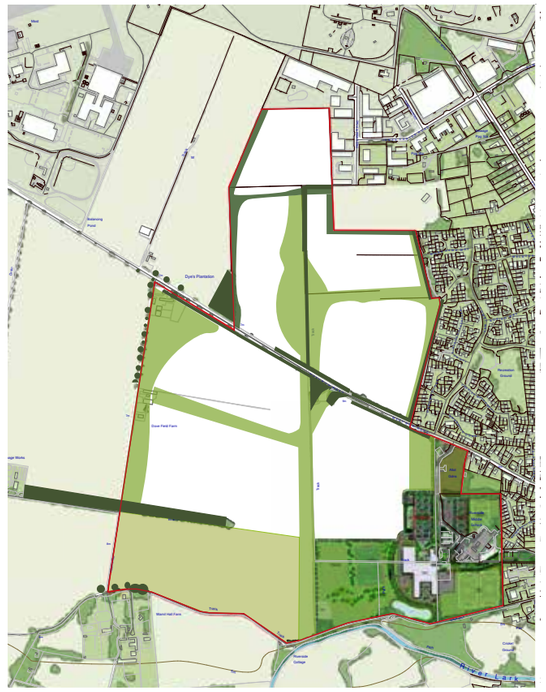


Opportunities

These following opportunities informed the basis for the design of the development:

- Gateway- create a new sense of arrival to Mildenhall;
- Settlement Edge - increase significantly the level of tree cover in the area, using blocks of woodland along the western edge to help fragment views of the proposed development.
- Place making - seamlessly integrate with urban fabric and create locally distinctive sense of place.
- Public Rights of Way - integrate with wider PROW network and extend through the site making connections with the River Lark valley, the town, Comet Way to the east, the Mildenhall Hub to the south east and the existing allotments;
- Landscape - open and flat gives an opportunity to integrate;
- Views - frame and enhance views from West Row Road and across the site towards the tower of St Mary's Church;
- Green Corridors - provide green corridors as a landscape structure and spine to the development with high levels of multi functional useable open space aiding movement around the development;
- Integrate West Row Road - to address the potential severance and barrier to movement between the north and south of the site;
- Habitat enhancement - retain and enhance existing habitats through retention of existing vegetation and creation of new habitats within the SANG;
- Increased Accessibility - through highly accessible walking and cycling network;
- Movement - integrating vehicular access to the College Heath Road;
- Energy - consider alternative heat and power systems.





03 The Development Proposal

The Illustrative Layout

1. Access to Fred Dannatt Road
2. Detailed Planning Application
3. Employment Land
4. Potential future development
5. West Row Road
6. Local Centre
7. Adult Care Services
8. Allotments
9. Primary School
10. Sports Pitches
11. SANG
12. The Hub

Fig.12 Illustrative Layout

The Illustrative Layout, together with information in Sections 3, 4, 5, 6 and 7 of this document demonstrates how the development could be delivered within the parameters and design guidance of this outline planning application.

The Illustrative Layout, with supporting text and illustrations in this section of the Design and Access Statement, indicates the principles of urban structure, (i.e. the framework and the layout of streets and pedestrian routes), and the urban grain, (i.e. the location, arrangement and design of the development blocks, plot arrangement, and green infrastructure).

The Illustrative Layout provides an indication of character and varying densities across the site and identifies the situations where the key characteristics of urban form, scale and appearance found in Mildenhall and the surrounding villages can be woven into the design. In addition, information is provided with regard to the scale and the appearance of the development both in terms of its landscaping and its movement networks.

The purpose of the Illustrative Layout is to provide a guide for the detailed design stage of reserved matters applications. It sets out the key urban design principles that the development will seek to adopt. These design principles will be further developed and detailed in the design code.

The Illustrative layout has been designed to maximise the opportunities of the site, as set out in The Masterplan. These opportunities include the following:

- **A New Gateway** – creating a new sense of arrival to Mildenhall and seamlessly integrating with urban fabric and create locally distinctive sense of place;
- **Connectivity and Movement** - integrating with wider PROW network and extending through the site making connections with the River Lark valley, the town, Comet Way to the east, the Mildenhall Hub to the south east and the existing allotments. Integrating vehicular access to the College Heath Road. Creating a highly accessible walking and cycling network. Integrating West Row Road by addressing the potential severance and barrier to movement between the north and south of the site;
- **Landscape** – integrating, framing and enhancing views from West Row Road and across the site towards the tower of St Mary's Church. Increasing significantly the level of tree cover on the settlement edge, using blocks of woodland along the western edge to help fragment views of the proposed development. Creating Green Corridors as a landscape structure and spine to the development with high levels of multi functional useable open space aiding movement around the development; and
- **Habitat Enhancement and Sensitivity**– retaining and enhancing existing habitats through retention of existing vegetation and creation of new habitats within the SANG.

The Illustrative Layout accurately shows how 1000 homes (including the Adult Care Services), a 2FE Primary School with Nursery, a Local Centre with nursery, 20,000 m2 of Employment, play areas including a destination play area, sports pitches, allotments and a SANG with 5.12km of dog walking routes and a network of interconnected cycle paths *could* be laid out. It is for illustrative purposes only. This Design and Access Statement explains the design principles which have informed the Illustrative Layout.

The Parameter Plans show the parameters within which the detailed design and subsequent Reserved Matters layouts must be accommodated.

The Parameter Plans

The parameter plans in this section demonstrate that the work set out in this document, which is based on the framework plans from The Masterplan, has culminated in a set of appropriate and deliverable development proposal.

The Parameter Plans, on the following pages, are the culmination of all the various framework plans, which are described in the Masterplan Document and are based on the following design strategies:

Development Areas and Land Use Strategy
The creation of development parcels set within the framework established by the landscape strategy, incorporating a wide range of residential dwelling types and tenures across the site, as well as focal community local centre, education facilities, and employment, with their preferred locations identified.

Landscape Strategy
Responding sensitively at the edges of the proposed development, and structuring the layout around the green corridors and spine. Providing a comprehensive landscape led structure within which the proposed uses can be distributed.

Ecology Strategy
Retention and enhancement of important existing habitats, with the creation of additional grassland areas, tree and hedge planting, creation of new ponds, and establishing a lasting management regime within a new SANG.

Drainage Strategy
Incorporating a network of SUDS features and swales to limit discharge rates and manage overland flows.

Open SpaceStrategy
Provision of a well-connected and distributed network of open space and formal provision, meeting policy requirements whilst maintaining the sensitive northern boundary.

Access and Movement Strategy
Creating pedestrian and cycle links responding to identified desire routes and safely connected with the existing town. Provision of vehicular access throughout the proposed development including for public transport.

Land Use Parameter Plan

The Land Use Parameter Plan, on the following pages, is the result of detailed consultation and collaboration with West Suffolk Council. It has evolved through more detailed design and as a result it differs from the Land Use Framework Plan in just three areas:
1. The red line boundary.
2. The shape and size of area required for the Local Centre.
3. The shape and size of the area required for the Adult Care Services.

Fig.13 Land Use Framework Plan extracted from The Masteplan

The Land Use Parameter Plan

DEVELOPMENT PARCELS/ROAD ALIGNMENT CAN DEVIATE BY UP TO 10m UPON DETAILED DESIGN.
THE PRECISE LOCATION AND EXTENT TO BE APPROVED AT RESERVED MATTERS.

PRIMARY AND SECONDARY ACCESS CORRIDOR TO INCLUDE ROAD, FOOTPATHS, CYCLEPATHS WHERE NECESSARY, SERVICE MARGINS, VERGES AND SUDS WHERE INCLUDED. SPINE ROAD CORRIDOR VARIES IN WIDTH FROM 15M TO 50M DUE TO VARIATIONS IN THE WIDTH OF VERGES AND SWALES.

Key

- Red Line Boundary
- Area subject to Detailed Planning Approval
- Residential Use (Use Class C3 to include Roads and Associated Infrastructure and Incidental Areas of Open Space)
- Adult Care Services (Use Class C2/C3 to include Roads and Associated Infrastructure)
- Primary School (Use Class F1 to include Pre School Setting)
- Local Centre (Use Class Ea),b),c),e),f), Class F2a),b) and Laundrette, Hot Food Takeaway, or Drinking Establishment
- Employment Use (Use Class E(g), B2 and B8 to include Internal Roads, and Associated Infrastructure)
- Green Infrastructure
- Existing Vegetation - To be retained
- Existing Highway
- Existing route
- Existing PROW (bridleway)
- Existing PROW (footpath)
- Footpath 2m wide
- Footpath through SANG - not to be tarmac
- Cyclepath/ Footpath - 5m wide Multi Directional Full Segregation 2m Footway, 3m Cycleway, separated from West Row Road by verge and hedgerow
- Cyclepath/ Footpath - 5m wide light Segregation 2m Footway, 3m Cycleway
- Cyclepath/ Footpath - 3m wide Shared Surface
- Cyclepath - 3m wide
- Indicative Alignment of Spine Road - See Notes
- Roundabout
- Tiger Crossing
- Road Crossing Green Corridor- To be designed in accordance with the details set out in the DAS to ensure pedestrian priority
- LC — Vehicular access to Local Centre - exact location to be agreed Reserved Matters design stage
- S — Vehicular access to school site - exact location to be agreed at Reserved Matters design stage
- Vehicular route to school site - exact location to be agreed at Reserved Matters design stage
- Play Areas
- Existing PROW (footpath) route potentially subject to a conversion order

03. The Development Proposal

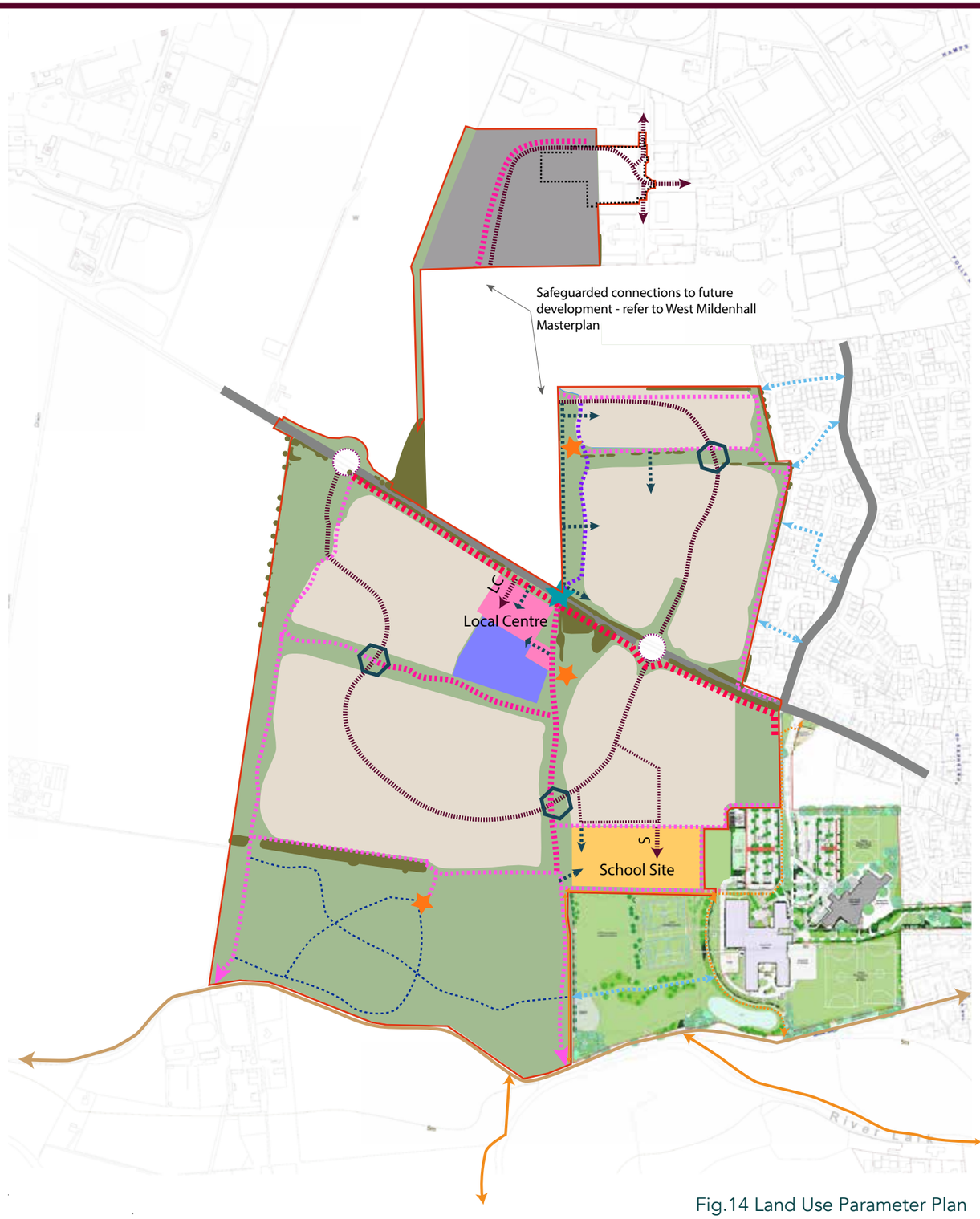


Fig.14 Land Use Parameter Plan

04 Placemaking: Access and Movement

Access and Movement Strategy

Access

The Access and Movement Parameter Plan shows vehicular access to the development from two new roundabouts on West Row Road.

The eastern roundabout will be provided west of the West Row Road / Comet Way / Queensway staggered junction and will provide access to both the northern and southern parts of the development.

The western roundabout will be provided west of the eastern roundabout. This will give access to the southern part of the development and will connect with the eastern roundabout via a spine road.

The roundabout will be designed in accordance with the relevant standards. Facilities for pedestrians and cyclists will be provided on the approaches to the roundabout to assist with crossing.

A gateway feature will be provided to the west of the western roundabout to highlight to vehicles travelling eastbound along West Row Road that they are approaching an urban area.

The speed limit along this section of West Row Road will also be reduced from the currently posted national speed limit to 30 mph to further illustrate that vehicles are in an urban area.

A Tiger crossing, on West Row Road linking the primary footway and cycleway on the northern part of the site with that on the southern section will be provided. Further crossing facilities will be provided where the primary routes cross internal roads.

A further vehicular access to the development will be provided in the northern section of the development from the existing industrial area located on Fred Dannatt Road. This new connection will enable vehicles associated with the commercial element of the development to access this area without travelling through the residential area of the development.

Movement

The movement strategy prioritises creating pedestrian and cycle links over other vehicles and follows desire routes across the site that integrate with existing links and PROW. This will encourage the use of walking and cycling for a number of journeys including work, shopping, school, and leisure.

The primary footways and cycleways will be provided along the green corridor which runs in a north to south direction and east-west along the West Row Road frontage. The footways and cycleways provided within the development will be provided in accordance with guidance including Department for Transport Local Transport Note 1/20 which sets out guidance for cycle facilities.

Connectivity - Access and Movement

"Streets are more than just routes to travel or park, they provide places where people meet and socialise, areas for trees and other plants, they define the character of our towns and villages and support how our utilities are provided underground to our homes and businesses"

Suffolk Design Streets Guide 2022 Edition- Suffolk County Council

Suffolk Design Street Guide

This guidance document focuses on providing design guidance for streets, particularly for new developments such as this. It has been developed in line with the National Design Guide and the National Model Design Code. The guide sets out a methodology for movement frameworks which embeds the user hierarchy. It does this by ensuring that each user's movements are considered first in isolation, before then being considered in the context of the other users.

The movement frameworks within the proposed design have followed this guidance are explained in detail in this chapter.

Each of the different categories of movement (footpaths, cyclepaths and roads are highlighted on the plans on the following pages and then described in detail using cross sections at various locations through the illustrative layout.

Footpath

Footpath cycleway (light segregation)

Shared Surface

The Access and Movement Parameter Plan

ACCESS POINT/ROAD ALIGNMENT ARE INDICATIVE AND CAN DEVIATE BY UP TO 10m UPON DETAILED DESIGN.

THE PRECISE LOCATION AND EXTENT TO BE APPROVED AT RESERVED MATTERS.

PRIMARY AND SECONDARY ACCESS CORRIDOR TO INCLUDE ROAD, FOOTPATHS, CYCLE WHERE NECESSARY, SERVICE MARGINS, VERGES AND SUDS WHERE INCLUDED.
SPINE ROAD CORRIDOR VARIES IN WIDTH FROM 15M TO 50M DUE TO VARIATIONS IN THE WIDTH OF VERGES AND SWALES

Key

- Red Line Boundary
- Area subject to Detailed Planning Approval
- Existing Highway
- Existing route
- Existing PROW (bridleway)
- Existing (footpath)
- Footpath 2m wide
- Footpath through SANG - not to be tarmac
- Cyclepath/ Footpath - 5m wide Multi Directional Full Segregation 2m Footway, 3m Cycleway, separated from West Row Road by verge and hedgerow
- Cyclepath/ Footpath - 5m wide light Segregation 2m Footway, 3m Cycleway
- Cyclepath/ Footpath - 3m wide Shared Surface
- Cyclepath - 3m wide
- Indicative Alignment of Spine Road - See Notes
- Roundabout
- Tiger Crossing
- Road Crossing Green Corridor- To be designed in accordance with the details set out in the DAS to ensure pedestrian priority
- LC — Vehicular access to Local Centre - exact location to be agreed Reserved Matters design stage
- S — Vehicular access to school site - exact location to be agreed at Reserved Matters design stage
- Vehicular route to school site - exact location to be agreed at Reserved Matters design stage
- Play Areas
- Existing PROW (footpath) route potentially subject to a conversion order
- Indicative locations for strategic cycle parking
- Indicative location of limited car parking for SANG and for school drop off
- 1 — Vehicular, pedestrian and cycle access point into site - nos 1 to 5
- 18 — Pedestrian and cycle access point into site - nos 6 to 18

04. Placemaking: Access and Movement

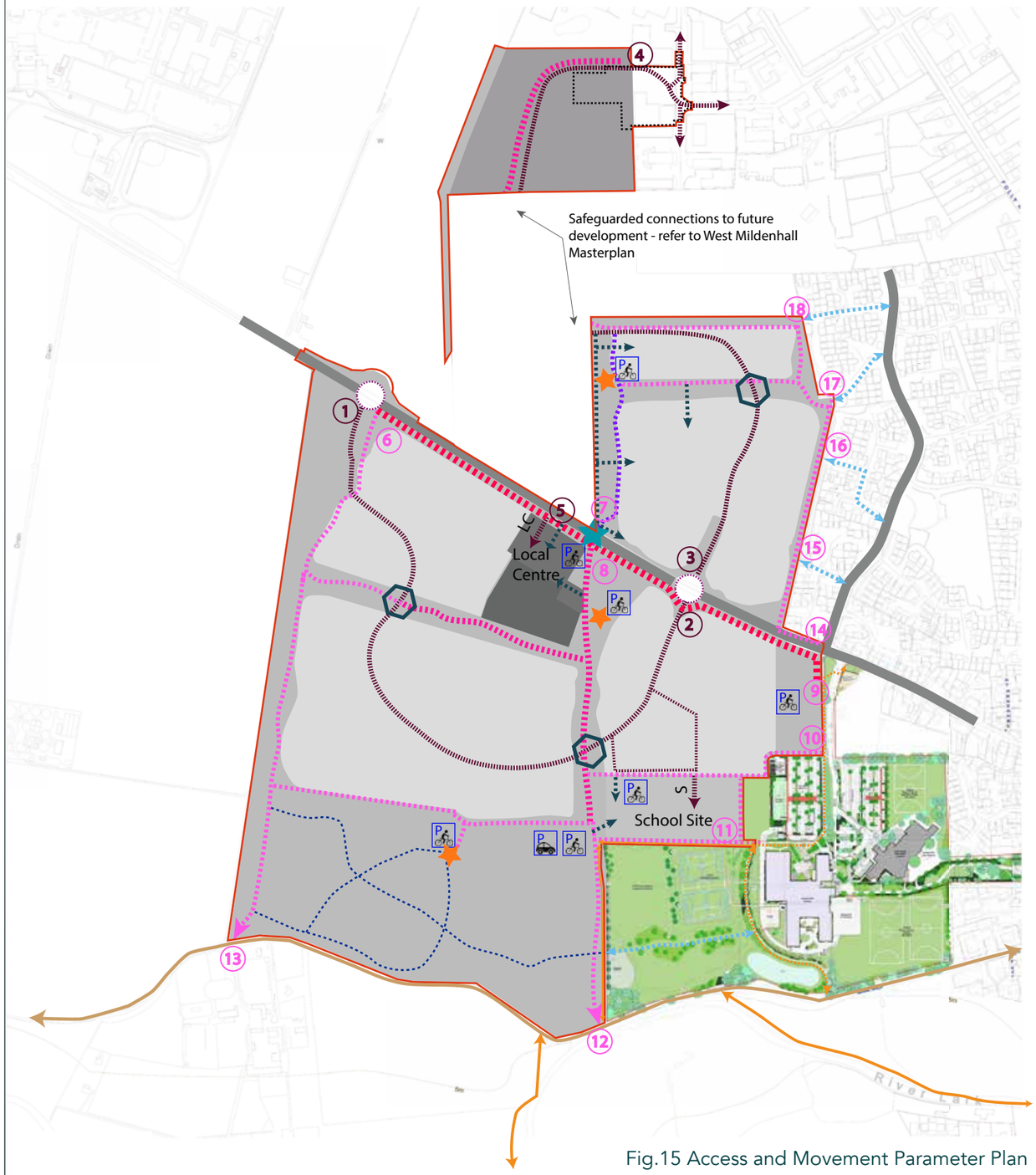


Fig.15 Access and Movement Parameter Plan

Cycleways and footpaths adjacent to green infrastructure will require lighting to be agreed with WSC

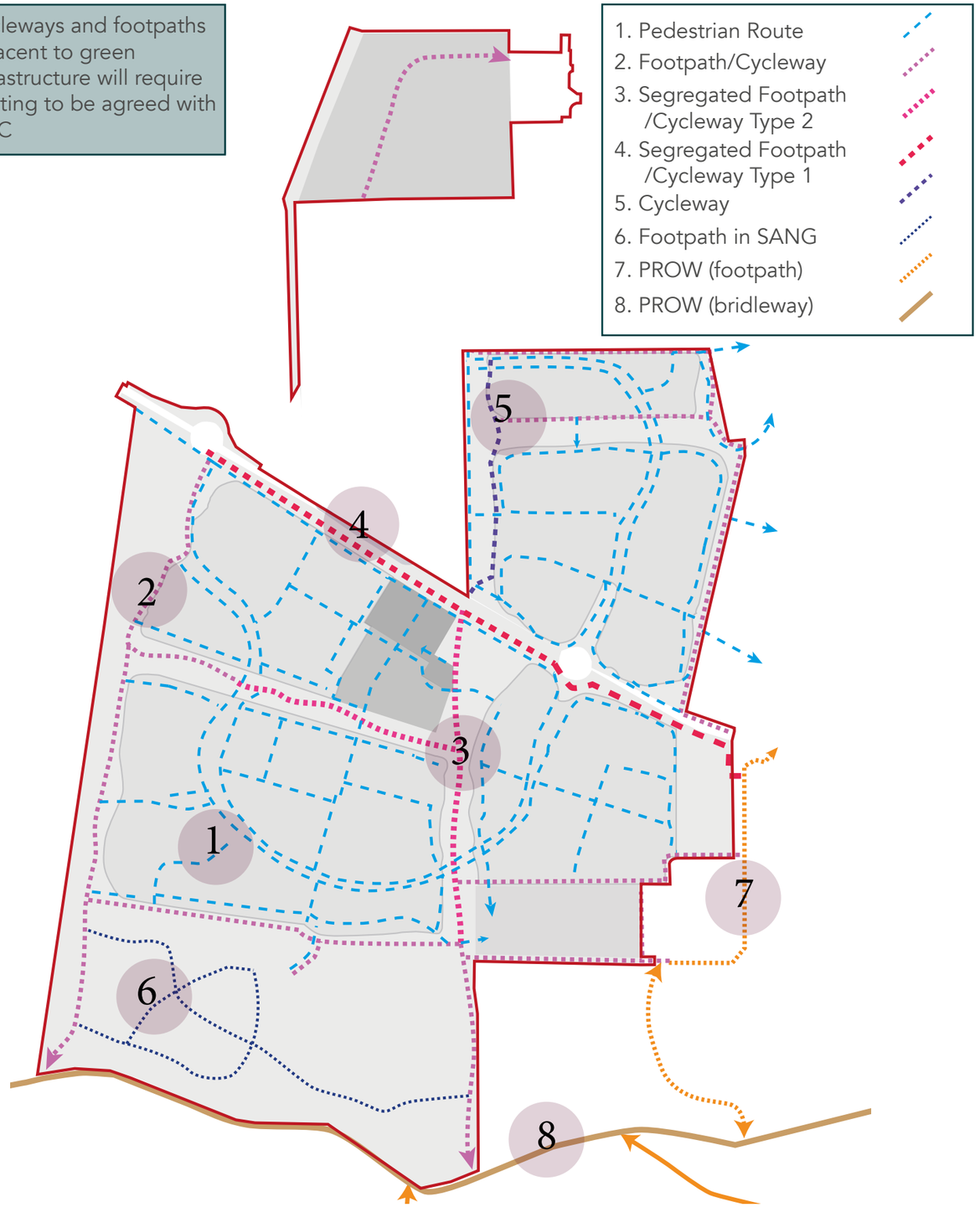


Fig.16 Footpath and Cycleway Routes - Typologies Plan

Green lanes and private drives adjacent to green infrastructure will require lighting to be agreed with WSC

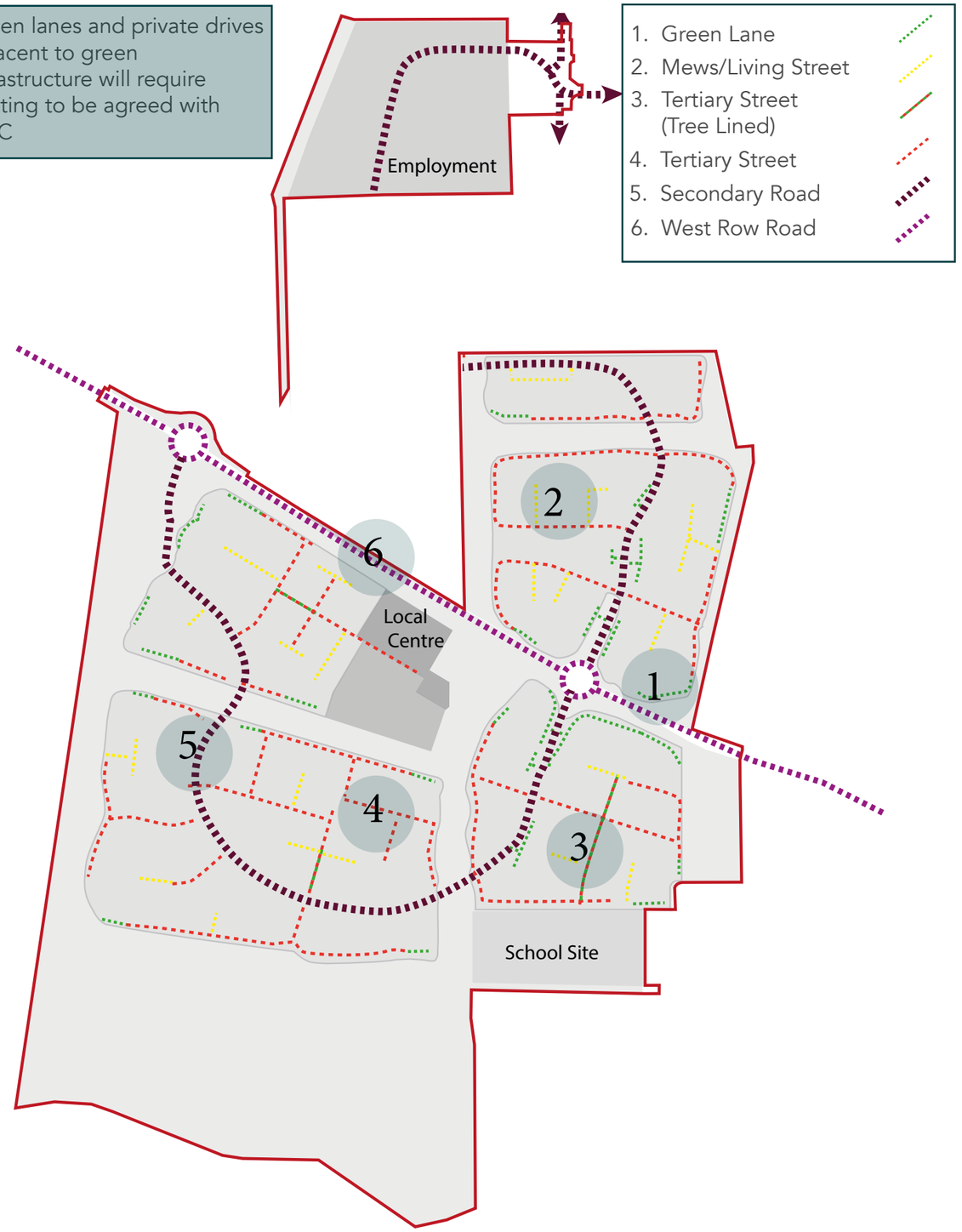


Fig.17 Street Typologies - Sample Areas Location Plan

Pedestrian and Cycle Links - Access and Movement

The Illustrative Layout prioritises pedestrian and cycle links over other vehicles and follows desire routes across the site that integrate with existing links and PROW. This will encourage the use of walking and cycling for a number of journeys including work, shopping, school, and leisure.

- These facilities will comprise of a network of footways and cycleway, Some shared and some segregated.
- The routes will be lit and will be provided with an asphalt surface.
- These routes will act as the key routes through the site and provide connections to the local centre, the employment area, the SANG, the school, the Mildenhall Hub, Queensway and Bridleway 1.
- A formal crossing will be provided, in the form of a Tiger crossing, on West Row Road linking the primary footway and cycleway on the northern section of the site with that on the southern section. Further crossing facilities will be provided where the primary routes cross internal roads.
- Secondary footways and cycleways will link through the residential areas to the spine road and the primary footways and cycleways.
- Leading off the primary and secondary footways and cycleways will be connections to the exiting PROW network and other external routes. This includes a number of connections to Bridleway 1 from the SANG and the primary north-south route.
- Connections will also be provided from the primary north-south route to the PROW, which runs along the western boundary of the Mildenhall Hub.
- A number of connections will be provided along the eastern boundary linking primary and secondary footways and cycleways with Comet Way, Fred Dannatt Road, Queensway, Sheldrick Way and into the Mildenhall Hub development.
- Lighting and surfacing of these connections will be provided in the same form as provided at present to ensure that the facilities are consistent.
- The connections to the existing network are aimed at encouraging journeys to the town centre, employment, education, leisure, and other residential areas in the town as well as the Mildenhall Hub.

04. Placemaking: Access and Movement

Design Criteria For Footpaths

These are situated away from carriageways and are exclusively for pedestrians.
Designers must be able to justify that alternative routes are available for pedestrians. They:

- Must be at least 2m wide.
- Should provide safe and inviting public realm for people to enjoy.
- Can be surfaced with a bound material or a suitable all-weather surface.

Design Criteria For Shared Use Paths

These are situated away from the carriageway and are shared surfaces for both pedestrians and cyclists. They are suitable for quiet and rural routes but less so in an urban environment.
Signing is required, but no physical separation or demarcation should be provided. They should typically be surfaced in a bound material. An alternative surface may be suitable depending on other user groups and settings. They:

- Must be at least 3m wide.
- Are suitable for cycle flows up to 300 cycles/hour at 3m wide, and up to 600 cycles / hour at 4m wide or greater.

Design Criteria For Light Segregation Footpath/Cycleway

A shared use path with light segregation should be provided on busy secondary routes or quiet primary routes. They should be 4.0-4.5m wide and the segregation can be provided in a demarcation kerb. They are suitable for busy rural routes as well as in some urban environments but may not provide adequate capacity for primary routes. They should typically be surfaced in a bound material. An alternative surface may be suitable depending on other user groups and settings. There should be a clear contrast in the shade of surfacing in addition to the central kerb or guidance paving. They:

- Must include a minimum of 2m width for both pedestrian and cycle elements.
- Are not suitable when cycle flows are anticipated to be more than 600 cycles / hour.

Design Criteria For Full Segregation Footpath/Cycleways

When primary route for pedestrians and cyclists is identified with high design flows, therefore requiring greater capacity, the footpath and/or cycle track should be further increased in size if the anticipated demand, type of user or street function requires. This could be the case if the route is through a park, with more inexperienced cyclists or when mobility scooters might be more frequent. At this point the two pieces of infrastructure can also be split to accommodate highways features such as planting on SuDS between them. The kerb segregation shall have a vertical face of at least 65mm and there should be a clear contract in the shade of surfacing for each use. They:

- Must be a minimum 2m width footpath and 3m width for cycle track.

Green Lanes - Access and Movement

The Green Lanes in the development will be designed in accordance with the criteria for Green Lanes in the Suffolk Design Streets Guide.

Green Lanes are found on the edges of the development where the built from meets the Green Infrastructure - Green corridors, Buffer Planting, Parkland, Countryside etc. Green Lanes branch off Tertiary Streets and have a footway on the built side only. Lighting must be agreed with WSC.

Green Lanes may be bonded gravel, or permeable paving where a 'soft' edge to the development is required. Timber knee rails may be used to prevent vehicles from parking on the grass. Visitor parking will be in bays as shown in the image below.

Green Lanes are the lowest category of streets in the street hierarchy with the Primary Road (in this case, West Row Road) being the highest.

Private drives branch off Green Lanes. Typically the speed limit on these lanes would be 5mph.

The Illustrative Layout has been designed to prioritise walking and cycling and the low speed limits of the many Green Lanes shown on the layout encourages this.

Green Lanes help to create a sense of place and foster a sense of belonging.

Design Criteria

- Single side building facades
- 1 x 2m footpath on the building side of the lane
- 5.5m carriageway
- 3m minimum swale, if required, not necessarily immediately adjacent to the lane
- Access and egress permitted directly onto lanes

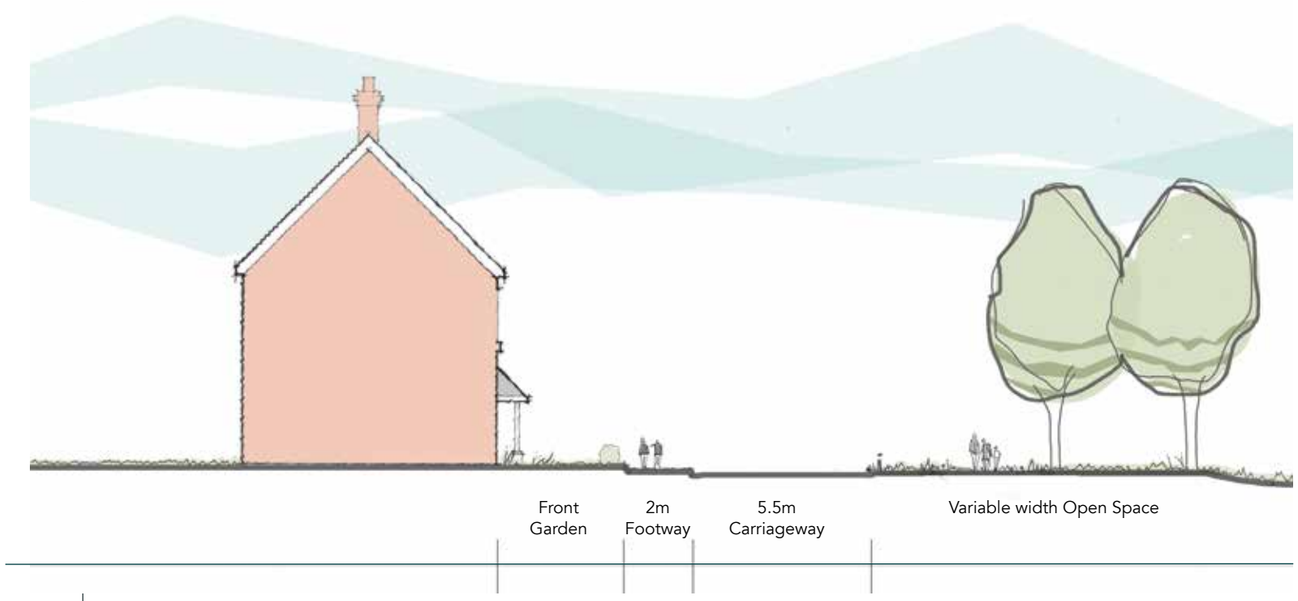


Fig.18 Illustrative section through a Green Lane

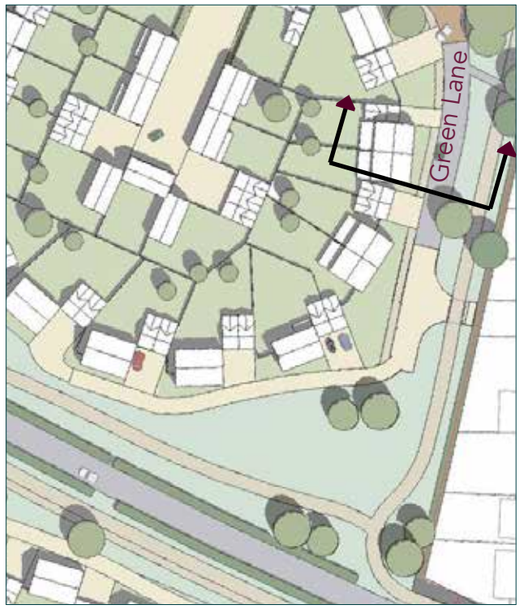


Fig.19 Green Lane location plan and model

Mews and Living Streets - Access and Movement

The Mews and Living Streets in the development will be designed in accordance with the criteria for Mews and Living Streets in the Suffolk Design Streets Guide.

Mews Courts and Living Streets branch off Tertiary Streets and are traditionally located behind grand houses. Traditionally a Mews street or court was behind a grand terrace of houses and was where the carriage and horses were kept. Typically a Georgian or Victorian terrace faced onto the equivalent of a tertiary or secondary street and the mews buildings formed a minor street behind and parallel. The illustrative layout seeks to replicate this arrangement in places.

A Living Street can be defined as a Mews Court wide enough to allow for planting within the street space, as illustrated in the cross section on the adjacent page.

In both the Mews Court and the Living Street it is important for vehicles to be able to manoeuvre safely and for residents to be able to open windows and doors safely.

These street types may not be adopted by SCC but their inclusion should be considered as they will add variety and interest to the development.

Design Criteria

- 7.8m minimum distance between building facades as set out in The Masterplan
- Shared Surface including 2m Service strips
- Access and egress permitted directly onto Mews and Court-yards
- Must be designed to meet requirements for fire tenders and waste collection vehicles
- Potentially not adoptable by SCC highways

04. Placemaking: Access and Movement

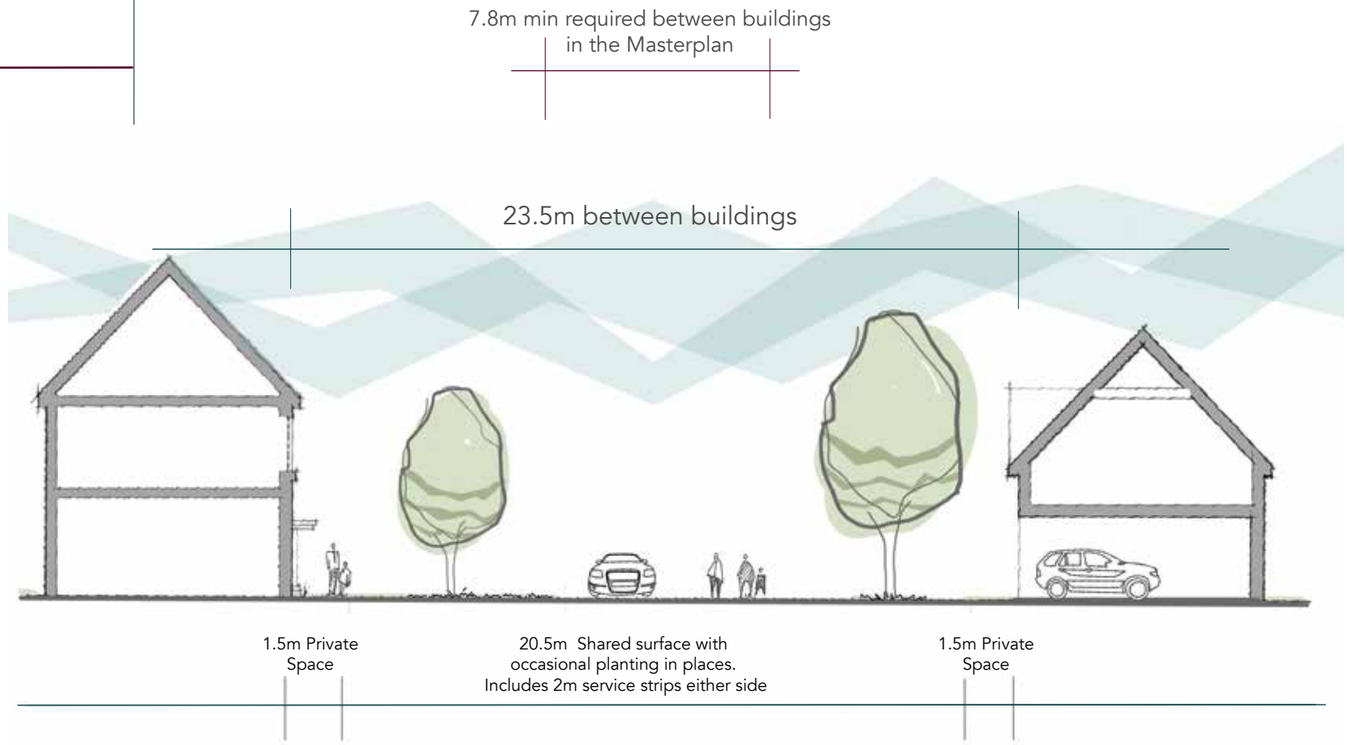


Fig.20 Illustrative section through a Mews

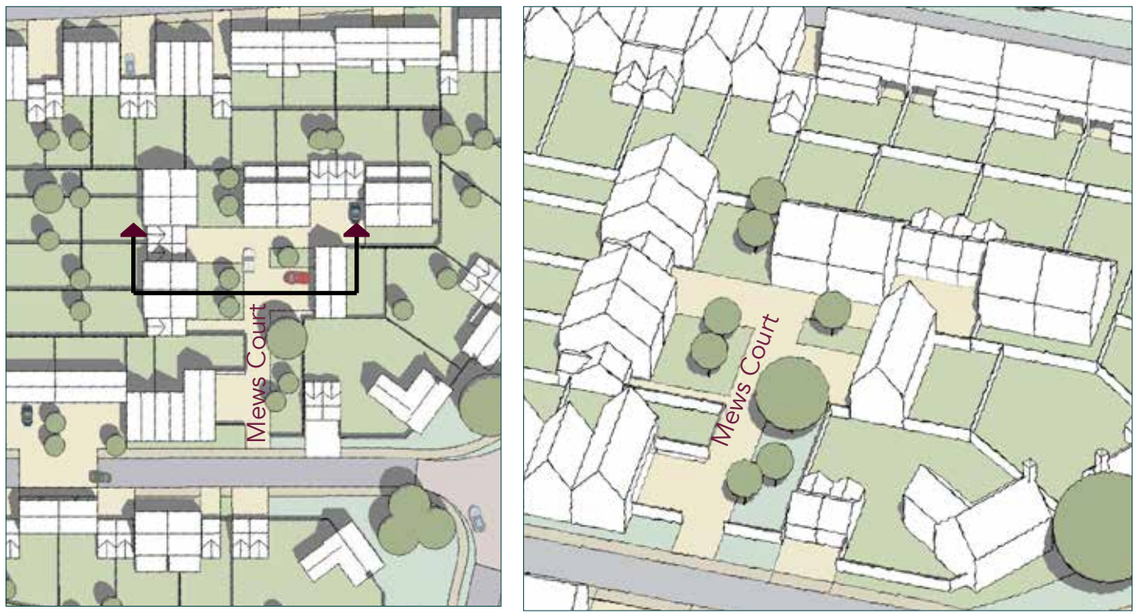


Fig.21 Mews and Courtyard location plan and model

Tree-Lined Tertiary Street - Access and Movement

The Tree-Lined Tertiary Street will branch off the Spine Road (Secondary Street) and will be designed in accordance with the criteria for Tertiary Streets in the Suffolk Design Streets Guide but with additional space for trees.

Tertiary Streets are the most commonly found streets on the Illustrative Layout. Some are tree-lined and some are not. The Tree-Lined Tertiary Streets are wider than those without trees. The example illustrated on these pages show a street with trees on both sides but in other cases trees may be on one side of the street only.

Access and egress is permitted directly off a Tree-Lined Tertiary Street so it is important to place trees between private drives and to carefully consider the placement of street lighting

Tree-Lined Tertiary Street will accommodate visitor parking in bays on street and between trees as illustrated in the adjacent image.

Street trees may be planted in verges as illustrated on the cross section on the facing page or in tree pits or soil cells.

Street trees will add value to streets in all areas from biodiversity to human well being. They will bring seasonal variety and colour to the street scape and help create a sense of place.

They will also help create different character areas.

Design Criteria

- 11.8m minimum distance between building facades as set out in The Masterplan
- 2 x 2m footpaths
- 5m verges to allow 2.5m from path or carriageway to centre line of tree trunk. Narrower verges with trees will need to be approved by SCC if to be adopted.
- Access and egress permitted directly onto Tertiary Streets

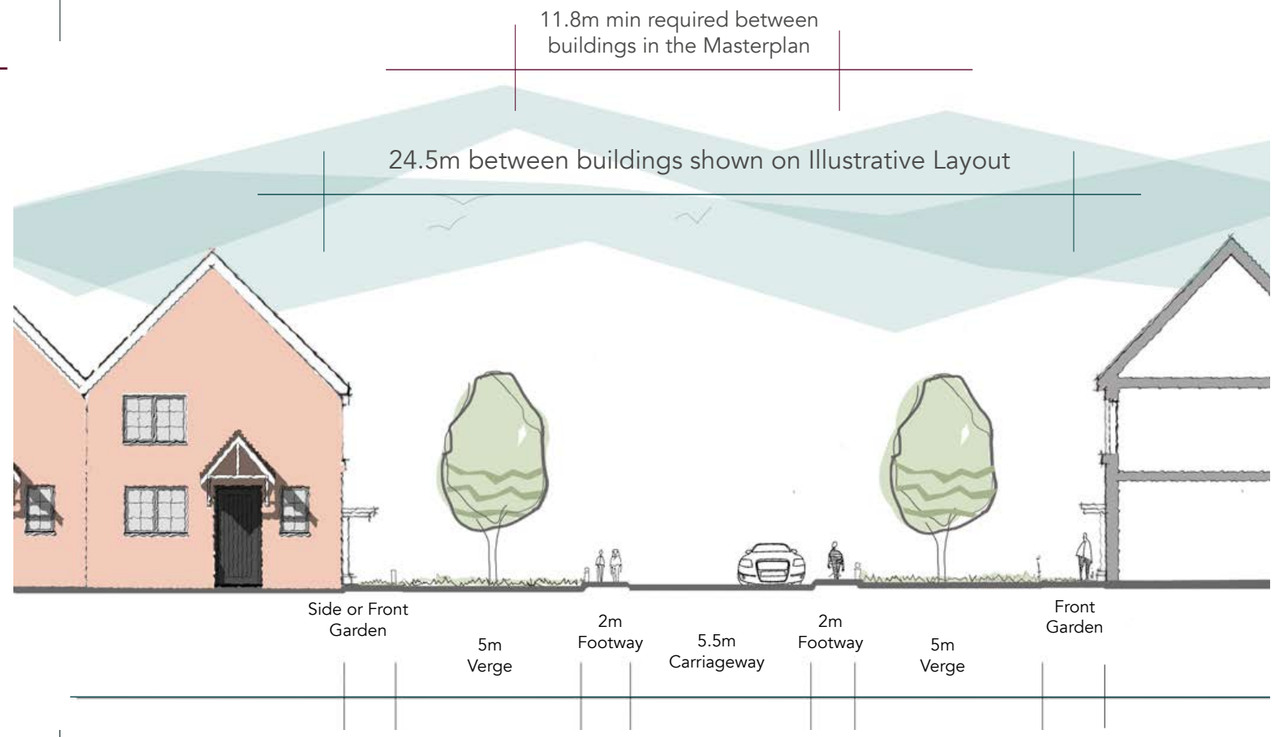


Fig.22 Illustrative section through a Tree-Lined Tertiary Street

Fig.23 Tree-Lined Tertiary Street location plan and model

Tertiary Street - Access and Movement

The Tertiary Street will branch off the Spine Road (Secondary Street Street) and will be designed in accordance with the criteria for Tertiary Streets in the Suffolk Design Streets Guide.

Tertiary Streets are designed to speeds of 15 mph. The street scape may appear narrow and intimate with buildings close to the back edge of the pavement as shown in the image below, or they can appear wide with buildings set well back behind deep front gardens. Hedges, trees and planting in gardens can create a green and leafy feel as typified in the Garden City movement.

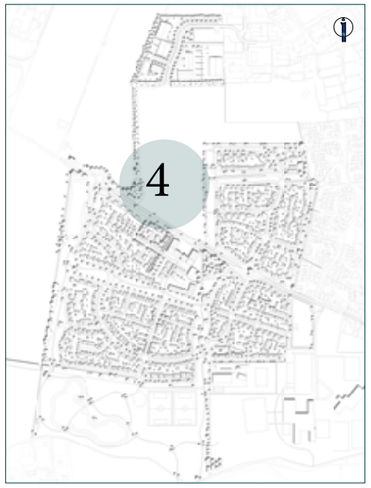
Access and egress is permitted directly off a Tertiary Street. These streets may be short or long, straight or curved. Creating focal points and vista stops will help navigate the development

Creating focal points, vista stops, pocket parks and undulating building lines will help visitors navigate the development and create areas of different character within the development.

Visitor parking on Tertiary Street will be in bays on street. Visitor parking bays are not shown on the illustrative layout as their precise location will be determined at the Reserved Matter stage. However examples of parking arrangements are shown at the end of this section of the document.

Design Criteria

- 11.8m minimum distance between building facades as set out in The Masterplan
- 2 x 2m footpaths
- Access and egress permitted directly onto Tertiary Streets
- 5.5m carriageway



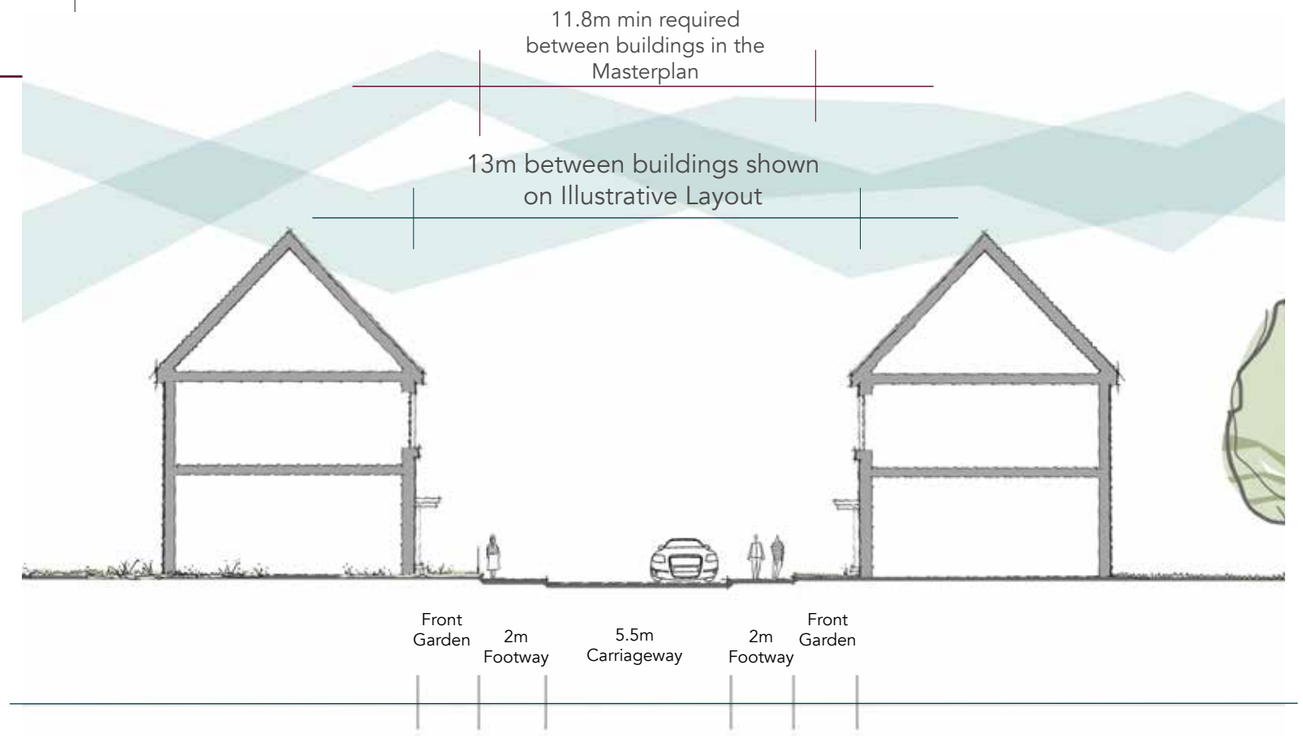


Fig.24 Illustrative section through a Tertiary Street

Fig.25 Tertiary Street location plan and model

Spine Road - Access and Movement

The proposed spine road will include footpaths, verges and a swale. It will be designed in accordance with the criteria for a Secondary Street in the Suffolk Design Streets Guide.

The Spine Road connects the northern and southern parts of the site to one another and to West Row Road (the existing Primary Street). Its carriageway is 6m with localised widening to allow for buses passing one another.

The Spine Road is designed to 30mph speeds. There is only limited access and egress off the spine road.

The Spine Road is separated from the footways either side of it by verges as illustrated on the cross section. One of these verges will contain a swale which may be planted as shown in the adjacent illustration.

The Illustrative Layout shows a variation of the space between buildings either side of the road. It has been deliberately designed this way in order to add interest, create character, calm traffic, and most importantly to provide opportunities for planting and public art.

Design Criteria

- 21m minimum distance between buildings as set out in The Masterplan
- 3m shared footway / cycleway provided along with variable width shared surface based on the section.
- 2m verges - any tree planting within verges less than 5m wide must be approved by SCC if to be adopted
- 3.5m minimum space for swale
- 6m carriageway (with localised widening to allow for buses passing)
- Limited access and egress permitted directly onto Spine Road

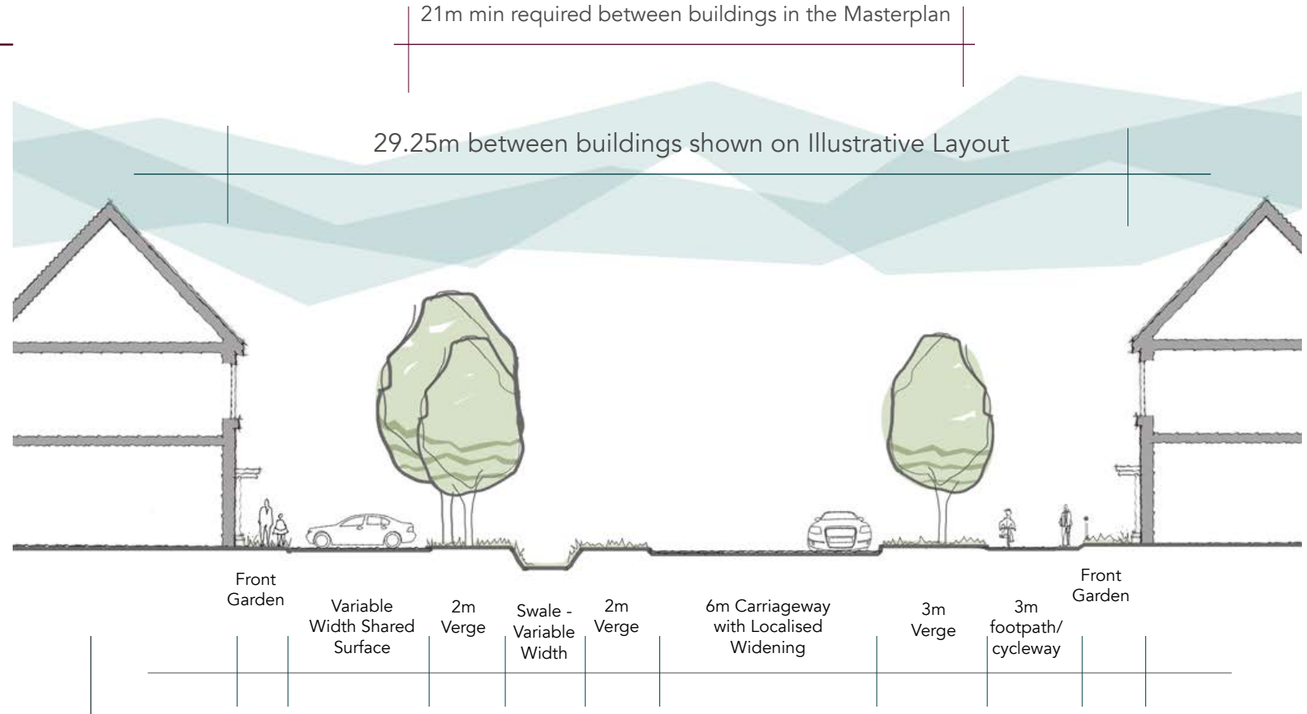


Fig.26 Illustrative section through Spine Road

Fig.27 Spine Road location plan and model

West Row Road - Access and Movement

The proposed treatment of West Row Road as it travels through the development will include footpaths, a wide verge and a segregated cycleway. It will fall broadly under the category of Primary Street in the Suffolk Design Streets Guide.

At the time of writing West Row Road is as shown in the image below. The intention is to retain the character of this road despite the new development proposed to its north and south.

The existing trees and hedgerows will be retained. The cross section shows a distance of 39.24m between buildings which is a considerable set back. Within this set back on the northern side of West Row Road is a variable width green swathe, and a private drive allowing access to dwellings.

On the southern side is a wide verge, a dedicated cycleway, a footway and front garden space.

There are two new roundabouts proposed as shown on the Access and Movement Parameter Plan.

The Local Centre will have its own vehicular access off West Row Road and close to this will be a Tiger crossing to enable pedestrians and cyclists to safely cross the road.

Design Criteria

- 20m minimum distance between building as set out in The Masterplan
- 2m footpaths either side of road (one shown in the above section as part of a shared surface)
- 3m dedicated cycleway
- 6.2m existing road with hedgerows in verges
- No access egress directly onto West Row Road except at the Local Centre

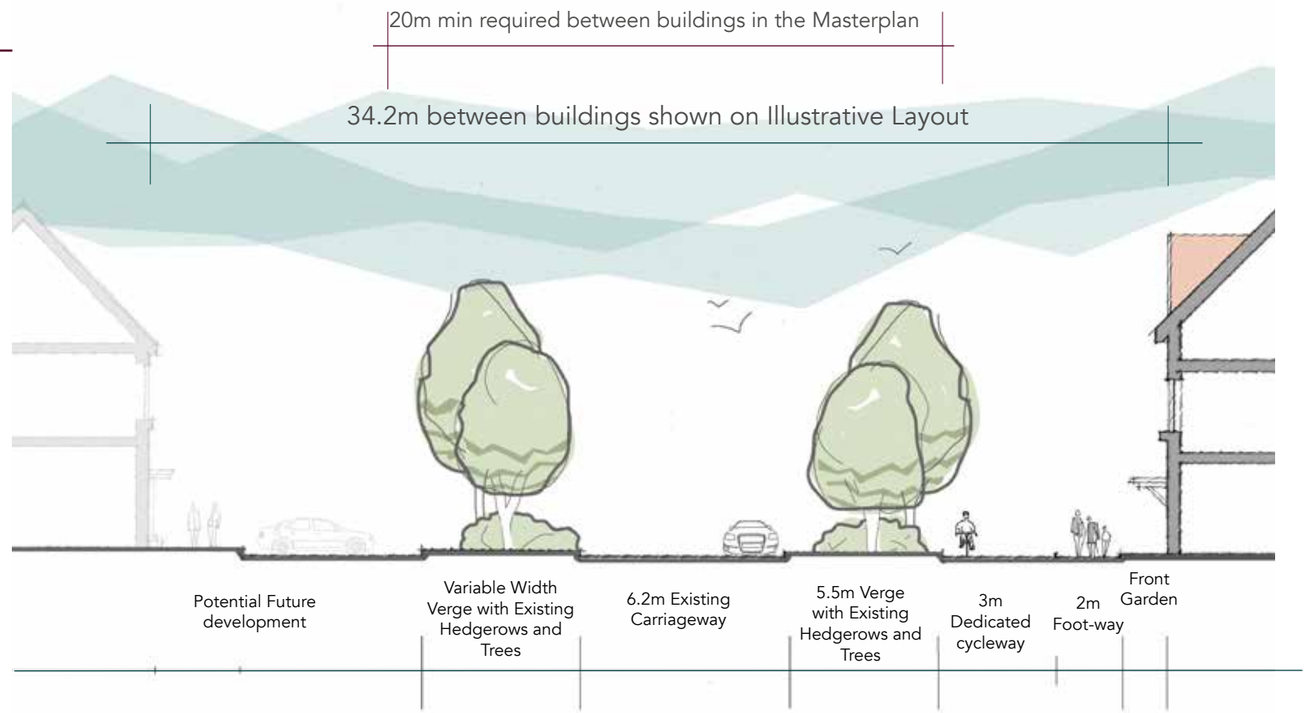


Fig.28 Illustrative section through West Row Road

Fig.29 West Row Road location plan and model

Calming traffic - Access and movement

Drivers will be encouraged to drive with caution and care through out the proposed development This will be achieved through detailed design which controls vehicle speed by using best practice urban design and highway design approaches.

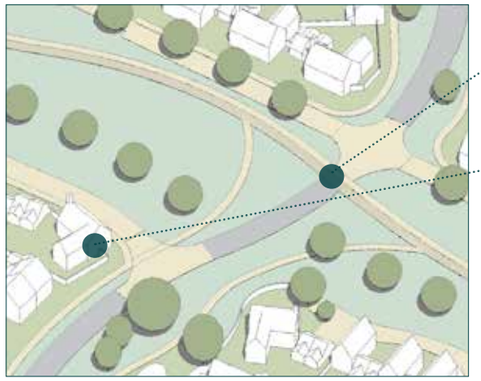
Calming and slowing traffic is an important part of delivering streets for people and encouraging walking and cycling.

The key principle is that vehicle speed should be calmed by design to achieve a 20mph design speed. To slow vehicles, and to encourage users to drive with caution, it is expected that some, or all of the following methods will be used:

- The use of frequent street intersections and where practical the use of some tight junction and corner radii;
- The introduction of feature squares and landscaped areas that act as visual 'incidents' along the street;
- Changes in the carriageway surface with the use of 'unexpected' road surfaces such as paving setts;
- A section of the kerb to be built out to create a wider footway and a narrower carriageway;
- The narrowing of the carriageway and/or the street to create 'pinch points'. Positioning buildings so that they act as 'pinch points' or 'gateways';
- The use of well placed street trees and/or street furniture;
- Where appropriate, the removal of the traditional footway kerb-carriageway arrangement and the use of well designed 'shared surfaces' to create streets for all;
- Carefully restricting forward visibility through the arrangement of buildings, the building line and landscape treatment; and
- The selective use of on-street parking.

All streets, whether they are adopted or private, must be designed to allow access for refuse vehicles and fire tenders

Below are examples of how some of these traffic calming design methods have been incorporated into the illustrative Layout



Potential narrowing of the carriageway as it crosses the West to East Green Corridor and change of surface texture.

Buildings and walls used as Gateways.

Using frequent street intersections with some tight radii.

Introducing feature landscape areas.

Changes in carriageway surface.

Use of well designed shared surfaces.

Using well placed trees.

Parking - Access and Movement

Policy DM45 requires guidance to be sought from published guidance from Suffolk County Council – this takes the form of 'Suffolk Guidance for Parking (2019)'. This states that proposed developments require a minimum of:

· 1 space for 1-bedroom dwellings;
· 2 spaces for 2-3 bedroom dwellings;
· 3 spaces for 4+ bedroom dwellings;
· 0.25 spaces per dwelling as visitor allocation;
· 2 secure covered cycle spaces per dwelling (this can be provided through the provision of a secure area within the curtilage of a dwelling);
· If no secure space is provided within the curtilage of a dwelling, then:
- 2 covered/secure cycle spaces per dwelling
- 2 covered/secure cycle spaces per 8 dwellings;
· 1 PTW space per 20 vehicular parking spaces (for the first 100), then 1 PTW space per 30 vehicular parking spaces afterwards;
· Disabled spaces are not required if parking provision is within curtilage of a dwelling.

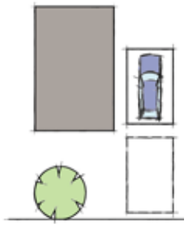
On Plot parking

The Illustrative Layout shows on plot parking for all dwellings.

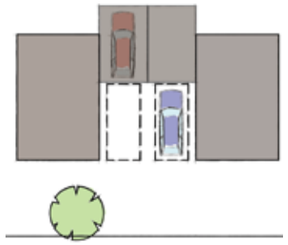
On plot parking may be in garages, integral or surface. Triple tandem parking will not be acceptable. Garages must be of sufficient size to accommodate cycle and refuse storage. The plan on the facing page shows an acceptable garage size.

Parking requirements and surface parking bays must be designed with Building Regulations Part M4 (2) in mind.

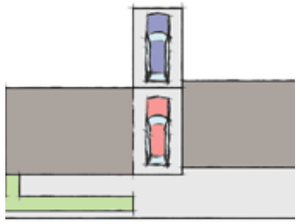
Parking arrangements must satisfy Secure By Design criteria which is explained in the following section of this document.



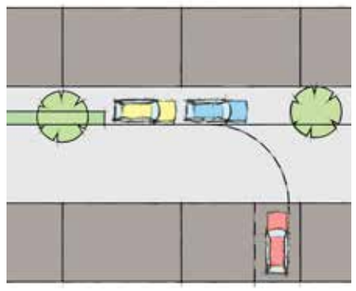
Detached



Semi detached integral



Semi detached Surface



Mews

On Street

On Street visitor parking has not been shown on the Illustrative Layout as this will be determined at Reserved matters stage. However the intention is to provide on street visitor parking in pairs within parking bays as shown on the adjacent illustration, or at the side of Green Lanes as shown in the Green Lane example street type earlier in this section of the document.

Cycle Parking - private

All dwellings will be designed to provide safe cycle parking. This will be in garages as illustrated or within secure structures on plot.

Cycle Parking - public

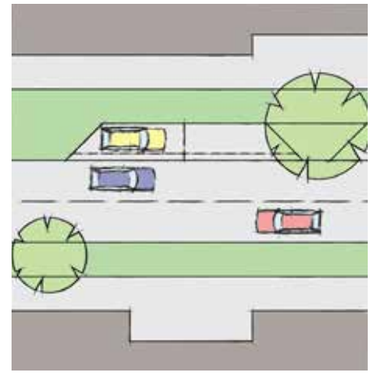
Public cycle and motorised vehicle parking will be provided close to public spaces and buildings such as the local centre, the nursery school, the play areas and the primary school as well as the commercial buildings. Publicly accessible cycle parking will be provided under cover within secure structures as required. All these places are connected to each other by cycle routes. The use of cycles is very much encouraged and the layout has been designed with this in mind and provides for safe routes and secure storage.

Vehicle Charging Points

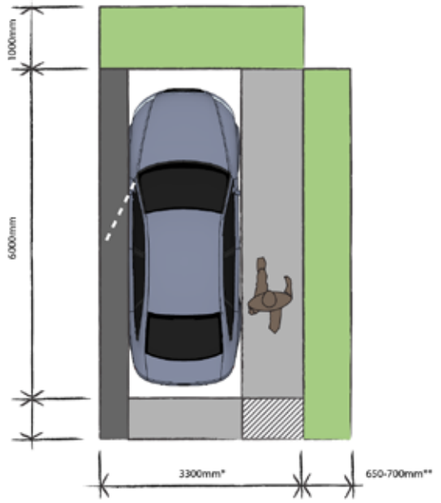
All dwellings will be provided with electrical vehicle charging points. There is the potential to provide Electrical Charging points at the Local Centre, the Primary School and within the Commercial part of the site.

Local Centre Parking

There will be short term limited parking provided in front of the Local Centre for visitors accessing the Centre from West Row Road. The parking bays will mostly be provided for Blue Badge holders. There will be some additional parking at the southern side of the Local Centre. There is more information about the local centre design principles later in this document.



On Street in pairs of bays



05 Placemaking: Urban Form and Scale

Introduction

Urban Form and Scale are important structural frameworks that contribute to the character of a place. In order to create variation in character across the development three important plans have been produced. The Density Parameter Plan, The Storey Heights Parameter Plan and the Character Area Plan.

This chapter illustrates how this variation in character can be achieved and what it might look like through the use of selected sample areas. It also shows how the analysis work carried out in The Masterplan has shaped parts of the Illustrative Layout.

The National Design Guide defines Form and Scale. An extract from the Guide is set out below as below.

Form *is the three-dimensional shape and modelling of buildings and the spaces they define. Buildings and spaces can take many forms, depending upon their:*

- *size and shape in plan;*
- *height;*
- *bulk - their volume;*
- *massing - how bulk is shaped into a form;*
- *building lines - the alignment of building frontages along a street; and*
- *relationship to the plot boundary - and whether they share party walls or not.*

In the case of spaces, their form is influenced by the buildings around them.

The form of a building or a space has a relationship with the uses and activities it accommodates, and also with the form of the wider place where it is sited.

Scale *is the height, width and length of each building proposed within a development in relation to its surroundings. This relates both to the overall size and massing of individual buildings and spaces in relation to their surroundings, and to the scale of their parts. It affects how a space can be used and how it is experienced. The relationships between the different dimensions of a building or component are known as its proportions.*

Enclosure is the relationship between the height of the buildings across a space, and the dimension of the space itself. Taller building heights and a more built up building line both increase the enclosure.

Different degrees of enclosure influence how people use different spaces, by creating differences in character that suit different activities.

Density

"Built form is determined by good urban design principles that combine layout, form and scale in a way that responds positively to the context. The appropriate density will result from the context, accessibility, the proposed building types, form and character of the development."

The Density Parameter Plan shows three clearly defined density bands each with its own density range. The area around the Local Centre is the highest density and the western countryside edge the lowest. The remainder of the site is of a medium density. Within each area there is scope for different densities.

The Density Parameter Plan will ensure that there is variation in Urban Form and Scale in different parts of the development. This will help create a sense of place and identity.

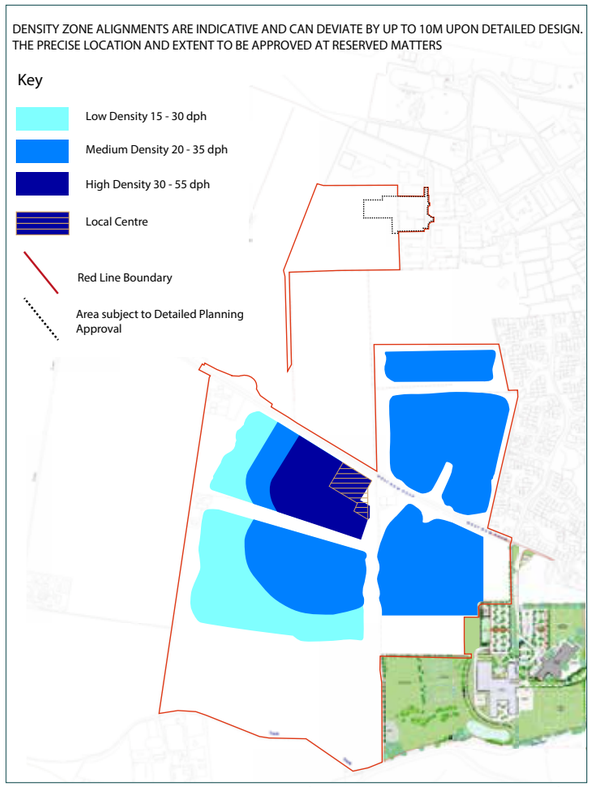
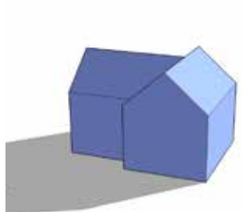
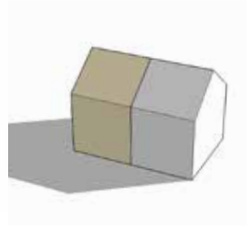


Fig.30 The Density Parameter Plan

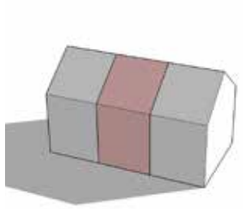
The thumbnails below provide an explanation of what sort of density can be achieved with different housing typologies. There are other typologies shown within the illustrative layout including courtyards, mews and apartments with podium parking. However the four examples below serve to clearly demonstrate how different typologies generate widely different densities - measured in dwellings per hectare (dph).



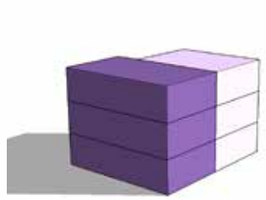
4 bed detached house with double garage and 2 parking spaces = 12 dph Maximum



3 bed semi-detached house with single garage and parking space = 26 dph Maximum



2 bed terraced house with single garage and parking space = 36 dph Maximum



2 bed 3storey apartments with surface parking = 42 dph Maximum

Storey Heights

The Density Parameter Plan and the Storey Heights Parameter Plan set out the different density bands and different storey heights within different parts of the site. Both Plans have been designed to meet the requirements of the Character Area Framework Plan on the facing page.

The most dense part of the site is around the local centre and Adult Care Services (ACS), where elderly and supported housing will be provided, may be up to four storey (three storey apartments with under croft parking).

The lowest density part of the site is on the western edge at the interface with the countryside. Here buildings will generally be two storey. The remainder of the site will be a medium density, to match the existing western edge of Mildenhall, with buildings generally at 2 storeys but with the potential to have some three storey in key locations or as landmark buildings. It is important to read both the density and storey heights Parameter Plans plan in conjunction with the Land Use Parameter Plan and the Character Area Plan (on the facing page).

There is a requirement from West Suffolk Council to produce a Design Code for this development, prior to detailed planning applications (ie. reserved matters).

The Masterplan provides site wide design guidance and rules of Urban Design Best Practice. It explains the rationale behind the Character Areas through illustrations and precedent images.

All illustrations in the Design Guidance section of The Masterplan are indicative only and have been produced to illustrate scale and massing. Houses have deliberately been shown as outlines to allow for flexibility in the architectural design work that will develop later in the design process. However there are 'rules' on the density, heights, and materials and typologies for 7 key areas which must be taken into account as design work develops in detail.

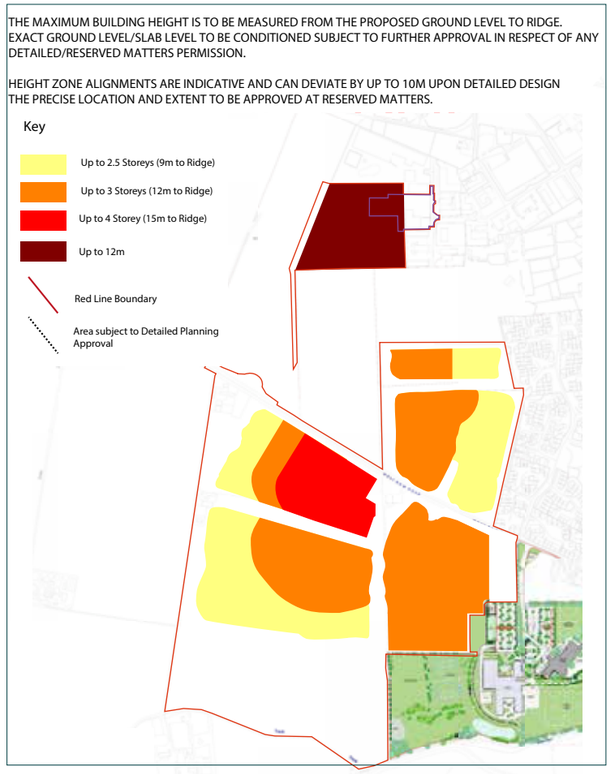


Fig.31 The Storey Heights Parameter Plan

These areas include the following:

1. The Western Gateway
2. The North Eastern Edge
3. West to East Green Corridor
4. The Interface between the SANG and the Residential Areas
5. The Interface between the Residential and Commercial areas
6. The Local Centre
7. The School Site

Character

The Character Area Plan adjacent (extracted from The Masterplan) shows four character areas. Each will have a distinctive and unique character which will be based on a predominance of certain characteristics which include:

- Site features;
- Density;
- Storey heights;
- Boundary treatments;
- Landscape character;
- Architectural materials and
- Building typologies

Each character area is made up of a number of urban blocks and careful consideration will be given to the locations where character areas adjoin one another. Supporting the Character Area Plan is the design guidance section in The Masterplan document.

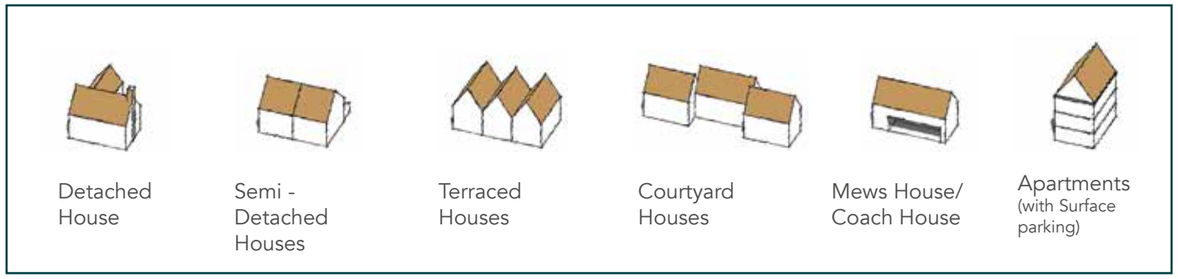
Creating character and variety in the proposed development is examined through example studies from each character area in the next section of this document 'Placemaking - Character and Appearance'.

The four character areas have been given names for identification purposes within The Masterplan and this Design and Access Statement.

Fig.32 Character Areas Plan (from The Masterplan)

KEY

- Market Town
- Mill Side
- Fen Edge
- Commercial



Examples of building typologies

In addition to the character area example studies are illustrations of how the specific key characteristics found in Mildenhall and surrounding villages could be woven into the design. This is explained and illustrated on the following pages.

Key characteristics - Urban Form and Scale

What characterises the Urban Form and Scale of Mildenhall and the surrounding villages?

Detailed analysis of the area showed four distinctive key characteristics were commonly found in Midenhall and the surrounding villages of Worlington, Barton Mills, West Row, Freckenham, Isleham, Holywell Row, Beck Row, Thistley Green, and Tudenham. Understanding these and replicating them within the proposed design helps to ensure that the development sits well in its context and is appropriate for its location.

The four most common key characteristics are as follows:
Gateways and Walls; Vista Stops; Tight knit streets and Courtyards and Squares. The images on the following pages show how these four characteristics have been taken from The Masterplan Design Guidance and then included and developed in the Illustrative Layout and its 3D model in this Design and Access Statement.

Gateways and Walls

Vista Stops

Tight Knit Streets

Courtyards and Squares

Locations where local key characteristics of Form and Scale have been incorporated into the Illustrative Layout

A. Gateways
B. Vista Stops
C. Courtyards
D. Tight Knit Streets

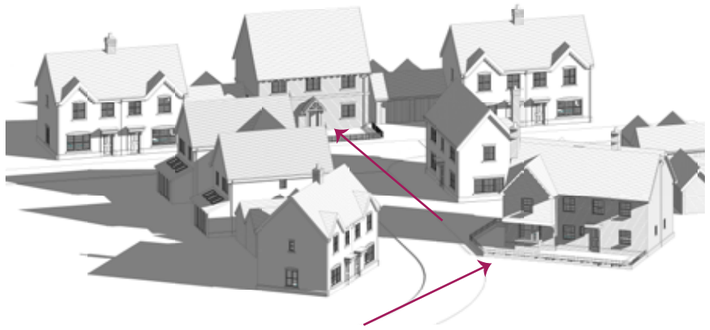
Fig.33 Urban Form and Scale - sample areas Location Plan

A

Gateways: Illustration from Masterplan

On the illustrative layout model (extract shown above) gateway buildings are placed at roads junctions and at the approach to open spaces or different character areas.

B



Vista Stops: Illustration from Masterplan

On the illustrative layout model (extract shown above) vista stop buildings are placed at the end of a view across open space, at either end of a short view, at a T junction or at a bend in the road.

C

Courtyards: Illustration from Masterplan

On the illustrative layout model (extract shown above) courtyards are found within urban blocks, each having a different character ranging from formal and urban to informal with agicultural references.

D

Tight Knit Streets: Illustration from Masterplan

On the illustrative layout model (extract shown above) tight knit streets are found in several different locations within the Mill Side and Fen Edge character areas. More formal interpretations are found in the Market Town character area.

Feature spaces and key note buildings - Urban Form and Scale

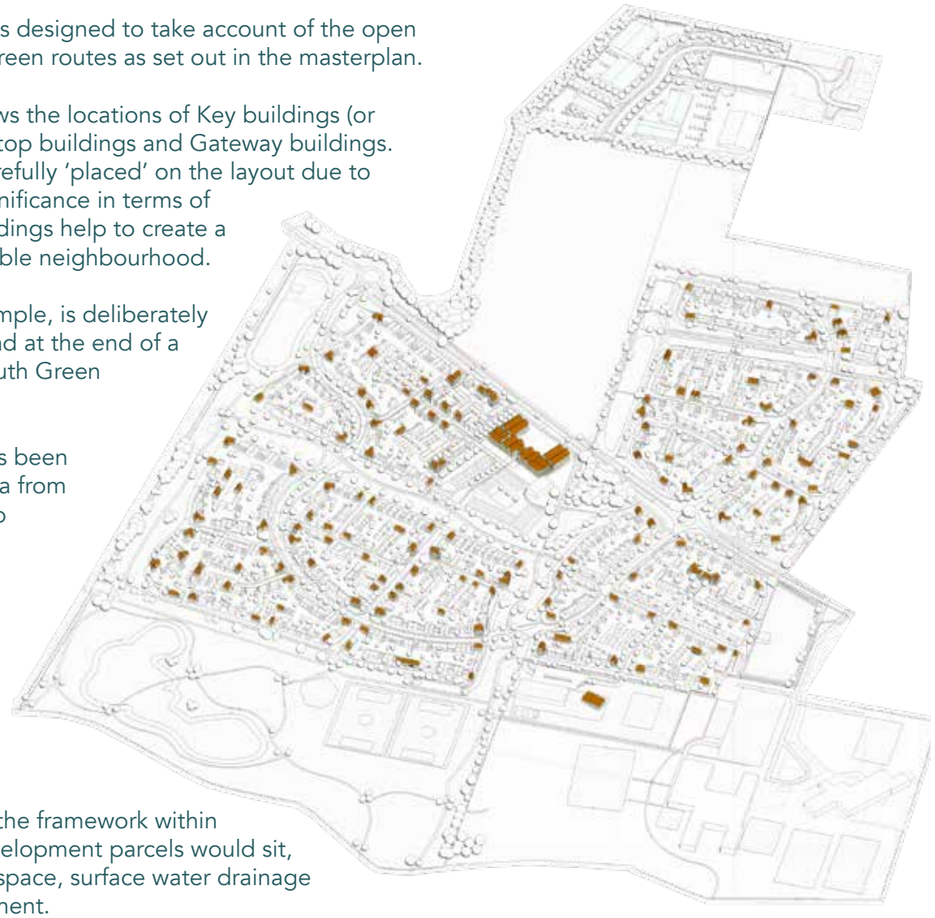
The Illustrative layout was designed to take account of the open spaces and network of green routes as set out in the masterplan.

The adjacent image shows the locations of Key buildings (or building groups), Vista Stop buildings and Gateway buildings. These buildings were carefully 'placed' on the layout due to their importance and significance in terms of placemaking. These buildings help to create a legible and easily navigable neighbourhood.

The local centre, for example, is deliberately placed on West Row Road at the end of a vista down the North South Green Corridor.

The south east parcel has been designed to set up a vista from the primary school site to the apartments.

There are many similar examples of vistas and gateways throughout the illustrative layout.



Plot Arrangements

The Masterplan created the framework within which the residential development parcels would sit, taking account of green space, surface water drainage requirements and movement.

Some development parcels are 'sealed' perimeter blocks where front doors face out onto the public realm and gardens back onto one another. Others are perimeter blocks with courtyards in the centre as shown on the adjacent extract from the illustrative layout model.

The illustrative layout shows a variety of spaces and plot arrangements for different character areas. In all cases parking is on plot or, in the case of apartments, in small courts or podium arrangements.

All housing fronts onto streets and open spaces.

Gardens - Urban Form and Scale

Garden sizes and back to back distances

All residential units will have direct access to an area of private amenity space. The form it takes depends upon the type of residential unit, but could include a private garden, roof garden, balcony, glazed winter garden or ground-level patio with defensible space from any shared amenity areas.

The Local Plan gives regard to the 'Suffolk Design Guide for Residential Areas' (dated 2000). The document itself states that

''a reasonable size of private garden space should be provided, and a major part of that space should be arranged to receive sunlight, particularly during the months of British Summer Time''.

Generic guidance stipulates the following private garden sizes:

- 1 bedroom and 2 bedroom properties – 50 sqm of private amenity space;
- 3 bedroom + properties – 100 sqm of private amenity space

Garden Sizes are shown on the illustrative layout as:

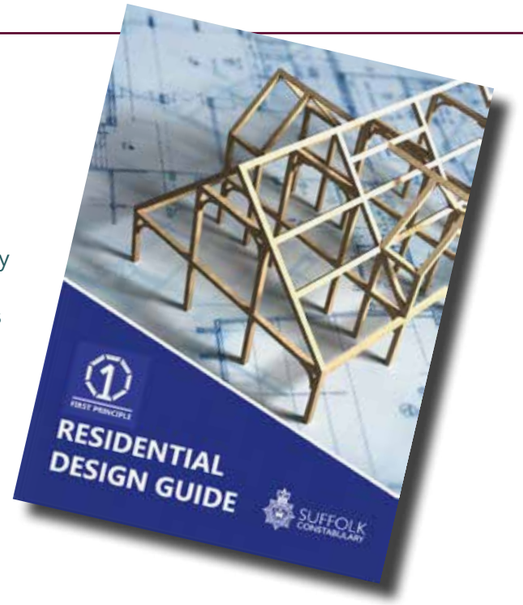
2 bed House = 50 sqm
3 bed House = 80 sqm minimum
4 bed House = 100 sqm minimum

Back to back distances are shown as 22-24m.

Back to Side distances are shown as 12-14m.

Safety and Security - Crime Prevention

Suffolk Constabulary have produced residential design guidance to encourage designers and developers to consider the impact of design on crime.



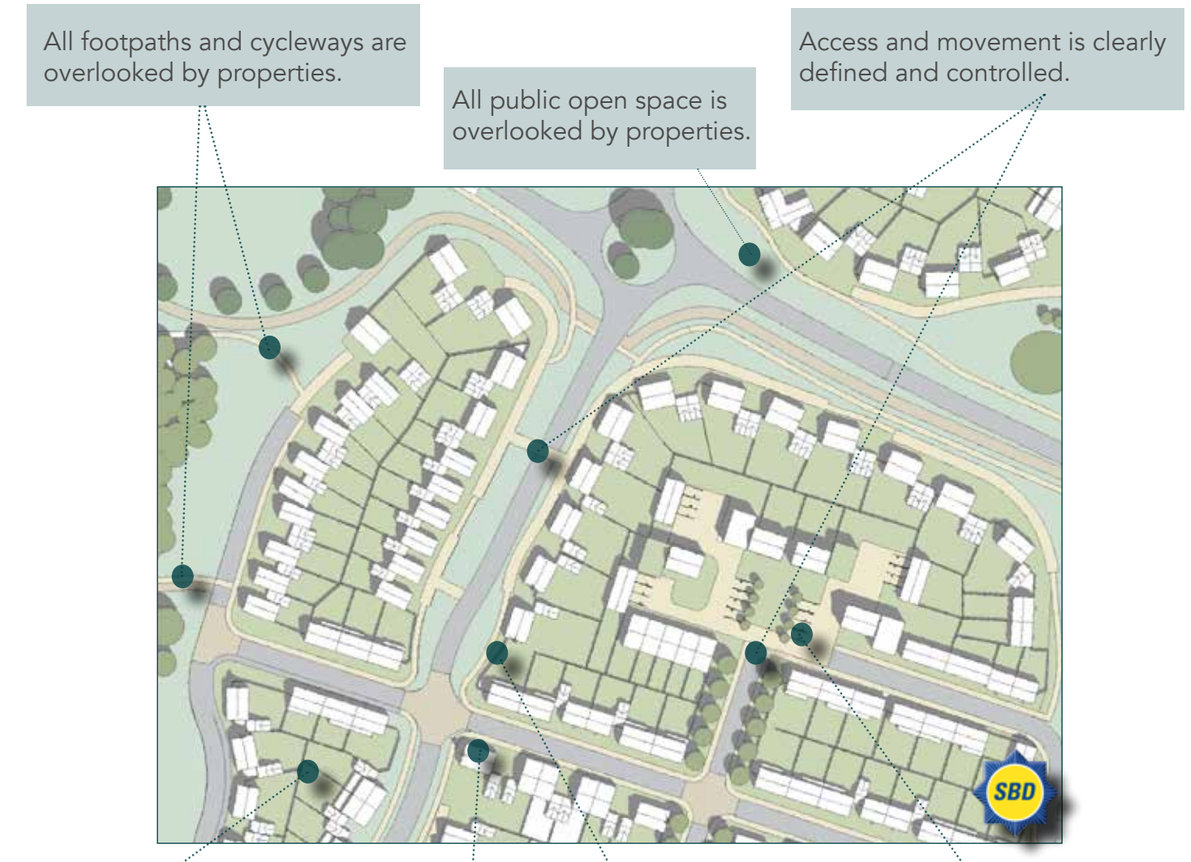
Promoting principles of design known to reduce the opportunity for crime to occur is one of the most important ways in which Local Authorities can address crime issues. Layouts and designs have the potential to make crimes more difficult to commit, increase the likelihood of detection of criminal activity and improve public perceptions of safety. The guidelines set out in the guidance document are based on current best practice; and incorporate guidance from Secured by Design.

Secured by Design is a police initiative to guide and encourage those engaged within the specification, design and build of new homes to adopt crime prevention measures.

The illustrative layout has been designed following the advice of Suffolk Constabulary and the crime prevention principles of Secured by Design. The sample areas on the previous pages show how the illustrative layout has been designed to take account of crime prevention in the following key areas:

Controlling access and movement
Local ownership and defensible space
Natural surveillance
Permeability
Orientation of dwellings
Active frontage
Footpaths and cycleways
Private, communal and public areas
Front boundaries
Rear and side boundaries
Lighting
Landscaping
In curtilage parking
Communal parking
Management and maintenance

05. Placemaking: Urban Form and Scale



The sample area above (extracted from the illustrative layout) shows how the Secure by Design principles have been adopted. These principles can be seen throughout the layout and the numerous other samples of the layout within this document.

06 Placemaking: Character and Appearance

Introduction

This chapter contains detailed studies from the illustrative layout which have been developed further in order to show how the design guidance 'rules' for each of the character areas (as set out in the Masterplan) will be followed. This will be achieved through Form and Scale, discussed in the previous chapter, and Layout, Appearance and Materials as explained in this chapter.

The National Design Guide defines Layout, Appearance and Materials. An extract from the Guide is set out below:

Layout *A layout shows how routes and blocks of development are arranged and relate to one another to create streets, open spaces and buildings. It defines:*

- *the structure or settlement pattern;*
- *the grain - the pattern of development blocks and plots; and*
- *the broad distribution of different uses, and their densities or building heights.*

Appearance *Appearance is the aspects of a building or space within the development which determine the visual impression the building or space makes, including the external built form of the development, its architecture, materials, decoration, lighting, colour and texture. In the case of a space, its landscape also influences its appearance.*

Materials *The materials used for a building or landscape affect how well it functions and lasts over time. They also influence how it relates to what is around it and how it is experienced. The scale, form and appearance of a building influence what materials may be appropriate for its construction.*

Materials should be practical, durable, affordable and attractive. Choosing the right materials can greatly help new development to fit harmoniously with its surroundings.

Innovative materials and construction techniques are being developed all the time.

Modern methods of construction are becoming more common, whether in the form of mass production for modular construction, or off-site bespoke construction for self- or custom-build.

The Plan on the facing page shows the locations of each of the detailed study 'Example Areas' which are featured in this chapter. There are two Example Areas within the Mill Side Character Area, one from the Fen Edge Character Area, one from the residential part of the Market Town Character Area as well as the Local Centre which is also located in Market Town. There is also a section on the School Site, and the Employment Land.

The Character Area Plan from The Masterplan document is reproduced at the top right corner of the plan and the Example Areas are named and colour-coded to match the names and colours on the Character Areas Plan.

Creating Character

1. Mill Side (Eastern Edge)
2. Mill Side
3. Fen Edge
4. Market Town
5. Market Town - Local Centre
6. School Site
7. Employment Land

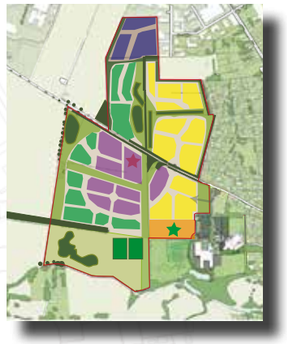


Fig. 34 Character and Appearance - Example Areas Location Plan

Mill Side (Eastern Edge) Example Area

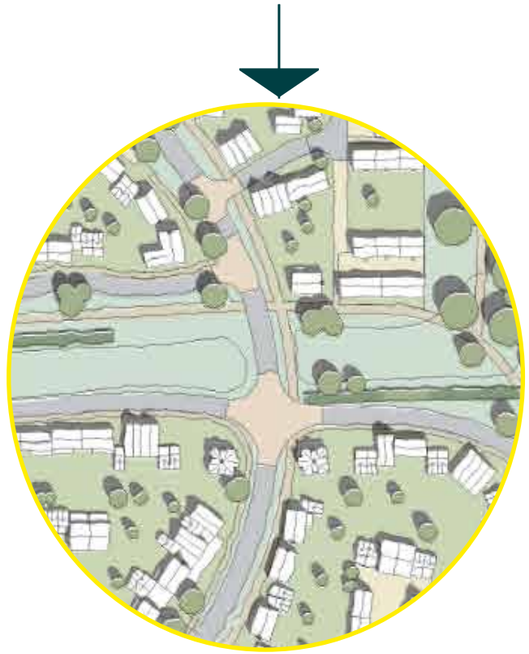
This sample area is within the Mill Side Character Area It forms an important interface with the eastern edge of Mildenhall.

The urban form and scale will be low density, two storey housing. Occasional 'rooms in the roof', only where eaves and ridge heights are consistent with two storey housing, will be appropriate. There will be no apartment blocks along this edge.

The urban form will be dispersed with irregular building lines and setbacks to reflect the existing settlement pattern adjacent to the eastern boundary of the site.

There will be a wide landscape buffer between the boundary and the proposed built form. A footpath cycleway will run north to south through this landscape and will enable connections to the east.

Location of Example Area

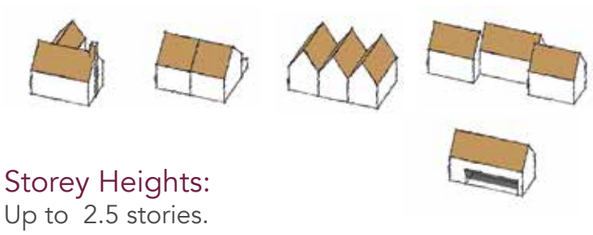


Plan of Example Area

Design Guidance

Density:
Between 15 and 30 dwellings per hectare

Typologies
Detached, Semi detached and Terraced, with some Courtyards and Coach Houses



Storey Heights:
Up to 2.5 stories.

Landscape Character:
Soft landscape with indigenous species.

Fig.35 Detailed Plan of Mill Side Eastern Edge Sample Area - indicating scale, form and character

Mill Side (Eastern Edge) Example Area

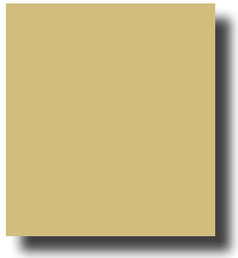
This sample area will be traditional architecture with locally sourced materials reflecting the details and proportions of the domestic buildings in Mildenhall and the surrounding villages.

Design Guidance

Materials
Predominantly buff brick with some render and red brick on key buildings and feature elements.

Boundary Treatments
Mostly hedges, low walls and railings to reflect the characteristic low walls and hedges found in Mildenhall and the surrounding villages.

Road Surfaces
Tarmac with grey and red coloured setts used for demarcation



Location shown on 3D illustrative layout

Detail of sample area model showing typologies

Fig.36 Illustrative view of Mill Side (Eastern Edge) Example Area - indicating character and appearance

Mill Side Example Area

This sample area is within the Mill Side Character Area and is the gateway into the northern part of the site from West Row Road. It illustrates the character of the spine road as it enters the northern part of the site with its wide verges, swales and avenue trees.

There is limited access off the spine road (categorised as a Secondary Road). The example are shows private drives accessed off the spine road and serving a maximum of five dwellings.

Refuse collection points may be required at specific locations subject to carry/collection distances.

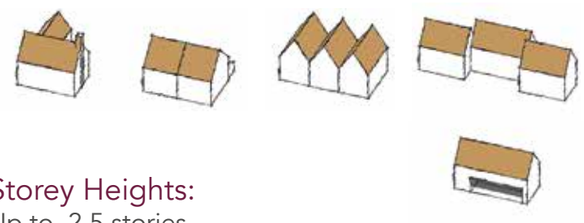
This sample area is low to medium density with detached dwellings facing West Row Road but set well back behind the existing hedgerows. They have large front gardens. The dwellings fronting the spine road are detached and semi detached with smaller front gardens.

Location of Example Area

Design Guidance

Density:
Between 15 and 30 dwellings per hectare

Typologies
Detached, Semi detached, Terraces, Courtyards and Coach Houses



Storey Heights:
Up to 2.5 stories.

Landscape Character:
Soft landscape with indigenous species.

Plan of Example Area

05. Placemaking: Character and Appearance

Fig.37 Detailed Plan of Mill Side Example Area - indicating scale, form and character

Mill Side Example Area

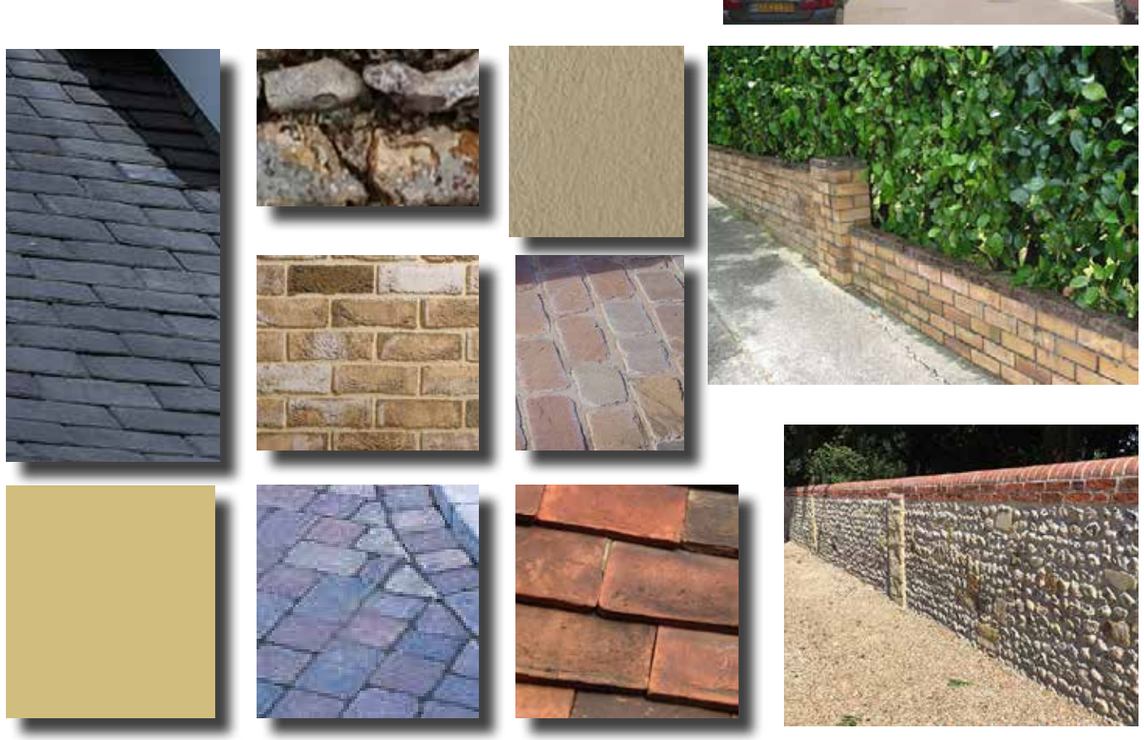
This sample area will be traditional architecture with locally sourced materials reflecting the characteristic features and details found in domestic buildings in Mildenhall and the surrounding villages.

Design Guidance

Materials
Predominantly buff brick with some render.

Boundary Treatments
Mostly hedges, low walls and railings to reflect the characteristic low walls and hedges found in Mildenhall and the surrounding villages. Occasional use of flint walls.

Road Surfaces
Tarmac with grey and red coloured setts used for demarcation.



Location shown on 3D illustrative layout

Detail of sample area model showing typologies

Fig.38 Illustrative view of Mill Side Example Area - indicating character and appearance

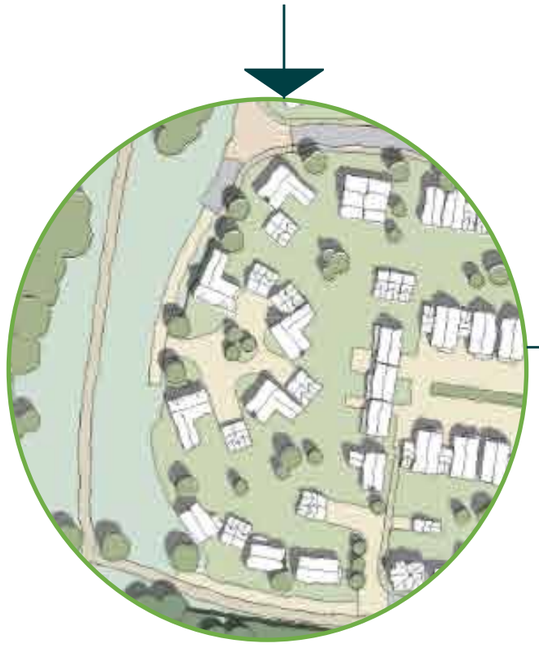
Fen Edge Example Area

This sample area is within the Fen Edge Character Area and is visible from West Row Road when travelling eastwards. It forms an important interface with the open countryside and will become the new edge of Mildenhall. The buildings in this area will have rural references and soft natural landscape.

The urban form and scale will be low density, two storey housing. Occasional 'rooms in the roof', only where eaves and ridge heights are consistent with two storey housing, will be appropriate. There will be no three storey apartment blocks along this edge.

The urban form will be dispersed, with irregular building lines and setbacks. The arrangement of buildings in this sample area reflects the grouping of farms and agricultural buildings in the area.

Location of Example Area

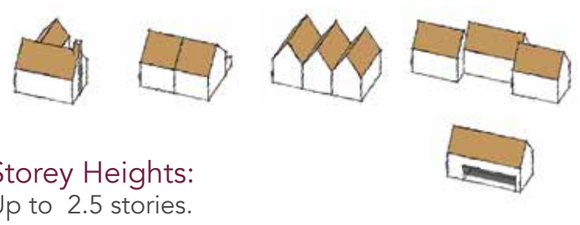


Plan of Example Area

Design Guidance

Density:
Between 15 and 30 dwellings per hectare

Typologies
Detached, Semi detached and Terraced, with some Courtyards and Coach Houses.



Storey Heights:
Up to 2.5 stories.

Landscape Character:
Soft landscape with indigenous species.

Fig.39 Detailed Plan of Fen Edge Example Area - indicating scale, form and character

Fen Edge Example Area

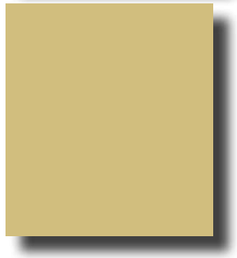
This sample area shows traditional architecture with local materials and modest architectural features and details reflecting the historic farm houses and agricultural buildings in the area.

Design Guidance

Materials
Predominantly red brick and light colour render with some black weatherboard.

Boundary Treatments
Mostly post and rail fences, hedges and open front gardens. Post and rail fences to reinforce the rural character. Cheshire railings can be used around Public Open Spaces and at the interface between the site and the open countryside.

Road Surfaces
Bonded gravel or sets in light buff. Permeable paving to be considered.



Location shown on 3D illustrative layout

Detail of sample area model showing typologies

Fig.40 Illustrative view of Fen Edge Example Area - indicating character and appearance

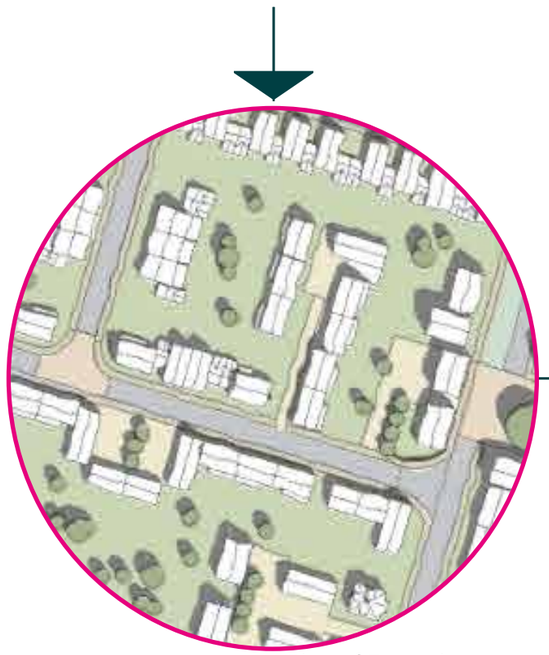
Market Town Example Area

This area is within the Market Town Character Area, the highest density part of the site. The urban from is generally orthogonal with a grid of tertiary streets and shared surfaces.

The sample area shows two storey terraces, semi detached, courtyard and coach houses with both regular and set back building lines. There are also some three storey apartments which are placed at corners and vista stops with parking behind in small landscaped courtyards or within coach houses.

All dwellings have back gardens or ,in the case of apartments, a shared green space and/or balconies. Front gardens are generally small and in mews courts may be at the back edge of the shared surface with 1.5m private space directly in front and marked using contrasting or textured surface material.

Location of Example Area



Plan of Example area

Design Guidance

Density:
Between 30 and 55 dwellings per hectare

Typologies
Detached, Semi detached, Terraced, Coach Houses, Courtyards and Apartments.

Storey Heights:
Up to 3 stories.

Landscape Character:
Predominantly hard landscape with small trees and clipped hedges in places.

05. Placemaking: Character and Appearance

Fig.41 Detailed Plan of Market Town Example Area - indicating scale, form and character

Market Town Example Area cont.

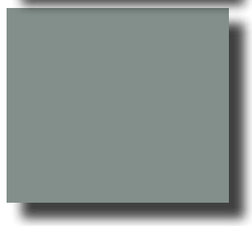
This sample area shows generally contemporary architecture with locally sourced materials reflecting the industrial aesthetic of the historic mill buildings in Mildenhall.

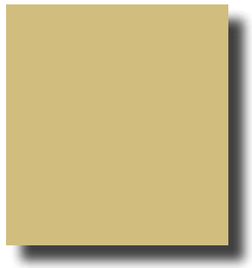
Design Guidance

Materials:
Predominantly buff and red brick with some black boarding. Iron details and metal features in places.

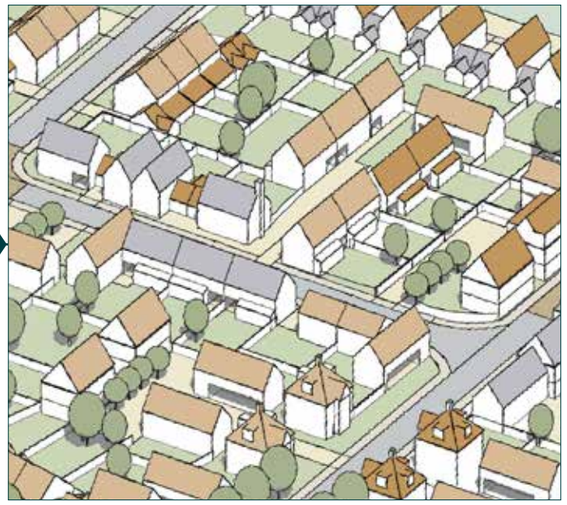
Boundary Treatments:
Predominantly walls and railings with small areas of low level planting and occasional street trees.

Road Surfaces:
Predominantly buff coloured setts with some grey in places. Resin bonded gravel edged with sets and some tarmac in places.





Location shown on 3D illustrative layout



Detail of sample area model showing typologies

Fig.42 Illustrative view of Market Town Sample Area - indicating character and appearance

Market Town Example Area - Local Centre

The local centre sits within the Market Town Area with its contemporary architecture and locally sourced materials reflecting the industrial aesthetic of the historic mill buildings.

The design guidance on materials, boundary treatments and road surfaces will be the same as on the previous four pages so are not repeated here.

The Illustrative Layout and 3D model show the local centre facing towards West Row Road and at the centre of the development. It will be the tallest building group in the development and will be designed as a landmark building group, easily seen from both the north and south of the site.

The network of footpaths and cycleways through the development and through the green corridors lead to and through the local centre.

The Local Centre is in easy walking distance of all parts of the site and is opposite the Tiger Crossing over West Row Road which connects the northern and southern parts of the site.

Limited vehicular access from West Row Road will be provided for visitors and deliveries. Parking will be limited with priority given to blue badge holders.

Although not designed at this stage, the vision for the local centre is that it will provide for the day to day needs of the local residents with the potential for the plaza in front of the shops to provide a community space for a farmers market, a street cafe, pop up stores and various community gatherings. The nursery school is located next to (or part of) the local centre and adjacent to the central play area. The Adult Care Services site is also located adjacent to the local centre.

There are two storeys of apartments located above the shops. Parking for these dwellings will be behind the local centre, ie: not in the plaza facing West Row Road.

Location of Example Area

05. Placemaking: Character and Appearance

Fig.43 Illustrative aerial view of Local Centre - indicating scale, form and character

The Primary School Site

A 2.1Ha educational site for a 420-place Primary School and a 60-place Pre-School will be located to the southeast of the site, close to the Mildenhall Hub. This will cater for additional pupils generated from the development. According to BB103 guidance, a school site of 2.1Ha is able to meet the DfE area guidelines to accommodate a 420-place Primary School and a 60-place Pre-school.

The delivery of the school will be via Suffolk County Council. The Primary school is likely to be designed for phased expansion to enable it to be delivered in 3 phases tailored to forecast demand and housing delivery.

Phasing likely to be as follows:
Phase 1 – 210 places and 30 place Pre-school
Phase 2 – 315 places and 60 place Pre-school
Phase 3 – 420 places and 60 place Pre-school

Whilst the design of the school has yet to be produced, an early feasibility of the school site has been commissioned from Concertus by SCC to assess the site and proposed a layout for the phased delivery of the school site in relation to the adopted masterplan and this outline planning appllication.

The proposed vehicular access to the school site would be via the development, with the car park and cycle parking to the north of the school site. The school and pre-school could be located to the west of the school site, with external areas to the east. The development proposals include a number of connections to existing walking and cycling routes and enhancements to promote sustainable links between the development, the Hub and beyond.

The Land Use Parameter Plan shows the retention of the existing unsurfaced public right of way (PROW) around the Hub site, in addition to existing PROW within the Hub site. A new shared and surfaced 3m footpath / cycle path is proposed below the school site for improved connectivity.

It is anticipated the site would be acquired by SCC education at around 100-150 dwelling completions, with the view to the primary school construction being completed by around 300-350 dwellings. Construction of the school is proposed to commence within the 1st phase of development, which would also be for up to 400 dwellings and will include works to upgrade West Row road to establish access and create a sense of arrival to the development.

05. Placemaking: Character and Appearance

Fig.44 Illustrative aerial view of primary school site - indicating scale, form and character

The Employment Land

This application includes 5 ha of employment land which provides 20,000 sqm of employment floorspace. Details of the different use classes are set out on the following pages.

Outline planning approval is being applied for in respect of the whole mixed-use development, except for 1 aspect of the application where approval of details is requested for works to SafePac site within the existing industrial estate and associated works to the highway. The extent of the full application is as outlined in purple on the site location plan.

SafePac site - detailed application edged in purple

SafePac Application:
Suffolk County Council have a land swap agreement with P & F SafePac Company Ltd. The contract sets out the terms of the agreement which enable SCC to exchange land with SafePac once acceptable planning permission has been achieved in relation to the SafePac site and adjacent highway and agricultural land. The agreement sets out scope of construction works that need to be implemented to construct a replacement yard area, prior to undertaking any further construction works commencing within the extent of the current SafePac site and associated highways works. This is in the interests of maintaining the operation of the site via a phased construction.

The application is being put forward to facilitate a future connection between the existing industrial estate and the proposed new employment land. It is anticipated the employment land will come forward in Phase 3 of the application, unless it can viable be bought forward earlier.

The SafePac plans detail the following proposals:

- Provision of replacement yard area and temporary parking area to the rear of the existing site (change of use from agricultural land to B8 – storage and distribution).
- Realignment of Fred Dannatt Road from the junction of James Carter Road to link onto section of new highway to facilitate new access to SafePac site.
- Provision of a new access to the SafePac site via the new section of highway.
- Provision of a temporary parking area to the south of the replacement yard which will facilitate staff and visitor parking displaced during the construction works on site.
- Reinstatement of temporary parking area upon completion of all construction works once front car park is brought back into operation which will include completion of any strategic landscaping around the permanent replacement yard.

05. Placemaking: Character and Appearance

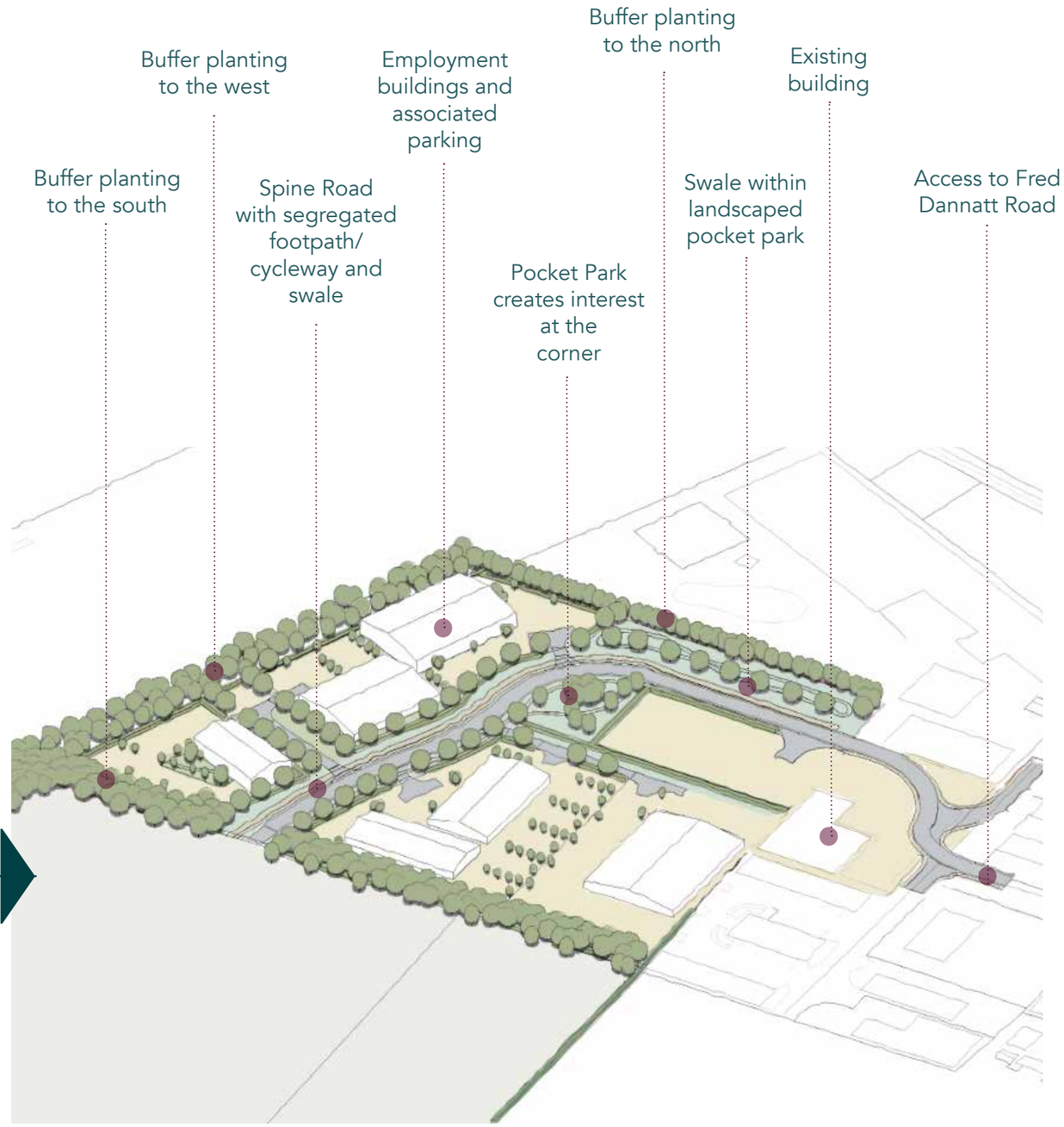


Fig.45 Illustrative aerial view of employment land - indicating ccale, form and character

The Employment Land

The colour coded plan and schedule have been produced to illustrate how 20,000 sq m of employment space could be accommodated on the 5 ha of Employment Land with a mix of use classes that have been market tested. The percentage of floorspace fo each use class is subject to change. The plan and schedule are illustrative only at this stage.

Fig.46 Colour Coded Employment Land plan (for illustrative purposes only)

Use Class	Floor Area sqm	% of total	Parking required	No	Parking area sqm	Cycles	No	Cycle area sqm	Total Area Required
Total Commercial @ 2,0600 on 5ha			**Incl. Blue Badge**					**1 sqm/cycle**	
E(g) I and ii B1a	1400	7	1/30m2	47	818	2/200m2	7	7	2225
E(g) B1c and B2	8000	40	1/30m2	267	4646	2/300m2	27	27	12673
B8	10,600	53	1/150m2	71	1235	2/400m2	26	26	11861
TOTALS	20000	100		385	6699sqm		60	60	26759

Fig.47 Employment Land - Building Areas and Parking Schedule

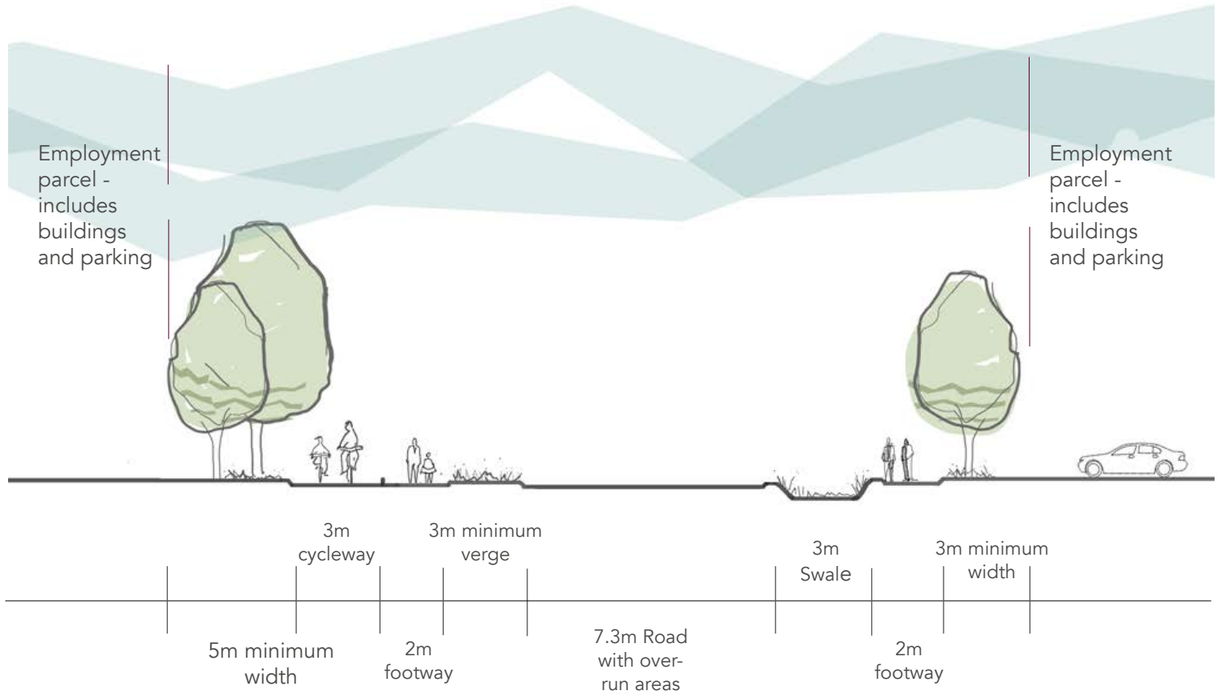


Fig. 48 Section through the employment land spine road

Fig.49 Illustrative plan of employment land - indicating Scale, Form and Character

The Design Code

What is a Design Code?

Design code: A set of illustrated design requirements that provide specific, detailed parameters for the physical development of a site or area. The graphic and written components of the code should build upon a design vision, such as a masterplan or other design and development framework for a site or area.

The National Model Design Code describes a design code as a set of simple, concise, illustrated design requirements that are visual and numerical wherever possible to provide specific, detailed parameters for the physical development of a site or area.

The National Model Design Code is a toolkit to guide planning authorities on the design parameters and issues that need to be considered and tailored to their own context when producing design codes and guides as well as methods to capture and reflect the views of local communities.

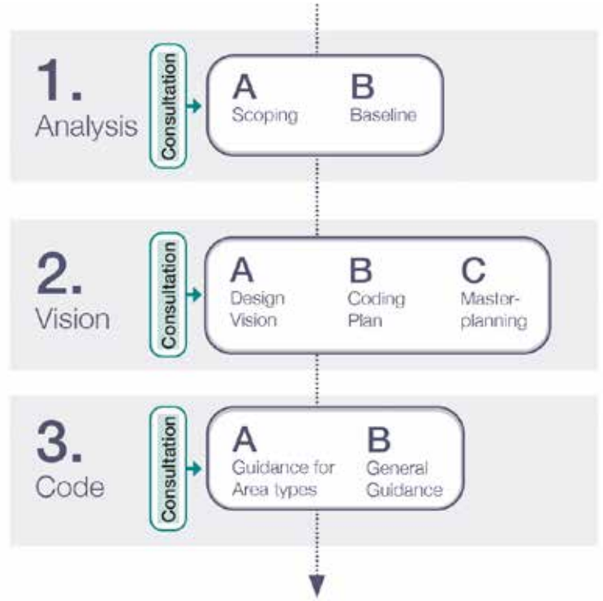
The proposed design code for West Mildenhall, required by WSC, will operationalise the design guidelines and frameworks which have been established through the masterplan process. The Masterplan has set the vision. This Design and Access Statement accompanying the outline planning application has developed that vision and the design code will add further detail.

It will be accompanied by a design rationale that explains the objectives, with the design code providing instructions to the appropriate degree or precision of the more detailed design work.

05. Placemaking: Character and Appearance

In line with the National Model Design Code the design code for West Mildenhall will set a standard of quality and practice for determining the planning applications that will follow this Outline Application and will include:

- The layout of the new development including street pattern.
- How landscaping should be approached including the importance of streets being tree-lined.
- The factors to be considered when determining whether facades of buildings are of sufficiently high quality.
- The environmental performance of place and buildings ensuring they contribute to net zero targets.
- That developments should clearly take account of local vernacular and heritage, architecture and materials.



07 Placemaking: Landscape

Landscape and Open Space

The landscape plays a key role in tying the site together, and forging connections with the existing town.

The Landscape infrastructure will:

- Have defined character areas,
- Have a strong identity,
- Be multifunctional, inclusive and sustainable
- Encourage community involvement,
- Have year-round interest,
- Be as attractive to people as it is to wildlife,
- Promote community integration, informal play and health and well-being, and
- Provide an edible landscape to encourage foraging across the site, including edible fruit bearing species in the choice of parkland trees, woodland thickets, hedge mixes, shrubs and planting areas.

Landscape Routes

The proposed landscape routes between the existing town / new development and the wider countryside are formed around existing Public Rights of Way or as connections between areas of particular importance in the landscape, for example the link between the Local Centre / West Row Road and the River Lark.

Public Open Space Provision

Despite the various constraints within the site there is scope to provide a well-connected network of multi-functional open spaces and formal provision whilst maintaining the sensitive northern boundary. The open space requirement for the proposed development is a minimum of 8.32ha plus 10ha of SANG. The precise arrangement of open spaces is to be determined but the general distribution is shown on the adjacent plan.

Current standards require 2.3ha of formal recreation to serve the wider allocation. The area to the north of the SANG would be suitable for the provision of the formal playing facilities. This would form a soft buffer for the residential development and retain the undeveloped feel to the area south of Wamil Short Row.

Play spaces would be distributed around the site to give good walkable access to users of all ages. The quantum of space proposed and the content of the play spaces will be compliant with the requirements of the relevant planning policies. Play facilities are focused on the Northern and Southern Greenspaces, and form part of larger multi-functional open spaces. Natural play will be encouraged, and the use of natural materials is preferred. Opportunities for informal play throughout the site will be maximized, including play on the way and trim trails.

Landscape and Placemaking

The network of green spaces and corridors will make a significant contribution towards the establishment of a network of interlinked landscaped spaces and routes. These spaces and corridors are multifunctional and offer a diverse and exciting benefit to the town as a whole for residents of all ages. They vary in character along their length or edges but are unified by a common function or feature. The major spaces and corridors are described over the following pages in terms of scale, function, features and benefits, with explanatory diagrams and images.

1. Western Gateway
2. Northern Greenspace
3. Southern Greenspace
4. East West Greenspace
5. The SANG
6. Employment Land Buffer Planting

Fig.50 Plan showing location of landscape study areas

Green Infrastructure Parameter Plan

The Green Infrastructure Parameter Plan follows the same principles in terms of the location of the key areas of recreation as are set out in the approved Masterplan, with the location of allotments, play spaces, and playing fields being consistent between the two, and with the same drainage strategy principles replicated.

The Parameter Plan shows the extent of opens space within the site as a whole. Within this it also shows the extent of land identified for formal recreation provision, as well as locations for play provision, allotments and sustainable drainage features.

It also shows existing trees and hedgerows to be retained, as well as new woodland buffer planting, in particular along the western edge of the Folly Farm land and the employment area.

Key

- Red Line Boundary
- Area subject to Detailed Planning Approval
- Proposed Open Space
- Proposed outdoor sports space
- Proposed play spaces
- Proposed screen planting
- Proposed allotments
- Proposed SANG
- SuDS basin - multifuncional shallow dry basins without standing water. See notes
- Swale - multifuncional shallow dry basins without standing water. See notes
- Existing PROW (bridleway)
- Existing PROW (footpath)
- Existing PROW (footpath) route - potentially subject to a conversion order
- Existing Vegetation - To be retained
- Existing Vegetation - To be removed subject to detailed design
- Existing Vegetation - To be removed

Fig.51 Green Infrastructure Parameter Plan

Western Gateway

The Western Gateway is the new entrance to Mildenhall located on West Row Road. It provides the access roundabout and creates the setting for the Primary Street with dwellings fronting onto an entrance green. It provides a pedestrian / cycle link and spaces for recreation.

The diagram to the right defines the structure to the space and identifies the key features and requirements:

- Retention of existing hedgerows and areas of woodland
- Removal of non native evergreen trees along Wamil Road
- Creation of new hedgerow and tree planting north of the roundabout to create a foraging route for bats
- Clear and well connected walking and cycling routes
- Clear visual connections between the open spaces and surrounding land uses and landmarks
- Groups of trees along the western edge to provide visual mitigation
- To provide accessibility for pedestrians and cyclists through the site
- Shallow SuDS basin and below ground pipes and shallow swales to be functional as open space

Fig.52 Illustrative plan of Western Gateway

Northern Greenspace

The Northern Greenspace forms part of the landscape spine that runs through the site. It is located north of West Row Road, linking the northern neighbourhood to the Local Centre. It provides a pedestrian / cycle link and spaces for play and recreation.

The diagram to the right defines the structure to the space and identifies the key features and requirements:

- Retention of existing hedgerows
- A LEAP of 650m2 with appropriate overlooking and offsets
- Clear and well connected walking and cycling routes
- Clear visual connections between the open spaces and surrounding land uses and landmarks
- Planting to the western edge to reinforce the hedgerows
- To provide accessibility for pedestrians and cyclists through the site
- The incorporation of SuDS features, such as below ground pipes and shallow swales to be functional as open space

Fig.53 Illustrative plan of the Northern Greenspace

07. Placemaking: Landscape

Northern Greenspace

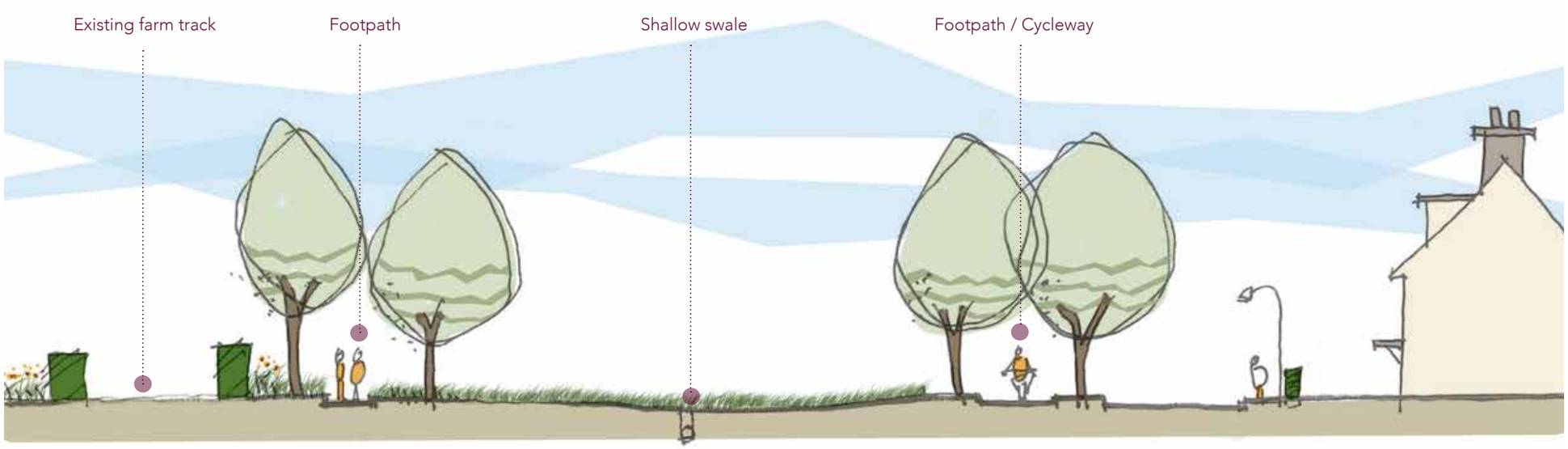
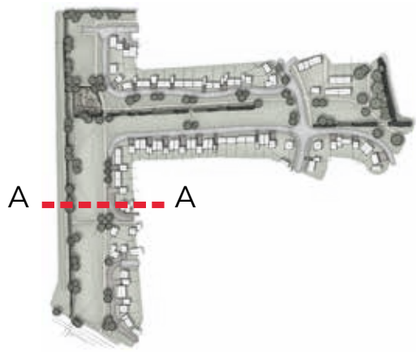


Fig.54 Section A - A through the Northern Greenspace



Southern Greenspace

The Southern Greenspace forms part of the landscape spine that runs through the site. It is located south of West Row Road, linking the Local Centre, and surrounding neighbourhood to the northern area, and south to the SANG and River Lark. It provides a pedestrian / cycle link and spaces for play and recreation.

The diagram to the right defines the structure to the space and identifies the key features and requirements:

- Retention of existing hedgerows and areas of woodland
- A NEAP of 1,500m2 with appropriate overlooking and offsets
- Clear and well connected walking and cycling routes
- A cycleway link through the Category C copse north of the NEAP and 1,500m2 of compensatory woodland planting
- Clear visual connections between the open spaces and surrounding land uses and landmarks
- Groups of trees at key junctions and linkages
- Private space associated with the Nursery and ACS
- Connections to the Local Centre
- To provide accessibility for pedestrians and cyclists through the site
- The incorporation of SuDS features, such as below ground pipes and shallow swales to be functional as open space

Fig.55 Illustrative plan of Southern Greenspace

07. Placemaking: Landscape

Southern Greenspace

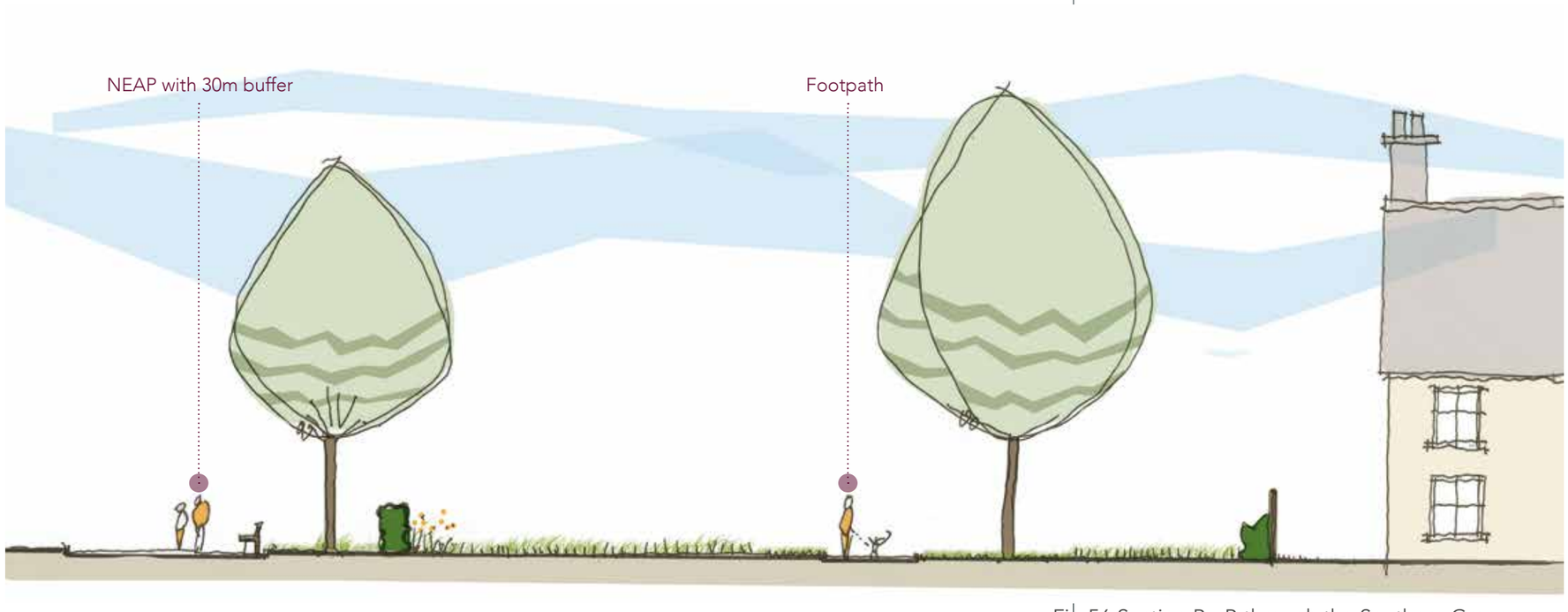
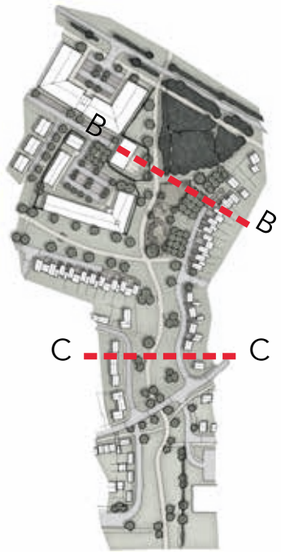


Fig.56 Section B - B through the Southern Greenspace



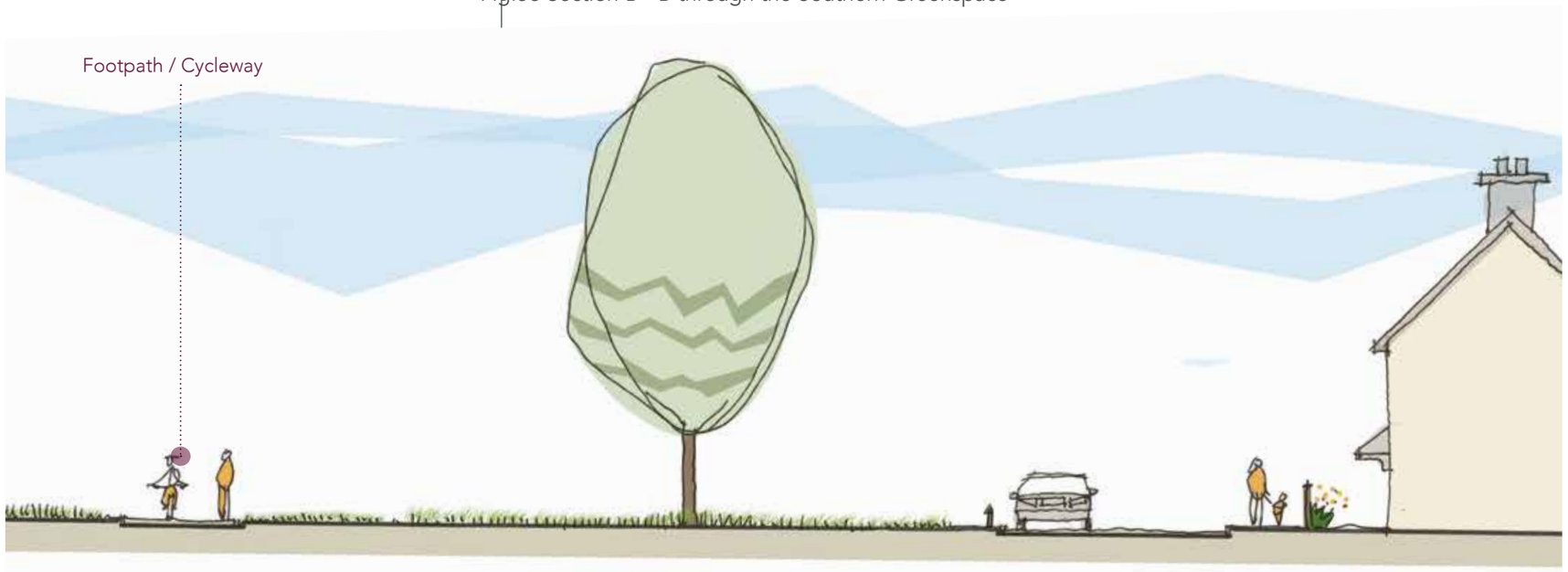


Fig.57 Section C - C through the Southern Greenspace

East West Greenspace

The East West Greenspace connects the Western Gateway to the Southern Greenspace, and forms part of the wider greenspace network. It is broadly aligned on the tower of St Mary's Church in Mildenhall. It provides a pedestrian / cycle link and spaces for recreation.

The diagram to the right defines the structure to the space and identifies the key features and requirements:

- Clear and well connected walking and cycling routes
- Clear visual connections between the open spaces and surrounding land uses and landmarks
- Groups of trees at key junctions and linkage
- Trees lining the boundary of the corridor to focus the view
- Connections to the Local Centre
- To provide accessibility for pedestrians and cyclists through the site
- The incorporation of SuDS features, such as below ground pipes and shallow swales to be functional as open space

Fig.58 Illustrative plan of East West Greenspace

07. Placemaking: Landscape

East West Greenspace

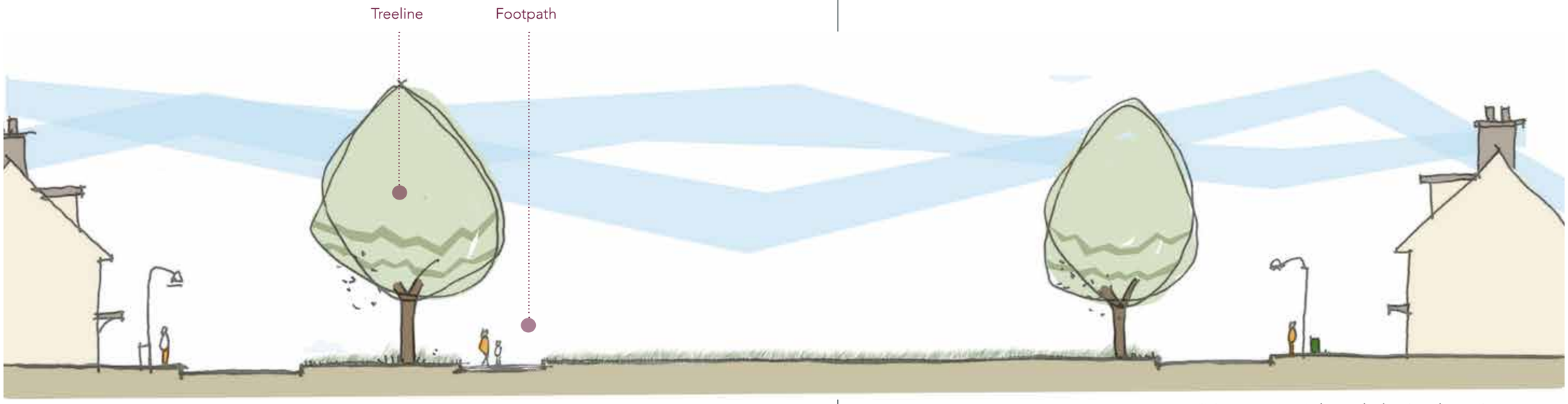
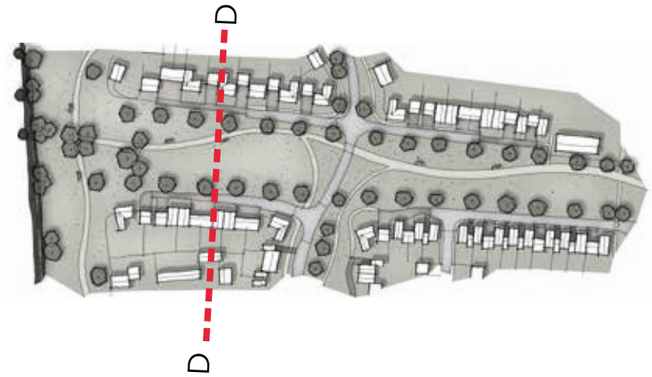


Fig.59 Section D - D through the Southern Greenspace



07. Placemaking: Landscape

The SANG

The Suitable Alternative Natural Greenspace (SANG) forms a buffer between the development and the River Lark. It is located on the southern edge of the site. Dog walking routes provided within, and around the site will encourage dog walkers to remain in the local area. This will reduce the number of residents that routinely visit the nearby SPA, reducing the disturbance to nesting Stone Curlew, Nightjar and Woodlark. Views to St Mary's Church in Mildenhall and All Saint's Church in Worlington are available from within the SANG.

The SANG will contain a mosaic of habitats and provide green space which is equally as attractive as the nature conservation sites that it is protecting. It will not include significant areas of scrub or woodland but will be a largely open landscape that is safe and attractive for recreation.

The proximity to Mildenhall airbase and the risks associated with bird strikes must be considered in the design of the SANG.

The diagram to the right defines the structure to the space and identifies the key features and requirements:

- Retention of existing hedgerows and areas of woodland
- A break in Wamil Short Row to facilitate the path and SuDS connections
- A destination play space LEAP/NEAP of 1,800m2 with appropriate overlooking and offsets
- Clear and well connected walking and cycling routes
- Clear visual connections between the open spaces and surrounding land uses and landmarks
- Groups of trees at key junctions and linkages
- To provide accessibility for pedestrians and cyclists through the site

Fig.60 Illustrative plan of the SANG

Planted Buffers

The planted buffers to the western boundary and on the southern edge of the employment area should comprise of a mix of locally occurring native species. These areas are intended to provide both ecological and visual mitigation.

The employment buffer is provided in two parts with a 10m buffer provided as part of this application and the remaining 10m to come forward in the application for the Folly Farm land.

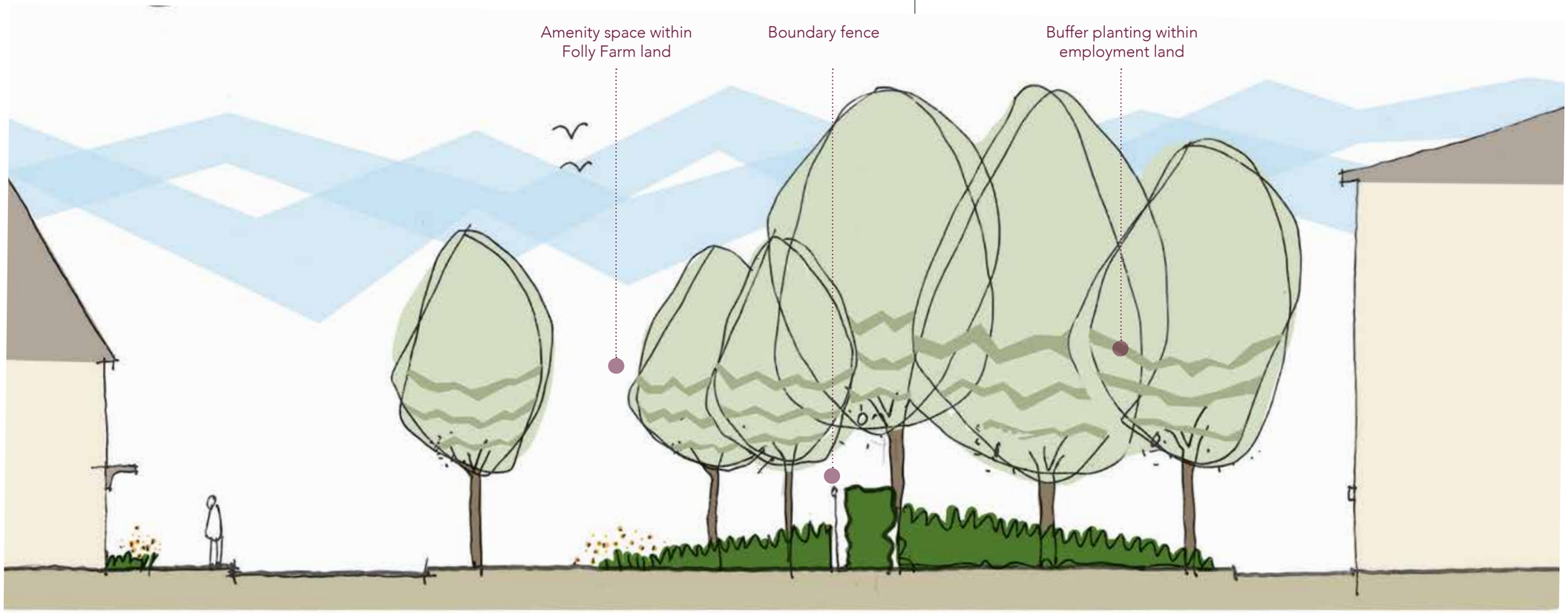


Fig.61 Section E - E through the Employment Area buffer planting

SuDS

The proposed SuDS strategy should enhance the development and assist in creating sustainable, well-designed places where people want to live, work and spend time.

SuDS areas should make a positive contribution to the environmental, social and aesthetic character of the development. They should be integrated so that drainage features interact with the urban landscape and blend with the design of buildings and open spaces. SuDS should make a feature of water as it is collected and transported in order to draw people together in communal areas and enhance the quality of life of residents.

A range of SUDS features should be used: from at source techniques such as tree pits, to 'green infrastructure SUDS' such as swales, rain gardens / bioremediation areas and attenuation basins with a discharge into the existing drainage network.

Swales are proposed within open spaces and should feature gently sloping sides so as to seamlessly integrate within the landscape. Swales should be planted to maximise the biodiversity potential of the system, and assist with the integration of the basins into the landscape.

Attenuation basins should be designed to integrate with the wider landscape structure and be usable as open space. Planting should be used in all basins to maximise the biodiversity potential of the system, and assist with the integration of the basins into the landscape.

07. Placemaking: Landscape

Planting

Tree planting within the open spaces should be comprised of large native broadleaves, where space permits. Generally, large nursery stock trees should be planted with semi-mature trees (min 20-25cm girth) planted in key locations. Species choice should be informed by trees found locally to ensure consistency with the local landscape.

Trees planted adjacent to highways are to have more compact crowns so not to overhang the road. Sub-cultivars of native species can be planted to these locations.

New hedgerows are to be planted with mixed native species, minimum width 1m.

Grass margins adjacent to footways and cycleways are to be a minimum of 1.5 metres wide and seeded with native species- rich flowering lawn mix and regularly mown to prevent encroachment.

Edges to either side of the existing and new hedgerows the corridors are to be seeded with a hedgerow grassland mix and managed as long grass areas.

Opportunities for the provision of species attractive to pollinators should be taken, including fruiting trees and species in hedgerows.

<u>Climate resilience and Biodiversity</u>

A diverse selection of species fosters a more climate resilient environment that can better adapt to the extreme weather events we are experiencing. This should be kept in mind when specifying any proposed planting material across the site.

In addition, for biosecurity purposes, all plant stock should be sourced from a supplier certified to be pest and disease free and in accordance with Plant Passport / Animal and Plant Health Agency (APHA) and current DEFRA requirements.

Play, Recreation and Public Art

Art, Play and Street Furniture

To aid placemaking and wayfinding there is opportunity to include a public art strategy that could include sculpture within key areas of the masterplan. Art could feature sequentially along a route, such as the Northern and Southern Greenspaces, as could additional play provision such as Play On The Way, or trim trail equipment.

Art and play could reference the heritage of the town, integrating the site to the wider settlement.

Street furniture should feature a uniform approach and style in keeping with countryside edge setting, and located to aid wayfinding, whether that is in the form of a place to sit and rest or a lighting column marking a key public space.

Wayfinding

With the changes planned for Mildenhall over the next few years there is an exciting opportunity to bring many of the excellent existing facilities together into a coherent recreation strategy. The town and immediate surroundings benefit from several local destinations / attractions that are linked by PROWs and historical attractions.

The site's location is well suited to build on this existing network as it benefits from good rights of way connections to many of these attractions. The proposals make best use of these connections, offering existing and new residents a cohesive network of recreational routes.

Way finding signage should be provided at key nodes although excessive signage and ground markings should be avoided.

08 Placemaking: Sustainability & Delivery

Introduction

This section outlines the sustainability related current and future planning policies and proposed sustainability strategies for the new development.

Suffolk County Council declared a Climate Emergency in March 2019. A Policy Development Panel (PDP) was established in September 2019 with the specific aim of realising the ambition to make Suffolk County council carbon neutral by 2030. Over 100 actions to work towards carbon neutrality have been identified, which in turn have been divided into 5 sectors:

1. Collaborative action
2. Sustainable homes
3. Low carbon transport
4. Industrial and commercial energy use
5. Cleaner Power

Sector 1 - Collaborative Action, focuses on enabling the wider community to contribute towards the goal of zero carbon.

Sector 2 - Sustainable Homes, is of key importance to this development and focuses on how carbon neutrality will be achieved within the homes sector. In addition to changing how homes are heated, this also covers preparing for new technology, and reducing electricity usage to ease demand on the electricity grid. Electric vehicle charging points and PV roof panels for homes are identified as key measures for home installation.

A number of goals and priority actions have been outlined, such as transitioning to fully de-carbonised heating systems, in the form of heat pumps; improved energy efficiency, by adopting a 'fabric first' approach; and encouraging behaviour change by the wider dissemination of information to homeowners.

Sector 3 - Low Carbon Transport, highlights the importance of building walking and cycling infrastructure, as well as seeking to encourage the take up of Electric Vehicles by developing a range of incentives, and improving the charging point network.

Sector 4 - Industrial and Commercial (IC) Energy Use, concentrates on measures to be adopted to reduce carbon emission from the I&C sector.

Sector 5 - Cleaner Power, discusses ways in which Suffolk is planning to continue to decrease carbon emissions from electricity generation towards the goal of a zero carbon supply.

Carbon neutrality is targeted to be achieved by 2030.

Sustainability

In addition to the Climate Emergency Action Plan, the following policies have also been identified as appropriate for assessing the performance of the development:

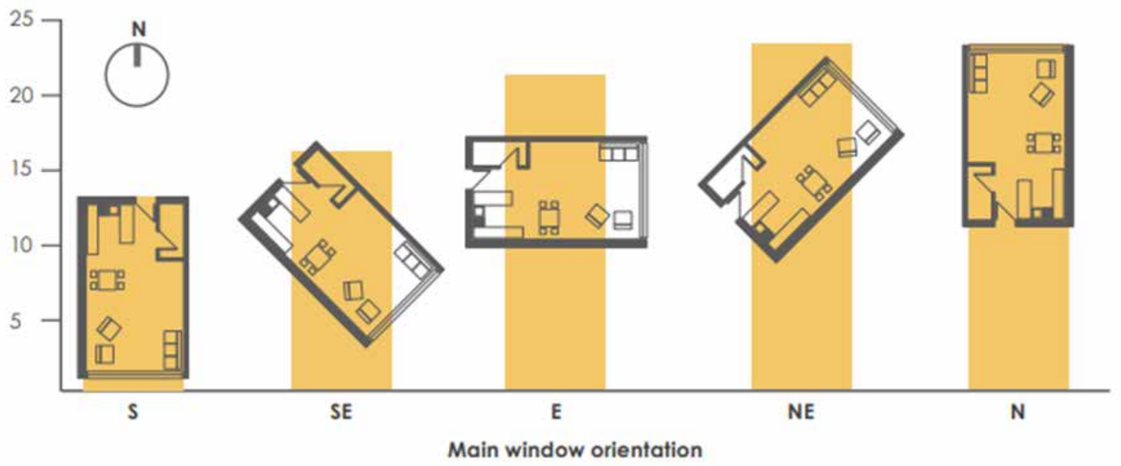
West Suffolk Council Core Strategy Development Plan, Adopted May 2010, Policy CS 4 – Reduce Emissions, Mitigate and Adapt to future Climate Change, which requires all proposals to encourage high levels of building sustainability, and West Suffolk Council Joint Development Management Policies Document, Adopted February 2015, Policy DM 3, which states that 'measures to reduce energy demand, maximising energy efficiency and secure on-site renewable, decentralised or low carbon energy generation to cut carbon dioxide emissions' are to be set out.

Furthermore, Policy DM7: Sustainable Design and Construction, requires that all development adhere to the principles of sustainable design and construction, and optimise energy efficiency through design, layout, orientation, materials, insulation and construction techniques. In addition, water consumption for new development is to be no more than 110 litres/person/day, and all new non-residential buildings with a gross floor area greater than 1,000m2 are to achieve BREEAM 'Excellent'.

Sustainability Strategy

In order to address the requirements of the current and future policies, a broad array of principles of sustainable design will be adopted for the development that will address the key environmental issues within the region.

Physical form of buildings:
Buildings will make use of passive design features such as orientation, internal layout and glazing to best respond to the local climate and annual sun path, with the aim of reducing energy demands and improving occupant comfort through the use of heat and light from the sun. Overheating will be avoided by making use of the natural environment, together with the incorporation of shading and blinds.

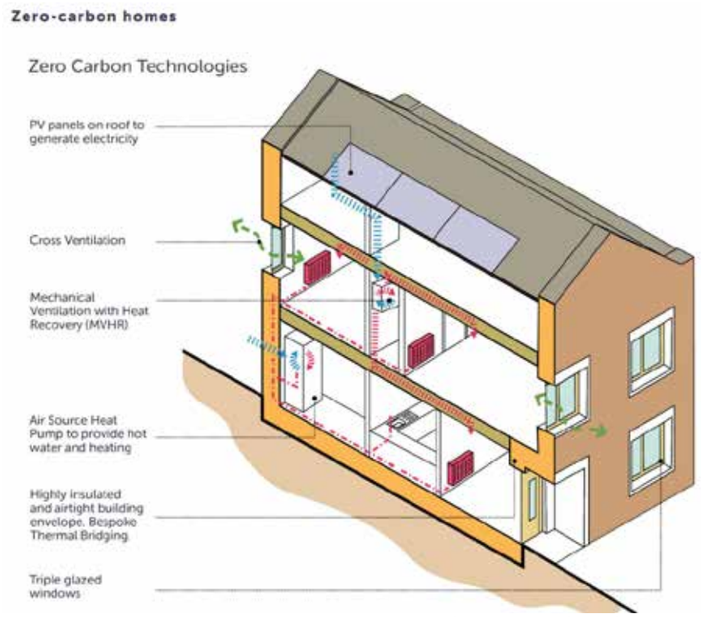


Effect of orientation on energy demand (LETI)

Sustainability

Building envelope and thermal performance
All dwellings will be built according to the 2025 Future Homes Standard. This entails achieving an exemplary fabric performance, through the incorporation of high levels of insulation and high performance glazing, well beyond current building regulations standards. The adoption of such rigorous energy efficiency measures will lead to an overall reduced energy demand for heating.

Sustainable construction methods such as offsite construction, where significant reductions in waste and carbon can be achieved, as well as a substantial reductions in build time, will be considered. It has been shown that homes built using these methods have fewer defects and far lower heating bills.



Features of a zero carbon home (BPTW)

Ventilation
In order to further reduce heat loss, construction will be carefully monitored throughout to ensure that all junctions are built to the highest standard of air tightness to avoid unnecessary heat loss. To ensure adequate levels of ventilation, highly efficient Mechanical Ventilation with Heat Recovery (MVHR) systems will be installed in all homes. The recovered heat from these systems will, in many cases, be sufficient to provide the majority of the buildings' heating demand.

Heating and hot water
Heating and hot water will be provided by low carbon sources such as Ground Source or Air Source heat pumps. These systems are powered by electricity, which will naturally evolve into a low or zero carbon energy source as the grid moves towards complete de-carbonisation. Other energy sources such as hydrogen will be considered as the technology matures.

It is anticipated that individual heat pumps will be installed for houses, with small local district heating systems installed for apartment blocks. Non-domestic buildings will have their own systems.

08. Placemaking: Sustainability and Delivery

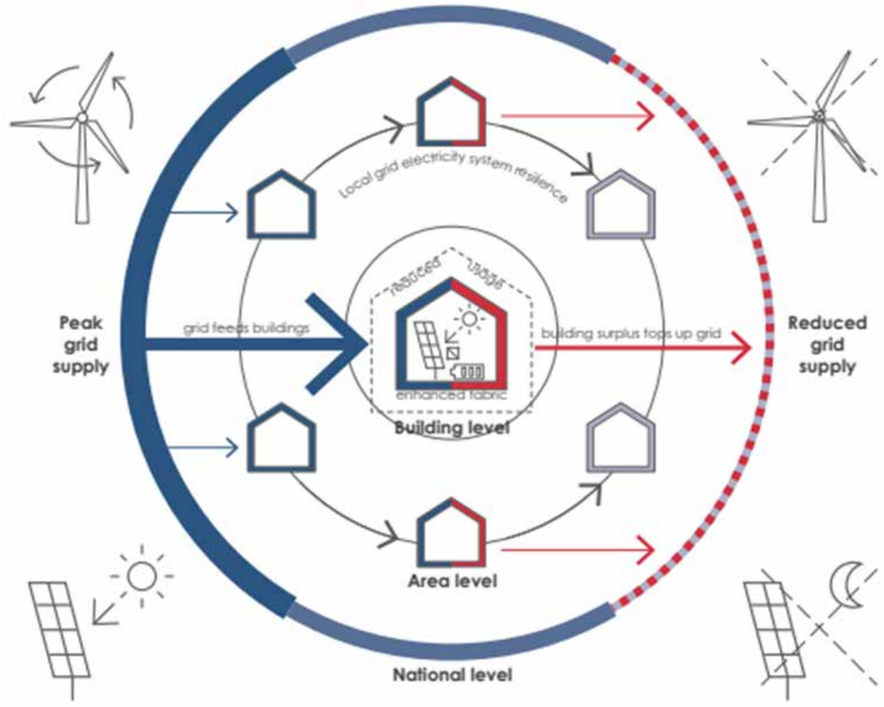
Sustainability

Renewable Technology
Further reductions in carbon emissions will be achieved by the incorporation of renewable technology in the form of photovoltaic (PV) panels installed on the roofs of houses and apartment blocks.

District Heating and Energy centres
There are a number of district heating systems within the vicinity, such as the Mildenhall Hub, as well as energy from waste initiatives. These will be investigated for feasibility for future connection.

Low carbon heat source will be used for in the development; it is assumed air source heat pumps will be primary source, however the feasibility of heat networks will also be considered.

Electric Vehicles (EV) and Smart Energy
All dwellings will be fitted with EV charging capability, as well as a minimum of 15% parking provision in public spaces. All charging points will be Vehicle to Grid (V2G) in order to enable demand response capability, where electricity can be taken from the grid at times of high demand, but fed back into the grid at times of low demand, thus smoothing out the overall demand, and taking advantage of the much greater storage capacity of vehicles over that of a standard battery.



The demand response cycle levels out energy demand (LETI)

Sustainability

Electric and Thermal storage
In addition to EV storage, the provision of battery storage for excess PV generated electricity will be explored. Thermal storage is yet another technology that enables the conservation of thermal energy via a storage medium. The most common of these is water, but other, more space efficient materials are becoming more widespread.

Water efficiency
Domestic water consumption will meet the local authority target of 110 litres per person per day by the installation in all homes of water efficient sanitary fittings, such as dual flush WCs, low flow taps, aerated shower heads, and water efficient white goods. Where feasible, the use of rainwater harvesting and greywater recycling will be considered for incorporation. In particular, the use of rainwater for irrigation of green spaces will be a high priority.

Reducing Construction Impacts - Materials and Recycling
We shall seek to source construction materials locally wherever possible for the entire development. In addition, particular consideration will be given to materials with low embodied carbon, as measured throughout the whole lifecycle. All building materials and construction methods will be subject to Whole Lifecycle Carbon assessment, with the emphasis being on the selection of the lowest impact solution. The principles of the Circular Economy will be adopted to eliminate waste during the construction process.

On-site waste will be minimised, and a high proportion of the waste that is produced will be diverted from landfill, through either re-use on site (in situ or for new applications) or re-use on other sites, salvaged/reclaimed for re-use, returned to the suppliers via 'take-back' schemes, or recovered and recycled using an approved waste management contractor.

08. Placemaking: Sustainability and Delivery

Sustainability

Climate Change

The masterplan sets out a commitment to addressing climate change challenges through design. The following key principles have be considered through the masterplan and planning process:

Urban Design
- Pedestrian and cycle friendly urban designs that encourage non car use
- Connections to existing PROWs and creation of new PROWs
- New connections to public transport routes beyond the allocated site
- Strategic integration of SuDS into the Parameter Plans and Illustrative Layout
- Green corridors and green infrastructure throughout the site

Housing Design & Build Standards
- Low carbon heating systems
- Fabric first construction principles and energy efficient design
- Orientation and thermal comfort considered as part of design
- On site energy generation
- Energy infrastructure to allow for electrical vehicle charging and peak demand management
- Water efficiency on site through low flow fittings

Materials and waste
- Reduced embodied carbon through local sourcing of materials and reduction of waste where possible

Phasing and Delivery

The adopted West Mildenhall Masterplan identified five broad phases of development as shown on Fig 50 of the document (below right). The unit numbers are based on the Illustrative Layout. Whilst these are yet to be confirmed through reserved matters, they could be:

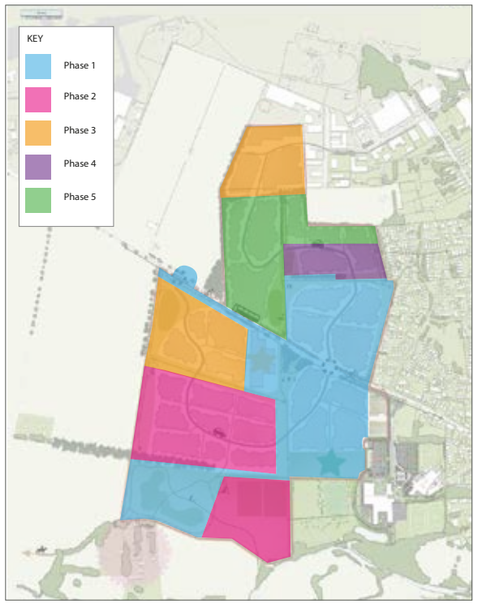
Phase 1 - circa 392 residential units with:
- Junction improvements to West Row Road
- Local Centre
- Primary School
- Partial delivery of SANG
- Transport infrastructure

Phase 2 - circa 315 residential units with:
- Completion of SANG
- Sports pitches
- Transport infrastructure

Phase 3 - circa 231 residential units with:
- 80 ACS
- Employment land, including the SafePac site
- Transport infrastructure.

Phase 4 - circa 49 residential units with:
- Necessary infrastructure

Phase 5* - circa residential units with:
- Necessary infrastructure



Phasing Plan (Fig.50) from the Masterplan

* Phase 5 is excluded from the scope of this application; however, the adopted masterplan constitutes a material consideration and therefore there is the expectation that any future applications for planning permission should be broadly in accordance with this approved Masterplan. The phase 5 land, which is under separate ownership, is expected to come forward in due course under a separate planning application. The applicant and land owner remain in dialogue as regards bringing this land forward.

Delivery Strategy

It is envisaged that the timeline for this development would be within a 9-year period, with housing delivery evenly distributed over that time. Peak construction would be at the times when the local centre and school are constructed.

Potential completions of the phased delivery could be as follows:

Phase	Potential Delivery Period
Phase 1	2026 - 2030
Phase 2	2030 - 2032
Phase 3	2032 - 2034
Phase 4	2034 - 2035

08. Placemaking: Sustainability and Delivery

Phase 1

Phase 2

Phase 3

Phase 4

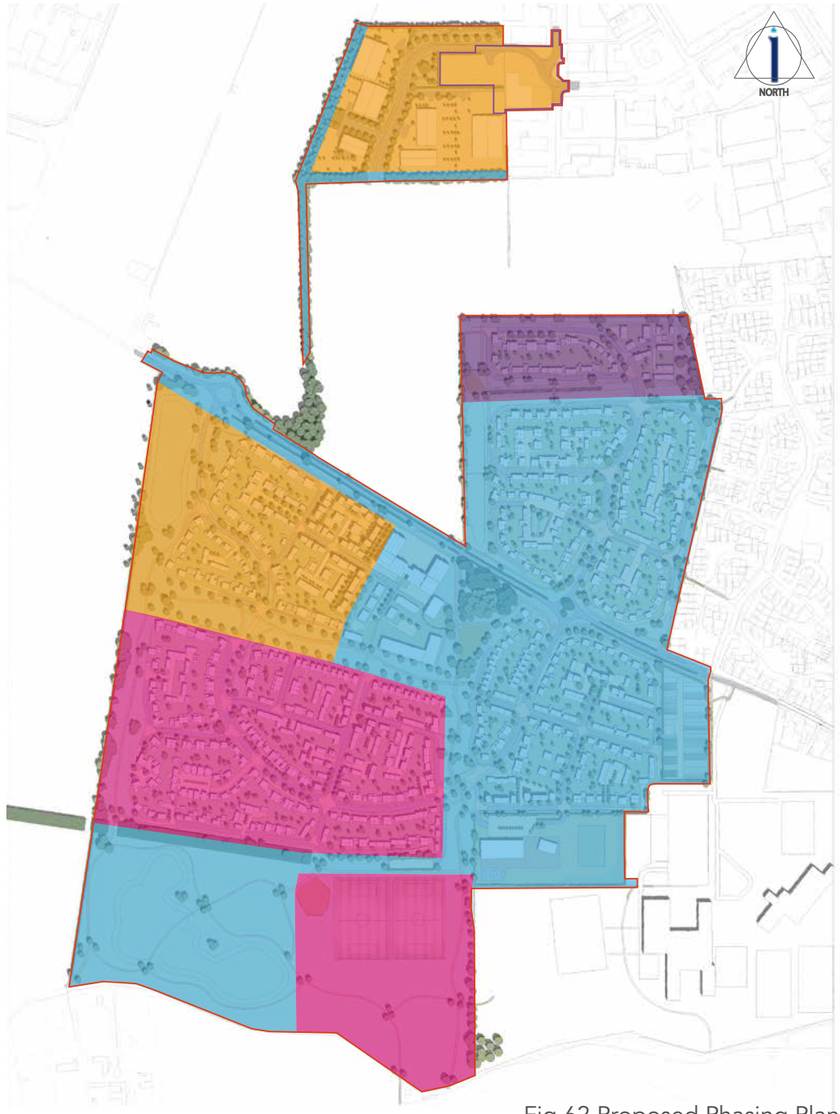


Fig.62 Proposed Phasing Plan

The delivery strategy is based on a sales outlet achieving 3 dwellings completing per month. It is likely that, for the first year, the developer would have a single sales outlet, but by the second year onwards it is envisaged they would run two sales outlets, with each phase split, offering a different style of dwelling from each outlet.

The upgrade works to West Row Road including the new roundabout will be undertaken within the first year, with both sides of the road being developed at the same time to establish a frontage from the main road. This will then enable two different character areas to be established with two sales outlets.

A construction phasing plan will be submitted prior to commencement to set out proposals on how the developer will minimise the environmental impact of construction.

Management and Maintenance

The table below sets out the proposed strategy for the management and future ownership of those items that do not relate directly to residential use.

Facility or Land Use	Delivery	Management	Ownership
Green Corridors, including infrastructure, un-adoptable footpaths, cycleways and PROWs	The Developer	Suffolk County Council	PROW team/ Management Company
SANG and Pitches	The Developer	Management company (potential to bring under same management as The Hub)	SCC/WSC
Public Open Space, incidental green space and play areas	The Developer	Management Company	SCC/WSC
Spine road including spaces up to back edge of footway and end of bell mouth radius	The Developer	Suffolk County Council	Adoption by SCC
Adoptable secondary, tertiary, mews and associated surfaced paths, cycleways and cycle parking	The Developer	Suffolk County Council	Offered to SCC for adoption
Local Centre external areas, plazas and areas of public realm	The Developer	Suffolk County Council	Offered to SCC for adoption
Un-adoptable Minor Estate Roads	The Developer	Management Company	Suffolk County Council
Strategic Landscaping including hedgerows and tree lines	The Developer	Management Company	Suffolk County Council
Primary School and Early Years	Suffolk County Council	Academy Provider	Suffolk County Council
Pumping stations	Anglian Water	Anglian Water	Anglian Water
Primary and sub-stations	House Builder	UKPN	UKPN
SuDS (where not in adopted highway	Edmundham Developments	Management Company	Suffolk County Council
Allotments	Edmundham Developments	SCC/WSC	SSC/WSC

08. Placemaking: Sustainability and Delivery

The developer will deliver a safe and attractive neighbourhood that is well connected to Mildenhall and local services.

The intention will be to appoint an estate management company/s who will work with the local community to deliver both high quality residential and recreational management services, to ensure the social, economic and environmental benefits of the development are nurtured and grown over time.

The management services will reflect local needs and deliver a high standard of service to all residents, and maintain the SANG and public open spaces and routes to be safe and of a high quality. A forum would be provided to enable tenants and owners to be involved together to influence the management of their community and ensure the changing priorities of the neighbourhood are considered.

bluepencil DESIGNS

RIBA Chartered Practice

specialists in residential design and masterplanning

mette@bluepencildesigns.com
07718626383
bluepencildesigns.com