

### Primary school education provision

The EFDC Local Plan as adopted (March 2023) requires appropriate education provision including primary school and early years. There are four strategic options for providing additional primary school/early years places in North Weald as follows:

1. Create a second primary school in North Weald, resulting in two schools in the village
2. Demolish and replace St Andrew's with a larger primary school
3. Operate St Andrew's Primary School across two sites (providing an infant and junior school)
4. Expand St Andrew's Primary School and provide investment in existing school facilities.

Applicants should reference the ECC

Developers' Guide to Infrastructure Contributions' 2023. ECC has advised that their preference is for the reserve school site to be located to the south of site NWB.R3 at the furthest point from St Andrew's Primary to maximise the number of families in North Weald Bassett living within walking distance of a primary school. Two schools would provide choice and reduce walking distances thereby encouraging active travel over drop-off by car. An indicative layout is shown in figure 6.20. Alternatively, the existing St Andrew's primary school could be expanded. Both options are shown below in figure 6.19.

The early years element of the primary school provision would be for 56 places. ECC has a statutory responsibility to plan for and deliver SEND facilities. This development could generate a need for some pupils who need SEND provision requirements but further details can be explored/reviewed as the development progresses. ECC is responsible for this delivery.

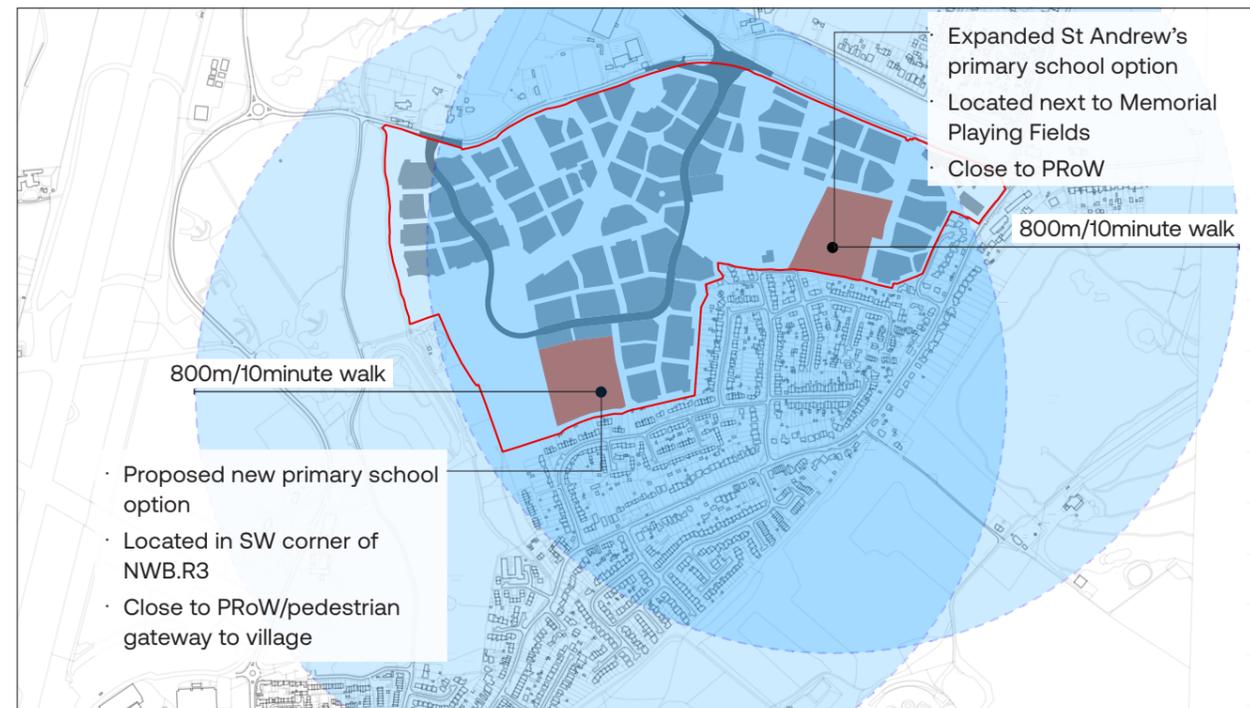


Figure 6.19 - Proposed school options walking catchment



Figure 6.20 - Indicative education site elements and layout

## Traveller pitches

Policy P6 requires the provision of up to five traveller pitches within site NWB.T1, which shares a boundary with NWB.R1. There are 2 options for the location of the pitches within NWB.R1, as illustrated in figure 6.21. Future planning applications will determine the precise location and siting of the traveller pitches which are expected to be in either of these two broad locations. Careful consideration will need to be given to the siting of the pitches in order to provide for proper consideration of local environmental quality on the health and well-being of occupants. Applications for the traveller site must ensure it is well integrated into the wider mplan area.

Regard must also be had to the EFDC Traveller Site Selection Methodology which underpins the suitability of this site for this use; in accordance with the methodology the precise location of the site must be within 100 metres of the edge of classified and other metalled roads and not too close to the existing settlement. This dictates that the site must be located within 100 metres of an access from the A414. The Site Suitability Assessment envisaged access via an upgrade of the existing A414 vehicular access.

Further best practice guidance on traveller pitch design is included in the Essex Design Guide (<https://www.essexdesignguide.co.uk/supplementary-guidance/gypsy-traveller-and-showpeople-guidance/>). An illustrative layout for a 0.35ha five traveller pitch area is shown opposite in figure 6.22, but this will be subject to the individual land owner proposal in a future planning application.



1. Traveller site option land (as shown on masterplan)
2. Traveller site alternate option land area
3. NWB.R1 temporary access from A414
4. Retained landscape structure
5. Secondary street/bus route
6. Higher level of enclosure on secondary street/potential bus route, with terraces/apartments
7. Indicative SuDS features
8. Bus/coach drop-off
9. Greenway link
10. Social Heart

Figure 6.21 - Illustrative layout of 5 pitch traveller site option layout within NWB.R1 (layout shows option land 1)



1. Entry to development
2. Visitor parking
3. On site green space
4. Buildings located to maximise space for vehicles
5. A range of pitch sizes should be provided
6. Landscape areas for planting and biodiversity
7. SuDS features to assist with managing water run off

Figure 6.22 - Illustrative 5 pitch traveller site layout (0.35ha), indicative only

## Church car park

Whilst not a requirement of the Local Plan, the local Diocese has requested that the SMF incorporates improved parking for St Andrews Church. At the north western corner of the NWB.R3 site there is a small unsurfaced area used for car parking by the Church. It is proposed that this land be formalised as a small car park with around 7-12 spaces, as shown below be paved and incorporate a lockable gate to prevent unauthorised access.

## 6.7 Placemaking and wayfinding

### Summary

The placemaking and wayfinding framework is illustrated opposite, and described over the next few pages. The following framework describes the key placemaking and wayfinding strategies, to ensure that the SMF guides the sense of place for the SMF and is legible for both residents and visitors.

This includes neighbourhood character, the Social Heart, gateways, strategic views and vistas, focal buildings and key frontages. In addition, this framework describes key routes through the SMF, along with how art, play, street furniture, landscape and community activity can contribute to the character, placemaking and wayfinding of the proposal.

The overarching concept of the SMF is to plan development so that it is landscape-led and incorporates existing landscape features. The existing network of hedgerows, copses of mature trees and several feature trees provides an established landscape structure that will enhance character, movement corridors and wayfinding. In addition, the site benefits from heritage assets which will help define key spaces and routes through the SMF.

As the SMF is also intended to facilitate direct and easy connections across the village and beyond to the wider countryside, it is important that these spaces will be pedestrian focused. Streets and greenways will be designed to feel safe, feature a high quality public realm, and with priority given

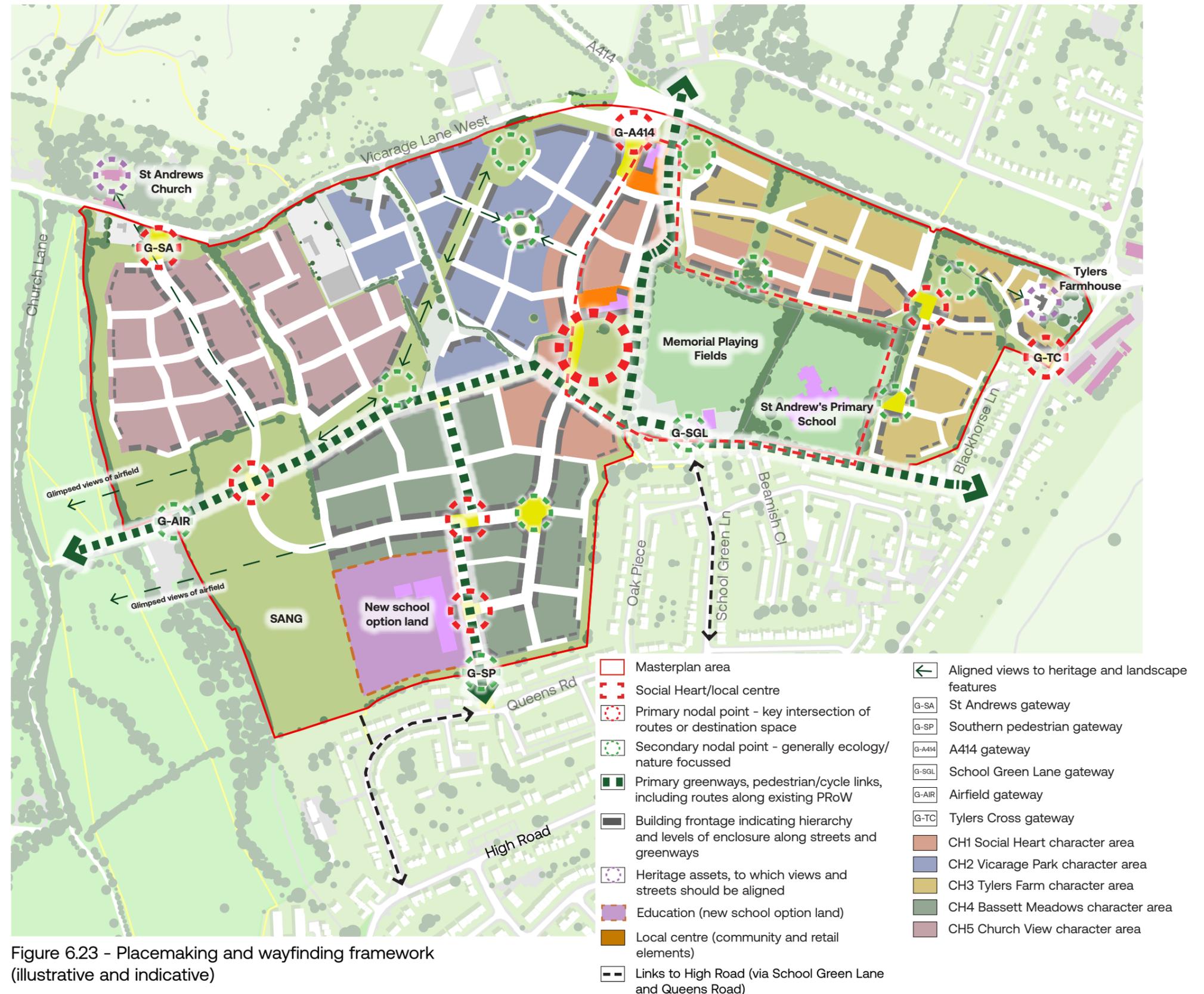


Figure 6.23 - Placemaking and wayfinding framework (illustrative and indicative)

to pedestrians and cyclists. Active frontages will overlook these spaces and routes to provide natural surveillance.

A visual connection is equally important, and the SMF retains views to heritage assets, creates new vistas to strategic infrastructure (including opening up views to the Social Heart) and retains glimpsed views to the wider countryside, offering a breathing space from village life.

For further information on the character of the landscape and built form proposals please refer to chapter 7.

Additional detail on the following components will be undertaken by future design code work.

### Neighbourhood character areas

Proposals should identify areas of distinct neighbourhood character and identity. The framework plan illustrates 5 built character areas, which are listed below and explained in more detail in chapter 7:

- CH1 Social Heart
- CH2 Vicarage Park
- CH3 Tylers Farm
- CH4 Bassett Meadows
- CH5 Church View.

### A new Social Heart

At the centre of the SMF is a mixed-use Social Heart for the village comprising a mix of active uses, located at a key intersection of pedestrian and cycle routes. It will become a focal point for the village, and as part of the SMF is framed on its northern and western sides by new homes and the local centre, and framed on its southern and

eastern edges by existing mature trees. The character of this area is further explained in chapter 7.

### Primary and secondary nodal points

Primary nodal points occur at the intersection of key routes, or at key destination spaces and gateways. Secondary nodal points are generally ecology and nature focussed.

### Gateways introduction

Gateways provide an entrance space and setting to particular areas as well as a transition between or along different spaces on a route. The transition between spaces, character and edges is crucial, with appropriate responses to landscape and built form. The SMF features six gateways:

**G-A414: A414 gateway** - Located at the junction of the A414 and Vicarage Lane West, this serves as the primary vehicular access to the SMF area. The built and landscape form creates a sense of enclosure as you enter the site, and includes the retail element of the local centre. Building heights and density are higher in this area. This gateway is illustrated in figure 6.24.

**G-SA: St Andrews church gateway** - Located off Vicarage Lane West, this new vehicular access to the SMF area is intended to be low-key and incorporate a green edge to St Andrews Church. Built development reduces in height and density towards this edge. The streetscape design has been aligned to afford a vista to the church along the primary street.

**G-SP: Southern pedestrian gateway** - Located on the southern edge of the SMF, adjacent to the land reserved for a primary school, and north of Queens Road (including a triangular shape of EFDC controlled land outside the site boundary), this pedestrian focused gateway connects the SMF to the existing village centre. The built form will be in keeping with the green buffer along Queens Road, forming an arrival space at the intersection of 2 pedestrian routes - the Public Right of Way running east to west, and the pedestrian link running north connecting to the primary street and main east to west corridor across the SMF. For more information refer to chapter 7.

**G-SGL: School Green lane gateway** - this existing connection from School Green Lane to the Memorial Playing Fields will be enhanced as part of the new Social Heart. In addition to being a key route to the playing fields it also provides access via the connecting byway to St Andrews School, and a direct link from the Social Heart to The High Road. There is potential for future signage and paving upgrades to help wayfinding.

**G-AIR: Airfield gateway** - located on the western side of NWB.R3, this pedestrian and cycle link partly utilises the WWTW service road, and will then need to traverse council owned land and cross Church Lane to reach North Weald Airfield. Pedestrian crossings of highways should be designed to allow safe movement.



Figure 6.24 - A414 gateway

**G-TC: Tylers Cross gateway** – located adjacent to The High Road, this gateway facilitates a new vehicular entrance to NWB.R2 along with a shared pedestrian/cycle link that continues through NWB.R1 on its southern edge, linking into the Social Heart.

### Enclosure and frontages

A greater level of enclosure and frontage should be provided along key routes, greenways, spaces and junctions within the SMF. This could be achieved through scale/height or proportion of built form (e.g. wide frontage homes). In either case, a rhythm of built form along the street must help reinforce the character and function of the space. For example around the Social Heart, the space will be edged by residential and local centre buildings to provide natural surveillance, framing and scale.

### Marker buildings/mature trees

Marker buildings should be located throughout the SMF either along or helping to form key vistas and spaces. Marker buildings are memorable, subconsciously or otherwise, and help create a map in our brains to aid wayfinding. Therefore, they should be distinguishable from the prevailing urban form, which could be achieved through scale or material change.

Likewise retained mature trees and proposed landscape treatments aid wayfinding. They create local identity, providing reference points to enhance legibility. Where possible the street should be aligned to attractively frame mature trees within the development area.

### Key vistas

Key vistas should attractively frame areas of open space or buildings (including heritage assets). Where a building terminates a vista it should be the primary elevation of that building.

Views along streets are very important, and careful consideration should be given to the relationship of building styles. Boundary treatments, hard materials and planting along the street should remain constant despite architectural changes.

The principle vistas within the SMF are heritage focused. 1. the alignment of street and block form within NWB.R3 towards St Andrew's church, helping to frame an important heritage asset which has served as a key marker within the landscape for centuries, and 2. Framed view towards Tylers Farmhouse (listed building) within site NWB.R2.

### Art, play and street furniture

To aid placemaking and wayfinding there is opportunity to include public art features. Art and play could feature sequentially along a route, such as the east to west corridor across the SMF.

Art and play could reference the heritage of the village, such as the history of the airfield, integrating the SMF to the wider village.

Street furniture should feature a uniform approach and style in keeping with countryside 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.

### Key routes through the SMF and village

2 routes have been identified within the SMF as examples of how it has been shaped to enhance pedestrian links across the village (with particular reference to placemaking and wayfinding), connects key destination hubs, and supports the concepts of local living and the 15 minute neighbourhood:

- Airfield Masterplan to High Road
- Proposed local centre to village centre.

These two routes (figure 6.25) intersect at the Social Heart for the village and are illustrated further in figure 6.26

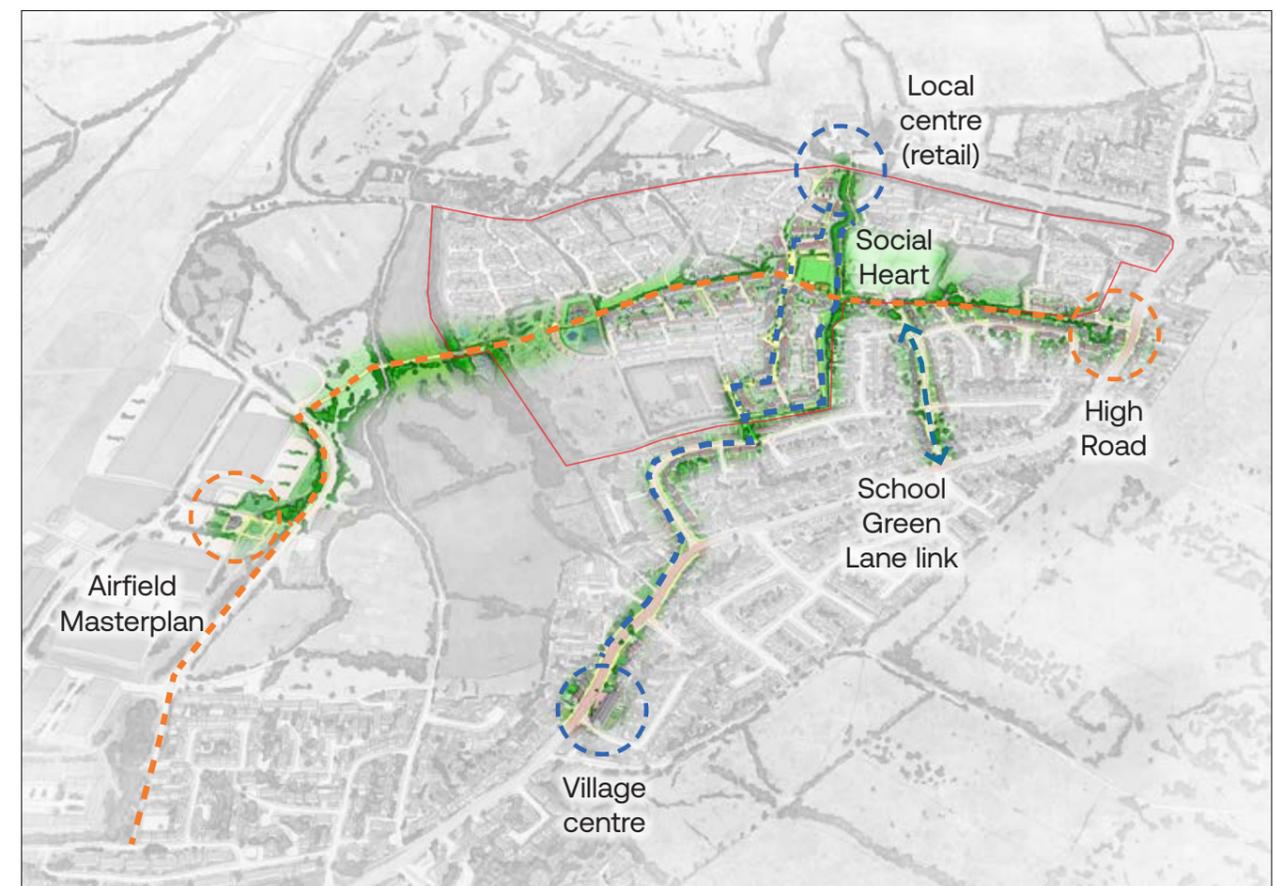


Figure 6.25 - Key pedestrian/cycle routes through the SMF and village

### 1. Airfield Masterplan to High Road

This is a 1600m route, approximately 20 minute walk and broadly flat. Beginning at the airfield, users walk northwards along Merlin Way before crossing east into natural green space/SANG area. Entering the SMF area through Church Fields (with SANG, play areas and community orchard). There are glimpses of St Andrew's church to the north as you follow the overlooked east-west link (including a shared footpath/cycle route) through to the Social Heart, with sports pitches, health, community and mobility hub uses. If using a e-bike this could be safely parked and charged here. The route passes Queens Hall community centre and transfers onto the existing byway south of St Andrew's primary school, and through to the High Road.



### 2. Proposed Local Centre to Village Centre

This 1400m route, approximately 15 minute walk, including a slight incline from The High Road to the SMF area. Beginning at the existing village centre shops, we walk along the High Road to Queens Road. This links via existing footpaths to the southern pedestrian gateway space and school option land. The school entrance will be close to the gateway to encourage active travel on using a choice of routes. We can continue on the north-south greenway, follow a direct green link from the school to the Social Heart, or follow the greenway on the south eastern edge of the site. At the Social Heart there are a choice of routes, either via the direct green link, the existing byway or along the wide-verge lined primary street, which connect to the new shops alongside the A414 gateway.



Figure 6.26 - Key routes through the SMF area and village

## Heritage assets

As set out in chapter 3, the site benefits from a unique historic context. This presents an opportunity to inform the character and identity of the SMF area and to contribute to wider strategic objectives.

Proposals should respond positively to the site's heritage assets, which can assist placemaking and wayfinding by forming vistas and markers along a route or help to frame a space. Heritage assets within and surrounding the SMF area are listed below, including reference to potential treatments.

There is one Listed Building located in the SMF area with a collection of further Listed Buildings in close proximity which need to be given special regard.

In addition, there is one non-designated heritage asset, the locally listed building referred as White Friars, located directly to the SW of the grade II listed St Clements, which is of historic and aesthetic value.

### Tylers Farmhouse (LB1111388)

Grade II timber framed hall house dating to the early 16th Century located in the centre of site R2 and which can be viewed from site R1. Tyler's Farmhouse is set well back from High Road and is well screened by existing trees, the majority of which would be retained. There would be limited new buildings in front of the listed building, in order to help protect its setting. It will be important to provide a new building frontage along the north side of the new access road, which would run around the western boundary of the site to serve new dwellings in the north-west corner of the site. In this way, the setting of Tylers Farmhouse would be respected and the significance

of this designated heritage asset would be maintained.

### Tylers Lodge (LB1111389)

Grade II early 19th Century house glimpsed from site R2. Tylers Lodge is also set back from High Road behind a large front garden. This listed building is not opposite the site of NWB.R2, but some 40 metres to the south. The intervening buildings between Tylers Lodge and the site effectively blocks views of Tylers Lodge from the site and the new access, such that there would be no impact on the wider setting of this listed building and no loss of significance as a designated heritage asset.

### White Cottage (LB1111381)

Grade II row of early 19th Century cottages visible from site R1. White Cottage is set back and slightly downslope from the corner of Blackhorse Lane. Its principal elevation is east facing so the development may be seen from the upper storey. Whilst the development will be prominent in comparison, the cottage has already lost its connection to the open farmland due to intervening development during the 20th century. In the context of the existing modern housing stock, subject to lower storey heights in this area, development of the SMF area should not have an adverse effect on the cottage.

### Parish church of St Andrew (LB1111353)

Grade II\* parish church and built in approximately 1330 with square tower added later and dating to circa 1500. There are attractive views of the church tower in the western part of site R3 from the public right of way and where the north-western section of site R3 is located approximately

50 metres from the Parish Church. It is considered that these views make a contribution to the aesthetic and communal value of the church, where its tower is a dominant and historic marker within the landscape. The SMF therefore seeks to ensure that several long public views of the church tower are incorporated into the structure of development. Street form and buildings need to be orientated to retain public views and building storey heights should to be restricted in the north western part of site R3.

### Church Cottage (LB1337224)

Grade II timber framed cottage dating to the 17th century. The cottage can be seen from the north western corner of site R3. Church cottage is visible from within the R3 area. In this part of the SMF, it is proposed that the development edge is pushed south from the NW boundary, and that both residential density and storey heights are lower in this area.

### St Clements (LB1111354)

Grade II house believed to date to at least the 17th century, with the possibility of dating to the 16th century. St Clements is screened by mature landscaping around its perimeter curtilage and tree and scrub planting on the edge of site R3. St Clements located away from Vicarage Lane West so it is not visible from within the R3 area, due to screening from existing vegetation. In any case, in this part of the SMF, it is proposed that the development edge is pushed south from the NW boundary, and that both residential density and storey heights are lower in this area.

### Control Tower at North Weald Airfield (LB1413519)

Grade II control tower built in 1952. It is one of only seven of its type to be constructed and the best surviving. There are some limited views of the control tower from the west of site R3, which should be retained as part of the green buffer.



Tylers Farmhouse



St Andrew's church



Control tower

## 6.8 Density

### Summary

The density framework is illustrated opposite and described over the next few pages.

Density is a key component of character, with intensity of activity supporting the future vitality of the SMF and creating a successful new place.

The site allocation identifies a minimum of 1,050 new homes within the SMF area. The proposed density framework can deliver a minimum 1,050 new homes.

Densities and dwelling mix should consider the following factors:

- Local Plan policy
- Wider understanding of the housing market area
- Housing need analysis
- Ability to deliver a variety of housing types and tenures.

The objective of the density strategy is to create mixed and balanced new neighbourhoods at North Weald Bassett, with enough flexibility to respond to changing market conditions over time.

Future proposals should demonstrate that there will be a mix of housing types and typologies, at a range of densities.

Future proposals will expand upon related elements, including parking provision, street design and building layout/typologies.

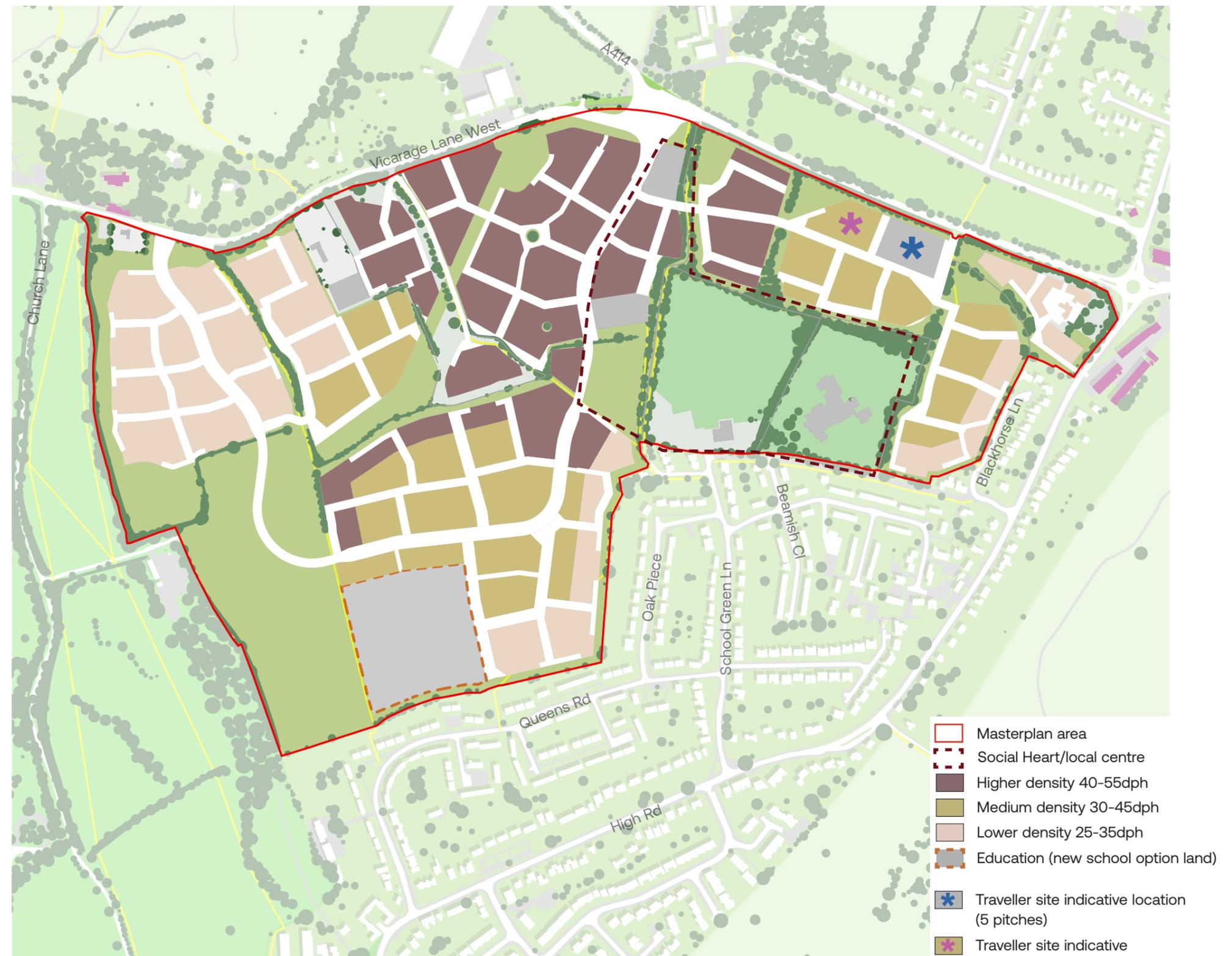


Figure 6.27 - Density framework (illustrative and indicative)

## Approach to density

Existing density levels at North Weald Bassett vary but are generally around 25-30dph. In places the density does increase to 45-55dph, specifically in areas that include apartment blocks.

Therefore the proposals should demonstrate a range of densities, appropriate to this setting, delivering a range of unit types.

Density values should reference the intensity of activity relative to the accessibility of each place. Likewise, density is related to the viability of community facilities and the overall vitality of the SMF.

In general, higher densities will be supported around the Local Centre/Social Heart, to help create a higher density core to ensure the vitality of those areas, and in specific areas, such as the smaller development parcels. It is not anticipated that the Local Centre would incorporate residential dwellings above the active ground floor uses of the community or retail element as this will reduce the need for large parking courts at a key focal area.

Medium densities will generally be supported across the central and eastern parts of the SMF.

Lower densities are likely to be appropriate at the edges of development, including those which have been identified as sensitive due to existing homes bordering the site or those which include heritage assets. For example, in the north western part of NWB.R3, density should lower further in response to the setting of St Andrew's church.

Indicative approximate density values (dwellings per hectare) are indicated in figure 6.28.

Flexibility should be included regarding the breakdown of the minimum of 1,050 units across the five development sites of the SMF area. Illustrative average net residential densities for each of the five residential sites and the SMF overall are illustrated in the table below.

Allocation area	Indicative net dev area (ha)	Indicative maximum number of homes	Indicative average net density based on unit range
NWB.R1	5.045*	231	34-45dph
NWB.R2	0.673	23	25-35dph
NWB.R3	18.584**	838	33-45dph
NWB.R4	0.514	28	40-55dph
NWB.R5	0.947	52	40-55dph
TOTAL	25.763**	1,172***	33-45dph

Figure 6.28 - Illustrative development densities

\* NWB.R1 indicative net development area excludes 0.35ha 5 pitch traveller site

\*\* NWB.R3 indicative net development area excludes 2.1ha School Option 2 land and local centre

\*\*\* 1050 homes is the minimum, the above table shows the theoretical maximum unit number based on these densities

Note: The indicative development areas and densities are illustrative, and are subject to further survey work, analysis and review by each development site's land owner/promoter.

## Housing mix

North Weald Bassett features a larger proportion of semi-detached and terraced homes. The SMF should feature a range of typologies, including detached, semi-detached, terraces and occasional apartment buildings, in keeping with the existing village as described in chapter 3.

A variety of house types and arrangements will be promoted across the SMF to coincide with a varied approach to density.

There is potential for future proposals to feature a diverse range of dwelling types, including homes with integrated space for home working.

All new homes should have regard to EFDC's local plan housing policies H1, H2 and development management policies.

At Reserved Matters stage applications should take account of SHMAR housing need, current affordable housing need and any specialist housing need.

## 6.9 Heights

### Summary

The heights and views framework is illustrated opposite and described over the next few pages.

The existing village is predominantly 2/2.5 storeys in height, with occasional bungalows and occasional taller apartment buildings (up to 4 storeys). Proposals should replicate this in order to demonstrate that built form responds positively to the village context and setting of the SMF area. The discrete character of the village and surrounding area means that a dominating high-rise development would not be appropriate in the SMF area.

### Building heights key issues

Buildings will be up to three storeys with variations as follows, but must not exceed the defined heights. Key issues include:

- Social Heart/Local Centre: buildings surrounding these focal areas will be up to three storeys in height. This includes homes on the southern edge of NWB.R1 which overlook the Memorial Playing Fields, and the north west corner of NWB.R3 beside the new A414 roundabout
- It is proposed that buildings within the Local Centre will not feature residential accommodation above, so as to not require large areas of parking courts and retain a human scale appropriate to the village setting. However, these buildings should feature roofscape designs that helps to frame the space as well as inform

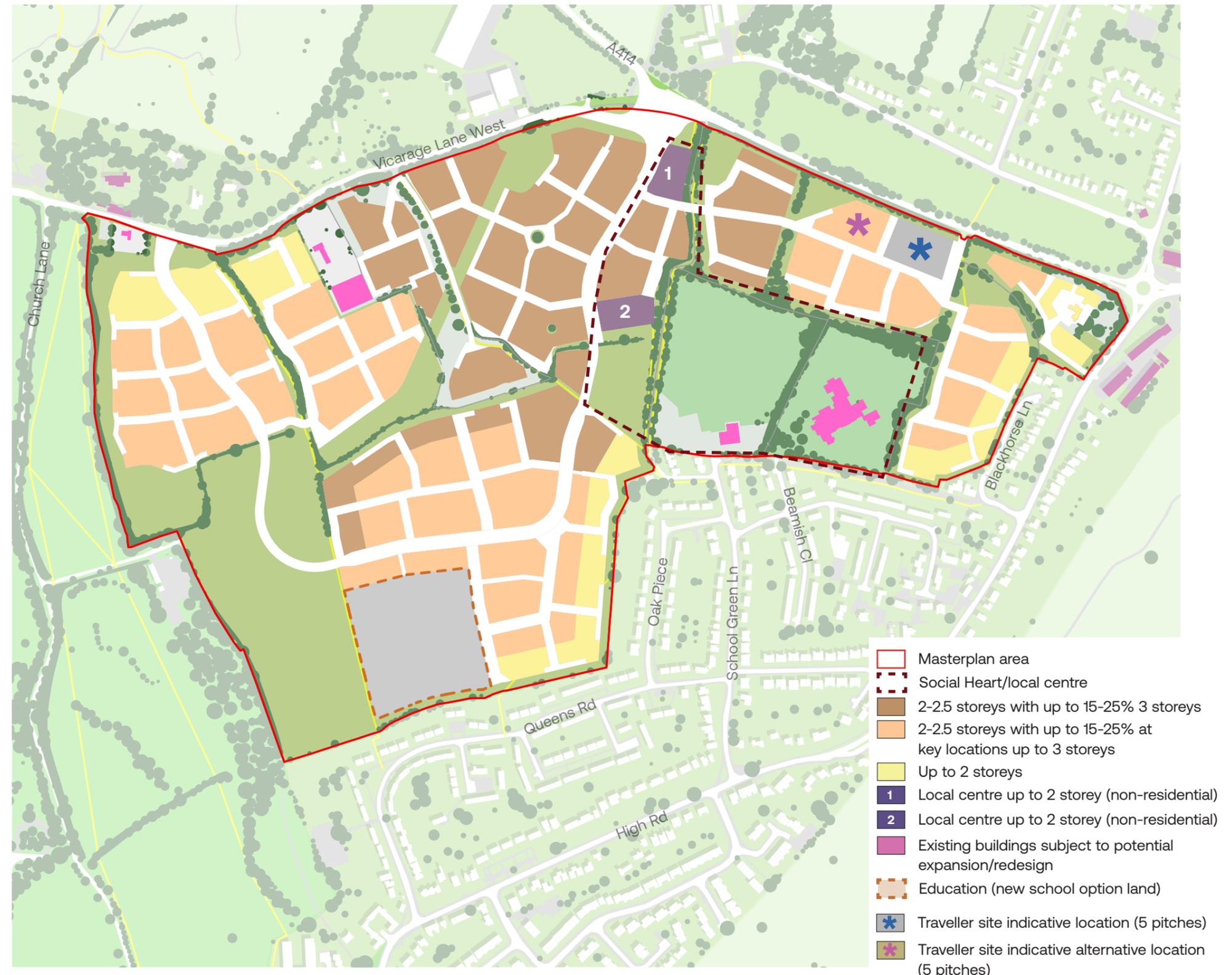


Figure 6.29 - Building heights framework (illustrative and indicative)

their focal importance and differentiate them from surrounding homes

- Across the majority of the SMF, building heights will be 2/2.5 storeys, with occasional 3 storey townhouses or apartment blocks. These should coincide with areas specified at a higher residential density level, and a % of the built form is given in the mandatory spatial framework plans
- Towards sensitive edges, and in the context of heritage assets, building heights will reduce to 2 storeys. For example in the immediate context of St Andrew's church and Tylers Farmhouse where building scale should reduce and views should be aligned (for example along streets)
- Likewise, the proposals should demonstrate that they retain glimpsed views of the surrounding countryside, as an important visual connection between the village and its setting
- If the proposed option for a new school comes forward, the school building will be up to 2 storeys. If this option land does not come forward, the land will revert to residential at an appropriate height to the rest of the SMF area.

### Proposed building heights

The building heights mandatory spatial framework plan proposes that residential development is limited to a maximum of three storeys in height across the majority of the SMF area enabling a mix of 2, 2.5 and 3-storey homes, as is typical in the village.

The greatest scale, in terms of building heights up to 3 storeys, is located around the A414 gateway and Social Heart, to provide an appropriate entrance into the site and to frame the Social Heart.

Within the 2-2.5 storey height areas, a % is given for buildings up to 3 storey. Within the higher density parts of the SMF this is envisaged as occasional apartment blocks primarily. Within the medium density area this is envisaged to aid the creation of marker buildings at key locations, which could include apartments and townhouses.

The local centre buildings should be restricted to a maximum of 2 storey for non-residential uses to reduce the need for additional residential parking courts.

Parts of the SMF area in the vicinity of St Andrew's Parish Church, Church Cottage, Tyler's Farmhouse and White Cottage are restricted to a maximum of 2 storeys to maintain views of and respect the setting of these Listed Buildings. Sensitive edges with existing homes should also be restricted to a maximum of 2 storeys.

If the new school option land comes forward, the school building should be up to 2 storeys.



## 6.10 Sustainability principles

### Introduction

Sustainability and Energy are at the forefront of new national policy with the introduction of the National Planning Policy Framework (the NPPF) which sets sustainability at the heart of the planning system, making it clear that the purpose of the planning system is to contribute to the achievement of sustainable development

The NPPF was introduced in March 2012 to set out government planning policy for England, removing all regional-level planning policy in favour of a framework within which local people and their accountable councils can produce their own distinctive local and

neighbourhood plans, which reflect the needs and priorities of their communities.

A number of iterations have since been published. The Framework was revised in September 2023, replacing the previous update in July 2021. All new Local and Neighbourhood Plans and reviews must align with the policies of the Framework 2021. The Framework states clearly that the purpose of planning is to help deliver sustainable development and defines three mutually dependent pillars that must be equally considered in order to achieve this:

- Economic
- Social
- Environmental.

There is a clear focus upon:

- Promoting high-quality design for new homes and places
- Offering stronger protection for the environment
- Constructing the right number of homes in the right places
- Focusing on greater responsibility and accountability of councils and developers for housing delivery.

In addition, specific national guidance on building design is found within The Energy Performance of Buildings Directive (Directive 2002/91/EC), which has been the main policy driver for reducing energy use for heating, cooling, ventilation, hot water and lighting in buildings. The Directive requires the application of a methodological framework for calculating the energy performance of buildings.

The proposal will also need to meet the standards set within Building Regulations Approved Document Part L - Conservation of Fuel and Power in New Dwellings/New Buildings other than Dwellings, respectively for the residential and non-residential elements. These standards include a minimum level for regulated carbon emissions defined by the Target Emission Rate (TER) which relate to a 'Notional Building', automatically generated as part of the Standard Assessment Procedure (SAP) toolkit. In addition, there are minimum levels of fabric efficiency set by the Target Fabric Energy Efficiency rating (TFEE) under the SAP methodology.

Building Regulation's Part L was recently updated on June 15th 2022, these regulations have revised the Part L calculations methodology. This includes much-improved carbon factors which will greatly benefit fully electrified sites' carbon emissions but will require new homes to produce around 31%. There are a number of key changes as part of the update, the most significant relating to the fuel emission factors. Gas has remained approximately the same as under the 2012 version but the carbon factor for grid-derived electricity has reduced by 73%.

These changes are likely to result in electric or heat pump-derived heating and hot water becoming the standard industry approach for future developments, particularly as the country moves away from grid-derived gas. This will be an important consideration when reviewing appropriate building services strategies for development.



All streets should be designed to reduce traffic speeds and provide safe and attractive walking and cycling routes.

## Essex Design Guide

The Essex Design Guide includes guidance on sustainable design, setting out the principles to deliver high-quality sustainable development. This includes the influences on sustainable design, as set out below and in figure 6.30 opposite:

- Spatial criteria
- Buildings and site criteria
- Community criteria.

In terms of spatial criteria, the Essex Design Guide states, *"development opportunities offer urban areas the chance to support a more sustainable future. The built environment can be made more accessible to the ageing population, the adaptability of homes and spaces can be enhanced and assistive technology options can be incorporated into designs. And while many elements of sustainable design – such as closely integrated mixed-use developments or environments that promote walking and the use of public transport – benefit the entire population, it's also true that they almost always promote activity and wellbeing in older people"*.

*"Preserving the hierarchy of densities within different types of urban place (such as urban centres, neighbourhoods and urban extensions) is fundamental to ensuring that they perform to their social, economic and environmental potential. In a similar manner, the preservation of relevant densities helps to ensure that areas not as well-connected to public transport and local services do not*

Development Criteria	Sustainability objectives	Incorporated into SMF
Spatial criteria	Walkable neighbourhoods and good access to public transport	✓
	Resource efficiency in use of land density	✓
	Improving local services and job opportunities	✓
	Mixed-use development	✓
Buildings and site criteria	Minimising waste	Requirement of future applications
	Reducing pollution	Requirement of future applications
	Sustainable construction, sustainable drainage and energy efficiency	✓
	Water conservation	Requirement of future applications
	Conserving and enhancing biodiversity	✓
	Smart infrastructure and connectivity	Requirement of future applications
Community criteria	Mixed communities	✓
	Social cohesion	✓
	Neighbourly urban design	✓
	Safe public areas	✓
	Green spaces	✓
	Digitally connected communities	Requirement of future applications

Figure 6.30 - Essex Design Guide sustainability objectives (©ECC)

*become 'over-developed' in regard to their local context"*.

*"Dwellings and principal communal spaces should be orientated to ensure sunlight for part of the day, creating a balance of natural and artificial light. Ensuring green amenities are orientated to make best use of the sun will encourage residents to venture out and use outside spaces"*.

With regards to buildings and site criteria, the Essex Design Guide states, *"as much as 95% of the national housing stock is*

*not fully accessible – and it is considerably challenging to retrofit existing stock so as to allow people to live independently as they age. Good design inside the home is therefore of extreme importance, irrespective of whether the primary use is as a family home or one with a care-package specifically attached or delivered. Small changes are often enough to help vulnerable groups feel more independent, providing an environment that is clearly defined, easy to navigate and feels safe".*

The Essex Design Guide also addresses layout principles and how these can be tailored to become more sustainable through passive design - the optimisation of the layout and orientation of new buildings, maximising natural environmental factors to help reduce energy needs.

Key layout principles:

- All developments should be permeable, connecting well with the existing walking

cycling networks both within and outside the development

- Community facilities and strategic open spaces should be co-located within easy access of the new community
- Residential layouts should encourage walking and cycling with direct routes. Nodal points and the core should provide flexible community amenities
- All new developments should be well connected to digital infrastructure
- Covered and secure cycle parking should be located in prominent locations
- All new homes should be designed to cater for all ages and a range of physical and mental abilities
- Sustainable energy systems and supplies should be designed into the layout of developments.



## Masterplanning for sustainability

Sustainable masterplanning is at the heart of the SMF for North Weald Bassett. This section looks at the following strategic topics:

- Block design
- Street design
- House design and energy use
- Nature and biodiversity
- Flood risk and drainage.

### Block design

In local/town centres urban blocks are found to be more compact, resulting in a finer urban grain. Plot sizes are therefore smaller and located in close proximity to one another. However, suburban blocks can be found to grow larger in plot size, changing the urban grain to become fragmented. The National Model Design Code advises that new development should continue to be sympathetic to the existing grain of a context, and therefore block design must respond to this.

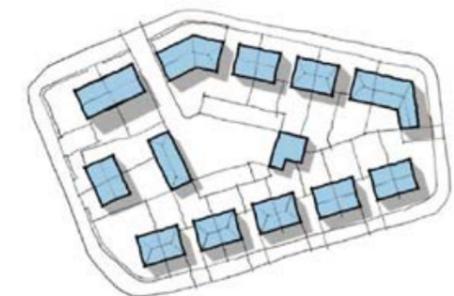
Blocks can be developed with buildings of different sizes, based on the arrangements of plots. A larger number of smaller buildings can create greater variety and visual interest' (National Model Design Code. Guidance Notes. p. 31). Designs of mews, courtyards and cul-de-sacs are most appropriate in local contexts where there is little vehicular movement and congestion (National Design

Guide p.23).

The National Design Guide describes well designed places to include 'compact forms of development that are walkable, contributing positively to well-being and placemaking' (p. 18).

Compact forms of development are successful in making destinations accessible by several modes of transport, most importantly sustainable modes like walking or cycling. By integrating compact design in to new development, dependency levels on car use can be decreased, as compact block designs helps to support the use of local public transport. It also brings together the community to increase footfall and support local services, therefore improving local economies (p. 19, National Design Guide).

Block design should also consider potential building orientation and shadowing, to assist with provision of natural light and efficient sustainable energy use, however there will be a balance with wider placemaking and urban form aspirations.



National Model Design Code block design examples  
(©MHCLG)

## Street design

Public spaces are made up of streets and other spaces. That is why it is vital to design streets that are inclusive to all, attractive and welcoming, safe and well-lit. Streets make up important spaces for social interaction and civic inclusion and they should be designed with this in mind, as encouraged by the National Design Guide.

Designing for mixed use and compact neighbourhoods encourages users to adopt active lifestyles, as they can carry out their day to day needs within smaller catchment areas. This increases the use of sustainable transport modes and limits the impact of cars on air quality and street as social places. Overall this can reduce the overheating of built up areas (National Design Guide, p. 22, 42-44).

Trees and lighting should be designed together, as light can create a better sense of awareness and security whilst trees offer beauty to a setting, as well as enhancing mental well-being. Street trees also help to improve air quality, as well as providing shade in hotter months. This is especially important nearby buildings, as the shade from trees can provide protection from overheating. With the constant threat of climate change, improving air quality and sequestering carbon are vital.

Layouts should be connected (with direct routes to key destinations), permeable, traffic-calmed and inclusive. Vehicular traffic should be controlled using traffic-calming and forms of street design that restrict traffic speeds to 20mph limits.

A hierarchy of streets should be evident in proposed layouts, with primary streets

including a larger proportion of buildings that face onto the street, to create a more interesting, attractive and better surveilled environment. Tree-lined boulevards can be an effective and attractive solution for busy yet civilised urban streets.

Parking in developments and on streets should 'stay up to date with rapidly advancing electric car technology' (Homes England. Building for a Healthy Life. 2020. p. 21).

## House design and energy use

A well designed home or building adopts features that help to reduce greenhouse gas emissions and therefore supports sustainable lifestyles. 'They have good ventilation, avoid overheating, minimise sound pollution and have good air quality, while providing comfort and personal control for their users.' (MHCLG. (2020). National Design Guide. p.39)

The National Model Design Code emphasises the need for renewable energy sources to be maximised and where appropriate, for homes and buildings to have a 'fabric first' approach (p. 34, National Model Design Code). Furthermore, sunlight can be used for solar energy generation and is not limited to solar farms, but can be incorporated in to development frameworks. The National Model Design Code (Guidance notes, page 78) explains that south-facing roof space and the use of reflective surfaces are successful in maximising opportunities for solar generation.

Orientation is another design tool that allows for good levels of natural lighting in to habitable rooms. 'Careful modulation

of heights and roofscape can maximise the sunlight to each unit' (MHCLG. (2021). National Model Design Code. Guidance notes. p.78). This also helps to stagger the heating of homes, but measures must be taken to ensure a good standard of natural ventilation across homes and buildings.



The design of windows can help in tackling the reliance on mechanical ventilation. Glazing on windows should be sized appropriately. There are opportunities in architecture to design external shading features or allow provision for installation of shading devices in future (MHCLG. (2021). National Model Design Code. Guidance notes. p. 80).

As outlined by the National Design Guide, well-designed homes or buildings should (p. 43, National Design Guide):

- Use energy efficient mechanical and electrical systems
- Make use of renewable energy including solar panels, and heat pumps

- Use LED lighting and heat recovery systems
- Allow for IT advances and app-based solutions to provide increased ownership
- Reduce the demand for non-sustainable energy sources.

## Nature and biodiversity

The National Design Guide describes well-designed places to have integrated existing natural features in to their proposals as well as incorporated new and multi-functioning elements in to design. Such places prioritise nature, support existing ecosystems and biodiversity, and incorporate water management, climate mitigation and resilience in to design, all whilst maintaining a good quality of place (p.26).

The guide also advises the most important element of a well-designed development; that biodiversity is not only supported at neighbourhood level, but at street and household level.

This is an imperative point to consider when developing sites going forward (National Design Guide, p.28).

Looking at the role of nature and biodiversity overall, masterplans should look to design networks of green infrastructure that allow for recreation, biodiversity enhancements and protection and provide a setting of beauty and quality. They should holistically design for spaces from doorsteps and private gardens, to the surrounding countryside.

This is a vital part of masterplanning for sustainability (MHCLG. (2020). National Model Design Code. Guidance Notes. p.26).

In accordance with Policy DM2: Epping Forest SAC and Lee Valley SPA, the SMF and future development proposals will assist in the conservation and enhancement of the biodiversity, character, appearance and landscape setting of the Epping Forest and Lee Valley. The proposals will ensure no adverse effect on the integrity of the Epping Forest SAC and the Lee Valley SPA.

### Flood risk and drainage

The development sites should feature Sustainable Urban Drainage Systems (SuDS). SuDS should make use of or contribute to the natural setting and landscape features.

‘Well-designed places have sustainable drainage systems to manage surface water, flood risk and significant changes in rainfall. Urban environments make use of ‘green’ sustainable drainage systems and natural flood resilience wherever possible’. (MHCLG.

(2020). National Design Guide. p.44)

SuDS with multi-functional uses need to be prioritised (MHCLG. (2021). National Model Design Code. Guidance Notes. p.23). This can mean that land is used efficiently attenuation features may double up as spaces for recreation and biodiversity enhancement. Therefore, the importance of planning for SuDS in the early stages of development remains, as ease of access to maintain these spaces and integrate them well with other development features will surely be required (MHCLG. (2021). National Model Design Code. Guidance Notes. p.23).

In order for sustainable drainage systems to work effectively, water management systems needs to be in place to maintain healthy water systems. Water features can work to form the larger landscape of a place and contribute to biodiversity and drainage. They also make places like green open space more attractive and ‘provide opportunities for play, interaction and relaxation.’ (MHCLG. (2020). National Design Guide. p.28).



It will be necessary as part of future detailed planning applications, for proposals to not only accord with the principles of the SMF, but also the current Flood Risk Policy and data that is available at the time of the planning application.

### Local policy

The Framework provides information to local authorities on how to implement the policies of the NPFP and approach to specific policy aims. The Epping Forest District Local Plan 2011-2033 was adopted by the Council on 6 March 2023, replacing the previous Local Plan which had initially been released in 1998 (updated in 2006 and 2008). Several specific policies are referenced:

#### Policy T1 Sustainable Transport Choices

Development should minimise the need to travel, promote opportunities for sustainable transport modes, improve accessibility to services and support the transition to a low-carbon future

#### Policy DM19 Sustainable Water Use

The development will need to demonstrate that:

- i) water saving measures and equipment will be incorporated in all new development;
- ii) new homes (including replacement dwellings) meet a water efficiency standard of 110 litres or less per person per day; and
- iii) new non-residential development of 1,000 square metres of gross floor area or more aims to achieve at least a 30% improvement

over baseline building consumption.

The standards set out in Part A(ii) and (iii) will apply unless, in exceptional circumstances, it can be clearly demonstrated that it would not be feasible on technical or viability grounds. Where new national standards exceed those set out in Part A, the new national standards will take precedence.

#### Policy DM20 Low Carbon and Renewable Energy

The incorporation of low carbon and renewable energy measures in new and existing development will be encouraged with regard to both standalone installations and micro renewables integrated into development.

Proposals for the provision of low-carbon and renewable energy technologies will be supported where they:

- iv) do not have any adverse impact on the integrity of any European sites, wildlife sites, protected species or habitats or the openness of the Green Belt;
- v) demonstrate how any impacts on the environment and heritage assets, including cumulative landscape, noise, visual, air quality and emissions, and traffic generation impacts can be avoided or mitigated through careful consideration of location, scale and design; and
- vi) the benefits of the proposal are clear with regard to the amount of heat or electricity generated and consequential reduction in greenhouse gases, and the local individual or community benefit.

Strategic Masterplans should demonstrate how the development will employ on-site low-carbon or renewable technologies, and/or other energy efficiency measures (for example, infrastructure to connect to an existing or future planned decentralised energy network) to help meet national and Local Plan energy and carbon reduction objectives.

### Policy DM11 Waste Recycling Facilities in New Development

All development which generates waste will be required to make on-site provision for general waste, the separation of recyclable materials and organic material for composting. The on-site provision must:

- i) ensure adequate dedicated internal and external storage space to manage the volume of waste arising from the site;
- ii) provide accessible and safe access to on-site storage facilities, both for occupiers and collection operatives including vehicles; and
- iii) be located and screened to avoid nuisance and adverse impact on visual and other amenities to occupiers and neighbouring uses; and
- iv) for mixed-use development, suitably separate household and commercial waste.

### Policy DM16 Sustainable Drainage Systems

All proposals for new development must seek to manage surface water as close to its source as possible using the most

appropriate sustainable drainage systems solution, or combination of solutions, taking into account site-specific circumstances and the Council's preferred drainage hierarchy (store rainwater for later use, infiltration techniques, attenuation ponds or open water features for controlled release and attenuation tank storage).

The Council will encourage the use of green, brown and blue roofs. All major development proposals will be required to submit a drainage strategy to identify the most appropriate drainage solutions. Greenfield development proposals will be required to reduce surface water flows to the 1 in 1 greenfield run-off rate and provide storage for all events up to and including the 1 in 100-year critical storm event including an allowance for climate change, and include at least one source control sustainable drainage systems measure resulting in a net improvement in water quantity and quality discharging from the site to a sewer and/or a watercourse.

Where sustainable drainage systems cannot be implemented due to site constraints (such as land contamination) robust justification must be provided along with proposed alternative approaches to surface water management. Where particular sites and the wider catchment have identified existing flood issues, the implementation of good practices on Natural Flood Management must be explored.

### Policy DM1 Habitat Protection and Improving Biodiversity

All development should seek to deliver net biodiversity gain in addition to protecting

existing habitats and species. Development proposals should seek to integrate biodiversity through their design and layout, including, where appropriate, the provision of connections between physical and functional networks.

Development proposals must seek to avoid harm to, protect and enhance natural habitats, species, areas and corridors for biodiversity. Developments are not permitted where significant impacts cannot be mitigated on areas of international and national designation. Negative impacts to local designated areas are permitted if the benefits of the proposed development clearly outweigh the value of the ecological feature.

### Policy DM5 Green and Blue Infrastructure

Development proposals must demonstrate and provide sufficient evidence that they have been designed to:

- i) retain and where possible enhance existing green and blue infrastructure assets, including trees, hedgerows, woods and meadows, green lanes, wetlands, ponds and watercourses and improve the connectivity of habitats;
- ii) use native species where appropriate and control of non-native invasive species;
- iii) incorporate the appropriate provision of new green and blue infrastructure assets or space;
- iv) provide pedestrian/cycle access to existing and new green/blue infrastructure; and
- v) enhance the public realm by retaining/provisioning trees in built-up areas.



### EFDC sustainability guidance checklist

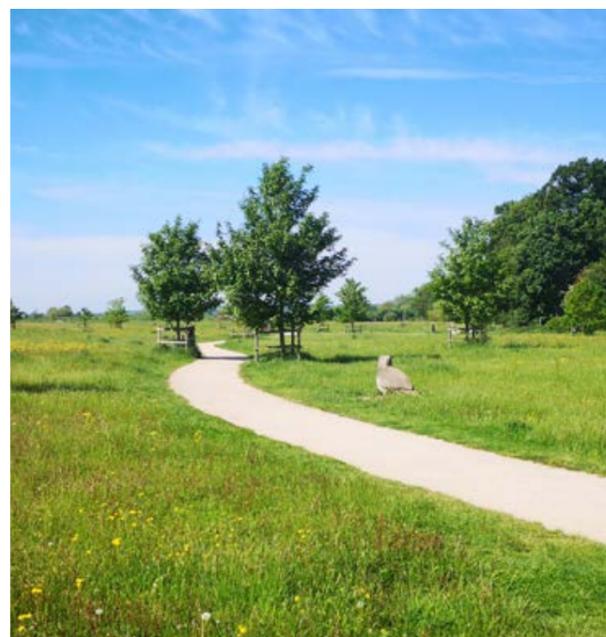
In September 2019, EFDC declared a Climate Emergency and believes that in order to meet future climate targets, all new buildings must operate at net zero carbon emissions by 2030.

The EFDC Sustainability Guidance & Checklist for Major Developments provides guidance for new developments in achieving EFDC's aim of net zero carbon, promoting good and best practices. Section 5 below goes through the Checklist within this document, highlighting sustainability areas.

The Sustainability Guidance Checklists provided in the 'EFDC Sustainability Guidance & Checklist for Major Developments' indicate the quality of design commitments or goals in the proposed development in line with the District's standards. Using this guidance ensures a holistic approach to sustainability being considered across the proposed development.

The themes of the checklist are:

- Energy efficiency and carbon
- Green infrastructure
- Sustainable movement
- Water management
- Circular economy
- Waste management
- Air quality.



## SMF response and aspirations

The SMF seeks to respond positively to the climate change emergency, through a holistic approach to sustainability. This approach includes:

- Building a strong and competitive economy - through direct local employment opportunities and indirect benefits, as well as the benefits on the local and wider economy as part of the construction of the proposal
- Delivering a wide choice of high quality homes - through a varied and high quality mix of homes and typologies including affordable dwellings with a fabric-first approach and a well designed and sustainable public realm. Homes should be future proofed in readiness for climate change and efficiency. Local amenity and accessible green spaces will help underpin a vibrant, integrated new community, contributing to healthy lifestyles and well-being
- Promoting sustainable travel - encouraging sustainable transport options and local living. Ease of access to a range of new and existing village facilities, with public transport links to surrounding towns and villages
- Requiring good design - creating a connected and inclusive community with high quality new homes and public realm.
- Promoting healthy communities - encouraging good health and well-being for residents and local people, with safe and accessible links to local facilities. A key concept is the provision of green infrastructure and the Social Heart to ensure all homes are within 150m of a green space

- Meeting the challenge of climate change and flooding - mitigates the impact of and adapting to the future challenges of climate change. The proposal should minimise carbon emissions and embodied carbon. Flooding, droughts and overheating should be considered as part of the proposal. Passive Solar Design principles should be considered, with natural ventilation where possible.
- Conserving and enhancing the natural environment - a strong green infrastructure strategy provides excellent adaption benefits for climate change as well a range of green spaces. The development of the SMF will provide an improvement in biodiversity and ecological habitats
- Conserving and enhancing the historic environment - the SMF will aim to reflect the historic environment of North Weald Bassett, with appropriate settings to listed buildings within and beyond the site boundary.
- Integrating SuDS through provision of swales and attenuation ponds across the area.

Based upon the EFDC guidance checklist, the following elements set the aspirations for the North Weald Bassett SMF:

### Energy efficiency and carbon (EN.2, 3)

The development should target BREAMM Communities carbon embodied targets.

### Green infrastructure

Each developer/land owner will need to appoint an ecology consultant to prepare a Biodiversity Net Gain (BNG) assessment of their proposal. They will need to provide commentary for any necessary mitigation or green infrastructure recommended for implementation as part of an ecology report.

### Sustainable movement

Each developer/land owner will need to appoint a traffic consultant to determine high quality travel networks, sustainable access and cycle parking in the proposal. This may be achieved through a Sustainable Travel Plan and a Transport Assessment.

### Water management (W.4, 5)

The development should target the following water management commitments:

- Internal potable water use
- Installation of water-saving devices including water efficient taps, WC's and showers
- Provision of water butts with grey water recycling and harvesting (where possible).

Each developer/land owner will need to appoint a drainage consultant to assess the suitability of SuDS measures appropriate and calculate the percentage of hard surfaces across the proposal. New homes to meet a water efficiency standard of 110 litres or less per person per day - developers should seek to reduce this where possible.