



# 6.0 Design

*This section presents the vision and design strategy, as well as the proposal in the form of the illustrative masterplan and parameter plans.*

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## 6.1 Vision

### A Landscape-led Approach to Masterplanning

PM Asset Management are taking a **landscape-led approach** to the development at North Taunton in order to ensure that the likely effects on all landscape assets, including the National Trusts' Estates and the Quantock Hills AONB to the north, are fully considered.

A landscape-led approach to masterplanning has enabled the illustrative masterplan to:

- Be based on an understanding and assessment of the key landscape character elements that form the landscape north of Taunton.
- Use Landscape Survey and Assessment approaches that inform masterplan preparation.
- Where possible, allow space for retaining & protecting significant trees, woods & hedgerows for wildlife & amenity value.
- Understand the links between the countryside and the town, and provide a transition between rural and urban landscapes.
- Actively seek opportunities to plant new trees and conserve and enhance landscape features through the development process.

### Place Making

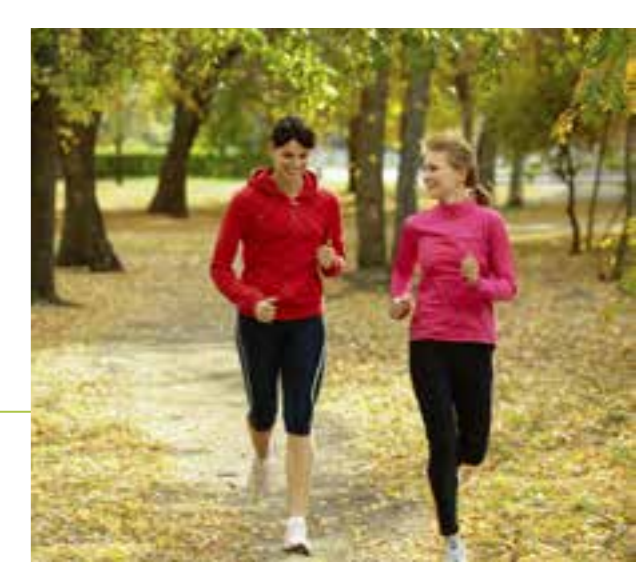
The quality of the designed urban realm is vital as the neighbourhoods and places in which we live have an impact on our everyday lives. A high quality design as well as a coherent and integrated design approach will mean that the community can feel safe, can walk around their neighbourhood easily, and will have local facilities nearby such as shops, schools and community facilities. The design will create a high quality urban realm which can be enjoyed by all who live in the new development, as well as by the existing communities of Staplegrove, Kingston St Mary, North Taunton, and the wider surrounding area.

A high quality urban realm can be created through an informed design approach that learns from the existing communities, the history of the area, the drivers for development, and allows for early involvement with the community.

A well-coordinated project team has enabled a highly integrated design approach, allowing the harmonisation of a sound transport scheme, a positive landscape design approach, high quality dwellings and spaces, as well as a scheme which responds positively to the environment. Positive urban design delivers a place which creates social, environmental and economic value.

A positive access strategy for vehicles, buses, cyclists and pedestrians is vital for a successful scheme. Places are created out of streets, so as roads are not merely used for transport, but also integrate into the urban design to create a coherent and vibrant setting.

The scheme is designed with the resident and local community in mind, and aims to create a special places for current and future generations of Staplegrove, Kingston St Mary, Taunton and the surrounding areas.



## 6.2 Design Strategy

The following design strategy has been adopted:

### 1. Existing Edges

Existing green wedge to be extended within the site to connect Taunton to the countryside. The proposed green wedge provides a divide between Staplegrove East and Staplegrove West, and an edge to the site boundary to the west. The Pyrland Estate provides an edge to the east of the site boundary, and the open countryside, while views to the Quantocks provides an edge to the north of the site.



### 2. Existing Buildings

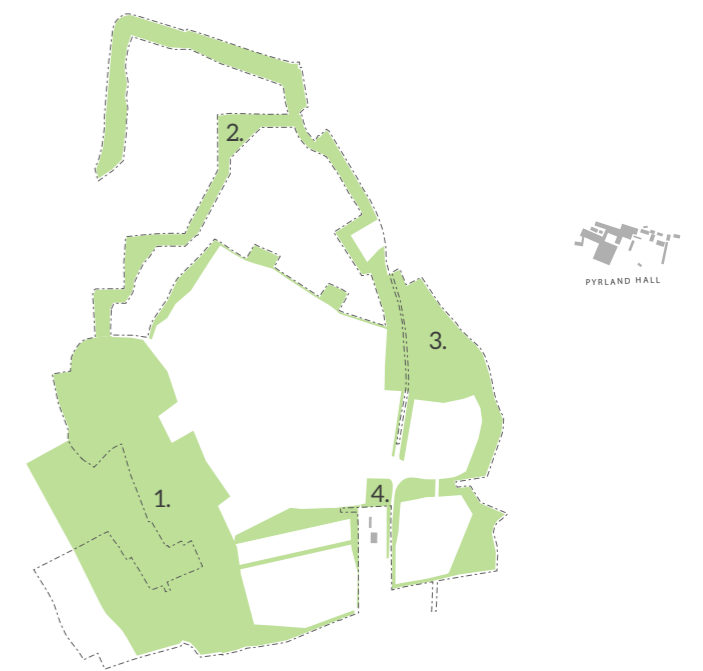
A number of existing buildings surround the site boundary. Although dispersed and at a low density, they form the character of the area, and their setting is respected. The Grade II\* listed Pyrland Hall sits to the east of the site within Pyrland Estate. The Grade II listed Okehills sits along Kingston Road at the southern end of the site. A number of farm buildings and dwellings sit along Whitmore Lane located to the west of the main bulk of the site. The existing settlement limit is just to the south of the site with existing dwellings along Hope Corner Lane and Corkscrew Lane.



- 1. Pyrland Hall
- 2. Okehills
- 3. Whitmore Lane
- 4. Settlement Boundary

### 3. Proposed Buffers

Buffers have been provided around the existing listed buildings, and help to enhance their setting. A tree belt that wraps around the north and east of the site helps to provide visual screening from the Quantocks. The Green Wedge provides a buffer for the Whitmore Lane dwellings and farms.



- 1. Proposed Green Wedge
- 2. Bath Mitigation Planting & Visual Screening
- 3. Green Edge to Pyrland
- 4. Okehills Buffer

#### 4. Proposed Green Links

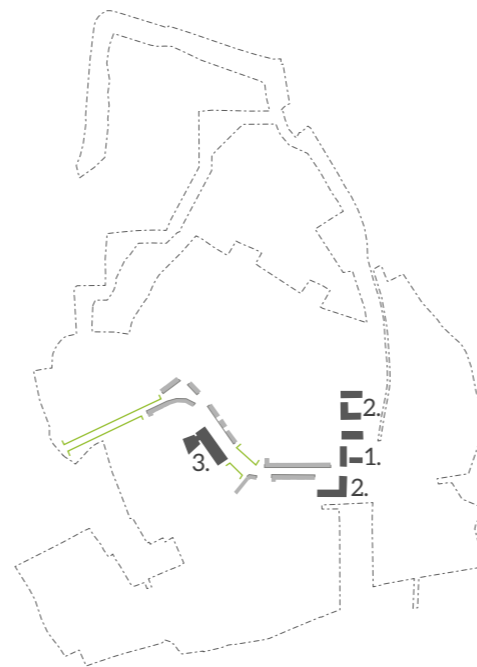
Existing and proposed hedgerows and green space make up a wide network of green links which provide valuable connectivity to the local wildlife. Pedestrian and cycle links throughout the site are also provided.



- 1. East-West Green Connection
- 2. North-South Green Connection
- 3. Proposed Green Wedge
- 4. Bat Mitigation Planting and Visual Screening
- 5. Green Edge to Pyrland

#### 5. Creation of Spine Road

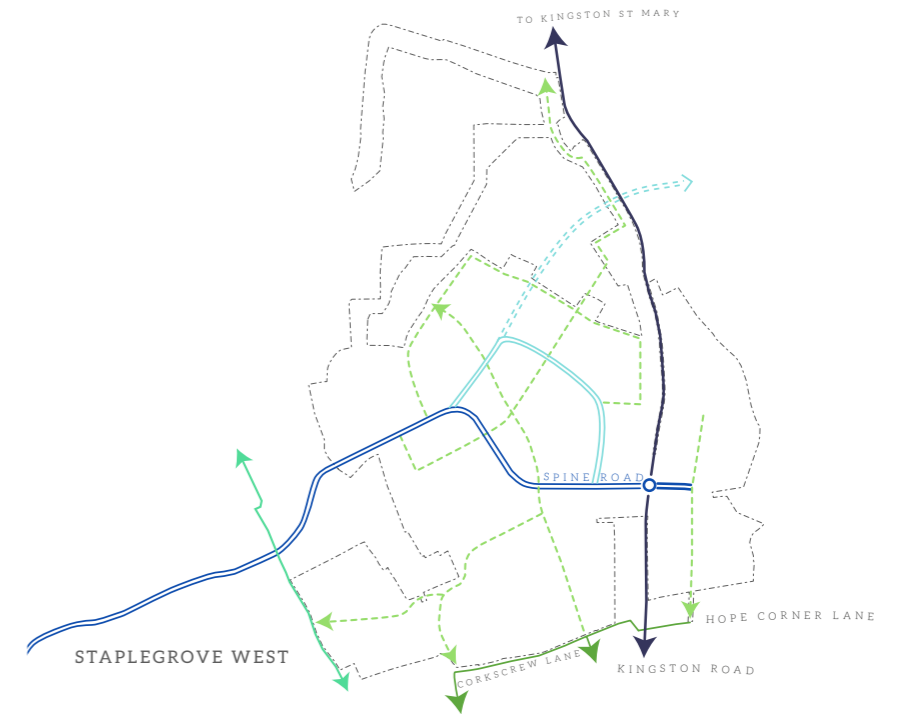
A Spine Road is created, which would act as a high street. The Spine Road would allow access to the local centre, employment sites, school, dwellings and public open space. The new Spine Road will provide a suitable level of animation and activity to the masterplan.



- 1. Local Centre
- 2. Employment
- 3. School

#### 6. Access and Movement

The proposed vehicular, cycle and pedestrian network knits together and enhances with the existing movement network.



- Existing Road
- Spine Road
- Safeguarded Route
- Existing Cycleway
- - - Proposed Cycleway
- Existing Footpath

## 6.3 Overview

To support the Outline Planning Application, a range of development parameters have been defined by such conditions including:

- Land use;
- Density;
- Building footprints and maximum heights;
- Principal means of vehicle access;
- Open Green Space; and
- Utilities and Infrastructure.

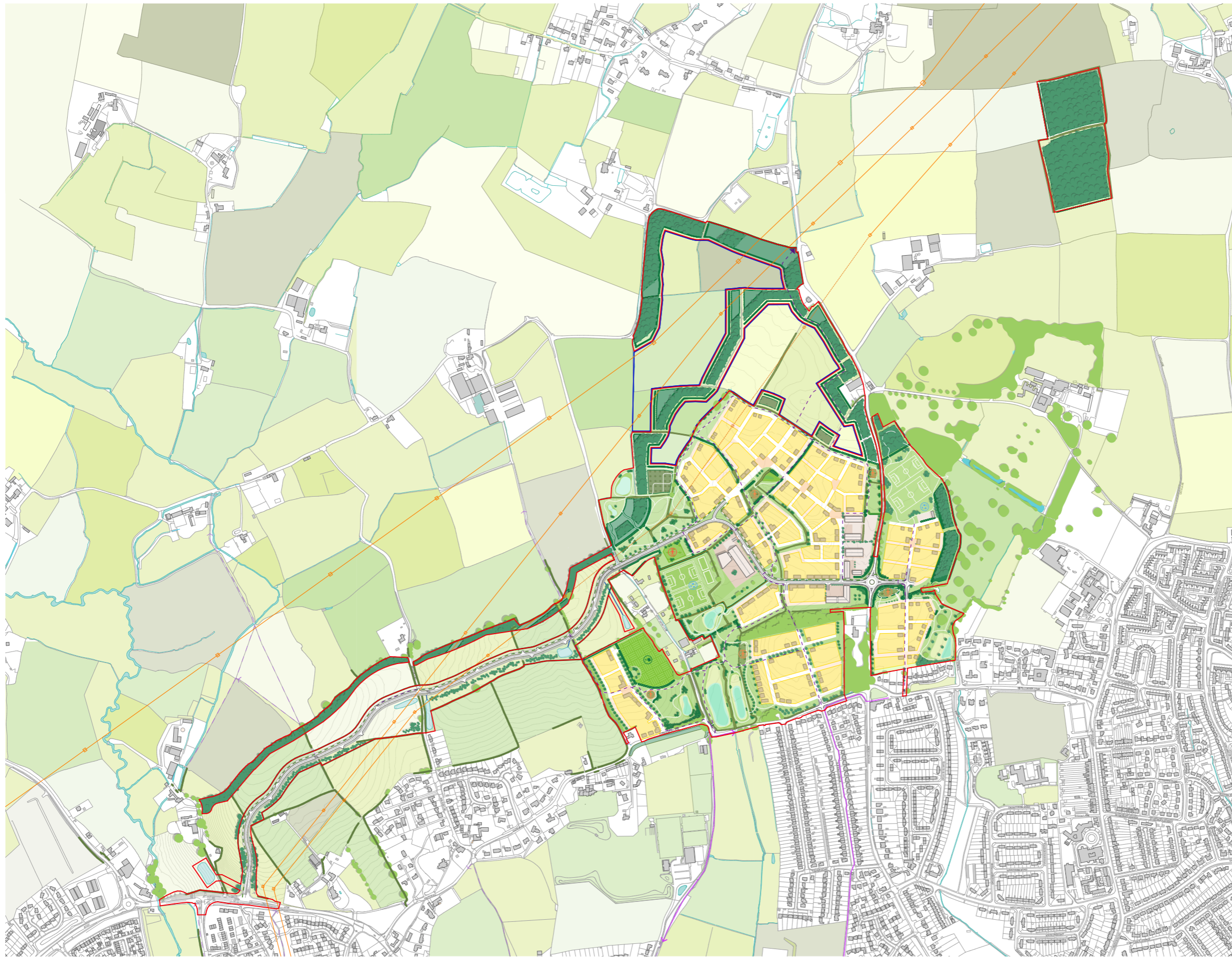
A set of parameter plans have been created (these can be found in the appendix of this document) which are discussed further in the following pages. The proposed parameter plans include:

- Building Heights;
- Density;
- Land Use;
- Access;
- Landscape and Tree Planting Plan;
- Phasing Plan;
- Combined Green Infrastructure, Play and Public Open Space; and
- Proposed Replacement Habitat Areas.

As well as the parameter plans, an illustrative masterplan has been produced showing one possible arrangement for the proposed development that could be developed in accordance with the parameter plans. Alternative arrangements could be prepared that meet with the requirements of the parameter plans.



*Parameter Plans produced for the application*



- Key**
- Site boundary —
  - Other land in ownership boundary —
  - Residential development parcels
  - Shared surface urban spaces
  - Indicative active frontages
  - Existing trees to be retained ●
  - Existing hedgerows to be retained
  - Open space
  - Strategic northern tree belt - bat mitigation and visual screening
  - Proposed orchard planting
  - Proposed shrub planting
  - Proposed hedgerow
  - New tree planting ●
  - Attenuation ponds
  - Proposed allotments
  - Equipped areas of play / youth activity areas ●
  - Proposed playing pitches
  - Spine road
  - Proposed strategic pedestrians routes - - -
  - Existing Public Rights of Way (PROW) - - -
  - Existing power lines —
  - Existing pylons
  - Power lines grounded - - -

Illustrative Masterplan 1:10,000@A3





## 6.4 Illustrative Masterplan

The proposed development is a landscape-led masterplan which includes housing, education, employment and a local centre for a new community north of Taunton. The effect of the development on its surroundings has been given special consideration in every aspect of design, with an emphasis on green infrastructure and ecology. The resulting masterplan seeks to knit the development into its context, whilst situating built elements within a network of connected green spaces. Elements of the development plan have been designed with the resident in mind, in order to create vibrant places in which people want to stay.

The development provides up to **915 dwellings** of varying types and sizes. This will accommodate a range of households such as families, young professionals and elderly people all within the same neighbourhood, thereby promoting social cohesion across a range of ages and demographics.

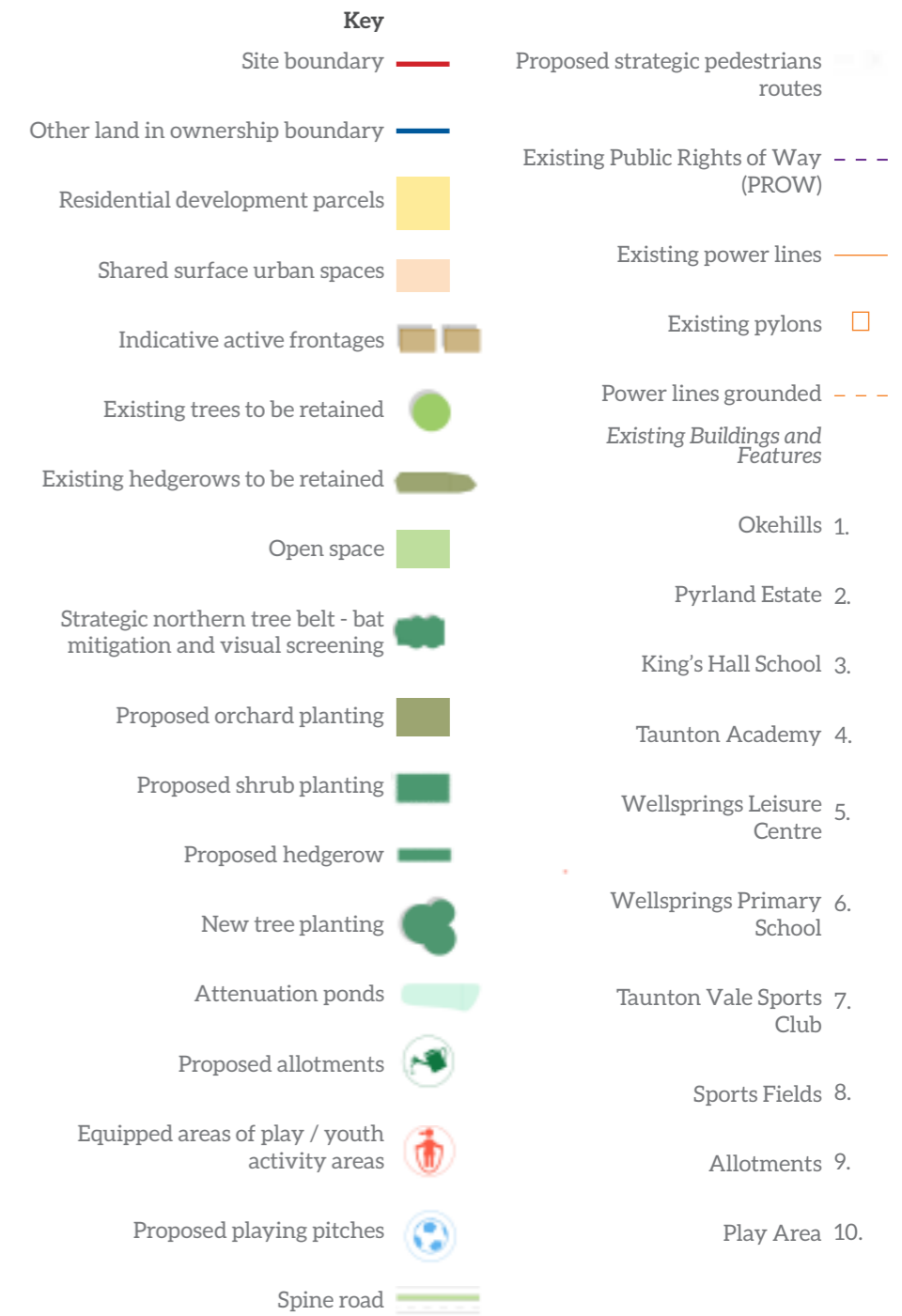
A mix of tenure will be provided. The different tenures will be integrated across the masterplan to ensure a sustainable and well balanced community is provided.

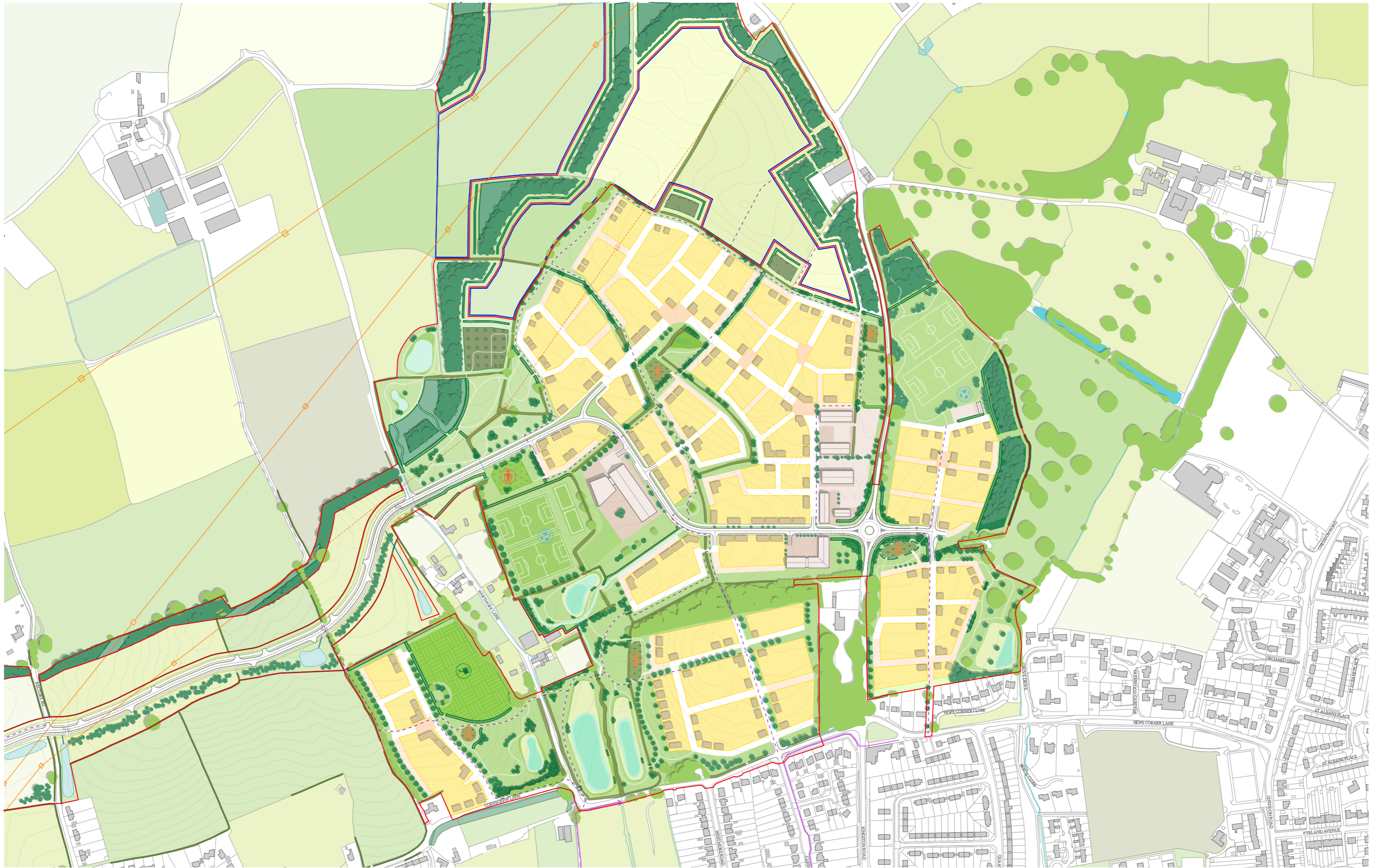
A two-form entry **primary school** at the heart of the masterplan will serve the immediate community as well as the surrounding areas. Its central location and links with the cycle, pedestrian and bus network make the school highly accessible whilst promoting sustainable methods of getting to school.

The **local centre and employment gateway** is strategically located to form a focal point at the entrance to the development, whilst providing amenities for the local community in a highly accessible location. This use and the school form the two main built nodal points within the masterplan.

An efficient **street and path network** connects the development with the local area, whilst making movement within the scheme legible and convenient. Travel by bike and on foot is encouraged in the design of an extensive network of paths. A hierarchy of street types would provide a variety of character areas which nonetheless feel part of a coherent masterplan.

The driving force behind the masterplan design is the creation of a varied and usable **green landscape**. This will positively contribute not only to the resident's immediate environment, but also to the wider ecological context. A series of green buffers and green links form a network comprising public open spaces, areas of play, sports pitches, allotments and the wider countryside.





Illustrative Masterplan 1:5000@A3



## 6.5 Indicative Land Use and Amount

Proposed residential development is to be set within a strong framework of Green Infrastructure which will provide play areas, playing fields, allotments and sustainable drainage infrastructure. The extent of the built development will be set back from existing residential development, features of heritage value such as the designed vistas from Pyrland Hall, and the identified flood zone.

Employment and mixed use community development (such as a local centre) will form a cluster to the west of Kingston Road, focused on a new roundabout forming the Spine Road junction.

The proposed school lies along the western boundary of the site, with ancillary sports pitches contributing to the Green Wedge extension.

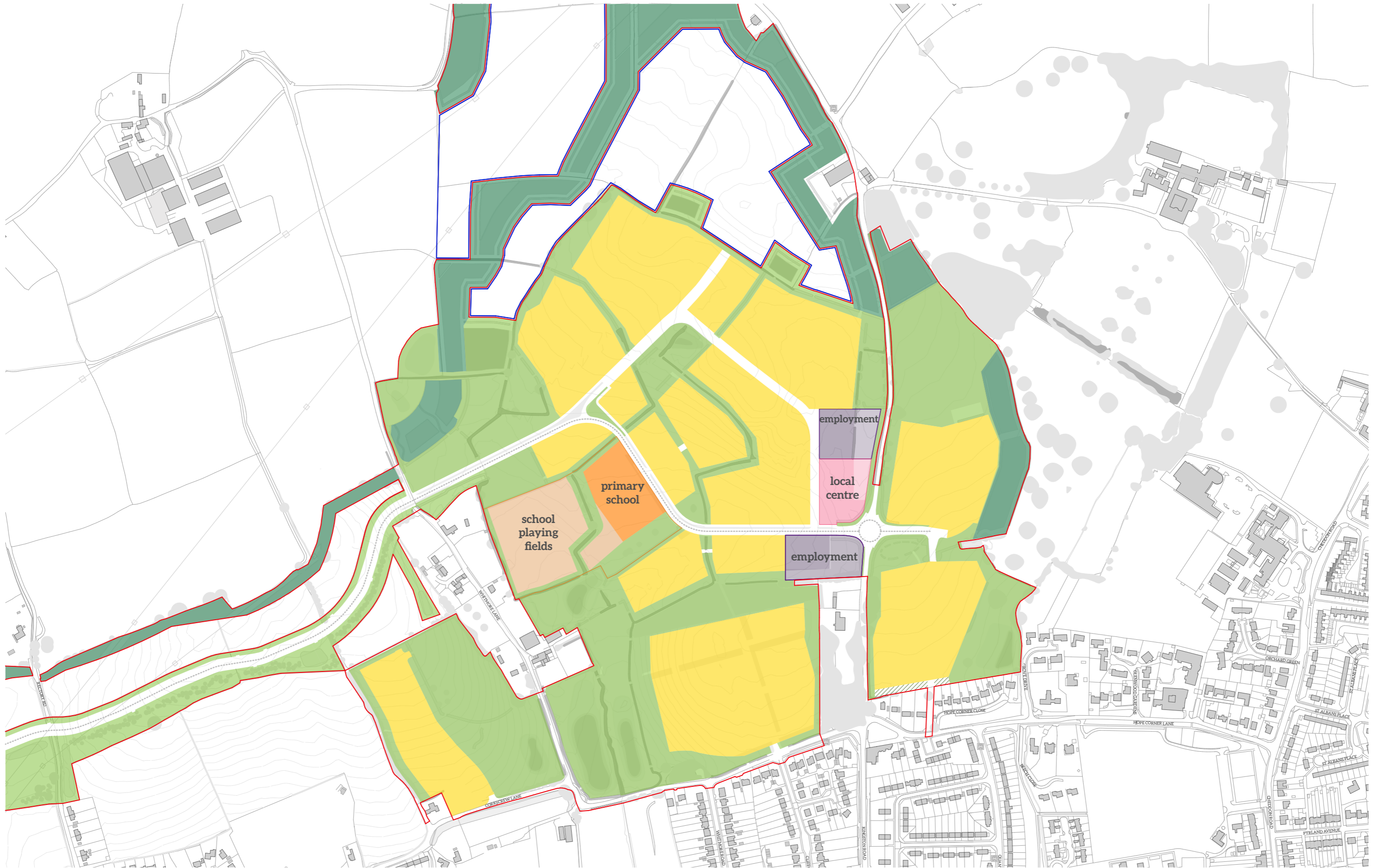
Belts and blocks of trees and shrub planting will provide bat mitigation and visual screening principally along the eastern and northern extents of the Application Site. A substantial block of new woodland planting will also be established to the southwest of Upper Cheddon to enhance bat mitigation through the creation of suitably managed habitat.

Land Use	Use Class	Type (example)	Amount
Residential	<b>C3</b> (dwelling houses)	Private housing	Up to 915 dwellings
Employment	<b>B1(b)</b> (research and development of products or processes), <b>B1(c)</b> (light industry) <b>B2</b> (general industry) and <b>B8</b> (storage or distribution), and other employment generating uses	General industry, storage or distribution	1 hectare
Mixed Use	<b>A1</b> (shops), <b>A2</b> (financial and professional services), <b>A3</b> (food and drink), <b>A4</b> (drinking establishment) and <b>A5</b> (hot food takeaways)	Convenience store, other convenience retailing, financial/ professional services, restaurants and cafés, hairdresser, a public house, food take away	0.6 hectares
	<b>D1</b> (non-residential institutions) and <b>D2</b> (assembly and leisure)	Surgery, crèche, community hall	
	<b>C3</b> (dwelling houses)	Apartments	
Education	<b>D1</b> (non-residential institutions)	2 form primary school and pre-school facilities	2.5 hectares
POS	-	Allotments	
	-	Outdoor sports	
	-	Equipped children’s play space	
	-	Parks and green space	
	-	Country parks/ natural space	
	-	Amenity open space	
Tree Planting	-	Bat mitigation planting and visual screening	
Highways	-	Spine road	

**Key**

- Site Boundary
- Other Land in Ownership Boundary
- Proposed Spine Road
- Strategic Access Routes
- Residential
- Residential Gardens (to be kept free of development)\*
- School Site (building and parking)\*\*
- School Sports Pitches\*\*
- Mixed Use (including flats)
- Mixed Use Parking
- Employment\*\*\*
- Employment Amenity Space or Parking\*\*\*
- Green Infrastructure (including play areas, playing fields, allotments, SUDS, etc.)
- Bat Mitigation and Visual Screening Planting

\* Small area of land to be free of development (kept as gardens) behind the existing houses on Hope Corner Close.  
 \*\* Total school site (including sports pitches) to be a minimum of 2.5ha.  
 \*\*\* Total employment land to total 1ha.



Land Use Plan 1:5000@A3



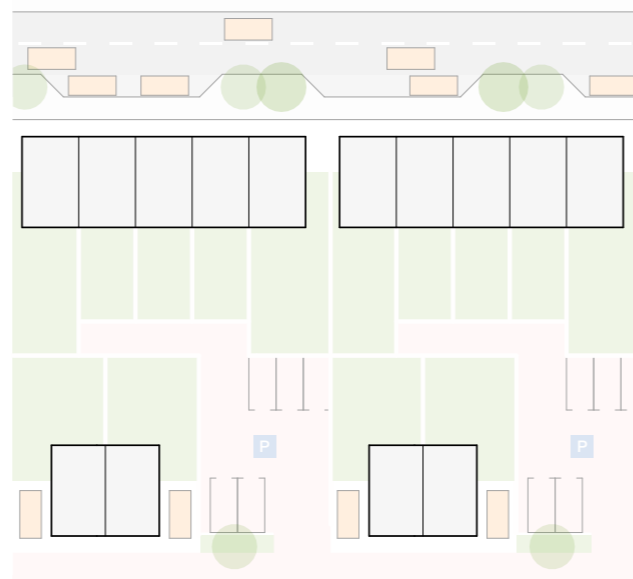
## 6.6 Density

A varied and appropriate streetscape is critical in achieving a successful and coherent masterplan strategy. A range of densities are applied in order to achieve this. The scheme also utilises varied densities to respond to the local context in a sensitive and appropriate manner.

High density residential provision surrounds the main roads within the masterplan, with the intention of creating a 'high street' character along the busiest routes. This is achieved mainly through terraced and town house typologies along a wide street, with space for cyclists and pedestrians separated from the main carriageway. Driveway parking should be avoided, with rear courtyard parking preferred.

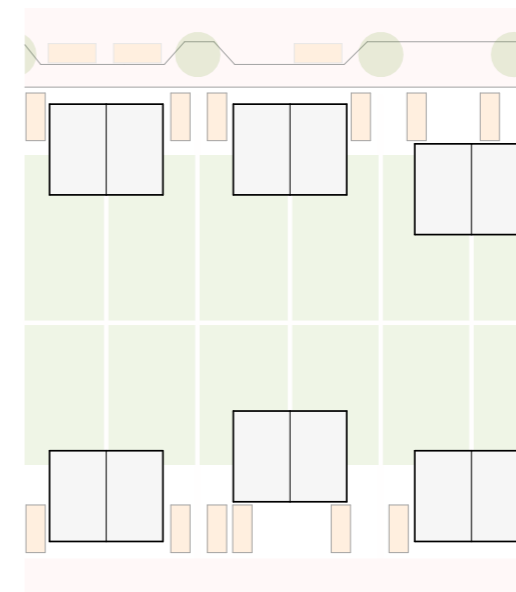
Medium density housing forms the majority of development, constituting the next level of hierarchy in the masterplan. Semi-detached housing will form the bulk of these areas, with the intention of creating a distinct street character as outlined in the character areas and street types.

There are several areas within the development where the surrounding context presents a sensitive boundary condition. Low density housing has been applied in these areas as a means of transitioning between development and surroundings in an appropriate manner. Detached housing could be used to achieve the required low density.



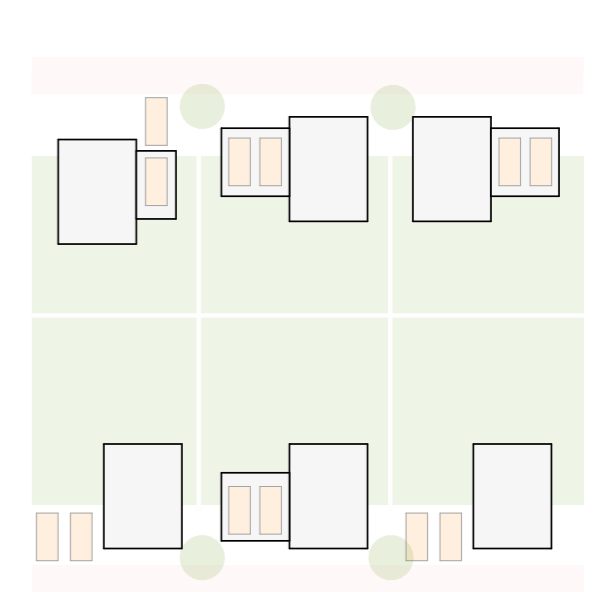
### High Density Areas

- Higher density housing mainly located along the Spine Road.
- Housing typology would mostly include terraced housing, and town houses.
- No driveways off Spine Road.
- Parking courtyards to the back of the block which serve a limited number of houses.



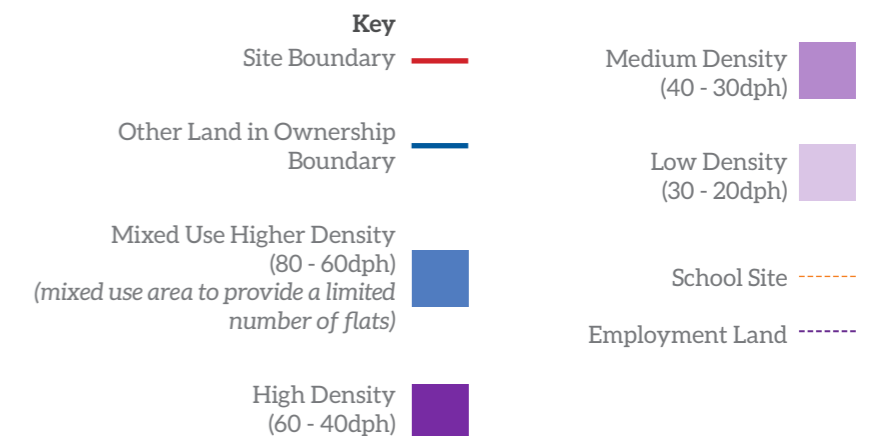
### Medium Density Areas

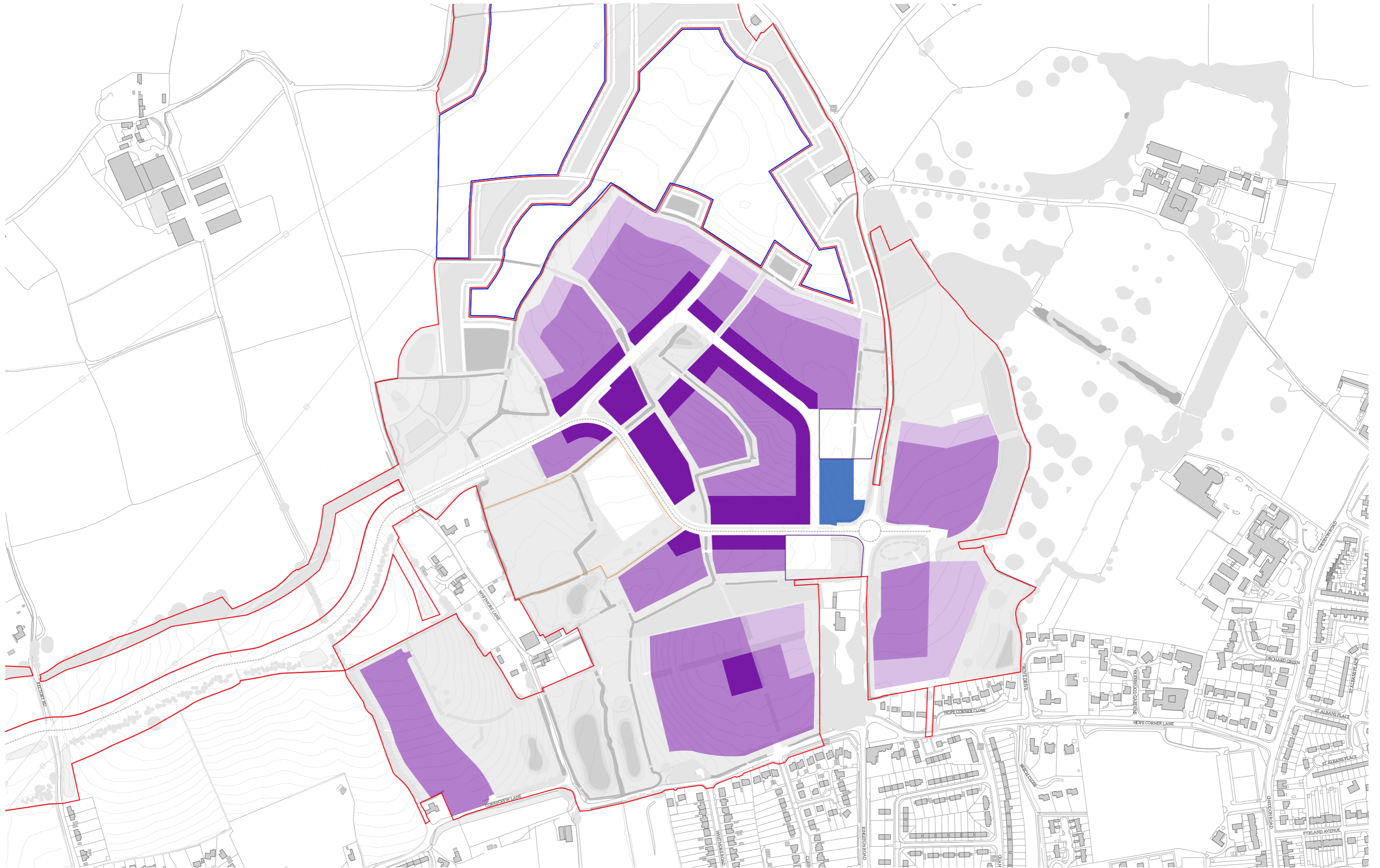
- The majority of the site is proposed as medium density
- Housing typology would be mostly semi-detached housing.
- A variety of parking strategies to be proposed, with some on street parking.



### Low Density Areas

- Low density areas are located at the edges of the site and in the more sensitive areas.
- Housing typology would be mostly detached housing, with some semi-detached housing.
- A variety of parking strategies to be proposed with mostly garage and driveway parking.





Density Plan 1:5000@A3

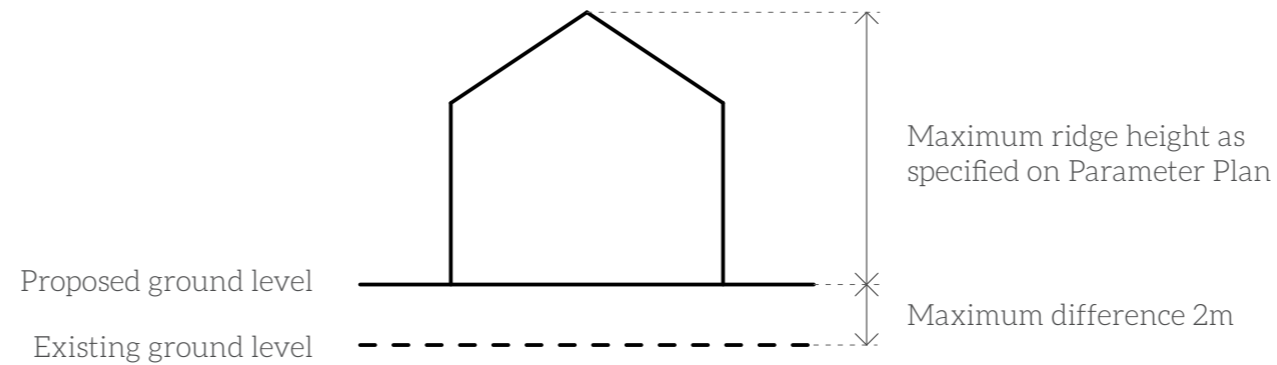


## 6.7 Building Heights

Residential properties will generally comprise two storeys of up to 10.5m above proposed ground level, increasing locally to 2.5 storeys (11.75m to ridge above proposed ground level) or in limited locations within the heart of the site, along the Spine Road, to 3 storeys (13m to ridge above proposed ground level).

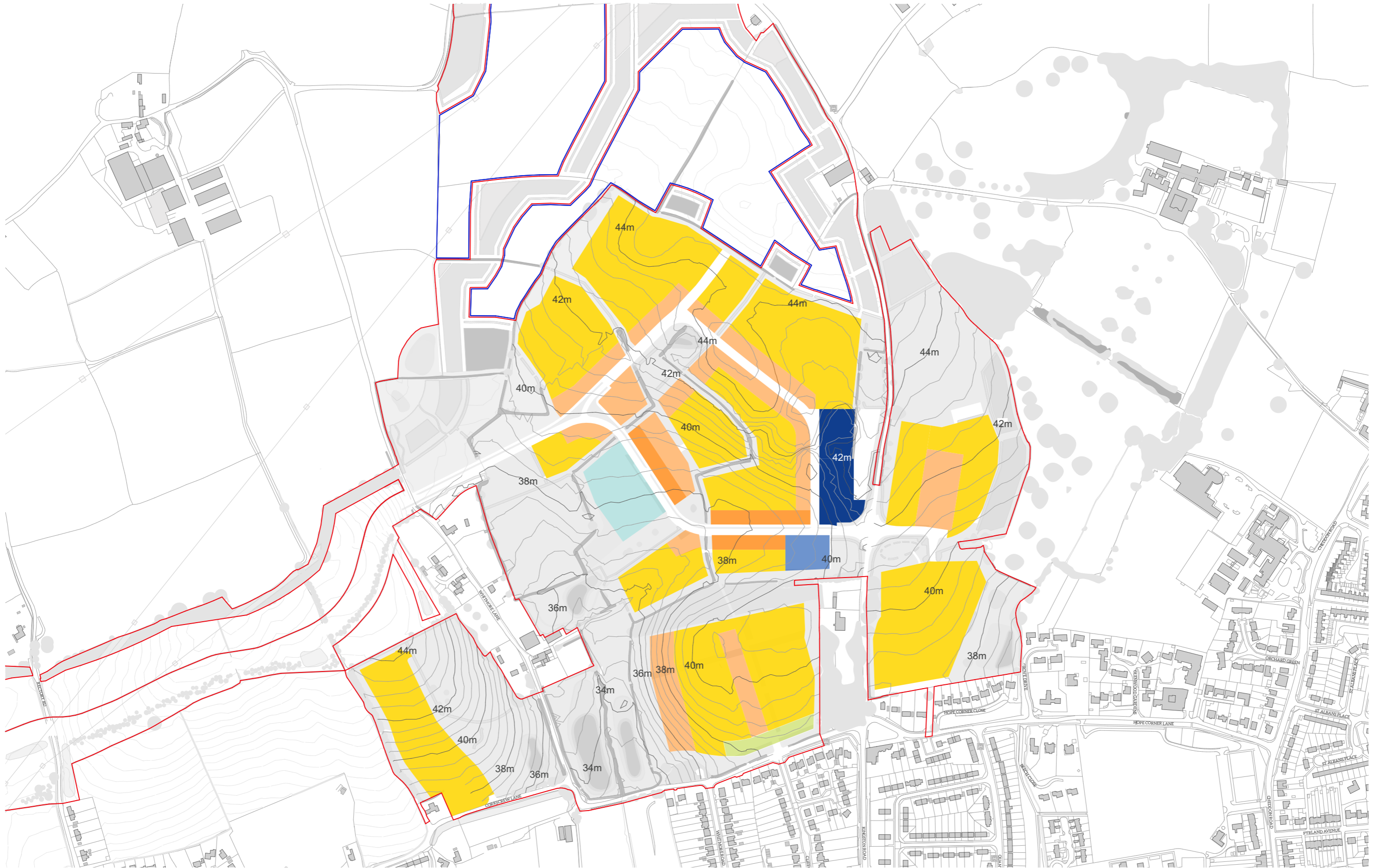
Along Corkscrew Lane the heights of residential properties are lower at up to 1.5 storeys. This strategy responds to the existing one and 1.5 storey houses along Corkscrew Lane.

Mixed use and employment uses to the northwest of the Spine Road/Kingston Road roundabout will be up to 3 storeys (maximum 15m to ridge above proposed ground level), with employment to the southwest of the roundabout rising to 2.5 storeys (maximum 12m to ridge above proposed ground level). The heights of these properties will provide sufficient interest and density in this location. It is likely that a variety of storey heights will be delivered in this location based upon market locations.



<b>Key</b>	
Site Boundary	—
Other land in ownership boundary	—
Existing contours (0.5m interval)	≡
Up to 3 storeys (maximum 13m to ridge) above proposed ground level*	■
Up to 2.5 storeys (maximum 11.75m to ridge) above proposed ground level*	■
Up to 2 storeys (maximum 10.5m to ridge) above proposed ground level*	■
Up to 1.5 storeys (maximum 8m to ridge) above proposed ground level*	■
Mixed use and employment - up to 3 storeys (maximum 15m to ridge) above proposed ground level*	■
Employment - up to 2.5 storeys (maximum 12m to ridge)*	■
School hall (maximum 14m to ridge) above proposed ground level, other accommodation up to 1.5 storeys (maximum 8m to ridge) above proposed ground level*	■

\*proposed ground level maximum 2m above existing level (levels indicative as an assessment for cut and fill volumes has not been carried out) to allow for cut and fill, drainage, alignment to streets etc.



Land Use Plan 1:5000@A3





## 6.8 Nodes and Frontages

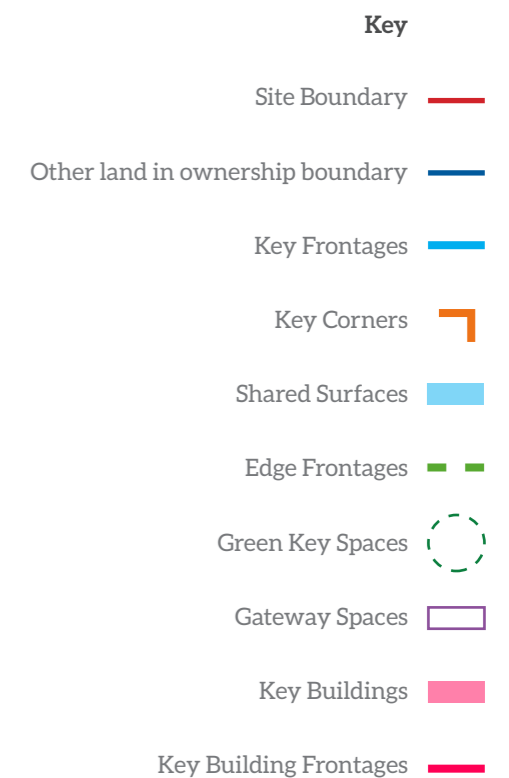
Important street frontages and nodal points have been identified within the masterplan. These are given special consideration as to their treatment and character. These places contribute to the legibility of the street network, and provide visual landmark points within the greater whole.

Key buildings and their most prominent frontages are designed with a view to creating a distinctive and legible public realm. These will be the nodes where people meet and gather, and therefore will form the backdrop to community life.

Along the main routes within the development, important building frontages have been identified where massing and architectural style should aim to create a special street character. Around the local centre, a 'high street' feel should be the aim.

On key street corners (for example where there is a shared surface, or frontages looking onto green space), key buildings should form strong visual cues in order to present a legible street hierarchy.

Having an appropriate relationship with context is paramount in successfully knitting the development into its surroundings. Therefore, frontages which interact with the edge of the site, or with open green space, have been given special consideration. These should mostly be detached houses with good views across green areas, creating a sensitive transition from the more densely populated inner areas of the development.





Frontages Plan 1:5000@A3



## 6.9 Energy and Sustainability

### Sustainable Development

The following is a list of guidelines for the proposed development. Details portraying how the scheme minimises energy use and deals with sustainability matters will be dealt with in the Reserved Matters Applications. The proposed development will aim to be sustainable in the following ways:

**Economy:** Local jobs will be created on site by fuelling the local economy through its construction and ensuring appropriate employment facilities are provided close by to reduce the need for unnecessary travel for basic services and work.

**Transport:** Sustainable transport modes such as cycling and walking are to be promoted through the provision of dedicated pathways connecting to established routes into and around Taunton.

**Environment:** A wide variety of public open space and green spaces will be provided and these will integrate with the existing wildlife habitats found on the site. Trees and hedgerows will be retained as illustrated in the landscape strategy with appropriate buffer zones, maximising the sustainable use of existing resources. Planting schemes should be in preference for native and/or wildlife attracting species. Wetlands and swales will be incorporated, promoting sustainable drainage, enhancing biodiversity, assisting in delivering local cooling in summer and reducing air pollution.

**Community:** A range of open green areas, play spaces, shared surfaces and dedicated community spaces will help to encourage social interaction across the development.

### Energy Production and Conservation

All residential dwellings will benefit from energy efficient techniques such as reduced U-values via an enhanced fabric specification, highly efficient gas boilers, enhanced heating controls and an air tight build. The focus on enhanced fabric energy efficiency is an economically prudent strategy that maintains the maximum carbon dioxide savings over the lifetime of the development.

### Selection of Materials

The selection of construction materials for all of the new buildings will favour those with the lowest environmental impact over their life-cycle. Timber will be sourced from well-managed and licensed European sources to reduce transportation emissions. Efforts will be made to source locally available building materials wherever possible.

### Solar Access and Daylighting

Many dwellings will have main living rooms that face south. This assists in the maximum use of passive solar gains for heating, reducing the demand for central heating and associated carbon dioxide emissions. Wherever practicable, windows will be sized to take maximum advantage of natural daylight. This will again reduce the heating demand but will also limit the energy demand for electric lighting.

### Water Conservation

Water consumption within all residential dwellings should be minimised by installing water efficient sanitary devices. This will potentially include dual flush WCs, spray/aerated taps, and reduced flow showers. Water meters will be installed in all homes/buildings to encourage future occupants to make maximum water savings.

### Sustainable Drainage

The proposed development will incorporate Sustainable Drainage Systems, into the surface water management train, to control and treat surface water runoff at source. To provide both habitat enhancement and maintain groundwater flows, it is proposed to utilise a combination of both infiltration and above ground storage techniques.

The downstream basins will provide the storage element of the system with the intercepted surface water stored above the permanently retained water level. The outfall from the system will be restricted to the calculated 1 in 1 year Greenfield runoff rate, for the undeveloped site, and therefore represents a betterment to the downstream catchment. Storage has been provided in the proposed attenuation basins for up to the 1 in 100 year plus 30% climate change rainfall event.

The infiltration aspect of the drainage proposal, will be dependent on the permeability of the soils and existing ground water levels. Infiltration will be provided through private soakaways and permeable paving within the residential areas. Where feasible, parking courts or private drives will be constructed using permeable paving to treat surface water prior to infiltration.

### Domestic Recycling

Residents of homes will be provided with bin stores, which will include sufficient space to accommodate the local authority refuse and recyclable waste collection service.

### Energy Efficiency and Sustainability in the Homes

A number of important measures need to be factored into the design of the dwellings. The following points have been informed by The Code for Sustainable Homes which was used to assess the ability of a development to achieve sustainability through a package of measures. Even though the Code is not enforceable, the following points are still relevant to a successfully sustainable development.

- Energy efficiency and carbon emissions;
- Water consumption;
- Use and resourcing of materials;
- Surface water run off and flood risk;
- Waste management and recycling;
- Minimising/reducing pollution;
- Health and well being;
- Management, including security and construction; and
- Ecological protection and enhancement.

It is likely that during the course of development sustainability issues and related criteria, as well as building techniques will evolve. Construction standards will be led by national standards at the time of construction.



## 6.10 Security

The design proposals for Staplegrove East are based upon an understanding of best practice guidance and reference has been made to the relevant documents including “Secured by Design”, “Safer Places” and “Manual for Streets”.

Many of these requirements will be reviewed during the early design stages of the layout. The resultant layout provides natural security and safety.

The National Planning Policy Framework states that “Planning policies and decisions should aim to ensure that developments create:

*“safe and accessible environments where crime and disorder, and the fear of crime, do not undermine quality of life or community cohesion”* (para.58)

*“safe and accessible developments, containing clear and legible pedestrian routes, and high quality public space, which encourage the active and continual use of public areas”* (para.69)

When designing new developments, these factors should create areas that are attractive and contain clearly defined public and private areas that relate well with one another and create no ambiguity. In addition, the development should enable residents to take pride in their surroundings without the fear of crime, which in turn will create a sense of shared ownership and responsibility.

The planning, design and management of public open space is essential in creating an environment that creates a sense of place and community safety. Well designed public lighting increases the opportunity for surveillance at night and will be integrated into future reserved matters applications.

Natural surveillance in the form of doors and windows overlooking streets and parking areas, pedestrian routes and public open spaces will create activity throughout the day and evening and will be an essential element in creating a safe environment for all users, whilst discouraging criminal activity by increasing the risk of detection.

The following key points have informed the design, and should be used as guidance for future reserved matters applications:

### Roads

- The street network has been designed to provide required loop roads, as well as secondary streets that serve smaller groups of dwellings.
- A clear street hierarchy has been proposed with different street characters that identify main roads as well as semi-private environments through the use of narrower streets and shared surface materials.
- Roads are designed to be direct and overlooked by the surrounding built form.

### Parking

- Natural surveillance of parking areas is promoted wherever possible.
- Where the use of parking courts or private drives have been utilised, these areas serve only a few dwellings and are well overlooked by the surrounding built form.
- Where semi-private parking courtyards are proposed, they should be limited to a smaller number of dwellings, well overlooked, and designed so as to produce a sense of ownership with the residents.

### Layout and Orientation of Dwellings

- Buildings should generally be orientated to overlook streets and public spaces.
- A block of houses should be designed as back to back to ensure rear gardens are not exposed.
- A neighbourhood should consist of a mix of dwellings to enable greater opportunity for homes to be occupied during different times of the day allowing for community interaction and natural surveillance.

### Boundaries

- Boundaries between public and private space needs to be clearly identified.

- Front boundaries should be kept relatively low (1m in height) in order to allow for natural surveillance from the property. Railings or other permeable fencing should be used if a higher boundary is required.
- Generally all properties should have some defensible space in front of the dwelling. If this is not possible the security of front doors and windows needs to be upgraded.
- If gates to back gardens are provided, these should be robust, lockable, and at the same height as the fence.
- Where a planted boundary is proposed, plant species need to be carefully considered so as to not overgrow and impede the natural surveillance.
- Side boundaries should have a minimum heights of 1.8m.

### Public Open Space and Communal Areas

- All public open space, play areas and communal areas have been carefully designed and located to provide a positive contribution to the scheme.
- Public open spaces, and in particular children’s play areas should be well overlooked by the surrounding built form.
- Public spaces and play areas need to have safe routes to and from them.
- The ownerships and responsibilities for external spaces should be clearly identified and the proposals should facilitate easy maintenance and management.
- Play areas should not be located immediately next to dwellings, and need to allow a suitable buffer to minimise any noise disruption (see chapter 8 for guidance on play area buffers).

### Footpaths

- A cycle and pedestrian network has been designed which allows movement through the site.

- Public footpaths are design to be overlooked, and not allow access to backs of properties.
- A buffer between built form and public footpaths should be provided in the form of planting to discourage graffiti.

### Lighting

A suitable lighting design will be provided for all areas. All streets will be lit.

Where footpaths pass through ecologically sensitive areas, lighting will be minimised.

### Design of Dwellings

- Architectural details which promote natural surveillance are to be designed into dwellings.
- Windowless and blank elevations should be avoided next to public space.
- Properties should be designed to avoid climbing aids that allow access to the dwelling such as low flat roofs, balconies, bin stores, etc.

### Cycle and Bin Storage

- Private and secure cycle and bin storage should be provided where possible.
- Structures used for cycle and bin storage should be located in such a way as to not allow them to be used as a climbing aid.
- Where communal cycle and bin storage is provided, it should be well overlooked by surrounding built form, and well lit.

### Security of School

- The boundary of the school grounds should be well defined and secure.
- The school building has been located on the site so as to allow for natural surveillance by the surrounding dwellings.
- As the playing fields of the school are to be for public use as well as school use, the changing rooms should be located near the pitches, and access should be restricted to these areas only.
- The relationship of the outdoor activity areas needs to be well considered in relation to the school building.
- Appropriate drop-off facilities should be provided in one area that does not impede traffic flow on the main roads.
- Delivery/service or emergency vehicular access should be overlooked by the reception area.
- There should be one main entrance into the school. Multiple entrances into the school site should be avoided, and where secondary entrances are provided they should be controlled.

