Legend

- Site boundary (206.4 ha)
- Proposed sub station site (7.4ha)

Green infrastructure

- Existing green infrastructure
- Enhanced green infrastructure
- Existing tree canopy
- Proposed woodland
- Existing pond
- Proposed surface water attenuation basin
- Existing watercourse
- Improvements to River Freshney

Landscape strategy

- Proposed 'Woodland Walk' landscape character area
- Proposed 'Neighbourhood Hub and Green' landscape character area
- Proposed 'Water Meadow and Freshney Vale' landscape character area
- Existing 'Freshney Vale' country park character area

Movement

- Footpath
- Public rights of way footpath
- Public rights of way bridleway
- Proposed footpath/bridleway
- Existing cycle route
- Proposed cycle route

0 500

metres

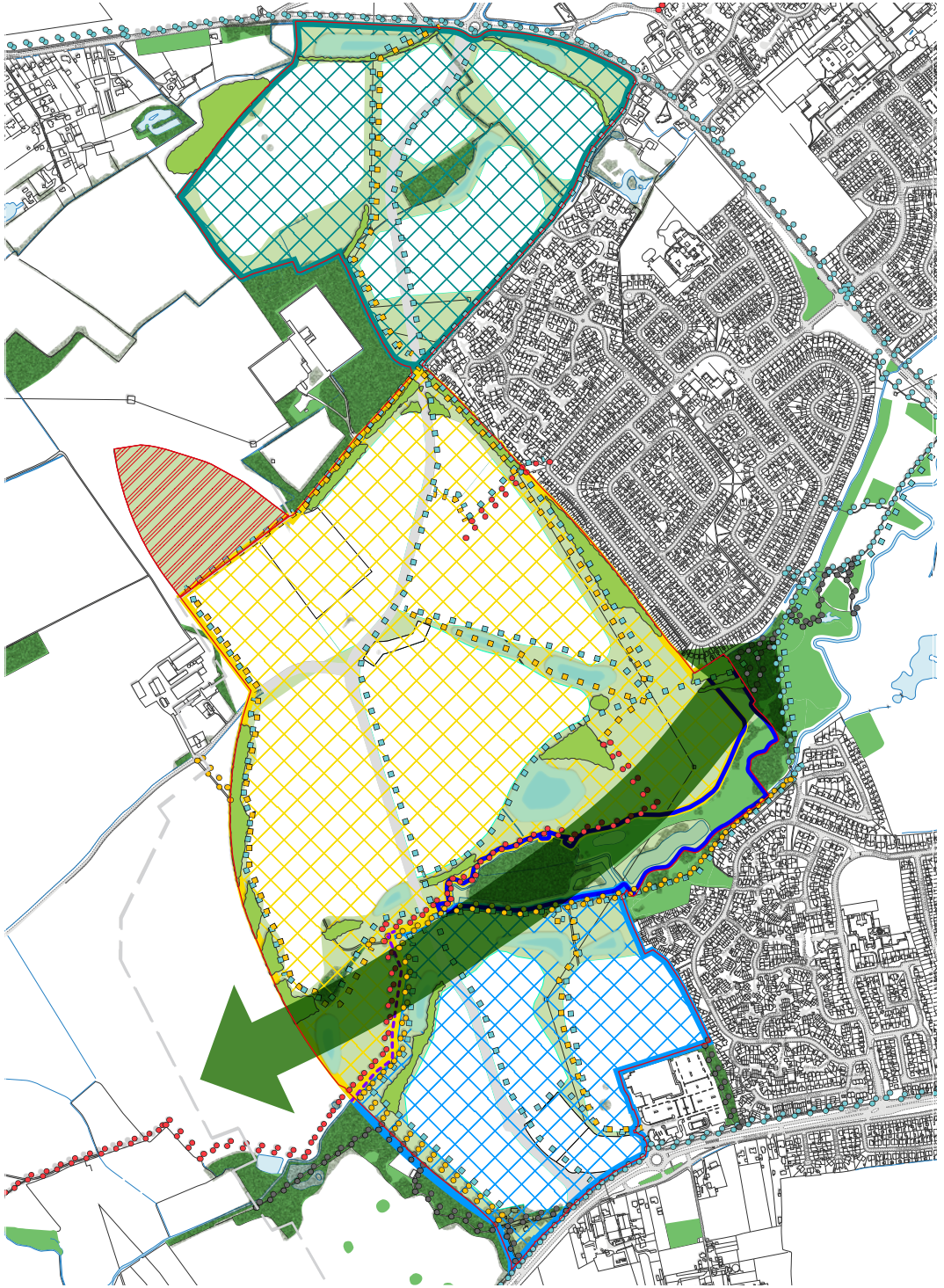


figure 5.15 | 1:15,000 | landscape framework

5.2.5 Drainage /Blue infrastructure

In tandem with the landscape strategy, consideration of the retention, incorporation and supplementation of elements of 'blue infrastructure' have been an important determining factor in the creation of the masterplan.

This includes:

- The retention of existing watercourses and ponds, notably the Freshney river.
- Incorporation of drainage ponds
- Swales within areas of open space and within the streetscape, particularly in the Freshney Vale character neighbourhood to the south
- Provision of rain gardens along secondary routes.

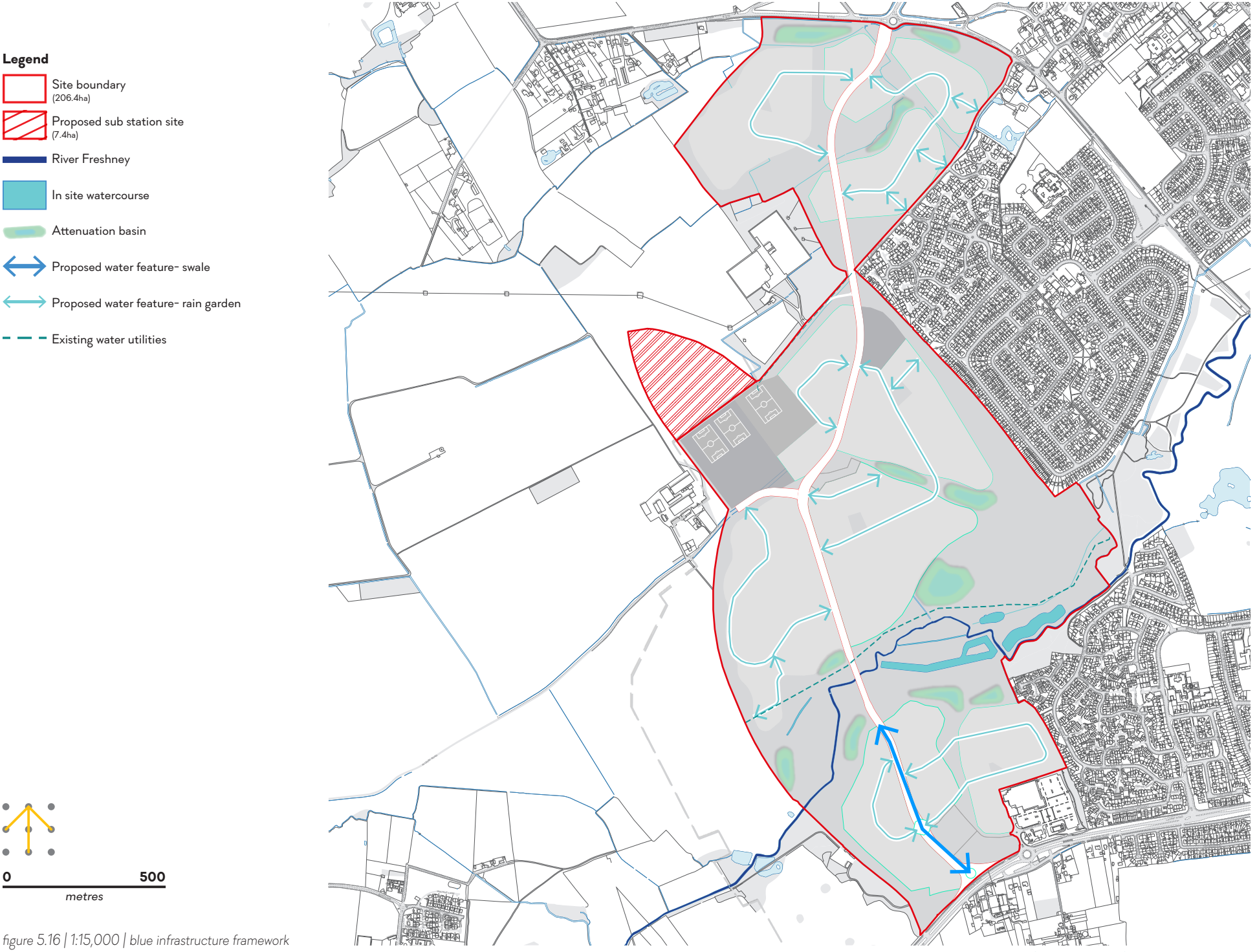


figure 5.16 | 1:15,000 | blue infrastructure framework

5.2.6 Building heights, landmarks and views

The scale and massing of buildings within the masterplan plays an integral part in the creation of a quality development. Buildings are formative elements of the public realm, and their height must reinforce the street and character hierarchy established for the site. By varying building heights at key locations, particularly at corners and landmark locations, a rich and legible urban form will be created.

Figure 5.17 shows the range of proposed building storey heights and the adjacent table illustrates a range of potential building heights and footprints across the site. Different building heights will be specified for the different character areas within the development, with higher building heights proposed along the primary route and around public places such as the local centres. These have been specified to provide visual definition to the spaces and to allow building occupants to overlook them, providing informal surveillance.

In addition the development will include a wide range of dwelling types. With a mixture of unit sizes, house types and tenure to suit people of different incomes and at different stages of their lives.

The site has been designed to orientate blocks and streets to emphasise existing views towards local landmarks. Additional landmark buildings will be created within the site to help deliver good standards of legibility, define views and create diversity and visual interest within the streetscene.

Use	Height (min-max)	Width (min-max)	Length (min-max)
2 storey house	7-9m	4-10m	8-12m
2.5 storey house	9-11m	4-10m	8-12m
3 storey house	9-11m	4-10m	10-15m
Garage	2.5-4m	3-7m	5-7m
Extra care	8-15m	9-16m	30-70m
Care home	8-15m	9-16m	30-70m
Medical centre	4-10m	10-30m	30-100m
Pub/restaurant	8-15m	10-30m	50-100m
Retail	4-10m	5-50m	5-100m
School	4-10m	20-60m	50-175m

Legend

Site boundary
(206.4ha)

Proposed sub station site
(7.4ha)

Building heights

Up to 4 storeys

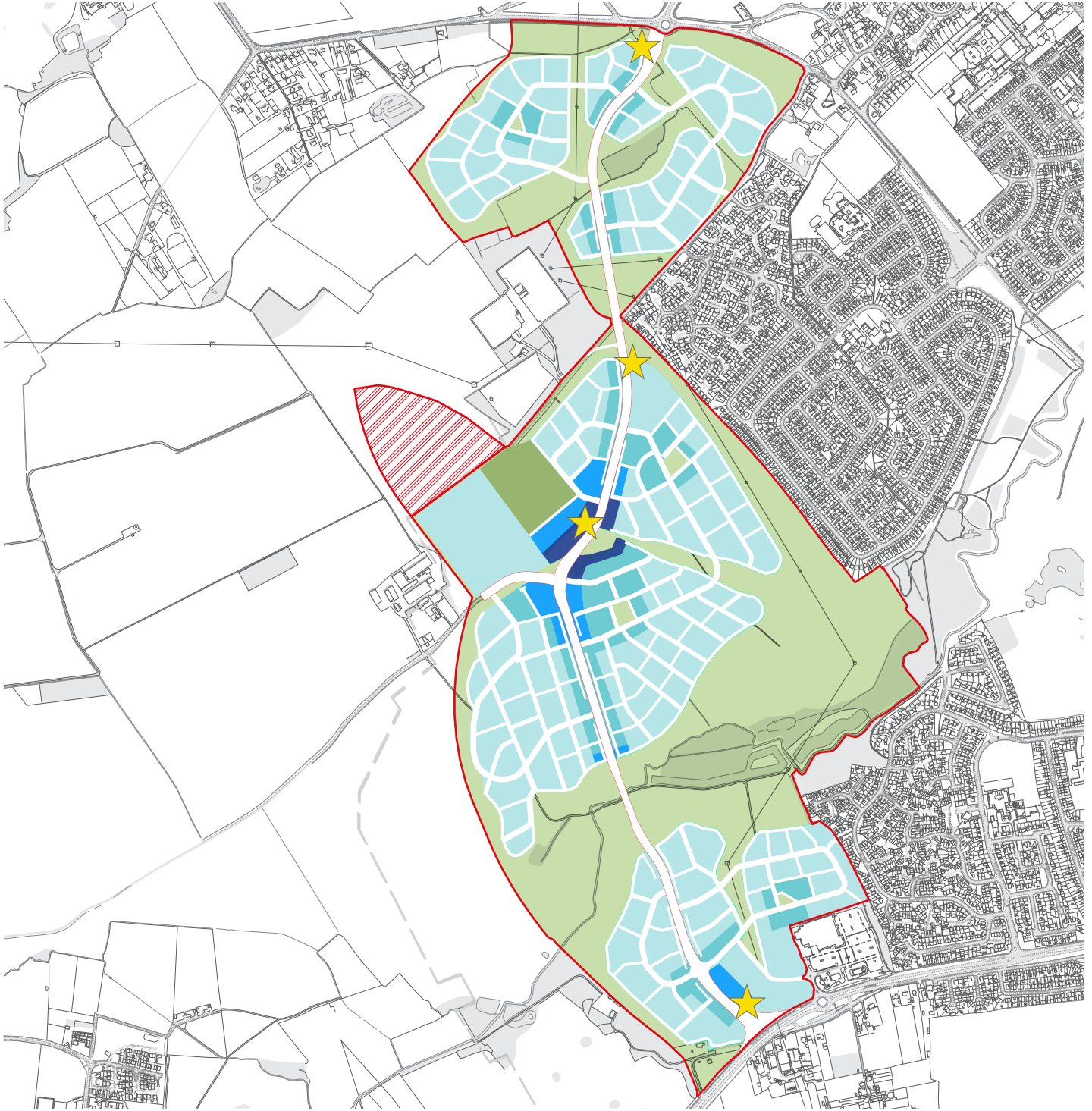
Up to 3 storeys

Up to 2.5 storeys

Up to 2 storeys

Landmark

Land mark buildings



0 500

metres

figure 5.17 | 1:15,000 | building heights, landmarks

5.2.7 Density

Figure 5.18 illustrates the proposed variety to residential density across the site, from lower density zones at more sensitive edges of the site, to higher density areas, along the primary route, within and around the local centres and around areas of existing development.

This transition in density proposed across the site has been designed in response to the physical characteristics and development constraints of the site and its surrounding context, including the relationship with the proposed highway structure, local topography, issues of visual sensitivity and accessibility to amenities.

Within the exclusively residential areas, these variations balance to generate an average density of 35 dwellings per developable hectare across the site as a whole.

This excludes the mixed use local centres where higher density is proposed. This will help create a stronger sense of place within these areas through greater levels of activity and help support the mixed use functions located within them.

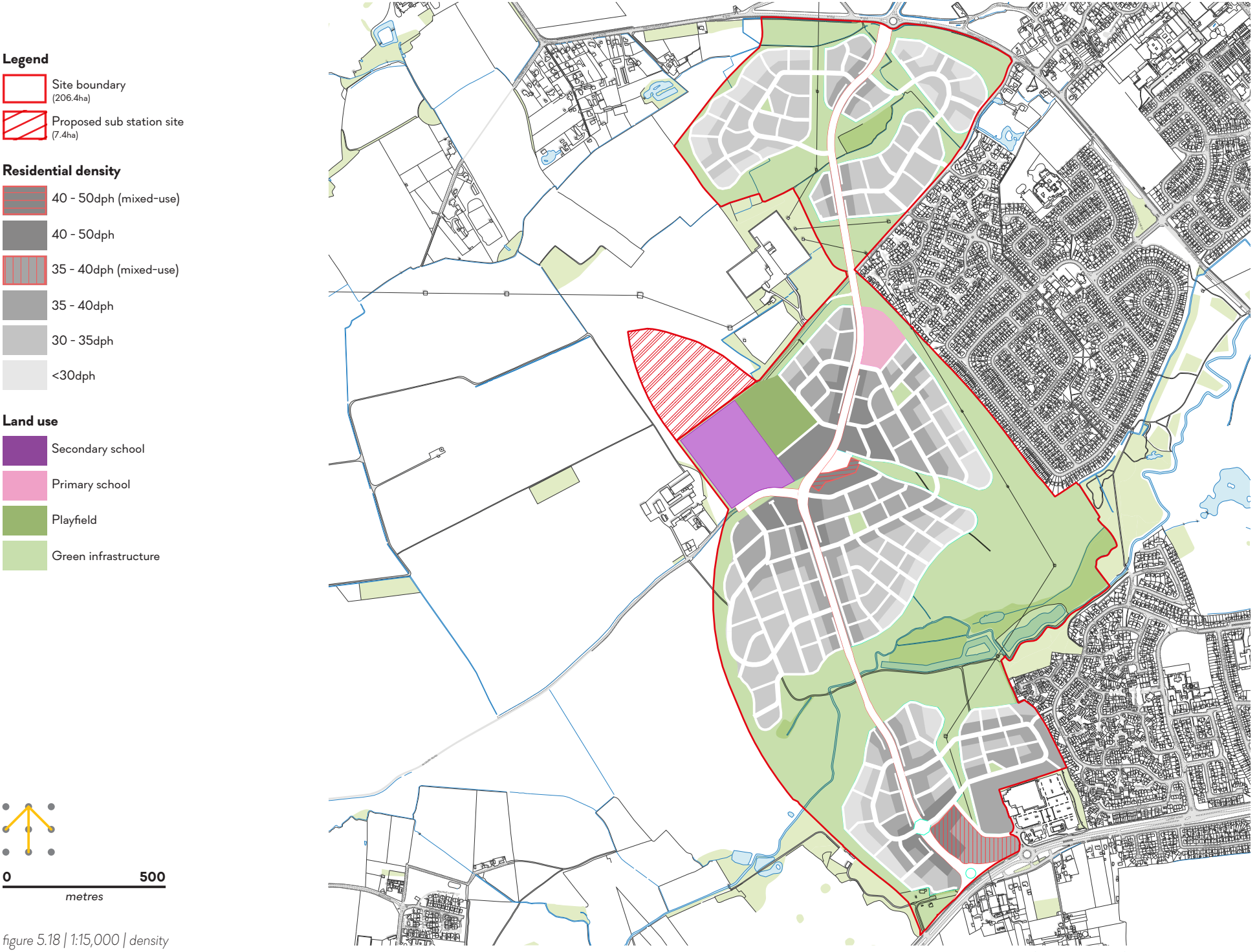


figure 5.18 | 1:15,000 | density

5.2.8 Utilities infrastructure

The site is well served by existing utilities infrastructure. UCML undertook a review of the existing utility apparatus that could support the required connections for the proposed development, together with the likely utility demand that would be generated by the proposals. Further details are provided within the level 1 utility study provided by UCML.

Based on the information currently available for review, the existing utility infrastructure within the vicinity of the development site appears may be capable of providing the required capacity to meet the demand requirements for the proposed development.

It is recommended that as the masterplan for the development is developed, the demand requirements are reviewed in to provide a more detailed assessment; following which, it is recommended formal applications are made to the relevant statutory network operators to confirm the actual availability of capacity within the existing networks, to identify the extent and costs associated with any required network reinforcement works, and to provide firm points of connection.

Consideration will also need to be given to the requirements of smaller sub-stations within the development, including ensuring that they are not prominent in the landscape.

5.2.9 Sustainability and renewable energy

A clear development objective for Grimsby West is to deliver a sustainable masterplan that addresses both the cause and effects of climate change through the creation of diverse ecological and recreational green infrastructure, energy efficient housing and neighbourhood centres that prioritise easy access by active travel modes.

Consideration is to be given to the need to reduce energy consumption and incorporate wherever possible, sustainable forms of energy such as solar and wind power. Opportunities to link into solar and wind power adjacent to the site will be considered as well as micro generation relating to the development itself through solar panels on properties. Opportunities for reducing waste will also be considered over the lifetime of the masterplan including waste and grey water recycling.

A robust development will be created that is able to adapt over its lifetime, whilst minimising impacts of energy production, flood risk, extreme weather conditions, poor air quality and waste production, to help meet targets of net zero by 2050.

GENERAL NOTES

- This drawing is indicative only.
- Dimensions are in millimetres unless stated otherwise.
- The position & depths of underground & overhead apparatus as indicated on this plan are approximate & may deviate from the marked route.
- The information shown on this plan is given without warranty & is derived from statutory network information provided by others.
- The accuracy thereof must not be relied upon in the event of any development or works.
- Private network routes are not identified unless stated otherwise.
- The Contractor must use safe digging practices, in accordance with HSG 47, to verify & establish the actual position of mains, pipes, services & any other apparatus on site before any mechanical plant is used.
- The responsibility for locating the apparatus precisely before commencing any works rests entirely upon the person undertaking or directly responsible for those works.

CONSTRUCTION (DESIGN AND MANAGEMENT) REGULATIONS

- Where reasonably possible areas of risk applicable to the drawing have been identified & then eliminated, mitigated or noted for attention where residual risk remains.
- Note that general risks of which a competent Contractor or Designer should be aware are not included.
- This drawing is to be read in conjunction with the safety plan & all related documents prepared in accordance with the Construction (Design and Management) Regulations 2015.
- Refer to GS6 Avoidance of Danger from Overhead Electric Lines.
- Refer to HSG 47 Avoiding Dangers from Underground Service.
- Subject to approval by the Statutory Utility Authorities.

EXISTING UTILITIES KEY	
ELECTRIC - **National Grid**	
	Existing Overhead Cables
	Existing Pylon
	Existing Fibre Cables
ELECTRIC - **Northern PowerGrid**	
	Existing Electric GV (132kV) - Overhead
	Existing Electric EHV (33kV) - Overhead
	Existing Electric EHV (33kV) - Underground
	Existing Electric HV (11kV) - Underground
	Existing Electric HV (11kV) - Overhead
	Existing Electric LV - Underground
ELECTRIC - **Orsted**	
	Onshore Cable Route (As Planned)
	Development Consent Order Limits
GAS - **Cadent**	
	Existing Gas (Extra High Pressure)
	Existing Gas (Medium Pressure)
	Existing Gas (Low Pressure)
	Existing Gas Valve (Low Pressure)
WATER - **Anglian Water**	
	Existing Potable Water
H	Existing Hydrant
H	Existing Fitting
TELECOMS - **BT Openreach**	
	Existing Cable / Duct (Underground)
	Existing Joint Box
	Existing Manhole
	Existing Cable (Overhead)
	Existing Pole
TELECOMS - **Virgin Media**	
	Existing Cable / Duct (Underground)
CP	Existing Chamber / Pole
C	Existing Cabinet
SITE INFORMATION	
	Site Area

0 500

metres

Legend

- Site boundary (206.4ha)
- Proposed substation
- Residential development (97.3ha)
- Two mixed use local centres (3.0ha)
- Education (Primary school) (1.7ha)
- Education (Secondary school) (5.8ha)
- Play fields (3.3ha)
- 3 football pitch
- Infrastructure (Spine road) (7.3ha)
- Parking for SANG
- Market square
- Green infrastructure (80.2 ha)
- Freshney Vale country park
- Proposed woodland
- Equipped play areas
- Allotments (2.0 ha)
- Solar farm
- GW5 Area of Search National Grid proposed new sub-station
- Potential edge of power corridor

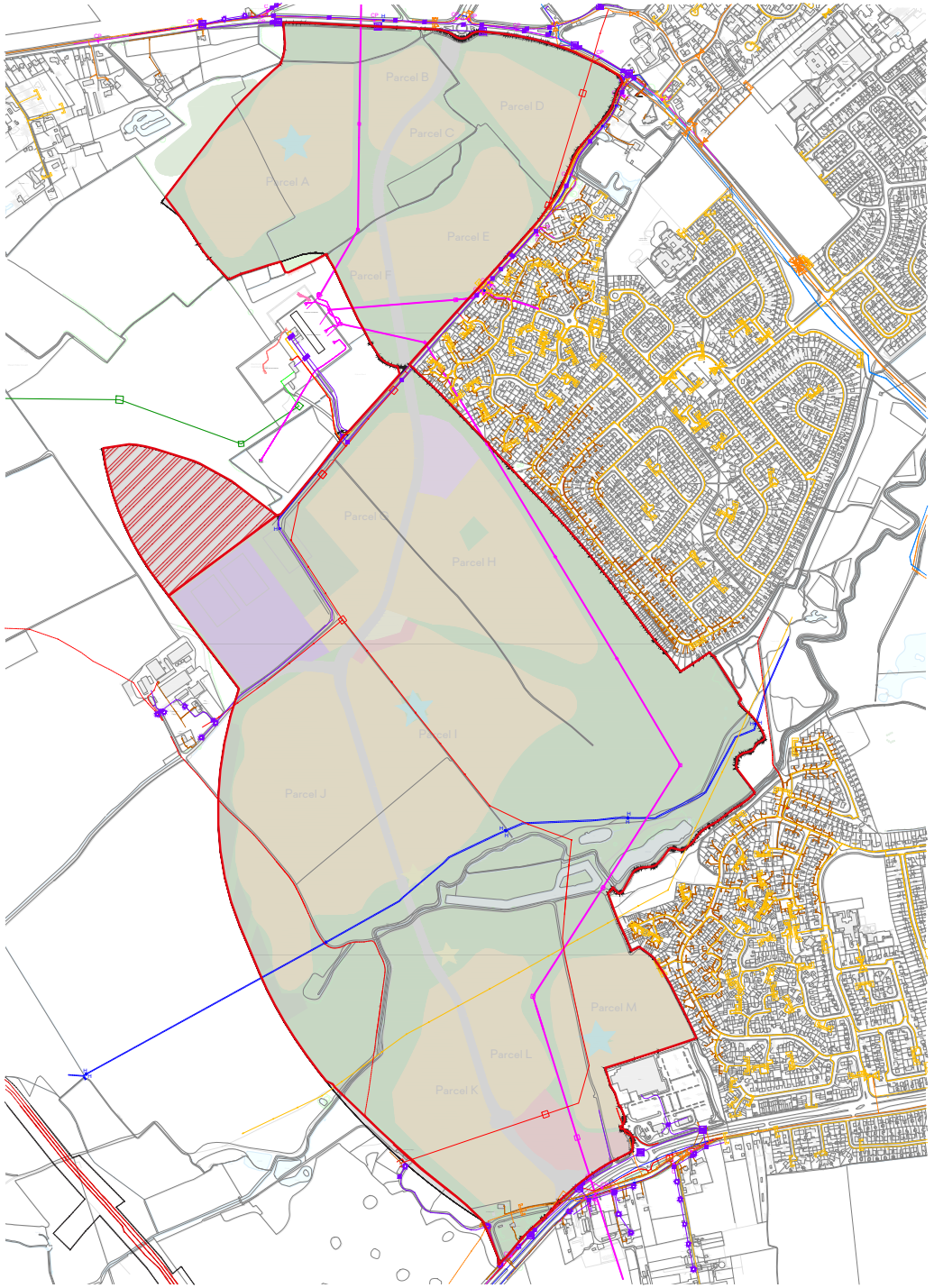


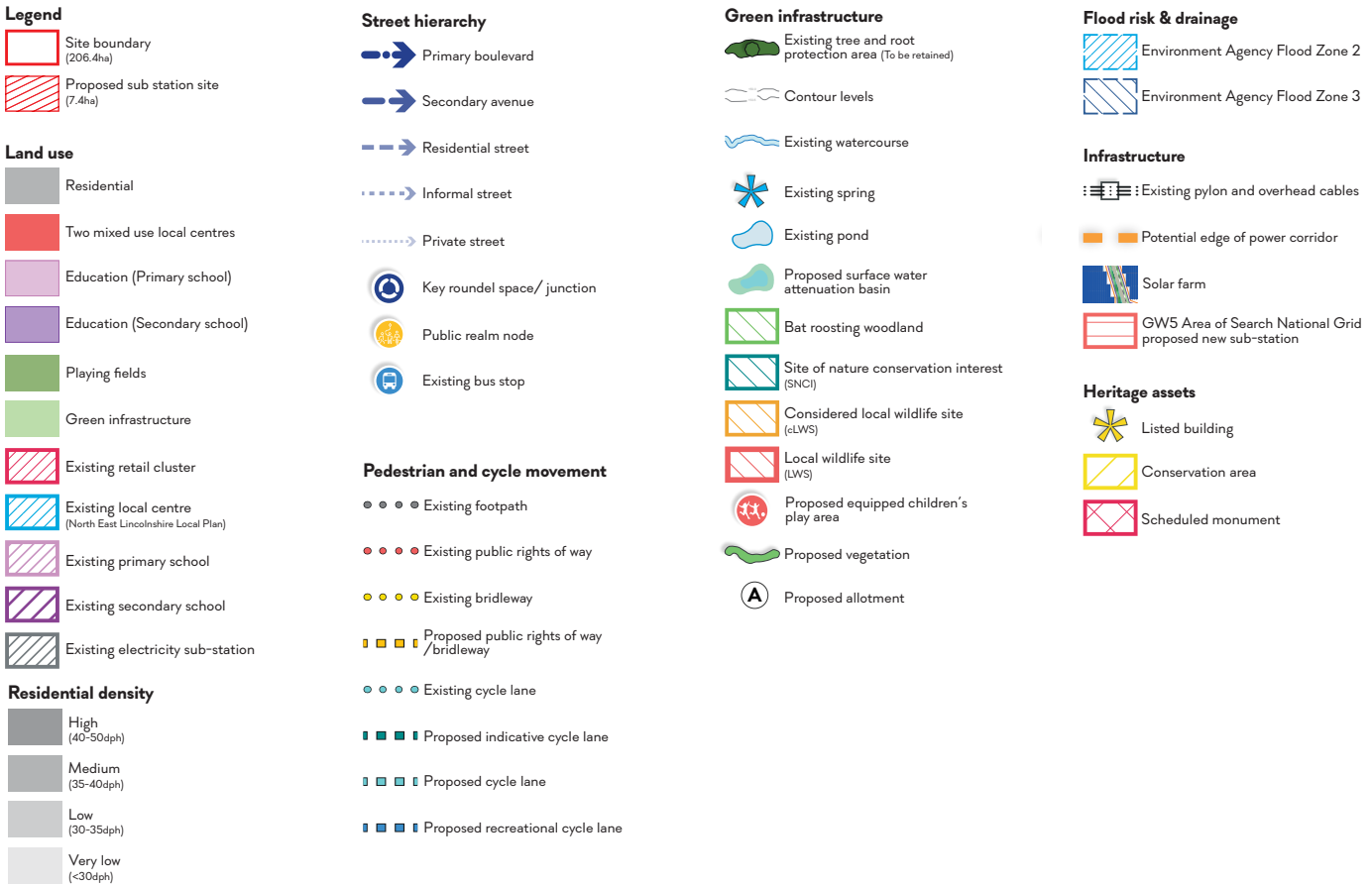
figure 5.19 | 1:15,000 | utilities infrastructure plan

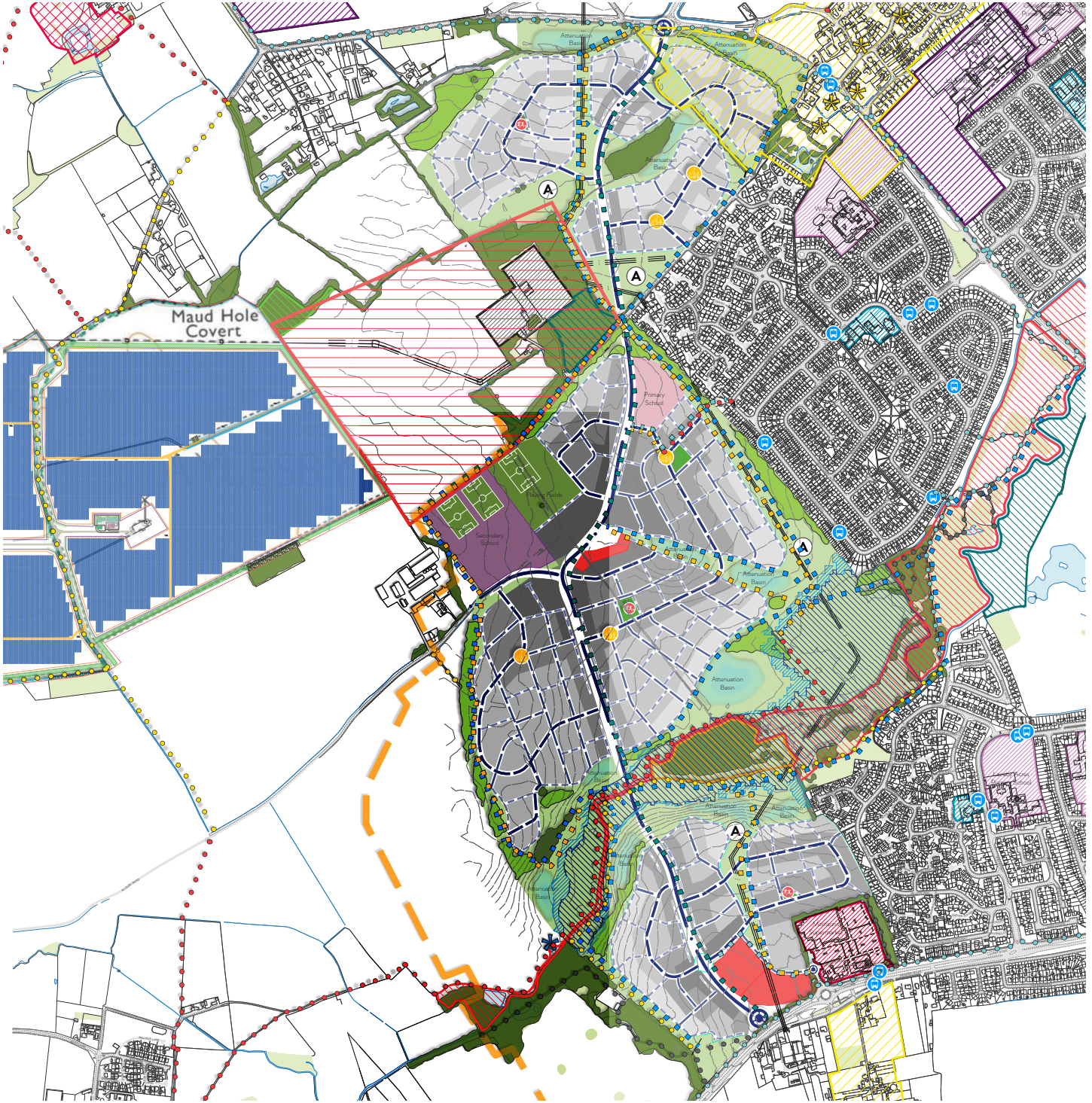
5.2.10 Design framework

Taking all of the preceding issues into account, the design framework shows in greater detail how the site can broken down into a series of individual residential blocks.

It also shows how constraints like pylons and new planting can be accommodated alongside side new pedestrian and cycle routes.

The proposed development will be able to accommodate up to 3500 new homes..





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metres

figure 5.20 | 1:15,000 | design framework

6

Design response

6 Design response

This section provides further information regarding the detailing of the proposed development, highlighting how each of the three neighbourhoods could deliver the vision established in the previous section and detailed context.

The creation of a true sense of place is essential for the success of three character areas. The design ideas respond to local character and context, complying with both national and local design policies to protect local distinctiveness whilst ensuring an attractive environment for future and existing residents.

The character of the spine/ link road as it travels through the site is one of the central ideas in developing the very distinctive identities in the three separate neighbourhoods. It is considered to provide a significant opportunity for the development to create a memorable and varied development, which will appeal to developers and future residents alike. The following pages also set illustrative masterplans for the creation of a varied and distinctive environment character along the spine road.

The NELC Residential Highway Design Guide sets out NELC's approach to road design in residential developments. It largely follows the guidance the Manual for Streets. It sets out a street hierarchy with local distributor roads and residential access road.

The guide does not cover local distributor roads. The Link Road clearly falls into this category and specific design parameters are broadly agreed with the Council for this road as set out above. The Design Guide provide guidance only for residential roads which has the following dwelling limits:

- Single Access – up to 150 homes
- Single Access + emergency access – up to 250 homes
- Two Accesses – up to 500 homes

The guide advises that for development areas of over 500 homes, a local distributor road will be required. The NELC guide does not specify any dwelling limit for a local distributor road.

6.1 Character areas

6.1.1 West Coates

The northern-most neighbourhood has been notionally entitled West Coates. This area lies to the west of the existing village of Great Coates and has the potential to draw upon existing key contextual characteristics (without resorting to pastiche), to create a place which has local identity and connections.

Vision

Our vision for West Coates is to incorporate the following design elements to create a distinctive identity:

- An organic street layout rather than a rigid grid
- An emphasis on traditional village design
- Emphasis on view back to church in Great Coates and respect of its conservation area
- A strong emphasis on green infrastructure
- Lower density development with larger front gardens onto spine road
- The potential to incorporate a village green with sporting activities and facilities at the heart of the neighbourhood
- Potential to have variations in road width, set backs and enclosure ratios, to create character
- The spine road is considered an important element to help the creation of the distinctive character of a memorable and varied development as a main travelling route.

The photos overleaf provide some precedent images of the type of place we are looking to create.

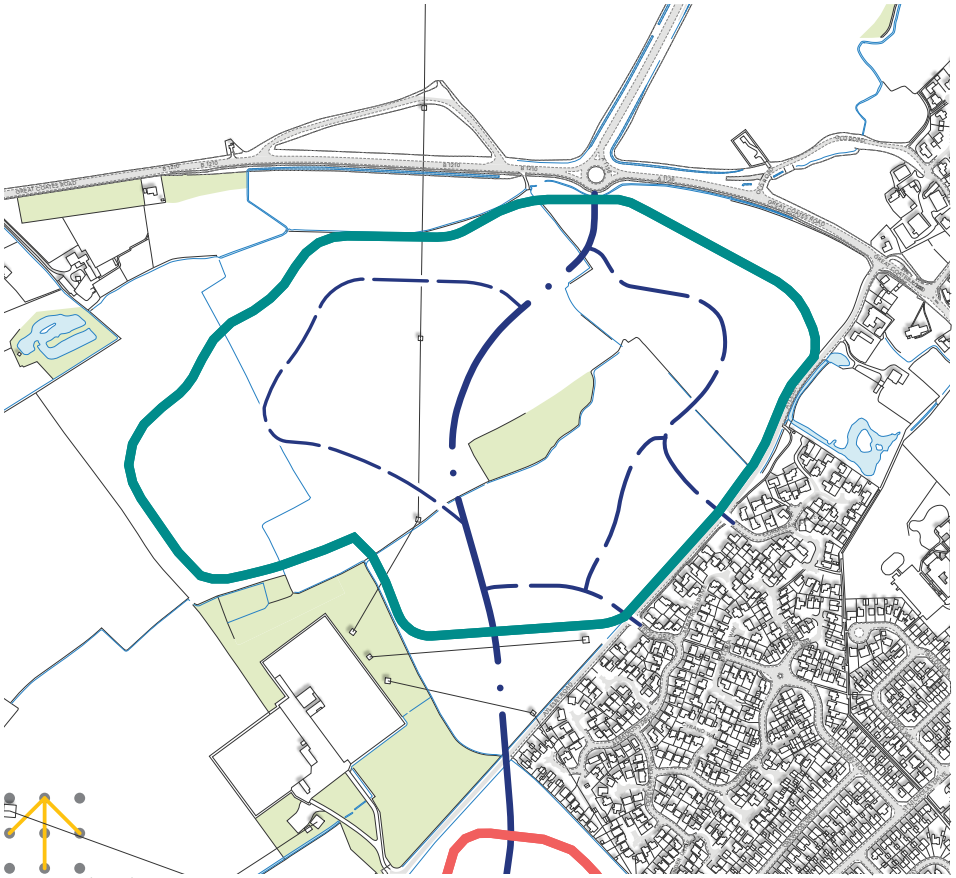

figure 6.1 | nts | West Coates village