



Chapter 4:
ACCESSING THE CONTEXT:
LOCAL

4.1. HISTORIC CONTEXT

An analysis of the historic environment can provide important contextual cues for shaping the proposed development.

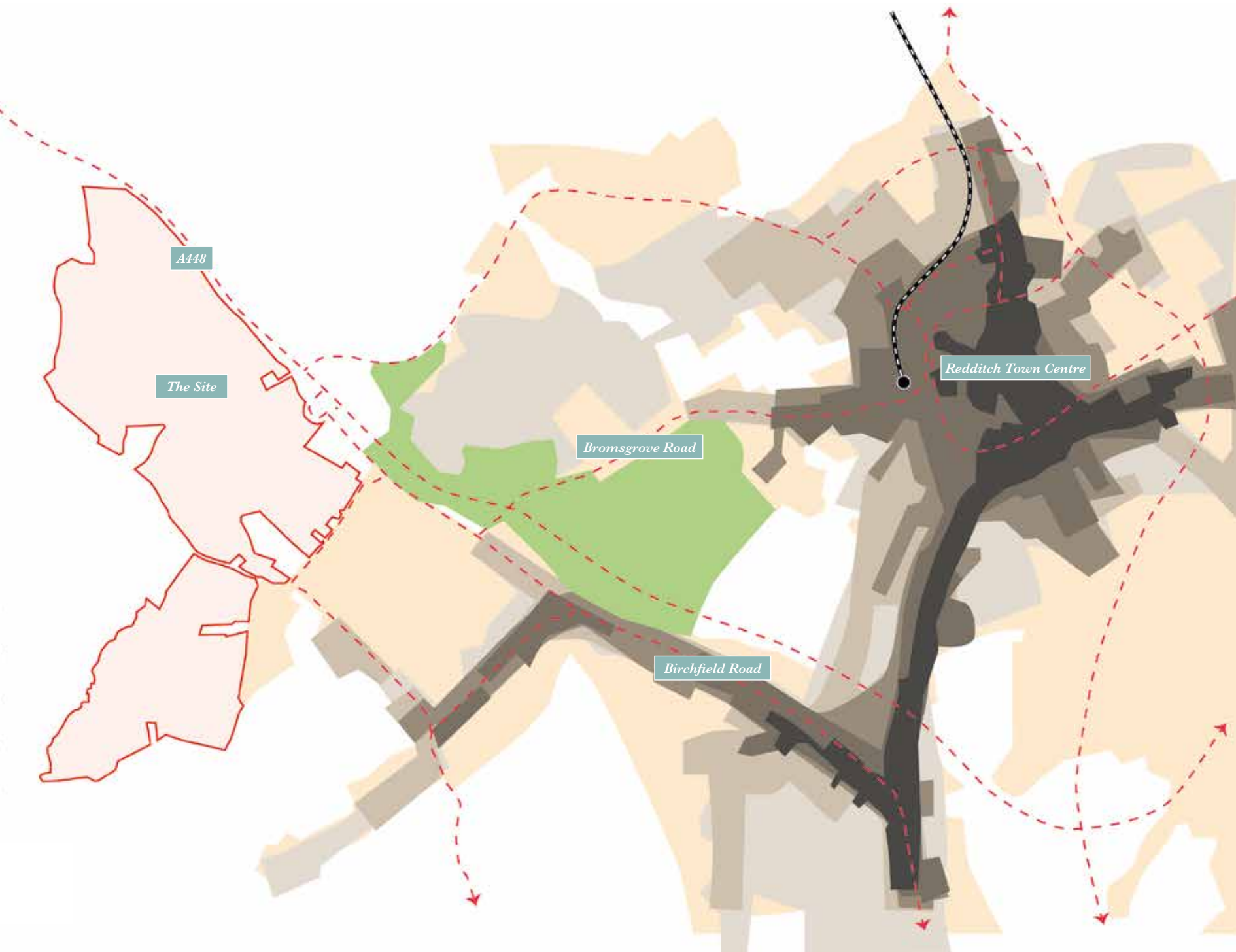
4.1.1. Following the dissolution of Bordesley Abbey in the 16th century the town of Redditch emerged, formerly part of the ancient parish of Tardebigge. The early settlement was made up of a small group of cottages located on the cross roads that can be found today at Church Green in the town centre.

4.1.2. The Parish of Redditch was founded in the mid 19th century as the town continued to grow based on prosperous local industry centred on the manufacturing of needles. The settlement expanded along the north to south route linking Birmingham to Evesham and the road west to Bromsgrove. By 1870, completion of the 'Birmingham to Gloucester Loop' introduced rail travel to the town which coincided with increasing levels of industry that continued into the 20th century.

4.1.3. Redditch was later designated as a New Town in 1964 which instigated a period of major development that saw the population grow from 30,000 to 80,000 (approximate) over 20 years. The majority of this residential development was experienced on the eastern side of the town beyond the River Arrow, but the town also spread west towards the site as the neighbourhoods of Batchley and Webheath were formed.

4.1.4. The towns transport network was overhauled throughout the process of New Town development and many of the historic routes were replaced or upgraded by the introduction of dual carriageways and other major A-roads. This included the A448 dual carriageway that runs along the north eastern boundary of the site linking Redditch with Bromsgrove.

4.1.5. The site itself appears to have always existed as agricultural land and a number of historic field boundaries remain today, particularly within the southern half of the site. The residential neighbourhood of Webheath is located adjacent to the site on its eastern boundary and was built towards the end of the 20th century; its urban form comprising low density sub-urban development. A number of nearby farms can be located on maps dating back to pre 1874 and these include Holyoake's Farm to the north west, The Hill Farm to the north east and Lanehouse Farm to the west.



Historic Settlement Growth plan



CHANGING LANDSCAPE

4.1.6. Landscape and settlement character is shaped over time and an appreciation of the stages and activities that have happened in farming practices, in settlement and transport as well as commerce can all leave markers in the landscape that contribute to the 'local distinctiveness' (the phrase first invented by Common Ground in 1983) of a place. For a new development to have a successful relationship, and achieve a positive interaction with its human context as well as its landscape setting a clear understanding of the history of the place can provide invaluable parameters and prompts.

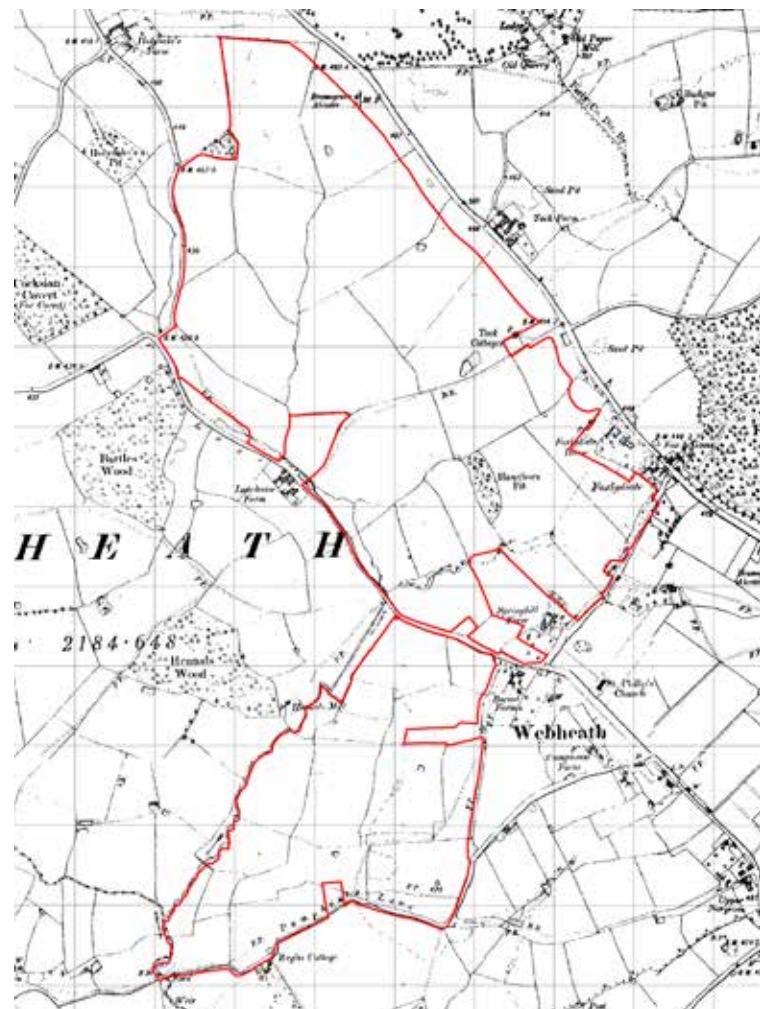
4.1.7. Change in the landscape has been recorded on Ordnance Survey maps for over 100 years and these maps give snap-shots of the site and its setting since 1905.



OS Explorer Map 220,204

1905

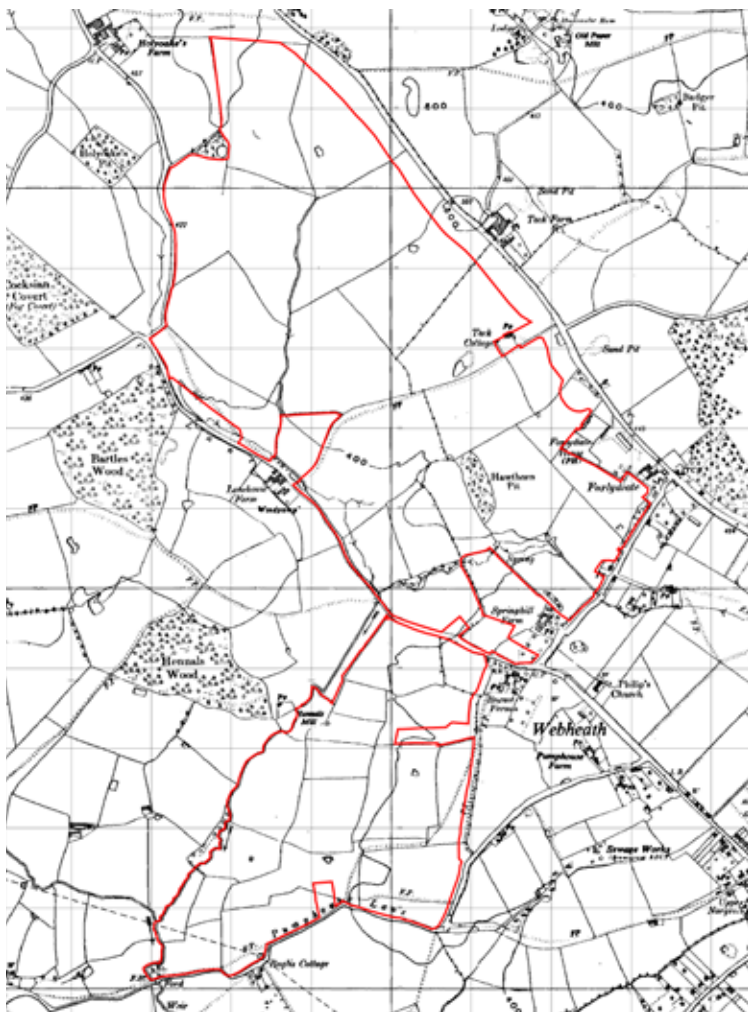
- » The fields of the site are recognisable but the northern area is more divided by hedgerow field boundaries
- » The A448 Bromsgrove Highway does not exist and Hewell Lane is the principle road
- » Webheath is a modest rural settlement comprising Springhill, Boxnot and Pumphouse Farms and St Philip's Church
- » Hennals Wood is considerably larger than today



Historic Map 1905

1955

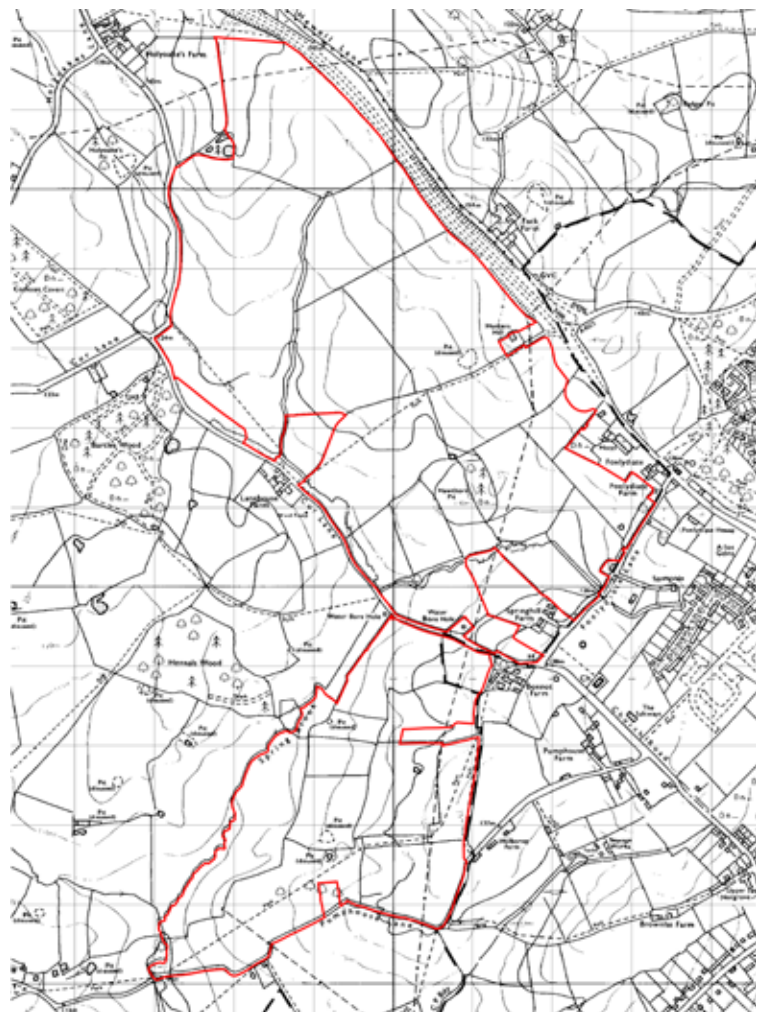
- » With change since 1905, the fields of the site are still recognisable but the northern area is still more divided
- » The A448 Bromsgrove Highway does not exist and Hewell Lane is the principal road
- » Webheath is still a modest rural settlement comprising Springhill, Boxnot and Pumphouse Farms and St Philip's Church
- » Hennells Wood is still considerably larger than today



Historic Map 1955

1978

- » The fields of the site are recognisable: the northern area is now more open with larger fields created
- » The A448 Bromsgrove Highway is partially built as far as the Foxlydiate junction
- » Late twentieth century development in Webheath has started and development to the north in Batchley has occurred
- » Hennells Wood is still considerably larger than today



Historic Map 1978

4.2. LOCAL CHARACTER

The character and form of the proposed development should be influenced by the distinctiveness of its surroundings. Analysis of the existing built environment provides useful character references which will help to guide the creation of a new garden neighbourhood for Redditch.

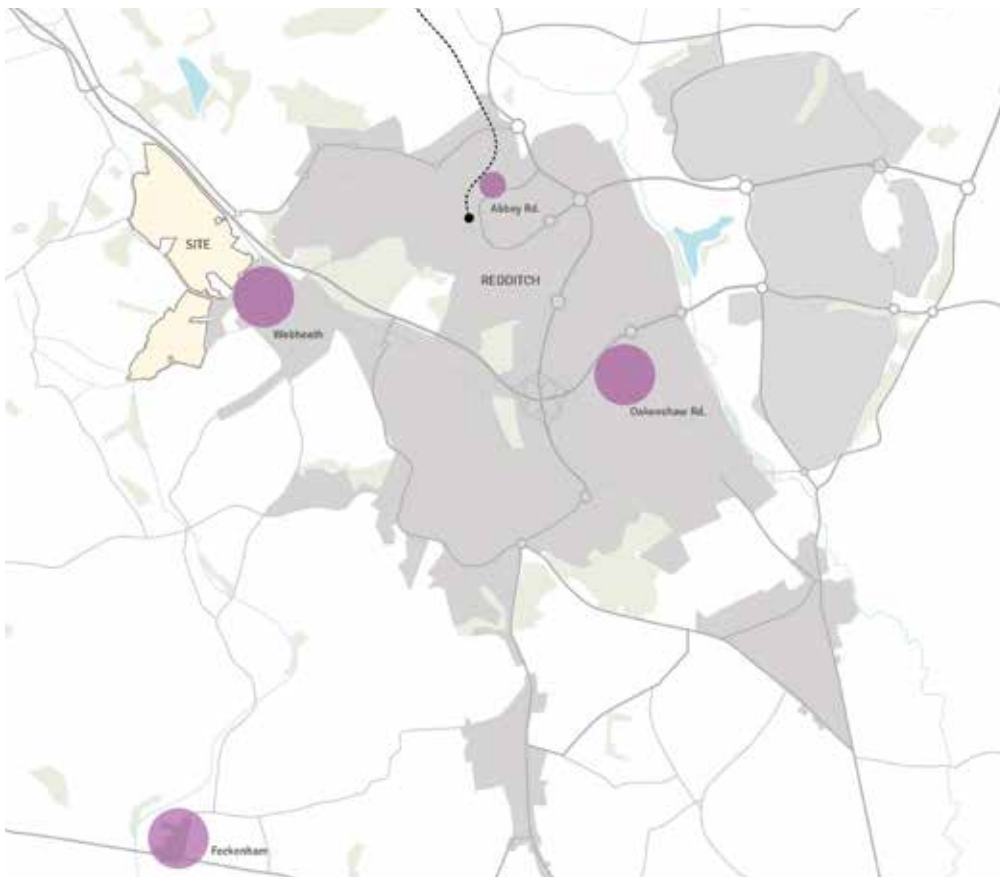
4.2.1. In order to achieve a design response that is distinctive and has a strong sense of place, five character areas have been chosen for the study, including examples within the borough of Redditch and district of Bromsgrove. The character areas are listed below:

- » Oakenshaw Road, Redditch
- » Abbey Road, Redditch
- » Webheath, Redditch
- » Feckenham: local village to the south of the site
- » Belbroughton: a rural village near Bromsgrove

4.2.2. The following design elements have been assessed in order to help identify the key characteristics of each study area:

- » Urban Form
- » Built /Plot Form
- » Car Parking
- » Open Space
- » Details and Materials

4.2.3. Together the study of these elements will help to inform the masterplan and illustrative material presented later in this document.



Character Areas Location plans



Opposite: Development located on the southern edge of Webheath



4.3. AREA 1: OAKENSHAW ROAD, REDDITCH

Oakenshaw Road is a 1950s suburb to the south east of Redditch town centre. It comprises a suburban character.

URBAN FORM

- » The area is primarily laid with gently curving streets which create linear shaped blocks
- » Some blocks are larger, and incorporate small cul-de-sacs. This can impede pedestrian/cycle movement and legibility
- » Generally medium density development
- » Hierarchy of routes defined by street width and the use of street trees.

BUILT / PLOT FORM

- » Largely semi-detached and terraced properties set within mid to large size plots with side access
- » Dwellings are set back within the plot to allow for a front garden and on plot parking
- » Dwellings are typically 2 storey.

CAR PARKING

- » Car parking mostly provided on-plot
- » Mix of frontage and side access driveways, with some integral garages
- » Street widths allow for ad-hoc on-street parking between driveways.

OPEN SPACE

- » Open space generally consists of SLOAP, usually found at junctions
- » Grassed verges are common features of this character area; they help to further emphasise a green and suburban character
- » Tree planting within verges help to enclose streets and form a valuable addition to the character of the area, particularly avenue street tree planting found on Oakenshaw Road.

DETAILS AND MATERIALS

- » Dwellings generally comprise brick facades and clay roof tiles
- » Common use of bay windowed property frontages
- » Small brick walls and hedgerows are a consistent boundary feature of front gardens.



Significant areas of tree planting aid the creation of a green, suburban character



General use of brown brick facades and simple and traditional building forms



Long, straight streets aid long distance views and help to establish a sense of rhythm



4.4. AREA 2: ABBEY ROAD, REDDITCH

Abbey Road is an example of a 1930's semi-detached street in central Redditch. It has a more formal character, defined by the common use of semi-detached properties and uniform materials and architectural details.

URBAN FORM

- » Abbey Road is a largely straight street, aiding the creation of a more formal character and allowing for long distance views to the west which are terminated with large scale tree planting. To the west, the street gently curves as it reaches Melen Street, providing a series of glimpsed views to 3 storey terraced properties.
- » Abbey Road runs along a contour therefore, there is a slight level change across the street. Long front gardens (4-6 metres) are used as appropriate, to deal with this change in levels.

- » The structure and form of development blocks are clearly defined; all dwellings front on to the street, aiding natural surveillance and activity.

BUILT/PLOT FORM

- » Medium density development largely consisting of semi-detached properties set within large plots with side access. There are also some use of terraces
- » Dwellings along Abbey Road are 2 storey with 3 storey terraces where Abbey Road meets Melen Street. Levels changes across the street also create some variation in building height; this is effective in creating interest along the streetscene and emphasising focal buildings.
- » The use of a largely consistent building line emphasises a more formal character.

CAR PARKING

- » Parking is provided on plot within original driveways located to the side of the dwellings.
- » Later alternations have seen some garages

introduced as side extensions with driveways expanded into front gardens.

- » Informal on street parking also occurs between driveway accesses.

OPEN SPACE

- » Narrow grassed verge located on both side of the street which is broken by driveway access, with tree planting on both sides of the street within the verge.
- » Clipped hedges form boundary features in places

DETAILS AND MATERIALS

- » Dwellings have mix of red brick and white render facades which provide an interesting contrast which contributes to the character of the street.
- » All properties have bay window frontages.
- » Chimneys and ornamentation around windows create interest and rhythm.
- » Properties have hipped roofs with clay plain-tiles



Terraced properties and increased storey heights reflect a more formal character



The use of projecting architectural details adds interest to the street scene



Street tree planting and verges softens the appearance of the built form



4.5. AREA 3: WEBHEATH, REDDITCH

Webheath is an example of late 20th century sub-urban development which is located on the edge of Redditch adjacent to the site

URBAN FORM

- » Low density suburban development built in the 'root and branch' style comprising cul-de-sacs served by local distributor roads.
- » The layout is car orientated and offers poor connectivity and legibility for pedestrians and cyclists.
- » Building orientation is confused where properties side or back on to the main movement routes.
- » No definitive structure to the urban form, although the original field boundaries remain evident in some places.



Facade materials largely comprise render and brick

- » Varied treatment of properties located at the edges of the urban area, some overlook the surrounding countryside with plot access provided directly or grouped by private drives.

BUILT / PLOT FORM

- » Largely detached properties.
- » Buildings typically sit within mid to large size plots front gardens and narrow side access.
- » Predominantly 2 storey properties with some bungalows.

CAR PARKING

- » Car parking is located on plot through the provision of frontage driveways
- » Most properties have integral garages
- » Opportunity to park informally on street in gaps between driveways.



Parking is predominantly on-plot

OPEN SPACE

- » Pockets of grassed open space provided but this generally isn't well overlooked by surrounding development, which could cause security issues.
- » Some of the original field boundaries are retained to provide established landscape corridors crossing the site. However the quality of these features is often degraded where they form private boundaries
- » Grassed verges and trees are used along primary movement routes, helping to soften the visual appearance of the built form.

DETAILS AND MATERIALS

- » Dwellings generally comprise brick facades with some use of white render.
- » Properties typically have shallow pitched roofs which are finished with grey, red or brown concrete pantiles.
- » Residential boundary features usually comprise low level brick walls and / or clipped hedge at the frontage of properties.



The use of cul-de-sacs can impede pedestrian movement and create low quality alleyways that are not overlooked by dwellings



4.6. AREA 4: FECKENHAM

Feckenham is a traditional Worcestershire village which is characterised by low density development and a variety of architectural styles.

URBAN FORM

- » Low density development
- » Development blocks are structured by primary movement routes
- » Informal development structure aids the creation of a rural character
- » Public space and landscape also shapes the urban form.

BUILT /PLOT FORM

- » Generally large plots with a mix of detached properties and short terraced runs
- » Detached properties often sit within square plots, whereas terraced property plots are longer and more narrow
- » Dwellings tend to front directly onto the street without front gardens or boundary treatments
- » Properties are predominantly 2 storey.

CAR PARKING

- » Mix of parking provision including on plot and on street
- » Some examples of grouped parking in rear courtyards, usually serving terraced properties.

OPEN SPACE

- » Village green forms important element of the local character
- » Areas for formal sports provision form an interface between development and the surrounding countryside
- » Minimal street-trees and planting. However, trees within private gardens are common features which contribute to the green and rural character of the village.

DETAILS AND MATERIALS

- » General use of red brick facades with occasional use of white render
- » Frequent use of clay plain-tiled roofs with a variety of roof pitch
- » Dormer windows are common, with some gabled facades.



A variety of architectural styles and materials create a distinct and informal character



The use of red brick is a predominant character feature



Dwellings overlook the street with small front gardens



4.7. AREA 5: BELBROUGHTON

Belbroughton is an example of how development and public open space can positively respond to the existing topography to create an informal and village character.

URBAN FORM

- » Relatively low density development
- » Early development built along main streets with later additions to the rear creating large development blocks
- » Organic, ad-hoc development structure
- » A mix of dwellings fronting directly on to the street or set back with front gardens to create an interesting and varied street scene.

BUILT /PLOT FORM

- » Generally large plots and dwelling sizes
- » Mix of detached and semi detached properties, with some short terraced runs
- » Detached properties often sit within square plots, whereas terraced property plots are longer and more narrow
- » A number of plots side onto the road to work with the sloping topography, creating a distinct character
- » Properties are predominantly 2 or 2.5 storey.

CAR PARKING

- » Mainly on plot parking, with some parking on street and a small number of parking courtyards.

OPEN SPACE

- » Green and informal areas of public open space are a distinctive character element of the village.
- » Open space tends to complement and respond to the sloping topography of the village
- » Informal tree planting, hedgerows and vegetation are all common features of the streetscene.

DETAILS AND MATERIALS

- » Predominantly red brick facades with the occasional use of render.
- » Chimneys and ornamentation around windows create interest and rhythm
- » Relatively shallow roof pitches with frequent use of clay plain-tiles
- » Occasional use of dormer windows adding variety to the roofscape.



General use of red brick facades with focal buildings highlighted by the use of render



Informal pockets of open space respond to the topography



Terraced properties and increased storey heights are used along the High Street





4.8. INSPIRATIONAL QUALITIES

An analysis of each character area has been undertaken to help inform the design decisions within the masterplan and later detailed proposals for Monarchs Green. A number of character generators have been formulated as a result of this analysis, which are set out below:



URBAN AND BUILT FORM

- » Development should generally consist of 2 to 2.5 storey dwellings. Increased storey heights could be located along key routes and in other prominent locations to provide variation and aid a legible townscape.
- » Main streets and spaces should be overlooked by continuous building frontages where possible, with buildings set back in places to create interest along the street scene and provide a transition between the private and public domain.
- » The development should incorporate a range of densities that are responsive to uses, street types, topography and location within the site. This will aid the creation of a varied and distinctive townscape.
- » The development should ensure that plot sizes are appropriate to the size of the dwelling, which can be dictated by location, density and character.



PUBLIC OPEN SPACE AND PLANTING

- » Street trees and provision of grass verges in the street, such as those found in Oakenshaw Road, Abbey Road and Webbheath is successful in creating an attractive green environment which also helps to define street hierarchy and aid legibility.
- » Planting within front gardens should be used to soften the appearance of the built environment and can encourage locally distinctive street scenes. The scale of planting in front gardens should be considered to ensure that dwellings are not completely screened from view along the street, which would impact upon levels of natural surveillance.
- » The development should provide high quality open spaces that allow for relaxation, recreation and play in accessible and safe locations. Retention of existing established landscape features incorporated within open space helps to create an attractive environment.
- » Development layout and open space should respond positively to the topography and landform of the site, aiding a distinctive character.



STREETS AND CAR PARKING

- » The development should incorporate a well connected and permeable network of streets and spaces that have a clear hierarchy which aids legibility and way-finding.
- » The alignment of streets contributes to defining the character of an area. Longer and straighter streets provide a level of formality and allow for long distance views, whereas shorter, more curved streets are less formal and create glimpsed views.
- » Car parking should generally be provided on plot, with additional spaces positively designed into the street scene, as appropriate. Some types of development, such as terraced dwellings, could have rear parking however, this should be infrequent and provided only in small groups.
- » Private drives are successful in allowing dwellings to attractively overlook green space.
- » The total level of car parking provided at the development should respond to the level of demand to ensure that parking does not take place in inappropriate locations that detract from the character of the place.



ARCHITECTURAL STYLE AND DETAILS

- » The use of simple and traditional building forms will successfully emphasise the local vernacular of scale and enclosure.
- » A simple architectural style should be developed which is based on a local palette of materials, such as red/ brown brick, white render and plain roof tiles, with a restricted number of details.
- » Elements including single and double storey bay windows, dormer windows, pitches and hipped roofs, chimneys and detailing around windows and doors add interest to the streetscene and aid a varied townscape.
- » Residential boundary treatments should comprise low brick walls and planting where appropriate. Consideration should be given to the scale of planting.



Chapter 5:
ACCESSING THE CONTEXT:
THE SITE



5.1. ACCESS

A Transport Assessment has been prepared for the site, in accordance with The National Planning Policy Framework (2012) and Planning Practice Guidance (2014). It addresses public transport capacity, walking and cycling capacity and road network capacity. It also considers the safety implications of the development, and develops transport strategies to overcome issues of congestion and severance.

PEDESTRIAN AND CYCLE ROUTES

5.1.1. A comprehensive assessment has been carried out of local routes for pedestrians and cyclists.

Walking

5.1.2. It is found that walk routes in the area are good in that: local roads are overlooked by residential properties; many routes are quiet with adequate footway widths and lit when dark; and, the residential areas permeable with convenient alley ways proving direct routes.

5.1.3. During the busiest hours of the day Birchfield Road can be more difficult to cross and there are no formal facilities in the vicinity. The A448 is a potential major obstacle, but there are at least three walk routes across it, including the Birchfield Road bridge, a wide subway route to Batchley and via Bromsgrove Road.

5.1.4. There are many leisure routes along Public Rights of Way and nearby country lanes, but these are sometimes spoilt by people driving too quickly along them.

Cycling

5.1.5. There is a comprehensive network of quiet streets on the south side of Redditch, suitable for any cyclists. Confident cyclists are provided with on-road advisory routes on Bromsgrove Road and Birchfield Road, which provide access to Headless Cross and the Town Centre. Again, local roads are ideal for cycling as they are overlooked by residential properties; they are quiet routes and lit when dark; and, permeable with convenient alley ways.

5.1.6. The National Cycle Network (Route 5 – Birmingham, Bromsgrove, Redditch, Stratford, etc) arrives in Redditch on Pumphouse Lane and serves Webheath on Church Road and Tynsall Avenue, before continuing to the Town Centre on Bromsgrove Road. The infrastructure is mostly wayfinding and on-street advisory cycle lanes in the urban area, which provides some protection for cyclists.

BUS AND RAIL ROUTES

5.1.7. The area is well served by the local bus network, and there are opportunities to divert existing services into the site. However local residents have expressed concern about the quality and reliability of the services, and therefore their sustained viability. This could be mitigated with direct investment and revenues that come from this development and that on the former Webheath ADR site.

5.1.8. The local plan policy calls for all properties on the development to be located within 250m of a bus route, which is a far higher standard than is achieved in many areas in Redditch. However it may be possible to achieve this if the network around Webheath can be modified, and a more suitable route can be found.

5.1.9. Bus routes adequately serve Bromsgrove, Redditch Town Centre, other areas of Redditch and Alexandra Hospital. This is a good level of service to places of work, worship, healthcare, education, shopping and leisure. These routes also connect with Redditch Railway Station, which provides three trains an hour to Longbridge, Selly Oak, University and Birmingham New Street.

VEHICULAR ROUTES

5.1.10. The local road network in Webheath is not congested. Heathfield Road presents a difficult obstacle for general traffic and public transport, owing to on-street parking issues, and traffic therefore diverts along Foxlydiate Lane and Blackstitch Lane. Parking around the schools in Webheath also creates localised issues for residents in that vicinity.

5.1.11. Birchfield Road, Bromsgrove Road and Church Lane are free flowing throughout the day, with minor delays observed in the peak hours on Birchfield Road at A448 Bromsgrove Highway, Tynsall Avenue, and Bromsgrove Road. The A448 Bromsgrove Highway provide free movement to all areas of Redditch, and is likely to form the primary route to access the development.

5.1.12. Congestion is mostly experienced in Bromsgrove at the A448 junction with the A38, and on the A38 towards the M5 and M42. It is understood that this is subject to a major scheme funding bid, being made by Worcestershire County Council to the Department for Transport, that will alleviate congestion and accommodate forecast traffic growth.

5.1.13. The Transport Assessment considers the operation of the local road network in detail, and is informed by Worcestershire County Councils Traffic Model (Bromsgrove and Redditch Highway Assignment Model). The scope of this assessment includes all major routes within the two districts, and provides the local authority with a wide range of information to assess the impact of the development. Using this information, alongside surveys carried out on a school day in June 2015, the Transport Assessment considers the operation of local roads in Webheath in detail. The results of this analysis are considered in full in the TA and summarised in Section 7.2.



Foxlydiate Lane/Church Road/Cur Lane Junction



Cur Lane



Redditch Rail Station

5.2. FLOODING AND DRAINAGE

FLOOD RISK

5.2.1. In accordance with the NPPF, a FRA has been produced for this site. According to mapping produced by the Environment Agency (EA), the site is largely within Flood Zone 1 ('low' risk of fluvial and tidal flooding) with some areas in the west adjacent to the Spring Brook located within Flood Zones 2 and 3 ('medium' and 'high' risk respectively). The extent of the floodplain has been confirmed using hydraulic modeling. All built development will be located within Flood Zone 1, and is therefore compliant with the NPPF in this regard. Some surface water flow paths have been identified by EA mapping, associated with minor topographical depressions

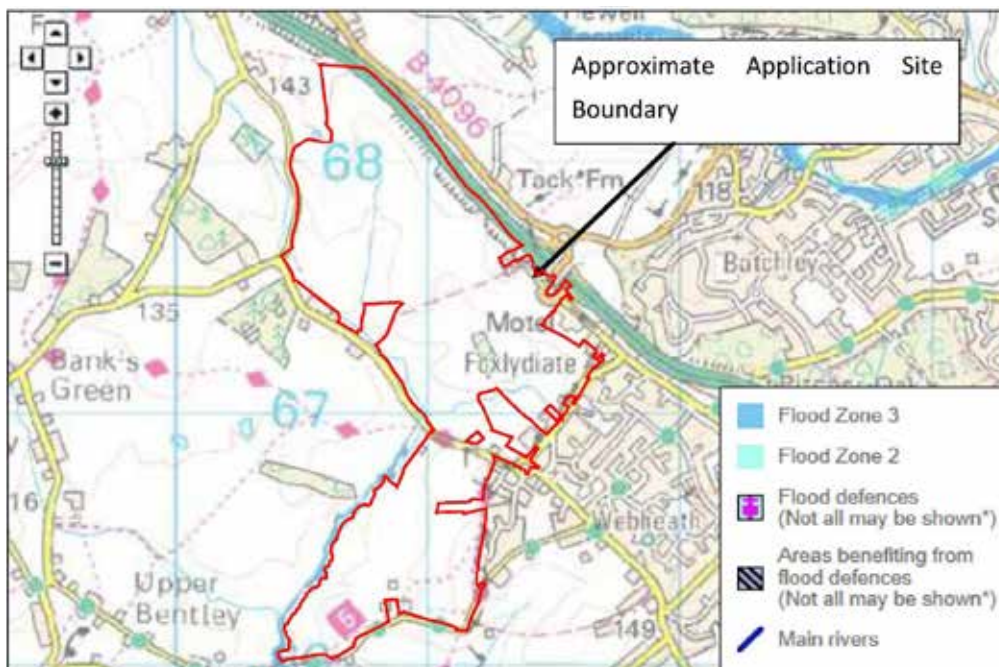
and ditches within the site. These flow paths will be accommodated within the proposals to ensure flood risk is not increased elsewhere. The site is partially located within EA designated groundwater SPZ's 1, 2 and 3. The EA have confirmed that the development is acceptable, subject to a number of criteria which are detailed within the supporting Drainage Strategy and FRA.

5.2.2. The site is not considered to be at risk of flooding from any other source. The development is considered to be appropriately located in this location, and will be appropriate in terms of flood risk for the development lifetime.

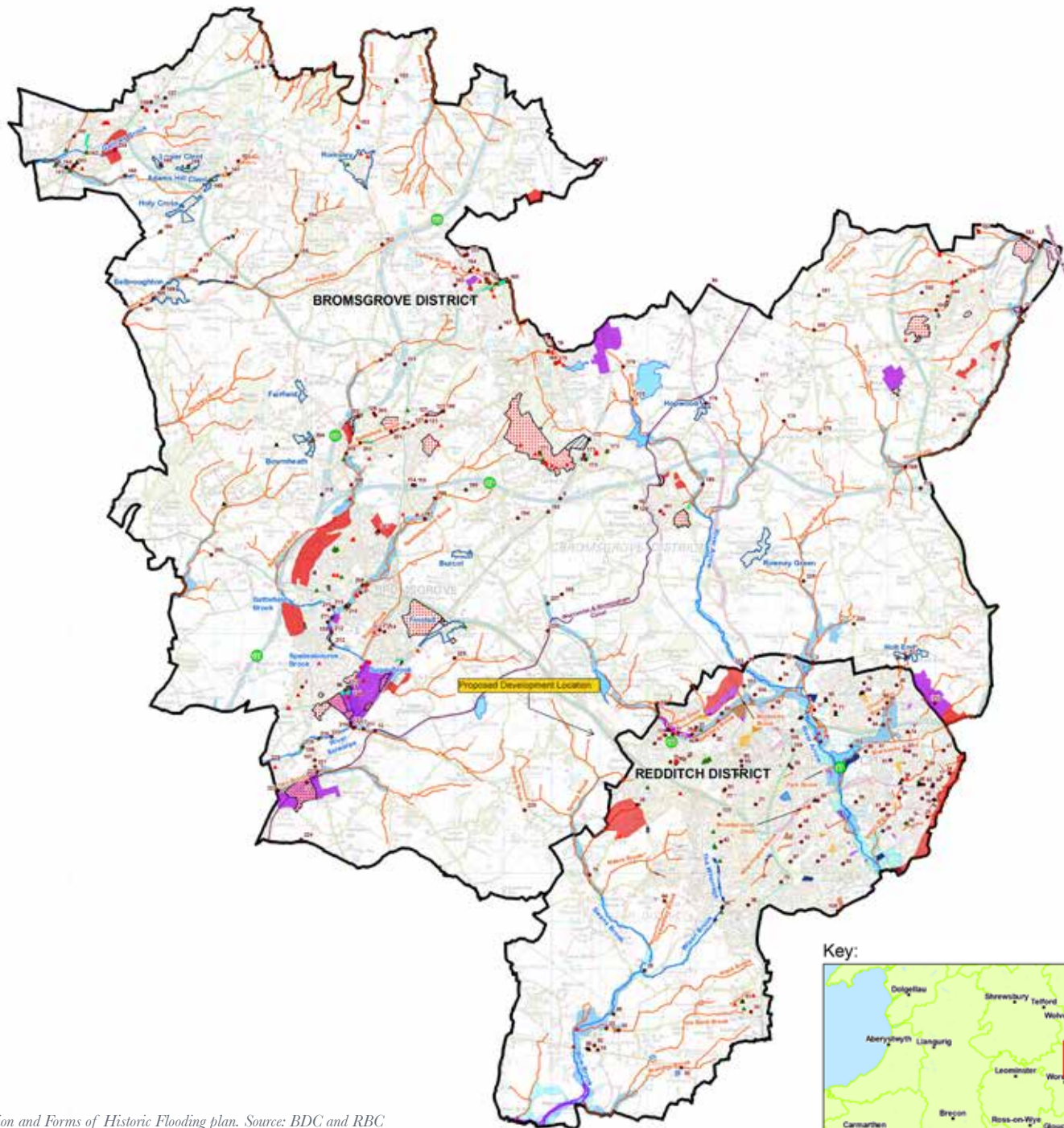
DRAINAGE

5.2.3. An outline foul and surface water drainage strategy has been produced for this site. The considerations of key stakeholders, such as the EA, Severn Trent Water (STW), and North Worcestershire Water Management has been incorporated throughout.

5.2.4. STW have undertaken modeling to assess the potential impacts of development proposals to the northwest of Redditch on the existing STW sewerage network. STW advised that upgrades to both the network and receiving treatment works will be required to accommodate the additional flows from the identified development sites. The drainage strategy will provide calculations to determine the proposed flows from the residential development to the foul sewer.



Flood Map for Planning (Rivers and Sea). Source: EA



Location and Forms of Historic Flooding plan. Source: BDC and RBC

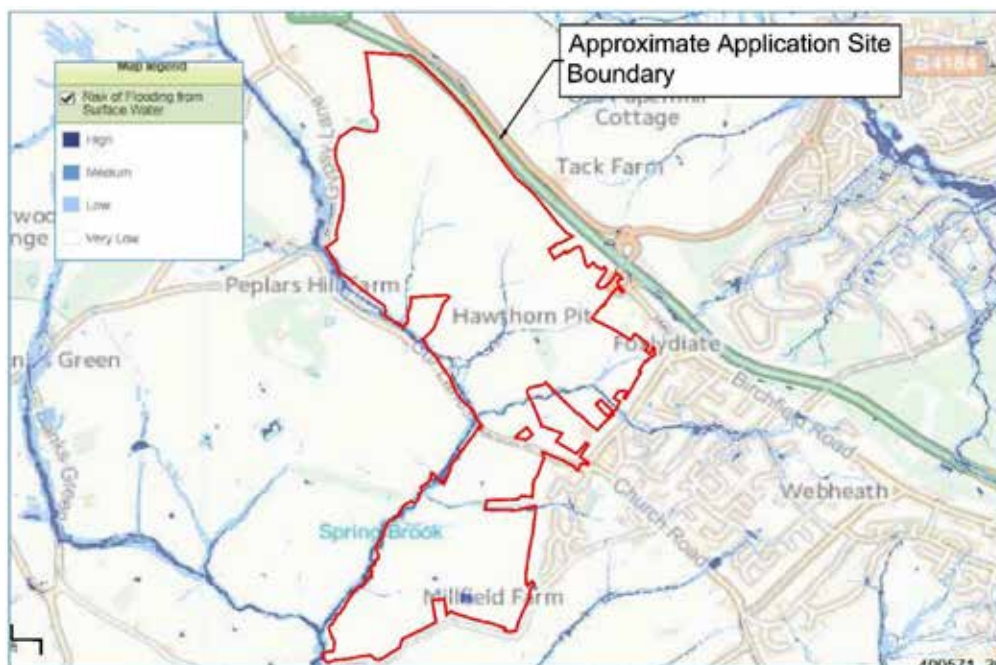


Sewer Flooding

- ▲ Foul Sewer
- ▲ Storm Sewer
- ▲ Unspecified
- Historic Flooding Point
- Historic Flooding Over Broad Area
- Reservoirs, Lakes and Pools
- Balancing Ponds
- Ordinary Watercourses
- Bromsgrove and Redditch Boundaries
- Historic Flood Outlines
- Canals
- Main Rivers
- Flood Zone 3
- Flood Zone 2

Development Sites

- Village Envelopes
- Policy Reference
- Strategic Sites
- Housing Sites
- Employment Sites
- ADR
- Shopping
- Unzoned



Risk of Flooding from surface water. Source: EA

5.3. LANDSCAPE SETTING

The Landscape and Visual Assessment has recorded how the site has clear physical elements that are particularly well defined at its edges.

5.3.1. These topographical features: landform and the prominent patterns of native planting will ensure the physical containment along the site boundaries. The site has clear, successful limits that will prevent sprawl.

5.3.2. The following points provide a summary of site assessment;

- » The higher ground of the site is still lower than the ground beyond the site's boundaries north of the A448 and south into Webheath.
- » The shape of the landform, are strong features that define clear and logical limits to the site and the future development.
- » The containment along the boundaries is also made by existing planting in the hedgerows of Cur Lane and Gypsy Lane containing numerous prominent trees.
- » The lanes form strong boundary lines that can effectively give form and character to the edge of the new development with sympathetic effectiveness.
- » The A448 along the site's north eastern edge has landscape belts of structure planting.
- » The dual carriageway also has significant earthworks that add to the definition of the edge of the site.
- » The Spring Brook along the future countryside boundary of the southern area also has associated tree and hedgerow lines that further strengthen its line.
- » Again it forms a strong 'near natural' boundary line that can effectively give form and character to the edge of the new development with sympathetic effectiveness.
- » The south eastern edge of the site sits along the current boundary of the settlement.
- » Webheath is on land that rises higher than the site along this boundary and again containment is formed by existing elements: the rising landform; the numerous mature trees; and the buildings of Webheath at the edge of the town of Redditch.



View from Foxlydiate Lane towards the Hawthorn Pit



View towards the northern site boundary



View towards the north eastern site boundary



View towards existing development in Webbheath in the southern area of the site



5.4. LANDFORM

Topography is the study and mapping of the features on the surface of land, including natural features such as valleys, scarps and lakes and water courses as well and constructed features such as roads and lanes.

5.4.1. Landform is a more specific to just the natural physical features of the land and its surface. In the landscape there is a close association between these terms.

5.4.2. The desk based study and analysis of the local setting landform is presented on the Site Landform plan. This is a record of the on-site fieldwork: the topographic site specific survey, ground levels, hedges, services etc.

5.4.3. At its broadest level landform influences the topography and forms a fundamental element in the setting for the site. It is heavily related to geology and soil as it creates, through natural process or the intervention of man, the form of the land of the site and the setting. It is also, therefore, a major determinant in the significance of the visual qualities of the site in terms of prominence or concealment. The man made interventions have included the construction of the A448, Bromsgrove Highway and at a small scale, the digging on the lanes: Cur Lane, Gypsy Lane and others in the local setting. Agricultural enclosures and the planted woods and copses have made a pattern of enclosure across the site that produces a pattern of enclosure with a range of scale: from the expansive scale of the high ground at the north eastern top of the site to the smaller scale of the more enclosed fields along the settlement edge.

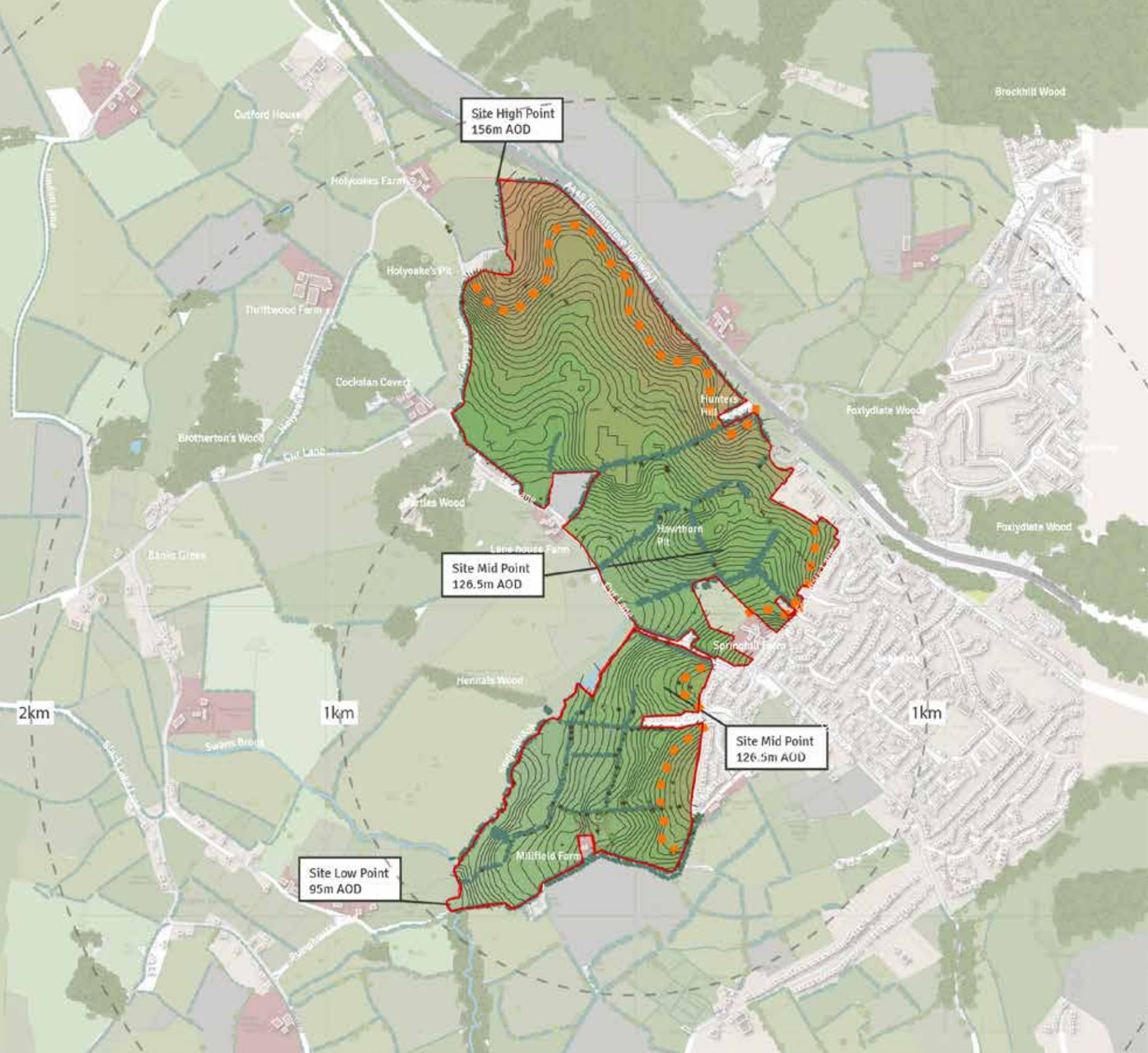
5.4.4. The landform is distinctive: rising by approximately 61m from the low point of approximately 95m AOD at the south western 'tip' near the Spring Brook, to

156m AOD on the northern boundary near Holyoake's Farm close to the A448. Within these limits there is considerable variation in slope and orientation of the landform. There is a pronounced west to south westerly aspect to the slopes and roll in the landform of much of the site. The long run of the land from the edge of Webheath between Cur Lane and the A448 has this generally westerly orientation. The most southern and eastern areas, where the site sits between the settlement edge and the Spring Brook, face a more north easterly direction.

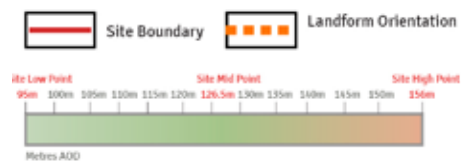
5.4.5. Within these two broad areas defined loosely in terms of the orientation of the landform there is a considerable variety in elevation. The character of the landform has a rolling and undulating quality that with the pattern of enclosure produces variety and distinctiveness to the ground. The topography: the combination of landform and features on the land, create a clear and character defining attribute.

5.4.6. Consideration of landform is an important matter within the evaluation process of this LVA. Landform alone however cannot, and of course is not, the only consideration in the evaluation of the merits of a proposed change of use of the land, but it does have significant role to play in the consideration of the suitability, or not of the site, for development.

5.4.7. The site has comparatively gentle gradients: typically between 1:8 and 1:31 and these are appropriate for development use.



Site Landform Plan



5.5. ECOLOGY

There are two Sites of Special Scientific Interest, two Local Nature Reserves, 13 Local Wildlife Sites and two areas of ancient woodland within 2km of the Site. The closest designation is Bow, Shell, Swan and Seeley Brooks LWS which is located directly adjacent to the south-western corner of the Site which has been designated due to its open flowing water with associated broadleaved, mixed and yew woodlands and reedbeds supporting species including otter and kingfisher.

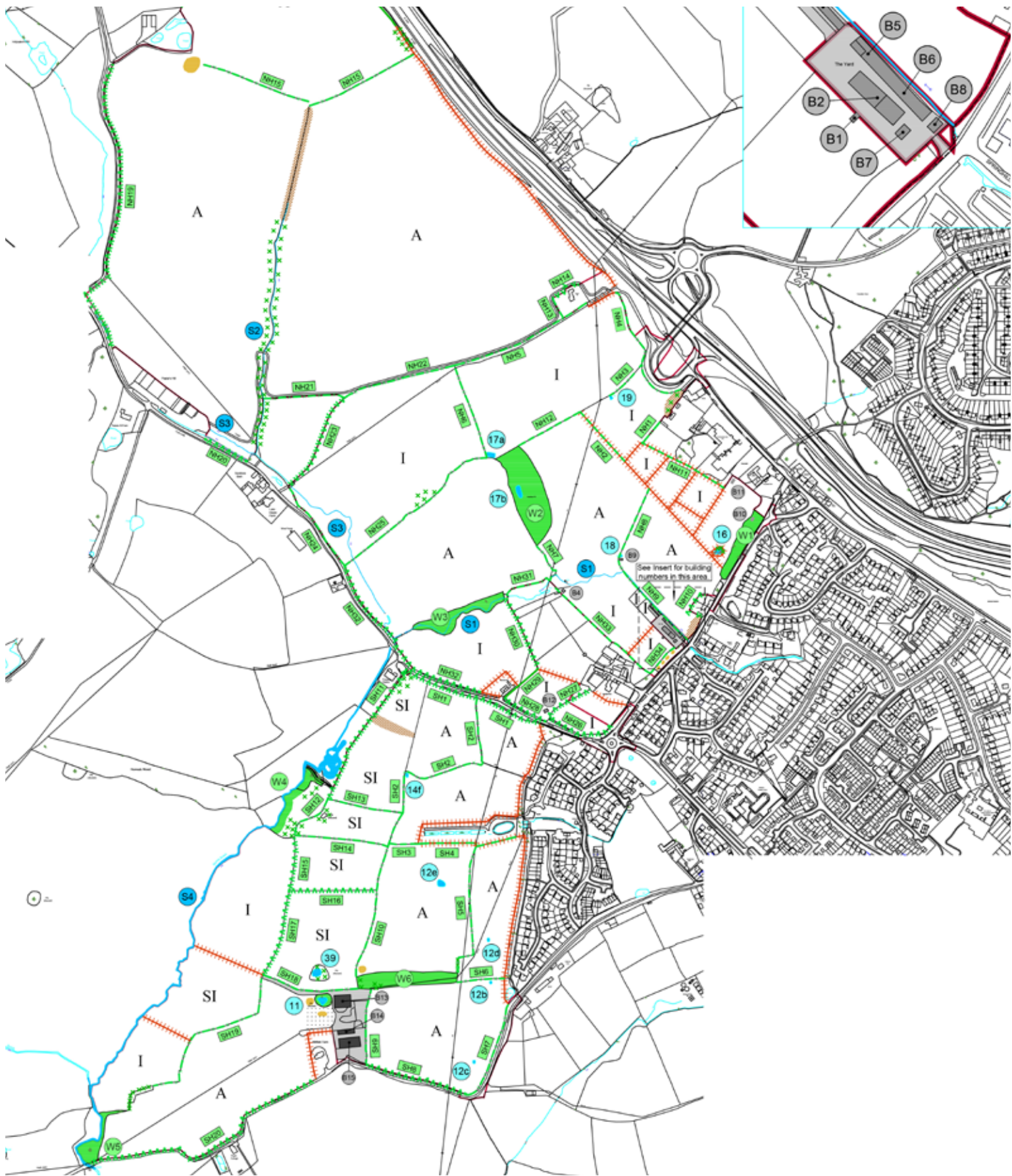
5.5.1. A Preliminary Ecology Appraisal was undertaken at the Site in March 2015 which included an Extended Phase 1 Habitat Survey. The habitats that were recorded on Site include arable fields, semi-improved and improved grassland, broadleaved woodland, species-rich and species-poor hedgerows, scrub, tall ruderals, buildings, hardstanding, standing open water and wet watercourses.

5.5.2. The results of the Preliminary Ecology Appraisal informed the need for a variety of ecology surveys, including amphibians, badger, bats, breeding birds, dormouse, hedgerows and invertebrates. These have been undertaken and found:

- » Badger – There is confirmed presence of badger on Site. It has therefore been recommended that the Masterplan design aims to retain wildlife corridors wherever possible.
- » Great Crested Newt – GCN within one pond within 500m of the Site were recorded during the update GCN surveys in 2015. Previous surveys in 2011 and 2014 identified GCN within four other ponds, one of which is located on Site. It has therefore been recommended that the Masterplan design aims to retain all standing open water wherever possible.
- » Bats – Bat activity and automated surveys were undertaken during the 2014 bat active season. Bat activity was concentrated along the hedgerows and woodland edges. Common pipistrelle were by far the most frequently recorded species within all areas of the site. Soprano pipistrelle, noctule and Myotis calls occurred in similar abundance but at

considerably lower levels. It has therefore been recommended that the Masterplan design aims to secure habitat connectivity across site by retaining as much of the existing hedgerow and tree cover as possible.

- » Bats – From the tree climb inspection surveys undertaken in 2015/16 no confirmed roosts were identified within the Site. However 21 trees scheduled for removal were considered to be category 2; low potential for supporting roosting bats and may require further surveys if they are to be removed.
- » Bats – One building within the Site, Building B3 on the Habitat Plan, is considered to be of moderate potential for supporting bats during the active season as a transitional or occasional day roost. It is not considered to be suitable for supporting hibernating bats or a maternity colony. Further surveys of the building have been recommended if the building is to be removed as part of the Proposed Development.
- » Birds – The results of the 2015 breeding bird survey indicated that the Site is of local significance for birds. It has therefore been recommended that the Masterplan design aims to retain hedgerows and mature trees wherever possible.
- » Hedgerows – The 2015 hedgerows survey established that 28 of the 54 hedgerows on Site are considered to qualify as ‘important’ under the wildlife and landscape criteria of the Hedgerow Regulations. All hedgerows provide suitable foraging and breeding habitat for



Habitat plan

REFERENCE

Site area	-----
Arable field	-----
Improved grassland	-----
Semi-improved grassland	-----
Broad-leaved woodland	-----
Muck heap/soil mounds	-----
Scrub	-----
Tall ruderals	-----
Waterbody	-----
Flowing watercourse	-----

A
I
SI

Disturbed ground	-----
Building	-----
Fence	-----
Intact species rich hedgerow	-----
Intact species poor hedgerow	-----
Defunct species rich hedgerow	-----
Defunct species poor hedgerow	-----
Building reference number	-----
Watercourse reference number	-----
Woodland reference number	-----



Pond reference number	-----
Hedgerow reference number (North)	-----
Hedgerow reference number (South)	-----

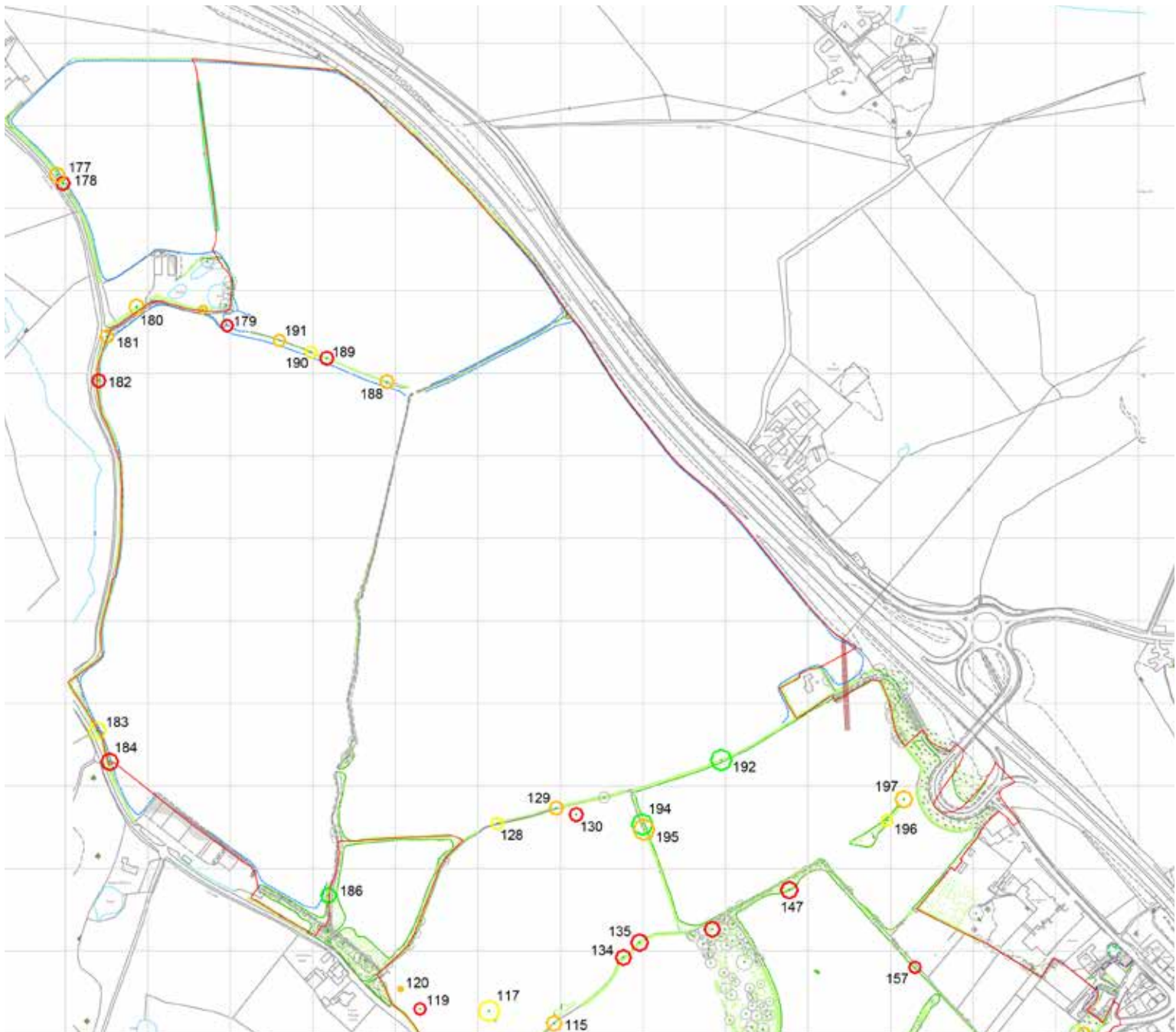
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SH32
SH18

small mammals, invertebrates, birds and bats. It has therefore been recommended that the Masterplan design aims to retain hedgerows wherever possible.

- » Dormouse – No signs of dormouse were found during either the 2014 survey or the update nut search in 2015.

- » Invertebrates – A feature based assessment was undertaken in February 2016 and a sampling survey will be undertaken in spring 2016. Five trees were assessed as having moderate potential to support saproxylic invertebrates. These five trees will be subject to a sampling survey in spring 2016.

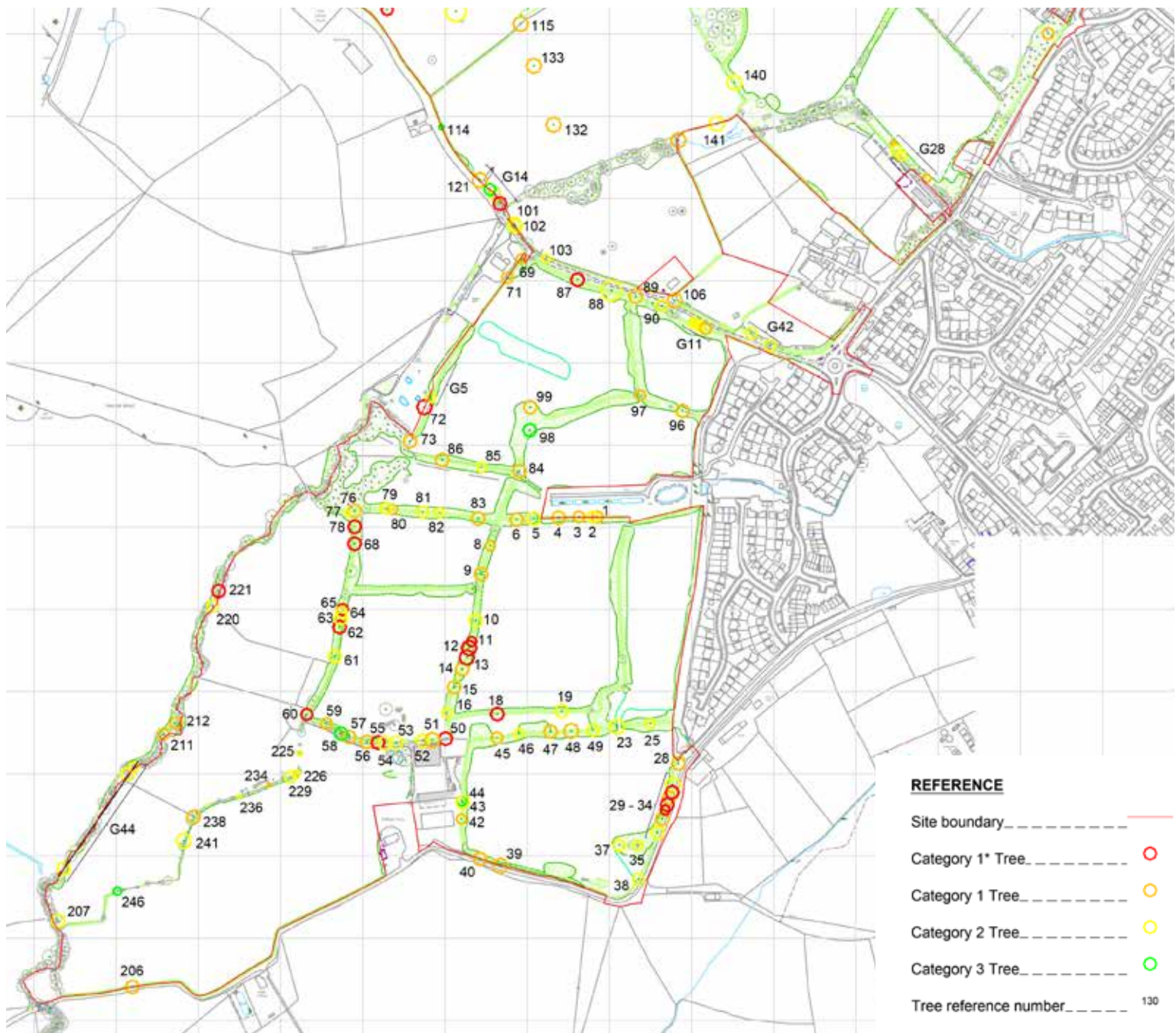
- » Otter and Water Vole – The 2014 survey concluded that the habitats on Site were largely unsuitable for both otter and water vole. There are opportunities to enhance the watercourses on Site for otter which are present within the wider landscape.



Trees with bat roost potential plan

5.5.3. Following the acquisition of baseline data, a detailed ecological impact assessment will be undertaken in accordance with the Chartered Institute of Ecology and Environmental Management's Guidelines for Ecological Impact Assessment in the UK

and Ireland: Terrestrial, Freshwater and Coastal (2nd Edition, 2016). The results of the assessment will be used to inform the mitigation measures and enhancements that will be incorporated in to the Masterplan design.



Trees with bat roost potential plan

5.6. HERITAGE

The Environmental Statement (ES) has assessed the likely significant effects of the Proposed Development in terms of archaeology and cultural heritage in the context of the Site and surrounding area. In particular the likely effects of the Proposed Development on any known or potential heritage assets within the Site and the surrounding area during construction and operation have been assessed.

Through a consultation with Bromsgrove District Council (BDC) and in line with current guidance and industry best practice a desk study of the baseline has been provided. The desk study has utilised the following sources:

- » Worcestershire Historic Environment Record (HER);
- » Worcestershire Record Office;
- » GIS datasets (Historic England 2015);
- » Scheduled Monuments;
- » Listed Buildings;
- » Registered Parks and Gardens;
- » Registered Battlefields; and
- » The National Heritage List for England (Historic England website).

5.6.1. In addition, a geo-physical survey has been undertaken to identify any archaeological remains and a confirming walkover survey of the Site has been undertaken.

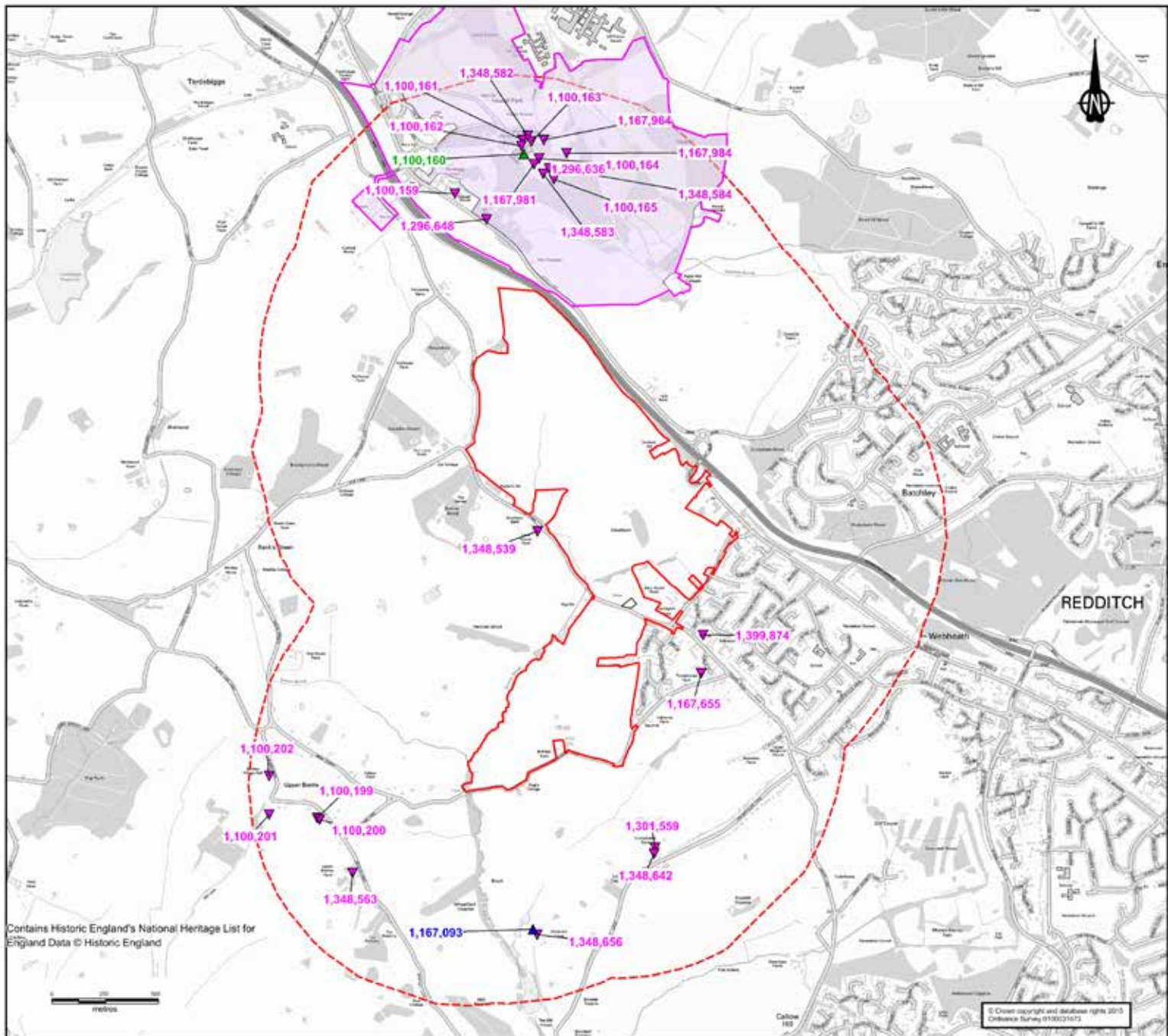
5.6.2. The assessment has considered the effects of the constructional and operational phases of the Proposed Development on the following sensitive receptors:

- » HER entries;
- » Previously unrecorded archaeology;
- » Hewell Grange CA and RPG;
- » Hewell House;
- » Lanehouse Farmhouse; and
- » Norgrove Court.

5.6.3. The assessment established that no designated heritage assets would be physically impacted upon by the Proposed Development.

5.6.4. A geophysical survey has not identified any areas comprising significant large-scale archaeological remains. Therefore, it has been concluded that no archaeological remains are present within the Site which could preclude development and that further work would not be necessary to determine the planning application.

5.6.5. In addition, the effects of the Proposed Development on the setting of Norgrove Court, Lanehouse Farmhouse and Hewell Grange Registered Park and Garden and Conservation Area would not be significant.



Designated Heritage Assets plan

- Site Boundary
- Search Area (1km)
- Hewell Grange Registered Park and Garden
- Hewell Grange Conservation Area
- ▲ Grade I Listed Building
- ▲ Grade II* Listed Building
- ▼ Grade II Listed Building

5.7. UTILITIES AND NOISE

UTILITIES

5.7.1. A Utilities Statement has been produced. This has involved obtaining records to show the location of existing utilities and a Utilities Plan has been prepared to illustrate where the identified utilities are located within the red-line boundary and immediate vicinity of the proposed development. The Utilities Statement highlights the following are present:

- » An Esso oil pipeline is located in the northern part of the Site.
- » A National Grid local high pressure gas pipeline is present in the northern part of the Site.
- » Western Power electric transmission lines cross the Site, 11kV and 66kV overhead lines.
- » Zayo fibre optic telecommunications cross the Site, mainly following the high pressure gas pipeline route.
- » A Severn Trent Water mains are present, crossing in eastern and southern part of the Site as well as following perimeter along roads around the wider Site. Surface water highway drains are present along Cur Lane, Foxlydiate Lane and Birchfield Road, as well as the A448. Foul water drainage exists within the housing estates located to the east of the development and running along Foxlydiate Lane and Birchfield Road.

5.7.2. The Utilities Statement has recommended that oil and local high pressure gas pipelines are left in situ and are accommodated in the masterplan through applying easement distances. Diversions and reinforcements will be needed, however these are not uncommon to this type of development.

5.7.3. Each of the utilities have confirmed connection to their networks is achievable but will require more detailed investigation to provide detailed technical and financial appraisals for connections and network alterations once the Proposed Development is at the detailed design stage.

5.7.4. The investigation into utilities for the Proposed Development has determined that it is deliverable with respect to the ability to connect to the utilities networks.

NOISE AND VIBRATION

5.7.5. The impact of noise and vibrations arising from the construction of operation of the Proposed Development has been assessed as part of the Environmental Statement (ES). The assessment has identified the existing sensitive receptors (i.e. existing residential properties) and the proposed sensitive receptors (i.e. proposed residential properties) that would likely be effected by noise and vibrations during the constructional and operational phases of the Proposed Development. The assessment has considered the effects of the following:

- » The impact of noise from the construction phase of the Proposed Development, including;
 - » The impact of noise from the construction of Site access roads on existing sensitive receptors, and proposed sensitive receptors which become occupied before and after completion of the Proposed Development.
- » The impact of vibration from the construction phase of the Proposed Development, including;
 - » The impact of vibration from the construction of Site access roads and development buildings on existing

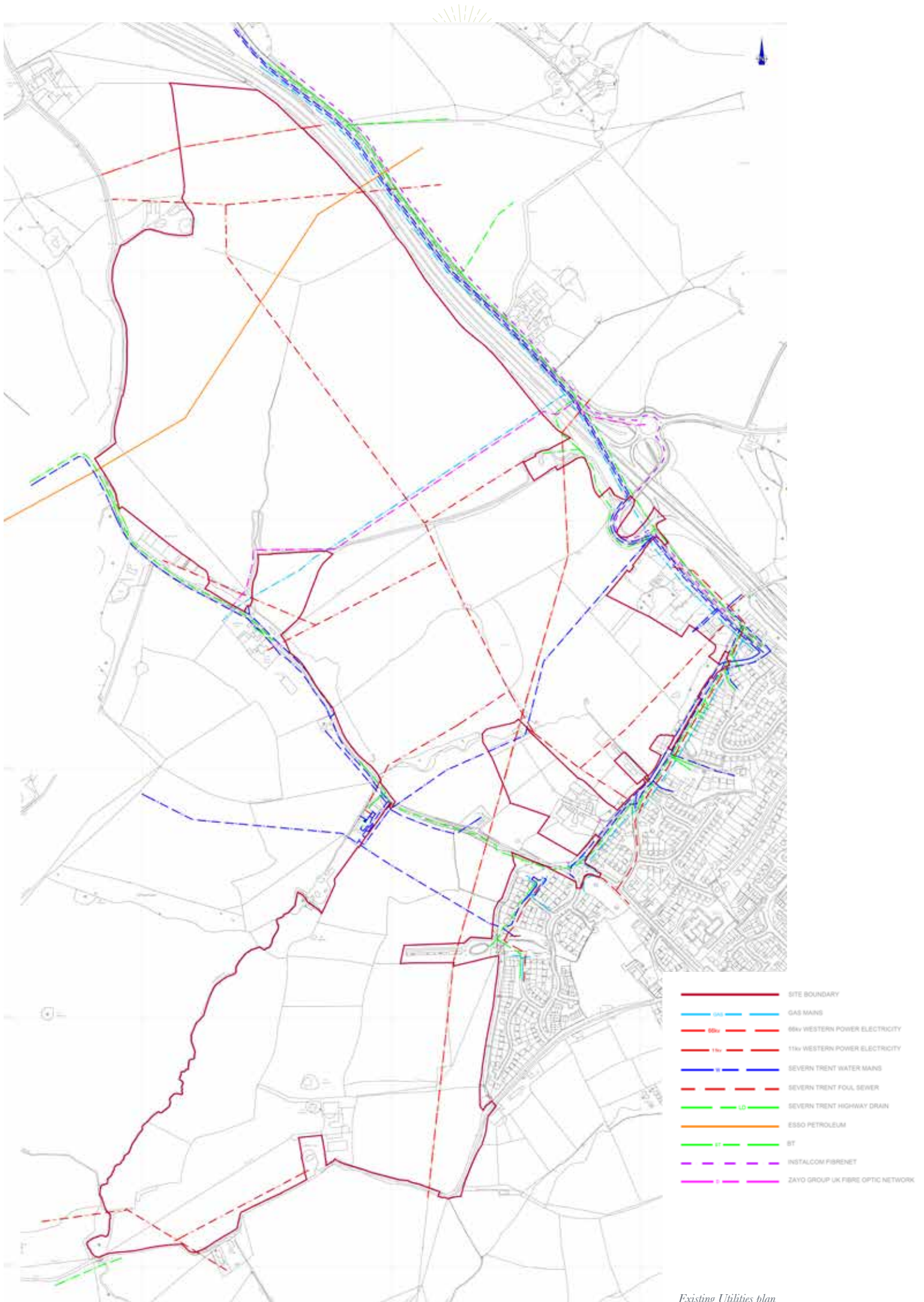
sensitive receptors and proposed sensitive receptors which become occupied before completion of the Proposed Development

- » The impact of noise from the operational phase of the Proposed Development, including;
 - » Road traffic noise from vehicles associated with the Proposed Development on the existing and proposed road network on existing sensitive receptors;
 - » Noise from road traffic vehicles associated with the Proposed Development and existing traffic on the existing and proposed road network on proposed sensitive receptors; and
 - » Any existing noise associated with existing mixed use areas on proposed sensitive receptors and any noise from the proposed mixed use area on existing and proposed sensitive receptors.

5.7.6. With the implementation of mitigation measures (including restriction on working hours, the implementation of temporary screening, and best working practice) the effect of noise and vibration associated with enabling works and construction phases on existing and proposed sensitive receptors will not be significant.

5.7.7. In addition, with the implementation of mitigation measures (i.e. appropriate glazing and ventilation) the effect of current and future traffic on the noise levels at existing and proposed sensitive receptors will not be significant.

5.7.8. The assessment also concluded that mitigation measures may be required to ensure that the noise from the proposed mixed use area does not exceed the background noise level. These measures will be identified during the detailed design stage.



5.8. SUMMARY OF CONSTRAINTS AND OPPORTUNITIES

A comprehensive analysis of the site has been undertaken and the findings evaluated to identify key opportunities and constraints relevant to the development of the site. This will ensure that the development at Monarch Green is responsive to important site features and can deliver the vision set out at the beginning of the document.

5.8.1. The following points provide a summary of the site assessment and the opportunities it provides;

LAND USE

- » Ensure the amenity and setting of existing properties that front or back on to the site is respected.
- » The development should explore the opportunity to provide new retail, community and education facilities, benefiting the new and existing community and ensuring that key facilities are accessible for new dwellings.
- » Be inspired by positive elements of the existing built form (as identified in section 4) to help aid a distinct character and sense of place.

















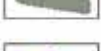

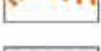





ACCESS AND MOVEMENT

- » Vehicular access will be taken from Birchfield Road, Foxlydiate Lane, Cur Lane and Pumphouse Lane.
- » The development should promote the use of sustainable transport, ensuring that journeys by foot, bus and bike are an attractive option.
- » The development should retain and enhance connections to existing footpath and cycle linkages wherever possible, including existing Public Rights of Way, the Bridleway and Monarch's Way.

DRAINAGE AND FLOODING

- » The majority of the site lies within Flood Zone 1 – low risk of fluvial flooding. There is a small flood plain associated with the Spring Brook; development will not be located within this area.



-  Site Boundary
-  Primary Vehicular Access
-  Secondary Vehicular Access
-  A448 and associated junction
-  Public Rights of Way (with associated pedestrian access to site)
-  Bridleway (with associated pedestrian access to site)
-  Monarch's Way
-  Utilities Routes and Associated Easements
-  HSE Consultation Zone
-  Boreholes
-  Noise offset to A448
-  Existing Ditch/Watercourse
-  Existing Built Development
-  5m contours
-  Trees
-  Hedgerow/Shrub Planting
-  Lane House Farm - Grade 2 Listed
-  Landform Orientation
-  Hewell Grange Conservation Area
-  PROW Viewpoint
-  Local Viewpoint
-  Private Land Viewpoint
-  Boundary contained by settlement
-  Boundary contained by tree cover



LANDSCAPE AND TOPOGRAPHY

- » Use existing important landscape features and views to form a strong and connected green infrastructure that shapes the development.
- » Understand and respond to the landform and topography of the site.
- » Existing green infrastructure that includes copses, hedgerows and tree planting will be retained wherever possible and used to provide a strong landscape framework.

ECOLOGY

- » Ecology assessments and protected species surveys have been undertaken to ascertain the current ecological value of the site. This data will be used to protect and enhance habitats of ecological value wherever possible, and to create a net gain in biodiversity.
- » The development will seek to maximise opportunities to enhance biodiversity and ecology wherever possible. This will be implemented through the creation of green corridors that are integrated with existing tree and hedgerow planting and the Spring Brook.

HERITAGE AND ARCHAEOLOGY

- » A detailed study of the setting and visibility of Hewell Grange Conservation Area and Norgrove Court will inform the proposals.
- » The setting of Lane House Farm (Grade II Listed) will be respected.

UTILITIES

- » Surveys have been undertaken to identify existing utilities crossing the site. Routes will be incorporated into the masterplan by making provision for appropriate offset distances or diversion.
- » The location of residential development and proposed densities will accord with the HSE consultation zones associated with the high pressure gas pipeline that crosses the site.

NOISE

- » An appropriate noise offset and/or mitigation will be provided where the site boundary adjoins the A448.



Existing dwellings adjoining the south eastern site boundary



Existing tree and hedgerow planting in the southern area of the site



Existing overhead powerlines cross through the site



Pumphouse Lane