2.0 SITE AND LOCAL CONTEXT

2.1 The Site

The Site, delineated on the Strategic Context diagram below with an asterisk, is located at the eastern edge of Kenilworth at the heart of Warwickshire, north of the towns of Warwick and Leamington Spa and 8km southwest of the city of Coventry. The Site sits between existing residential development to the west fronting Glasshouse Lane, and the A46 dual carriageway to the east.

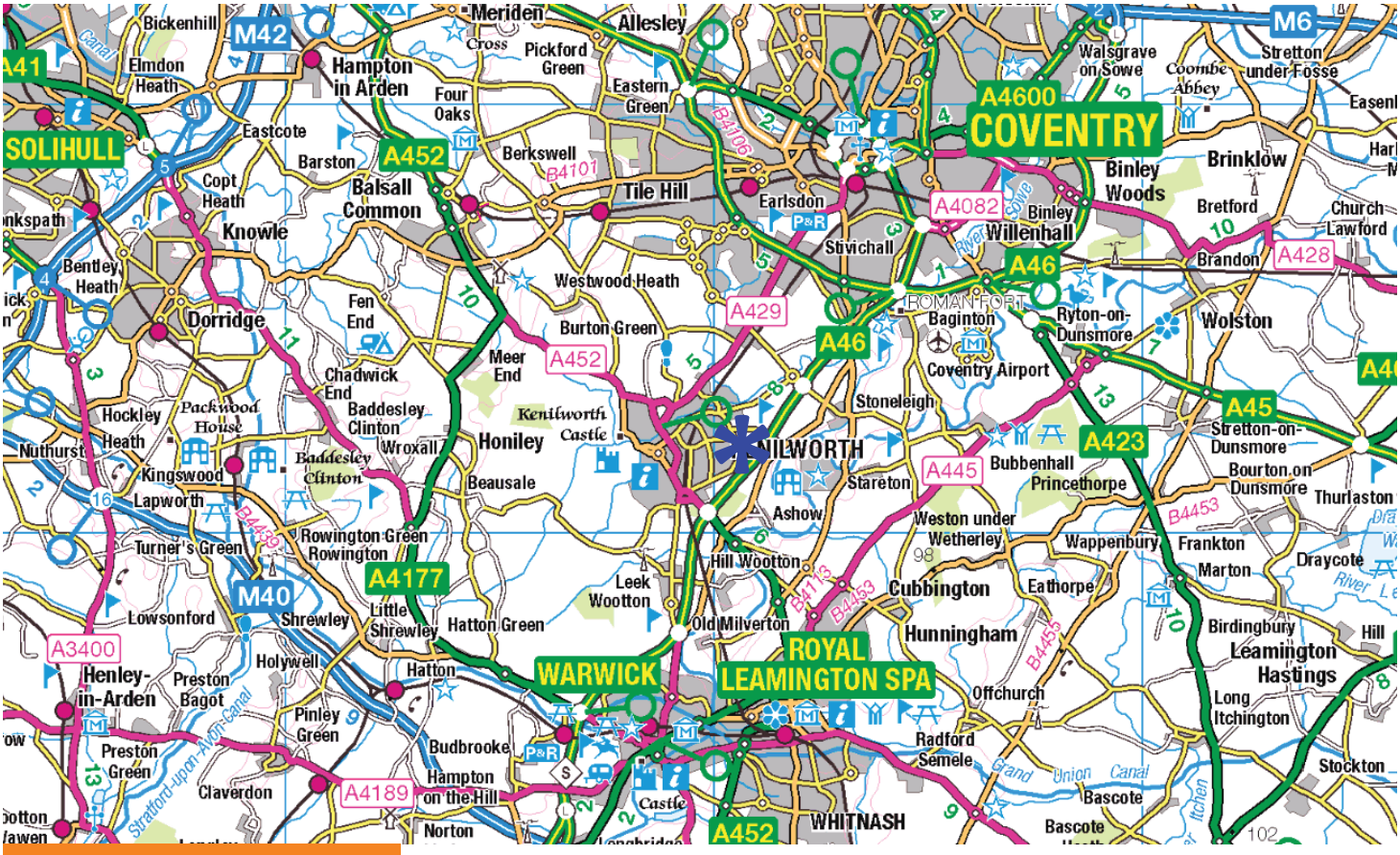
Kenilworth is a vibrant town centre. In addition to the diverse range of High Street shops, restaurants and businesses, the town boasts a medieval castle, Elizabethan palace and gardens. Stoneleigh Abbey is Grade 1 listed within the Register and Historic Registered Park and Garden and lies to the east of the town.

Near the Site, there are two neighbourhood centres, the closest of which is conveniently located within 800m. Other essential services are located close-by, such as primary and secondary schools, recreational facilities and public transport links.

The Site is directly connected to the local road network offering connections to the primary road network (A46, M6, M40, M42) at the wider level. A new rail station serving the town is currently under construction off Priory Road with a scheduled completion date of December 2016. This will significantly enhance rail links between Kenilworth and Leamington Spa, Coventry, Birmingham and London.

The extent of the Site controlled by Catesby Estates Limited (as shown by the Site Location Plan on the following page) is visually well contained due to perimeter boundary hedgerows and trees, Victoria Spinney to the north and Glasshouse Wood to the south.

The Site is included within the designated Green Belt encompassing Kenilworth and the surrounding area. The historic Roman Settlement at Glasshouse Wood is a Scheduled Ancient Monument by Historic England. This wood is also a designated Local Wildlife Site.



Strategic Context

Ordnance Survey License Number: 100022432

Site Location Plan

Ordnance Survey License Number: 100022432


N
0m
20m
50m
POND
A46
POND
GLASSHOUSE WOOD

The Site area (gross) extends to 12.54 hectares (equal to 30.99 acres) and comprises a total of five pastoral fields split by sub-dividing mature field boundaries, Victoria Spinney to the north, a portion of Glasshouse Wood to the south, a historic orchard and the private access drive to Woodside Management Centre. Excluded from the Site are the various buildings making up the Management Centre, associated hardstandings and car parkings, landscaped grounds, tennis and boules courts.

Woodside Lodge, a 20th century detached residence abuts the Site to the south. Access to this property currently crosses the Site.

In terms of development potential, the Site is capable of accommodating up to a maximum of 190 dwellings at a maximum density of 32 dwellings/hectare (net), with access (all modes) proposed from Glasshouse Lane. Access to the Management Centre and Woodside Lodge shall be retained.

View along the northern boundary of the site.

The existing (and primary) access to the Site off Glasshouse Lane.

Views north along Glasshouse Lane from the secondary access.

Views of the Woodside Centre from the south of the Site.

Views of Woodside Centre buildings from the south of the Site.

Glasshouse Wood contains the Site to the south.

2.2 Local Context and Strategy

Local Context Study

Existing residential development borders the entire western side of Glasshouse Lane. A shared driveway is found 100m south of the primary site access and contains 10 two storey detached houses. These houses face onto Glasshouse Lane with trees and planting providing a visual screen inbetween.

Further south along Glasshouse Lane is Dencer Drive, a local distributor road feeding the large majority of residential development within the area. Mainly, detached two storey houses abound within this area, with occasional semi-detached and bungalows. In all but a few instances, mature front gardens are laid out to the fore of red brick houses with the build-line set back from the carriageway, a common feature of development of this time.

Stansfield Grove is found north of the secondary site access off Glasshouse Lane. This small cul-de-sac occupies 14 two storey detached houses each being red brick and featuring mock tudor detailing and double garaging.

Development in this area is mostly from the late 80's/early 90's with architectural styles simple, a cul-de-sacs street patterns and block structure repetitive. Red brickwork walling and dark brown window casements replicate older individual properties found along Glasshouse Lane.

Renovated property on Dencer Drive

Shared driveway off Glasshouse Lane

Semi-detached dwelling on Glasshouse Lane

Housing laid out along Stansfield Grove

Mature front gardens laid out to the fore of properties

Semi-detached dwelling on Glasshouse Lane

Further west of Glasshouse Lane, along Windy Arbor, Farmer Ward Road, Thornby Avenue and surrounding roads, a large residential area comprises higher density development. This area features a variety of two storey development interlaced with bungalows, all in detached and semi detached form. which These blocks have the typical characteristics of development from the 70's and the 80's. They are mostly eaves fronted, set back from the street with a fore garden, walls clad in common facing bricks with contrast panels such as render/horizontal boards/felt shingles and having white finish casement windows.

Warwick Road became the 20th century heart of Kenilworth and is conveniently located approximately 2km west of the Site. Travelling from the south, a variety of buildings can be seen ranging from modest two storey terraced blocks and detached properties to large victorian town houses. Travelling further north, the road frontage starts to get broken up with many purpose built businesses including public houses, a fuel filling station and a church. The road becomes busier still further on and more populated with the many town centre facilities including the main shopping area complete with its 1960's precinct.

The style of architecture found in Kenilworth becomes far richer beyond this point, immediately surrounding the parkland of Abbey Fields. The High Street, Castle Hill and Castle Road make up the historic core of the town where many different ages of building types and styles come togther to make up the designated Conservation Area. Buildings from the medieval period site alongside those from the Elizabethan period, Regency alongside Victorian. Grand, large buildings sit back from the street. Smaller buildings, tight to the carriageway often in continual blocks. It is easy to imagine that architectural styles in this area are full of character and are rich in appearance.

High Street, at the historic core of Kenilworth

20th century housing along Thornby Avenue

Development off the southern end of Warwick Road

Town centre facilities at the northern end of Warwick Road

The majority of housing within the settlement is established in character, with a rich variety of architectural styles and facing materials present.

Not all styles reflect the local vernacular however, resulting in a lack of architectural harmony in certain parts of the town. This is typical of large volume housing developments of the 20th century found to the west of the Site, where little effort has been afforded in respect of 'good design'.

Design elements that will contribute to the local vernacular include: continual block structure to smaller houses, larger houses set back from the street laid out with fore gardens, generous pitches to roofs, broken and varying eaves lines, chimneys, deep casement windows to ground floors, simple but legible architectural detailing.

Design Strategy

When considering the design strategy for any new development, it is important to draw inspiration from the character of the local area to ensure that the development successfully integrates into its surroundings. The study has concluded that Kenilworth has an established character, which helps to create a comprehensive pattern book to work with when selecting the right block structure, scale and architectural styles for a design strategy.

A significant factor in planning new development often relates to the efficient use of land. The majority of existing development to the west of of the Site, comprises two storey detached housing with three and four bedroom accommodation, resulting in a relatively low density and inefficient use of land.

The argument for using land efficiently should be a strong consideration when planning new development. In addition, paragraphs 47 and 50 of the NPPF sets out to ensure that new development delivers a wide choice of homes and meets a range of housing needs.

These points conclude that any new scheme design should incorporate a varied housing mix. For example, new development on the Site should accommodate a range a smaller houses (2 and 3 bedroom) through to medium/medium-large houses (4 and 5 bedroom). Such a proposal will result in a higher density of housing than that immediately adjacent to the Site, ultimately ensuring that a more efficient use of land is achieved.

If the scale and density of development does not fully reflect the character of the immediate area, the features of buildings, style of architecture and selection of facing materials should echo what is found locally to improve the chances of succesful integration of the development.

The strategy for any potential future development upon the Site, should follow a set of essential principles.

Development should be two storey in the majority with occasional opportunities for accommodation set within generously pitched roofs and gables. Block structure should be varied, one that can help to determine a clear movement strategy around the Site, creating streets and spaces having character.

Along the main development access road, block structure could be more continual with building facades located close to the street. At the fringes of the Site, adjacent green infrastructure, block structure can be less continual and more relaxed with blocks varied in their configuration, set at differing angles avoiding uniformity along the street.

The configuration of the latter will help to soften the transition between the newly built-form and green space around the site perimeter.

Development should address both key spaces and open green spaces to help provide an appropriate level of natural surveillance and with it successful spaces that are seen to be functional, safe and 'social'.

In respect of the style of architecture and the appearance of the development along the street, design principles could include aspects of the following:

- Walling clad in red/red-multi coloured brick and/or roughcast render;
- Feature blocks have walling at first floor/feature gables clad in contrast materials such as vertical tiles or horizontal timber boarding;
- Generous roof pitches clad in plain and profiled tiles, red and grey colours most appropriate;
- Occasional hipped roofs to reduce massing at corners and at the development edge;
- Simple boxed/open raftered eaves all painted white;
- Bargeboards to front feature gables, cut side gables;
- All other joinery painted white;
- Black rainwater goods;
- Deeper casement windows to larger blocks, well proportioned casement windows to smaller blocks;
- Decorative chimneys to all dwellings set atop the ridge to smaller blocks, set outside the gable end on larger detached blocks;
- Decorative entrance canopies above front doors to larger blocks, simple ledges to smaller blocks;
- Garages set to the rear of dwellings wherever possible, resulting in the car being less visible along the street;
- If unavoidable, parking courts set to the side/rear of blocks and limited in size;
- Frontage spaces enclosed with fencing/walling/landscaping to help separate private spaces from the public realm;
- Where front gardens cannot be enclosed, allow for a generous scheme of landscaping;
- Hard surfacing and edgings to secondary streets and driveways to encourage a 'shared surface' arrangement ie: one where pedestrians and cyclists feel safe as low vehicle speeds are encouraged.

Fundamentally, 'good design' should be at the backbone of the proposed development which will result in creating a strong 'sense of place', one where people will want to live.

Proposals should give high regard to 'good design' demonstrating a varied block structure, one that can help to determine a clear movement strategy around the Site. Streets should have character and spaces be functional, safe and 'social'. Fundamentally, the proposal should create a strong 'sense of place', one where people will want to live.

2.3 Local Facilities and Services

Kenilworth is supported by a significant number of both local and town facilities and services which support the needs of the community. The close proximity of these services will ultimately support the sustainability credentials of development upon the Site.

The Facilities Plan shown on the following spread illustrates the location of these facilities and services in relation to the Site. Isochrones are shown at distances of 400, 800 and 1200m from the centre of the Site.

The closest facilities to the Site are located on Leyes Lane at the neighbourhood centre referenced "NC1" on the Facilities Plan, approximately 720m away. Facilities include: a Tesco Express; public house; fast-food takeaways.*

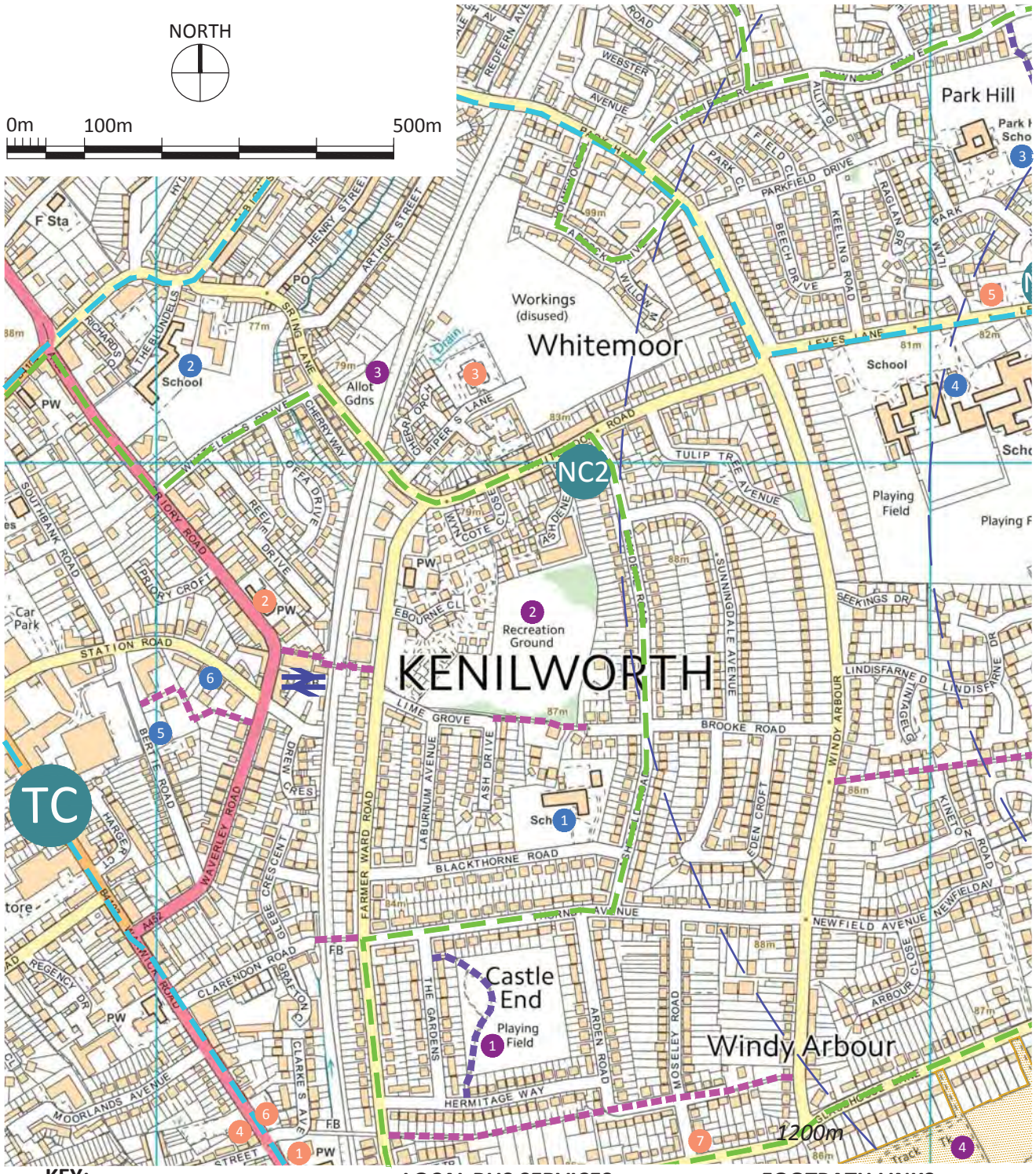
A second neighbourhood centre "NC2" is found on Whitemoor Road within 1300m of the Site, which includes a convenience store, butchers and hair salon.*

The town centre "TC" on Warwick Road is approximately 2km from the Site and comprises public houses, cafes, restaurants, shops, a hotels and many other businesses.

Other than these three centres, the following significant services listed opposite, are located close to the Site (shortest walking distances shown in brackets):

- Nearest bus stop to site (600m);
- Thorns Community Infant School (1490m);
- St Nicholas C of E Community Primary School (2070m);
- Park Hill Junior School (1030m);
- Kenilworth School and Meadows Community Centre (960m);
- Castle Medical Centre (2590m);
- Kenilworth Dental Practice (2480m);
- Playing Field (1620m);
- Recreation Ground (1500m);
- Allotments (1820m);
- Kenilworth Rugby Football Club (1030m);
- Kenilworth Wardens Cricket Club (230m);
- Kenilworth Golf Club (1480m);
- St Johns Church (1830m);
- Kenilworth Methodist Church (2270m);
- Recycling Centre (1830m);
- The Green Man P.H (2100m);
- The Tiltyard (910m);
- Filling Stations (1800m);
- Windy Arbor News and Post Office (1310m);
- Abbey Fields (3300m) - off-plan.

* full list of facilities shown on the Facilities Plan overleaf.



KEY:-

- The SITE
- ISOCHRONES AT 400, 800 & 1200m RADII
- TOWN COUNCIL/CIVIL PARISH BOUNDARY
- STONELEIGH ABBEY PARK (RPG)
- S.A.M - GLASSHOUSE WOOD
- LISTED BUILDINGS - GRECIAN LODGES
- LOCAL WILDLIFE SITE
- EDUCATION ALLOCATION: ED2
- HOUSING ALLOCATION: H06
- HOUSING ALLOCATION: H40

LOCAL BUS SERVICES:

JOHNSONS EXCELBUS SERVICE 539
COVENTRY - KENILWORTH
MONDAY - SATURDAY: EVERY TWO HOURS
STAGECOACH SERVICE X17
COVENTRY-WARWICK
MONDAY-SATURDAY: FOUR/HOUR
STAGECOACH SERVICE U17
SUNDAY: TWO/HOUR

CLOSEST BUS STOPS TO THE SITE

KENILWORTH RAIL STATION
(CURRENTLY UNDER CONSTRUCTION)

FOOTPATH LINKS:

PUBLIC RIGHTS OF WAY

OTHER PUBLIC FOOTPATHS NEAR TO SITE
(NOT HIGHWAYS FOOTWAYS)

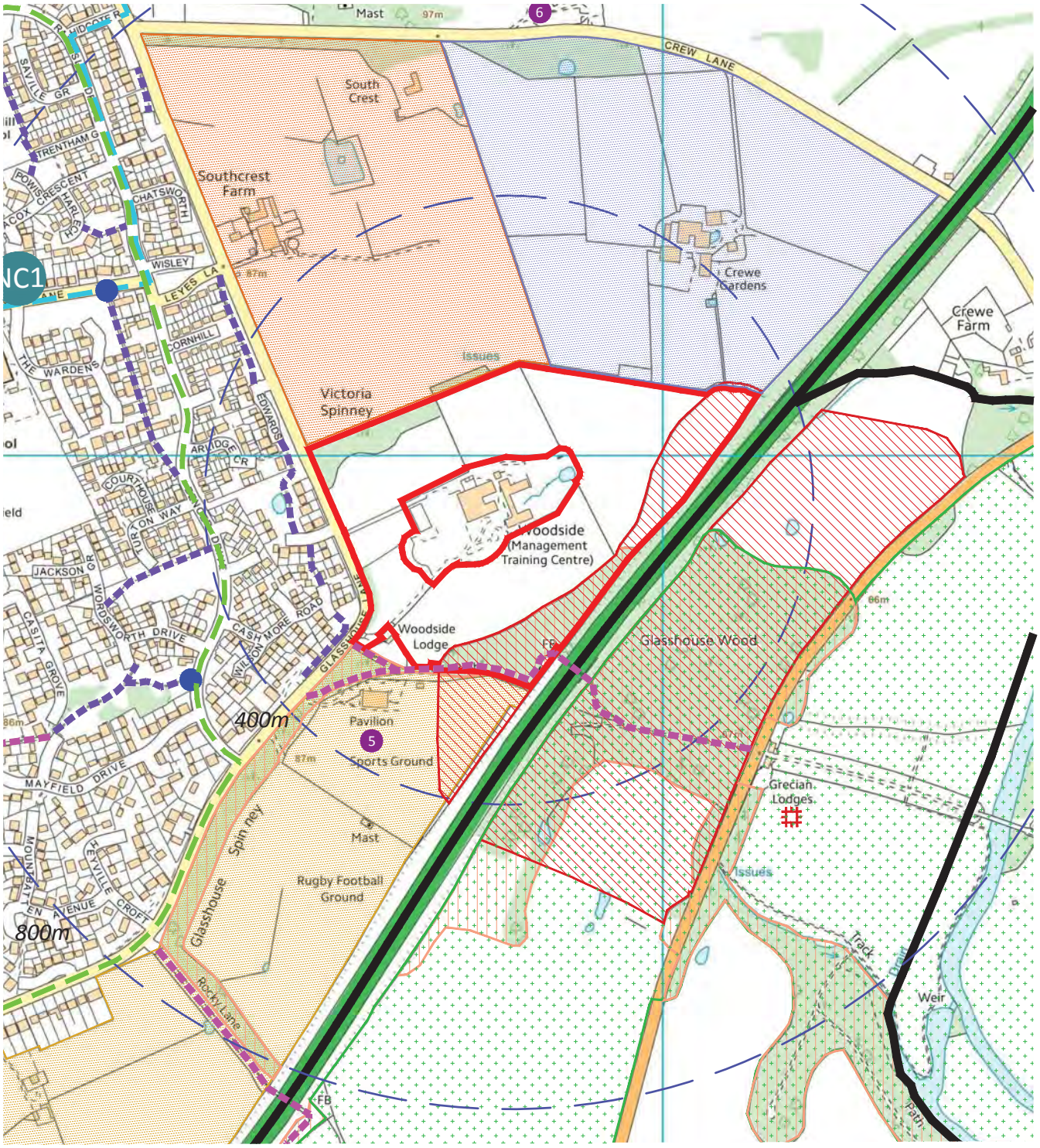
GROUPED FACILITIES:

NC1 NEIGHBOURHOOD CENTRE FACILITIES #1

NC2 NEIGHBOURHOOD CENTRE FACILITIES #2

TC EDGE OF TOWN CENTRE FACILITIES #1

Site Context & Local Facilities Plan



EDUCATION & WELFARE:

1. THORNS COMMUNITY INFANT SCHOOL
2. ST NICHOLAS CofE COMMUNITY PRIMARY
3. PARK HILL JUNIOR SCHOOL
4. KENILWORTH SCHOOL AND MEADOWS COMMUNITY SPORTS CENTRE
5. CASTLE MEDICAL CENTRE
6. KENILWORTH DENTAL PRACTICE

RECREATION & LEISURE:

1. PLAYING FIELD
2. RECREATION GROUND
3. ALLOTMENTS
4. KENILWORTH RUGBY FOOTBALL CLUB
5. KENILWORTH WARDENS CRICKET CLUB
6. KENILWORTH GOLF CLUB

MISCELLANEOUS:

1. ST. JOHN'S CHURCH
2. KENILWORTH METHODIST CHURCH
3. RECYCLING CENTRE
4. THE GREEN MAN P.H.
5. THE TILTYARD P.H.
6. FILLING STATION
7. WINDY ARBOR NEWS AND POST OFFICE


Neighbourhood Centre at Leyes Lane ‘NC1’


Bus stop on Dencer Drive nearest the Site (600m away)


Neighbourhood Centre at Whitemoor Road - ‘NC2’


Kenilworth School and Sixth Form


Town centre facilities at the northern end of Warwick Road


Castle End playing fields


Kenilworth Wardens Cricket Club

Thorns Community Infant School

2.4 Access and Movement

The Facilities Plan shown on the previous spread shows that there are excellent pedestrian, cycle (including bridleways) and bus links from the Site to the town centre, the surrounding area and the wider context. In addition the local road network provides good connectivity to the wider and national network.

Hatton, Warwick Parkway, Warwick, and Leamington Spa train stations are all within 8km of the site towards the south and southwest. These stations offer regular services to London Marylebone, Stratford-upon-Avon, Birmingham and Coventry. Coventry train station is approximately 8km north of the site with regular services to London Euston, Birmingham, Manchester, Oxford and Bournemouth as well as local services to Nuneaton and Northampton.

Kenilworth Train Station - proposed masterplan.

In late 2016 the new Kenilworth Rail Station will be opening on the site of the former station on Priory Road (a walking distance of 2.1km from the Site). A new hourly train service between Coventry and Leamington will be in operation and connections at Coventry will be possible with train services to and from the north of the county, Birmingham and London.

The Facilities Plan also illustrates the routes of all local bus services. The nearest bus stops are on Dencer Drive and Leyes Lane, both approximately 600m from the centre of the Site. The stop on Dencer Drive is served by route 539 from Coventry to Kenilworth, running 4 times a day on Monday to Saturday. The stop on Leyes Lane is served by routes X16 and X17 between Stratford-upon-Avon and Coventry (via Warwick, Kenilworth, University of Warwick) providing an hourly service Monday to Saturday between 8am and 7.30pm.

The site is bound by the A46 to the east which is accessed 2.6km away via the A452 Leamington Road. This provides a direct route to surrounding areas such as Warwick, Stratford-upon-Avon and Coventry.

In terms of Public Rights of Way on site, a footpath runs along the southern boundary of the site through Glasshouse Wood linking Glasshouse Lane to the footbridge over the A46. Located 500m from Site, this provides walking opportunities to Stoneleigh and the popular visitor attraction that is Stoneleigh Abbey. A second pedestrian crossing point should be given consideration to link this footpath through to the footpath on the western side of Glasshouse Lane, and the southern portion of the Site.

A new footpath link will be required to connect the Site with the adjacent residential estate to the west to improve connections and permeability. This will likely be in the form of a 2m wide footway on the western side of Glasshouse Lane from the proposed site access to the existing footway 120m to the south west of the site. Alternatively the existing footpath running along the southern side of Stansfield Grove could be extended along Glasshouse Lane as far as the proposed site access linking into the adjacent network. In both cases a pedestrian crossing will need to be established to provide safe connectivity.


Public Right of Way south of the Site through Glasshouse Wood

View looking southwest across the Site

3.0 SITE APPRAISAL

3.1 Site Overview

This section of the document provides an overview of the existing characteristics of the Site and summarises all associated environmental and technical matters. It confirms that there are no significant physical, environmental and technical constraints to the development of the Site for residential use.

As previously identified, the Site falls within designated Green Belt and measures 12.54 hectares (30.99 acres) gross. Located off Glasshouse Lane, the site is situated around the perimeter of the existing Woodside Centre. At present, primary access is located on the south west corner of the Site adjacent to Woodside Lodge.

The Site is bound by agricultural land to the north, the A46 to the east and Kenilworth Wardens Cricket Club/ Glasshouse Spinney to the south. Glasshouse Lane and 20th century housing borders the site to the west. A Constraints and Opportunities Plan included at the end of this section, illustrates the physical, technical and environmental constraints of the Site.

In addition the plan also illustrates the many opportunities that could be considered in the development of the Site, with the rationale behind their inclusion explained in the ensuing section 4.1 Opportunities.

3.2 Sustainable Development

The previous chapter has confirmed that the Site is in a sustainable location and is well connected to local schools, shops, public transport and all other town facilities and services found in and around Kenilworth. Any proposed development will deliver energy efficient, low carbon new homes, supporting local and national sustainability priorities.

3.3 Green Belt

As previously identified, the Site falls within designated Green Belt. The Secretary of State for Department and Communities and Local Government issued a press release on 6th October 2014 about protecting the Green Belt against unnecessary development. Planning Practice Guidance ("PPG") was updated to reflect the press release stating, "*local planning authorities should, through their Local Plans, meet objectively assessed needs unless any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in the NPPF as a whole, or specific policies in the NPPF indicate development should be restricted*". Such policies include those relating to land designated as Green Belt (Paragraph 044: Reference ID: 3-044-20141006).

Paragraph 85 of the NPPF states that "*when defining boundaries, local planning authorities should ensure consistency with the Local Plan strategy for meeting identified requirements for sustainable development*" and "*not include land which it is unnecessary to keep permanently open*".

We support a review of the Green Belt and consider that there are circumstances in Warwick District where sites, such as this Site should be released from the Green Belt: This is considered further in Section 3.4 Landscape, overleaf.

View across the Site towards Woodside Lodge

3.4 Landscape

The Site is visually well contained by existing landscape features, meaning proposed residential devleopment could potentially be accommodated with little or no visual impact, assuming a sensitive masterplan response. The A46, which sits within a cutting, bounds the Site to the east with well vegetated embankments consisting of mature trees and shrubbery, providing not only a physical but also a visual barrier to land to the east.

To the north, the Site is bounded by a woodland belt, whilst mature hedgerows and trees along Crew Lane screen views from the Kenilworth Golf Club to the south. To the west, the site is bounded by existing residential development along Glasshouse Lane which is separated by a line of existing mature vegetation with occasional gaps whilst to the south, Glasshouse Wood and Spinney and the embankment of the A46 also restricts intervisibility towards the Site.

The site is not located within any national or local landscape designations. It is however located within the Coventry Green Belt. Green Belt is not a landscape designation per se, but a policy described by Paragraph 79 of the NPPF which states that "*the fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts are their openness and their permanence*".

As identified in the West Midlands Joint Green Belt Review Study (2014), the Site lies within a land parcel defined as having "*a couple of farms, small clusters of isolated dwellings and two large facilities – Woodside and the Kenilworth Golf Course Club house. The buildings associated with these developments compromise the openness of the Green Belt within their immediate vicinity*". The Site represents a small area of the land parcel identified in the Green Belt Review and does encroach upon the wider countryside, but due to its containment by mature vegetation and the presence of the A46 and existing residential areas nearby, this encroachment is limited.

Whilst any development in this location would serve to reduce the rurality of this section of land, it is present within a context already largely desensitised, where the existing surrounding built development exerts an influence across the Site, and combined with the existing vegetation, there is a distinct sense of enclosure and containment. In terms of openness therefore – this being the primary function of Green Belt – the Site's landscape fabric and physical characteristics, mean further development (in addition to the Woodside Training Centre) would not adversely affect the greater sense of openness.

In considering potential landscape mitigation, native planting would be incorporated throughout the Site in order to break up the hard built form of the residential areas, and create landscape and biodiversity benefits. Existing woodland and orchards will be retained whilst a number of ponds and open space areas will be incorporated into the design of the scheme, as shown on initial Development Proposals shown in Section 4.2.

3.5 Arboriculture

The Site is bound on all sides by many established trees and hedgerows, which aid containment.

Glasshouse Wood and Glasshouse Spinney sit within and adjacent to the south of the Site respectively. These areas are designated as Deciduous Woodland under the National Inventory of Woodland and Trees, with part of the Wood also designated as Ancient and Semi-natural Woodland. Both of these areas will also be retained as part of the development proposals.

Victoria Spinney sits within the north west corner of the Site, which is designated as Deciduous Woodland under the Priority Habitat Inventory. A traditional orchard is also present on site between Woodside Centre and Glasshouse Lane. Both of these areas will also be retained as part of the development proposals.

An arboricultural survey will be undertaken in accordance with BS5837:2012 to establish existing Root Protection Areas, branch spreads, and tree shadows. Every effort will be made to retain existing trees and hedgerows within the development proposal. Unavoidably, some will be required to be removed along Glasshouse Lane to facilitate the proposed site access, as well as other short lengths of hedgerow cleared on-site to facilitate connections between adjoining fields.

3.6 Technical Constraints

3.6.1 Highways and Access

Two points of access (all modes) to the Site will be taken from Glasshouse Lane. The first will comprise a three-armed roundabout constructed slightly north of the existing site access to Woodside Centre. The existing access road serving Woodside Centre, shall be retained but it will need re-aligning so that it is accommodated into the new roundabout arrangement. A second access will be in the form of a priority t-junction located to the north of Stansfield Grove.

Two new points of access (all modes) will be provided from Glasshouse Lane

These two access points will be designed with a minimum 6.3m carriageway width and will be connected via a looped street arrangement meandering throughout the development proposals facilitating a potential bus service.

Glasshouse Lane is subject to a 30mph speed limit, changing to a 50mph speed limit north of Stansfield Grove. Surveys will be undertaken to determine the actual speeds adjacent to the Site so that appropriate visibility splays can be provided at the proposed access.

Further surveys, assessments and consultation with the Local Highway Authority will be undertaken to ensure that any impact from the development on the local highway network is sufficiently mitigated. Pedestrian access to the site will be provided by 2m wide footways either side of the priority junction, extending along the site access road into the Site. New footpath links and crossing points will be required to connect the site safely with the adjacent residential estate, as previously identified. The secondary/emergency access point should also accommodate pedestrian movement to aid permeability between the Site and the wider footpath network.

3.6.2 **Ground Conditions**

It is understood that the Site does not have any significant geotechnical constraints in relation to strata or contamination given its greenfield nature. The British Geological Survey Desktop Viewer identifies that the Site is underlain by Mudstone and Sandstone of the Ashow Formation, Sedimentary Bedrock formed approximately 271 to 299 million years ago in the Permian Period in environments previously dominated by rivers. No superficial deposits are recorded.

3.6.3 **Noise and Vibration**

Given the proximity of the A46 to the east of the Site, careful consideration is required in respect of noise and vibration levels.

A baseline sound level survey and an assessment of the Site to determine the suitability of the site for residential development has been carried out based on the guidance contained within British Standard (BS) 8233:2014 "*Guidance on sound insulation and noise reduction for buildings*".

The results of the assessment show that mitigation in the form of an acoustic barrier and enhanced glazing and ventilation specifications would be required to reduce internal noise levels within any proposed dwellings to within acceptable levels.

With appropriate location and orientation of dwellings relative to the A46, sound levels within external amenity areas would be such that they are the lowest practicable and, in the majority of cases, below the upper guideline value. This could be achieved by ensuring that block facades positively address the noise source, with blocks arranged in a continuous un-broken format. Individual private amenity spaces would be positioned to the rear of these blocks, where they are naturally sheltered by development, which helps to reduce traffic noise to an acceptable level.

3.6.4 **Flood Risk and Drainage**

The whole of the Site falls within Environment Agency Flood Map for Planning (Rivers and Seas), Flood Zone 1 "*low probability*" and is therefore suitable for residential development.

An existing watercourse runs along the northern boundary of the Site, under the A46 to the east joining the River Avon approximately 1km east of the Site. Within the Site there is also a small pond to the east of the Woodside Centre, and a drainage ditch running along the northern boundary of Glasshouse Wood. A ditch course also runs adjacent to Glasshouse Lane within the eastern verge across the front of the Site. Small levels of surface water (pluvial) flooding are shown on the Environment Agency flood map associated with the existing watercourse on the northern boundary of the Site.

Surface water from the Site will outfall via gravity to the existing watercourse on the northern boundary of the Site. Surface water will be suitably controlled and attenuated on-site so that the pre-development discharge rates and volumes are maintained post-development.

Due to topography, foul drainage from the Site will be pumped to a suitable point of connection into the existing network within Glasshouse Lane. Possible reinforcement of the existing network may be required, subject to a capacity check with Severn Trent Water.

3.6.5 **Utilities**

An existing pole mounted transformer (PMT) is present on site to the north of Woodside Management Centre. An 11kV service runs overhead from the transformer to Glasshouse Lane. The existing overhead HV cables and pole mounted transformer will require diversion/undergrounding to enable development. A new substation will replace the existing PMT and serve the Site.

Utility records show existing BT, potable water, and gas infrastructure on/adjacent to the Site. Confirmation is required from the network operators whether reinforcement to the existing utility networks are required to serve the Site. Large scale reinforcement is not anticipated.

3.7 **Ecology**

The Site is comprised of areas of open fields which contain poor semi-improved grassland of negligible ecological value. These fields are centred around the Woodside Centre, which includes buildings, car parking and landscaped areas. Habitats of note within the Site include a number of species poor hedgerows which divide the various fields, a small orchard present to the west of the Site and two small ponds located to the south and east of the Site. Forming the southern and northern boundary are areas of mature broad-leaved woodland, and to the west, mature residential development. To the east is the A46 and beyond, open pasture fields. A desk study undertaken for the site has shown that there are no statutory designated sites within 5km.

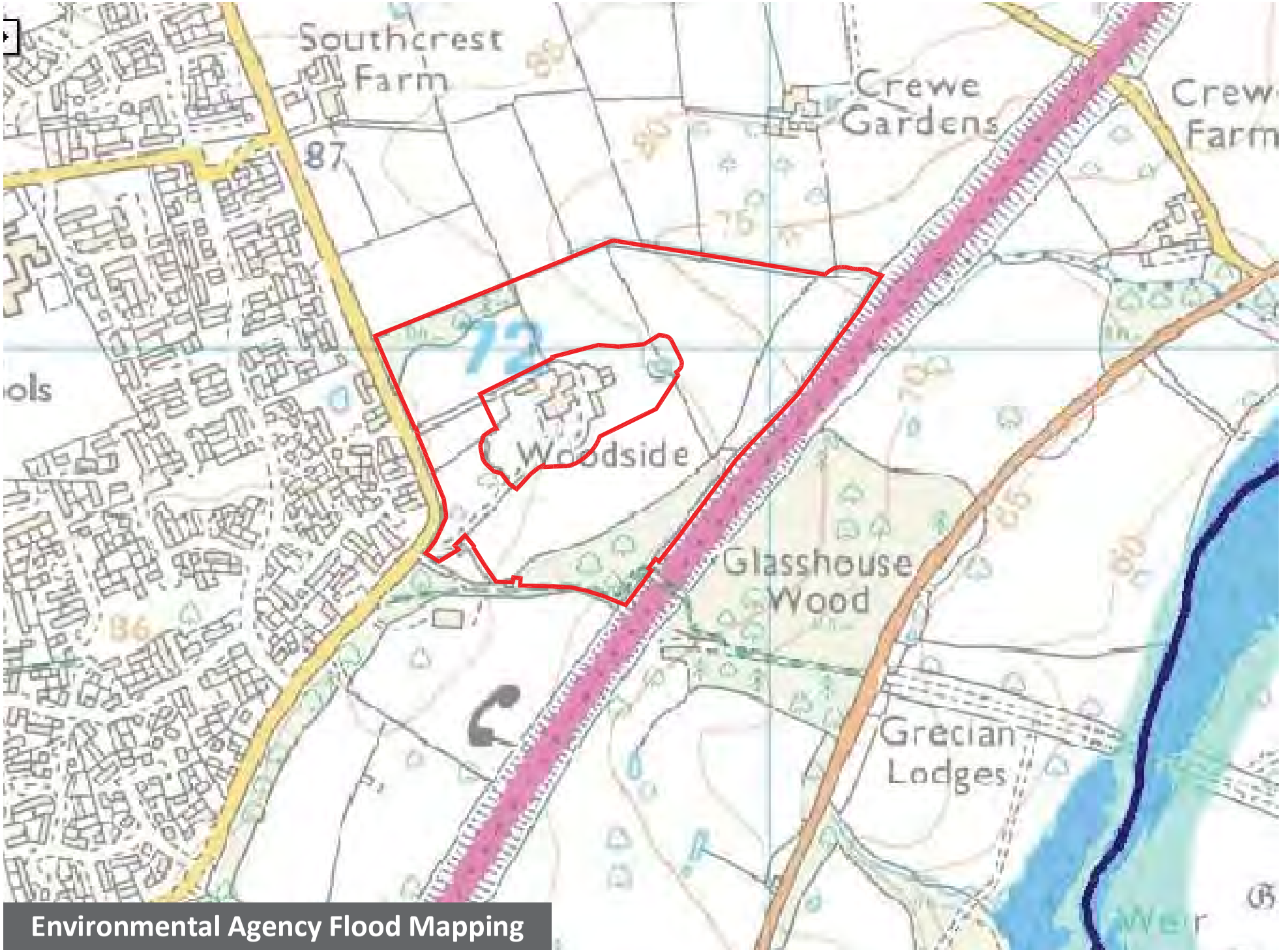
Development proposals within the Site would inevitably result in the loss of the areas of poor semi-improved grassland and small sections of species poor hedgerow, although there will be no loss of the orchard, pond or woodland areas. To inform the development proposals for the site it is recommended that the ponds within the Site and (where access permits) within 500m of the Site, are surveyed during March to mid-June to establish presence or absence of Great Crested Newts (GCNs). If GCNs are recorded as being present then there is scope to provide appropriate mitigation in terms of retention and enhancement of suitable habitat to the east of the development, to safeguard any population.

Woodside Centre includes two separate blocks of buildings, with the main building being a large building constructed in the early 19th century and the second building of mid to late 20th century construction. Both buildings have some potential to support roosting bats, although a full assessment has not been undertaken. As the proposed development would potentially encircle this building, any bats potentially roosting within these building could have any flight lines to foraging habitat within the wider area compromised. To inform the design of the development, including the consideration of any inherent mitigation which may be required, it is recommended that an inspection of the buildings and bat activity surveys for the Site are undertaken.

It is not considered that the presence of GCNs or bats would be a material constraint to the development proposals, with opportunities available to enhance the biodiversity value of the Site through the retention, enhancement and creation of favourable habitats.

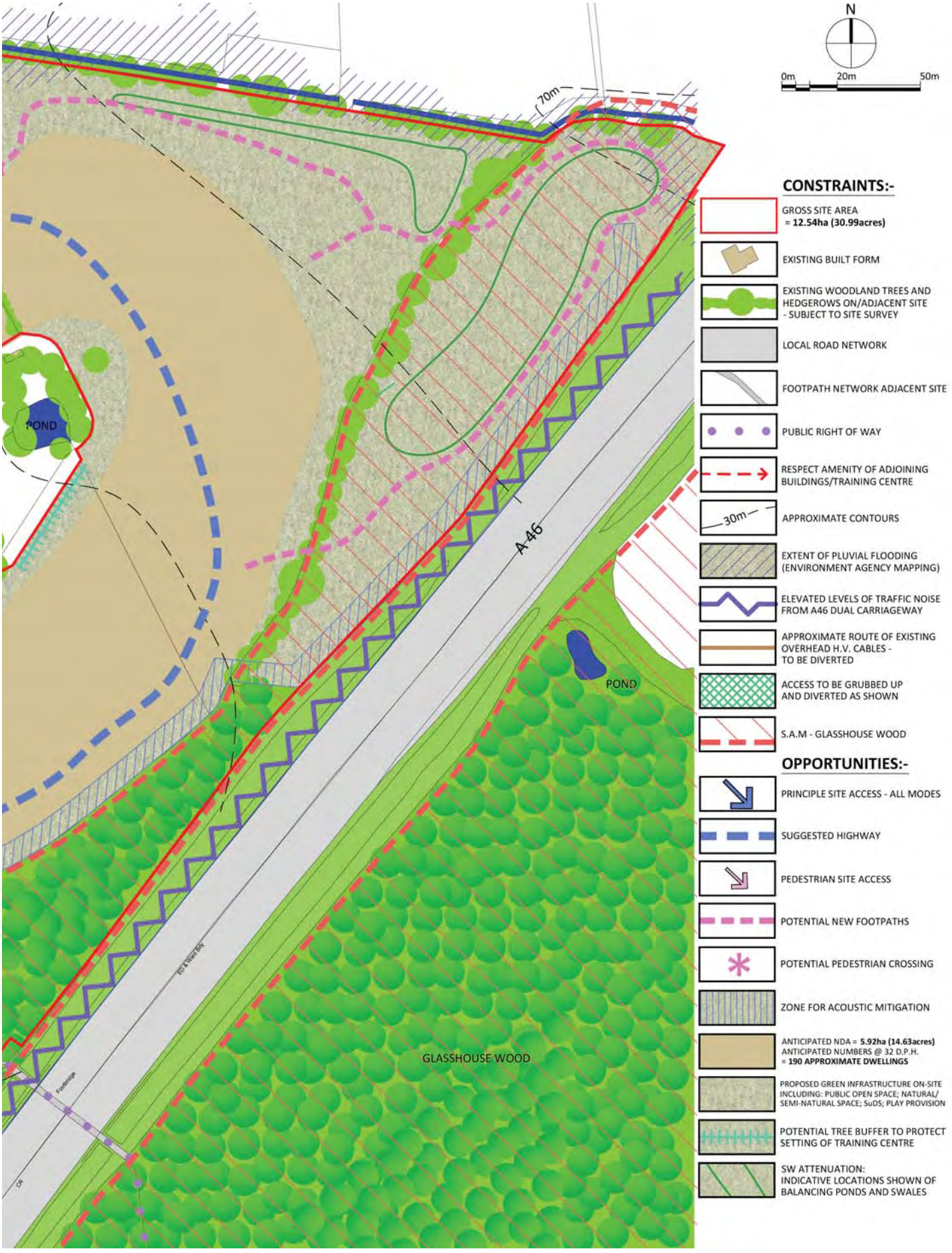
3.8 **Constraints and Opportunities**

The plan on the following spread illustrates the physical, technical and environmental constraints of the Site, along with all opportunities for development which is explained in further detail in the succeeding section.



Environmental Agency Flood Mapping

Constraints and Opportunities


N
0m
20m
50m
70m
POND
A46
POND
GLASSHOUSE WOOD
CONSTRAINTS:-
GROSS SITE AREA
= 12.54ha (30.99acres)
EXISTING BUILT FORM
EXISTING WOODLAND TREES AND HEDGEROWS ON/ADJACENT SITE - SUBJECT TO SITE SURVEY
LOCAL ROAD NETWORK
FOOTPATH NETWORK ADJACENT SITE
PUBLIC RIGHT OF WAY
RESPECT AMENITY OF ADJOINING BUILDINGS/TRAINING CENTRE
30m
APPROXIMATE CONTOURS
EXTENT OF PLUVIAL FLOODING (ENVIRONMENT AGENCY MAPPING)
ELEVATED LEVELS OF TRAFFIC NOISE FROM A46 DUAL CARRIAGEWAY
APPROXIMATE ROUTE OF EXISTING OVERHEAD H.V. CABLES - TO BE DIVERTED
ACCESS TO BE GRUBBED UP AND DIVERTED AS SHOWN
S.A.M - GLASSHOUSE WOOD
OPPORTUNITIES:-
PRINCIPLE SITE ACCESS - ALL MODES
SUGGESTED HIGHWAY
PEDESTRIAN SITE ACCESS
POTENTIAL NEW FOOTPATHS
POTENTIAL PEDESTRIAN CROSSING
ZONE FOR ACOUSTIC MITIGATION
ANTICIPATED NDA = 5.92ha (14.63acres)
ANTICIPATED NUMBERS @ 32 D.P.H.
= 190 APPROXIMATE DWELLINGS
PROPOSED GREEN INFRASTRUCTURE ON-SITE INCLUDING: PUBLIC OPEN SPACE; NATURAL/ SEMI-NATURAL SPACE; SuDS; PLAY PROVISION
POTENTIAL TREE BUFFER TO PROTECT SETTING OF TRAINING CENTRE
SW ATTENUATION:
INDICATIVE LOCATIONS SHOWN OF BALANCING PONDS AND SWALES

4.0 DEVELOPMENT PROPOSALS

4.1 Opportunities

The previous chapter appraised the key features of the Site and identified all constraints, with the Constraints and Opportunities Plan shown on the previous spread correlating these constraints. As a result, there are a number of key opportunities which will help to shape any development proposal, the principles of which are summarised below:

- Aim to achieve an overall net development density of between 30-32 dwellings per hectare (net) ensuring efficient land-use. Such a density will be appropriate to the local context, promote "*good design*" and suit the unusual elongated shape of the Site;
- Proposed development façades should address all retained perimeter hedgerows and inter-field boundaries thus ensuring that all existing retained green infrastructure becomes inclusive parts of the development;
- Development façades should stand-off Woodside Centre buildings as appropriate. Where proposed rear amenity backs onto the Centre, then introduce tree belt screening;
- A high quantum of green infrastructure should be accommodated along the northern boundary and at the northwestern corner of the Site in which to accommodate required biodiversity offsetting area and SuDS features as well as public open space. Accommodate designated children's play space within the development at the quantum determined by the Council;
- Development should face towards Glasshouse Lane and have a dual façade adjacent the proposed site access;
- Development should side onto the secondary access/ drive to Woodside Centre, alongside pedestrian linkage and emergency vehicular linkage;
- A landscaped bund and/or acoustic fencing should be positioned along the southern edge of the NDA at the boundary of Glasshouse Wood. Development should be orientated so as to ensure that noise levels within private rear amenity does not exceed 55-60dB(A);
- There are opportunities to create key blocks forming a 'development gateway' at the entrance to the Site, and at other key nodes on-site along the main access road. A continually blocked, street structure should be accommodated either side of this access road, which shall meander throughout the development;
- Building heights should be restricted to 2 storey, with occasional dwellings having room-in-roof accommodation. The inlcusion of bungalows should be considered;
- Buildings should be encouraged to 'turn the corner' and have a dual aspect where streets meet;
- On-street parking should be defined so as to not impair traffic movement.

There are no significant physical, environmental or technical constraints to the Site and it is available and capable of delivery to help meet the Districts future housing needs.

4.2 Development Proposals

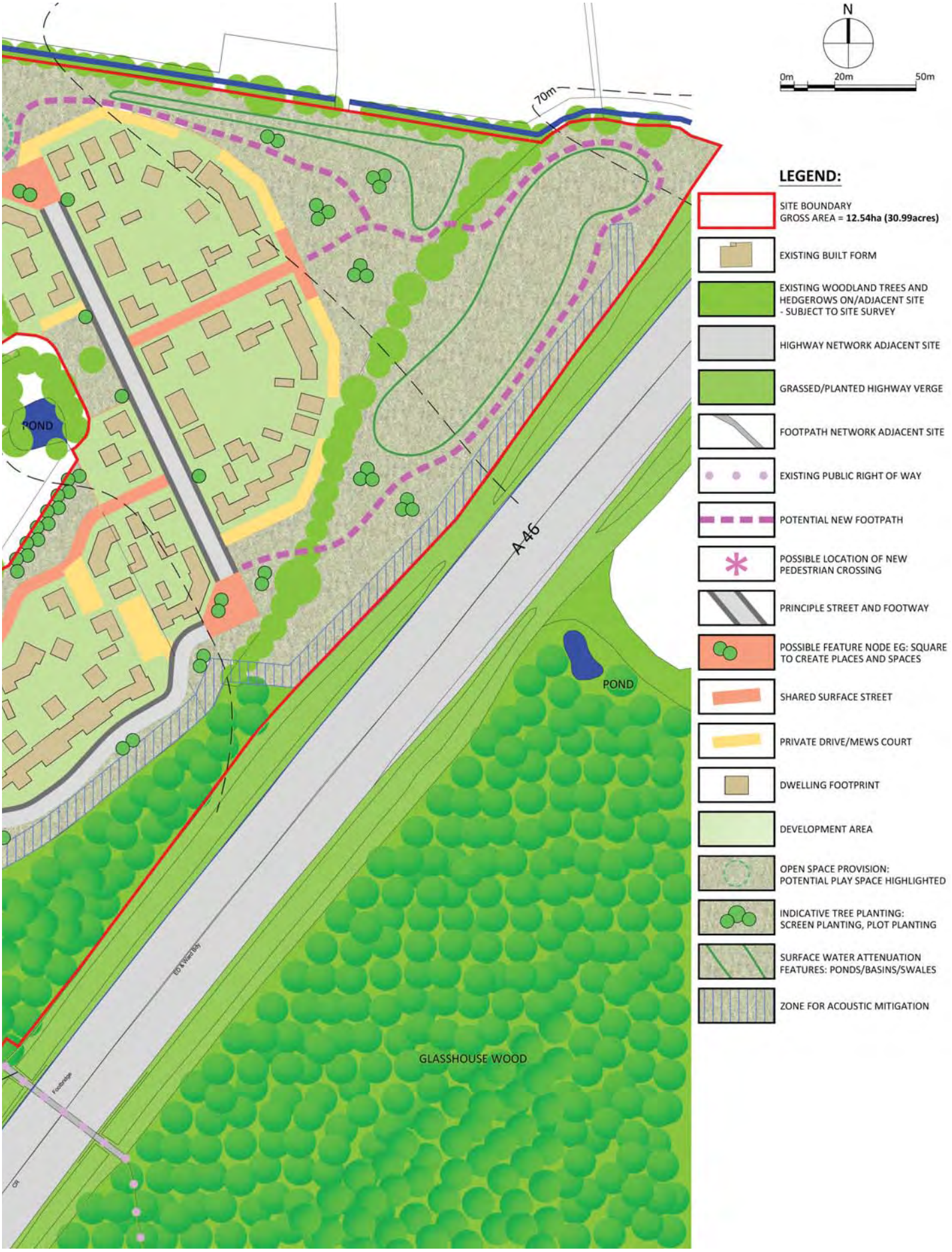
The following spread indicates a proposal which is an illustrative representation of residential development taking into account all of the key features appraised and the associated constraints, whilst suitably accommodating the key opportunities previously identified. The proposal illustrates residential development with a maximum capacity of 190 dwellings with an indicative net developable area of 5.92 hectares (equal to 14.63 acres). This equates to a development density of approximately 32 dwellings per hectare. This density is considered appropriate as it will contribute towards the Council's housing numbers and provide a wide range of accommodation types satisfying local housing need. The configuration of dwelling blocks can be planned in such a way to reflect the local vernacular, thus ensuring that the development integrates into both the immediate and local context.

The proposals have been underpinned by the following key design principles:

- A well-structured housing layout can be delivered which successfully utilises the natural features of the Site and provides key character areas throughout, resulting in a positive 'sense of place';
- Two points of site access accommodating all modes can be facilitated from Glasshouse Lane. an on-site street network shall be developed in a looped arrangement facilitating the potential for an extended local bus service;
- Minor works will be undertaken to existing trees and hedgerows along Glasshouse Lane to enable construction of these site access points and the required level of visibility;
- Tree/hedgerow retention upon the Site will be maximised wherever possible, and further enhanced through new planting. The planned development facade will address all green infrastructure, ensuring that all retained trees and hedgerows positively contribute to the scheme design, provide positive features in that they are functional and form 'social' spaces, whilst aiding integration of the development within the surrounding context;
- Provision of publicly accessible open space to aid the health and welfare needs of the future occupants of the development. A large proportion of this provision will be located parallel to the A46 embankment to the south and east. This open space will accommodate the stand-off required to mitigate traffic noise;
- Further areas of publicly accessible open space can be accommodated along the northern boundary where a green corridor can be facilitated parallel to the watercourse.

- An easy-to-read hierarchy of primary and secondary movement corridors are proposed to maximise connectivity and aid permeability. Streets shall be faced by development resulting in a visually strong street scene;
- Provision of Sustainable Drainage Systems (SuDS) to ensure that the impact of development upon the local surface water drainage network can provide a betterment to existing greenfield run-off rates;
- Affordable housing will be provided on the Site. This affordable housing will be negotiated with the Council and provided at an appropriate level in line with the current and emerging policy requirement on a split tenure basis;
- Financial contributions, where justified, will be provided as part of the S106 agreement to enhance local infrastructure. Contributions could potentially be made towards:
    - Educational facilities
    - Health facilities
    - Leisure and green infrastructure
    - Highway / public transport improvements.

Illustrative Development Proposal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EXISTING WOODLAND TREES AND HEDGEROWS ON/ADJACENT SITE - SUBJECT TO SITE SURVEY
HIGHWAY NETWORK ADJACENT SITE
GRASSED/PLANTED HIGHWAY VERGE
FOOTPATH NETWORK ADJACENT SITE
EXISTING PUBLIC RIGHT OF WAY
POTENTIAL NEW FOOTPATH
POSSIBLE LOCATION OF NEW PEDESTRIAN CROSSING
PRINCIPLE STREET AND FOOTWAY
POSSIBLE FEATURE NODE EG: SQUARE TO CREATE PLACES AND SPACES
SHARED SURFACE STREET
PRIVATE DRIVE/MEWS COURT
DWELLING FOOTPRINT
DEVELOPMENT AREA
OPEN SPACE PROVISION: POTENTIAL PLAY SPACE HIGHLIGHTED
INDICATIVE TREE PLANTING: SCREEN PLANTING, PLOT PLANTING
SURFACE WATER ATTENUATION FEATURES: PONDS/BASINS/SWALES
ZONE FOR ACOUSTIC MITIGATION

5.0 **CONCLUSIONS**

The development proposal should be influenced by the rich and established character of the town of Kenilworth.

Equally, it should also aim to establish its own recognisable identity, create a place where people can be proud to live, and provide a varied mix of accommodation types to satisfy identified local housing need.

The Site at Woodside Management and Training Centre to the east of Glasshouse Lane, Kenilworth has been robustly assessed in terms of planning, environmental and physical context and it has been demonstrated that the Site is suitable to accommodate future housing development to meet the identified needs of the Council.

The analysis of the Site and the illustrative proposal presented within this document, demonstrates how a well designed, high quality development can be achieved to respond to the unique context of the Site. The Site has capacity to accommodate up to a maximum of 190 dwellings. The following headline points are concluded as such:

- The Site is located within a sustainable settlement and is a suitable location for new housing;
- The Site should be regarded as being suitable for future housing development without having a detrimental visual impact on the neighbouring urban environment or the wider landscape;
- The Site has "limited" overall contribution to the purpose of the Green Belt. It has been demonstrated that the Site has the ability to accommodate development without encroaching into the wider Green Belt;
- The Site is well located for an excellent range of local facilities and services, the vast majority of which are located within a 800m distance;
- The Site benefits from good local and strategic road connections and has good access to public transport. Proposed access points and the on-site street network can facilitate an extended local bus service;
- There is an identified need to deliver new housing to meet the needs of the Council. This Site will help to address that need, offer a wide range of accommodation types satisfying local demand, and deliver the required number of affordable housing units;
- Surface water run-off rate from the development will be controlled offering a betterment over the existing greenfield run-off;
- The development has the potential for creating additional surface water storage to help prevent pluvial flooding occurring along the southern and north eastern boundaries.

The Site is readily available and suitable for development and is therefore deliverable. It would make a sustainable and appropriate opportunity for new housing to meet the identified needs of the District.

Version: *'A'*
Version Date: *April 2016*
Status: Final

*This **Vision Framework** has been prepared by:*

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Catesby Estates Ltd

H40 – East of Kenilworth (Crew Lane / Woodside Training Centre)

Matter 7B – TECHNICAL NOTE

30th August 2016

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Rev	Issue Status	Prepared / Date	Approved/Date
-	Draft	KMS / 30.08.2016	
A	FINAL	KMS / 31.08.2016	CPR / 31.08.2016

1.1 This Technical Note deals with two adjacent parcels of land on the eastern edge of Kenilworth; at Woodside Management Centre on Glasshouse Lane, and on land to the south of Crew Lane; detailed in respective Vision Frameworks (April 2016). This Note should be read alongside the Hearing Statement prepared by WYG on behalf of Catesby Estates Ltd.

1.2 NPPF paragraph 80 sets out the five purposes for including land in the Green Belt. Whilst none of these are specifically related to either landscape character or visual resources, paragraph 81 then goes on to recognise that LPAs should look for opportunities within the Green Belt "t*o retain and enhance landscapes, visual amenity and biodiversity…*" as well as "to provide access; to provide opportunities for outdoor sport and recreation…" It is necessary therefore to consider the underlying intrinsic character and beauty of the countryside within which the site is set, and whether or not it is highly "valued" in the light of the hierarchy of international, national or local designations. (NPPF Paragraphs 17,109 and 113)

1.3 The most up to date of the Landscape Character Assessments covering Crew Lane and the Woodside Training Centre is Natural England's NCA 97 Arden. Updated in the light of the NPPF, this document includes Statements of Environmental Opportunity (SEOs) offering guidance to assist in achieving sustainable growth and a more secure environmental future. SEO 2 recommends the delivery of green infrastructure:

1.4 "*planning and creating new and improved links between urban areas, green belt and the wider countryside…" together with "Enhance urban areas and fringes through sympathetic building and landscape design*."

1.5 The document also acknowledges the development pressures throughout the area, despite the fact that the majority of the NCA lies within the West Midlands Green Belt. It notes also that:

"*There are opportunities for good, sustainable design reflecting local development patterns, green infrastructure and local character reflected in design and materials.*"

1.6 Taken together, the two proposed allocations are not, and never have been, covered by any form of landscape "quality" designation. Nor are they near to or visible from any designated landscape such as an AONB or National Park. The 'Guidelines for Landscape and Visual Impact Assessment', third edition (GLVIA3), published by the Landscape Institute and the Institute of Environmental Management and Assessment in 2013, sets out a range of factors against which the value of a landscape may be considered. These are set out at Box 5.1 (page 84). Using the criteria established by Box 5.1 from the GLVIA 2013 to analyse "value" at a local level, they would not score highly in terms of the hierarchy of landscape character due to the lack of public access and the relative absence of distinctive features over the core of the sites. On the ground, the sites are very well contained in relation to the wider Green Belt countryside between Kenilworth, Stoneleigh to the east and greater Coventry to the north east. The well-established eastern residential edge of Kenilworth along Glasshouse Lane forms the western edge of Woodside, with the A46 and Crew Lane providing clearly defensible boundaries to the east and north. Woodside benefits from a strong established landscape structure as a result of Glasshouse Spinney to the south and Victoria Spinney to the north. It also has attractive mature trees and ornamental planting associated with the Woodside Centre. The A46 dual carriageway is a very strong well treed linear corridor which robustly separates the proposed allocations from Stoneleigh Park, Abbey and the River Avon valley to the east. The Crew Lane component is again very robustly contained by Crew Lane Arboretum and Kenilworth Golf Course to the north.

Internally, there are very few distinctive landscape features within the Crew Lane site due to intensive agricultural management practices. The two sites have a very restricted visual envelope as a result of the interaction of existing urban form, well established vegetation and topography – the sites sit in a bowl with higher land to the north topped by the generously planted golf course. There is no public access to the sites, and no significant visibility from the public rights of way network in the locality. The Centenary Way to the north passes through the well treed golf course, whilst the public right of way to the south is largely set within Glasshouse Spinney and Wood. The two sites have a strong urban fringe character as a result of their proximity to Kenilworth. There is little sense of tranquillity due to the adjacent A46 traffic noise.

1.7 The two supporting Site Delivery Documents (April 2016, Appendix 1 to main Hearing Statement) and the Illustrative Development Proposals (pages 30 and 31) show that the sites can, either in combination or isolation, be sensitively developed to deliver high quality residential development set within a robust green infrastructure network. This utilises the existing framework of spinneys, trees and hedgerows, which will be retained and enhanced as part of the long term management proposals. A central green spine can be created along the watercourse which flows east beneath the A46 and into Stoneleigh Park and the River Avon.

1.8 As a consequence of this strategic landscape led approach, the proposed allocations perform extremely well when tested against the five purposes of the Green Belt set out at paragraph 80 and the ambitions found in paragraph 81 in terms of landscape character and visual resources, in the following ways;

A) *To check the unrestricted sprawl of large built up areas*: The proposed allocations form a logical expansion of Kenilworth in a very strongly defined and visually contained location. The A46 corridor and Crew lane, combined with the reinforcing green infrastructure strategy, ensure that there is a robust enduring new Green Belt boundary with no risk of further growth to either the east or north.

B) *To prevent neighbouring towns from merging together:* There is no risk of any form of coalescence with Stoneleigh or Coventry, either physically or visually. The landscape character beyond the sites is very diverse with the overlapping treescape preventing any views either in or out of the sites.

C) *To assist in safeguarding the countryside from encroachment:* The very robust surrounding landscape of Stoneleigh Park and Kenilworth Golf Course contains the two sites. There would be no perception of the Green Belt releases beyond the immediate site boundaries. The green infrastructure proposals would reinforce and enhance the existing landscape framework.

D) *To preserve the setting and special character of historic towns:* The two site play no significant landscape or visual role in creating a special setting for Kenilworth. There are no “vistas” towards important landmarks such as Kenilworth Castle.

E) *To assist in urban regeneration, by encouraging the recycling of derelict or other land:* This is not strictly a landscape related matter. However, whilst the sites are not derelict, in landscape and visual terms they are of lesser sensitivity due to the absence of public access and the lack of features of importance. Those that do exist can be retained and protected within new green infrastructure.

1.9 Turning to paragraph 81, the comprehensive green infrastructure strategy will deliver positive enhancements to the landscape features, visual amenity, biodiversity and accessibility of the

area to the east of Kenilworth. There will be new accessible routes enabling better access to both Stoneleigh Park and the Centenary way to the north. The proposed approach is entirely consistent with Natural England's aspirations for green infrastructure and sustainable growth from NCA 97 as set out at paragraph 1.2 above.

1.10 The effect of built development within the proposed allocations on the openness of the Green Belt is not strictly a matter of landscape character or visual resources. Unfortunately the use of what are currently green fields within the Green Belt for necessary built development will inevitably result in the loss of some "openness", although both sites already have significant elements of built development within them. However, in the context of eastern Kenilworth this reduction in openness will be restricted to a very well contained area closely related to the existing settlement edge. There is excellent existing green infrastructure defining the site which can be reinforced and enhanced as part of the development proposals. The wider "open" Green Belt countryside to the north of Crew Lane at Kenilworth Golf Club and at Stoneleigh Park and the Avon valley beyond the A46 will not be compromised by the proposed allocations.

Land East of Kenilworth – H40

Proposed Residential Allocation

Highways and Transport

Response to Matters and Issues

[Week 4: Day Two] Matter 7b

david tucker associates
transport planning consultants

1.0 Introduction

1.1 David Tucker Associates have been commissioned by Catesby Estates Limited, to consider the potential highway and transport impacts of providing a new residential development on land to the east of Kenilworth, included within proposed allocation H40 of the emerging Warwick District Local Plan (WDLP). The sites forming part of the allocation which are Catesby Estates' control comprise Crewe Lane and Woodside Training Centre, to be known as 'the allocation'.

1.2 The east of Kenilworth allocation (Ref H40 comprising Crew Lane, Southcrest Farm and Woodside Training Centre) is for 640 dwellings in total.

1.3 Following the suspension of the examination in October 2015 it was resumed in July 2016 with hearings commencing on the 27th September 2016. The proposed allocation of H40 is to be heard as Matter 7b and programmed in for Week 4, Day 2 – Wednesday 19th October 2016.

1.4 The questions affecting H40 and in particular those relating to transport and highways are:

4) What are the potential adverse impacts of developing the site? How could they be mitigated?

5) What are the infrastructure requirements/costs and are there physical or other constraints to development? How would these be addressed?

6) Is the site realistically viable and deliverable?

1.5 The following report provides a response to those questions and concludes that the proposed allocation is not reliant upon the delivery of other sites and can progress either alongside other development or individually.

1.6 Furthermore, the results of the modelling work underpinning this report shows the impact of the allocation is primarily focussed at the Kenilworth Gyratory and with the delivery of suitable mitigation as defined in Warwickshire County Council's (WCC's) evidence base and WDC's Draft Infrastructure Delivery Plan, can be wholly

accommodated without resulting in an unacceptable level of queuing or delay. It is considered that contributions towards these schemes will be provided through a suitably worded S106 agreement or CIL should a charging schedule be in place at the time of a planning application. The allocation could also, if required, delivery necessary schemes in their entirety.

2.0 Existing WCC Strategic Assessments

2.1 To date WCC have published various technical reports and evidence that has responded to the revised allocation options considered by WDC. These reports detail the assessment of the cumulative impacts of committed and proposed development. The conclusions of these reports are that the predicted additional traffic impact associated to the allocation can be accommodated on the local and wider highway network subject to the delivery of identified mitigation.

3.0 Modelling work

3.1 DTA have recently engaged with WCC to licence the S-Paramics micro-simulation models. This has enabled a considered assessment of the allocation proposals to be carried out. **Appendix A** presents the assumptions used in the modelling work.

3.2 The S-Paramics models were used to test to potential impacts of the allocation for two development quantum's of 325 (50%) and 650 (100%). This work was carried out within the Kenilworth and Stoneleigh Area Wide (KSWA) model. This is the same model that has been used by WCC for the majority of their development testing of the proposed WDLP allocations and informed the production of their STA 4 (Ref TA2) and the more recent Warwick District Council – Strategic Transport Assessment, Final Phase STA, February 2016 by Vectos Microsim (VM) (Ref TA14PM). The model covers the three hour AM and PM Peak periods; 07:00-10:00 and 16:00-19:00.

3.3 A newer model is currently under production and is due to be available for use shortly. Therefore, is has been agreed with Warwickshire County Council as local highway authority, that the modelling work that underpins this report will be re-run in the new

model, to ensure the results and impacts remain valid. It is proposed a verbal update will be provided to the inspector during the hearing session regarding H40.

3.4 The modelling work has adopted the same vehicular trip rates used throughout WCC's testing for consistency. They are presented in the WCC reports and are shown in **Table 1** below for ease of reference.

Table 1 – Residential Vehicular Trip Rates

Period	In	Out	Total
07:00 to 08:00	0.08	0.33	0.41
08:00 to 09:00	0.12	0.48	0.60
09:00 to 10:00	0.12	0.22	0.34
16:00 to 17:00	0.35	0.11	0.46
17:00 to 18:00	0.48	0.12	0.60
18:00 to 19:00	0.36	0.11	0.48

3.5 As set out above the allocation's impact has been tested in two scenarios for a future year reference of 2028. The scenarios tested are:

- **Scenario 1 -** 2028 Reference - The KSWA forecast to a future year inclusive of committed developments and generalised growth assumptions but no proposed site allocations (as defined in the VM report).
- **Scenario 2 -** 2028 Reference + 50% of the allocation
- **Scenario 3 -** 2028 Reference + the allocation

3.6 The development traffic has been distributed in accordance with the 2011 Census journey to work data from the Warwick 002 Middle Super Output Area (MSOA). The traffic has been locally distributed to and from the allocation assuming 75% via Glasshouse Lane and 25% via Crewe Lane.

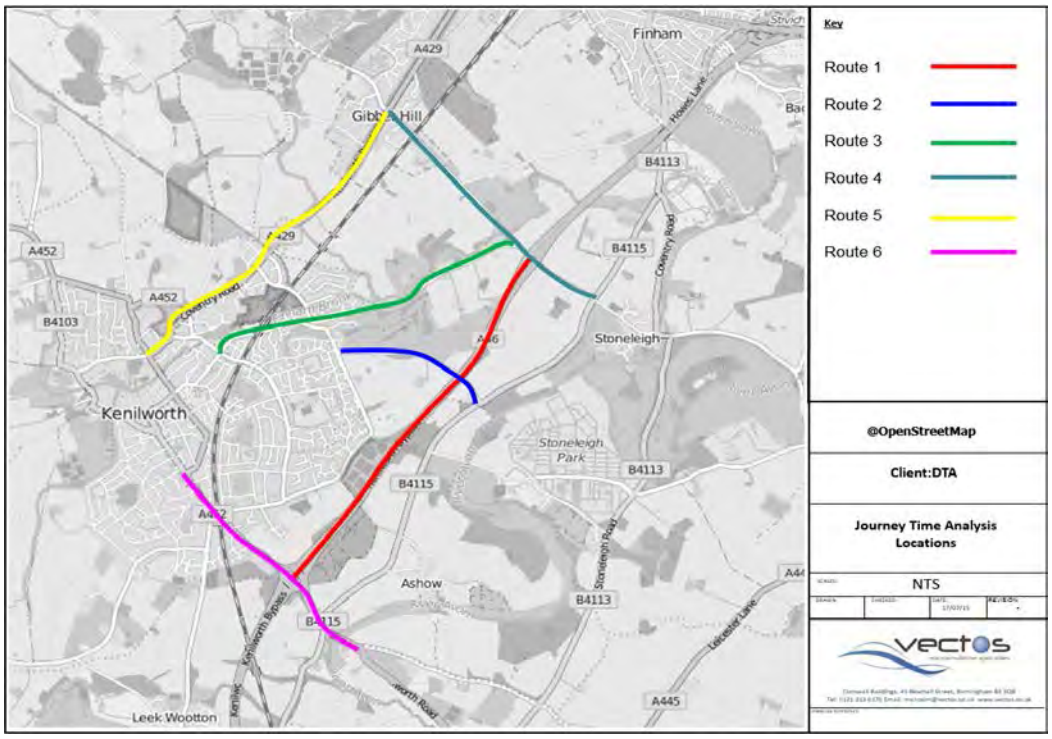
4.0 What are the potential adverse impacts of developing the site? How could they be mitigated?

4.1 The impact of the allocation is assessed in three key areas; change in journey times across key routes; change in predicted vehicle speeds; and change in queuing levels.

Journey Times

4.2 Journey times for 6 routes across the modelled area have been produced for the three scenarios to enable a comparison of the predicted future year with and without development of the allocation to be undertaken. See **Figure 1** below.

Figure 1



4.3 The two routes near to the allocation are routes 2 and 6. Route 2 covers Crewe Lane between Glasshouse Lane and the B4115, a total distance of approximately 1.5km. Given the allocation proposes an access onto Crewe Lane it is relevant to consider the allocation's impact.

4.4 Route 6 includes the A452 between the junctions of Waverley Road in Kenilworth Town Centre and Bericote Lane roundabout, a total distance of approximately 2.3km. This route also includes the circulatory carriageway of the A452/ A46 Thickthorn Grade Separated roundabout junction.

4.5 Route 2 shows that the impact of the allocation's traffic in scenario 2 and 3 results in no change to the predicted journey times during both the AM and PM peak periods.

4.6 Route 6 shows that the impact of the allocation in the AM period for scenario 2 increases journey times by 11 seconds for eastbound traffic with no change for westbound traffic. Scenario 3 increases journey times by a further 12 seconds for eastbound traffic and 5 seconds for westbound traffic. During the PM peak period there is a maximum increase of 5 seconds for both directions of traffic between Scenario 1 and 3.

4.7 It can be concluded that an increase in journey time of 23 seconds (AM Scenario 1 to 3) over a distance of 2.3km is modest and would be generally indiscernible to the travelling motorist.

Vehicle Speeds

4.8 The predicted change in vehicle speeds on Crewe Lane between scenario 1, 2 and 3 remains constant across both AM and PM periods. This further supports the journey time analysis which shows no change in the overall time taken to travel along Crewe Lane.

4.9 When analysing the approaches to the gyratory from the A452 and Birches Lane, all scenarios for both AM and PM period show no change in predicted vehicle speeds, with the exception of the A452 northern arm approach, which reduces by just 4mph in the PM period only. This is likely to be due to traffic returning to the allocation during the evening peak, forcing A452 southbound traffic to give way onto the gyratory.

4.10 The allocation results in no other noticeable adverse impacts on predicted vehicle speeds including the A46 which forms part of the strategic road network, where no reduction in vehicle speeds are shown.

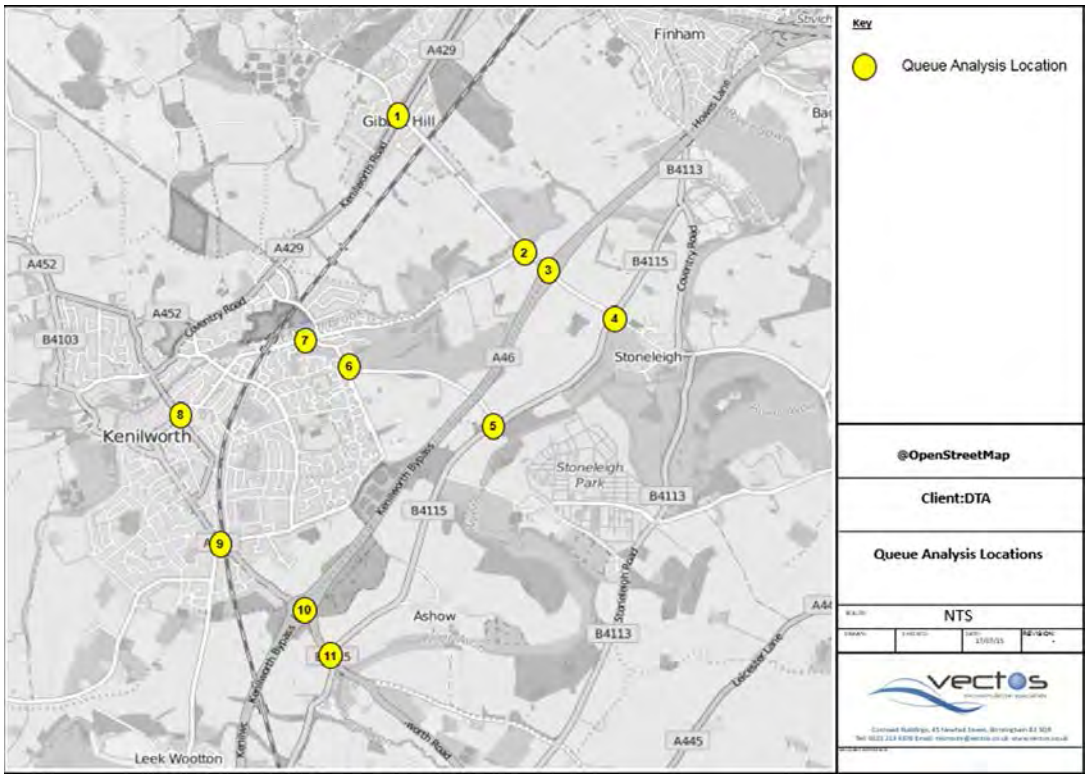
Queueing

4.11 In keeping with WCC's assessment criteria for increases in queuing the following classifications have been used:

- **Queue Reduction** (a reduction in queue lengths of greater than 5 vehicles)
- **Moderate Increase** (an increase in queue lengths of between 15 and 30 vehicles)
- **Severe Increase** (an increase in queue lengths of between 30 and 50 vehicles)
- **Very Severe Increase** (an increase in queue length of over 50 vehicles)

4.12 **Figure 2** below shows the location of the reported junctions and the corresponding numbering.

Figure 2



4.13 The nearest junctions to the allocation accesses reported in the model are junctions 5 and 6 which are the junctions either end of Crewe Lane. A queue on the B4115 during the PM peak is predicted to increase by 2 vehicles, due to vehicles turning into Crewe Lane. Using the above classification this would be classed as less than a moderate increase.

4.14 This modest increase is generally the pattern across the modelled area. Only two of the 11 junctions show moderate increases in queuing, which are Junction 1 and Junction 9.

4.15 Junction 1 is known as Gibbet Hill and is at the intersection of the A429 and Stoneleigh Road and forms part of a route between the development site and Coventry/ Warwick University. The results of the modelling show an increase in queuing traffic of 17 vehicles in the PM peak period for A429 southbound traffic on approach to the junction from the north in scenario 3. Scenario 2 shows an increase of just 8 vehicles, which falls below the moderate classification. The increase is likely to be attributed to traffic returning to allocation in the evening peak period (people returning from work). Using the above classification, the impact of the full allocation is moderate and would be addressed through a suitable contribution towards a scheme as identified for the junction in the draft IDP.

4.16 Junction 9 is the Kenilworth Gyratory on the A452, to the west of the allocation and forms part of a route between the site and the A46. Scenario 2 shows less than a moderate impact across the junction on all arms. Scenario 3 shows an increase of 16 vehicles on the A452 northern arm approach to the junction. As can be seen this just falls within the moderate increase classification. The impact of the allocation would be adequately addressed through a suitable contribution to the scheme identified in the draft IDP.

4.17 It can be concluded in response to question 4, that generally the impacts of the allocation are modest and where contributions would be made to identified infrastructure, they would cost effectively mitigate the impact of the allocation. This work also shows that the impact of the allocation in isolation, does not highlight any

other junctions that would warrant further investigation or mitigation in addition to those already identified in the draft IDP.

4.18 This position is supported by the cumulative assessment carried out by WCC and reported in the VM report.

5.0 What are the infrastructure requirements/costs and are there physical or other constraints to development? How would these be addressed?

5.1 WDC's draft infrastructure delivery plan (Ref IN07PM) sets out the schemes required to help mitigate the proposed development allocations. Table 11 of appendix A of the IDP sets out Kenilworth specific improvements.

5.2 Those schemes more relevant to the allocation are those local to it and on the A452 and A429 corridors. The A452 Gyratory has an indicative cost in the IDP of £300,000. The A46/A452 Thickthorn roundabout has an associated cost of £1,250,000.

5.3 There is no included costs for the potential Gibbet Hill improvements.

5.4 The funding source within the draft IDP is stated as S106 and not CIL, for those elements.

5.5 The indicative schemes have been assessed on the basis that the land to accommodate the improvements is public highway or when related directly to a development, land under the control of the developer. Therefore, there are no known physical constraints to the delivery of the infrastructure.

5.6 Para 1.6 above states that it is fully expected the allocation will contribute on a proportionate basis towards mitigation proposals. The modelling shows that moderate impacts are only experienced at two junctions after 50% of the allocation build out. It is however, accepted this conclusion is based upon general background growth in the future year model and not the proposed allocations and should other development progress alongside the allocation, capacity improvements may be required earlier. Therefore, at this stage the precise triggers are unknown. In keeping

with other developments in the District, it is likely contributions would be required on an incremental basis for set levels of development.

5.7 The full details of this and testing of precise triggers if required, would be the purpose of detailing modelling to support a transport assessment for a planning application.

5.8 In addition to physical highway interventions it is also reasonable to assume contributions will be sought for public transport enhancements and walking and cycling improvements in the local and wider area. The allocation currently benefits from being in close proximity to local primary and secondary schools, therefore, it is key to ensure walking and cycling links are in place. Moreover, the Local Plan proposes a new secondary school on a parcel of land immediately adjacent to the allocation, meaning excellent sustainable links are possible. These would be secured through internal design of the site to ensure those future links can be made.

6.0 Is the site realistically viable and deliverable?

6.1 It is considered the transport and highway contributions required from the allocation to ensure delivery of the identified infrastructure is not out of keeping with what would be generally expected of a development of this scale.

6.2 Therefore, the likely transport and highway obligations associated with the allocation's requirements would not threaten its viability, even if the allocation was required to delivery all necessary infrastructure in its entirety – *Subject to meeting the tests as set out in para 204 of the NPPF.*

7.0 Conclusions

7.1 The results of the modelling demonstrates that the allocation is deliverable and is not reliant on the provision of other development's infrastructure or land. Any mitigation that may be required is reasonable in terms of cost and can be delivered within either land under the control of the developer or public highway.

7.2 The impacts of the allocation are modest and where contributions may be sought towards identified infrastructure, it would cost effectively mitigate the impact of the allocation. Importantly this work also shows that the impact of the allocation in isolation does not highlight any other junctions that would warrant further investigation or mitigation, in additional to those already identified in the draft IDP.

7.3 The cumulative assessment carried out by WCC and reported in the VM assessment shows the allocation's traffic can be accommodated on the local and wider highway network.

7.4 The likely transport and highway obligations associated with the allocation's requirements would not threaten its viability.

7.5 Therefore, there are no reasons why the development site should not be allocated within the Warwick District Local Plan and there are currently no known constraints to prevent the site coming forward in a timely manner.

Appendix A

VM160102.TN001 - Study Methodology

TECHNICAL NOTE

Project title	Thickthorn Threshold Assessment	Job number	VM160102
cc	DTA	File reference	TN001
Prepared by	Barney Newbould	Date	30 August 2016
Subject	Thickthorn Threshold Assessment Methodology		

Introduction

1. Vectos Microsim (VM) has been commissioned by David Tucker Associates (DTA) to undertaken a threshold capacity assessment relating to the proposed residential development at the Crew Lane/Woodside site, to the north of Kenilworth.

2. Due to the location of the proposed development, the assessment has been undertaken within the Kenilworth and Stoneleigh Wide Area (KSWA) Paramics model. This model enables the impact on Kenilworth town centre, along with key junctions along the A46, A429, A45 and A452 to be captured.

3. This assessment has involved the creation of two scenarios to be modelled, one which contains the full proposed build out at the site, which equates to 650 dwellings, and a second scenario which contains a 50% build out of the site, which equates to 325 dwellings.

4. The purpose of this Technical Note is to provide an overview of the methodology adopted and the results extracted from the resultant model scenarios.

Background

Reference Case

5. For the purposes of this development testing it was deemed appropriate to use the most recent 2029 KSWA Reference Case model. This is as per the model which was reported upon within the recent Strategic Transport Assessment (STA) work.

6. In order that the impacts associated with the Crew Lane and Woodside site could be identified discretely, the KSWA Reference model was adopted, with no trips at this site included. This formed the Reference Case for the study. This resulted in a Reference Case which contained the latest assumptions on housing sites and growth until 2029 within the model. Crucially the Reference Case contains the signal proposals for the A46/Stoneleigh Road junction.

7. The coverage of the model and the location of the development in question have been illustrated in Figure 1 and Figure 2 respectively.

Figure 1 KSWA Model Extent

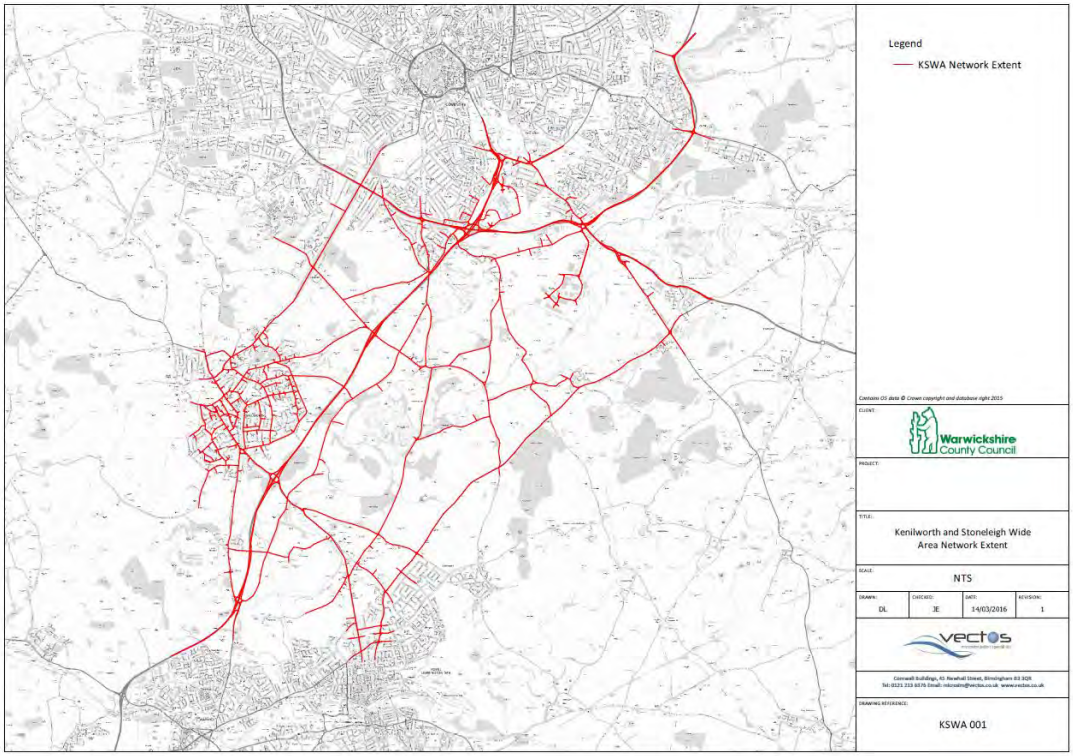
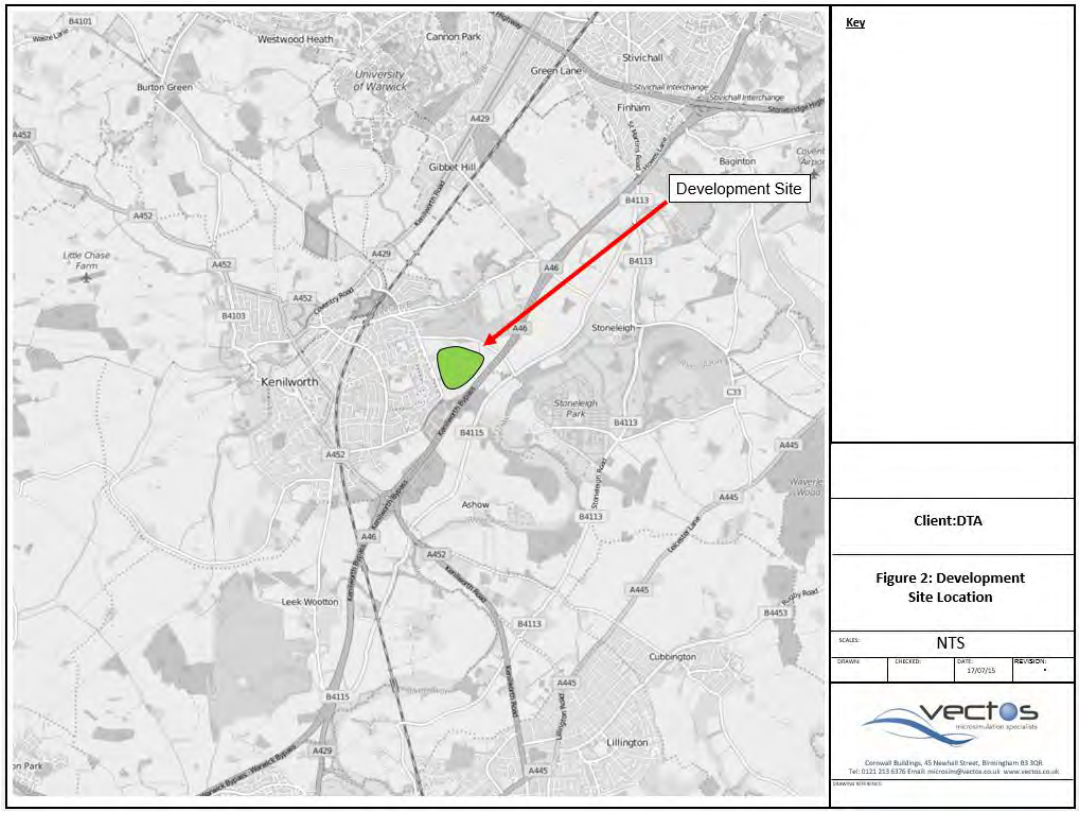


Figure 2 Development Site Location



8. The development at the Crew Lane/Woodside site was then added in at 325 and 650 dwellings to identify the incremental impacts associated with the development.

Trip Generation

9. The purpose of this study is to assess the impact of two scenarios at the Crew Lane and Woodside site, firstly at 325 dwellings, followed by a 650 dwelling scenario.

10. Based upon discussions with DTA, it has been established that the trip rates to be assumed in this assessment would be the WCC standard trip rates for residential land uses. These trip rates are summarised in Table 1.

Table 1 Residential Vehicle Trip Rates (WCC Residential Trip Rates)

Hour	Arrivals	Departures	Total
0700-0800	0.08	0.33	0.41
0800-0900	0.12	0.48	0.60
0900-1000	0.12	0.22	0.34
1600-1700	0.35	0.11	0.46
1700-1800	0.48	0.12	0.60
1800-1900	0.36	0.11	0.48

11. The trip rates in Table 1 have been applied to the relevant number of dwellings, to derive the predicted number of trips in both the 325 dwelling and 650 dwelling scenarios.

12. The number of trips derived for each hour modelled, in both of the scenarios assessed are set out below:

Table 2 Residential Vehicle Trip Generation

	325 Dwelling Scenario			650 Dwelling Scenario		
	Arrivals	Departures	Total	Arrivals	Departures	Total
0700-0800	25	107	132	51	214	264
0800-0900	39	156	195	78	312	390
0900-1000	40	72	112	79	144	223
1600-1700	113	38	151	227	75	302
1700-1800	156	39	195	312	78	390
1800-1900	119	38	157	237	76	313

13. Based upon the figures in Table 2, the two 'With Development' scenarios have been created, with the relevant number of development trips contained within the AM period (0700-1000) and PM period (1600-1900).

14. These trips have then been profiled to ensure that the release of development trips over the three hour modelled periods is reflective of the hourly trip rates for the AM and PM periods.

15. The trip rates in each hour have been converted into a proportion of the three hour peak period trip rate, to ensure the release rate of vehicles within the model reflects Table 2 above.

Trip Distribution

16. The residential trip distribution to be applied to the site, within the modelling, has been extracted directly from 2011 Census information. The 2011 distribution, derived by the direct interpolation of the 2011 Census Journey to Work data, has been based upon the MSOA distribution information for the Warwick 002 ward, as the proposed development lies within this area.

17. The Journey to Work data for the Warwick 002 MSOA has been assessed to enable a percentage distribution from this area to other MSOAs.

18. Where the MSOA falls within the model extent they have been dealt with as 'internal' zones, and the trip allocated a model zones that lies within origin/destination MSOA, weighted towards the key population or employment centres.

19. Where the MSOA is outside of the model extent they have been dealt with by applying the derived number of trips to the appropriate 'external' zone on the model network. For example all trips from the site towards Leamington Spa are assumed to travel via the A452 and as such have a destination zone of Zone 215 (southern extent of the A452) within the model.

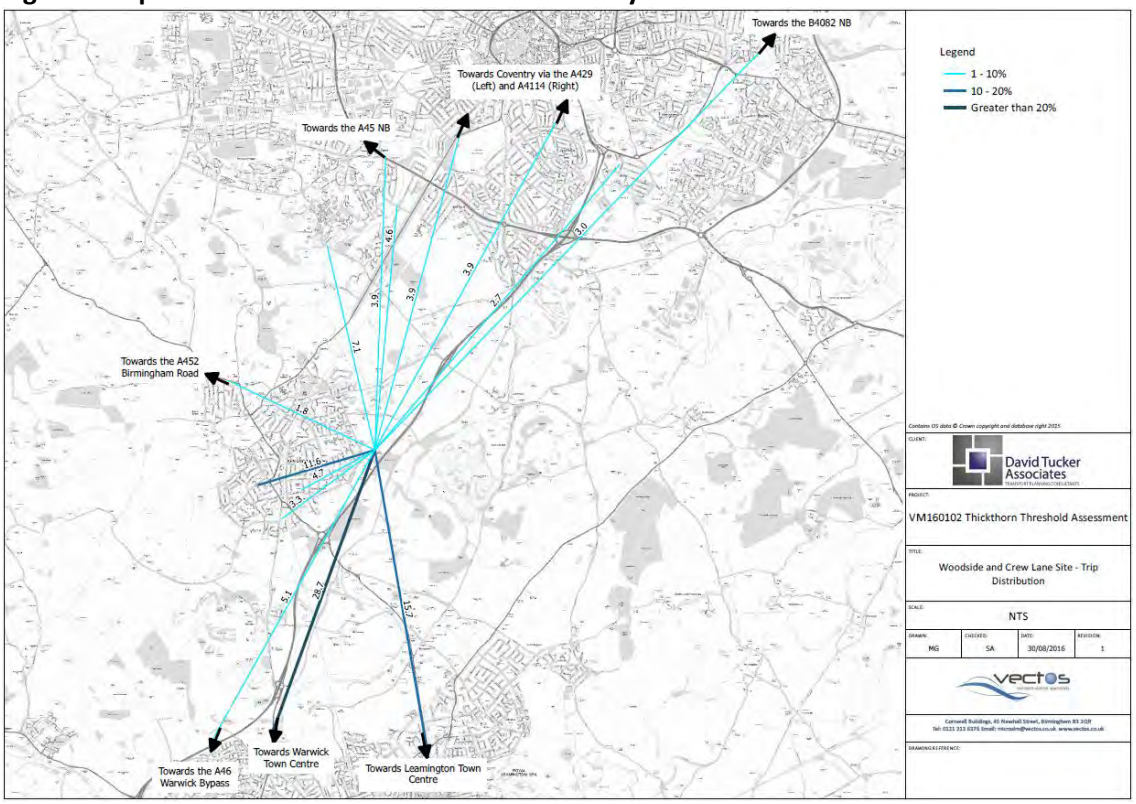
20. The external zones applied to these trips are based upon the likely routes taken to each of the destinations. In determining the likely route taken between the site and destination outside of the model extent, the quickest route available has been assumed to be the route which would be taken, and the destination zone within the model selected accordingly.

21. The resulting trip distribution is summarised in Table 3, and the supporting Figure 3, (note only the destinations with greater than 1% of trips have been included)

Table 3 Trip Distribution derived from 2011 Journey to Work data

Destination	% of Trips	Model Zone
Kenilworth Centre	11.59%	12
Warwick Centre	28.72%	217
Coventry Centre	3.93%	201
Coventry Centre	3.93%	203
Warwick University	7.08%	224
Leamington Spa	15.65%	215
Kenilworth Centre	4.67%	22
Coventry North	4.56%	225
Stratford upon Avon	5.05%	218
Kenilworth South	3.35%	25
Coventry	3.02%	261
Solihull	3.9%	226
Coventry	2.7%	287
Kingswood	1.81%	222
TOTAL	**100.00%**	

Figure 3 Trip Distribution derived from 2011 Journey to Work data



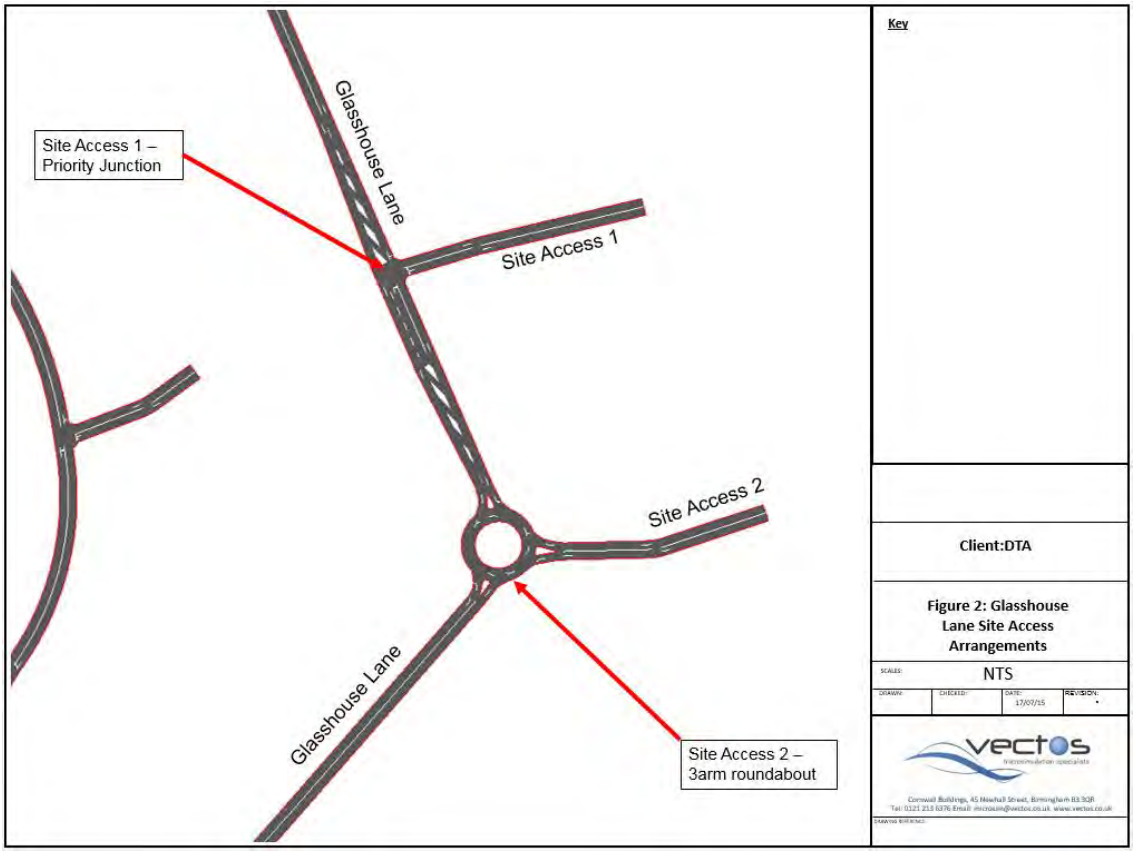
Site Access Arrangements

22. Following discussions with DTA it was agreed that three site accesses would be modelled for the development. Two of these would be off Glasshouse Lane, with a third via Crew Lane.

23. The site accesses on Glasshouse Lane consist of a priority junction, with a right turn lane provided, directly to the north of the Glasshouse Lane/Stansfield Grove junction, and a three arm roundabout, to the south of this.

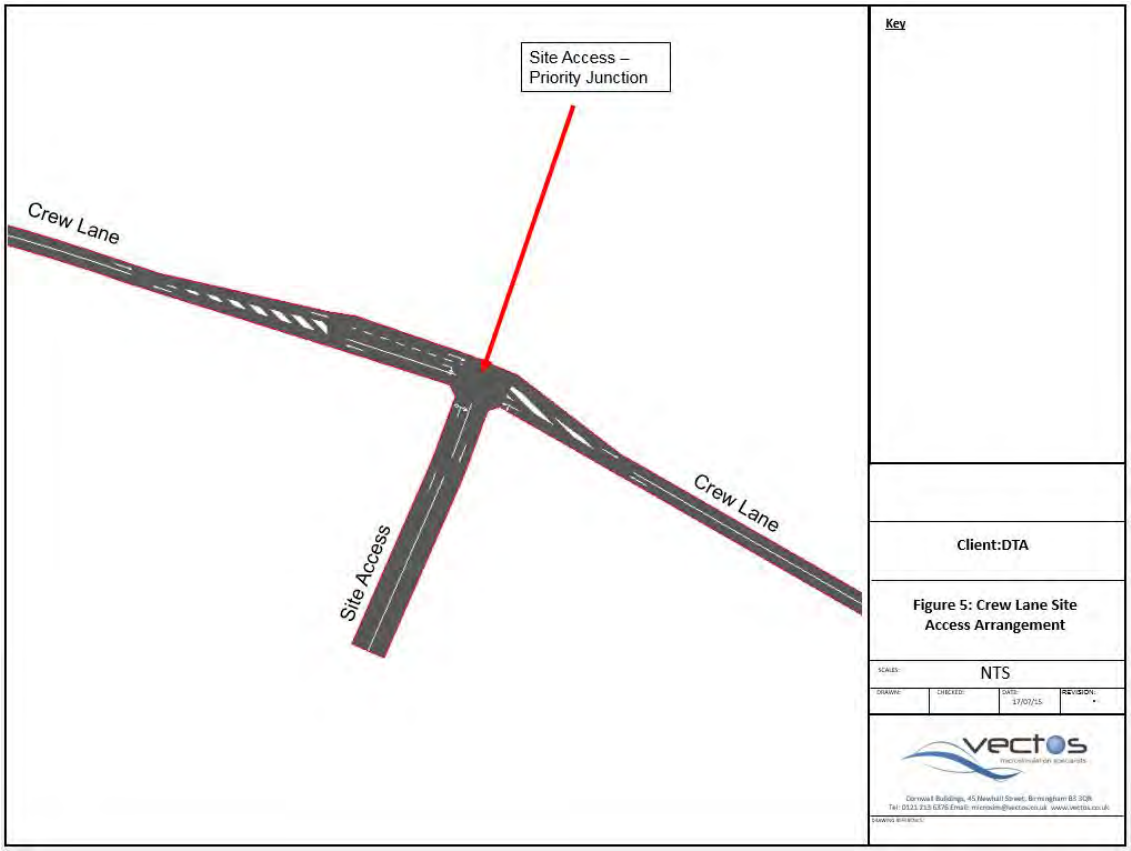
24. The location and form of these junctions is demonstrated in Figure 4.

Figure 4 Glasshouse Lane Site Access Arrangements



25. The site access on Crew Lane consist of a priority junction, with a right turn lane provided. The location and form of this junction is demonstrated in Figure 5.

Figure 5 Crew Lane Site Access Arrangements



26. Following discussions with DTA it was agreed that 75% of all development trips would arrive and/or depart the site via the Glasshouse Lane access points, whilst the remaining 25% would arrive/depart via the Crew Lane access points.

Results

27. The trip generation, distribution and site access details described within this note have been combined into the relevant models to create the scenarios for testing. The models have been run and results presented for the following key indicators:

Network Wide Statistics

28. A number of statistics used in the analysis have been obtained from analysing each individual trip that has occurred within the network. This information is collected within Paramics through the Trips-all file and contains information specific to each individual trip that has been completed within the model period. This information is then aggregated and processed to provide the following comparative statistics:

- **Average Time (seconds)** – The average travel time of a completed trip during the model simulation period.
- **Average Speed (Km/h)** – The average speed travelled by all vehicles that completed a journey during the model simulation period.
- **Completed Trips (vehicles)** – The number of completed trips recorded during the model simulation.

29. The first two measurements are averages so can be used to compare between the various scenarios. The final measurement is an absolute and is dependent on congestion on the network (as this will prevent trips from completing) and the demand within the model (i.e. the number of trips actually trying to complete). As demand differs between scenarios, as well as small variations between runs of the same scenario, we cannot expect the number of completed trips to be the same. However, as the demands do not differ significantly it can still provide an indication of the relative congestion on each network.

Queueing

30. The analysis of queue lengths has been based on the average hourly maximum queue length. Results presented for a series of key junctions within the model network with the queue levels presented at each selected junction on each approach.

31. The hourly maximum for each individual model run has been calculated and then the average of all runs has been calculated for each hour. The maximum of these values, across all hours, is reported as the maximum periodic average maximum queue length. All queues are reported in numbers of vehicles

Journey Times

32. A series of key routes have been defined within the model network. The average time it takes for vehicles to travel across each route has been collected and aggregated for each scenario, and the level of deviation from the Reference Case conditions demonstrated in the results.

Link Flow and Speeds

33. The directional and two way traffic flows have been presented for a selection of key link within the model network, and presented for each scenario tested. Link speed information has also been presented at the same links in each modelled scenario.

34. The above results have been presented to DTA in spreadsheet format.

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