

## Vale Of White Horse Local Plan Examination – Stage 2

### Matter 6 – Proposed Housing Sites in the North Wessex Downs Area of Outstanding Natural Beauty

This Statement is submitted on behalf of Lioncourt Strategic and St John's College in respect of Matter 6 for Stage 2 of the Vale of White Horse Local Plan Examination.

Matter 6 relates to the proposed housing sites in the North Wessex Downs Area of Outstanding Natural Beauty and raises the following questions under paragraph 6.1:

*Having regard to the exceptional circumstances and public interest tests set out in para 116 of the NPPF, are the Strategic Housing Allocations (sites 12 and 13) proposed in the AONB soundly based? In particular:*

*(a) what is the need for the housing development, including in terms of national considerations?*

*(b) what is the likely impact of permitting, or refusing, the housing development on the local economy?*

*(c) is there scope for providing for the housing development outside of the AONB?*

*(d) what is the likely effect of the development on the environment, landscape and recreational opportunities having regard to the potential for moderation*

This Statement responds to question 6.1 (c) and should be read in the context of the Stage 1 Statement which highlighted land to the east of Kingston Bagpuize as a suitable alternative location for housing instead of the proposed strategic housing allocations in the North Wessex Downs Area of Outstanding Natural Beauty.

The Statement to Stage 1 of this Examination was accompanied by two separate reports which demonstrated the sustainability, suitability, availability and deliverability of land at Kingston Bagpuize and Southmoor as an alternative location for growth. The accompanying reports were:

- Landscape, Ecology and Heritage Briefing Report prepared by EDP (August 2015)
- Baseline Site Analysis & Development Concept prepared by Define (August 2015)

The above reports are also relevant to this Statement for Matter 6.

This Statement is accompanied by two further reports which, together with the previous reports, help to demonstrate the suitability and deliverability of additional land to the east of Kingston Bagpuize for development. The additional reports appended to this Statement are:

- Technical Note on Flood Risk and Surface Water Drainage (Atkins, December 2015, please refer to **Appendix 1**)

- Preliminary Access Appraisal (Key Transport Consultants, January 2016, please refer to **Appendix 2**)

**6.1 (c) is there scope for providing for the housing development outside of the AONB?**

Yes, there is scope to provide additional land for housing development outside the AONB.

The NPPF at Paragraph 6 highlights that the purpose of the planning system is to contribute to the achievement of sustainable development and that the policies contained in Paragraphs 18 to 219 of the NPPF, taken as a whole, constitute the Government's view of what sustainable development in England means in practice for the planning system.

The Stage 1 Statement highlighted NPPF paragraph 115 which makes clear that "great weight" should be given to conserving landscape and scenic beauty in Areas of Outstanding Natural Beauty, which have the highest status of protection in relation to landscape and scenic beauty. In respect of the decision making process paragraph 116 states that planning permission should be refused for major development in AONB except in "exceptional circumstances" and where it can be demonstrated they are in the public interest. It was also noted that the submitted Local Plan places considerable emphasis on the protection of the AONB stating at Page 27 that:

*The landscape of the district is central to the rural character of the Vale, from the Corallian Ridge to the Lowland Vale to the North Wessex Downs AONB. Key landscape features need to be respected, retained and enhanced to maintain the local character and distinctiveness of the landscape of the Vale.*

This is reflected in proposed Strategic Objective 10 which seeks to maintain and improve the natural environment including biodiversity, landscape, Green Infrastructure and waterways.

The Stage 1 Statement highlighted land at Kingston Bagpuize and Southmoor as a sustainable location for development being close to existing facilities in the villages, and Kinston Bagpuize Business Park, but also well connected to Oxford by road and public transport. The land at Kingston Bagpuize and Southmoor presents the opportunity for a sustainable development which could deliver over 500 houses, a 2 form entry primary school, open space (including sports and recreation grounds, allotments, and play areas), and a new link road connecting the A420 and A415.

Read with the reports submitted with the Stage 1, the accompanying Flood Risk and Surface Water Drainage Technical Note (Atkins) and Preliminary Access Appraisal (Key Transport Consultants) further underline the suitability of land to the east of Kingston Bagpuize and Southmoor for accommodating development outside the AONB.

The accompanying Atkins report notes that the site is located within Flood Zone 1 and therefore carries a low risk of fluvial flooding. Similarly, the report notes that there are no issues with surface water drainage that adversely impact on the potential development on the site or its deliverability.

The accompanying Preliminary Access Appraisal concludes that the site is capable of accommodating satisfactory vehicular and that there is no transport planning reason why the site should not be suitable for development.

Having regard to the above, and in response to Question 6.1(c), it is clear that there scope for providing for the housing development outside of the AONB. It is considered that the Strategic Housing Allocations (sites 12 and 13) proposed in the AONB are not soundly based for the following reasons:

- 1) Suitable alternative land exists outside the AONB such that the exceptional circumstances and public interest tests set out in paragraph 116 of the NPPF are not satisfied.
- 2) The plan exhibits conflict within itself, seeking to both protect the AONB whilst allocating large areas of AONB land for development, despite the presence of suitable alternative locations. In this context the plan is not therefore consistent with national policy and would not be effective.

It is considered that the proposed allocation of the strategic development sites in the AONB would conflict with the objectives of the Local Plan identified above and not constitute a sustainable form of development in the context of the NPPF.

The Local Plan seeks to establish a strategy to provide 20,560 dwellings between 2011 and 2031 which would meet the objectively assessed need for the District as identified in the 2014 Oxfordshire SHMA. This figure does not include any potential overspill arising from the inability of Oxford City Council to meet its own identified housing needs within the City Boundary.

Over the Oxfordshire 2014 SHMA period of 2011 to 2031 Oxford City Council's Strategic Housing Land Availability Assessment (SHLAA, URS 2014) identifies a maximum capacity for 10,212 dwellings within the City boundary. Taking into account the OAN figures (upper, lower and mid-point) identified in the 2014 SHMA and considering the capacity identified in the SHLAA it is clear that a substantial disparity exists between need and capacity. Table 1 below sets out the likely shortfall against the 2014 SHMA figures:

Oxford housing need ranges (2014 SHMA)		Shortfall against supply of 10,212
Lower	24,000	13,788
Mid-point	28,000	17,788
Upper	32,000	21,788

Table 1: Oxford City Shortfall against SHMA

The level of overspill from Oxford City Council has yet to be agreed, and no decision has been made on the distribution of any likely overspill between the four

surrounding Oxfordshire district authorities. What is clear however is that the level of overspill is likely to give rise to substantial additional housing being directed to each of the Oxford City's neighbours. In this context it is noted that the Vale of White Horse Cabinet resolved in August to agree to plan for approximately 3000 additional homes.

The land at Kingston Bagpuize and Southmoor is well situated to accommodate a proportion of any over spill from Oxford City but, for the reasons set out above, also represents a suitable location to reduce the pressure of development in the AONB to meet the District's own housing needs.

It is considered that the allocation of strategic development sites in the AONB should represent a last resort, rather than a first choice, for development to meet the identified housing needs for the District. The allocation of land at Harwell Campus has been proposed, in part, to support the growth of the Science Vale area, however as highlighted in the Stage 1 Statement the sustainability of allocating residential development away from existing settlements, around the Campus, are heavily predicated on the future residents living and working around the Campus.

In the event that the economic benefits and sustainability credentials of allocating the land around Harwell Campus are found not to be sufficient to outweigh the harm to the AONB, the land at Kingston Bagpuize and Southmoor presents a suitable and viable alternative to accommodate part of this growth and one which will reduce pressure for development in the AONB whilst also being well placed to serve the needs of Oxford City and the Science Vale area.

It is respectfully suggested that, for all of the reasons highlighted above, and in the Stage 1 Statement, that the Plan should be amended to include an additional strategic allocation comprising the land identified to the east of Kingston Bagpuize and Southmoor to relieve pressure for development in the AONB.

**Appendix 1** - Stage 2 Statement

Technical Note on Flood Risk and Surface Water Drainage (Atkins, December 2015)



# Technical note

<b>Project:</b>	Land East of Kingston Bagpuize	<b>To:</b>	Lioncourt Strategic Land (Andy Faizey), Savills (Roger Smith)
<b>Subject:</b>	Local Plan Stage 2 EiP - Statement Relating To Flood Risk and Surface Water Drainage	<b>From:</b>	Atkins
<b>Date:</b>	21 Dec 2015	<b>cc:</b>	

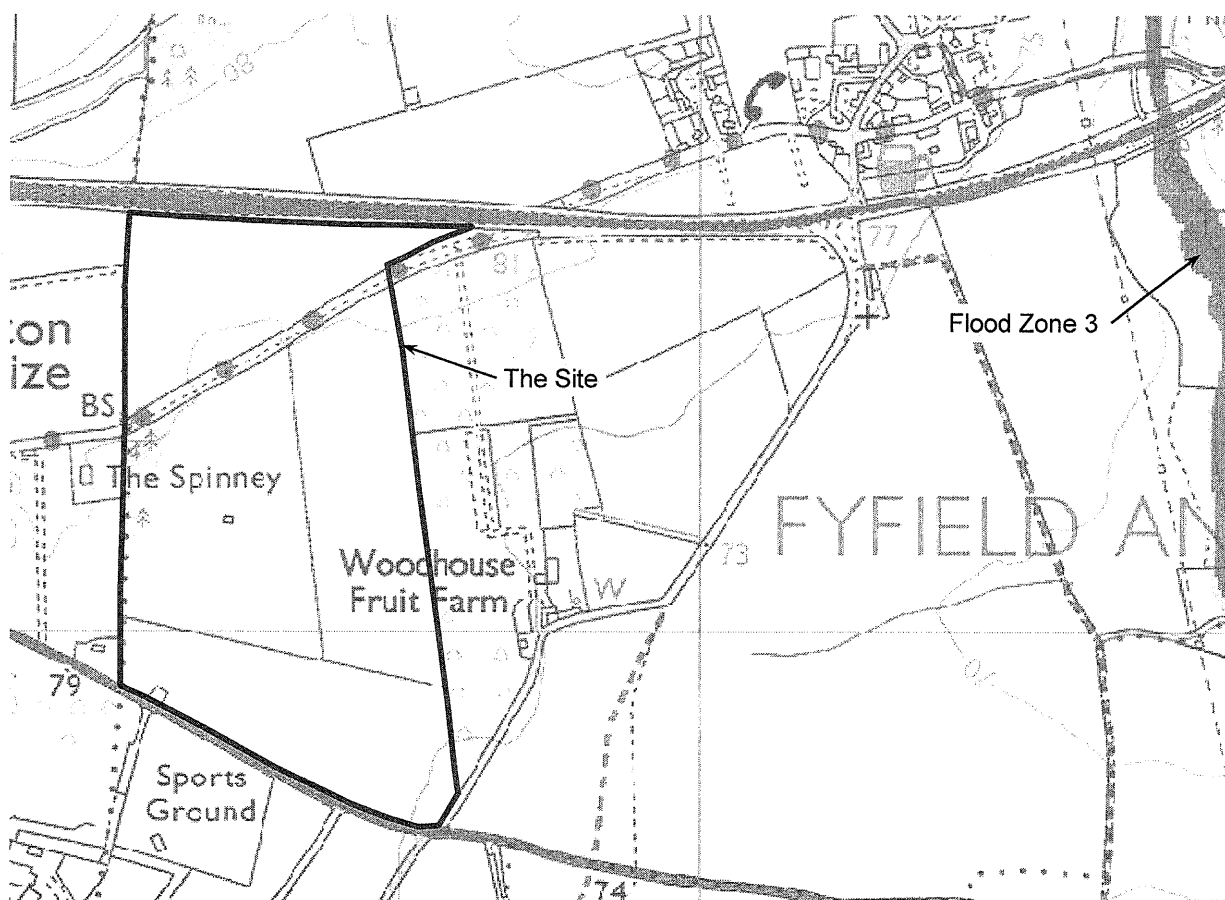
## Introduction

This Technical Note has been prepared to provide an appraisal of flood risk and drainage issues affecting a site to the east of Kingston Bagpuize, hereafter referred to as the Site, to support its promotion for residential development by Lioncourt Strategic Land.

This Note is intended to support a statement being prepared for submission in advance of the forthcoming Vale of the White Horse District Council Local Plan 2031 Stage 2 Examination in Public. It is based wholly on information available in the public domain.

## Flood Risk

The Site, according to the Environment Agency Flood Map shown in Figure 1, is located within Flood Zone 1 (low risk; <0.1% annual probability) hence is not considered to be at risk of fluvial (river) flooding. There are no significant watercourses within or close to the Site.

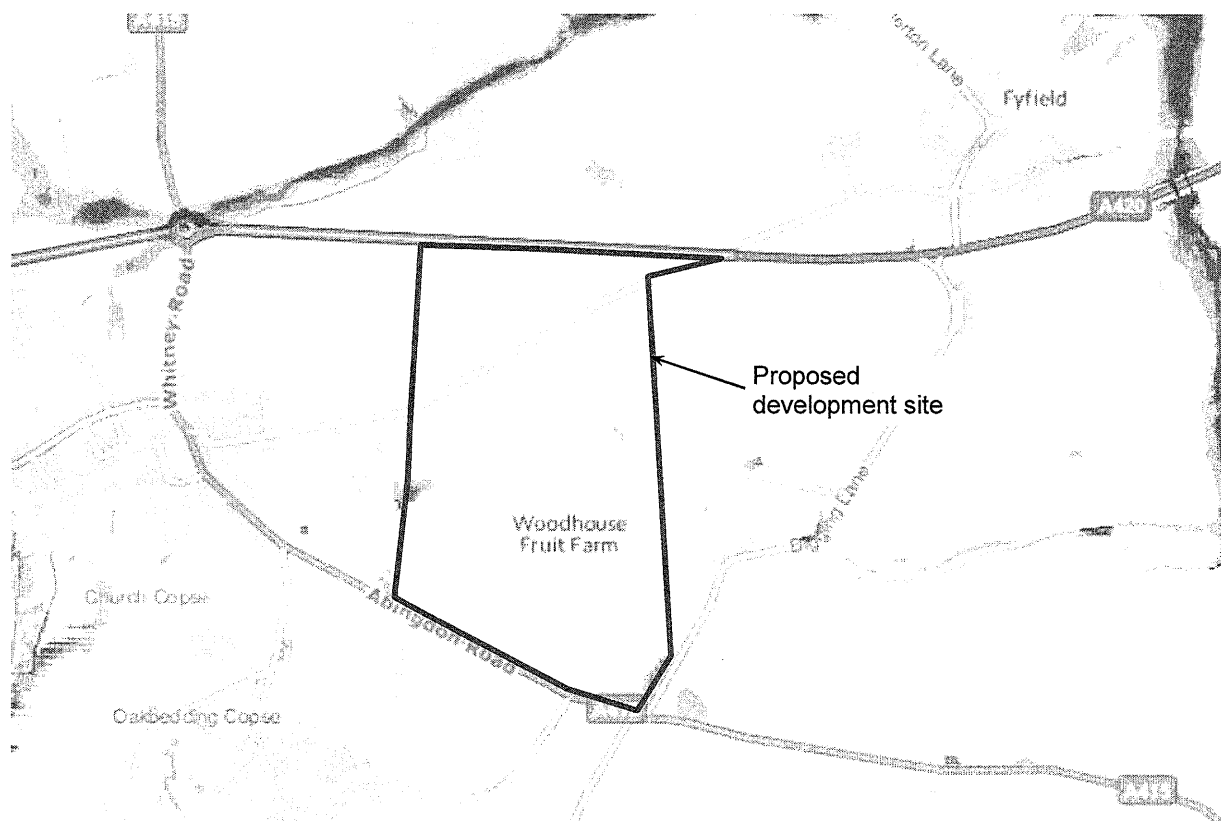


Source: Environment Agency

**Figure 1. Environment Agency Flood Map**

# Technical note

The Surface Water Flood Map, shown in Figure 2, illustrates that the Site is at low risk of surface water flooding with only a few, small isolated areas within its boundary. These are considered to be sufficiently small that they can be addressed by the proposed development without causing an adverse impact on flooding elsewhere.



Source: Environment Agency

**Figure 2. Surface Water Flood Map**

The *Vale of the White Horse Strategic Flood Risk Assessment*<sup>1</sup> and its subsequent *Addendum*<sup>2</sup> identifies that the risk of groundwater flooding in Kingston Bagpuize increases from south to north-east; therefore it is concluded that the Site is at moderate risk of groundwater flooding. However, based on Ordnance Survey mapping, its topography is such that there are no significant depressions within the Site so any emerging groundwater will tend to flow away from the Site rather than accumulate; therefore, the impact on the proposed development would be minimal.

The risk of flooding from any source on the Site is concluded to be low, and less than or equal to the risk of flooding on the proposed housing site allocations identified in the *Vale of the White Horse Local Plan 2031*<sup>3</sup>. There are no flooding issues that are considered to adversely affect the developability of the Site or the deliverability of the proposed development.

<sup>1</sup> Vale of the White Horse District Council Strategic Flood Risk Assessment: Final Report, JBA Consulting, July 2013

<sup>2</sup> Vale of the White Horse District Council Strategic Flood Risk Assessment: Addendum, JBA Consulting, October 2014

<sup>3</sup> Local Plan 2013 Part 1: Strategic Sites and Policies, Vale of the White Horse District Council, November 2014



# Technical note

## Surface Water Drainage

Based on available information, there are no watercourses or drainage ditches within the boundary of the Site. Ordnance Survey mapping indicates a ditch on the north-western site boundary; available information suggests that this is an archaeological feature hence further investigations are required to establish whether it could be used for formal surface water drainage purposes.

The soils on the Site are described as freely draining (Soilscapes<sup>4</sup>) with a depth of up to 0.5m (British Geological Survey<sup>5</sup>). There are no superficial deposits. The underlying bedrock geology primarily comprises sandstone, with a mixture of sandstone, siltstone and mudstone to the north, and limestone to the south. This is a potentially permeable stratum, which, according to borehole logs (British Geological Survey<sup>5</sup>) extends to a depth of approximately 15m. Below this is a clay layer believed to be Oxford Clay. These ground conditions indicate that infiltration is potentially a viable means of surface water disposal. This will require confirmation by appropriate infiltration testing.

The underlying bedrock is designated an aquifer (Corallian Group) and described as locally important and moderately productive (yields up to 5 – 10l/s). Groundwater levels from well records (British Geological Survey<sup>5</sup>) indicate that groundwater could be between 1.5m and 3.0m below ground level; therefore, in conjunction with the potentially permeable ground conditions, infiltration using sustainable drainage features (SuDS) could be a potentially viable outfall arrangement for the proposed development.

The Environment Agency website shows that the proposed development site is located outside of any Source Protection Zones; therefore, the use of infiltration as a means of surface water disposal will not be subject to any specific restrictions beyond those usually required to prevent contamination of groundwater. It is expected that the necessary filtration and other water treatment can be provided using appropriately designed SuDS features.

On the basis of the above, and subject to on-site permeability testing, it is concluded that surface water drainage is unlikely to adversely impact on the deliverability or developability of the Site. The use of SuDS is in accordance with Oxfordshire County Council policy.

## Foul Water Drainage

Any proposed development on the Site will discharge foul water flows to Kingston Bagpuize waste water treatment works. The *Vale of the White Horse District Council Water Cycle Study*<sup>6</sup> identifies that there are capacity issues with both the local sewerage network and the treatment works. The Water Cycle Study<sup>6</sup> shows that many of the proposed housing site allocations also have issues with lack of capacity within the local sewerage and treatment works.

The capacity and treatment issues will be investigated and quantified as part of the development planning process to enable these to be addressed via an appropriate mechanism.

## Conclusions

The flood risk at the Site is considered to be low and will not adversely affect its developability nor the delivery of the proposed development.

Similarly, there are no issues with surface water drainage that adversely impact on the potential development on the site or its deliverability. Infiltration is considered likely to be the primary means of surface water disposal, subject to satisfactory test results, with SuDS able to be used throughout.

There are potentially issues with the availability of capacity within the local sewerage network and waste water treatment works; however, similar issues also affect the majority of the currently proposed housing site allocations. The issues affecting the Site will be investigated further and addressed with Thames Water to understand the issues in more detail and therefore determine what options are available aid development.

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<sup>4</sup> Soilscapes ([www.landis.org.uk/soilscapes](http://www.landis.org.uk/soilscapes))

<sup>5</sup> British Geological Survey GeoIndex ([mapapps2.bgs.ac.uk/geoindex/home.html](http://mapapps2.bgs.ac.uk/geoindex/home.html))

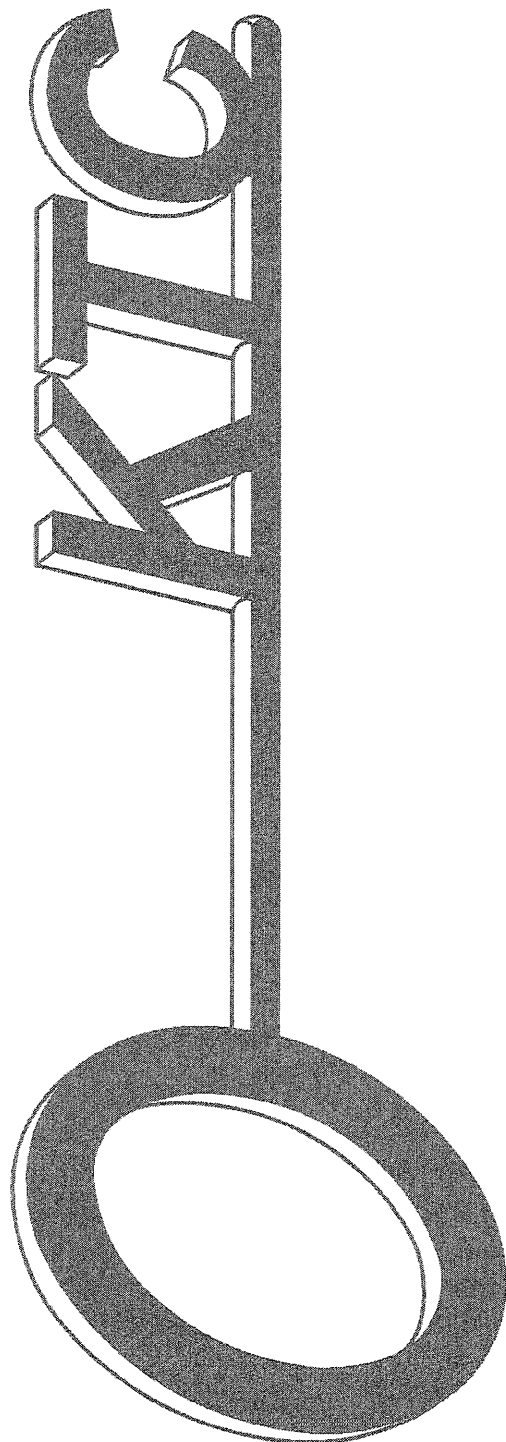
<sup>6</sup> Vale of the White Horse District Council – Water Cycle Study: Phase I Study, JBA Consulting, November 2014



**Appendix 2** - Stage 2 Statement

Preliminary Access Appraisal (Key Transport Consultants, January 2016)





## **LIONCOURT STRATEGIC LAND & ST JOHN'S COLLEGE**

### **LAND TO THE EAST OF KINGSTON BAGPUIZE OXFORDSHIRE**



## **PRELIMINARY ACCESS APPRAISAL**

**JANUARY 2016**

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## **APPENDICES**

- A Illustrative Masterplan

## **1. INTRODUCTION**

- 1.1 Key Transport Consultants Ltd is retained by Lioncourt Strategic Land to provide transport advice in respect of the proposed development of land to the east of Kingston Bagpuize, Oxfordshire.
- 1.2 Lioncourt Strategic Land is development partner to the landowner, St John's College, Oxford. Together, they are referred to in this report as the Promoter.
- 1.3 This preliminary access appraisal has been prepared to set out preliminary proposals for vehicular and sustainable access to the development and to establish whether there are any transport planning reasons why the site would not be suitable for development.
- 1.4 The appraisal continues in section two with a description of the site and local transport network and section three presents some options for providing vehicular access to the site. Access by sustainable travel modes is considered in section four and a summary and conclusion are provided in section five.

## 2. LOCAL ROAD NETWORK AND THE DEVELOPMENT SITE

- 2.1 The proposed development site is located to the east of Kingston Bagpuize with Southmoor in the Vale of White Horse District of Oxfordshire. The site covers an area of 34.6Ha. It is bounded to the north by the A420 Oxford to Swindon road, to the south by the A415 Abingdon Road, to the west by the existing built edge of Kingston Bagpuize and a committed residential development site, and to the east by open fields.
- 2.2 The site benefits from long frontages to both the A420 and A415. Both roads are administered by the local highway authority, Oxfordshire County Council (OCC). The site location is shown edged in red on Figure 1.

### Local Road Network

- 2.3 The local road network is shown on Figure 1.
- 2.4 Prior to construction of the Kingston Bagpuize Bypass, the A420 passed through the villages of Kingston Bagpuize and Southmoor. The old alignment of Oxford Road leads away eastwards from a junction with Faringdon Road in the centre of Kingston Bagpuize and now forms a cul-de-sac serving mainly residential development, a Millennium public open space, a bowls club and a field within a committed development site.
- 2.5 Alongside the eastern boundary of the above field a gate prevents public vehicular access to the road to the east. This section of the old alignment of Oxford Road leads across the proposed development site to the A420.
- 2.6 At the A420, cyclists are advised to dismount to walk across the A420 and can continue on the old road north of the A420, there named Main Road, to the village of Fyfield.
- 2.7 A concrete road connects from the end of the Oxford Road footway/cycleway eastwards across the field on the south side of the A420 to join Digging Lane just south of a staggered tee junction with the A420. The northern arm of the tee junction leads into Fyfield. Although used by local residents, the concrete road does not appear to be a designated public footpath or bridleway.





- 2.8 To the north of a mini-roundabout in the centre of Kingston Bagpuize the A415 Witney Road leads to a roundabout junction with the A420 and continues beyond for approximately 13km to the town of Witney.
- 2.9 To the east of its roundabout junction with the A415 the A420 is constructed to dual two lane carriageway standard for some 900m before reducing to single carriageway standard. The dual carriageway is subject to the national speed limit of 70mph (120kph) and ends adjacent to the north-east corner of the site.
- 2.10 There are lay-bys of approximately 100m length on both sides of the dual carriageway located approximately midway between the A415 roundabout and the end of the dual carriageway section. Both are laid out with diverge and merge tapers but neither has an island to segregate the lay-by from the through carriageway.
- 2.11 To the west of the A415 roundabout the A420 continues as a dual two lane carriageway for some 2.9km. At approximately 2.3km from the A415 roundabout a staggered tee junction provides access via Spring Hill to the west end of Southmoor, and, to the north, to a country lane, Pine Wood Road, which leads to Hinton Waldrist and Longworth.
- 2.12 To the south of Kingston Bagpuize village centre the A415 continues first as Faringdon Road, then beyond the Oxford Road junction continues towards the south east as Abingdon Road. On the eastern built edge of the village, adjacent to the junction of Abingdon Road with Rectory Lane the speed limit on the A415 changes from 30mph to the national limit of 60mph (100kph) for a single carriageway. Abingdon Road then continues to the south-east through a ghost island right turn lane junction serving a large employment area, Kingston Business Park and continues in an approximately eastward direction as Kingston Road. Some 3.6km east of Kingston Bagpuize the A415 meets the A338 at Frilford at a staggered, traffic signal controlled junction before continuing as Frilford Road and through the village of Marcham to the A34 trunk road and Abingdon beyond.

### **Other Developments**

- 2.13 Planning consent has been granted for some 108 dwellings on land to the west of Witney Road, a short way north of the mini-roundabout in the centre of Kingston Bagpuize. The development is under construction and is served by a ghost island right turn lane junction.
- 2.14 A number of sites in Kingston Bagpuize with Southmoor have been allocated for development. Amongst these, a planning application (Ref 15/V1808/O) has been submitted for a site to the east of Witney Road for circa 280 dwellings. On its eastern boundary the site abuts the proposed development site that is the subject of this appraisal. The application

proposes that a ghost island right turn lane junction is formed to provide the main access in a location between the junction serving the partially completed residential development opposite and the A420 roundabout.

- 2.15 The developments served by Witney Road will add to the traffic flows in the centre of Kingston Bagpuize.

#### **Proposed Development Site**

- 2.16 An illustrative master plan for the proposed development is provided at Appendix A.
- 2.17 At 34.6ha, the site has potential to deliver about 500 dwellings with associated supporting facilities. For this scale of development, the provision of at least two vehicular access points is recommended (OCC Residential Road Design Guide (2003) - Second Edition (2015) para 6.13 refers). Options for vehicular access are available on the A415 and A420 frontages and via the old Oxford Road.
- 2.18 The proposed new development has the potential to provide a new link road joining the A420 and A415 to the east of Kingston Bagpuize. Among other things, this new link would become the most attractive route between the A420 and Kingston Business Park, so it would be expected to attract business park traffic away from the roads through the centre of Kingston Bagpuize, thereby potentially mitigating the impact of the new developments accessed from Witney Road.
- 2.19 The old Oxford Road crosses the site and provides an option to provide a footway/cycleway link towards Oxford, via Fyfield, and west to the amenities in the centre of Kingston Bagpuize. Oxford Road leading west to the centre of the village is considered suitable to serve as a vehicular access to a portion of the development. However, this would increase traffic in the centre of the village, which would be largely avoidable if vehicular access is provided solely from the A415 and A420 frontages instead.
- 2.20 Specific options for access are discussed in further detail in the following section.

### 3. ACCESS OPTIONS

3.1 As noted in the previous section, the site benefits from frontages to the A415 and A420. Also, the old Oxford Road cul-de-sac connects from the village centre to the west side of the site and continues from the east side as a footway/cycleway to the A420, where an uncontrolled pedestrian crossing connects to a footway/cycleway to Fyfield and on to Oxford.

3.2 Options for connecting the development to the local road network are considered below.

#### A420 Access

3.3 Alongside the northern site boundary the A420 is a dual two lane carriageway that is subject to the national speed limit of 70mph (120kph). To the east of the site frontage the dual carriageway tapers down to a single carriageway.

3.4 Roughly midway along the site frontage there are lay-bys on both carriageways of the A420 that each provide approximately 100m of parking bay, with 100m diverge and merge tapers. Neither of these lay-bys has an island to segregate the parking area from the adjacent through carriageways. The presence of these lay-bys may have a significant impact on the choice and location of the access junction to serve the development on the A420.



3.5 If the proposed A420 junction is to serve as a main access to the proposed development, as part of a through link route from the A420 to Kingston Business Park and perhaps as a signed eastern bypass route for the A415, avoiding the centre of Kingston Bagpuize, it is considered that the most appropriate form of junction on the A420 would be a roundabout. For consistency, the roundabout should be of a similar size to the existing roundabout at the junction of the A420 with the A415. Such a roundabout is shown on the illustrative master plan at Appendix A, where the proximity of the roundabout to the existing lay-bys can be seen.

3.6 DMRB TD69/07: The Location and Layout of Lay-bys and Rest Areas details the requirements and advice for lay-bys and rest areas on trunk roads administered by Highways England. The A420 is not a trunk road. However, in the absence of any specific guidance on the topic from OCC, TD69/07 provides the most relevant information on the subject.

3.7 At paragraph 3.7 TD69/07 sets out a mandatory requirement for the separation of a lay-by from a junction. This has to be 3.75 x the design speed, which is (70mph) 120kph. This

means that there needs to be  $3.75 \times 120 = 450\text{m}$  of separation between the lay-by and a new roundabout. It follows that if a roundabout was to be introduced as indicated on the illustrative masterplan, the existing lay-bys would have to be closed if the requirements of TD69/07 are to be met.

- 3.8 No discussions have taken place with OCC about whether the lay-bys would need to be replaced. However, guidance in TD69/07 (Table 3-2) on the spacing of lay-bys and a review of the stopping facilities along the A420 corridor may lead to the conclusion that they would need to be replaced.
- 3.9 Rest areas provide parking and an associated picnic area and may also provide some, but not all, of the facilities normally associated with a service area. TD69/07 para 2.6 recommends that rest areas are provided in addition to lay-bys at intervals of not more than 45km and 30 minutes drive time. This is not a mandatory requirement for trunk roads. The author is not aware of any rest areas on the A420 between the A419 junction at Swindon and the A34 junction west of Oxford, a distance of approximately 40km. On this basis, there are grounds for replacing the lay-bys with a rest area.
- 3.10 With the introduction of a new roundabout on the A420 positioned within the site frontage, it would be possible to provide a rest area serving both directions of travel on land within the north-eastern triangle of the proposed development site, served by the southern arm of the new roundabout and a tee junction off the new link road. This is illustrated schematically on Figure 2.
- 3.11 A benefit of replacing the lay-bys is that the new facilities would be designed to meet the requirements of TD69/07, where para 3.6 does not permit the siting of lay-bys within 1km of the end of a section of dual carriageway. Both existing lay-bys are within 600m of the end of the dual carriageway, so neither complies with the current standard.
- 3.12 If the lay-bys are replaced with a rest area serving both directions of travel on the A420, this would leave the A420 frontage of the site free for the introduction of a new roundabout to serve the development site and new link road across to the A415. An indicative layout for this roundabout is shown on Figure 3.
- 3.13 To summarise, the introduction of a new roundabout on the A420 would require the removal of two existing lay-bys. The lay-bys could be replaced with a rest area served by the new development roundabout, located within the development site off the southern arm of the roundabout. The provision of a rest area serving both directions of travel between Swindon and Oxford on the A420 would represent a significant enhancement of roadside amenities on the corridor, as there are no rest areas at present. The provision of a rest area designed to

current standards would provide an enhancement to road user safety over the existing lay-bys, as neither conforms to current standards.

- 3.14 Given that a viable option has been identified to replace the existing lay-bys, there is no reason why a suitable roundabout could not be formed on the A420 to serve as a development access. A roundabout within that frontage is illustrated on Figure 3. The layout is illustrative in nature, rather than a rigorous design, although the visibility distances on the A420 approaches have been checked and comply with the requirements of DMRB TD16/07.

### **A415 Access**

- 3.15 The scale of development envisaged on the development site is around 500 dwellings. This number of dwellings would be expected to generate around 300 vehicle trips in a peak hour. Of these, it is assumed that less than 50% might be expected to travel to destinations via the A415, so usage of a junction on the A415 would be below 150 peak hour trips. Ordinarily, this would justify the provision of a ghost island right turn lane junction. However, given that a link from the A420 to the A415 is likely to attract traffic currently travelling along the A415 through the centre of Kingston Bagpuize, the provision of a roundabout junction would provide greater flexibility to cater for diverted trips.
- 3.16 Overall, a roundabout is considered to be a more appropriate form of junction to serve the development on the A415 frontage, as it would provide greater capacity and it would introduce give way lines on all approaches, to slow traffic. It would also remove the through traffic priority given to traffic coming from the village if a ghost island junction form was adopted, thereby encouraging traffic passing from the A420 towards the business park to divert onto the new link road.
- 3.17 The site enjoys a 500m long frontage to the A415. To the south of the A415 and opposite the site frontage there is a private access to a cricket ground at the west end, and a ghost island junction provides access to the Kingston Business Park approximately 150m from the eastern boundary of the site. A junction towards the east end of the frontage serves a rural lane, Fyfield Wick, on the south side of the A415 and a little to the east, a junction serves Digging Lane, which leads away to the north. These accesses and junctions all need to be considered when selecting the location and form of the development access junction.



- 3.18 Given the likely diversion of business park traffic onto a new link road through the development site, the preferred location for a new development access roundabout would be at the existing Kingston Business Park junction, where a new four arm roundabout could be “tucked in” to the bellmouth of the existing junction, within the existing public highway. An indicative layout for a four arm roundabout in this location is shown on Figure 4.
- 3.19 When introducing a new roundabout junction onto an existing road it is necessary to provide the desirable safe stopping distance for the relevant speed limit on the approaches to the roundabout (DMRB TD16/07). The national speed limit of 60mph for single carriageways applies on the A415 at the suggested roundabout location and this would require visibility of the roundabout from 215m in advance of the give way lines on the A415. This visibility distance would be achievable on both directions of approach on the A415, from the east within the existing public highway, and from the west by removing a section of hedge along the site frontage. However, if the development was to go ahead, the built area of Kingston Bagpuize would be extended eastwards along the A415, so it would be reasonable and sensible to relocate the 30mph/national speed limit to a position east of the new roundabout. If this change was implemented, the visibility requirement would reduce to a maximum of 90m, a visibility distance that could be achieved on both A415 approaches within the existing highway boundary.
- 3.20 To summarise, a new roundabout is considered to be the most appropriate form of junction to provide access to the proposed development on the A415, located preferably at the existing junction access to Kingston Business Park, with the business park access road forming the southern arm of the new junction. A roundabout located in this position would cater well for traffic heading from the A420 to the business park, thereby maximising diversion of business park traffic away from the centre of Kingston Bagpuize. An indicative layout for such a roundabout is shown on Figure 4.

### **Oxford Road**

- 3.21 Oxford Road leads east from the centre of Kingston Bagpuize to the proposed development site. The road currently serves a small number of dwellings and other village amenities. Within the planning application for the adjacent 280 dwelling site this road is shown as serving only 20 dwellings. The supporting Transport Assessment explains that an emergency service vehicle link would also be provided to the remainder of the development site.
- 3.22 The proposed new development site that is the subject of this report is shown in the illustrative master plan with a connection to Oxford Road. It has not been decided whether this should provide a vehicular route, or should be restricted to use by pedestrians, cyclists, emergency services and perhaps buses. The Promoter is minded to exclude the use of

general traffic. However, should the site be allocated for development, the Promoter proposes to consult the local community on this issue.

- 3.23 Pedestrians and cyclists are permitted to use the section of Oxford Road that crosses the development site. East of the site the road leads to a pedestrian crossing of the A420 at a point where the carriageway tapers out from single to dual carriageway and there is a hatched central area more than 4.0m wide. This crossing is on the desire line towards Fyfield, and Oxford beyond. Cyclists are signed to dismount on the approach to the crossing point and there is no refuge island to protect pedestrians in the centre of the carriageway. (See blue route at right of Google Earth aerial view below.)



- 3.24 The Google Earth aerial view shows a second pedestrian link from the old Oxford Road some 75m west of the desire line crossing described above. This leads to a 40m isolated length of narrow footway (see photo at right) immediately alongside the westbound carriageway of the A420 that leads back west, away from the pedestrian desire line, to a point 10m in advance of the start of the dual carriageway. At this point the central hatched area is some 8.0m wide and the crossing route can be seen in the aerial view marked on the carriageway across the hatched area, with Look Left/Right warning road markings at either side of the hatched area. At this point the crossing pedestrian is afforded greater protection in the central hatched area by the presence of the



adjacent central reservation of the dual carriageway section of the A420. On the north side of the dual carriageway a paved footway is provided away from the edge of the carriageway linking back to Main Road, which continues as a quiet signed footway/cycleway into Fyfield. (See red route at left of Google Earth aerial view above.) However, on a recent site visit the footway on the north side was heavily overgrown and showed little signs of use.

- 3.25 If the development proceeds, it would be appropriate to examine options to improve the crossing of the A420 for cyclists and pedestrians on the route from Kingston Bagpuize to Fyfield.



#### **4. SUSTAINABLE ACCESS**

##### **Pedestrians and Cyclists**

- 4.1 The scope for use of Oxford Road by pedestrians and cyclists travelling from the development both to the amenities in Kingston Bagpuize and Southmoor, and east to Fyfield were addressed in the previous section.
- 4.2 Pedestrian and cycle facilities would also be provided through the development and across the A415 to connect to the Kingston Business Park. To provide a continuous route to the employment premises a new footway would need to be constructed in what is believed to be a privately owned verge alongside the public highway leading into Kingston Business Park.
- 4.3 Subject to agreement with the developer of the allocated housing development to the west of the site, it would be desirable to provide pedestrian and cycle links across to Witney Road, where there are bus stops that are used by the 66 bus service linking Swindon, Shrivenham, Faringdon and Oxford.

##### **Public Transport**

- 4.4 Kingston Bagpuize is served by three bus services, the X15, 63 and 66.
- 4.5 The X15 express service links Witney to Abingdon via the settlements along the A415 corridor. The service provides a bus every two hours and stops on Faringdon Road near its junction with Oxford Road.
- 4.6 The 63 service connects Southmoor via a number of rural settlements to Oxford. On Mondays to Fridays it provides a two hourly service. There are no weekend services.
- 4.7 The 66 service links Swindon to Oxford via all significant settlements in between, including Shrivenham, Faringdon and Kingston Bagpuize with Southmoor. The service provides two buses per hour in each direction throughout the day on weekdays, with extra services in peak periods. For most of the day on Saturdays there are three buses each hour. On Sundays there are two buses each hour for much of the day.
- 4.8 If the new link road is provided through the development connecting the A415 and A420, it would be possible to re-route the 66 service along the existing A415 from the mini-roundabout in the centre of Kingston Bagpuize to the proposed A415 roundabout at Kingston Business Park and back through the development to the A420. This would improve the accessibility of the business park and increase the number of residential properties within easy walking distance of the service.

- 4.9 Alternatively, if the adjacent developer is willing to co-operate by providing a bus link between the two developments, it would be possible to divert both the 66 and X15 services through both development sites, to improve bus accessibility. In this scenario, the 66 service would return to the A420 at the proposed new roundabout to the north, while the X15 would rejoin the A415 at the proposed new roundabout to the south.
- 4.10 Although Kingston Bagpuize is reasonably well served by existing bus services, OCC's practice of securing a Section 106 contribution of £1,000 per dwelling will provide further improvements to bus services over time as the consented and allocated development sites come forward. An additional contribution of up to £500,000 from development on the proposed site would further enhance the accessibility of the village by sustainable travel modes.

## **5. SUMMARY & CONCLUSION**

### **Summary**

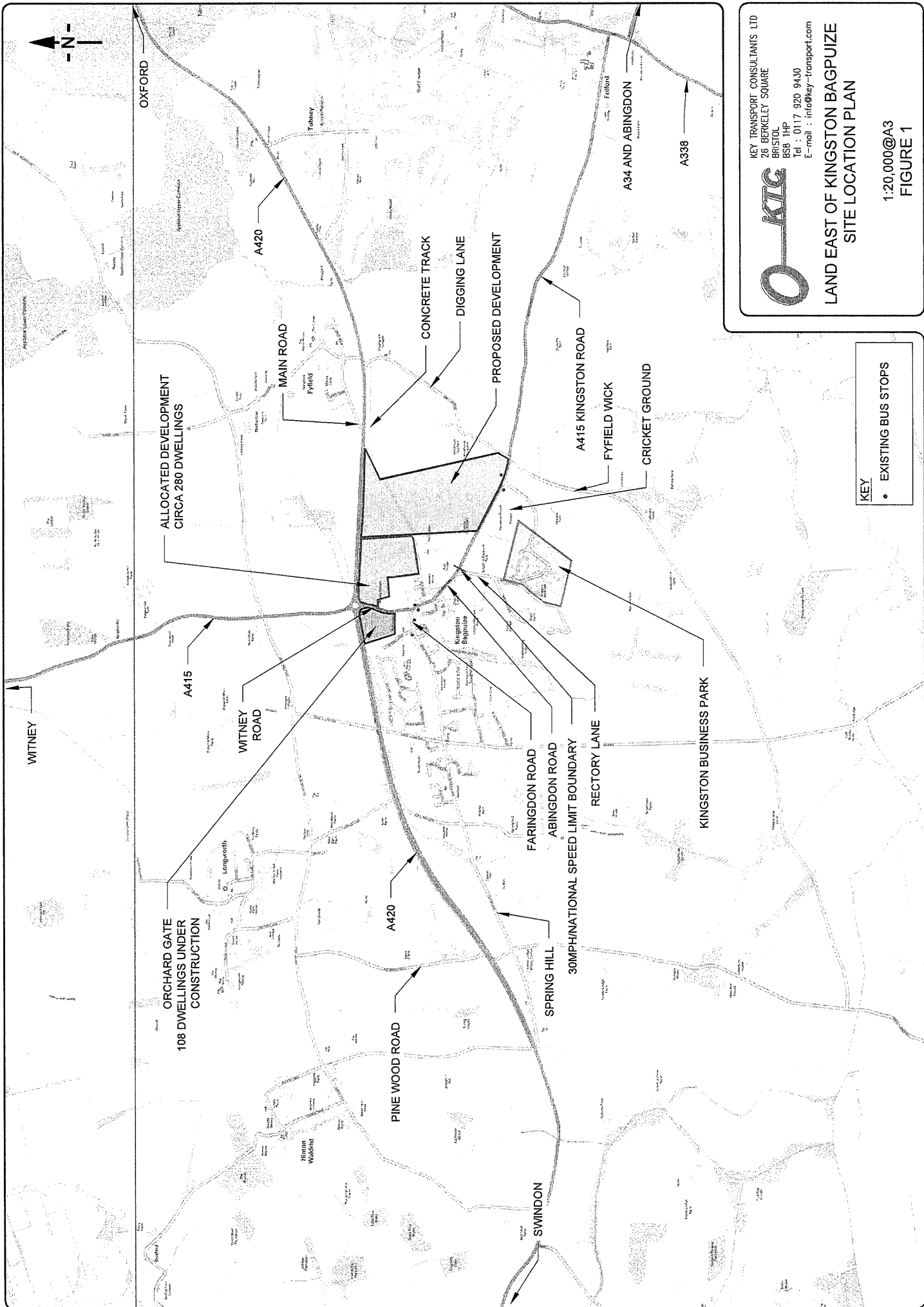
- 5.1 This preliminary appraisal has considered the issues affecting vehicular and sustainable access to a proposed development of around 500 dwellings on land to the east of Kingston Bagpuize extending from the A420 to the north to the A415 to the south, as shown on Figure 1 and in an illustrative master plan in Appendix A.
- 5.2 For a development of this scale two vehicular access points would be required. These are proposed on the A420 and A415. Roundabouts are proposed as the preferred form of junction on both roads. A link road joining the two roundabouts could serve as a bypass for Kingston Bagpuize, thereby relieving the A415 of traffic through the centre of the village. Traffic travelling between the A420 and Kingston Business Park would be particularly likely to divert onto the new link road.
- 5.3 The introduction of a new roundabout on the A420 within the site frontage may require the removal of two existing lay-bys. These could be replaced with a rest area located on land within the proposed development site. The rest area would serve both directions of travel on the A420 and would be reached by a tee junction off the link road through the site located just south of the A420 roundabout. This arrangement is shown on Figure 2.
- 5.4 The provision of a rest area serving both directions of travel between Swindon and Oxford on the A420 would represent a significant enhancement of roadside amenities on the corridor, as there are no rest areas at present. The provision of a rest area designed to current standards would provide an enhancement to road user safety over the existing lay-bys, as neither conforms to current standards by providing a segregating island between the parking area and the adjacent carriageway, and both are located too close to the end of a dual carriageway section. So a secondary benefit of the development would be its ability to deliver significant improvements for users of the A420 between Swindon and Oxford.
- 5.5 A proposal for a roundabout on the A420 is illustrated on Figure 3.
- 5.6 A new roundabout located at the existing junction access to Kingston Business Park is considered to be the most appropriate form of junction to provide access to the proposed development on the A415, with the business park access road forming the southern arm of the junction. A roundabout located in this position would cater well for traffic heading from the A420 to the business park, thereby maximising diversion of business park traffic away from the centre of Kingston Bagpuize. An indicative layout for such a roundabout is shown on Figure 4.

- 5.7 If the development proceeds, it would be appropriate to examine options to improve the crossing of the A420 for cyclists and pedestrians on the route from Kingston Bagpuize along the old Oxford Road, which crosses the site, to Fyfield.
- 5.8 Kingston Bagpuize enjoys a reasonable level of bus services for a rural settlement and these are all accessible from the proposed development site. The development would be able to make a significant Section 106 contribution to improve bus services both to the development and to the wider village of Kingston Bagpuize with Southmoor.

### **Conclusion**

- 5.9 The conclusion of this preliminary appraisal is that options to provide satisfactory vehicular and sustainable access to the site have been identified and there is no transport planning reason why the site should not be suitable for development.

## Figures



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 BRISTOL  
 BS8 1HP  
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 E-mail : info@key-transport.com




LAND EAST OF KINGSTON BAGPUIZE  
 SITE LOCATION PLAN

1:20,000@A3  
 FIGURE 1

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**KTC**

**LAND EAST OF KINGSTON BAGPUIZE REST AREA PROPOSED TO REPLACE A420 LAY-BYS**  
**1:10,000@A4**  
**FIGURE 2**



LAND EAST OF KINGSTON BAGPUIZE  
REST AREA PROPOSED TO  
REPLACE A420 LAY-BYS

1:10,000@A4  
FIGURE 2



EXISTING LAY-BY  
TO BE REMOVED

A420

Lay-by

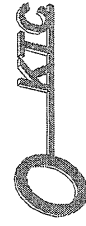
Lay-by

A420

PROPOSED REST AREA

PROPOSED LINK ROAD

INDICATIVE ACCESS  
TO REST AREA



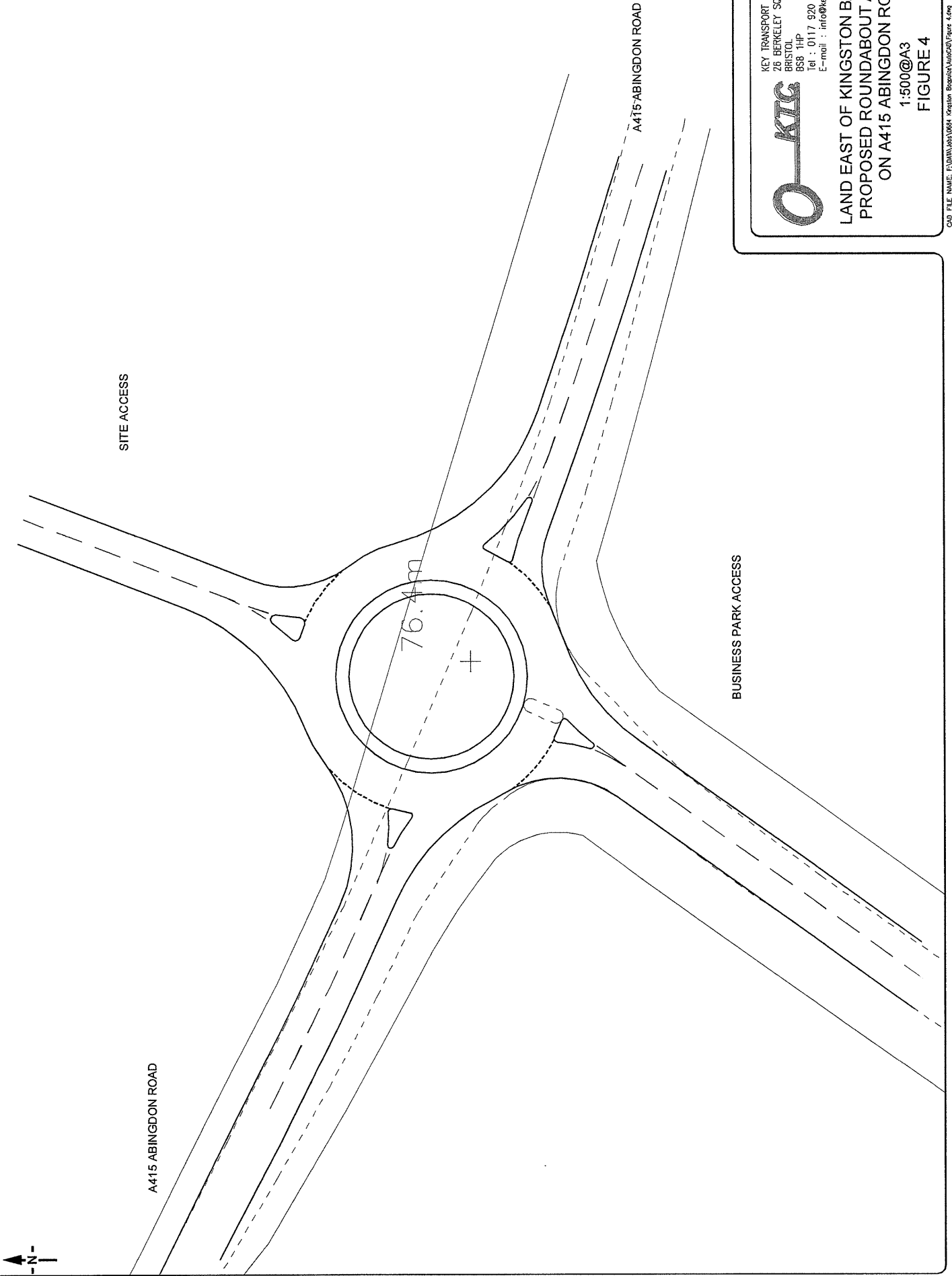
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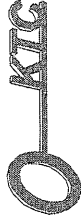
LAND EAST OF KINGSTON BAGPUIZE  
PROPOSED ROUNDABOUT ACCESS  
ON A420

1:1,000@A3

FIGURE 3



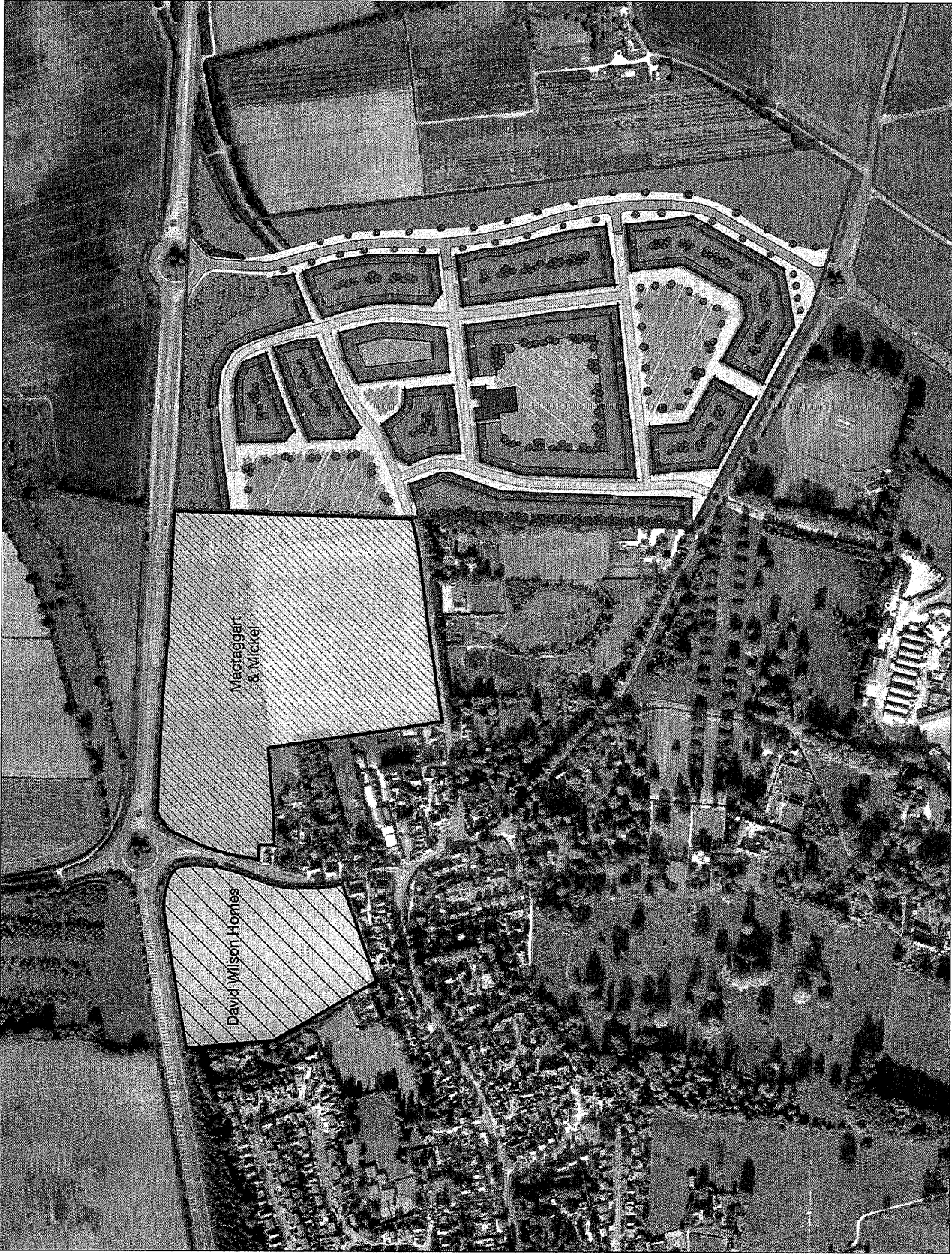



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LAND EAST OF KINGSTON BAGPUIZE  
 PROPOSED ROUNDABOUT ACCESS  
 ON A415 ABINGDON ROAD  
 1:500@A3  
**FIGURE 4**

## **Appendix A**

### **Illustrative Masterplan**



KEY



- Proposed development site
- Site under construction  
c. 108 dwellings
- Draft Local Plan Allocation  
c. 280 dwellings
- Residential
- Primary School
- Local centre
- Open space
- Existing and new  
landscape planting
- Strategic infrastructure

INDICATIVE SCHEDULE

34.6 ha	total site area
1.2 ha	local centre
2.1 ha	junior school
3.8 ha	open space
6.2 ha	landscape strips
4.1 ha	strategic infrastructure
17.2 ha	residential

approx. 516 units @ 30 dph

Land at Southmoor

Illustrative masterplan

drawing	SK03	job no.	date
rev	A	scale	
scale	1:5000 @ A3	drawn by	
drawn by	SWT	checked by	
checked by	RAS		



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