



## **Health & Wellbeing Hub, Bicester**

### **Transport Assessment**

April 2021

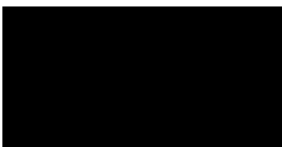


#### **Waterman Infrastructure & Environment Limited**

5th Floor, One Cornwall Street, Birmingham, B3 2DX  
[www.watermangroup.com](http://www.watermangroup.com)

**Client Name:** Apollo Capital Projects Development Ltd  
**Document Reference:** WIE16470-100-R-6-3-3-TA  
**Project Number:** WIE16470

## Quality Assurance – Approval Status

This document has been prepared and checked in accordance with  
Waterman Group's IMS (BS EN ISO 9001: 2015, BS EN ISO 14001: 2015 and BS EN ISO 45001:2018)

Issue	Date	Prepared by	Checked by	Approved by
1	March 2021	Laura Smith Graduate Transport Planner	James Picton Senior Engineer	Nick Jones-Hill Technical Director 
2	March 2021	Laura Smith Graduate Transport Planner	James Picton Senior Engineer	Nick Jones-Hill Technical Director 
3	April 2021	Laura Smith Graduate Transport Planner	James Picton Senior Engineer	Nick Jones-Hill Technical Director 
<b>Comments</b>		Updated following Client comments		



#### Disclaimer

This report has been prepared by Waterman Infrastructure & Environment Limited, with all reasonable skill, care and diligence within the terms of the Contract with the client, incorporation of our General Terms and Condition of Business and taking account of the resources devoted to us by agreement with the client.

We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.

This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at its own risk.

## Contents

<b>1. Introduction .....</b>	<b>1</b>
1.1 Overview .....	1
1.2 Scheme Context.....	1
1.3 Development Proposals .....	1
1.4 Scoping Discussions .....	1
1.5 Aims and Objectives .....	2
1.6 Supporting Documentation .....	2
1.7 Report Context .....	2
<b>2. Existing Conditions and Sustainable Transport .....</b>	<b>3</b>
2.1 Introduction .....	3
2.2 Site Location .....	3
2.3 Bicester .....	3
2.4 Highway Context .....	4
2.5 Non-Car Modes .....	5
2.5.1 Sustainable Transport Summary .....	11
2.6 Existing Patient Travel Patterns .....	11
2.7 Existing Staff Travel Patterns .....	12
2.8 Existing Traffic Conditions .....	12
2.9 Collision History .....	13
<b>3. Development Proposals .....</b>	<b>14</b>
3.1 Overview .....	14
3.2 Development Proposals .....	14
3.3 Access Proposals and Layout.....	15
3.4 Vehicle Tracking.....	16
3.5 Parking .....	16
3.6 Emergency Vehicle Access .....	19
3.7 Refuse Collection, Deliveries and Servicing .....	19
3.8 Walking .....	19
3.9 Cycling .....	19
3.10 Public Transport .....	20
<b>4. Trip Generation and Distribution .....</b>	<b>22</b>
4.1 Combined Proposed Travel Patterns.....	23
<b>5. Traffic Assessment Methodology .....</b>	<b>25</b>
5.1 Overview .....	25
5.2 Baseline Traffic .....	25
5.3 Committed Developments.....	25

### Contents

5.4	Assessment Scenarios .....	26
5.5	Background Growth .....	26
5.6	Trip Distribution .....	26
<b>6.</b>	<b>Traffic Impact Assessment.....</b>	<b>29</b>
6.1	Overview .....	29
6.2	A4421/A41/London Rd/Gravenhill Road Signalised Roundabout .....	29
6.3	A4421/Peregrine Way/Wretchwick Way Roundabout .....	32
6.4	Peregrine Way/Wretchwick Way T-Junction.....	34
6.5	Gavray Drive/Wretchwick Way/Charbridge Lane/Wretchwick Green Site Access Roundabout.....	35
6.6	A41/Pioneer Road/Wretchwick Green Site Access Roundabout .....	37
6.7	London Road/Mallards Way Roundabout .....	37
6.8	A41/Oxford Road/Services Signalised Roundabout .....	38
<b>7.</b>	<b>Conclusions .....</b>	<b>40</b>
7.1	Overview .....	40
7.2	Existing Conditions.....	40
7.3	Development Proposals .....	40
7.4	Traffic Assessment.....	40
7.5	Junction Capacity.....	41
7.6	Conclusions.....	41

## Figures

Figure 1:	Site Location Plan .....	3
Figure 2:	CIHT 'Providing for Journeys on Foot' Preferred Walking Distances on a Map .....	6
Figure 3:	Public Rights of Way .....	7
Figure 4:	GP Surgery's within 2km .....	8
Figure 5:	NCN Cycle Routes .....	9
Figure 6:	Rail Map .....	11
Figure 7:	Collision Location Plan (2015-2019) .....	13
Figure 8:	Proposed Site Plan .....	15
Figure 9:	Existing Bus Stop Locations.....	21
Figure 10:	Zone Delineation from the Survey .....	27
Figure 11:	A4421/A41/London Rd/Gravenhill Road Signalised Roundabout .....	29
Figure 12:	A4421/Peregrine Way/Wretchwick Way Roundabout .....	32
Figure 13:	Peregrine Way / Wretchwick Way T-Junction.....	34
Figure 14:	A41/Oxford Road/Services Signalised Roundabout .....	39

## Tables

### Contents

Table 1:	CIHT 'Providing for Journeys on Foot' Preferred Walking Distances .....	5
Table 2:	Bus Services and Frequency .....	10
Table 3:	Existing Patient Travel Modes .....	11
Table 4:	Existing Staff Travel Modes .....	12
Table 5:	Car Parking Occupancy .....	18
Table 6:	Trip Rates and Trip Generation .....	22
Table 7:	Proposed Patient Travel Modes.....	22
Table 8:	Proposed Staff Travel Modes .....	23
Table 9:	Combined Proposed Travel Modes .....	23
Table 10:	Combined Proposed Multi Modal Trip Generation.....	24
Table 11:	Significant Committed Developments Included Within the Bicester Saturn Model .....	25
Table 12:	Patient Zonal Distribution .....	27
Table 13:	Proposed localised junction distribution.....	28
Table 14:	A4421 Seelschied Way / A41 / London Road / Gravenhill Road North – 2026 Base & With Development - LINSIG Results.....	30
Table 15:	A4421 Seelschied Way / A41 / London Road / Gravenhill Road North – 2031 Base & With Development - LINSIG Results.....	31
Table 16:	A4421/Peregrine Way/Wretchwick Way Roundabout - 2026 .....	33
Table 17:	A4421/Peregrine Way/Wretchwick Way Roundabout - 2031 .....	33
Table 18:	Peregrine Way/Wretchwick Way T-Junction - 2026 Base & With Development - LINSIG Results .....	35
Table 19:	Peregrine Way/Wretchwick Way T-Junction - 2031 Base & With Development - LINSIG Results .....	35
Table 20:	Gavray Drive/Wretchwick Way/Charbridge Lane/Wretchwick Green Site Access Roundabout 2026.....	36
Table 21:	Gavray Drive/Wretchwick Way/Charbridge Lane/Wretchwick Green Site Access Roundabout 2031.....	36
Table 22:	London Road/Mallards Way Roundabout 2031 .....	38

## Appendices

- A. Site Plan
- B. OCC Correspondence
- C. Pedestrian & Cycle Review
- D. Swept Path Analysis

## Contents

- E. Graven Hill Bus Route
- F. TRICs Outputs
- G. Traffic Flow Diagrams
- H. Junction Modelling

## 1. Introduction

### 1.1 Overview

This Transport Assessment ('TA') has been prepared by Waterman Infrastructure and Environment Ltd ('WIE') on behalf of Apollo Capital Projects Development Ltd ('hereafter referred to as the 'Applicant') in support of a Full Planning Application for the proposed Primary Health Care Hub facility at Graven Hill, Bicester ('the Site').

The Site falls within the administrative area of Cherwell District Council ('CDC') and therefore the CDC Local Planning Authority ('CDC LPA') who will determine the planning application.

The Local Highway Authority ('LHA') is identified as being Oxfordshire County Council ('OCC').

This report should be read in conjunction with the other documents, plans and technical studies submitted to support the proposed development of the Site.

### 1.2 Scheme Context

In August 2014 planning permission was granted for Graven Hill (Application No: 11/01494/OUT) which is a development south east of Bicester on land formally used by the Ministry of Defence (MoD).

The development proposals did not include for provision of a Health Care Hub facility and therefore a new Planning Application is being submitted to support the proposals and consider the wider implications of delivering the development on the wider network.

### 1.3 Development Proposals

The existing Site comprises 2.5 acres of land with hardstanding and open space, located to the south east of the A41/A4421/London Road roundabout, also known as the 'Rodney House' roundabout. Northfleet railway station is located to the south of the Site.

The applicant is seeking consent for a Primary Health Care Hub which is proposed to amalgamate four existing surgeries from two General Practices, those being Alchester Medical Group ('AMG') and Montgomery-House Surgery ('MHS').

The need for the Health hub is driven by the unsuitability of the current practice premises to cater for the planned growth in service demand, arising from an ageing and increasing population. Bicester is expected to see a 40% increase in a combined patient list by 2030.

The Proposed Health Care Hub building is 3,200sqm (GIA) for GMS services with circa 223 parking spaces. The indicative design is for a three-storey building of 3,350sqm (3,200sqm GMS plus a 150sqm pharmacy).

The Site Plan for the Proposed Development is included at **Appendix A**.

### 1.4 Scoping Discussions

A planning pre-app submission (19/02788/PREAPP) was submitted on behalf of the Applicant setting out a number of the key highways and transport issues, including looking to agree the approach of the TA, the traffic data to be used, the trip rates for the land use and the extent of the junction modelling that would be required to support the application.



A formal response was received from OCC on 11<sup>th</sup> March 2020, which requested further technical information to be provided within the submission of a TA and raising issues and concerns regarding the Site's location as opposed to a proposed Health Care Hub at the Kingsmere Site to the west of Graven Hill Village.

The contents and assessment within this TA will therefore be as per the scoping discussed with OCC. For completeness, a copy of the pre-application correspondence and scoping material issued to OCC is contained at **Appendix B**.

## **1.5 Aims and Objectives**

The objective of this report is to provide CDC and OCC with the necessary level of detail to demonstrate that the Site would be accessed safely and sustainably, whilst also assessing the transport impact the proposals would have on the existing highway network and identifying how such impacts would be mitigated.

## **1.6 Supporting Documentation**

This TA should be read in conjunction with the Draft Travel Plan (TP) produced by WIE which will be submitted as part of the planning application and will be prepared with due regard to the overarching Travel Plan for the Graven Hill development. The TP will provide outline targets and measures to promote sustainable travel behaviour and encourage a positive mode shift towards more sustainable, active modes. The FTP will be updated and kept as a 'live' document to promote sustainable travel.

## **1.7 Report Context**

This TA will examine the relevant development planning policy, provide a review of the baseline transport conditions, present the development proposals and trip generation on the surrounding highway network and ultimately determine whether the proposals can be accommodated on the existing network, or whether any highways mitigation is required.

Following this introduction, this TA is structured as follows:

- Section 2: Policy Context;
- Section 3: Existing Conditions;
- Section 4: Development Proposals;
- Section 5: Trip Generation;
- Section 6: Traffic Assessment Methodology;
- Section 7: Traffic Impact Assessment; and
- Section 8: Conclusions.

## 2. Existing Conditions and Sustainable Transport

### 2.1 Introduction

This section considers the location of the Site with respect to the existing highway, pedestrian, cycle and public transport links in the area.

### 2.2 Site Location

The Site is located around half a mile to the south of Bicester town centre and comprises of land immediately south of the A41 Bicester ring road. The Site is bounded to the north and east by the A41 and to the south by Anniversary Avenue. The Site comprises vacant brownfield land. A Site location plan is shown below in Figure 1.

Figure 1: Site Location Plan



### 2.3 Bicester

Bicester is a town located approximately 18km to the north east of Oxfordshire. It is said to be “one of the fastest growing towns in Oxfordshire” with close proximity to key routes such as the M40, providing links to great cities such as London, Birmingham, and Oxford. In the 2011 Census, Bicester had a population of 32,642.

## 2.4 Highway Context

### A41

The A41 to the north of the Site is a single lane carriageway travelling in an east west direction. The carriageway is subject to the national speed limit and measures approximately 9m in width. There are no footways along the majority of the carriageway until 100m on approach to the A41/London Road/A4421 roundabout, and this is also where street lighting become available. It should also be noted that there is a hard shoulder located approximately 200m south of the A41/Oxford Road roundabout, along the north kerb, the hard shoulder can accommodate 1 lorry and a single car as the length is approximately 40m.

The A41 to the south of the Site is subject to 50 mph and is a fairly busy route in and out of Bicester which concludes to the north of Edgware, North London. It offers a carriageway width of approximately 10 meters with traffic that travels in both directions. There is a footpath on either side of the carriageway measuring a minimum of 1.5 meters with street lighting available in the sound bound direction only. There are flag and pole bus stops available along the carriageway which offer services from number 18.

The A41 roundabout junction with London Road, Neunkirchen Way and Gravenhill Road North there are Pelican crossings available at each arm of the roundabout. These Pelican crossings are of a good conditions with dropped kerbs, tactile paving's and a number of barriers in place to protect pedestrians and cyclists from the traffic. As the A41 south is a shared pedestrian and cycle route, there are signs in place so users can follow the route.

### London Road

London Road is located to the north of the Site and is subject to 40mph. At the junction with the Rodney House roundabout there is a total of four lanes but for the majority is single lane carriageway with traffic that travels in a north-south direction. To the south there is a large central reservation in the centre of the carriageway and due to this the width is approximately 13m, yet its average width is approximately 8m.

There are footways present alongside the carriageway but they are in intervals on either side. Street lighting is provided and there are bus stops located just to the north of the Rodney House roundabout which provide services to the numbers; 18, 27, 29, H5 and S5. Following a Site visit information at these stops states changes to service 27 and the service 29, which are being terminated.

London Road provides a direct connection to Bicester town centre and there are a number of amenities along London Road, including access to: residential and employment dwellings, Bicester Village railway station as well as the shops and facilities in Bicester Town Centre.

### A4421

The A4421 begins at the roundabout to the east of the Site and concludes at the junction with the A421 in Finmere. The road at the beginning of the roundabout is subject to 40mph and begins with 4 lanes of traffic travelling in an east west direction with a central reservation. At the roundabout junction with Peregrine Way South the road reduces to 2 lanes travelling in both directions until it concludes at Finmere and the speed limit increases to a maximum of 50mph.

There is a footway present along the western kerb until the roundabout junction with Bicester Road when footways become available on both sides of the carriageway. The footways are in good condition measuring a minimum of 1.5m and are lit with street lighting. It should be noted that there are a number of bus stops available along the A4421 and this route also provides access to residential areas, employment/industrial and RAF Bicester.

## 2.5 Non-Car Modes

Current transport policy identifies that developments should be designed to accommodate sustainable modes of transport. Therefore, the existing walking, cycling and public transport infrastructure has been reviewed to ensure that the Proposed Development will facilitate suitable sustainable alternatives to the private car, which includes:

- Walking - Pedestrian network;
- Cycling - Cycle route networks; and
- Public Transport - Bus and Rail Services

### Pedestrian Access

The entrance to the Graven Hill Site as a whole has good levels of facilities for pedestrians and cyclists, including a traffic signal controlled crossing at the entrance, connecting the Site to wider pedestrian facilities. Future development will continue these good conditions throughout the Site and specifically the Health & Wellbeing Hub.

Surrounding the Site there are good levels of facilities for pedestrians, as the Site is located to the south of Bicester town centre. The surrounding footways along roads such as the B4100 London Road, A4421 Neunkirchen Way and A41 are of good condition for pedestrians and cyclists. The footways measure 2m or over, are well lit with street lighting and safe crossings are available at the Rodney House Roundabout which connect to other existing pedestrian provision.

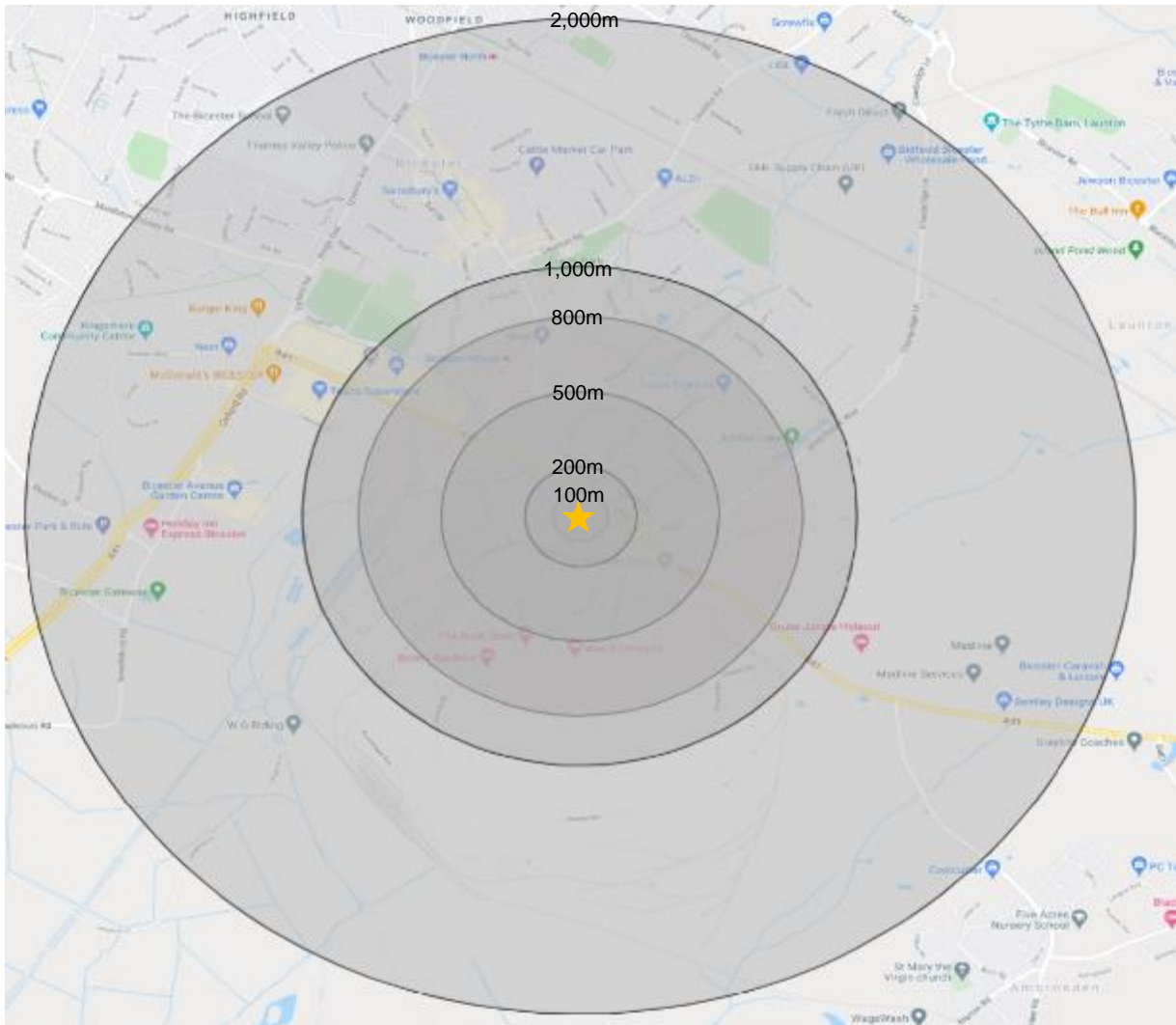
The Chartered Institution of Highways & Transportation's (CIHT) guidelines '*Providing for Journeys on Foot*' (2001) contains suggested acceptable walking distances for pedestrians to some common facilities as presented below in Table 1.

Table 1: CIHT 'Providing for Journeys on Foot' Preferred Walking Distances

Description	Neighbourhood Centre (m)	Commuting / School (m)	Other Trips / Leisure (m)
Desirable	200m	500m	400m
Acceptable	400m	1,000m	800m
Preferred Maximum	800m	2,000m	1,000m

The above table suggests for commuting and school journeys, the preferred maximum walking distance is 2,000m, whilst the local neighbourhood centre should be within a preferred maximum of 800m. Following this guidance, the CIHT published the '*Planning for Walking*' (2015) document, which sets out a walking distance of 800m (circa 10 minutes' walk) as the parameter for what is considered to be a '*walkable neighbourhood*' and a desirable threshold of 1600m for walking journeys. Figure 2 overleaf highlights the walking distances from the Site.

Figure 2: CIHT 'Providing for Journeys on Foot' Preferred Walking Distances on a Map



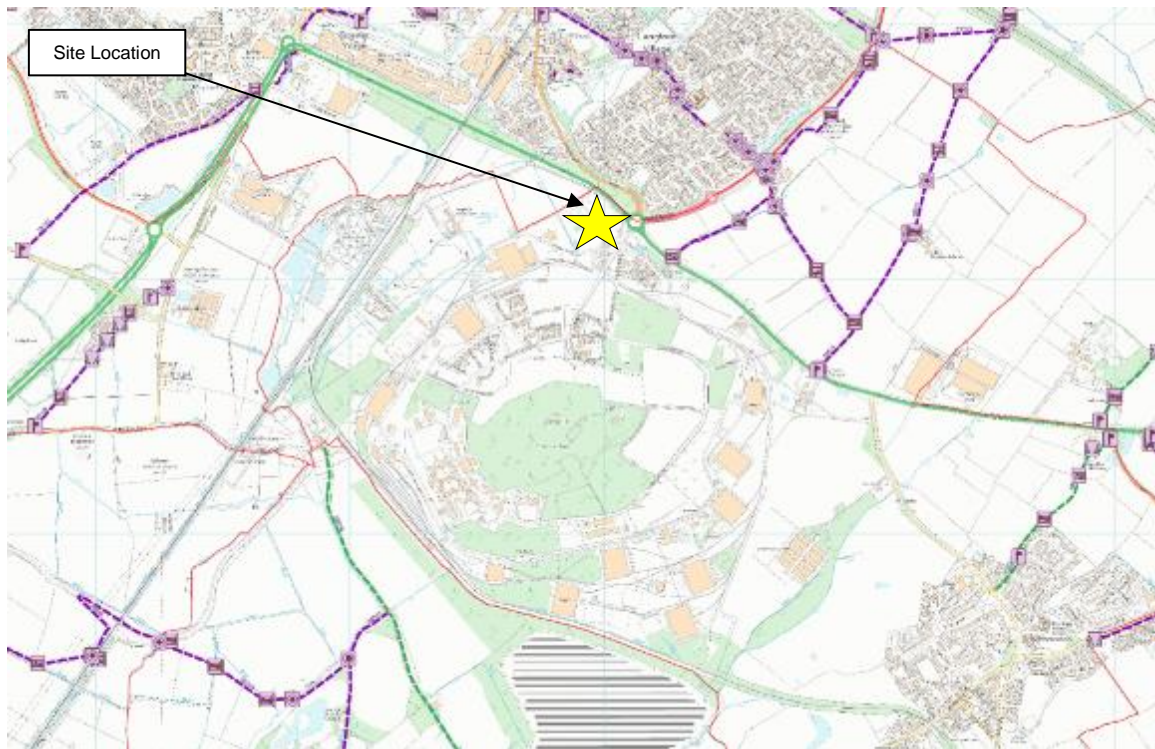
Based on the above, it is considered the Proposed Development lies within the suggested acceptable guidance for walking distances to residential areas and can therefore be considered sustainable in transport terms.

Within the vicinity of the Site, there are a number of PRoW which would be beneficial to prospective future users of the Site. In particular the right of way through Langford Village. This route allows access to Langford Village centre and into Bicester town centre which offers a wide range of facilities including a number of shops.

For completeness, the surrounding PRoW are shown in Figure 3, highlighting the connectivity of the Site to the surrounding facilities.



Figure 3: Public Rights of Way



Source: *Public Rights of Way - Countryside Access Map* ([oxfordshire.gov.uk](http://oxfordshire.gov.uk))

### Cycling Access

There is a good level of provision for cyclists in the vicinity of the Health & Wellbeing Hub and throughout Bicester. This includes an extensive network of high quality shared and segregated foot/cycleways along Wretchwick Way and London Road. The A4421 Seelscheid Way/Wretchwick Way is lit and has shared foot/cycleways on the western side of the road just north of the Graven Hill Site.

There are a number of leisure routes in Bicester, including the Eco Bicester Langford Route in the vicinity of the Application Site. The Langford Route covers a distance of approximately 6 kilometres. Other routes include the Bronze, Silver and Gold Routes – the route titles are ranked based on their length and time to complete. These routes are a series of new mapped cycle routes across Bicester aimed at encouraging people of all ages and abilities to take up cycling as a sustainable, enjoyable, affordable and healthy alternative to car use. The routes and their proximity to the proposed Health & Wellbeing Hub can be seen in Figure 4 overleaf.

Figure 4: GP Surgery's within 2km



The Bronze Route is a circular route from the town centre around the north of Bicester, whilst the Silver Route passes around South West of Bicester. The Gold Route also covers the north of Bicester. With these routes being available for all abilities it shows that cycling is encouraged in Bicester as a safe way to get around town.

With the location of the Health Care Hub being on the pedestrian and cycle friendly Graven Hill Development, there is an opportunity to encourage greater cycling trips into Bicester overcoming the gap of direct cycle links between the development and the centre of town. The recently consented A41 Pioneer Road roundabout, at the southern entrance to the Wretchwick Green development, has been designed for ease of cyclists and pedestrians crossing between the two developments. It is anticipated that the majority of patients from the Graven Hill development will choose an alternative form of transport to the private vehicle and would walk or cycle.

For trips up to around 5km in length, cycling can reasonably be assumed as an alternative to travelling by private car. There are a large number of destinations, including Bicester within a 5km radius of the Site;

- Lauton;
- Chesterton;
- Webdlebury;
- Ambrosden;
- Merton;
- Lower and Upper Arncot; and
- Caversfield.

As mentioned, shared foot/cycleways are located to the north of the Site along the northern side of the A4421 and the B4100. These can be accessed via traffic signal controlled crossings at each arm of the Rodney House roundabout. All crossings at the roundabout are of excellent condition with tactile paving's, dropped kerbs, street lighting and metal railings provided for safety of pedestrians and cyclists from traffic. Figure 5 highlights the cycle routes surrounding the Site. National Cycle Route 51, located to the north of the Site can take users from Oxford through Milton Keynes, Bury St. Edmunds, Ipswich and ends in Felixstowe. 42.1% of the route is traffic-free and travels through both Cambridge and Oxford University.

Figure 5: NCN Cycle Routes



Source: OSMaps: National Cycle Network ([ordnancesurvey.co.uk](http://ordnancesurvey.co.uk))



## Pedestrian /Cycle Route Review

To consider the sustainable transport options and routes to the Health & Wellbeing Hub for patients and staff currently using existing surgeries consideration of walking and cycling extending to the residential areas of Bicester has been afforded. Assessments of these routes have been undertaken to identify any issues or improvements which may be required to ensure the routes are serviceable for pedestrians and cyclists including the mobility impaired. The assessment is included at **Appendix C**.

## Public Transport - Bus Services

The nearest bus stops to the Site are located on B4100 London Road and also within the Graven Hill Site. The services that are available from these stops are the following: 18, 27, 29, H5 and S5. Services 29, H5 and S5 also serve the Graven Hill Site at the Fountain Square bus stop.

Table 2 highlights the bus services and frequency of these services.

It should be noted that the bus stops in Graven Hill are located circa 170m from the Site and therefore easily accessible. Approximately 1.5km to the north of the Site is Manorsfield Road bus stops at Pioneer Square and 1.9km to the north is Bicester North Bus and Coach Station.

**Table 2: Bus Services and Frequency**

Service	Key Destinations	Weekday	Saturday	Sunday
18	Buckingham - Steeple Claydon - Bicester	5 services	No Services	No Services
27	Bicester - Langford	Hourly	Hourly	No Services
29	Headington - Bicester	Hourly	Hourly	No Services
H5	Headington - Bicester	Hourly	Hourly	No Services
S5	Oxford - Bicester	15 mins	15 mins	30 mins

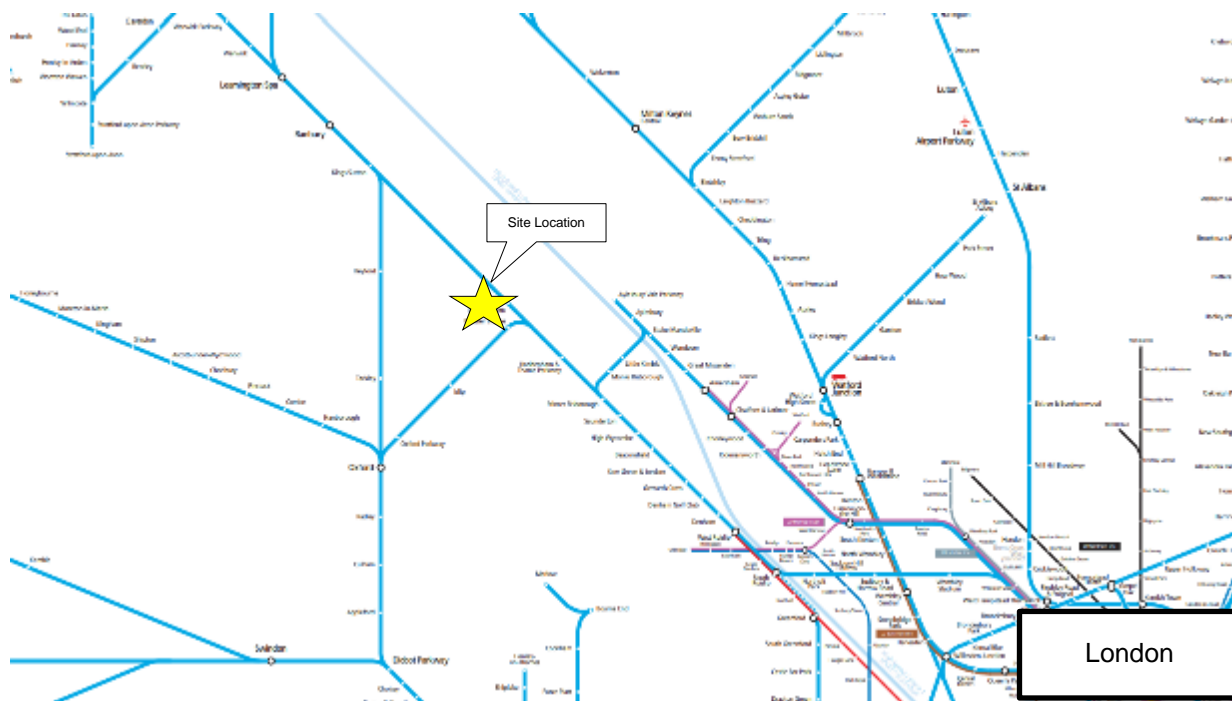
The above highlights that the Site is served by a number of bus routes that provide a relatively good service frequency, whilst also benefiting from the planned Fastrack infrastructure improvements. Graven Hill bus services operate at times to accommodate both staff and visitors of the Health & Wellbeing Hub. Service 29 operates first and last services at 6:40 and 20:10. Service H5 operates first and last services at 6:00 and 20:03 and service S5 operates first and last services at 5:48 and 23:39.

## Public Transport - Rail Services

The closest rail station to the Site is Bicester Village, located some 755m to the north whilst Bicester rail station is located 1.9km to the north of the Site. Services operating from these stations provide direct connections to Oxford and London Marylebone, at a half-hourly frequency and operated by Chiltern Railways.

Facilities within the station include; a ticket machine, seated areas and waiting rooms, toilets, station buffet, Wi-Fi, a number of accessibility and mobility access including ramps and staff help, 50 sheltered cycle storage with CCTV located near the entrance and 236 car parking spaces with 14 accessible spaces. Figure 6 overleaf illustrates a rail map which shows the Site in relation to the wider rail network.

Figure 6: Rail Map



Source: [https://www.nationalrail.co.uk/stations\\_destinations/rail-maps.aspx#regional\\_maps](https://www.nationalrail.co.uk/stations_destinations/rail-maps.aspx#regional_maps)

## 2.5.1 Sustainable Transport Summary

Sustainable accessibility in and around Bicester by walking, cycling or bus is considered to be excellent. The Site benefits from being within close proximity to a wide range of sustainable transport facilities, with a comprehensive footway and cycle network. The Site benefits from being within walking and cycling distance to bus stops as well as railway stations, with opportunity for multi-model travel. Therefore bus travel will be extremely attractive for staff and visitors. Overall, it is considered that the development proposals represent a sustainable form of development, having particular regard to accessibility to local services and alternative modes of transport to the private car.

## 2.6 Existing Patient Travel Patterns

Patient Surveys have been undertaken to understand the current method of travel to the existing GP surgeries. The results of the surveys are presented below in Table 3.

Table 3: Existing Patient Travel Modes

Mode	Modal Share	Cumulative
Walk	77	28.5%
Drive	129	56.5%
Driven / community transport	23	7.6%
Bus	10	3.0%
Taxi	6	1.9%
Cycle	5	2.5%
<b>Total</b>	<b>100%</b>	<b>100%</b>

Note: Numbers may not sum due to rounding.

Overall, the majority of patients drive via car to the GP practice (56.5%). However, 43.5% of residents travel to the GP practice via sustainable modes (including car sharing),

## 2.7 Existing Staff Travel Patterns

Staff Surveys have previously been undertaken to understand the method of travel to work by staff members of the existing GP surgeries. The results of the surveys are presented below in Table 4.

Table 4: Existing Staff Travel Modes

Mode	Modal Share	Cumulative
Walk	8	21.1%
Car Driver	26	68.4%
Car Passenger	1	2.6%
Bus	0	0%
Taxi	0	0.0%
Cycle	3	7.9%
<b>Total</b>	<b>100%</b>	<b>100%</b>

*Note: Numbers may not sum due to rounding.*

As shown in the above Table 4, 68% of staff travel to the existing surgeries by private car with 21% of staff walking to work. Given the excellent links to the proposed Health & Wellbeing Hub it would be expected that these levels of mode share would be maintained and continue to be similar to existing figures as recorded and shown above.

## 2.8 Existing Traffic Conditions

In light of current government advice regarding Covid-19, it is not considered possible to collate new 2021 survey data of typical baseline traffic conditions on the local highway network.

This was discussed during the OCC pre-application response, with OCC noting:

*Given the location of the development adjacent to (and indeed within) substantial expected growth in Bicester, I would recommend that instead of using TEMPRO growth and applying committed development, 2026 outputs from the Bicester Saturn Model for the base assessment, with some sensitivity tests in 2031, given that Graven Hill sits on the proposed South East Perimeter Route/Relief Road.'*

It has therefore been deemed appropriate to utilise the Bicester Saturn Model for 2026 and 2031 with SEPR for the existing traffic conditions. This is discussed later in detail in this TA report.

## 2.9 Collision History

Collision statistics for the most recent five-year period (2015-2019), taken from the CrashMap website, has identified a small number of recorded collisions on the local highway network. Examination of the collision data confirms that there was a total of 9 recorded collisions during the five-year period analysed in the vicinity of the Site. Of this total, the following breakdown by severity is relevant:

- 8 of the collisions resulted in a 'slight' injury;
- 1 of the collisions resulted in a 'serious' injury; and
- 0 collisions resulted in a fatality.

Figure 7: Collision Location Plan (2015-2019)



Source: [CrashMap](#)

Only four of the recorded collisions occurred in the vicinity of the Site, with two slight collisions being at the main Rodney House roundabout at the A41 with the A4421 and 2 slight collisions at the small roundabout with Peregrine Way and the A4421.

The number and pattern of recorded collisions within the study area is generally lower than which would be expected, given the volumes of traffic flow and scale and nature of the links and junctions on the local highway network. There are no identifiable concentrations of recorded collisions at particular locations within the study area. As a result, further analysis interrogating the reasons behind the recorded collisions is not considered necessary.

### 3. Development Proposals

#### 3.1 Overview

Graven Hill is a mixed-use development being undertaken by the Graven Hill Village Development Company. The Master Plan was originally for 1,900 dwellings and associated Employment use.

In August 2014 planning permission was granted for Graven Hill (Application No: 11/01494/OUT) which is a development south east of Bicester on land formally used by the Ministry of Defence (MoD). Following amendments to conditions attached to the original planning permission, the current planning permission is reference 19/00937/OUT, granted 3<sup>rd</sup> January 2020.

The proposed Health Hub falls outside the description of the wider Graven Hill planning permission, and therefore a new Planning Application is required for these proposals

The application is seeking consent for the Health & Wellbeing Hub which is proposed to amalgamate four existing surgeries from two General Practices, those being Alchester Medical Group ('AMG') and Montgomery-House Surgery ('MHS').

The need for the Health hub is driven by the unsuitability of the current practice premises to cater for the planned growth in service demand, arising from an ageing and increasing population. Bicester is expected to see a 40% increase in a combined patient list by 2030.

#### 3.2 Development Proposals

The proposed development is a new build Health & Wellbeing Hub of 3,200sqm GIA to accommodate the relocation of both the Alchester Medical Group (AMG) and Montgomery-House Surgery (MHS). AMG and MHS when combined presently total 2,440sqm GIA and provide a total of 125 car parking spaces.

AMG totals 1460sqm (GIA) which comprises four existing surgery premises:

- Victoria House Surgery, 119 Buckingham Road, Bicester OX26 3EU - floor area 780sqm (GIA);
- Langford Medical Practice, 9 Nightingale Place, Bicester OX26 6XX - floor area of 480sqm (GIA); and
- Ambrosden Branch Surgery, Ploughley Road, Ambrosden OX25 2RB floor area of 200sqm (GIA).
- MHS comprises a single surgery premises at Montgomery-House, Piggy Lane Bicester OX26 6HT with a GIA of 980sqm.

The proposed Health Care Hub building is 3,200sqm (GIA) for GMS services with circa 223 parking spaces, 143 visitor parking and 80 staff. It should be noted that in 2028 the total number of staff is projected to be 156, therefore there is proposed car parking for over half the members of staff. The indicative design is for a three-storey building of 3,350sqm (3,200sqm GMS plus a 150sqm pharmacy) on a Site of 2.61 acres.

In-between the Health & Wellbeing Hub and surrounding car park suitable landscaping, including on-site below ground surface water attenuation is to be provided. The Site is located to an existing attenuation basin constructed as part of the LTA1 Graven Hill works and offers wellbeing walks around the pond, which is abundant in nature and trees and designed to cater for people of all abilities by foot or by bicycle.

An overview of the latest access proposal is contained at [Appendix A](#).





The junction onto the LTA2 Spine road will have appropriate visibility splays to cater for the traffic using the Health & Wellbeing Hub. These splays would be achieved within the adopted highway.

A turning head is also to be provided on Site to allow delivery vehicles, and potentially a hopper bus to access and egress the Site in a forward gear and to avoid travelling around the entire Site.

It should be noted that the access road into the Health & Wellbeing Hub is not to be put forward for adoption by the highway authority and would remain private and maintained by the operator of the Health & Wellbeing Hub

### 3.4 Vehicle Tracking

As can be seen in **Appendix D** the Site layout has been assessed for the manoeuvring of service and delivery vehicles e.g. deliveries to the medical centre and pharmacy, refuse collection, fire appliances etc. The Autotrack program has been used to simulate the manoeuvres of an oil tanker and 7.5 tonne delivery vehicle (typical for office supplies and pharmacy deliveries and a medium refuse vehicle. As the refuse collection will be a commercial service (as opposed to the Council's domestic collection service) the operator of the medical centre can dictate what size vehicle is used to collect refuse.

Vehicle tracking for future penetration of the Site by mobile screening vehicles has also been undertaken. As a result of the vehicle tracking, the bends into the Site have been widened to ensure the vehicle does not protrude into the opposing carriageway. It should be noted however that the screening vehicle would normally access / egress the Site during the periods when the Health & Wellbeing Hub is closed.

### 3.5 Parking

#### Cycle Parking

Oxfordshire County Council (OCC) Cycling Design Standards do not specify minimum cycle parking standards for healthcare facilities. Cycle parking provision has been calculated based on the number of staff and visitors expected, travel surveys previously undertaken and the TRICS data in order to provide a level of cycle parking which will adequately provide for the needs of the Health Hub. TRICS analysis identifies that four 2-way cycle trips could be expected in the AM peak period and two 2 way cycle trips could be expected in the PM peak period.

To accommodate expected cycle demand and to encourage cycling trips to and from the Site secure covered cycle parking will be provided in the vicinity of the access to the building, to ensure passive supervision and security, whilst not restricting access to the building.

The proposed development will provide an appropriate level of cycle parking, in order to accommodate the demand from the proposed development, and to promote and encourage sustainable modes of transport. This will include 8 single cycle spaces for staff which would be located under the rear staff entrance canopy. In addition, 10 double cycle racks will be provided for visitors and would be located under the front entrance canopy. In total therefore 28 cycle parking spaces will be provided on the Health Hub site in safe and secure locations.

The location of the cycle parking can be seen on the Site Plan included in **Appendix A**.

### Car Parking

Cherwell District Council (CDC) specifies that for hospital facilities, car parking should be provided on merit of the development. CDC state no specific standard for other healthcare facilities therefore, car parking provision has been calculated based on the both the number of staff and visitors expected, the mode share surveys and TRICS car parking accumulation data in order to provide a level of parking which will adequately provide for the needs of the Health & Wellbeing Hub.

The level of parking to be provided on the Site is for 80 staff parking spaces and 143 visitor spaces. In total the Site is providing 223 spaces. The staff parking spaces will be separated by a barrier so that only staff have access to those allocated spaces.

A parking accumulation exercise has been undertaken and the outputs shown in Table 5 overleaf. The parking accumulation was undertaken using information obtained from TRICS in order to demonstrate that sufficient parking provision is being made.



Table 5: Car Parking Occupancy

	Weekday		
	IN	OUT	Occupancy in Car Park
	VPH	VPH	
00:00-01:00	0	0	0
01:00-02:00	0	0	0
02:00-03:00	0	0	0
03:00-04:00	0	0	0
04:00-05:00	0	0	0
05:00-06:00	0	0	0
06:00-07:00	0	0	0
07:00-08:00	44	15	28
08:00-09:00	153	68	113
09:00-10:00	153	120	146
10:00-11:00	142	142	147
11:00-12:00	118	133	131
12:00-13:00	102	124	109
13:00-14:00	78	98	89
14:00-15:00	131	126	93
15:00-16:00	113	123	84
16:00-17:00	81	106	58
17:00-18:00	50	82	26
18:00-19:00	21	35	11
19:00-20:00	0	0	11
20:00-21:00	0	0	11
21:00-22:00	0	0	11
22:00-23:00	0	0	11
23:00-24:00	0	0	11

As can be seen from Table 5 the level of parking occupancy throughout the day is at levels whereby the proposed parking provision on Site is sufficient to accommodate the predicted parking whilst providing a level of capacity that would cater for increases in demand at peak times of the year for example. It should be noted that the accumulation covers both patients and staff parking

While the Site would be located close to a series of bus routes that offer realistic opportunities for staff and some patients to travel by public transport. It is also considered that given the close proximity of the Site to a significant amount of residential properties, there is also the prospect of users travelling by foot, and by bike. The Planning Application will be supported by a Travel Plan which seeks to encourage greater use of sustainable transport.

As the proposed pharmacy is intrinsically linked to the medical centre there will be a significant overlap in uses i.e. the majority of visitors to the pharmacy will be accessing the medical centre also. As such, the parking provision for this element of the scheme has been incorporated into the provision required for the medical centre. Overall, on balance, it is considered that the level of car parking proposed reflects the accessibility of the Site and would be sufficient to cater for increases in demand whilst providing sufficient parking provision to cater for expected demand.

### **3.6 Emergency Vehicle Access**

The proposed Site layout is in accordance with the Department for Transport document '*Manual for Streets*' (MfS). The Proposed Development will provide policy compliant emergency vehicle access throughout the Site.

### **3.7 Refuse Collection, Deliveries and Servicing**

Servicing and deliveries are to take place on-site from the proposed internal roads, which allow for large refuse vehicles to enter and exit the Site in a forward gear, with turning heads provided to ensure the refuse vehicle can achieve access in line with MfS requirements. The MfS guidance requires that a refuse collection vehicle is able to get within 25m of the refuse storage area - which ensures that refuse carry distances are within the specified 30m maximum.

The Proposed Development will provide policy compliant facilities for refuse collection, deliveries and servicing.

### **3.8 Walking**

As can be seen in **Appendix A** there is a walking route on the footway to the western side of the highway access road from the Graven Hill development. This will be lit and will link to the Graven Hill LTA2 spine road. Additionally, a footway will be provided to the east of the development and circumnavigate the water feature / attenuation basin to join up with the footway south of the A41/London Rd/A4421 Rodney House Roundabout.

### **3.9 Cycling**

The Graven Hill development has master planned the Site so that it is convenient and safe for cyclists and pedestrians alike. This has been undertaken by making sure that potential routes from the residential areas to major employment areas, local schools and retail including Bicester town centre are safe, well-lit and available for all abilities.

The Health & Wellbeing Hub as can be seen in **Appendix A** will provide well-lit and secure cycle facilities for visitors and patients to use, which would be close to the main entrance. An additional cycle store will be provided off the staff car park directly outside the staff entrance. This store will be well lit and secure for staff members to leave their bicycles.

### 3.10 Public Transport

At present Graven Hill bus services operate at times to accommodate both staff and visitors of the proposed development. Service 29 operates first and last services at 6:40 and 20:10. Service H5 operates first and last services at 6:00 and 20:03 and service S5 operates first and last services at 5:48 and 23:39.

A bus stop will be provided on the Graven Hill Spine Road, in the vicinity of the Health Hub access which would incorporate the Graven Hill bus route to Bicester and has the potential to include the proposed Wretchwick Green development bus service. Although the final locations of the bus stops on the spine road have not yet been determined the proposed locations and proximity to the Health & Wellbeing Hub is considered suitable for the purposes of both staff and patients accessing the facility.

The closest existing bus stop to the Health & Wellbeing Hub is located on the Graven Hill Site whilst other bus stops are located on London Road.

Graven Hill is now served by existing bus services, with a S106 agreement contribution by Graven Hill Village Development Company towards a bus service that will serve the wider Graven Hill Site. The contribution is indexed link and comprises of an annual payment for 12 years as part of instalments. This 12-year period should provide the Local Authority the stability in the knowledge that there will be a bus route operating in that area of Bicester. The approved bus route through the Graven Hill Site is shown in **Appendix E**.

The neighbouring Wretchwick Green development is also proposed to introduce a new bus services, to be secured through a S106 contribution. This will enable the bus service to be planned as part of the wider town-wide strategy for Bicester.

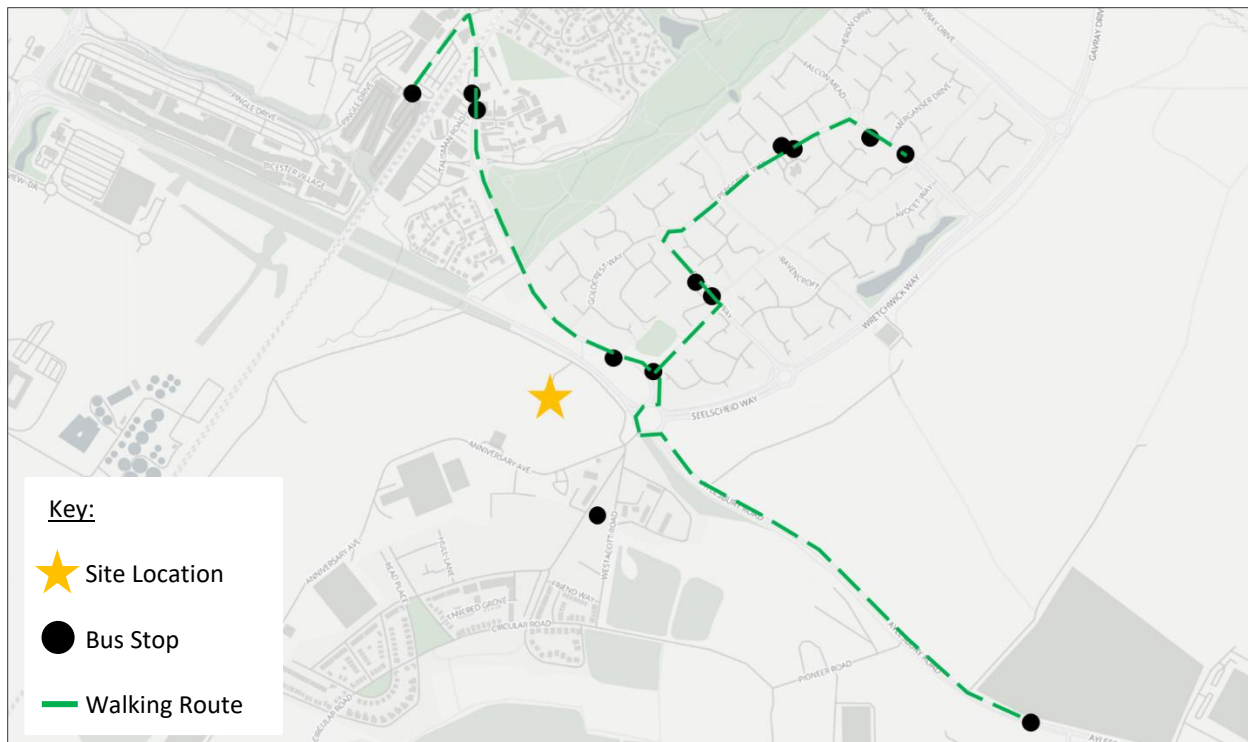
OCC have stated that similar developments in Oxfordshire have been required to fund an initial bus service on a pump-priming basis. Given various uncertainties that exist that will impact on bus services in the South East Bicester area, including the rate of build-out of the Wretchwick Green development, that this development will be required to fund two additional buses, on an 8-year declining pump-priming basis with the second bus providing the provision of a 15-minute frequency.

The viability of the bus routes will be enhanced by Wretchwick Green and Graven Hill being two of the largest major residential and employment growth Sites to come on board to the year 2031.

As OCC will determine the routing for the Wretchwick Green development, with no health provision being provided on that development and any potential service would likely route along the A41, there is the option for the Wretchwick Green bus services to stop at the Health Care Hub, which is located close to the A41 Rodney House roundabout for patients, customers and school children travelling between the two developments. This will provide additional security on the viability of any suggested bus service.

The location of existing bus stops is shown on Figure 9 overleaf.

Figure 9: Existing Bus Stop Locations



The final bus stop locations at Wretchwick Green will be decided at the reserved matters stage so in **Appendix E** a possible route is included that would incorporate the Health & Wellbeing Hub showing a 400m walking distance circumference from each bus stop. As can be seen the direct bus routes cover vast area of Bicester and Ambrosden for patients and staff who choose to use public transport to travel to the Care Hub. An option for any patients who do not live within 400m of a bus stop is to change at the bus station in Bicester. This would also apply for anyone living north west and north east of the town centre such as Langford Village, Graven Hill, Ambroseden and Wretchwick Green, similar to bus access for the Kingsmere GP hub Site location, as all buses except for the X5 and S5 from Boston Road terminate at the bus station instead of running south past the Kingsmere GP hub Site.

The 30-minute initial frequency of provision from the Graven Hill bus route is the same as the majority of residents from areas around Bicester that would be able to access the Kingsmere GP Hub by using public Transport. The frequency of the Graven Hill Health Care Hub has the potential to improve frequency further to a 15 minutes if the Council choose to direct the Wretchwick Green bus route via the Health Care Hub as any potential bus service would route along the A41, adjacent to the Health Care Hub location.

While there are a number of buses running past the Kingsmere Site to get to the majority of residential areas within the town centre, those patients residing outside the town centre would have needed to change buses at the bus station, with those services having a less frequent service for patients to complete their journey. This approach was considered appropriate by the Local Authority for Kingsemere, and this arrangement is no different for those accessing the Health & Wellbeing Hub at Graven Hill.

## 4. Trip Generation and Distribution

Pre-application feedback from OCC detailed that:

*“TRICS sites used for comparison must include pharmacies, as this site would include one, and pharmacies would generate additional trips for collecting repeat prescriptions. The same assumptions used to calculate the required car parking must be used for the purposes of estimating trip generation for assessment.”*

In order to address the OCC comment above, only GP surgeries with a pharmacy attached or within close proximity to the surgery have been included for comparison within the TRICS trip generation assessment.

In order to determine the potential trip generation for the health hub, the TRICS database (v7.7.4) has been reviewed for Sites within the TRICS category '05/6 - Health / GP Surgeries'. The resultant trip rates and trips that could be generated by the proposed Site are set out below in Table 6 and full outputs are included in **Appendix F**.

Table 6: Trip Rates and Trip Generation

Period	Vehicular Trip Rates			Total Vehicular Trips		
	Arrivals	Departures	Totals	Arrivals	Departures	Totals
AM Peak	4.561	2.043	6.604	153	69	222
PM Peak	1.468	2.456	3.942	50	83	133

The proposed Health Hub, including pharmacy, is predicted to generate up to 222 two-way vehicle trips in the AM peak, and up to 133 two-way vehicle trips in the PM peak.

### Multi Modal Trip Generation

Using the assumed mode share obtained for the staff and visitor method of travel to work survey data, it is possible to predict the likely split of trips across each mode for the proposed development. This has been extrapolated to determine the total number of person trips generation and the resultant trips across each mode and is presented in Table 7.

Table 7: Proposed Patient Travel Modes

Mode	Modal Share	Cumulative
Walk	228	42.9%
Drive	259	48.8%
Driven / community transport	21	4%
Bus	13	2.4%
Taxi	5	0.9%
Cycle	5	0.9%
<b>Total</b>	<b>100%</b>	<b>100%</b>

*Note: Numbers may not sum due to rounding.*

Overall, the majority of patients will drive via car to the Site (48.8%). However, 51.2% of patients will travel to the Site via sustainable modes (including car sharing), which can be considered high in relation to the surrounding context.

Surveys were undertaken to determine the method of travel to work to the proposed Health & Wellbeing Hub at the Graven Hill Site by staff of the existing GP surgeries. The results of the surveys are presented below in Table 8.

Table 8: Proposed Staff Travel Modes

Mode	Modal Share	Cumulative
Walk	7	17.9%
Car Driver	27	69.2%
Car Passenger	2	5.1%
Bus	0	0%
Taxi	0	0%
Cycle	3	7.7%
<b>Total</b>	<b>100%</b>	<b>100%</b>

*Note: Numbers may not sum due to rounding.*

As shown in the above Table 8, the method of travel to work profile is higher than that of the patient travel to work data presented in Table 7, with the vast majority of people driving to the surgery, followed by walking/cycling.

#### 4.1 Combined Proposed Travel Patterns

staff and patient results have been combined in order to summarise the likely method of travel to the Site. The results of the surveys are presented below in Table 9.

Table 9: Combined Proposed Travel Modes

Mode	Modal Share	Cumulative
Walk	235	41.2%
Car Driver	286	50.2%
Car Passenger	23	4.0%
Bus	13	2.3%
Taxi	5	0.9%
Cycle	8	1.4%
<b>Total</b>	<b>100%</b>	<b>100%</b>

*Note: Numbers may not sum due to rounding.*

The proposed trip generation figures from Table 6 have been applied to the modal split data presented within Table 9 and the resulting multimodal trip generation for the proposed development is presented within Table 10.

Table 10: Combined Proposed Multi Modal Trip Generation

Mode	%	AM			PM		
		Arrivals	Departures	2 Way	Arrivals	Departures	2 Way
Walk	41.2%	74	33	107	24	40	64
Car Driver	50.2%	153	69	222	50	83	133
Car Passenger	4.0%	7	3	11	2	4	6
Bus	2.3%	4	2	6	1	2	4
Taxi	0.9%	2	1	2	1	1	1
Cycle	1.4%	3	1	4	1	1	2
<b>Total</b>	<b>100%</b>	<b>242</b>	<b>109</b>	<b>352</b>	<b>79</b>	<b>131</b>	<b>211</b>

The assessment shows that the development will result in an uplift of 153 vehicle arrivals and 69 vehicle departures in the AM peak hour, as well as an uplift of 50 vehicle arrivals and 83 vehicle departures in the PM peak.

## 5. Traffic Assessment Methodology

### 5.1 Overview

The methodology for the traffic assessment has been discussed with OCC during the pre-application correspondence, which is contained at **Appendix B**.

For completeness, this section of the TA sets out the methodology for the traffic assessment, including justification for any assumptions made or any key correspondence with OCC.

Through scoping discussions with OCC, it has been agreed to include the following junctions within the capacity modelling:

- A4421/A41/London Rd/Gravenhill Road Roundabout;
- A41/Oxford Road;
- Mallards Way/London Road;
- Peregrine Way/Seelscheid Way/Wretchwick Way;
- Peregrine Way/Wretchwick Way;
- Gavray Drive/Charbridge Lane/Wretchwick Green Access; and
- Pioneer Road roundabout.

Beyond these junctions, it is considered the development traffic will dissipate and distribute accordingly onto the rest of the highway network.

### 5.2 Baseline Traffic

As requested by OCC and noted in Section 3, the Bicester Saturn Model will be used for the base assessment using the years 2026 & 2031 with the South East Perimeter Road.

### 5.3 Committed Developments

In terms of Committed Developments, the planning portal has been reviewed to determine whether there are any nearby schemes of note that warrant inclusion within a cumulative assessment.

At present, it is considered that the only schemes relevant for material consideration as a Committed Development and inclusion within the traffic assessment are those already included within the Bicester Saturn Model which is used as the base 2026 scenario in the capacity assessments.

Committed development schemes included within the Bicester Saturn Model include the following:

**Table 11: Significant Committed Developments Included Within the Bicester Saturn Model**

Reference	Scheme	Number of Dwellings	2026	2031
Res 103	Bicester 13 (Gavray Drive)	300	180	180
Res 104	Bicester 2 (Graven Hill)	2100	571	1900
Res 105	Kingsmere	950	950	950
Res 106	Land at Skimmingdish Lane	46 dwellings	46	46



Res 108	Land south of Talisman Road	125 dwellings	125	125
Res 109	NWB Eco-town Exemplar	See 2017 AMR for planning information	303	303
Res 110	NWB Phase 2	See 2017 AMR for planning information	1505	2605
Res 111	SE Bicester (12) (Wretchwick Green)	1500	1175	1500
Res 112	South West Bicester Phase 2 (Bicester 3)	726	709	709
Res 114	Winners Bargain Centres, Victoria Road	42	42	42
Res 115	Windfall allowance		174	199
Res 116	Bessemere Close/Launton Rd	70	70	70
Res 117	Cattlemarket	40	40	40
Res 118	Upper Heyford Consented	574 dwellings by 2016. Additional 665 by 2031 (1239 total)	665	665

## 5.4 Assessment Scenarios

Though superseded, the assessment scenarios have been prepared in line with Chapter 4 of the Department for Transport's (DfT, now superseded) '*Guidance on Transport Assessments*' (2007). This set out the requirements for a future year assessment with the following scenarios being assessed:

- Base 2026 + Committed Development;
- Base 2026 + Committed Development + Proposed Development;
- Base 2031 + Committed Development; and
- Base 2031 + Committed Development + Proposed Development.

The scenarios are presented in relevant diagrams contained within the **Appendix G**

## 5.5 Background Growth

In scoping correspondence with OCC, it was recommended that instead of using TEMPRO growth and applying committed development, 2026 outputs from the Bicester Saturn Model for the base assessment, with some sensitivity tests in 2031, given that Graven Hill sits on the proposed South East Perimeter Route/Relief Road would suffice. It is noted that in the Base 2031 some of the local traffic flows have been re-distributed from the 2026 base due to the South East Perimeter Route.

## 5.6 Trip Distribution

The agreed year of assessment was 2026, with the morning and evening peak periods being assessed using the current version of the Bicester Transport Model.

For ease of comparison purposes and due to the methodology being previously approved it has been decided to use the same distribution which the Kingsmere Site adopted.

The distribution of the Doctors Hub was compiled through a review of existing patient postcode data for the existing GP surgeries (Montgomery-House Surgery; Victoria House Surgery; and Langford Medical Practice) that at the time had expressed an interest in occupying the GP Hub at Kingsmere. In order to ensure consistency with the approach taken by WSP with respect to application 06/00967/OUT, the patient postcode data was grouped to match the Zonal grouping identified in the WSP TA and shown in Figure 10 below and Table 12.

Figure 10: Zone Delineation from the Survey

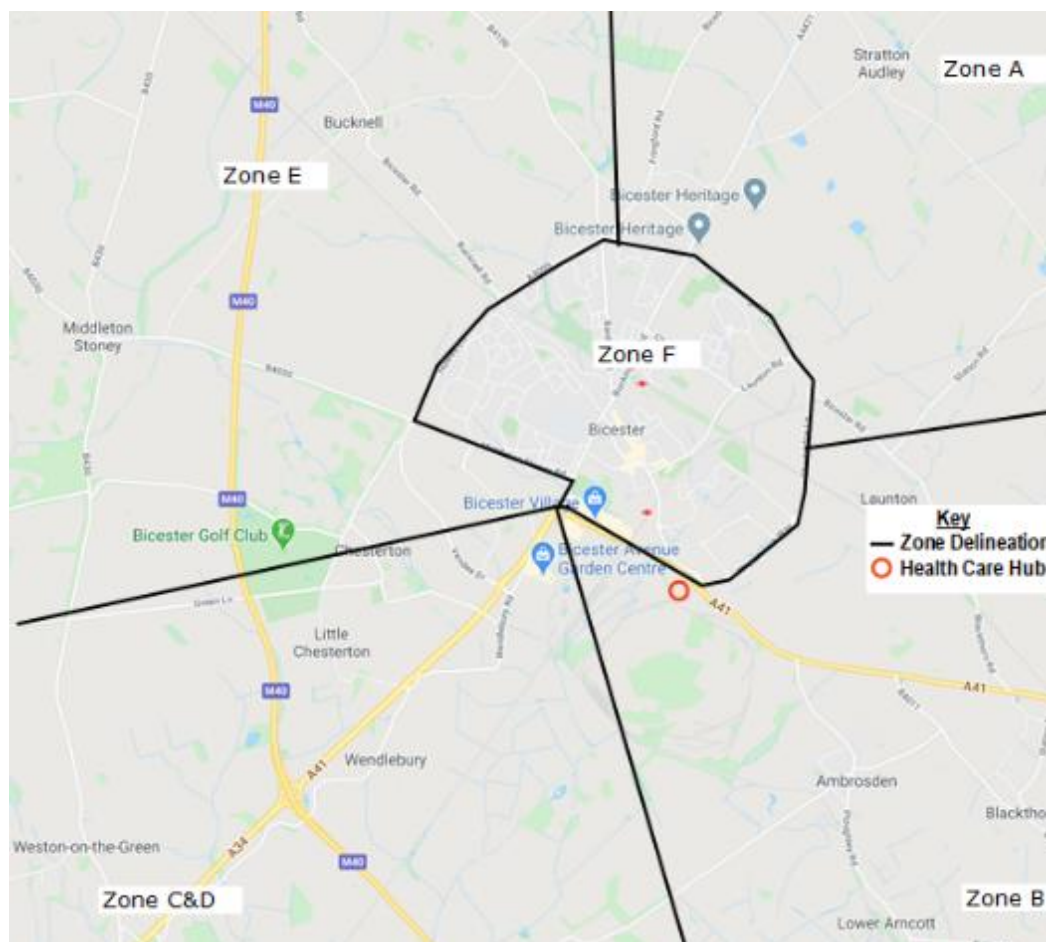


Table 12: Patient Zonal Distribution

Zone	Zonal Patient Population	Zonal Patient Distribution
A (North)	5230	12%
B (East)	3053	7%
C&D (M40 & A34)	246	1%
E (West)	3524	8%
F (Bicester)	30423	72%
<b>Total</b>	<b>42,476</b>	<b>100%</b>

By applying the distribution in

Table 12 to the local highway network adjacent to Graven Hill at the A41/London Rd/A4421 Rodney House roundabout the distribution of traffic along approaches to the junction will be as shown in Table 13.

Table 13: Proposed localised junction distribution

Access	Distribution	Total
A4421	12% (A), 33% (F), 2% (B)	47%
A41 East	5% (B)	5%
Graven Hill Rd	0%	0%
A41 West	1% (C&D), 8% (E) 19% (F)	28%
London Road	20% (F)	20%
<b>Total</b>	<b>100%</b>	<b>100%</b>

To ensure consistency with the approach taken for the Kingsmere Site, the same trip rates used from TRICS data that was supplied for that Site have been used in considering the Graven Hill Health & Wellbeing Hub. To this end, the trip rates cover all modes of transport.

Trip generation within Section 5 has been applied to the trip distribution figures in Table 13 to ascertain the proposed development trip distribution. The resulting traffic flows for the Proposed Development are presented within Diagram 3.

## 6. Traffic Impact Assessment

### 6.1 Overview

Junction capacity analysis has been undertaken using industry-standard software to determine the traffic impact of the Proposed Development and to determine whether there is capacity to accommodate it on the surrounding highway network.

For priority junctions and roundabouts, the industry standard package '*Junctions 9*', produced by TRL has been used. Within Junctions 9, the design threshold for ratio of flow to capacity (RFC) is at 0.85. Beyond this point the junction begins to experience reduced capacity and becomes less efficient. An RFC above 0.85 is typically where mitigation would be required to improve junction performance.

With regards to a Queue ('Q'), this is expressed in vehicles and shows the number of vehicles that may be queueing, with a '1.0' queue representing one full vehicle.

The results of junction capacity assessments for the junctions set out in Section 6, are outlined below.

For completeness, a copy of the junction modelling output files and junction geometry is contained at **Appendix H**.

### 6.2 A4421/A41/London Rd/Gravenhill Road Signalised Roundabout

The A4421 / A41 / London Road / Gravenhill Road signalised roundabout is located approximately 190m to the east of the Site entrance. Figure 11 below provides an image of the current junction arrangement.

Figure 11: A4421/A41/London Rd/Gravenhill Road Signalised Roundabout



The junction has been modelled using LINSIG and is based upon the measured geometry of the junction. The results of the junction modelling of the A4421/A41/London Rd/Gravenhill Road Roundabout for the 2026 & 2031 scenarios, are presented in Tables 14 & 15.

Table 14: A4421 Seelschied Way / A41 / London Road / Gravenhill Road North – 2026 Base & With Development - LINSIG Results

Link	Arm/Movement				
		AM Peak Hour		PM Peak	
		DoS (%)	MMQ (PCUs)	DoS (%)	MMQ (PCUs)
2026 Base					
1 + 1/2	A4421 Seelschied Way - Ahead & Left	37.4	1.9	47.8	3.0
1/3	A4421 Seelschied Way - Ahead	49.5	2.6	55.9	3.6
2/1	A41 (E) - Ahead & Left	40.9	3.7	46.5	4.0
2/2 + 2/3	A41 (E) - Ahead	42.0	3.9	34.4	2.8
3/1	Graven Hill - Left	59.0	5.2	65.8	6.0
3/2	Graven Hill - Ahead	19.0	1.9	34.9	3.4
3/3	Graven Hill - Ahead				
4/1 + 4/2	A41 (W) - Ahead & Left	53.4	3.8	39.9	2.5
4/3	A41 (W) - Ahead	23.6	1.7	18.2	1.2
5/1 + 5/2	London Road - Ahead & Left	51.6	5.0	59.6	6.1
5/3	London Road - Ahead	45.6	5.4	53.4	6.9
2026 Base + Development					
1 + 1/2	A4421 Seelschied Way - Ahead & Left	27.2	1.7	47.8	3.0
1/3	A4421 Seelschied Way - Ahead	44.3	2.9	59.0	3.9
2/1	A41 (E) - Ahead & Left	54.3	4.9	52.8	4.1
2/2 + 2/3	A41 (E) - Ahead	52.6	4.7	52.4	4.0
3/1	Graven Hill - Left	76.9	7.4	61.8	5.5
3/2	Graven Hill - Ahead				
3/3	Graven Hill - Ahead	27.5	2.3	33.3	3.3
4/1 + 4/2	A41 (W) - Ahead & Left	58.7	4.2	43.6	2.9
4/3	A41 (W) - Ahead	29.1	2.2	30.1	2.2
5/1 + 5/2	London Road - Ahead & Left	52.4	5.2	60.5	6.2
5/3	London Road - Ahead	46.1	5.6	53.1	6.9

RFC = Ratio of Flow to Capacity

Max Q = maximum average queue

PCUs = Passenger Car Units

Table 15: A4421 Seelschied Way / A41 / London Road / Gravenhill Road North – 2031 Base & With Development - LINSIG Results

Link	Arm/Movement				
		AM Peak Hour		PM Peak	
		DoS (%)	MMQ (PCUs)	DoS (%)	MMQ (PCUs)
2031 Base					
1 + 1/2	A4421 Seelschied Way - Ahead & Left	3.74	2.2	48.7	3.5
1/3	A4421 Seelschied Way - Ahead	40.8	2.4	50.4	3.6
2/1	A41 (E) - Ahead & Left	37.7	3.5	45.1	3.5
2/2 + 2/3	A41 (E) - Ahead	37.0	3.4	40.0	3.0
3/1	Graven Hill - Left	44.4	3.5	57.4	5.0
3/2	Graven Hill - Ahead	18.9	1.8	36.5	3.8
3/3	Graven Hill - Ahead				
4/1 + 4/2	A41 (W) - Ahead & Left	33.9	2.5	38.8	2.3
4/3	A41 (W) - Ahead	15.4	1.3	23.0	1.5
5/1 + 5/2	London Road - Ahead & Left	43.2	3.8	51.2	4.9
5/3	London Road - Ahead	34.9	3.9	44.2	5.2
2031 Base + Development					
1 + 1/2	A4421 Seelschied Way - Ahead & Left	26.7	2.0	44.4	3.3
1/3	A4421 Seelschied Way - Ahead	35.6	2.7	48.9	3.7
2/1	A41 (E) - Ahead & Left	47.0	4.3	37.5	3.4
2/2 + 2/3	A41 (E) - Ahead	44.1	4.1	32.7	2.8
3/1	Graven Hill - Left	53.5	4.5	69.0	6.1
3/2	Graven Hill - Ahead				
3/3	Graven Hill - Ahead	24.9	2.2	49.0	4.6
4/1 + 4/2	A41 (W) - Ahead & Left	53.3	3.4	40.8	2.7
4/3	A41 (W) - Ahead	29.9	2.0	26.9	2.0
5/1 + 5/2	London Road - Ahead & Left	44.1	3.9	50.8	4.8
5/3	London Road - Ahead	38.3	4.4	43.7	5.2

As can be seen from the results summarised in Table 15 above, the junction will operate with sufficient reserve capacity in 2031. The highest DoS during the morning peak, without development is 44.4% and 53.5% with development. During the evening peak hour the highest DoS without development is 57.4% and 69% with development.

It is clear from the results shown that the junction will operate within capacity.



### 6.3 A4421/Peregrine Way/Wretchwick Way Roundabout

The A4421 / Peregrine Way / Wretchwick Way roundabout is located approximately 500m as the crow flies to the north east of the Site entrance. Figure 12 below provides an image of the current junction arrangement.

Figure 12: A4421/Peregrine Way/Wretchwick Way Roundabout



The junction has been modelled using ARCADY and is based upon the measured geometry of the junction. The results of the junction modelling of the A4421/Peregrine Way/Wretchwick Way Roundabout for the 2026 & 2036 scenarios, are presented in Table 16 & 17.

Table 16: A4421/Peregrine Way/Wretchwick Way Roundabout - 2026

Junction Arm	AM Peak		PM Peak	
	Max RFC	Max Queue	Max RFC	Max Queue
Base 2026				
Wretchwick Way	0.23	0	0.22	0
Neunkirchen Way	0.21	0	0.36	0
Peregrine Way	0.45	0	0.23	0
Base 2026 + Development				
Wretchwick Way	0.28	0	0.24	0
Neunkirchen Way	0.22	0	0.38	0
Peregrine Way	0.46	0	0.23	0

As can be seen from the results summarised in Table 16, the junction will operate within capacity in 2026. The highest recorded RFC occurs on Peregrine Way in the AM, reaching 0.45.

In 2026, the junction is predicted to operate within capacity. With the addition of the development traffic, the junction performance is predicted to stay the same during the peak hours, with the RFC value increasing to 0.46 on Peregrine Way.

Table 17: A4421/Peregrine Way/Wretchwick Way Roundabout - 2031

Junction Arm	AM Peak		PM Peak	
	Max RFC	Max Queue	Max RFC	Max Queue
Base 2031				
Wretchwick Way	0.22	0	0.20	0
Neunkirchen Way	0.19	0	0.35	0
Peregrine Way	0.44	0	0.22	0
Base 2031 + Development				
Wretchwick Way	0.27	0	0.22	0
Neunkirchen Way	0.21	0	0.36	0
Peregrine Way	0.45	0	0.23	0

As can be seen from the results summarised in Table 17, the junction will operate within capacity in 2031. The highest recorded RFC occurs on Peregrine Way in the AM, reaching 0.44.



In 2031, the junction is predicted to operate within capacity with the redistribution of traffic due to the SEPR. With the addition of the Health & Wellbeing Hub development traffic, the junction performance is predicted to stay the same during the peak hours, with the RFC value increasing to 0.45 on Peregrine Way.

Overall it is considered that the predicted increase, in accordance with the guidance within NPPF, is not considered to be 'severe' and that the current junction arrangement is suitable to accommodate the proposed development without posing an inherent safety risk.

#### 6.4 Peregrine Way/Wretchwick Way T-Junction

The Peregrine Way / Wretchwick Way T-Junction is located approximately 1km as the crow flies to the north east of the Site entrance. Figure 13 below provides an image of the current junction arrangement.

Figure 13: Peregrine Way / Wretchwick Way T-Junction



The junction has been modelled using ARCADY and is based upon the measured geometry of the junction. The results of the junction modelling of the Peregrine Way/Wretchwick Way T-Junction for the 2026 & 2036 scenarios, are presented in Tables 18 & 19.

Table 18: Peregrine Way/Wretchwick Way T-Junction - 2026 Base & With Development - LINSIG Results

Link	Arm/Movement				
		AM Peak Hour		PM Peak	
		DoS (%)	MMQ (PCUs)	DoS (%)	MMQ (PCUs)
2026 Base					
1 + 1/2	A4421 North	36.4	3.8	38.8	3.9
2/1	A4421 South	57.4	8.5	57.3	8.5
3/1	Peregrine Way	52.7	2.5	50.7	2.4
2026 Base + Development					
1 + 1/2	A4421 North	42.5	4.6	40.9	4.2
2/1	A4421 South	59.0	8.9	60.8	9.4
3/1	Peregrine Way	59.3	3.8	51.6	2.5

Table 19: Peregrine Way/Wretchwick Way T-Junction - 2031 Base & With Development - LINSIG Results

Link	Arm/Movement				
		AM Peak Hour		PM Peak	
		DoS (%)	MMQ (PCUs)	DoS (%)	MMQ (PCUs)
2031 Base					
1 + 1/2	A4421 North	34.1	3.4	34.7	3.3
2/1	A4421 South	53.1	7.4	54.9	7.9
3/1	Peregrine Way	53.1	3.5	50.7	2.4
2031 Base + Development					
1 + 1/2	A4421 North	41.2	4.5	36.8	3.7
2/1	A4421 South	56.2	8.3	58.4	8.8
3/1	Peregrine Way	54.7	3.6	51.2	2.5

As can be seen from the results summarised in the tables above, the junction will operate with sufficient reserve capacity in both 2026 and 2031. The highest DoS is recorded in the 2026 with development evening peak period with a DoS of 60.8% compared to the DoS of 57.3% without development.

It is clear that the impact of associated development traffic on this junction would not be severe.

## 6.5 Gavray Drive/Wretchwick Way/Charbridge Lane/Wretchwick Green Site Access Roundabout

The Gavray Drive/Wretchwick Way/Charbridge Lane/Wretchwick Green Site Access Roundabout is located approximately 1.3km as the crow flies to the north east of the Site entrance. The junction arrangement is the agreed junction from the TA Addendum for the Wretchwick Green Site.

The junction has been modelled using ARCADY and is based upon the measured geometry of the junction contained in the planning application of the Wretchwick Green Site in the Addendum TA. The results of the junction modelling of the Gavray Drive/Wretchwick Way/Charbridge Lane/Wretchwick Green Site Access Roundabout 2026 & 2031 scenarios, are presented in Tables 20 & 21.

Table 20: Gavray Drive/Wretchwick Way/Charbridge Lane/Wretchwick Green Site Access Roundabout 2026

Junction Arm	AM Peak		PM Peak	
	Max RFC	Max Queue	Max RFC	Max Queue
Base 2026				
Charbridge Lane	0.50	1	0.49	1
Wretchwick Green Access Rd	0.26	0	0.43	1
Wretchwick Way	0.45	1	0.46	1
Gavray Drive	0.15	0	0.15	0
Base 2026 + Development				
Charbridge Lane	0.53	1	0.50	1
Wretchwick Green Access Rd	0.27	0	0.44	1
Wretchwick Way	0.47	1	0.49	1
Gavray Drive	0.16	0	0.16	0

As can be seen from the results summarised in Table 20, the junction will operate within capacity in 2026. The highest recorded RFC occurs on Charbridge Lane in the AM, reaching 0.50.

In 2026, the junction is predicted to operate within capacity. With the addition of the development traffic, the junction performance is predicted to stay the same during the peak hours, with the RFC value slightly increasing to 0.53 on Charbridge Lane.

Table 21: Gavray Drive/Wretchwick Way/Charbridge Lane/Wretchwick Green Site Access Roundabout 2031

Junction Arm	AM Peak		PM Peak	
	Max RFC	Max Queue	Max RFC	Max Queue
Base 2031				
Charbridge Lane	0.54	1	0.52	1
Wretchwick Green Access Rd	0.31	0	0.48	1
Wretchwick Way	0.43	1	0.45	1
Gavray Drive	0.15	0	0.20	0
Base 2031 + Development				
Charbridge Lane	0.57	1	0.53	1

Junction Arm	AM Peak		PM Peak	
	Max RFC	Max Queue	Max RFC	Max Queue
Wretchwick Green Access Rd	0.32	0	0.48	1
Wretchwick Way	0.46	1	0.48	1
Gavray Drive	0.16	0	0.21	0

As can be seen from the results summarised in Table 21, the junction will operate within capacity in 2031. The highest recorded RFC occurs on Charbridge Lane in the AM, reaching 0.54.

In 2031, the junction is predicted to operate within capacity with the redistribution of traffic due to the SEPR. With the addition of the development traffic, the junction performance is predicted to stay the same during the peak hours, with the RFC value increasing slightly to 0.57 on Charbridge Lane.

Overall it is considered that the predicted increase, in accordance with the guidance within NPPF, is not considered to be 'severe' and that the current junction arrangement is suitable to accommodate the proposed development without posing an inherent safety risk.

## 6.6 A41/Pioneer Road/Wretchwick Green Site Access Roundabout

The A41/Pioneer Road/Wretchwick Green Site Access Roundabout is located approximately 500m as the crow flies to the south east of the Site entrance. The junction arrangement is the agreed junction from the recent Pioneer Roundabout improvements.

The junction has been assessed in respect to the impact of proposed development traffic on the existing base traffic flows traversing the junction. As can be seen from the network diagram the increase in trips at this junction is considered to be extremely low (12 vehicles in the peak hour period) with around one additional vehicle every 10 minutes. The impact of associated development traffic on the operation of this junction is not considered to be 'severe', in accordance with the guidance within NPPF.

## 6.7 London Road/Mallards Way Roundabout

The London Road/Mallards Way Roundabout is located approximately 600m as the crow flies to the north west.

The junction has been modelled using ARCADY and is based upon the measured geometry of the existing roundabout. With the uncertainty of the closure of London Road at the crossing point due to the increased frequency of trains it was decided to model the worst case using the year 2031. The results of the junction modelling of London Road/Mallards Way Roundabout for the 2031 scenarios, are presented in Table 22.

Table 22: London Road/Mallards Way Roundabout 2031

Junction Arm	AM Peak		PM Peak	
	Max RFC	Max Queue	Max RFC	Max Queue
Base 2031				
London Road North	0	0	0	0
Mallards Way	0.26	0	0.17	0
London Road South	0.24	0	0.16	0
Talisman Road	0	0	0	0
Base 2031 + Development				
London Road North	0	0	0	0
Mallards Way	0.29	0	0.18	0
London Road South	0.25	0	0.17	0
Talisman Road	0	0	0	0

As can be seen from the results summarised in Table 24, the junction will operate within capacity in 2031. The highest recorded RFC occurs on Mallards Way in the AM, reaching 0.26.

In 2031, the junction is predicted to operate within capacity. With the addition of the development traffic, the junction performance is predicted to stay the same during the peak hours, with the RFC slightly increasing to 0.29 on Mallards Way.

Overall, it is considered that the predicted increase, in accordance with the guidance within NPPF, is not considered to be 'severe' and that the current junction arrangement is suitable to accommodate the proposed development without posing an inherent safety risk.

## 6.8 A41/Oxford Road/Services Signalised Roundabout

The A41/ Oxford Road / Services signalised roundabout is located approximately 1.4km to the north west of the Site entrance. Figure 14 below provides an image of the current junction arrangement.



Figure 14: A41/Oxford Road/Services Signalised Roundabout



The junction has been assessed in respect to the impact of proposed development traffic on the existing base traffic flows traversing the junction. As can be seen from the network diagram the increase in trips at this junction is considered to be relatively low (50 vehicles in the peak hour period) with less than one additional vehicle a minute. The impact of associated development traffic on the operation of this junction is not considered to be 'severe', in accordance with the guidance within NPPF.

## **7. Conclusions**

### **7.1 Overview**

Waterman Infrastructure and Environment Ltd ('WIE') has been commissioned by Apollo Capital Projects Development Ltd ('the Applicant') in support of a Full Planning Application for the proposed Health & Wellbeing Hub ('the Site') within the Graven Hill Village Site.

It is proposed to build a new Primary Health Care Hub at Graven Hill, which is located to the south east of Bicester. The Health & Wellbeing Hub would accommodate the relocation of both the Alchester Medical Group (AMG) and Montgomery-House Surgery (MHS).

### **7.2 Existing Conditions**

The existing Site comprises a parcel of brownfield land, to the north of the Graven Hill Site and in close proximity to the A41. A review of existing pedestrian and cycle provision has been undertaken and the existing facilities are considered to be of good standard.

Analysis of collision data records have identified no existing highway safety concerns which could be potentially exacerbated by the Proposed Development.

### **7.3 Development Proposals**

To improve accessibility to the Proposed Development and encourage travel by sustainable modes of transport the Site will be appropriately connected to surrounding sustainable travel infrastructure, namely walking and cycling routes, within the Graven Hill development. The proposed shared foot/cycleway into the Site will be of a high standard, with street lighting provided to ensure a safe route is provided.

The Proposed Development will also provide appropriate levels of cycle and car parking.

With regards to accessibility, it has been demonstrated that the proposed Health & Wellbeing Hub at Graven Hill is accessible by walking, cycling and will benefit from a new bus service which is being funded by Graven Hill Village Development Company. Furthermore, Graven Hill has been designed to ensure the Site is convenient and safe for cyclists and pedestrians alike through dedicated cycle routes and off-road footpaths. The proximity of the Wretchwick Green development also provides an opportunity to link bus provision proposed as part of this development with the Graven Hill Site and Primary Health Care Hub. Increased patronage on the bus services as a result of the developments would seek to secure the services commercially, as funding from the respective developers is reduced.

Access to the Health & Wellbeing Hub has also been considered and it has been demonstrated that a suitable and safe access for all users can be achieved through the Graven Hill residential development. Vehicular tracking has also been undertaken to demonstrate that the appropriate design vehicles can access and egress the Primary Health Care Hub at Graven Hill in a forward gear, and manoeuvre through the Site without impacting on parking provision.

### **7.4 Traffic Assessment.**

Scoping discussions were undertaken with OCC to determine the extent of the traffic assessment required to support the application.



Through these discussions, it was determined the following junctions required junction capacity assessment:

- A4421/A41/London Rd/Graven hill Road Rodney House Roundabout;
- Peregrine Way/Seelscheid Way/Wretchwick Way;
- Peregrine Way/Wretchwick Way;
- Gavray Drive/Charbridge Lane/Wretchwick Green Access;
- Pioneer Road roundabout;
- Mallards Way/London Road; and
- A41/Oxford Road.

## **7.5 Junction Capacity**

A review of the predicted trips generated by the proposed Health & Wellbeing Hub has been undertaken and the likely distribution has also been considered in order to determine the likely impacts increased vehicular traffic could have on the Graven Hill Site access roundabout (Rodney House roundabout) and the junctions listed above. It has been estimated that the proposed Primary Health Care Hub at Graven Hill could generate an additional 222 two-way vehicular trips during the morning peak hour and 133 two-way vehicular trips during the evening peak hour

The junction modelling results in section 7 demonstrate that the existing junctions surrounding the Site will operate within capacity in 2026 and 2031 with additional development trips. Overall, it is considered that the predicted increase, in accordance with the guidance within NPPF, is not considered to be 'severe' and the current junction arrangements are suitable to accommodate the increased trips associated with the development proposals without posing an inherent impact on their operation or safety.

## **7.6 Conclusions**

In summary, the proposed Health & Wellbeing Hub at Graven Hill is considered to be accessible by all modes of transport and the predicted impact of additional vehicular traffic upon the local highway network and specifically the Site access (Rodney House roundabout) is not expected to be severe or detrimental to the operation or safe operation of the highway.

Based on the evidence presented within this TA, it is considered that the scheme is compliant with all prevailing transport policy and that in transport terms, the scheme should be recommended for planning approval.



## **APPENDICES**

### **A. Site Plan**

#### **Appendices**

Health & Wellbeing Hub, Bicester  
Document Reference: WIE16470  
WIE16470-100-R-6-3-3-TA









Rev	Date	Description	By
A01	03/06/2020	Revised	ML

Project  
GH HEALTH HUB  
Graven Hill Health Hub,  
SITE ACCESS LOCATION AND LAYOUT



Design Status	10/01/2020	10/01/2020	10/01/2020
Design By	AN	AN	AN
Checked By	AN	AN	AN
Date	JUNE 2020	JUNE 2020	JUNE 2020
Drawn By	WIE	WIE	WIE
Scale	1:500	1:500	1:500
Sheet No	001	001	001
Sheet Total	001	001	001
Revision			



## **B. OCC Correspondence**

### **Appendices**

Health & Wellbeing Hub, Bicester  
Document Reference: WIE16470  
WIE16470-100-R-6-3-3-TA

## CHERWELL DISTRICT COUNCIL

### Pre-Application Report

<b>Pre-application Reference No:</b>	19/02788/PREAPP
<b>Proposal:</b>	Proposed Health Hub
<b>Site Address:</b>	Former Rodney House Private Drive Off Graven Hill Road, Ambrosden
<b>Date Site Visited:</b>	N/A
<b>Date Meeting:</b>	11 <sup>th</sup> March 2020
<b>Location of Meeting:</b>	Graven Hill Plot Shop, Pioneer Square, Bicester

#### SUMMARY OF ADVICE

**I regret to inform you that I will not be able to support the proposal in its current form.** The proposal is on land that currently contributes to the provision of public open space to serve the development, and health care provision is not required on the Graven Hill site. The Local Planning Authority has identified and safeguarded adequate land at the Kingsmere Development site for the provision of health care facilities to meet the needs of Bicester. That site is considered more suitable and sustainable in transport and general planning terms, and unless it is demonstrated that the Kingsmere site cannot be brought forward for healthcare development as planned, it is unnecessary and not desirable to consider alternative locations.

#### PROFESSIONAL ASSESSMENT BY CASE OFFICER

It is considered that the main issues relating to your proposal are:

- § Principle of the proposed development
- § Residential amenity
- § Highway safety
- § Design, scale and appearance
- § Landscape Impact and existing open space provision



Principle of the proposed development

The proposal outlined in the pre-application submission indicates that a number of existing GP practices within Bicester would be amalgamated and re-located to the proposed site to create a large health hub. The hub would provide a range of health services on the site including a pharmacy. It is intended that the health hub would serve the wider population of Bicester.

The proposed development would be situated on land allocated under Policy Bicester 2 of the Cherwell Local Plan 2031. This policy makes provision for a mixed use development including up to 2100 dwellings, significant employment land and associated services, facilities and other infrastructure. With regards to health provision, Policy Bicester 2 states 'no on site requirements anticipated'.

When considering the provision of health care facilities in the wider 'Bicester' context, Policy BSC8 of the Cherwell Local Plan 2031 states '*The Council will support the provision of health facilities in sustainable locations which contribute towards health and well-being including the replacement of the Bicester Community Hospital*'. Paragraph B.149 of the supporting text goes on to state '*There is a need for more GP provision in Bicester. New buildings should be located in sustainable locations on the edge or within the built up limits of settlements*'.

The Cherwell Local Plan does not allocate a specific site for GP provision in Bicester. However this is because it was adopted in the full knowledge that the Local Planning Authority had already secured appropriate land (secured via planning applications and a S106 agreement) for GP health care provision on the Kingsmere Development site. This land had been secured in accordance with policy H13 of the non-statutory Cherwell Local Plan 2011, which identified the Kingsmere site for development. Whilst this plan is not part of the statutory development plan, it was approved as interim planning policy for development control purposes in December 2004 and is the basis on which development of the Kingsmere site was considered acceptable. Policy H13 required the development to "provide the opportunity for appropriate medical facilities to be provided in accordance with NHS requirements on a commercial basis". The supporting text to that policy explains that "The components listed in the policy are essential to the proper planning of the locality in that they will provide services, employment and facilities...and enable the provision of facilities to serve the whole town in a planned manner".

When securing land for health care provision at Kingsmere, the Local Planning Authority sought to identify land in a sustainable location that would meet the needs of the wider population of Bicester. It is considered that the site at Kingsmere remains safeguarded for the provision of primary healthcare facilities to serve the town and is sustainable and more suitable than the proposed Graven Hill site for a number of reasons:

- It provides more direct walking/cycling routes with a wider area of Bicester and is well served by public transport
- Its location will allow a larger number of residents to utilise methods of active travel to visit the surgery
- It is better integrated and more centrally located in Bicester. The location at Graven Hill, on the outer side of the existing ring road, will necessitate a greater portion of trips by private motor vehicle to access the site.

The above view is supported by the Local Highway Authority who have stated the Kingsmere site is more sustainable in transport terms. It is vitally important that health care facilities are located so they offer a range of travel options, including active travel.

As the site at Kingsmere has been secured for GP health care provision, it is not considered necessary or desirable for an alternative site - whether at Graven Hill or elsewhere in the town - to be promoted for development. Furthermore, the site identified at Graven Hill is currently approved as open space to serve the Graven Hill development, in accordance with the requirements of the allocation under Policy Bicester 2. Any development on this land and the loss of open space would need to be fully justified.

**Notwithstanding the above comments, you were clear during our pre-application meeting that you would like me to comment on all aspects of the proposed development. Therefore, the below comments are made on the clear understanding that the Local Planning Authority does not accept the principle of the development and therefore any comments offered are made without prejudice to that position.**

#### Residential Amenity

The proposed site is located within land allocated under Policy Bicester 2 of the Cherwell Local Plan 2031 for predominantly residential development. Outline planning permission has been granted on the wider site.

The masterplan submitted with the outline planning application shows proposed dwellings to be located to the south of the proposed health hub; however, these have not yet received reserved matters approval. There would be an area of intervening public open space between the health hub and the dwellings, providing adequate separation to prevent overlooking.

When considering the design of your proposed development, you should be mindful of potential impacts on the residential dwellings that will be constructed. Suitable landscaping should be used to prevent a perception of overlooking to ensure the neighbouring dwellings retain a sense of privacy.

The proposed access road would also be located adjacent to the new residential dwellings. Consideration should be given to the potential impact on traffic noise due to delivery vehicles or opening hours. Your application should address how this potential disturbance would be managed to prevent a harmful impact on the future occupiers of the dwellings.

In terms of residential amenity, I believe appropriate measures, either through design or management of the site, could be taken to prevent the proposal having a detrimental impact.

#### Highway safety

Comments provided by the Local Highway Authority are set out in full in the consultation response section of the Technical Assessment (Appendix A). I do not intend to repeat the comments and would advise the comments are carefully considered. I support the comments made by the LHA.

The comments provided by the LHA cover the following topics:

- Choice of site
- Vehicular access
- Pedestrian and cycle access
- Walking and cycling links
- Public transport
- Proposed car parking
- Traffic impact
- Travel plan

Where the LHA are advising surveys or transport assessments are undertaken, I would strongly recommend contacting the LHA to agree an approach or scope of work.

The LHA has also advised they would be seeking financial contributions in relation to an application. For further details on likely contributions, you will need to undertake pre-application advice with the Local Highway Authority.

#### Design, scale and appearance

With regard to design, it is my intention to comment on the external appearance only. In terms of internal provision, this has been led by local doctors who will use the building and therefore it is assumed the design/layout caters for their specific requirements. At the application stage, the Council would consult the Oxfordshire Clinical Commissioning Group (OCCG) to seek their view on the proposed level of health care provision and the suitability of the building/layout.

Graven Hill is unique in terms of design due to the variety of styles/materials set out in the approved Design Code for the first residential phases. The majority of the residential areas are being developed as self-build plots and the approved Design Code aims to offer flexibility to future occupiers enabling individual choice in terms of design and style.

The flexible approach to design taken on the wider Graven Hill site offers greater opportunities for the design concept of the proposed health hub to be more creative and bold, whilst responding to its landscape setting.

The design concept shown on drawing number 122447-IBI-XX-XX-PL-A-200-5004 (Preliminary Proposed 3D Massing Views) suggests a large square building with repetitive design elements and a symmetrical design on the front and rear elevations. It is noted that the drawing is to demonstrate possible massing of the building and no materials/finishes have been stated.

The proposal offers some interesting design elements with the proposed roof overhang and set back on the second floor; both features are reflective of designs on some residential properties within Graven Hill.

The overall scale of the building is large creating one solid mass, but it is accepted there are limited options when designing a functional building of this nature. A careful choice of finishing materials should be selected to break up the elevations and add additional interest to the building. Given the proposed location, adjacent a key area of open space and with views from the surrounding road network and on the approach to Graven Hill, there is an opportunity to be bold with the design and truly reflect the

spirit of the Graven Hill Development.

It is noted that drawing number 122447-IBI-XX-XX-PL-A-200-5012 (Design Concept 5 – Second Floor) shows 'future expansion'. At the application stage, we would not be able to consider any future expansion of the building without full drawings and relevant supporting information such as a transport assessment. This element should be removed from the drawings and would need to be the subject of a future application should the need arise to increase capacity at the site.

#### Landscape impact and existing open space provision

As noted earlier in my assessment, part of the proposal site would be located on land which is set out as public open space in the current outline planning consent for Graven Hill. A supporting statement should be submitted with the application to clearly demonstrate that adequate provision of public open space will still be provided (in accordance with the Council's SPD and Policy Bicester 2) for the Graven Hill Development. It is vital that the proposal does not have a detrimental impact on the provision of public open space for the residents of Graven Hill.

Landscaping plans will be required to demonstrate how the public open space can be re-configured in an appropriate way to still provide a useable and high quality space for residents. Careful consideration should be given to how the POS will connect with the sports pitches which will be on opposite sides of the access road. There should be safe and easy access between the two.

The public open space presents an opportunity to provide attractive and direct pedestrian routes to the proposed health hub. Consideration should be given to how the space is re-configured to take advantage of this opportunity.

#### S106 matters

Notwithstanding the officer comments above, a Section 106 Legal Agreement is likely to be required for this type of proposal. You are advised to read the Council's Supplementary Planning Document for further advice. This is available on the Council's website: <http://www.cherwell.gov.uk/index.cfm?articleid=3390>

Developer contributions may also be required by external agencies such as OCC:

- § Highways, public transport (OCC)
- § Monitoring (OCC)

You may wish to consult with these agencies prior to submitting a planning application.

Please note that a Solicitor's undertaking will be required to pay the Council's reasonable legal fees based on the time taken to prepare and negotiate the S106 agreement and to investigate land title/s. It would assist the efficient processing of your application if you provided such an undertaking with any formal application for planning permission.

**Date of Report:** 21<sup>st</sup> May 2020

**Case Officer:** Rebekah Morgan

## DISCLAIMER

The above advice represents the professional views of Council Officers and although given in good faith, it cannot prejudice any decision with the Council, as Local Planning Authority, may make at either Planning Committee or delegated officer level.

## APPENDIX A - TECHNICAL ASSESSMENT

### Internal Consultation Responses:

#### Environmental Protection

Noise: A CEMP will be required that considers amongst other items the potential for noise, dust and other nuisance from the preparation and construction of the site.

A noise report to BS4142:2014 may be required that considers the impact on the neighbouring properties and deems what mitigation will be required if appropriate.

#### Contaminated Land:

We would like to see information provided at the application stage that demonstrates the development proposal is not adversely affected by land contamination or can be made suitable for use through remedial works. Our preference is to receive this at application stage although this could be provided through the standard phased four contaminated land planning conditions.

#### Air Quality:

We would like to make sure make sure this development isn't impacted by poor air quality, understand the impact of this development on local air quality and where mitigation will be required. We'd like to see an assessment of the air quality to be submitted with the application which achieves this and takes note of Cherwell District Councils Air Quality Action Plan.

We would like to see some provision made for EV charge points to allow the business and staff to utilise the future potential of Electric Vehicles, To maximise opportunities for sustainable transport in accordance with Government guidance contained within the National Planning Policy Framework.

Odour: No comments.

Light: Full details of the lighting scheme should be provided at the application stage.

#### Bicester Delivery Team (Active and Sustainable Travel)

It is noted that there is an intention to undertake surveys at the existing Bicester surgeries to understand trip generation and modal shares to inform the transport assessment, travel plan and parking requirements. Careful consideration of survey design will significantly enhance understanding of how best to facilitate sustainable travel to the proposed hub. In particular, understanding distances travelled by mode, car occupancies and the propensity for linked trips. We would invite further discussion

on the design of this survey work prior to it being undertaken. Detailed consideration needs to be given to how the proposed hub could be integrated into the wider public transport strategy for Graven Hill in order to maximise access by bus. The access road into the site should provide a continuous route for walking and cycling from the wider network and be supported by appropriate covered cycle parking provision.

#### Building Control

Based on the information provided, the development would require a Building Regulations application.

### **External Consultation Responses:**

#### Oxfordshire County Council

Oxfordshire County Council's Single response service was consulted on the pre-application submission. The following comments were received:

#### **TRANSPORT DEVELOPMENT CONTROL:**

As you may be aware, Oxfordshire County Council is a consultee of the local planning authority and provides advice on the likely transport and highways impact of development where necessary.

It should be noted that the advice below represents the informal opinion of an Officer of the Council only, which is given entirely without prejudice to the formal consideration of any planning application, which may be submitted.

Nevertheless, the comments are given in good faith and fairly reflect an opinion at the time of drafting given the information submitted. At this stage in the process, I set out the main issues/information that will need to be considered with the proposal.

#### *Choice of site*

In sustainable transport terms, we do not consider that the Graven Hill site is as suitable as the site being considered at Kingsmere. This is vitally important for a healthcare facility, both in terms of encouraging active travel for health reasons, as well as ensuring that users without access to a car are not disadvantaged. (On top of the congestion, air quality, and climate change reasons for encouraging non-car modes of travel).

We consider that the Kingsmere site is located within the walk and cycle catchment of a greater part of the population of Bicester, and certainly closer to the walk catchment of the current surgeries. In terms of bus access it is located on a main arterial and inter-urban route that is likely to sustain a commercial bus service in the long term, whereas the bus service through Graven Hill will depend on its remaining commercially viable at the end of the period of subsidy from developer funding.

Comments have been received from Oxfordshire Public Health. Whilst these may have been submitted separately, the joint interests of Public Health and Transport in supporting active and healthy modes of travel and equality of access, mean that OCC Highways and Transport Strategy officers support their comments. They are included later in this report.

Nevertheless, considering this particular site we have the following advice in relation to any future planning application.



### *Policy*

The application should include consideration of the following policies in relation to transport. National Planning Policy Framework (NPPF) Revised NPPF para 108: “In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

- (a) appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;
- (b) safe and suitable access to the site can be achieved for all users; and
- (c) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.”

Revised NPPF para 103:

“The planning system should actively manage patterns of growth in support of these objectives. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan making and decision-making.”

### *Cherwell District Council*

Cherwell Local Plan Policy SLE 4: Improved Transport and Connections:

“The Council will support the implementation of the proposals in the Movement Strategies and the Local Transport Plan to deliver key connections... New development in the District will be required to provide financial and/or in-kind contributions to mitigate the transport impacts of development.

All development where reasonable to do so, should facilitate the use of sustainable modes of transport to make the fullest possible use of public transport, walking and cycling. Encouragement will be given to solutions which support reductions in greenhouse gas emissions and reduce congestion. Development which is not suitable for the roads that serve the development and which have a severe traffic impact will not be supported.”

### *Oxfordshire Local Transport Plan 4 (LTP4)*

Local Transport Plan 4 Policy 17 states:

“Oxfordshire County Council will seek to ensure through cooperation with the districts and city councils, that the location of development makes the best use of existing and planned infrastructure, provides new or improved infrastructure and reduces the need to travel and supports walking, cycling and public transport”

The Active & Healthy Travel Strategy within OCC’s Connecting Oxfordshire: Local Transport Plan 2015-2031 states that:

“Developers must demonstrate through master planning how their site has been planned to make cycling convenient and safe, for cyclists travelling to and from major residential, employment, education, shopping and leisure sites within 5-10 miles, and

also within and through the site.” (paragraph 3.28, p.12)

Further to this, the Bicester Area Strategy refers to the Bicester Sustainable Transport Strategy, which recommends pedestrian and cycling improvement schemes for the town.

Any walking and cycling schemes developed should follow guidelines in the Oxfordshire Walking and Cycling Design Standards and Residential Road Design Guide.

Policy BIC1 in the Bicester Area Strategy states:

“BIC1 – Improve access and connections between key employment and residential sites and the strategic transport system by: ...• Delivering effective peripheral routes around the town. Southern peripheral corridor: provide a South East Perimeter Road to support the significant housing and employment growth in Bicester. In the longer term, link capacity issues along Boundary Way are assessed as being a major transport issue for the town. Land is safeguarded at Graven Hill for the section of road to the south of this site, joining the A41 at the Pioneer Road junction – this prevents development on the land that would be required, but does not remove the need for full assessment, justification and planning processes to be undertaken. This will need extending westwards to join the A41 north of M40 Junction 9. The preferred alignment for this extension has been approved as a connection from the Little Chesterton junction across to Graven Hill. The solution will also include a new link through the South East Bicester development site from the A41 Pioneer Road junction up to Wretchwick Way, providing connectivity through the site, in particular for buses.”

In terms of provision for Public Transport, Policy BIC 2 states:

“BIC2 – We will work to reduce the proportion of journeys made by private car through implementing the Sustainable Transport Strategy by: Improving Bicester’s bus services along key routes and providing improved public transport infrastructure considering requirements for and integrating strategic development sites.

Bus connectivity improvements may be required at anticipated pinch points within the town as future developments come forward. This will include connections between North West Bicester and the town centre and consider the need for bus lanes along the A41 to connect with the Park and Ride scheme.”

Bicester Area Strategy Policy Bic 4:

“To mitigate the cumulative impact of development within Bicester and to implement the measures identified in the Bicester area transport strategy we will secure strategic transport infrastructure contributions from all new development”

#### *Vehicular access*

Vehicular access is proposed off a primary route within Land Transfer Area 2 of Graven Hill. This road is not yet built and does not yet have an approved layout. The application would need to include the design of the primary road between the proposed access and the existing road covered by the S38 agreement, as well as at least 50m to the west. It must include cycle facilities.

The plans provided show insufficient detail of the access road and its junction with the primary road to be able to comment on the safety and suitability of the access. No footway is shown along the access road – a separate footway would be necessary.

The application should include the detail of the access and include within the red line the vehicular, pedestrian and cycle access up to the existing public highway.

#### *Pedestrian and cycle access*

In addition to the access road, a shorter, more direct pedestrian and cycle access should be provided across the open space to the east. This is to provide the shortest walking route for the majority of patients coming on foot or by bike, who would be walking/cycling from Bicester. This route would need to be lit.

The plans show no cycle parking. Levels of cycle parking on site should be based on ambitious targets for cycle modal share access to the site, taking into account the active travel ambitions for Bicester and the potential for cycling within the town. Covered parking should be provided for staff, and all cycle parking should be located near the main accesses to the building and should be easy and convenient to use. Cycle parking must be shown in the layout plans and not left to be conditioned.

#### *Walking and cycling links*

The transport assessment must consider the sustainable transport options and routes to the new site for patients and staff currently using the existing surgeries. For this reason, consideration of walking and cycling routes in the Transport Assessment must extend well beyond the site, into the other residential areas of Bicester. Financial contributions would be expected towards strategic walking and cycling improvements in the town. This could include contributions towards schemes to overcome the current gap in direct cycle and pedestrian links between the southern residential areas of the town (The Southern Connectivity project).

#### *Public transport*

Using the existing surgeries as a proxy for trip origins, at present three of the four current sites are linked directly to the Bicester Village bus stops (near to the Kingsmere site), with the fourth within walking distance – however, the continuation of these arrangements cannot be guaranteed.

At Graven Hill the proposals are for a new service between the site and Bicester town centre via Launton Road, for which we will be making provision to start in September 2020. Langford is within walking distance, although a crossing of the A41 would clearly be necessary; Ambrosden can currently reach the site by direct bus. Neither of the remaining two existing facilities would have a direct bus connection to the new site.

The Graven Hill proposal seems to represent a regression in transport and accessibility terms from the existing arrangements and is not as sustainable in public transport terms as the alternative Kingsmere site, which is on an arterial and inter-urban route more likely to sustain commercial services in the long term.

A half-hourly bus service would be unattractive for travel to medical appointments, meaning that for those users currently able to walk to their local surgery and would now be unable to, car travel would be the preferred option. For some it would not be an option, however.

On this basis we would seek significant S106 funds to improve bus access to the site over and above the planned Graven Hill service, broadly equivalent to the sum we would seek from a residential development generating a similar number of trips.

Walking distance from planned bus services (see extract below showing agreed

Graven Hill bus route and stops) to the front door of the Health Hub should be minimised. Given that this is a health facility likely to be accessed by a high proportion of people with restricted mobility, we would propose that a location for an additional stop in the closest possible position to the pedestrian access should be sought as part of the access design, and bus stop infrastructure provided by the development.



#### *Proposed car parking*

We note that the proposals for car parking are disproportionately higher than both the current provision and the current estimated parking demand at the existing surgeries, when taking into account the increased floor area. Whilst we do consider that the proposed location will generate more demand for car travel than the current locations, car parking must be based on estimated modal share. At the calculations seem to assume either 3 or 4 spaces per clinical room, which is considered excessive and assumes that all patients drive to the site. From previous presentations I have seen that modal share surveys have been carried out on patient travel to the current surgeries, and it was demonstrated that a significant proportion travelled to the surgery on foot.

#### *Traffic impact*

A scoping note has been provided, which suggests that the trip generation would be based on current travel to the existing surgeries, but the note also presents evidence from the TRICS database. Clarity is needed on how the number of trips per mode is estimated. TRICS sites used for comparison must include pharmacies, as this site would include one, and pharmacies would generate additional trips for collecting repeat prescriptions. The same assumptions used to calculate the required car parking must be used for the purposes of estimating trip generation for assessment.

The note also suggests that trips to the existing surgeries would be deducted, as they are already on the network. This would not be acceptable. The proposed location is in a different, and very congested part of the transport network. A detailed traffic assignment of the current trips, taking into account postcode plots of existing patients, and the same for the new site, would need to be compared in order to establish this deduction. Instead, in order for the assessment to be sufficiently robust, our view is that the trips associated with the proposed site should be considered as new trips on the local network.

An assessment should be made of the number of journeys to the surgeries currently made on foot or by bike that would convert to car trips when accessing the new site, given that the current surgeries are mostly more centrally located.

We agree that new surveys would be required of the adjacent Rodney House roundabout, given the recent changes. A41/Oxford Road, Mallards Way/London Road and junctions along Charbridge Lane should also be considered, as well as the new roundabout currently being designed for the Pioneer Road junction.

Given the location of the development adjacent to (and indeed within) substantial expected growth in Bicester, I would recommend that instead of using TEMPRO growth and applying committed development, 2026 outputs from the Bicester Saturn Model for the base assessment, with some sensitivity tests in 2031, given that Graven Hill sits on the proposed South East Perimeter Route/Relief Road.

Further discussion is recommended with OCC on the detailed scoping of the transport assessment, including car parking.

Traffic associated with the health hub is likely to have a significant impact on the Rodney House roundabout in particular. It is also likely to have an impact on traffic along the LTA2 spine road within Graven Hill. Providing additional traffic capacity to mitigate impacts in this part of the network will be extremely difficult and must not be at the expense of sustainable modes, so there will need to be a strong focus on sustainable transport infrastructure in order to encourage non-car modes.

#### *Travel Plan*

A full travel plan is required for this element of the development because of the specified size of 3.350sqm. Given the importance of sustainable travel to this site, a draft travel plan should be submitted with the application. A final version will be required by condition prior to first occupation and must be linked to any existing overarching framework travel plan produced for the Graven Hill site. The aforementioned document should then be updated within 3 months of full occupation of the site, once adequate survey data is available.

Further information regarding the required content of a full travel plan can be found within Appendix 5 of the OCC guidance document 'Transport for New Developments – Transport Assessments and Travel Plans March 2014'.

A travel plan monitoring fee of £2,040 will be required to enable the travel plan to be monitored for a period of five years.

#### **PUBLIC HEALTH:**

We are concerned that the proposed location of a Super Surgery at Graven Hill prioritises those with access to private transport at the expense of more vulnerable groups, such as the economically disadvantaged, children and young people, older people and those with disabilities, who are all more likely to rely on facilities and amenities within walking distance of where they live or on well served bus routes. This proposal does not support high level Oxfordshire Growth Board and Oxfordshire Health and Wellbeing Board priorities for 'healthy place shaping' and reducing health inequalities nor does it align with key goals within Oxfordshire's Local Transport Plan and the NHS Long Term Plan to prioritise active, sustainable and healthy modes of travel for short trips.

- 1) Equity of access to amenities and services - NatCen's evidence review for the Department for Transport suggests that improving public transport access is of particular benefit for lower income groups, people with disabilities and older people. It also identifies that when access to health services is reliant on private transport, vulnerable groups are more likely to suffer negative impacts:

<https://www.gov.uk/government/publications/transport-health-and-wellbeing>.

We are concerned that locating a Super Surgery in an outlying area of Bicester with neither an established bus service nor the prospect of a commercially viable service (even in the medium term) will reduce the independence of more vulnerable groups and risk widening health inequalities. NICE 'Guidance for Physical Activity and the Environment' sets out an approach that if built into the master planning of the development process would support improved longer term health and wellbeing outcomes. This includes reference to local strategies, such as the health and wellbeing board priorities for healthy place shaping, and supporting data, such as the Oxfordshire JSNA, and the use a Health Impact Assessment to ensure that the needs of vulnerable groups are met and health inequalities are not exacerbated:

<https://www.nice.org.uk/guidance/ng90/chapter/Recommendations#strategies-policies-and-plans-to-increase-physical-activity-in-the-local-environment>

- 2) Impact of transport 'choice' on health, wellbeing and the environment – a wide body of research sets out the physical and mental health and wellbeing benefits of infrastructure that encourages journeys, or stages of journeys, to be made actively and, conversely, the negative impacts of reduced physical activity and pollution associated with vehicle centric development:

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/757756/Cycling\\_and\\_walking\\_for\\_individual\\_and\\_population\\_health\\_benefits.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/757756/Cycling_and_walking_for_individual_and_population_health_benefits.pdf)

A fundamental principle of the NHS Healthy New Town programme is the creation of built environments that "support healthy behaviours and help to promote health and wellbeing" which includes the development of compact and connected places that maximise opportunities for active travel and linked trips: <https://www.england.nhs.uk/wp-content/uploads/2019/09/hip-2-design-delivermanage.pdf> NICE guidance supporting NHS objectives to support the health and wellbeing of staff also supports the prioritisation active, sustainable and healthy modes of travel: <https://www.nice.org.uk/guidance/qs84> Active modes also help meet cross organisational environmental objectives to reduce CO2 emissions and air pollution: <https://www.longtermplan.nhs.uk/online-version/chapter-2-more-nhsaction-on-prevention-and-health-inequalities/air-pollution/> We are concerned that locating a Super Surgery in a peripheral location without good quality walking, cycling and public transport links will reduce the number of people currently using active means to access their local GP practice and create an environment which discourages new users and people moving into the area choosing to travel actively or use public transport. The proposal is also likely to generate increased volumes of traffic with concomitant health impacts associated with reduced air quality, noise pollution and community severance:

<https://www.gov.uk/government/publications/transport-health-and-wellbeing>

In view of the above, we strongly recommend against a Super Surgery being located at Graven Hill. In addition to meeting the needs of the practice, such a significant piece of community infrastructure must also encourage healthy behaviours and facilitate health and wellbeing across the wider community.

The following evidence review for the DfT should be considered:

<https://www.gov.uk/government/publications/transport-health-and-wellbeing> Three main mechanisms linking transport and health and wellbeing are identified as follows:

- access to health services, particularly for vulnerable groups including older people



- how modes of transport affect physical and mental health
- transport as a facilitator for social interactions and social inclusion

Health and wellbeing impacts of active travel and air pollution are excluded on the basis that a large body of evidence for these already exists. Evidence for is considered from the perspectives of:

- physical health
- mental health and wellbeing
- noise

Each is considered from the perspectives of different groups including older people, younger people, economically disadvantaged people, and people with disabilities.

#### *Physical health*

- Older people, younger people, economically disadvantaged people, and people with disabilities are particularly vulnerable to the negative health impacts of transport such as noise or pollution. Transport can be particularly effective in improving health, such as through better access to services for these groups – see p.9/36
- Cars can have a positive impact on physical health when they facilitate access to healthy food suppliers and leisure/recreational activities. However, they are more commonly found to have a negative impact in that they tend to reduce overall levels of physical activity for both adults and children -p.28 Increased car travel is linked with increased body weight and traffic accidents – p. 9
- Of ten studies reviewed, eight found a significant positive association indicating that the more time and distance travelled in private motor vehicles the more an individual is likely to weigh – p.26

#### *Mental health and wellbeing*

- Public transport interventions can positively impact mental health in two ways: alleviating traffic and reducing commuting times – p.10 Shorter travel times improve wellbeing, while commutes lasting between 60 and 90 minutes have the biggest negative impact on wellbeing – p.14 Long commutes can cause high levels of stress and for many are a primary source of life stress. This is particularly true for motor vehicle commuters who report higher levels of commuter stress compared to train commuters – p.29
- Transport availability, particularly public transport, affects wellbeing because it facilitates social connectedness. A lack of access to transport or a withdrawal of public transport services has been found to reduce social networks and social relationships, as can transport infrastructure if it leads to individuals being disconnected from the community. By contrast, effective transport provision, such as reliable bus links, can help facilitate social interactions and promote social inclusion – p.10
- Designing roads to facilitate slow traffic, walking, and pleasing aesthetics, can help to facilitate community support networks, promote physical activity, and create a pleasant living environment that is conducive to good mental health and wellbeing, leading to lower levels of stress – p.29
- The authors concluded that while transport plans addressed quality of life related to physical wellbeing, aspects related to mental wellbeing were widely neglected – p.36

#### *Noise*

- Evidence shows that transport noise has the primary effects of stress and sleep loss, which in turn are associated with health conditions for which these are risk factors e.g. heart disease. One meta-analysis found that relative risk of hypertension as a result of exposure to road traffic noise increased by 1.8% per

10 decibels. Laying porous asphalt road surfaces has been shown to reduce noise by 4-8 decibels equivalent to almost halving the volume of traffic – p.39

- Risk of noise-related stress and sleeplessness varies between socioeconomic groups. Individuals and families in lower socio-economic groups may live in housing near busy roads because it is cheaper than housing in quieter areas p.11

#### OXFORDSHIRE COUNTY COUNCIL GUIDANCE:

(Thresholds for the size of development requiring either a Transport Statement or Transport Assessment, and either a Travel Plan Statement or a Travel Plan, are contained in the county councils Guidance on Transport Assessments and Travel Plans at:

<https://www2.oxfordshire.gov.uk/cms/sites/default/files/folders/documents/roadsandtransport/transportpoliciesandplans/newdevelopments/Transport%20assessments%20and%20travel%20plans.pdf>

We can also point you to guidance which is contained on the web, and the following links will direct you to a lot of the basic information needed to assist in the highway and transport consideration of many proposals.

#### **Connecting Oxfordshire (including a link to Local Transport Plan 4: 2015-2031).**

<https://www.oxfordshire.gov.uk/residents/roads-and-transport/connecting-oxfordshire>

#### **County Council Transport Policy and Plans**

<https://www.oxfordshire.gov.uk/residents/roads-and-transport/transport-policies-and-plans>

#### **County Council Transport Guidance for new developments**

<https://www.oxfordshire.gov.uk/residents/roads-and-transport/transport-policies-and-plans/transport-new-developments>

#### **County Council Walking Design Standards**

<https://www2.oxfordshire.gov.uk/cms/sites/default/files/folders/documents/roadsandtransport/transportpoliciesandplans/newdevelopments/WalkingStandards.pdf>

#### **County Council Cycling Design Standards**

<https://www2.oxfordshire.gov.uk/cms/sites/default/files/folders/documents/roadsandtransport/transportpoliciesandplans/newdevelopments/CyclingStandards.pdf>

**TRICS** – National information source for assisting the prediction of trip generation from new developments.

<http://www.trics.org/>

#### **Chargeable Pre-application Highways Advice**

If you need further assistance, either in the form of meeting, site visit, and or further written advice, we can provide that in accordance with our charging regime, which is also set out on Oxfordshire County Council web site:

<https://www.oxfordshire.gov.uk/cms/content/preapplication-highways-advice-major-planning-applications>

We do encourage this further input, as experience proves that well formulated plans prior to planning applications being made frequently produce better result for all parties. In addition, should on the rare occasion, the proposals be wholly unacceptable from a transport / highway safety or policy point of view, a more formal

input at this stage can avoid abortive costs were the proposals to proceed further.

**EIA Screening Opinion Required?** No – The majority of the proposed site is included within the site area for the original outline planning application for Graven Hill (which included a comprehensive Environmental Statement).

The site plan suggests a small strip of land (northern end of the proposed car park) may extend beyond the original redline area for the Graven Hill Development.

A supporting statement should be submitted with any planning application setting out how you consider the development to be covered by the original Environmental Statement and why further EIA work is not required.

**Committee or Delegated Matter?** Committee decision

**Relevant Planning History:** 19/00937/OUT - Variation of Conditions 2 (plans), 28 (Phasing) and 29 (Masterplan and design code) of 18/00325/OUT - to amend the site wide phasing plan and to include proposed earlier phasing for the employment land. (Original outline reference 11/01494/OUT, amended by 15/02159/OUT, 16/01802/OUT. Outline - Redevelopment of former MOD sites including demolition of existing buildings, development of 1900 homes; local centre to include a 2 form entry primary school (class D1), a community hall of 660sqm, five local shops or facilities to include A1, A2, A3, A5 and D1 uses totalling up to 1358sqm, up to 1000sqm gross A1 uses, a pub/restaurant/hotel (class A4/A3/C1) up to 1000sqm and parking areas; employment floor space comprising up to B1(a) 2160sqm, B1(b) 2400sqm, B1(c) and B2 20520sqm and B8 uses up to 66960sqm; creation of public open space and associated highway improvement works, sustainable urban drainage systems, biodiversity improvements, public transport improvements and services infrastructure. Erection of a 70400sqm fulfilment centre on 'C' site and associated on site access improvement works, hardstanding, parking and circulation areas) - Application approved.

Please note, the above application is the most up to date outline planning consent issued for the wider Graven Hill site and includes the site set out in this pre-application enquiry.

**Policy:** The starting point for decision making is the Development Plan. The Development Plan comprises the Cherwell Local Plan Part 1: 2011-2031 and the saved policies of the Cherwell Local Plan 1996.

Key policies of the Cherwell Local Plan Part 1: 2011-2031:

- PSD1: Presumption in favour of sustainable development
- SLE4: Improved Transport and Connections
- BSC8: Securing Health and Well-Being
- BSC10: Open Space, Outdoor Sport and Recreation Provision
- BSC11: Local Standards of Provision – Outdoor recreation
- ESD1: Mitigating and Adapting to Climate Change
- ESD2: Energy Hierarchy and Allowable Solutions
- ESD3: Sustainable Construction

- ESD5: Renewable Energy
- ESD7: Sustainable Drainage Systems (SuDS)
- ESD10: Protection and Enhancement of Biodiversity and the Natural Environment
- ESD15: Character of the Built and Historic Environment
- Bicester 2: Graven Hill
- INF1: Infrastructure

Key policies of the Cherwell Local Plan 1996:

- TR1: Transportation Funding
- C28: Layout, design and external appearance of new development

Other Material Considerations:

- National Planning Policy Framework
- National Planning Practice Guidance:  
Design: process and tools  
Healthy and safe communities
- Non-Statutory Cherwell Local Plan 2011 (December 2004)
- Oxfordshire Local Transport Plan 4 (LTP4)

**You should be aware of the following matters/issues/designations:**

- § The site lies within an area of archaeological interest. An assessment of the significance of the heritage asset and the potential effect of the development upon it should be submitted with the application. Contact should be made with the County Archaeologist on 01865 328944 or by writing to [Richard.Oram@oxfordshire.gov.uk](mailto:Richard.Oram@oxfordshire.gov.uk) or Historic and Natural Environment Team, Infrastructure Planning, Speedwell House, Speedwell Street, Oxford, OX1 1NE,
- § If the Highways Authority need to be involved contact [www.highways.gov.uk](http://www.highways.gov.uk). Useful link: <http://www.highways.gov.uk/publications/planning-protocols-for-planning-and-development>
- § You may need to consider the effect on protected species when developing your proposals. Further information may need to accompany your application including a phase 1 survey to identify habitats present and features likely to be used by protected species and any further detailed survey reports for any individual protected species should these be necessary. In order to assist you in this you should refer to the Standing Advice prepared by Natural England (link below). This 'standing advice' will help in assessing if there is a reasonable likelihood of protected species being present and if so the relevant survey and mitigation requirements. This advice will be a material consideration in the determination of your application.  
<http://www.naturalengland.org.uk/ourwork/planningdevelopment/spatialplanning/standingadvice/advice.aspx>

In this case I have considered the standing advice and note that there is a reasonable likelihood of protected species being present within the site due to the presence of existing vegetation and the semi-rural context. I would, therefore, advise you to submit a phase 1 survey/bat and barn owl survey/great crested newt survey. Failure to do so could result in your application being refused as the Council will not be able to properly assess the impact of the development on protected species.

**Drainage:** You need to consider foul and surface water drainage when designing your proposals. In respect of foul drainage, you should first seek to connect to the public sewer network. You can contact Thames Water for further advice about this; information about their pre-application service is available online at:  
<https://developers.thameswater.co.uk/commercial-building-works/wastewater/pre-application-help-and-advice>.