

A Planning Appeal by
GREAT LAKES UK LIMITED

In respect of
**Land to the east of the M40 and south of the A4095,
CHESTERTON, BICESTER, OXFORDSHIRE**

**Proof of Evidence of Rupert Lyons
on behalf of Parishes Against Wolf
(a Rule 6 Party)**

January 2021
The Planning Inspectorate's Appeal Reference: **APP/C3105/W/20/3259189**
Cherwell District Council's Application Reference: **19/02550/F**



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Contents		Page
1	Introduction	1
2	Scope and Nature of Evidence	4
3	The Baseline Conditions	6
4	Relevant Land Use and Transport Planning Policy and Guidance	9
5	The Appeal Proposal	20
6	Assessment of the Transport Planning Issues Arising from the Appeal Proposal	32
7	Summary and Conclusions	57

List of Tables

Table 6.1	Likely Modal Choice of Visitor Trips to the Appeal Proposal
Table 6.2	Likely Number of Single Occupancy Car Trips by Staff to the Appeal Proposal
Table 6.3	Forecast Traffic Attraction (based on data from three Great Wolf Resorts in the USA)
Table 6.4	Analysis of Center Parcs Data – 12-hour Arrival/ Departure Profiles – All Car Trips
Table 6.5	Comparison of American Data and Center Parcs Data – 12-hour Arrival/ Departure Profiles – All Car Trips
Table 6.6	Forecast Traffic Attraction (based on data from three Great Wolf Resorts in the USA)
Table 6.7	First Principles Parking Demand Analysis – Typical Weekday (Thursday)
Table 6.8	First Principles Parking Demand Analysis – Saturday
Table 6.9	First Principles Parking Demand Analysis – Typical Weekday (Thursday) – Guest Duration of Stay Reduced to 27 hours
Table 6.10	First Principles Parking Demand Analysis – Saturday – Guest Duration of Stay Reduced to 27 hours

List of Figures

- Figure 6.1 Drive-time/ Distance Isochrones of the Appeal Site
- Figure 6.2 Rail-time Isochrones of the Appeal Site
- Figure 6.3 Walking Isochrones of the Appeal Site
- Figure 6.4 Cycling Isochrone of the Appeal Site
- Figure 6.5 Forecast Weekday Arrival and Departure Profiles (based on data from three Great Wolf Resorts in the USA)
- Figure 6.6 Comparison of Great Wolf Resort (USA) and Center Parcs (UK) 12-Hour Weekday Arrival Profile
- Figure 6.7 Comparison of Great Wolf Resort (USA) and Center Parcs (UK) 12-Hour Weekday Departure Profile
- Figure 6.8 Routes to the Appeal Proposal

List of Appendices

RL-A	My Expert Witness Experience
RL-B	Extracts from Better Planning, Better Transport, Better Places (2019)
RL-C	Extracts from Planning for Walking (2015)
RL-D	Extracts from Guidelines for Providing for Journeys on Foot (2000)
RL-E	Extracts from Planning for Cycling (2014)
RL-F	Extracts from Cycle Infrastructure Design (Local Transport Note 1/20) (2020)
RL-G	Extracts from Buses in Urban Developments (2018)
RL-H	Extracts from Royal Haskoning's Bicester Village Retail Outlet Centre, Transport Assessment (June 2012)
RL-I	Oxfordshire County Council's Updated Response to Consultation (3 March 2020)
RL-J	Oxfordshire County Council's Response to Consultation (10 January 2020)
RL-K	Extract from the Department for Transport's Statistical Release, 28 February 2018 (Travel Time Measures for the Strategic Road Network and Local 'A' Roads, England: January to December 2018)
RL-L	Analysis of Elveden Center Parcs Survey Data
RL-M	Extracts from the Appellant's Presentation to Cherwell District Council, dated 5 February 2019
RL-N	Traffic Attraction and Trip Rate Analysis
RL-O	A First Principles Trip Attraction Analysis and Analysis of Car Parking Demand based on the Appellant's American Data
RL-P	Figure 5.2 (Multi-Day Visitor Parking Demand Diagram) from Transport Planning Associates' LEGOLAND® Windsor Resort Transport Assessment (1607-77/TA/01E, June 2017)
RL-Q	Re-worked First Principles Analysis of Car Parking Demand based on the Appellant's American Data but with Reduced Duration of Stay
RL-R	Route Maps and Photographs

1 Introduction

- 1.1 My name is Rupert Titus Beauchamp Lyons and my evidence to this Public Inquiry is concerned with the transport planning and highway engineering issues arising from the Cherwell District Council's (the **District Council** and/ or the **Local Planning Authority**) refusal of a planning application¹ made by Great Lakes UK Limited (the **Appellant**) for a proposed new leisure resort incorporating an hotel, waterpark, family entertainment centre, conferencing facilities and restaurants with associated access, parking and landscaping redevelopment (the **appeal proposal**) of part of an existing golf course at the Bicester Hotel and Spa south of the A4095 and east of the M40 motorway in the Parish of Chesterton near Bicester in Oxfordshire (the **appeal site**). I am instructed to appear and give evidence to this Inquiry on behalf of Parishes Against Wolf (**PAW**), which comprises Chesterton Parish Council with the support of 20 adjoining parish councils.
- 1.2 Oxfordshire County Council (the **County Council**) is the Local Highway Authority and Highways England is the Strategic Highway Authority with responsibility for the strategic road network (the **SRN**).
- 1.3 The District Council refused planning permission for the appeal proposal for six reasons. The second of which relates to the locational characteristics of the appeal site and the dependency that visitors to, and people employed at, the appeal proposal will have on car travel. It considers that the appeal proposal *"would not reduce the need to travel or offer a genuine choice of alternative travel modes over the private motor vehicle"* and that given *"the predominant guest dynamic (families with children) [that] the majority of trips are likely to be made via private motor vehicle"*².
- 1.4 The third reason for refusal relates the failure of the Appellant to adequately demonstrate that the traffic impact of the appeal proposal upon the existing public highway network can be adequately mitigated and made acceptable. The District Council is particularly concerned about the impact of the appeal proposal on the traffic signal controlled junction of the B4030, Bicester Road and Heyford Road with the B430, Ardley Road and Oxford Road in Middleton Stoney (the **Middleton Stoney Junction**). PAW is concerned that the Appellant has taken an overly and unrealistically optimistic view of the assignment (route choice) of visitor car trips on the public highway network such that it has either under-estimated the traffic impact of the appeal proposal in its transport consultant's (Motion's) *Transport Assessment*, dated November 2019 (the **Appellant's Transport Assessment**) and elsewhere in its evidence base, or made no assessment of it at all.
- 1.5 The last, and sixth, reason for refusal relates to *"the absence of a satisfactory unilateral undertaking or any other form of Section 106 legal agreement"* to secure *"appropriate infrastructure (including highway infrastructure) directly required as a result"* of the appeal proposal.

¹ Reference 19/02550/F

² 19/02550/F Decision Notice (12 March 2020)

- 1.6 I was first instructed by Chesterton Parish Council on behalf of PAW in November of 2020.
- 1.7 The evidence that I have prepared and provide for this appeal (reference APP/C3105/W/20/3259189) in this proof of evidence is true and I confirm that the opinions expressed are my true and professional opinions. I will refer to a number of documents in my evidence to this Inquiry and where those are either not appeal documents or are otherwise provided as core documents, I shall provide relevant extracts in the appendices.
- 1.8 It should also be read in conjunction with the *Proof of Evidence of Steven J Sensecall* on planning matters.

My Qualifications and Experience

- 1.9 I have a Master of Science degree in Transportation Planning and Engineering from the University of Southampton. I am a Chartered Member of the Institute of Logistics and Transport, and I am a Liveryman of The Worshipful Company of Carmen – the oldest transport society in the world – and a Patron of the London Transport Museum.
- 1.10 In 1997, I became a founding Director of Transport Planning Associates Limited, a practice of consulting transport planners, traffic engineers and infrastructure designers with offices in Bristol, Cambridge, London, Manchester, Oxford, and Welwyn Garden City. I previously held positions with White Young Green and Ove Arup & Partners, both large multi-disciplinary engineering consultancies.
- 1.11 During the course of that work, I have advised developers and promoters of a wide range of commercial, residential and mixed-use development proposals in many regions of the United Kingdom requiring significant investment in new transport infrastructure and services provision. I frequently appear as an expert witness on transport planning matters at various types of planning inquiries and hearings, and I provide further details of my experience at my **Appendix RL-A**.
- 1.12 In particular, and under my project direction, my Company has provided transport planning consultancy services to Alton Towers Resort, Chessington World of Adventures Resort and LEGOLAND® Windsor Resort. In respect of the latter, it prepared the *Transport Assessment*³ for a hybrid planning application for further development at LEGOLAND® Windsor Resort that was granted planning permission (subject to conditions) by the Royal Borough of Windsor and Maidenhead in April 2019. That document is referred to in the Appellant's transport consultant's (Motion's) *Technical Note – Day Visitors & Vehicle Distribution* (dated 16 September 2019) (the **Appellant's Day Visitor**

³ Reference: 1607-77/TA/01E, dated June 2017

Technical Note) provided at Appendix I to Motion's *Transport Assessment* (November 2019) (the **Appellant's Transport Assessment**)⁴.

- 1.13 Additionally, I gave evidence to the public inquiry held in respect of LEGOLAND® Windsor Resort's appeal against the refusal of the Royal Borough of Windsor and Maidenhead to grant planning permission for a new *Haunted House* attraction in October of 2015. The Inspector in that case granted planning permission (subject to conditions) in November 2015⁵.
- 1.14 I am familiar with The Planning Inspectorate's *Procedural Guide, Planning appeals – England* (July 2020), and the content of Annexes F and O.
- 1.15 I am also familiar with the appeal site and its environs having undertaken a site visit on Wednesday, 9 December 2020. In addition to familiarising myself with the transport environs of the appeal site, I have driven the various alternative routes to it from Junctions 9 and 10 of the M40 motorway (both northbound and southbound, and along the B430 from the A34. In doing that, I used both the *quickest* and the *shortest* satellite navigation route choice settings in order to replicate the likely route choices of visitors to the appeal proposal.

⁴ The Appellant's Transport Assessment, Appendix I, §2.10 (page 3)

⁵ Appeal Reference: APP/T0355/W/15/3005191

2 Scope and Nature of Evidence

- 2.1 My evidence to this Inquiry relates to the second (geographically unsustainable location) – insofar as it relates to the accessibility of the appeal proposal and its car dependency – and third (unacceptable traffic impacts) reasons for the District Council’s refusal of planning permission for the appeal proposal⁶.
- 2.2 More specifically, and with reference to the main issues identified by the Inspector (Mr S R G Baird BA (Hons) MRTPI) in his *Notes of Case Management Conference* held on 14 December 2020, it considers:-
- the effect on the safety and free flow of traffic on the highway network; and
 - locational sustainability insofar as it relates to the accessibility of the appeal proposal and its car dependency (as I said earlier).⁷
- 2.3 I note that the District Council has, wrongly in my view given the evidence base, narrowed the focus of its objection to the transport impact of the appeal proposal to its traffic impact on the Middleton Stoney Junction⁸. For that reason, and to avoid unnecessary duplication, my evidence to this Inquiry will focus on the traffic impact of the appeal proposal on other elements of the public highway network on the routes to and from the appeal site.

The Structure of my Evidence to this Inquiry

- 2.4 Following these introductory sections, my evidence comprises:-
- Section 3: *The Baseline Conditions* – providing a short description of the appeal site, the local transport network and the existing opportunities for sustainable travel to and from it;
 - Section 4: *Relevant Land Use and Transport Planning Policy and Guidance* – providing the land use and transport planning policy context for the appeal proposal, and identifying guidance relevant to the scope and extent of the reasons for refusal and the main issues identified;
 - Section 5: *The Appeal Proposal* – providing a short description of the appeal proposal and the off-site transport infrastructure and services improvements proposed by the Appellant, and noting the consultation responses of the local and strategic highway authorities, the District Council’s Case Officer’s assessment, and the context for the second and third reasons for refusal;
 - Section 6: *Assessment of the Transport Planning Issues Arising from the Appeal Proposal* – providing my assessment of the issues raised by the second and third reasons for refusal, and in the Inspector’s *Notes of Case Management Conference*;

⁶ 19/02550/F Decision Notice (12 March 2020)

⁷ Notes of Case Management Conference (14 December 2020), §5 (page 2)

⁸ Ibid, §7 (page 2)

- Section 7: *Summary and Conclusions* – presenting my conclusion that the Local Planning Authority's second and third reasons for refusal are well founded, that the appeal site is in a geographically unsustainable location, that the appeal proposal will be unacceptably car dependent and that the Appellant has failed to demonstrate that its traffic impact can be appropriately mitigated. In my view, the appeal should be dismissed.

3 The Baseline Conditions

The Appeal Site

- 3.1 The appeal site is described in the Appellant's Transport Assessment⁹ (and elsewhere), and is identified in Figure 3.1 (*Site Location Plan*) therein.
- 3.2 It lies in the Parish of Chesterton but it is not physically related to the village, which is (approximately) a travel distance of 1.1 kilometres (0.7 miles) away from it¹⁰. The nearest town is Bicester, which is (approximately) a travel distance of 4.3 kilometres (2.7 miles) away¹¹.

Vehicular Access to the Appeal Site

- 3.3 The Appellant's Transport Assessment says that the appeal site "*benefits from a main customer/ visitor access from Green Lane and a secondary access from the A4095*"¹².

Existing Highway Network

- 3.4 The existing local highway network is described in paragraphs 3.3 to 3.5 (on page 7) of the Appellant's Transport Assessment and it, too, is illustrated in Figure 3.1 (*Site Location Plan*) therein.

Existing Sustainable Travel Opportunities

Walking

- 3.5 The Appellant acknowledges that no footways are currently provided along the A4095 in the immediate vicinity of the appeal site¹³ and that an existing Public Right of Way (number: 161/06, linking Green Lane with the A4095) currently bisects the appeal site; identified in Figure 3.2 (*Local Footpaths*) in its Transport Assessment.

⁹ The Appellant's Transport Assessment, §3.1 (page 7)

¹⁰ Based on Grid Reference: 51.89190, -1.19993 (the approximate location of the centre of the proposed new site access junction) to the centre of Chesterton on Alchester Road (as identified in Google Maps)

¹¹ Based on Grid Reference: 51.89190, -1.19993 (the approximate location of the centre of the proposed new site access junction) to the centre of Bicester near the roundabout at the intersection of the B4100, Manorsfield Road with St John's Street

¹² The Appellant's Transport Assessment, §3.1 (page 7)

¹³ Ibid, §3.9 (page 8)

Cycling

- 3.6 Figure 3.3 (*Local Cycle Routes*) in the Appellant's Transport Assessment confirms that there are no existing cycleways in the immediate vicinity of the appeal site.

Local Bus Services

- 3.7 The nearest bus stop is located on Alchester Road, Chesterton, and is (approximately) a travel distance of 800 metres (0.5 miles) away¹⁴. As the Appellant's Transport Assessment acknowledges, local bus service number 21 (operated by Grayline) departs from this stop once-a-day Mondays to Saturdays at 07:25¹⁵.

Local Rail Services

- 3.8 Rail services are available at Bicester North Railway Station approximately 4.8 kilometres (3.0 miles) from the appeal site and at Bicester Village Railway Station approximately 5.0 kilometres (3.1 miles) away¹⁶.
- 3.9 Bicester North lies on the Chiltern Main Line between London (Marylebone) and Birmingham (Moor Street and Snow Hill). Weekday off-peak services comprise two trains per hour from London and one per hour (each) from Banbury and Birmingham.
- 3.10 Bicester Village lies on the Oxford-Bedford Line with half-hourly services from London and Oxford.

Concluding Remarks

- 3.11 On the face of it, therefore, and in the context of its accessibility, I consider that the appeal site can be reasonably and fairly be described as isolated and that its accessibility to sustainable modes of travel is very poor such that it is unlikely to be suitable for anything more than minor development.
- 3.12 In the context of the appeal proposal, with no immediate access to a comprehensive network of continuous footpaths, foot/ cycleways, or to transport interchanges providing access to onward (or inward) sustainable travel opportunities, and with a once-a-day bus service with no available return

¹⁴ Based on Grid Reference: 51.89190, -1.19993 (the approximate location of the centre of the proposed new site access junction) to the green on Alchester Road, Chesterton

¹⁵ The Appellant's Transport Assessment, §3.13 (page 8)

¹⁶ Based on Grid Reference: 51.89190, -1.19993 (the approximate location of the centre of the proposed new site access junction) to Bicester North Railway Station and Bicester Village Railway Station

journey (some distance away), I consider that such isolation means that without an unprecedented (in my experience) level of investment in transport infrastructure and services, the appeal proposal will not be able to offer a genuine and meaningful choice of sustainable modes of travel to anyone other than those that live within its immediate environs. It is therefore, and again in my view, highly likely that day visitors, hotel guests and staff that travel to and from the appeal proposal will be, almost entirely, dependent on travelling by car.

- 3.13 In my professional experience, and other than for minor forms of infill development, the appeal site represents one of the most geographically unsustainable locations that I have considered.

4 Relevant Land Use and Transport Planning Policy and Guidance

- 4.1 The relevant land use and transport planning policy is provided in the National Planning Policy Framework (February 2019, as amended by a Written Ministerial Statement in June 2019) (the **Framework** and (elsewhere) the **NPPF**) and in the development plan. The component parts of the development plan comprise:
- the *Cherwell Local Plan 2011-2031 – Part 1* (adopted in July 2015) (the **2015 Local Plan**); and
 - the saved policies of the *Cherwell Local Plan 1996* (the **1996 Local Plan**).
- 4.2 The local transport plan is the County Council's *Connecting Oxfordshire: Local Transport Plan 2015-2031 (LTP4)*.
- 4.3 Guidance on the provision of sustainable travel opportunities has, most recently, been published by the Chartered Institution of Highways & Transportation (**CIHT**) and the Department for Transport (**DfT**). I note that the Appellant acknowledges the guidance provided in the (then) Institution of Highways & Transportation's (**IHT**) *Providing for Journeys on Foot* (2000)¹⁷ and in the CIHT's *Planning for Walking* (2015) and *Planning for Cycling*¹⁸.

The National Planning Policy Framework

- 4.4 Both the second and third reasons for the District Council's refusal to grant planning permission for the appeal proposal assert that it is contrary to the Framework¹⁹.

Introduction

- 4.5 It is important to remember that the Framework "is a material consideration in planning decisions"²⁰ and that it "should be read as a whole"²¹.

¹⁷ Appellant's Transport Assessment, §3.7 (page 7)

¹⁸ Ibid, §3.6 (page 7)

¹⁹ 19/02550/F Decision Notice (12 March 2020)

²⁰ National Planning Policy Framework, §2 (page 4)

²¹ Ibid, §3 (page 4)

Achieving Sustainable Development

- 4.6 The Framework tells us that: *“The purpose of the planning system is to contribute to the achievement of sustainable development”*²²; and *“that the planning system has three overarching objectives, which are interdependent”,* economic, social and environmental²³. It also guides us to *“take local circumstances into account”,* and *“to reflect the character, needs and opportunities of each area”*²⁴.
- 4.7 Central to the Government’s ambition *“is a presumption in favour of sustainable development”*²⁵. In the context of decision-taking, it explains that development proposals should be granted planning permission for *“development proposals that accord with an up-to-date development plan”*²⁶ or, as in this case, unless *“any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole”*²⁷.

Promoting Sustainable Transport

- 4.8 Paragraph 102 of the Framework includes the core land use and transport planning principle that *“opportunities to promote walking, cycling and public transport use are identified and pursued”*²⁸ and paragraph 103 says that:

*“Significant development should be focussed on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes.”*²⁹

- 4.9 It is noteworthy that the Framework does recognise that the *“opportunities to maximise sustainable transport solutions will vary between urban and rural areas”*³⁰, and that this should be taken into account in decision-taking.
- 4.10 It should also be noted that the Framework defines ‘major development’ as *“additional floorspace of 1,000m² or more, or a site of 1 hectare or more”*³¹ and ‘sustainable transport modes’ as:

²² National Planning Policy Framework, §7 (page 5)

²³ Ibid, §8 (page 5)

²⁴ Ibid, §9 (page 5)

²⁵ Ibid, §10 (page 5)

²⁶ Ibid, §11, c) (page 6)

²⁷ Ibid, §11, d) ii (page 6)

²⁸ Ibid, §102 (page 30)

²⁹ Ibid, §103 (page 30)

³⁰ Ditto

³¹ National Planning Policy Framework, Annex 2: Glossary (page 68)

“Any efficient, safe and accessible means of transport with overall low impact on the environment, including walking and cycling, low and ultra low emission vehicles, car sharing and public transport.”³²

Considering Development Proposals

4.11 Paragraph 108 of the Framework requires that:

“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.”³³*

4.12 Paragraph 109 maintains that:

“Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.”³⁴

4.13 In that context, paragraph 110 tells us that applications for development should, *inter alia*:-

“give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use”.³⁵

4.14 Finally, paragraph 111 requires that all *“developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed”.³⁶*

³² National Planning Policy Framework, Annex 2: Glossary (page 72)

³³ Ibid, §108 (pages 31-32)

³⁴ Ibid, §109 (page 32)

³⁵ Ibid, §110 a) (page 32)

³⁶ Ibid, §111 (page 32); Transport Statement, Transport Assessment and Travel Plan are defined in Annex 2: Glossary (pages 72-73)

Cherwell Local Plan 2011-2031 – Part 1 (2015)

- 4.15 Policy SLE4 (*Improved Transport and Connections*) of the 2015 Local Plan is referred to in both the second and third reasons for the District Council's refusal to grant planning permission for the appeal proposal, and Policy ESD1 (*Mitigation and Adapting to Climate Change*) is referred to in the second reason for refusal.

Policy SLE4: Improved Transport and Connections

- 4.16 Policy SLE4 of the 2015 Local Plan requires that:

*"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."*³⁷

- 4.17 The supporting narrative explains that, through its 2015 Local Plan, the District Council is seeking to promote "a modal shift away from an over reliance on the car to less energy intensive forms of transport"³⁸ and "to locate development in sustainable locations"³⁹.

Policy ESD1: Mitigating and Adapting to Climate Change

- 4.18 Policy ESD1 of the 2015 Local Plan considers the mitigation of the impact of development and the first two bullets see this as including:-

"• Distributing growth to the most sustainable locations as defined in this Local Plan"; and

*"• Delivering development that seeks to reduce the need to travel and which encourages sustainable travel options including walking, cycling and public transport to reduce dependence on private cars"*⁴⁰

³⁷ Cherwell Local Plan 2011-2031 Part 1, Section B – Policies for Development in Cherwell, page 55

³⁸ Ibid, §B.70 (page 52)

³⁹ Ibid, §B.75 (page 53)

⁴⁰ Ibid, pages 85-86

- 4.19 The supporting narrative explains that the *“most sustainable locations for growth in the District are considered to be Banbury, Bicester and the larger villages as identified in Policies Villages 1 and Villages 2 as these settlements have a range of services and facilities, reducing the need to travel by car”*⁴¹.
- 4.20 Policy Villages 1 (Village Categorisation) categories Chesterton as a *Category A, Service Village* suitable for minor development⁴².

Saved Policies of the Cherwell Local Plan 1996

- 4.21 Saved Policy TR7 (*Minor Roads*) of the 1996 Local Plan is referred to in both the second and third reasons for the District Council’s refusal to grant planning permission for the appeal proposal.

Policy TR7: Minor Roads

- 4.22 The supporting narrative to Saved Policy TR7 explains that in order to protect amenity and in the interests of highway safety, *“development likely to create significant traffic flows will normally, ..., be expected to have good access to the major through routes or County inter-town routes ... or other principal roads”*⁴³. For that reason, the policy says that:

*“Development that would regularly attract large commercial vehicles or large numbers of cars onto unsuitable minor roads will not normally be permitted”*⁴⁴.

Connecting Oxfordshire: Local Transport Plan 2015-2031

- 4.23 Policy 17 (Minimising the need to travel) of LTP4 is referred to in the third reason for the District Council’s refusal to grant planning permission for the appeal proposal.

Policy 17: Minimising the Need to Travel

- 4.24 It states that:

“Oxfordshire County Council will seek to ensure through cooperation with the districts and city councils, that the location of development makes best use of existing and planned infrastructure,

⁴¹ Cherwell Local Plan 2011-2031 Part 1, Section B – Policies for Development in Cherwell, §B.183 (page 85)

⁴² Cherwell Local Plan 2011-2031 Part 1, Section C – Policies for Cherwell’s Places, pages 246-247

⁴³ Cherwell Local Plan 1996, Section 5, Transportation, §5.25 (page 66)

⁴⁴ Ibid, page 66

provides new or improved infrastructure and reduces the need to travel and supports walking, cycling and public transport.”⁴⁵

Relevant Guidance and Standards

Better Planning, Better Transport, Better Places

4.25 *Better planning, better transport, better places* [**Appendix RL-B**] was published by the CIHT in 2019. It is relevant to the consideration of the sustainability characteristics of the appeal site and to the propensity for visitors to, and guests and staff at, the appeal proposal to use sustainable modes of travel.

4.26 It provides a critical review of the integration of planning and transport that starts with the premise that “governments have attempted to encourage a more sustainable approach to transport within spatial planning but have made limited progress”. It acknowledges that the Framework “has moved national policy in the right direction” and it suggests that: “Integrating sustainable transport into new developments is key to achieving that outcome” and asserts that:

“Our quality of life depends on transport and easy access to jobs, shopping, leisure facilities, and services. We need an efficient and integrated planning and transport system to not only support a strong and prosperous economy but to reduce carbon emissions.”⁴⁶

4.27 It expresses “the increasing frustration of a wide range of organisations and opinion formers who have identified that current practice leads to more car-based development, contrary to the stated aims of national planning policy”⁴⁷ and aims “to provide practical advice for everyone involved in the planning process”⁴⁸.

4.28 In the context of the appeal proposal and at a strategic level, it cautions that site selection “driven purely by the availability of land is likely to result in a highly unsustainable pattern of development”⁴⁹.

⁴⁵ Connecting Oxfordshire: Local Transport Plan 2015-2031, Volume 1: Policy & Overall Strategy, page 58

⁴⁶ Better planning, better transport, better places, Executive Summary (page 5)

⁴⁷ Better planning, better transport, better places, Section A: The context, §1.1 (page 8)

⁴⁸ Ibid, §1.2 (page 8)

⁴⁹ Better planning, better transport, better places, Section B: Taking the right approach, §4.1 d (page 19)

Planning for Walking

- 4.29 *Planning for Walking* [**Appendix RL-C**] was published by the CIHT in 2015. It is, similarly, relevant to the consideration of the sustainability characteristics of the appeal site and to the propensity for day visitors to, and staff at, the appeal proposal to walk from and to their homes to it.
- 4.30 It describes the characteristics of pedestrian journeys, lists the benefits of walking, identifies factors that discourage walking and how they can be overcome, summarises the legal framework that applies to pedestrians, and outlines the way that plans and strategies for pedestrian travel are developed.
- 4.31 Interestingly, and unsurprisingly in my view, it acknowledges that the propensity for people to walk in rural areas is less than in urban areas:

“At approximately 200 journeys per person per year, walking is remarkably consistent from cities to small towns. Only in rural districts do people walk significantly less.”⁵⁰

- 4.32 With regard to the propensity for people to walk, and with reference to the National Travel Survey in 2012, it notes that:

“In 2012 walkers accounted for 79 per cent of all journeys shorter than 1 mile [1.6 kilometres], but beyond that distance cars are the dominant mode”⁵¹

- 4.33 Finally, and in the context of promoting walking as a sustainable mode of travel, it reminds us that a Travel Plan “is a long-term management strategy for an occupier or site that seeks to deliver sustainable transport objectives through positive action and is articulated in a document that is regularly reviewed”⁵².

Guidelines for Providing for Journeys on Foot

- 4.34 *The Guidelines for Providing for Journeys on Foot* [**Appendix RL-D**] was published by the (then) IHT in 2000. It is, similarly, relevant to the consideration of the sustainability characteristics of the appeal site and to the propensity for day visitors to, and staff at, the appeal proposal to walk to and from it. It reminds us that:

“Walking is the most sustainable form of travel and provides one way of helping to reduce pressures on the environment. It uses less space per person than any other form of travel. It

⁵⁰ *Planning for Walking*, §1 (page 4)

⁵¹ *Ibid*, §2.1 (page 6) – see also Figure 1

⁵² *Ibid*, §7 (page 35)

burns no fossil fuels, involves no harmful emissions, and can accommodate peaks in use more easily and at less cost than any other mode.”⁵³

- 4.35 With regard to the consideration of acceptable walking distances, it tells us that: *“An average walking speed of 1.4 m/s can be assumed, which equates to approximately 400m in five minutes or three miles per hour”⁵⁴.*
- 4.36 Table 3.2 (on page 49) of the guidance *“contains suggested acceptable walking distances, for pedestrians without a mobility impairment for some common facilities”* and advises that these *“may be used for planning and evaluation purposes”⁵⁵*. Those suggested acceptable walking distances are categorised as: *‘desirable’, ‘acceptable’ and ‘preferred maximum’* distances. The table is reproduced in my **Appendix RL-D** and in the Appellant’s Transport Assessment as Table 3.1 (on page 7).

Planning for Cycling

- 4.37 *Planning for Cycling [Appendix RL-E]* was published by the CIHT in 2014. It is also relevant to the consideration of the sustainability characteristics of the appeal site and to the propensity for both day visitors to and hotel guests, and staff, at the appeal proposal to cycle to and from it.
- 4.38 It describes the characteristics and benefits of cycling, summarises the benefits of cycling (on page 6), identifies factors that discourage cycling and how they can be overcome, summarises the legal framework that applies to cyclists, and outlines the way that plans and strategies for cycling are developed.
- 4.39 It tells us that: *“Cycling is an important part of urban transport”⁵⁶*, and notes that *“only 15% of the population cycle once a week or more, and around 65% do not cycle at all”⁵⁷*. It notes also that: *“The majority of cycling trips are for short distances, with 80% being less than five miles [8.0 kilometres] and with 40% being less than two miles [3.2 kilometres]”⁵⁸*.
- 4.40 In considering the barriers to cycling, it notes that: *“Fear of traffic is one of the main factors that discourage people from cycling, and cyclists (along with pedestrians) experience proportionately higher rates of road casualties than any other road users except motorcyclists”⁵⁹*. Recognising that this barrier has more to do with *“people’s perceptions and habits”*, it identifies that the challenge to encourage more people to cycle is *“improving the environment for cycling by making it more attractive and*

⁵³ Guidelines for Providing for Journeys on Foot, §1.21 (page 16)

⁵⁴ Ibid, §3.30 (page 48)

⁵⁵ Ibid, §3.32 (page 48)

⁵⁶ Planning for Cycling, Introduction (page 3)

⁵⁷ Ibid, Cycling Characteristics, Behaviour and Trends in the UK (page 3)

⁵⁸ Ibid, Who Cycles and Why? (page 4)

⁵⁹ Ibid, Road Safety (page 7)

*comfortable*⁶⁰. In that respect, I note that the guidance considers that *“it is unrealistic to expect many existing and potential cycle users to find high volume or fast-moving mixed traffic conditions either attractive or comfortable”*⁶¹.

- 4.41 With reference to Local Transport Note 02/08 (Cycle Infrastructure Design) now withdrawn and replaced with Local Transport Note 1/20, Cycle Infrastructure Design (2020), it notes that:

*“... at speeds of twenty miles per hour and below, cycle traffic and motor traffic readily mixes. At speeds up to thirty miles per hour, it may be appropriate to manage traffic within the carriageway by providing separate lanes for cycle traffic. At speeds greater than thirty miles per hour and for volumes of more than 10,000 vehicles per day, it may be appropriate to provide infrastructure for cycle traffic separate from motor traffic.”*⁶²

- 4.42 In considering recent growth trends in cycling that *“has taken place mainly in congested inner urban areas and in leisure cycling”*, it notes that: *“On-road cycling in suburbs and rural areas has changed little from the low levels of the 1990s”*⁶³.

Cycle Infrastructure Design (Local Transport Note 1/20)

- 4.43 *Cycle Infrastructure Design (Local Transport Note 1/20)* [Appendix RL-F] was published by the DfT in 2020. It is also relevant to the consideration of the sustainability characteristics of the appeal site and of the proposed new 2.5m wide foot/ cycleway along the southern side of the A4095 from the Site Access Junction to The Hale to be provided by the appeal proposal.

- 4.44 It, too, recognises that: *“Motor traffic is the main deterrent to cycling for many people with 62% of UK adults feeling that the roads are too unsafe for them to cycle on”*. Further, it notes that: *“On busier and faster highways, most people will not be prepared to cycle on the carriageway, so they will not cycle at all, or some may unlawfully use the footway”*⁶⁴.

- 4.45 In Figure 4.1 (on page 33), it summarises *“the traffic conditions when protected space for cycling”* is appropriate. For speed limits above 40mph and regardless of volume, it notes that expecting cyclists to mix with motor traffic is *“suitable for few people and will exclude most potential users and/ or have safety concerns”*. In such circumstances, it considers the appropriate provision *“suitable for most people”* is a fully kerbed cycle track. Importantly, the guidance tells us that:

⁶⁰ Planning for Cycling, Road Safety (page 9)

⁶¹ Ibid, Overall Principles (page 17)

⁶² Ditto

⁶³ Planning for Cycling, Recent Growth Trends (page 10)

⁶⁴ Cycle Infrastructure Design, §4.4.1 (pages 32-33)

“Although there may be fewer cyclists and pedestrians in rural areas, the same requirements for separation from fast moving motor vehicles applies.”

“Cycle lanes on the carriageway can be appropriate on less busy roads with lower speed limits, but do not provide any physical protection from motor vehicles and so do not adequately meet the needs of most vehicles on busier and faster roads.”⁶⁵

- 4.46 In Table 5-2 (on page 43), the guidance identifies desirable minimum and absolute minimum widths of 2.0m and 1.5m (respectively) for on-carriageway one-way cycle lanes. It also tells us that: *“Cycle lanes less than 1.5m wide should not normally be used as they will exclude the use of the facility by larger cycles and are therefore not inclusive”⁶⁶.*
- 4.47 In paragraph 6.5.6 (on page 67), and in considering routes available for both pedestrians and cyclists, the guidance acknowledges that shared use *“may be appropriate in some situations, if well-designed and implemented”*. In Table 6-3 (on page 68), and for up to 300 cyclists per hour, it recommends a minimum width of 3.0m for shared routes carrying up to 300 pedestrians per hour.
- 4.48 Further, and with regard to traffic lane widths for roads with a speed limit of 40mph, Table 7-2 (on page 75) tells us that widths of between 3.2 and 3.9m *“are not acceptable for cycling in mixed traffic”*.

Buses in Urban Developments

- 4.49 *Buses in Urban Developments [Appendix RL-G]* was published by the CIHT in 2018. It is also relevant to the consideration of the sustainability characteristics of the appeal site and to the propensity for day visitors to and hotel guests, and staff, at the appeal proposal to travel by bus to and from it.
- 4.50 The guidance acknowledges that the *“use of buses varies considerably”* depending on location and that the choice of bus falls to *“only 3% in rural towns and fringe areas”⁶⁷.*
- 4.51 In considering the walking distance to bus stops and the definition of bus catchment areas, it acknowledges that custom and practice for many years has suggested a maximum walking distance of 400m to and from a bus stop. More recently, it has been acknowledged that a more sophisticated approach to bus catchment area planning and evaluation is required in order to successfully reduce car use and increase the use of sustainable travel modes. Such an approach acknowledges that the walking distance is not a stand-alone consideration; that people will tend to be prepared to walk

⁶⁵ Cycle Infrastructure Design, §4.4.4 (page 33)

⁶⁶ Ibid, §6.4.3 (page 61)

⁶⁷ Buses in Urban Developments, Section A – Context and policy framework (page 7)

further to fast, direct, or more frequent bus services and that they take account of the total journey travel time.

- 4.52 For those reasons, Table 4 (on page 18) recommends a maximum walking distance to bus stops for less frequent routes (compared to other situations) of 300m in order *“to enable the bus to compete effectively with the car and to benefit a wide range of people with differing levels of motivation and walking ability”*⁶⁸.

Concluding Remarks

- 4.53 In summary, the Government is seeking the achievement of sustainable development. Insofar as that objective relates to transport matters (and issues arising from development), it requires that significant developments (such as the appeal proposal) are located where they can contribute to both limiting the need to travel and offer access to a genuine choice of transport modes. To that end, the Government requires developers to provide and promote sustainable travel opportunities appropriate to the nature and scale of development, and its location. It expects developers to prioritise pedestrians, cyclists and travel by public transport and to encourage those modes of travel.
- 4.54 In considering the accessibility of a development proposal, paragraph 109 of the Framework should not be read in isolation because it relates solely to the unacceptable impact of a proposed development on highway safety and its impact on the road network.
- 4.55 Likewise, the local development plan and the local transport plan both support the Government’s objective. Both the District and County Councils are seeking to facilitate the use of sustainable modes of travel and recognise that the location of development is key to the achievement of that objective.
- 4.56 The CIHT is critical of the progress that has been made towards the achievement of the Government’s objective, and both it and the DfT have produced guidance relevant to the consideration of the scope and extent of pedestrian, cycle, and public transport infrastructure and services necessary to limit the need to travel, promote and encourage the use of sustainable travel modes, and reduce the car dependency of development.

⁶⁸ Buses in Urban Developments, Section A – Context and policy framework (page 18)

5 The Appeal Proposal

- 5.1 The appeal proposal is described in the Appellant's Transport Assessment⁶⁹ (and elsewhere), and is illustrated in EPR Architect's *Proposed Site Plan* work-in-progress drawing (number 10875-EPR-00-ZZ-DR-A-SK-0063, Revision 1) (the **Proposed Site Plan**) provided at Appendix B therein.

Proposed Site Access Arrangements

- 5.2 The proposed site access arrangements comprise the proposed provision of a new priority 'T' junction (with ghost island right turning lane) of the proposed site access road with the B4095 (the **Proposed Site Access Junction**). It is illustrated in Motion's *Proposed Access Arrangement* drawing (number 1803047-03, Revision E) provided at Appendix C to the Appellant's Transport Assessment.
- 5.3 They also include for the proposed provision of a new 2.5m wide foot/ cycleway along the southern side of the A4095 from the Site Access Junction to the junction with The Hale. It is illustrated in Motion's *Proposed Shared Foot/Cycleway* drawing (number 1803047-02, Revision A) also provided at Appendix C to the Appellant's Transport Assessment.
- 5.4 It should be noted that the width of the proposed foot/ cycleway is less than the recommended minimum width of 3.0m for shared use routes carrying up to 300 pedestrians per hour given in Table 6-3 (on page 68) of *Cycle Infrastructure Design* [**Appendix RL-F**].

Parking

- 5.5 The appeal proposal includes for the provision of 902 car parking spaces for guests and staff, of which 56 will be dedicated for use by disabled persons⁷⁰, and 40 cycle parking spaces⁷¹, of which 20 will be provided in a secure cycle store close to the staff entrance and the remaining 20 uncovered spaces close to the main guest entrance.
- 5.6 In terms of the scale of the car parking proposed, I note that following the fourth phase of development at the Bicester Village retail outlet centre (**Bicester Village**) the *Transport Assessment* (June 2012) prepared by Royal Haskoning [**Appendix RL-H**] says that parking provision there would increase from 2,186 to 2,516 spaces⁷². I also note that this was acknowledged as being insufficient to accommodate the forecast demand for car parking between 13:00 and 16:00 on a Saturday⁷³. Bicester

⁶⁹ The Appellant's Transport Assessment, §4.1 (page 11)

⁷⁰ The Appellant's Transport Assessment, §4.14 (page 12)

⁷¹ Although the application form says 80 cycle parking spaces

⁷² Royal Haskoning's Bicester Village Retail Outlet Centre, Transport Assessment (2012), §4.3.3 (page 26)

⁷³ Ibid, §10.12.6 (page 58)

Village is described as being “*nationally recognised*”⁷⁴, “*approximately 500m south of Bicester town centre*”⁷⁵ and it is located adjacent to the A41 (London to Birkenhead Trunk Road) and within walking distance of Bicester Village railway station. I understand also that a regular shuttle bus service is also provided to and from Bicester North railway station.

- 5.7 The Appellant’s Transport Assessment claims that the level of parking provision at the appeal proposal “*is considered appropriate to meet the needs of the Proposed Development and is based on the operator’s experience of their existing resorts*”⁷⁶ (in the United States of America). It estimates a “*peak parking demand of around 829 cars*”⁷⁷, equivalent to a ratio of demand to capacity of 0.919 (91.9%). It includes (at Appendix E) a *Parking Accumulation Assessment* (the **Appellant’s Parking Accumulation Assessment**) that it says “*has been undertaken based on the expected vehicle trip profile establish[ed] in Section 5 of this report and based on existing Great Wolf Lodges*”⁷⁸.
- 5.8 The Appellant’s Parking Accumulation Assessment shows the occupancy of the proposed car park at between 703 and 829 vehicles on a weekday and between 673 and 807 vehicles during the weekend. That is inconsistent with Table 2.2 (Hotel Occupancy and Guest Arrivals/ Departures) in Motion’s *Scoping Note Addendum: Trip Generation Analysis* (dated 9 July 2019) (the **Appellant’s Trip Generation Analysis**) and provided at Appendix H to the Appellant’s Transport Assessment that suggests hotel occupancy of 75% Sundays to Thursdays rising to 100% on Fridays and Saturdays. I would have expected, intuitively, that the Appellant’s Parking Accumulation Assessment would forecast that the maximum demand for car parking would occur at the weekend (at least on a Saturday) coincident with 100% occupancy of the hotel.
- 5.9 I also note, however, from the Appellant’s Trip Generation Analysis that:

*“It was originally proposed that 1,000 car parking spaces would be provided on site. Having considered feedback received from OCC the proposed parking provision has been reduced to circa 900-920 car parking spaces.”*⁷⁹

- 5.10 That implies that the County Council has encouraged the Appellant to reduce the quantum of car parking at the appeal proposal, and the Appellant’s Trip Generation Analysis goes on to assert that based on the “*peak occupancy of the hotel of 2,250 guests*”⁸⁰ and what it says is the “*typical car occupancy*” of “*3 guests per car*”, “*would equate to a typical parking demand of 750 car parking spaces*”⁸¹.

⁷⁴ Royal Haskoning’s Bicester Village Retail Outlet Centre, Transport Assessment (2012), §2.3.6 (page 6)

⁷⁵ Ibid, §2.2.1 (page 5)

⁷⁶ The Appellant’s Transport Assessment, §4.16 (page 12)

⁷⁷ Ibid, §4.16 (page 12)

⁷⁸ Ibid, §4.16 (page 12)

⁷⁹ Ibid, Appendix H, §3.1 (page 7)

⁸⁰ Ibid, §3.2 (page 7)

⁸¹ Ibid, §3.3 (page 7)

It then estimates “that up to 160 staff could drive to the site and be parked on site at peak times”⁸² resulting in a “total parking demand of 910 cars ... during peak periods”⁸³, equivalent to a ratio of demand to capacity of 1.009 (100.9%). That is inconsistent with the Appellant’s Parking Accumulation Assessment based on its own data, and suggests that the appeal proposal is likely to be *under-parked*.

- 5.11 On the basis we are being told that peak occupancy of the hotel will occur on Fridays and Saturdays, it follows that the Appellant’s own forecast of the maximum demand for car parking for 910 car parking spaces will occur at the same time. It is incredulous, therefore, that the Appellant’s Parking Accumulation Assessment shows the occupancy of the proposed car park will peak at 807 vehicles during the weekend, and less than that it forecasts on a weekday.
- 5.12 Setting aside those inconsistencies and the counter-intuitiveness of the Appellant’s evidence base for a moment, and for reasons that I will explain later in my evidence to this Inquiry, I consider that both the Appellant’s Transport Assessment and the County Council has grossly under-estimated the parking demand of the appeal proposal. My *first principles* based analysis based on the Appellant’s own data (provided in section 6 of this proof of evidence) suggests that parking demand at the appeal proposal will be for significantly in excess of 1,000 car parking spaces.

Proposed Transport Infrastructure and Services Improvements

Middleton Stoney Junction improvement

- 5.13 The Appellant’s proposed improvement of the Middleton Stoney Junction is illustrated in Motion’s undated *Indicative Mitigation Works* drawing (number 1803047-17, Revision B) provided at Appendix A to its *Technical Note: Response to Reasons for Refusal and Summary of Discussions with OCC* (dated 8 September 2020) (the **Appellant’s Response to the Reasons for Refusal**) provided at Appendix 4 to the Appellant’s *Statement of Case*.
- 5.14 Given the obvious constraints at this junction and that it represents a critical node in the local highway network, it is both surprising and disappointing that this drawing is both titled ‘*indicative*’ and based upon the Ordnance Survey which is notoriously inaccurate. Add to those the limited amount of dimensional detail that has been provided and there must, inevitably therefore, be some doubt as to whether, or not, these proposed works can be implemented as shown. Given that the geometry of any junction represent a key input parameter of any capacity assessment that is undertaken, it raises doubts regarding the efficacy of the capacity analysis provided in Appendix D to Motion’s *Technical*

⁸² The Appellant’s Transport Assessment, Appendix H, §3.5 (page 7)

⁸³ *Ibid*, §3.6 (page 7)

Note: Highway Matters (dated 4 September 2020) (the **Appellant's Highway Matters Technical Note**) also provided at Appendix 4 to the Appellant's *Statement of Case*.

- 5.15 Furthermore, the Motion's swept path analysis of the proposed Middleton Stoney Junction improvement provided at Appendix B to the Appellant's Highway Matters Technical Note amounts to consideration of the straight through movements on the B4030 only. I note that this route is also a bus route but the Appellant does not provide any analysis of the swept path of a bus through the junction.
- 5.16 On the basis that, the highway works proposed alter the geometry (and available road space) of the left turn out of, and right turn into, the A4030, Bicester Road, it should not be considered certain that large vehicles will not over-sail opposing road markings such that stationary vehicles waiting to undertake opposing movements are likely to block their path. The consequences of that are obvious but it should also be noted that any future alteration of the design of the proposed works required to set-back vehicular stop-lines will not have been reflected in the inter-green times employed in Motion's capacity analysis of the junction. Until that analysis has been completed comprehensively, and in my view, Motion's capacity analysis of its suggested Middleton Stoney Junction improvement should not be relied upon.

Shuttle Bus Services

- 5.17 The Appellant proposes the provision of a private *free to use* shuttle bus service between the appeal proposal and both Bicester Village and Bicester North railway stations that will be available for use by day visitors, hotel guests and staff. The Appellant's Transport Assessment states that it is "*intended that the shuttle bus will be available to residents of Chesterton, also free of charge*"⁸⁴.
- 5.18 It explains that this service will be provided on an infrequent "*once every two-hour basis*"⁸⁵ "*between 9:00am and 17:00pm*"⁸⁶. Assuming services run at 09:00; 11:00; 13:00; 15:00; and 17:00, that amounts to the provision of five services per day.
- 5.19 Additionally, the Appellant proposes the provision of a separate shuttle bus service for staff that will "*also be available to residents of Chesterton*". Other than the Appellant's Transport Assessment saying that "*it will not be necessary for the service to run throughout the day and it is envisaged the timing of the service will be based on the start/finish times of the main shifts*"⁸⁷ in operation at the appeal

⁸⁴ The Appellant's Transport Assessment, §4.8 (page 11)

⁸⁵ *Ibid*, §4.9 (page 12)

⁸⁶ *Ibid*, §4.10 (page 12)

⁸⁷ *Ibid*, §4.11 (page 12)

proposal, it is unclear how many services are to be provided. On the face of it, however, I think that it is reasonable to assume that it likely to be limited to two services per day.

Proposed Travel Planning Initiatives

- 5.20 Motion's *Framework Travel Plan*, dated November 2019 (the **Appellant's Framework Travel Plan**) is generic and superficial. It does not add anything meaningful to the information provided in the Appellant's Transport Assessment.
- 5.21 In considering the implementation, monitoring and review of its Travel Plan, the Appellant's Framework Travel Plan fails to acknowledge that its Trip Generation Analysis (optimistically, in my view) assumes that 20% of staff employed at the appeal proposal will use sustainable travel modes⁸⁸.
- 5.22 Worse, Motion disconnects from that premise when the Appellant's Framework Travel Plan suggests that a post-opening travel survey that will be undertaken of staff employed at the appeal proposal will be used to determine "*a baseline mode share of staff travel upon which targets will be defined*"⁸⁹.
- 5.23 The Appellant's Framework Travel Plan does not contemplate what those targets should be, or what similar targets for day visitors or hotel guests should be. It says that it will establish the baseline modal share position but it does not really consider what, if any, initiatives or further measures could be introduced in order to reduce the number of car trips to the appeal proposal, and increase the number made by sustainable modes. It does not set targets, and it does not commit to the provision of a travel plan bond that would provide additional funding to the County Council in the event that any targets agreed were not met.
- 5.24 Further, it is incredibly disappointing given the scale of the appeal proposal that, the Appellant's Framework Travel Plan describes itself as "*a long-term strategy to inform staff and guests of the travel choices available to them*"⁹⁰ yet it is only proposed to be reviewed three times, in years one, three and five⁹¹.

The Highway Authorities' Consultation Responses

- 5.25 The County Council's updated consultation response (as local highway authority) dated 3 March 2020 (the **Local Highway Authority's Updated Response**) [**Appendix RL-I**] needs to be read in

⁸⁸ The Appellant's Transport Assessment, Appendix H, §2.21 (page 6)

⁸⁹ The Appellant's Framework Travel Plan, §6.1 (page 9)

⁹⁰ Ibid, §3.1 (page 4)

⁹¹ Ibid, §6.6 (page 9) and §6.10 (page 10)

conjunction with its previous response dated 10 January 2020 (the **Local Highway Authority's Initial Response**) [Appendix RL-J].

- 5.26 Given that both of these documents set out, comprehensively in my view, a number of fundamental issues regarding the location of the appeal site and the nature of the appeal proposal, it is surprising, again in my view, that the Local Highway Authority only objects to the appeal proposal because the existing:

*"Severe congestion at the Middleton Stoney signalised junction will be exacerbated by the additional trips generated by the proposed development. This is contrary to paragraphs 103, 108 and 109 of the NPPF, Cherwell Local Plan Policy SLE4 and Oxfordshire Local Transport Plan 4 Policy 17"*⁹²

- 5.27 It says that the Appellant's proposed improvement to the Middleton Stoney Junction *"is not considered to be deliverable"*⁹³. That is an important observation given the inadequacy of Motion's *Indicative Mitigation Works* drawing (number 1803047-17, Revision B) that I highlighted earlier.

Location of the Appeal Site and Accessibility

- 5.28 In arriving at that conclusion, I note that the Local Highway Authority's Updated Response also says that while it has not specifically identified an objection on the basis of the appeal site's location and accessibility, it does remind the reader that the Local Highway Authority's Initial Response *"did highlight significant concerns regarding the accessibility of the site and its location"*⁹⁴.

- 5.29 In fact, and in this respect, the Local Highway Authority's Initial Response was:

*"The proposal is not allocated in the Cherwell Local Plan and is not in a sustainable location in transport terms. There is no public bus service and the site is not conducive to walking or cycling, making it car dependent and therefore contrary to the NPPF, Local Plan and Local Transport Plan policies which require development to be suitably located to maximise opportunities for sustainable travel."*⁹⁵

- 5.30 Further, in the Local Highway Authority's Initial Response, the County Council had asserted that the appeal proposal would also result in *"increased traffic flows through local villages, particularly Chesterton"* with the possibility of guest and visitor traffic taking *"the inappropriate route through Little Chesterton, despite signage"*. That is of significant concern to PAW, and I also note that in addition to its view regarding the sustainability of the appeal site in accessibility terms, the Local Highway

⁹² Oxfordshire County Council's Updated Response to Consultation dated 3 March 2020 (second page)

⁹³ Ibid (third page)

⁹⁴ Ditto

⁹⁵ Oxfordshire County Council's Response to Consultation dated 10 January 2020 (second page)

Authority felt that without the provision of a public bus service and the completion of a route for cyclists to Bicester, that the appeal proposal was contrary to sustainable transport policy. It also felt that the frequency of the proposed guest shuttle bus service was *“inadequate”*⁹⁶.

- 5.31 It is noteworthy also and as I said earlier, in respect of the proposed shared use foot/ cycleway along part of the A4095 that the County Council refers to *Cycle Infrastructure Design [Appendix RL-F]* and the recommendation that such facilities are a minimum of 3.0m wide. Interestingly, it also expressed the view that, in any event, it is *“unlikely to make any significant change in modal shift”* because there is *“no onward cycle provision”* and that any person *“wishing to cycle to the site would have to do so along sections of road that are unlit and unrestricted”*⁹⁷.
- 5.32 Noting the proposed shuttle bus service provision, the County Council expressed the view that *“the site is as good as inaccessible by public transport”*⁹⁸ and that *“there will be a very heavy reliance on private car use”*⁹⁹. The County Council takes the view that *“a single, publically accessible, bus service should be available between the site and Bicester so that it could be properly integrated into the rest of the town bus network”*¹⁰⁰. Also that it should *“operate at least hourly ... until late evening”*¹⁰¹. There is much discussion in the Local Highway Authority’s Updated Response regarding the merits of the provision of a public bus service that culminates in the County Council’s view that:

*“a public bus service is the preferred method of serving the development, secured by legal obligation with an annual cap on costs equivalent to one vehicle operating between the earliest shift start time and the latest shift finish time.”*¹⁰²

- 5.33 The Local Highway Authority’s Updated Response notes also that the Appellant has accepted an obligation to provide *“the requested public transport contribution”* of £1,600,000 (indexed)¹⁰³ and that it *“may also operate a shuttle bus service”*¹⁰⁴. There remains some uncertainty, therefore, whether, or not, the shuttle bus services are to be provided.

⁹⁶ Oxfordshire County Council’s Response to Consultation dated 10 January 2020 (fourth page)

⁹⁷ Ibid (ninth page)

⁹⁸ Ditto

⁹⁹ Ibid (fourteenth page)

¹⁰⁰ Ditto

¹⁰¹ Ibid (fifteenth page)

¹⁰² Oxfordshire County Council’s Updated Response to Consultation dated 3 March 2020 (seventh page)

¹⁰³ Ibid (second page)

¹⁰⁴ Ibid (eighth page)

5.34 Overall, the County Council concluded:

*"A new leisure development in this location would not be making the best use of infrastructure, is inaccessible by sustainable modes of transport and would not be reducing the need to travel. Therefore, from a transport perspective it cannot be considered a sustainable location."*¹⁰⁵

Travel Planning

5.35 With reference to the Appellant's Framework Travel Plan, I note that the County Council considers it *"quite basic and does not include the level of detail that is required"* and that *"bringing the plan up to the required standards is likely to take a collaborative approach to its development"*¹⁰⁶. I share that view.

Traffic Impact

5.36 With regard to the trip attraction of the appeal proposal, and with reference to the *first principles* assessment provided in the Appellant's Trip Generation Analysis, the County Council *"accepted that the trip generation numbers used in the TA are appropriate and suitably robust, given the relative unpredictability of leisure uses"*¹⁰⁷. I will explain later in my evidence to this Inquiry why I consider that the Appellant's Trip Generation Analysis is flawed and why, consequentially, the County Council's acceptance of it is mistaken.

5.37 I also do not understand why, after acknowledging that the Appellant's surveys of existing Great Wolf Resorts in the United States of America were undertaken on the equivalent of a United Kingdom Bank Holiday weekend, that the County Council accepted that the proposed conference facility element of the appeal proposal *"would not be creating additional vehicle movements"*¹⁰⁸. It is not as straightforward as accepting that the proxy sites in the United States of America *"have comparable facilities"*¹⁰⁹ because it is highly unlikely that they would have been in use during a *Veterans Day* weekend. It is noteworthy, also, that the *'raw data'* is not included as an appendix to the Appellant's Transport Assessment.

5.38 In my view, the presumption that *"delegates would usually be staying in the hotel"*¹¹⁰ is an unreasonably optimistic and unrealistic analytical position for the Appellant to take. The reasonable *worst case* scenario, is that many delegates at conferences held at the appeal proposal will tend to arrive during the AM peak hour and depart during the PM peak hour. The County Council does not appear to have requested that assessment, even as a sensitivity test, either in terms of the demand for car parking

¹⁰⁵ Oxfordshire County Council's Response to Consultation dated 10 January 2020 (ninth page)

¹⁰⁶ Ibid (twentieth page)

¹⁰⁷ Ibid (tenth page)

¹⁰⁸ Ibid (eleventh page)

¹⁰⁹ Ditto

¹¹⁰ Ditto

(bearing in mind that delegates are unlikely to display the same car occupancy tendency as guests or visitors) or in the traffic impact assessment of the public highway network.

- 5.39 In terms of the distribution of guest trips arriving at the appeal proposal, the County Council accepts the Appellant's strategy of providing signage to route the 62% of trip arrivals that will travel northbound on the M40 or on the A34 to the appeal site via the B430 through Weston-on-the-Green. Albeit, it acknowledges that such signage on the SRN is subject to the agreement of Highways England. Further, it acknowledges and appears to accept the Appellant's proposition that 50% of northbound traffic on the M40 will ignore the signage, in any event, and drive to the appeal site via the A41. Optimistically and inexplicably, in my view, the County Council appears to consider that the Appellant's proposed signage on the A41 directing "*drivers to carry on to the Vendee Drive roundabout, rather than turning off to pass through Little Chesterton*"¹¹¹ will not, similarly, be ignored by a proportion of traffic to the appeal site. In PAW's view that is entirely unacceptable because this Inquiry is not being provided with any assessment of the traffic impact of such routeing of day visitor, hotel guest or staff traffic on that route, or others through Chesterton.
- 5.40 I will explain later in my evidence to this Inquiry why I consider that the majority of driver's to the appeal site that rely on satellite navigation equipment will tend to route to the appeal proposal via the single track road through Little Chesterton or via Wendlebury Road and Alchester Road through Chesterton rather than routeing north via the B4030, Vendee Drive and then south on the A4095.
- 5.41 With regard to the likely traffic impact of the appeal proposal on Chesterton, and with regard to the existing traffic calming feature on the A4095 to the north of the village (that requires incoming (southbound) vehicles to give way to outgoing (northbound) vehicles), I note that the Local Highway Authority's Initial Response notes that:
- "this feature can cause considerable delays, particularly in the morning when two-way flows over 800 vehicles have been recorded between 7:00 and 8:00, with the majority of vehicles heading into the village."*¹¹²
- 5.42 That is important because the Appellant's Transport Assessment makes no assessment of the traffic impact of the appeal proposal at this traffic calming feature nor attempts to quantify its impact on the extent of queuing that already takes place and, for the reasons that I explain in the next section of my evidence, I consider that it significantly underestimates the number of inbound (arrival) traffic movements during the AM peak hour.
- 5.43 With regard to the impact of the traffic associated with the appeal proposal, and based upon the findings of the Appellant's Transport Assessment, the Local Highway Authority's Initial Response

¹¹¹ Oxfordshire County Council's Response to Consultation dated 10 January 2020 (twelfth page)

¹¹² Ditto

identifies that the Middleton Stoney Junction and the southern roundabout at Junction 10 of the M40 will be “*adversely affected*”¹¹³ by the appeal proposal.

- 5.44 The Local Highway Authority’s Initial Response concludes that the traffic associated with the appeal proposal “*will have a severe impact on the road network, so the proposals are contrary to paragraphs 108 (c.) and 109 of the NPPF*”¹¹⁴. The Local Highway Authority’s Updated Response states that position remains its view¹¹⁵.
- 5.45 Highways England offered no objection to the appeal proposal on 17 January 2020.

The Case Officer’s Assessment

- 5.46 The author (Clare Whitehead) of the District Council’s report to the Members of its Planning Committee that met on 12 March 2020 (the **District Council’s Committee Report**) reports the Local Highway Authority’s objection to the appeal proposal and provides her appraisal, *inter alia*, of the land use and transport planning matters arising.

The Principle of the Appeal Proposal

- 5.47 In her assessment, she considers that “*fundamentally, the proposed development is not a sustainable location being outside of any built settlement, in an open countryside location which lacks public transport links and is not accessible via sustainable modes of transport. The location and nature of the proposal leads it to being primarily reliant on the private motor vehicle for access of both guests and staff and due to the location, access will be via local, minor roads. This is contrary to saved policy T5, TR7 and C8*”¹¹⁶.
- 5.48 In her view, the Appellant “*has not demonstrated that this is an appropriate or sustainable location for this type/scale of development*”¹¹⁷.

Transport Assessment and Highways

- 5.49 Notwithstanding that she accepts that the proposed site access arrangements and, wrongly in my view, the proposed car parking arrangements are “*satisfactory*”, the District Council’s case officer

¹¹³ Oxfordshire County Council’s Response to Consultation dated 10 January 2020 (eighteenth page)

¹¹⁴ Ibid (nineteenth page)

¹¹⁵ Oxfordshire County Council’s Updated Response to Consultation dated 3 March 2020 (ninth page)

¹¹⁶ Cherwell District Council’s Committee Report, §9.48

¹¹⁷ Ibid, §9.49

concludes that *“there are fundamental issues regards the site’s location, sustainability and the resulting dependency on the private motor vehicle to access the facility”*¹¹⁸.

- 5.50 In her view, the appeal proposal *“will have a material adverse impact upon the highway network locally”* and she acknowledges that the County Council has *“objected to the application on this basis in specific regard to the impact on the severely congested Middleton Stoney signalised junction”*¹¹⁹.
- 5.51 She concludes that it is *“contrary to paragraphs 103, 108 and 109 of the NPPF, Cherwell Local Plan Policy SLE4 and ESD1 and Oxfordshire Local Transport Plan 4 Policy 17”*¹²⁰.

The District Council’s Case Officer’s Conclusion

- 5.52 In balancing the various issues, she feels that:

*“The site is outside of a sustainable settlement and in a rural context. Given the location, nature of the development, likely guest profile and lack of public transport links the proposed development would be heavily reliant on the use of the private motor vehicle to access the facility via the route of minor rural roads, with potential for damage to verges where roads are narrow. Saved Policy TR7 states that development that would regularly attract large numbers of cars onto unsuitable minor roads will not normally be permitted in order to protect the amenities of the plan area, and in the interests of highway safety.”*¹²¹

- 5.53 In terms of the traffic impact of the appeal proposal, she feels that the existing congestion experienced at the Middleton Stoney Junction *“will be exacerbated by the additional trips generated by the proposed development”* contrary *“to paragraphs 103, 108 and 109 of the NPPF, Cherwell Local Plan Policy SLE4 and Oxfordshire Local Plan 4 Policy 17”*¹²².
- 5.54 She concludes that *“the presumption in favour of sustainable development inherent within the NPPF does not apply”* to the appeal proposal and that there are *“no material reasons for departing from the development plan”*¹²³.
- 5.55 She recommended that the planning application for the appeal proposal should be refused.

¹¹⁸ Cherwell District Council’s Committee Report, §9.78

¹¹⁹ Ibid, §9.79

¹²⁰ Ibid, §9.81

¹²¹ Ibid, §10.3

¹²² Ibid, §10.7

¹²³ Ibid, §10.10

The District Council's Decision

- 5.56 The planning application for the appeal proposal was refused by notice dated 12 March 2020 for six reasons. Of relevance to my evidence to this Inquiry, the second reason relates to the sustainability of the location of the appeal site and whether the appeal proposal can offer access to genuine choice of modes of travel. The third reason that relates to the unacceptable impact of the traffic associated with the appeal proposal, particularly at the Middleton Stoney Junction.
- 5.57 More specifically, the second reason alleges that the appeal site is *"in a geographically unsustainable location"* with *"no access via public transport"* and that it *"would not reduce the need to travel or offer a genuine choice of alternative travel modes over the private motor vehicle"*. Further, that given *"the predominant guest dynamic (families with children) the majority of trips are likely to be made via private motor vehicle, utilising minor rural roads"*¹²⁴.
- 5.58 That, it says, is contrary (*inter alia*) to Policies SLE4 (Improved Transport and Connections) and ESD1 (Mitigating and Adapting to Climate Change) of the 2015 Local Plan, Saved Policy TR7 of the 1996 Local Plan and the Framework.
- 5.59 The third reason, alleges that the Appellant has failed *"to demonstrate that [the] traffic impacts of the development are, or can be made acceptable, particularly in relation to additional congestion at the Middleton Stoney signalised junction"*¹²⁵.
- 5.60 That, it says, is contrary (*inter alia*) to Policies SLE4 (Improved Transport and Connections) and ESD1 (Mitigating and Adapting to Climate Change) of the 2015 Local Plan, Saved Policy TR7 of the 1996 Local Plan, Policy 17 of LTP4, and the Framework.

¹²⁴ 19/02550/F Decision Notice (12 March 2020)

¹²⁵ Ditto

6 Assessment of the Transport Planning Issues Arising from the Appeal Proposal

6.1 As I said in my introduction, my evidence to this Inquiry is concerned with the transport planning and highway engineering issues arising from the appeal proposal as expressed in the District Council's reasons for refusing to grant planning permission for the appeal proposal. In particular, to the second (geographically unsustainable location) and third (unacceptable traffic impacts) reasons for refusal.

Geographically Unsustainable Location

6.2 As I highlighted in the previous section of my evidence, both the Local Planning Authority and the Local Highway Authority have recognised that the appeal site does not lie in a geographical sustainable location in terms of the appeal proposal being able to offer access to a genuine choice of transport modes for either visitors, guests or staff.

6.3 With reference to the Appellant's transport evidence base, the County Council's consultation responses, and the District Council's case officer's assessment, I make my own assessment of the sustainability characteristics of the appeal site in the context of the appeal proposal. That assessment comprises:-

- the likely modal choice of visitor trips to the appeal proposal; and
- the likely modal choice of staff trips to the appeal proposal,

because, in my view and in the context of the requirement of paragraphs 103 and 108(a) of the Framework, they are the primary indicators of the geographical sustainability of the appeal proposal from a transport perspective.

Unacceptable Traffic Impacts

6.4 The efficacy of the Appellant's assessment of the traffic impact of the appeal proposal is predicated on the reasonableness, or otherwise, of its assessment of the likely traffic attractiveness of the appeal proposal and the assignment (route choice) of that traffic on the local highway network.

6.5 Similarly, with reference to the Appellant's transport evidence base and the County Council's consultation responses, I make my own assessment of the likely traffic impact of the appeal proposal. That assessment comprises:-

- the traffic attractiveness of the appeal proposal, including my *first principles* analyses;
- my '*first principles*' analysis of the likely demand for car parking at the appeal proposal; and

- the likely routing of visitor traffic to the appeal proposal,

because, in my view and in the context of paragraphs 108(c) and 109 of the Framework, they are the essential components of a reliable assessment (including appropriate sensitivity testing) of the traffic impact of the appeal proposal.

Geographically Unsustainable Location

- 6.6 The Appellant considers that the second reason for refusal is unjustified, that the appeal site is in a sustainable location and that the appeal proposal will be accessible by non-car modes of travel. The package of measures that it proposes to improve the accessibility of the appeal site are identified in paragraph 2.4 (on page 2) of the Appellant's Response to the Reasons for Refusal. It states that the County Council has "*confirmed verbally*" at a meeting on 4 September 2020 that it does not maintain an objection to the appeal proposal on the grounds of the sustainability of the appeal site or its accessibility¹²⁶. That is consistent with paragraph 7 of the Notes of Case Management Conference but surprising, in my view, given the scope and extent of its criticism of the accessibility of the appeal site and the sustainability characteristics of the appeal proposal.
- 6.7 What the Appellant doesn't discuss is the likelihood that day visitors to, guests at the hotel and staff at the appeal proposal will actually use the package of measures to improve the accessibility of the appeal site or make any assessment of their influence on mode of travel choice. In that regard, it should be remembered that the County Council expressed the view that the location of the appeal site "*is not conducive to walking or cycling, making it car dependent and therefore contrary to the NPPF*"¹²⁷.
- 6.8 When considering the propensity for people (whether day visitors, guests at the hotel or staff) to cycle to the appeal proposal given the proposed provision of a new 2.5m wide foot/ cycleway along the southern side of the A4095 from the Site Access Junction to the junction with The Hale, it should be remembered that the County Council expressed the view that is "*unlikely to make any significant change in modal shift*" because there is "*no onward cycle provision*"¹²⁸. It was initially suggesting the completion of a route for cyclists to Bicester was necessary.
- 6.9 The Appellant's Transport Assessment describes the expected catchment area of the appeal proposal based on its experience in the United States of America as "*encompassing a 125-mile drive*"¹²⁹ of the appeal site. It is crudely illustrated by way of a radius in Figure 5.7 (Guest Catchment Area) therein. A 125-mile drive corresponds to a drive-time of circa two hours, seven minutes (based on the average

¹²⁶ Appellant's Statement of Case, Appendix 4, §2.5 (page 2)

¹²⁷ Oxfordshire County Council's Response to Consultation dated 10 January 2020 (second page)

¹²⁸ Ibid (ninth page)

¹²⁹ Appellant's Transport Assessment, §5.24 (page 17)

speed data for the SRN published by the DfT [**Appendix RL-K**], and I illustrate the 30-; 60-; 90-; and 120-minutes' drive-time, and 125-mile drive isochrones of the appeal site in my **Figure 6.1**.

- 6.10 I illustrate the corresponding rail-time isochrones of the appeal site in my **Figure 6.2** and have determined that the area of the 127-minutes rail-time isochrone (circa 3,394km²) equates to 4.6% of the area of 127-minutes' drive-time isochrones (circa 74,477km²). In terms of population, the population of the 127-minutes rail-time isochrone (circa 9,107,220) equates to 26.1% of the population of 127-minutes' drive-time isochrones (circa 34,905,559).

The Likely Modal Choice of Visitor Trips to the Appeal Proposal

- 6.11 In order to determine the likely modal choice of visitor trips to the appeal proposal, the Appellant's Transport Assessment makes reference to the *Transportation Assessment*¹³⁰ that was submitted in support of a planning application¹³¹ for the Center Parcs resort in Woburn (the **Center Parcs Transport Assessment**) as it considers it "to provide a reasonable comparison for guest mode share, car occupancy and arrival/departure profile during a day"¹³².
- 6.12 Table 2.3 (Woburn Center Parcs Mode Share) of the Trip Generation Analysis¹³³ reveals that the Appellant's chosen proxy for the appeal proposal has car dependency of 98% for visitors (32% as driver, 66% as passenger), and that less than 2% of visitors are likely to travel by sustainable modes of travel. On the face of it, therefore and in my view, in the context of the Framework, the appeal proposal is entirely inconsistent with the objective of focusing significant development on locations which are or can be made sustainable in order to limit the need for travel, as required by paragraph 103. Worse, it implies the Appellant's acknowledgement that regardless of its investment in infrastructure and services, day visitors to, and guests at, the appeal proposal are highly likely to remain car dependent.
- 6.13 Similarly, and in the context of paragraph 108(a) it also implies the Appellant's acknowledgement that regardless of any opportunity for it to promote the use of sustainable transport, given the type of development that the appeal proposal is and the location of the appeal site, day visitors to, and guests at, it are highly likely to remain car dependent.
- 6.14 Based on the Appellant's own evidence base, I summarise in my Table 6.1 (overleaf) the likely modal choice, modal share and car dependency of hotel guests at the appeal proposal.

¹³⁰ Prepared by Hannah Reed and Associates (reference: C-204073/June 2005)

¹³¹ Number MB/05/01066/OUT to Central Bedfordshire

¹³² The Appellant's Transport Assessment, Appendix H, §2.11 (page 3)

¹³³ Ibid, Table 2.3 (page 3)

Table 6.1 Likely Modal Choice of Visitor Trips to the Appeal Proposal

Modal Choice	Mode Share	Car Dependency
Walk	<0.5%	-
Cycle	0.5%	-
Public Transport	1.0%	-
Motorcycle	0.5%	-
Car Driver	32%	98%
Car Passenger	66%	

6.15 The second thing that I note, is that the Center Parcs data indicates that the Appellant’s chosen proxy for the appeal proposal indicates that two-thirds of guests would arrive as car passengers. That is consistent with the car driver/ passenger ratio above and the Appellant’s Trip Generation Analysis accepts “an average car occupancy of 3 guests per car”¹³⁴. It is, however, inconsistent with the Appellant’s suggested typical occupancy of a bedroom at 4.5 people (including) children and implies, clearly, that each typically occupied bedroom is likely to be associated with two car trips to the appeal proposal.

Likely Modal Choice of Staff Trips to the Appeal Proposal

6.16 The Appellant’s Trip Generation Analysis assumes that 80% of staff at the appeal proposal will drive to work¹³⁵.

6.17 The Appellant’s Transport Assessment makes some very generalised comments in its description of the ‘Baseline Conditions’ and it refers to the ‘desirable’, ‘acceptable’ and ‘preferred maximum’ walking distances for commuting provided in Table 3.2 (on page 49) of the *Guidelines for Providing for Journeys on Foot [Appendix RL-D]* but it fails to make any assessment of the likely modal choice of the remaining 20% of staff at the appeal proposal.

6.18 I illustrate the 500m; 1.0km and 2.0km walking isochrones of the appeal site in my **Figure 6.3**. They clearly demonstrate the limited pedestrian catchment of the appeal site. The area of the 2km walking isochrone amounts to 2.25km² and has a population of circa 498.

¹³⁴ The Appellant’s Transport Assessment, Appendix H, §2.13 (page 4)

¹³⁵ Ibid, §2.21 (page 6)

- 6.19 I illustrate the 8.0km cycling isochrone of the appeal site in my **Figure 6.4**. It clearly demonstrate the limited cyclist catchment of the appeal site. The area of 8km walking isochrone amounts to 98.7km² and has a population of circa 41,267.
- 6.20 My analysis of the Elveden Center Parcs Resort survey data provided in Appendix H of the Center Parcs Transport Assessment [**Appendix RL-L**] reveals that there were a combined average¹³⁶ of 507 and 495 single occupancy vehicle arrivals and departures between 07:00 and 22:00 (15-hours). The corresponding values for sustainable modes of travel were a combined average of 51 and 40. Based on a further average of the arrivals and departures suggests that the car dependency of staff is likely to be in the order of 91.7% not 80%, as the Appellant suggests.
- 6.21 I understand that the Elveden Center Parcs Resort has 822 units¹³⁷ (that I presume are the equivalent of a guest room at the appeal proposal). On that basis, I determine that there were an average number of staff arrivals of 0.679 per guest unit. The Appellant's Transport Assessment suggests that "*the maximum number of staff on site, at any one time, is expected to be up to 200*"¹³⁸. That equates to an average number of staff arrivals of 0.402 per guest room so I consider it is likely that in addition to underestimating the proportion of staff that will travel to the appeal proposal by car, it has also underestimated the number of staff that will be at the appeal proposal at the busiest times. Application of the relationship that I have derived from the Center Parcs Transport Assessment would suggest that there is likely to be up to a maximum of 338 staff at the appeal proposal.

Concluding Remarks

- 6.22 Regardless of the Appellant's investment in providing a new foot/ cycleway, and providing a private *free to use* shuttle bus service once every two-hours (between 09:00 and 17:00) and making a public transport contribution to the County Council towards the provision of an hourly public bus service between the appeal proposal and Bicester, it appears from the Appellant's own proxy for "*a reasonable comparison for guest mode share*"¹³⁹ that less than 2% of trips to and from the appeal proposal will be undertaken by sustainable modes of travel.
- 6.23 That, in and of itself, is a primary indicator that the appeal site is not an appropriate location for the appeal proposal because it cannot be made sustainable through limiting the need to travel and offering a genuine choice of transport modes, as required by the Framework.

¹³⁶ Of changeover and non-changeover days

¹³⁷ Center Parcs, Warren Wood – Transportation Assessment, §5.4 (page 12)

¹³⁸ The Appellant's Transport Assessment, Appendix H, §3.4 (page 7)

¹³⁹ Ibid, §2.11 (page 3)

6.24 In my view, this is a form of development that would be far better suited to an urban or suburban context, in far closer proximity to (or even adjacent to) significant multi-modal transport interchanges.

6.25 I also consider that the Appellant’s Transport Assessment has underestimated the number of staff car trips that will be undertaken to and from the appeal proposal. That is important because the arrival and departure profile provided in Chart 2.2 (Expected Staff Arrival/ Departure Profile) on page 7 of the Appellant’s Trip Generation Analysis shows a noticeable peak during the AM peak hour (08:00-09:00) and a declining peak during the PM peak hour (17:00-18:00).

6.26 With reference to my analysis of the Elveden Center Parcs Resort survey data provided in Appendix H of the Center Parcs Transport Assessment [**Appendix RL-L**], I provide my analysis of the likely number of staff person trips to and from the appeal proposal during the AM and PM peak hours, and the number that are likely to travel by car in my Table 6.2 (below).

Table 6.2 Likely Number of Single Occupancy Car Trips by Staff to the Appeal Proposal

Time Period	Arrivals		Departures	
	Staff	Vehicles	Staff	Vehicles
Weekday AM Peak Hour 08:00-09:00	102* [65]	94** [52]	18*** [0]	17** [0]
Weekday PM Peak Hour 17:00-18:00	24**** [7]	22** [6]	66***** [30]	60** [24]

Note: * based on 24.3% of 420 FTE weekday staff

** multiplied by 91.7% car dependency

*** based on 4.3% of 420 FTE weekday staff

**** based on 6.0% of 420 FTE weekday staff

***** based on 15.7% of 420 FTE weekday staff

The Appellant’s values are provided in the square brackets and are taken from Table 2.6 (Expected Staff Trips) (on page 6) of the Appellant’s Trip Generation Analysis

6.27 As an introduction to the following section of my evidence, Motion is also likely, therefore, to have significantly underestimated the traffic that will be attracted to the appeal proposal used in its analysis in the Appellant’s Transport Assessment. I will consider the implications of that later in this section of my proof of evidence.

Unacceptable Traffic Impacts

6.28 The traffic attractiveness of the appeal proposal is discussed in Section 5 (Assessment Methodology and Trip Attraction) of the Appellant's Transport Assessment¹⁴⁰. In determining that the traditional source for relevant trip rate data in the United Kingdom¹⁴¹ did not contain suitable data, Motion has relied upon data that was collected at three existing Great Wolf Lodges in the United States of America¹⁴² (the **American Data**). A summary of weekday AM and PM, and Saturday peak hour trip rates per hotel room is provided in Table 5.1 (Expected Trip Rates per Guest Room) (on page 15) of the Appellant's Transport Assessment but the dataset is not provided therein.

6.29 That data source immediately raises the issue of whether, or not, it is a reasonable proxy for the assessment of a similar development proposition in the United Kingdom. I note from the eighth page entitled: *Favorable Demographics* from the Appellant's *Presentation to Cherwell District Council* dated 5 February 2019 [**Appendix RL-M**] that one of the reasons that it believes that the opening of a Great Wolf Resort in the United Kingdom would be "very successful" is that:

"Vacation Patterns: Due to the higher discretionary income levels, UK families are able to take more trips as compared to US families.

UK families take 19% more trips annually than US families

Despite having fewer school holidays, UK families take as many trips as US families (when discretionary income levels are normalized)"

6.30 With that knowledge, it is surprising (and disappointing) that the Appellant's Transport Assessment does not contemplate the impact that those differences between the patterns of leisure trip making in the United States of America may have on the applicability of the American Data that it uses.

6.31 The Appellant's Trip Generation Analysis implies that there was a reluctance on the part of both the Local Highway Authority and Highways England to accept the American Data without being able to compare it to a "first principles sensitivity test" in order "to consider the robustness of this assessment"¹⁴³.

The Traffic Attractiveness of the Appeal Proposal

6.32 Notwithstanding the concern that I expressed earlier, it is possible to work out the arrival and departure profile from the forecast hourly arrivals and departures employed in the Appellant's Parking Accumulation Assessment. I have undertaken that analysis and provide it at my **Appendix RL-N**. In

¹⁴⁰ The Appellant's Transport Assessment, Section 5 (pages 14-17)

¹⁴¹ The trip rate computer and information system (TRICS)

¹⁴² The Appellant's Transport Assessment, §5.10 (page 15)

¹⁴³ Ibid, §5.14 (page 16)

addition, and as a sense-check to make sure that I have interpreted that data correctly, I note that my analysis yields identical trip rates to those provided in Table 5.1 of the Appellant’s Transport Assessment¹⁴⁴ for the equivalent number of trips identified in Table 5.2¹⁴⁵. For ease of reference, I reproduce those in my Table 6.3 below.

Table 6.3 Forecast Traffic Attraction (based on data from three Great Wolf Resorts in the USA)

Time Period	Arrivals	Departures	Total
AM Peak Hour (08:00-09:00)	66* 6.91%** 0.132*****	47* 4.53%*** 0.094*****	113* 5.67%**** 0.226*****
PM Peak Hour (17:00-18:00)	66* 6.91%** 0.132*****	88* 8.49%*** 0.176*****	154* 7.73%**** 0.308*****
Weekday 12-Hour (07:00-19:00)	736x 77.07% 1.472	786x 75.80% 1.572	1,522x 76.41% 3.044
Saturday Peak Hour (13:00-14:00)	122* 9.19%** 0.244*****	125* 8.71%*** 0.250*****	247* 8.94%**** 0.494*****
Saturday 12-Hour (07:00-19:00)	1,021x 76.94% 2.042	1,135x 79.09% 2.270	2,156x 78.06% 4.312

*Note: * corresponds with the values provided in Table 5.2 (on page 16) of the Appellant’s Transport Assessment and Table 2.1 (on page 2) of the Appellant’s Trip Generation Analysis*

*** represents the proportion of 24-hour daily arrivals*

**** represents the proportion of 24-hour daily departures*

***** represents the proportion of 24-hour daily arrivals and departures*

****** equivalent trip rate per guest room corresponds with values provided in Table 5.1 (on page 15) of the Appellant’s Transport Assessment and Table 2.1 (on page 2) of the Appellant’s Trip Generation Analysis*

x does not correspond with the values provided in Table 2.1 (on page 2) of the Appellant’s Trip Generation Analysis

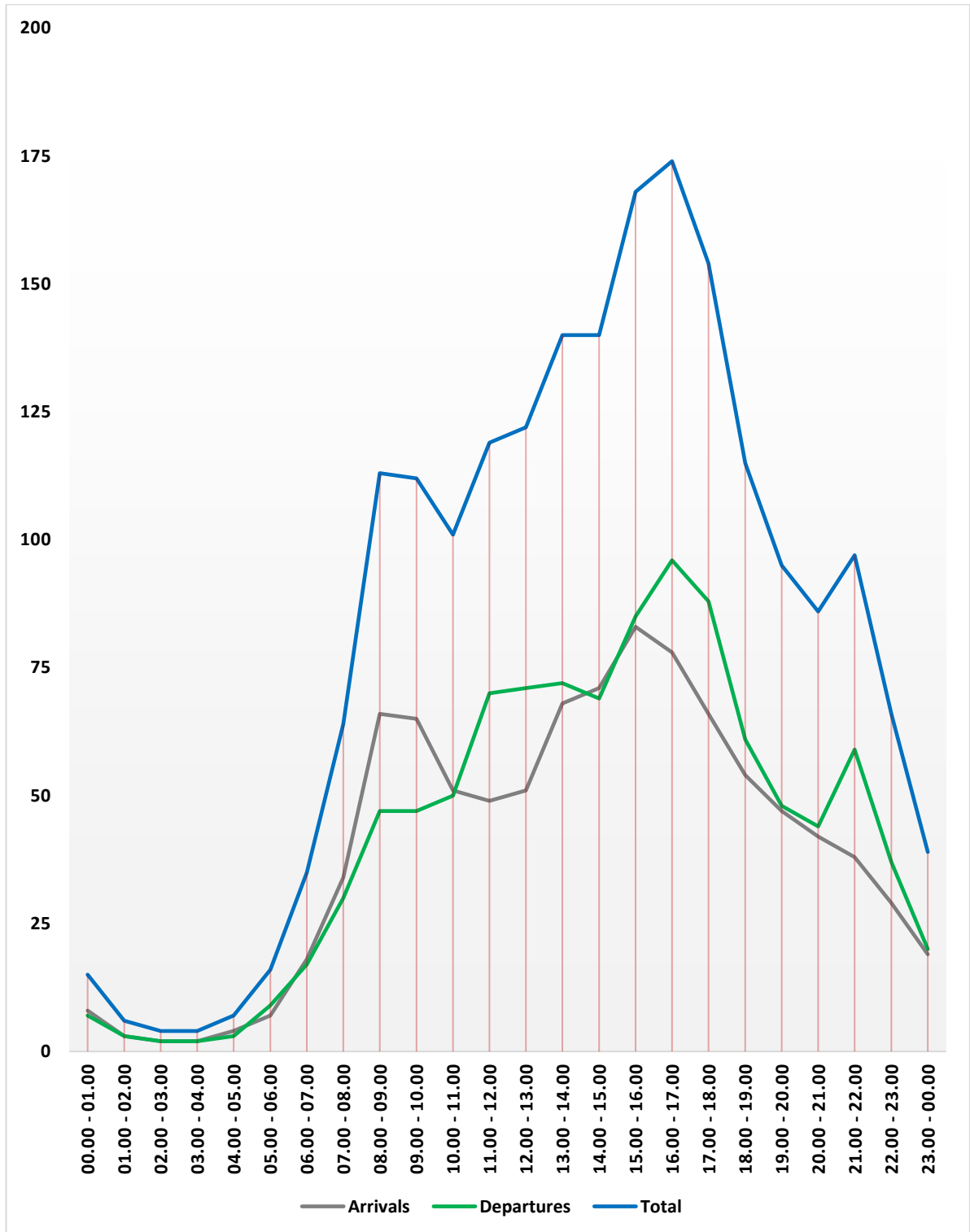
¹⁴⁴ The Appellant’s Transport Assessment, page 15

¹⁴⁵ Ibid, page 16

- 6.33 However, I note also from Table 2.1 (on page 2) in the Appellant's Trip Generation Analysis that while the values provided in the first three rows of the table (for the Weekday AM and PM peak hours, and the Saturday peak hour) correspond with my analysis, the values in the fourth and fifth rows (for Weekday and Saturday 12-hour flows (between 07:00 and 19:00) do not.
- 6.34 Further, I note from the Appellant's Trip Generation Analysis, that there is a disconnect between the graph provided at Chart 2.1 (Expected Guest Arrival/ Departure Profile) and the percentage values provided in Table 2.5 (Expected Vehicle Trips). There is a further disconnect highlighted by Motion insofar as it says that the *"first principles assessment demonstrates that the development would be expected to attract 28 guest vehicle trips during the weekday morning peak hour, 32 guest vehicle trips during the weekday evening peak hour"*¹⁴⁶. Those values are significantly less than the equivalent 113 and 154 trips resulting from the American Data.
- 6.35 In order to examine that further, I also illustrate the weekday arrival and departure profiles generated from the American Data in my Figure 6.4 (overleaf) because it shows that the Appellant's Parking Demand Assessment forecasts that peak weekday arrivals will occur between 15:00 and 16:00 and peak weekday departures between 16:00 and 17:00.

¹⁴⁶ The Appellant's Transport Assessment, Appendix H, §2.18 (page 5)

Figure 6.5 – The Appellant’s Forecast Weekday Arrival and Departure Profiles (based on data from three Great Wolf Resorts in the USA)



6.36 What is immediately striking is that the arrival and departure profile of the American Data is remarkably different to that of the Center Parcs Data. That data shows peak weekday car arrivals occurring between 08:00 and 09:00 and peak weekday departures between 16:00 and 17:00.

Analysis of the Center Parcs Data – Arrival/ Departure Profile of All Trips

6.37 A summary of the 12-hour arrival and departure profile derived from the Center Parcs Data (based on my analysis of the Elveden Center Parcs Resort survey data provided in Appendix H of the Center Parcs Transport Assessment [**Appendix RL-L**] is provided in my Table 6.4 (below).

Table 6.4 Analysis of Center Parcs Data – 12-hour Arrival/ Departure Profiles – All Car Trips

Time Period	All Arrivals			All Departures		
	CDs*	NCDs**	Average of Combined CDs & NCDs	CDs*	NCDs**	Average of Combined CDs & NCDs
07:00-08:00	6.4%	13.1%	8.6%	1.5%	1.6%	1.5%
08:00-09:00	10.5%	21.8%	14.1%	2.8%	4.4%	3.3%
09:00-10:00	8.2%	12.0%	9.4%	10.1%	5.5%	8.8%
10:00-11:00	8.7%	9.5%	9.0%	14.8%	6.2%	12.3%
11:00-12:00	12.5%	5.6%	10.3%	6.5%	4.6%	5.9%
12:00-13:00	14.9%	3.7%	11.3%	8.5%	2.7%	6.8%
13:00-14:00	9.6%	6.3%	8.6%	9.5%	3.4%	7.7%
14:00-15:00	9.4%	4.7%	7.8%	12.1%	6.9%	10.6%
15:00-16:00	6.9%	6.5%	6.7%	8.6%	13.4%	10.0%
16:00-17:00	5.8%	5.6%	5.8%	12.0%	20.8%	14.6%
17:00-18:00	4.4%	5.9%	4.9%	9.4%	18.6%	12.0%
18:00-19:00	2.8%	5.2%	3.6%	4.2%	12.0%	6.5%
07:00-19:00	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Note: * CDs = Changeover Days

** NCDs = Non-changeover Days

Comparison of Great Wolf derived and Center Parcs derived Arrival/ Departure Profiles of all Trips

6.38 I provide a comparison of the American Data and the Center Parcs Data in my Table 6.5 (below).

Table 6.5 Comparison of American Data and Center Parcs Data – 12-hour Arrival/ Departure Profiles – All Car Trips

Time Period	All Arrivals		All Departures	
	Great Wolf*	Center Parcs**	Great Wolf*	Center Parcs**
07:00-08:00	4.6%	8.6%	3.8%	1.5%
08:00-09:00	9.0%	14.1%	6.0%	3.3%
09:00-10:00	8.8%	9.4%	6.0%	8.8%
10:00-11:00	6.9%	9.0%	6.4%	12.3%
11:00-12:00	6.7%	10.3%	8.9%	5.9%
12:00-13:00	6.9%	11.3%	9.0%	6.8%
13:00-14:00	9.2%	8.6%	9.2%	7.7%
14:00-15:00	9.7%	7.8%	8.8%	10.6%
15:00-16:00	11.3%	6.7%	10.8%	10.0%
16:00-17:00	10.6%	5.8%	12.2%	14.6%
17:00-18:00	9.0%	4.9%	11.2%	12.0%
18:00-19:00	7.3%	3.6%	7.8%	6.5%
07:00-19:00	100.0%	100.0%	100.0%	100.0%

Note: * Appendix RL-N

** Appendix RL-L

6.39 In order to examine the significance, or otherwise, of the variance between the American Data and the Center Parcs Data, and to illustrate a like-for-like comparison, I have overlaid them in my Figures 6.6 and 6.7 (overleaf).

Figure 6.6 – Comparison of Great Wolf Resort (USA) and Center Parcs (UK) 12-Hour Weekday Arrival Profile

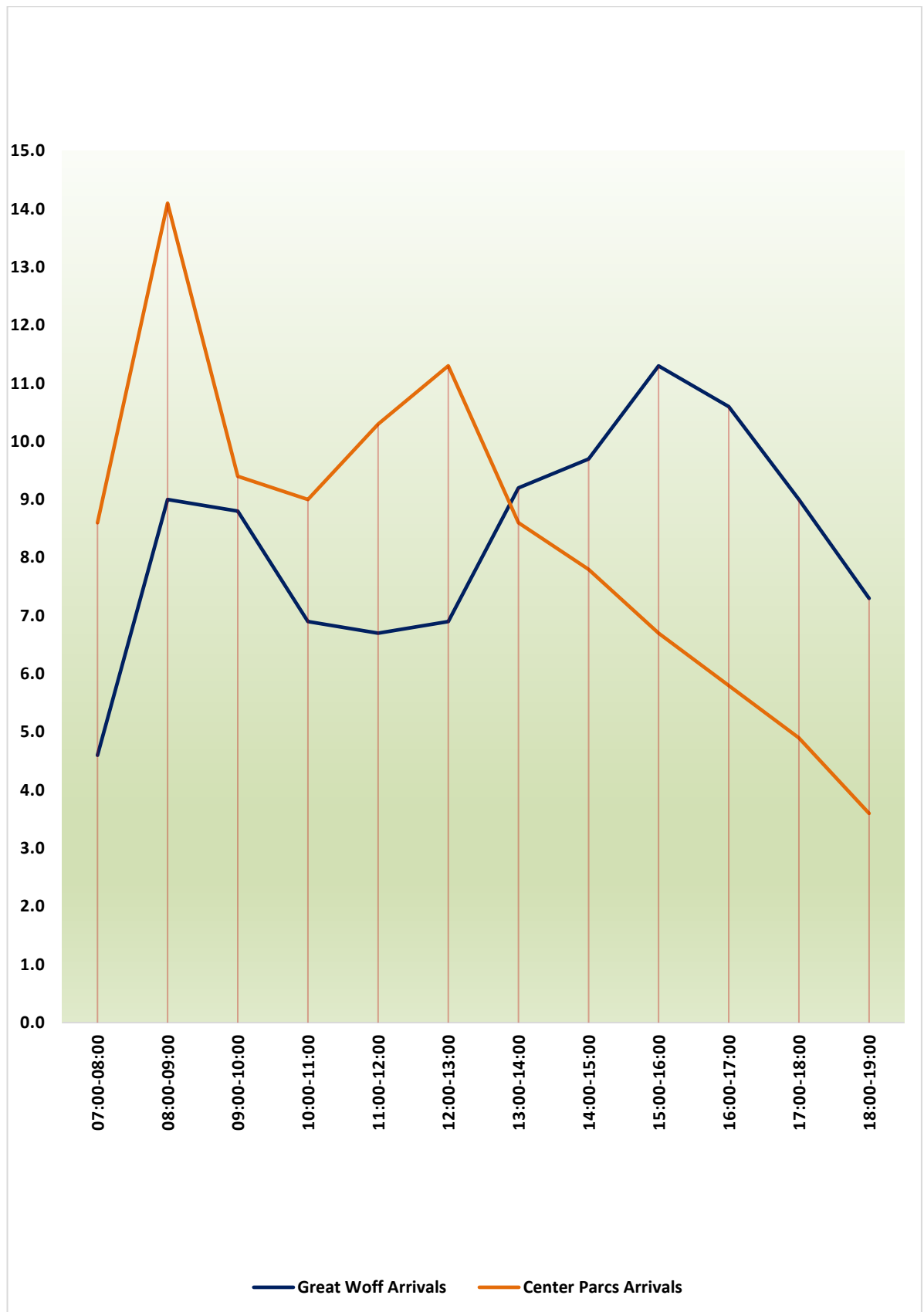
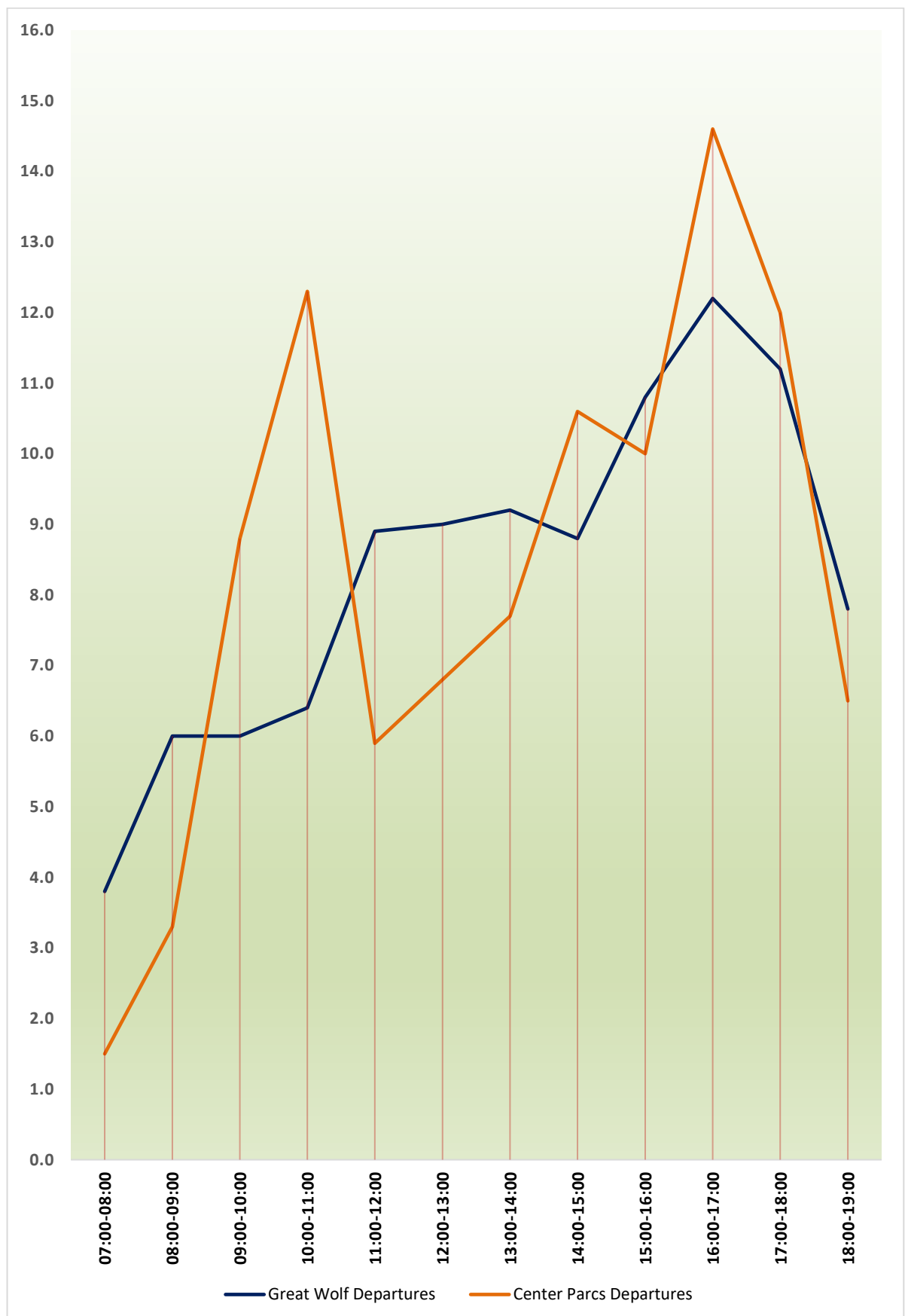


Figure 6.7 – Comparison of Great Wolf Resort (USA) and Center Parcs (UK) Departure Profile



6.40 What is immediately striking is that the American Data has a flatter profile than the Center Parcs Data, and that it under-estimates both the proportion of arrivals that will occur in the AM peak hour and the departures that will occur during the PM peak hour. That immediately raises concerns about the efficacy of the analysis provided in the Appellant's Transport Assessment.

6.41 For that reason, I have undertaken my own *first principles* trip attraction analysis of the appeal proposal in order to be able to determine the significance, or otherwise of the flatter profile of the American Data.

A First Principles Trip Attraction Analysis Based on the American Data and the Center Parcs 15-hour Arrival/ Departure Profile

6.42 My *first principles* trip attraction analysis [**Appendix RL-O**] is based on the following parameters:-

- that the appeal proposal will be 75% occupied Sundays to Thursdays, and 100% occupied on Fridays and Saturdays¹⁴⁷;
- the individual room occupancy rate is 4.5 persons per room¹⁴⁸;
- guest car dependency is 0.98 (98%)¹⁴⁹;
- guest car occupancy is 3.06 persons per car¹⁵⁰;
- average duration of stay is 1.6 days (38 hours)¹⁵¹ (i.e. people typically stay for one night)
- that the maximum number of day visitor passes that will be issued is 450 when guest occupancy is less than (or equal to) 80% (i.e. on Sundays to Thursdays)¹⁵²;
- that day visitor car dependency will be the same as staff car dependency (0.80 (80%)) given the comparable local catchment;
- that day visitor car occupancy will be the same as guest car occupancy (i.e. 3.06 persons per car);
- that I have assumed that the average day visitor duration of stay is 6 hours (with 50% staying 4 hours and 50% staying 8 hours);
- the appeal proposal will have 420 full-time equivalent staff Sundays to Thursdays and 450 on Fridays and Saturdays¹⁵³;
- staff car dependency is 0.80 (80%)¹⁵⁴; and that
- staff car occupancy is 1 person per car¹⁵⁵.

¹⁴⁷ The Appellant's Transport Assessment, Appendix H, §2.7 (page 2) and Table 2.2 (page 4)

¹⁴⁸ Ibid, §2.6 (page 2)

¹⁴⁹ Ibid, Table 2.3 (page 3)

¹⁵⁰ Calculated from the Appellant's Transport Assessment, Appendix H, Table 2.3 (page 3) – 66%/32% = 2.0625 passengers per car driver

¹⁵¹ The Appellant's Transport Assessment, Appendix H, §2.8 (page 3)

¹⁵² The Appellant's Transport Assessment, §5.19 (page 16)

¹⁵³ The Appellant's Transport Assessment, Appendix H, §3.4 (page 7)

¹⁵⁴ Ibid, §3.5 (page 7)

¹⁵⁵ Ditto

- 6.43 Of those parameters, the fifth is noteworthy and it is consistent with my experience of these types of destination leisure visitor attractions that provide overnight accommodation and that are marketed to families with young children.
- 6.44 In my experience, and as reflected in the multiple-occupancy car trips observed in the Center Parcs Data, the majority (67.0% in the Center Parcs Data on changeover days) of that audience tends to aim to arrive at the attraction before a typical check-in time of 14:00 on the day of their arrival, and depart after a typical check-out time of 11:00 on the day of their departure (73.1% in the Center Parcs Data on changeover days), in order to maximise their experience of the visitor attraction.
- 6.45 In the context of the appeal proposal, and with reference to the Center Parcs Data, that means a family arriving at the peak arrival time on a changeover day (between 12:00 and 13:00), and leaving between 14:00 and 17:00 the following day. In terms of time spent at the appeal proposal, and for a family staying one night, that equates to a family being at the attraction for between 26 and 29 hours.
- 6.46 That is entirely consistent of my experience at LEGOLAND® Windsor Resort, where regardless of the check-in and check-out times imposed by the overnight accommodation element of the attraction people tend to arrive earlier and leave later. As discussed in Transport Planning Associates' *Transport Assessment* that the Appellant has referred to, and illustrated in Figure 5.2 (Multi-Day Visitor Parking Demand Diagram) therein [**Appendix RL-P**], that gives rise to an additional level of demand for car parking that is not immediately apparent. I shall consider the implications of that phenomenon later in my evidence to this Inquiry.
- 6.47 A summary of my *first principles* trip attraction analysis is provided in my Table 6.6 (overleaf).

Table 6.6 Forecast Traffic Attraction (based on data from three Great Wolf Resorts in the USA)

Time Period	Arrivals	Departures	Total
Monday to Thursday AM Peak Hour (08:00-09:00)	97 [66] 0.195 [0.132]	23 [47] 0.046 [0.094]	120 [113] 0.241 [0.226]
Monday to Thursday PM Peak Hour (17:00-18:00)	38 [66] 0.076 [0.132]	93 [88] 0.187 [0.176]	131 [154] 0.263 [0.308]
Monday to Thursday 12-Hour (07:00-19:00)	962 [917] 1.932 [1.841]	875 [1,061] 1.757 [2.131]	1,837 [1,977] 3.689 [3.970]
Friday AM Peak Hour (08:00-09:00)	109 [66] 0.219 [0.132]	28 [47] 0.056 [0.094]	137 [113] 0.275 [0.226]
Friday PM Peak Hour (17:00-18:00)	45 [66] 0.090 [0.132]	91 [88] 0.183 [0.176]	136 [154] 0.273 [0.308]
Friday 12-Hour (07:00-19:00)	1,041 [917] 2.090 [1.841]	991 [1,061] 1.990 [2.131]	2,032 [1,977] 4.080 [3.970]
Saturday Peak Hour (12:00-13:00)*	155 [122] 0.311 [0.245]	85 [125] 0.171 [0.251]	240 [247] 0.482 [0.494]
Saturday 12-Hour (07:00-19:00)	1,041 [1,230] 2.090 [2.470]	991 [1,531] 1.990 [3.074]	2,032 [2,761] 4.080 [5.544]

Note: the Appellant’s equivalent vales are provided in the square brackets

* Table 2.1 (on page 2) of the Appellant’s Trip Generation Analysis gives the Saturday Peak Hour as 13:00-14:00

6.48 Overall, I consider that the Appellant’s Trip Generation Analysis is reasonable with one notable exception and that is that I believe that it significantly underestimates the volume of vehicular arrivals during the AM peak hour by 31 (47.0%) Mondays to Thursdays, and by 43 (65.2%) on a Friday.

6.49 In the context of the capacity analysis of the various junctions on the local highway network provided in the Appellant's Transport Assessment that is significant because the Appellant is likely to have underestimated the traffic impact of the appeal proposal on those junctions during that time period.

A First Principles Analysis of Car Parking Demand Based on the American Data

6.50 Returning to the Appellant's Parking Accumulation Assessment that estimates a weekday "peak parking demand of around 829 cars"¹⁵⁶ (equivalent to a ratio of demand to capacity of 0.919 (91.9%)) reducing to 807¹⁵⁷ during the weekend (equivalent to a ratio of demand to capacity of 0.895 (89.5%)) and remembering the conflict between that and the Trip Generation Analysis that forecasts a "total parking demand of 910 cars ... during peak periods"¹⁵⁸ (equivalent to a ratio of demand to capacity of 1.009 (100.9%)), I also provide in my **Appendix RL-O**, a *first principles* analysis of car parking demand at the appeal proposal based on the American Data.

6.51 In summary, my *first principles* analysis covers a time period of Monday to Sunday (and then runs on until 14:00 the following Tuesday for guest departures in order to ensure its efficacy). It is based on the same input parameters that I identified in my paragraph 6.42 (above).

6.52 I summarise the findings of my *first principles* analysis of car parking demand at the appeal proposal based on the American Data in my Table 6.7 (overleaf) for a typical weekday (Thursday) and in Table 6.8 (overleaf) for a Saturday (when I consider that the maximum demand for car parking is likely to occur).

¹⁵⁶ The Appellant's Transport Assessment, §4.16 (page 12)

¹⁵⁷ Ibid, Appendix E

¹⁵⁸ Ibid, Appendix H, §3.6 (page 7)

Table 6.7 First Principles Parking Demand Analysis – Typical Weekday (Thursday)

	Time Period	Maximum Parking Demand
Guests	21:00-22:00	1,005
Day Visitors	13:00-14:00	118
Staff	15:00-16:00	185
All	19:00-20:00	1,141

Table 6.8 First Principles Parking Demand Analysis – Saturday

	Time Period	Maximum Parking Demand
Guests	21:00-22:00	1,340
Day Visitors	-	0
Staff	15:00-16:00	200
All	19:00-20:00	1,451

- 6.53 On the face of it therefore, and in my view, the Appellant's Parking Accumulation Assessment appears inconsistent with its own evidence base and the typical operational parameters that it has defined. My *first principles* parking demand analysis suggests that the appeal proposal provides insufficient car parking such that it will give rise to inappropriate parking on the verges (or the proposed new foot/cycleway) along the A4095 or elsewhere in Chesterton.
- 6.54 As a sensitivity test, I have re-worked my analysis [**Appendix RL-Q**] of car parking demand at the appeal proposal based on the American Data but reduced the average duration of stay parameter to 27 hours (1.125 days) (i.e. just under the mid-point of the range that I previously derived from the Center Parcs Data).
- 6.55 I summarise the findings of my *first principles* analysis of car parking demand at the appeal proposal based on the American Data in my Table 6.9 (overleaf) for a typical weekday (Thursday) and in Table 6.10 (overleaf) for a Saturday.

Table 6.9 First Principles Parking Demand Analysis – Typical Weekday (Thursday) – Guest Duration of Stay Reduced to 27 hours

	Time Period	Maximum Parking Demand
Guests	16:00-17:00	668
Day Visitors	13:00-14:00	118
Staff	15:00-16:00	185
All	15:00-16:00	936

Table 6.10 First Principles Parking Demand Analysis – Saturday – Guest Duration of Stay Reduced to 27 hours

	Time Period	Maximum Parking Demand
Guests	16:00-17:00	855
Day Visitors	-	0
Staff	15:00-16:00	200
All	15:00-16:00	1,047

6.56 Based on the findings of my *first principles* parking demand analysis, I consider that the appeal proposal is *under-parked* by between 145 and 549 spaces (16.1%-60.9%). That is significant, in my view, because the Proposed Site Plan does not appear to me to be able to accommodate much in the way of additional surface car parking. Unsatisfied parking demand that cannot be accommodated within the appeal site, is likely therefore to result in inappropriate parking on the verges and footways on the adjacent public highway network, most likely in the village of Chesterton.

6.57 That, inevitably, would exacerbate the traffic impact of the appeal proposal given the obvious implications of increased congestion on local roads and highway safety.

The Routeing of Visitor Traffic to the Appeal Proposal

- 6.58 The Appellant's Day Visitor Technical Note reveals that having *"assumed that all vehicle[s] approaching/leaving the site to/from M40 Junction 9 would route along the A41 northbound and Vendee Drive"*¹⁵⁹ to access/ egress the appeal proposal, it is now proposed that *"the more appropriate signed route between the resort and M40 Junction 9 is via the A34 and the B430"*¹⁶⁰.
- 6.59 Figure 3.1 (Visitor Distribution) in the Day Visitor Technical Note indicates the Appellant's view that 37% of visitor traffic to the appeal proposal will come from the north and that 63% from the south. It further reveals that 30% of visitor traffic is expected to route through the Middleton Stoney Junction and that 20% is expected to ignore the signage strategy at Junction 9 of the M40 and will route to the appeal proposal via the A41 and Vendee Drive (rather than via the A34 and B430).
- 6.60 Following a review of that information and of Figure 3.1 (Alternative Vehicle Routeing) in the Appellant's Highway Matters Technical Note, I consider that the principal routes to the appeal proposal comprise:
- N1/2 – from the M40 (N1) and the A43 (N2) via Junction 10 of the M40 onto the B430 at Ardley Roundabout, through the Middleton Stoney Junction onto the B430 (Oxford Road), then left onto the A4095, and over the M40;
 - N3 - from the A43, turning left onto the B4100, then right onto the A4095, then left onto Bucknell Road and immediately right back onto the A4095 (Howes Lane), then straight onto the B4030 (Vendee Drive), and then right back onto the A4095 to Chesterton
 - S1 – from Junction 9 of the M40 turning right onto the A41, then left onto an unnamed predominantly single track rural lane (with informal passing places) through Little Chesterton, across the cross-roads junction with Green Lane onto The Hale, and then left onto the A4095;
 - S2 – from Junction 9 of the M40 turning right onto the A41, then left at the roundabout junction with the B4030 (Vendee Drive), left onto the A4095 through Chesterton (where part of the route is traffic calmed);
 - S3 – from Junction 9 of the M40 turning right onto the A41, then right at the roundabout junction with the B4030 (Vendee Drive), right again onto Wendlebury Road, right again onto an unnamed road over the A41, left onto Green Lane through Chesterton (where part of the route is traffic calmed), right at a cross-roads junction with The Hale, and then left onto the A4095; and
 - S4 – from Junction 9 of the M40 turning left onto the A34, then left onto the B430, over the A34 and then right at the roundabout junction with the B430 (Northampton Road), through Weston-on-the-Green, then right onto the A4095, and over the M40.

¹⁵⁹ Appellant's Transport Assessment, Appendix I, §3.2 (page 5)

¹⁶⁰ Appellant's Transport Assessment, Appendix I, §3.3 (page 5)

- 6.61 I have illustrated these routes in my **Figure 6.8** and provide individual route maps together with selected photographs along those routes in my **Appendix RL-R**.
- 6.62 In terms of the relative attractiveness of those routes and given the large catchment area of the appeal proposal, I consider it highly likely that visitors travelling by car will use satellite navigation systems to inform their route choice. Those systems typically offer '*shortest*' and '*quickest*' route options that, in my experience, appeal most to drivers. In that context, I have examined the distances and travel times (in free-flow conditions) of the route options that I have identified above:-
- N1 = 8.6 kilometres (5.5 miles) in approximately 8 minutes = **the shortest and quickest route from Junction 10 of the M40**¹⁶¹;
 - N2 = 9.5 kilometres (5.9 miles) in approximately 9 minutes = **the shortest and quickest route from the A43**¹⁶²;
 - N3 = 10.5 kilometres (6.5 miles) in approximately 10 minutes= the longest and slowest route from the A43¹⁶³;
 - S1 = 4.3 kilometres (2.7 miles) in approximately 6 minutes= **the shortest and quickest route from Junction 9 of the M40**¹⁶⁴;
 - S2 = 6.3 kilometres (4.0 miles) in approximately 7 minutes¹⁶⁵;
 - S3 = 6.6 kilometres (4.1 miles) in approximately 8 minutes = the equal slowest route from Junction 9 of the M40¹⁶⁶; and
 - S4 = 8.5 kilometres (5.3 miles) in approximately 8 minutes = the longest and equal slowest route from Junction 9 of the M40¹⁶⁷.
- 6.63 On the face of it, therefore, it is clear that anyone using a satellite navigation device to drive to the appeal proposal is most likely to follow routes N1 and N2 from the north and route S1 from the south rather than follow the Appellant's alternative routes N3 (for traffic on the A43) and S4 (for traffic on the M40) regardless of the Appellant's proposed signage strategy. For that reason alone, I consider that the visitor car trip assignment (route choice) employed in the Appellant's Transport Assessment is unreliable and, consequentially, its use in the traffic impact analysis of various junctions of the local highway network undertaken by Motion is likely to have resulted in unreasonably optimistic (in favour of the Appellant's case) findings.
- 6.64 Interestingly, and while the route for northern (southbound) traffic via Junction 9 of the M40 and S1 is 4.3 kilometres (2.7 miles) further than the route via Junction 10 and N1, it is only two minutes longer

¹⁶¹ Measured from the give-way line at the end of the southbound off-slip road to the Proposed Site Access Junction

¹⁶² Measured from the give-way line on the southbound approach on the A43 to the roundabout junction with the B4100 at Baynards Green to the Proposed Site Access Junction

¹⁶³ Ditto

¹⁶⁴ Measured from the give-way line at the end of the northbound off-slip road to the Proposed Site Access Junction

¹⁶⁵ Ditto

¹⁶⁶ Ditto

¹⁶⁷ Ditto

so modern dynamic satellite navigation systems that detect queueing traffic at the Middleton Stoney Junction are likely to route visitor traffic via Little Chesterton in order to avoid it. I note that the most recent reporting of the capacity analyses of the Middleton Stoney Junction provided in paragraphs 3.10 to 3.25 (on pages 4 to 7) of the Appellant's Highway Matters Technical Note do not present information regarding the delay at the junction.

- 6.65 That information is provided, however, in the output files in Appendix D to the the Appellant's Highway Matters Technical Note (assuming implementation of the Proposed Middleton Stoney Junction Improvement) for the 'HP Base + GW AM' (Scenario 3) and the 'HP Base + GW PM' (Scenario 4) analytical scenarios reported in Table 5.2 (on page 7) therein. The first thing to note is that the labelling of the arms of the junction is misleading. Where those labels refer to 'B430 (south)' and 'B430 (north)' that indicates southbound and northbound movements, whereas where those labels refer to 'B4030 (east)' and 'B4030 (west)' that correctly indicates geographical location¹⁶⁸.
- 6.66 That analysis reveals that the forecast average delay per passenger car unit (**PCU**) for traffic on the B430 southbound approach to the Proposed Middleton Stoney Junction Improvement will be in the order of 4 minutes, 21 seconds and 51 seconds per PCU in the AM and PM peak hours (respectively).
- 6.67 It is highly likely therefore, and in my opinion, that modern dynamic satellite navigation systems will inevitably re-route southbound traffic on the M40 to the appeal proposal via Junction 9 and route S1 in order to avoid the Middleton Stoney Junction.
- 6.68 In terms, of routes from the south, the Appellant's Transport Assessment only considers the assignment (route choice) of vehicular trips to the appeal proposal identified in Figure 5.8 (Vehicle Distribution) therein, and in Figure 3.1 (Visitor Distribution) in the Appellant's Day Visitor Technical Note.
- 6.69 Motion responded to the Local Highway Authority's concern regarding the traffic impact of the appeal proposal on the Middleton Stoney Junction by contemplating "*potential alternative routes*" for vehicles from the north including a "*potential signage strategy*"¹⁶⁹ of directing southbound traffic on the A43 to the appeal proposal via the B4100 and A4095 (rather than via Junction 10 of the M40 and the B430) in order to avoid the junction.
- 6.70 However, and despite the Local Highway Authority's concern that the appeal proposal would also result in "*increased traffic flows through local villages, particularly Chesterton*" and the likelihood of guest and visitor traffic taking "*the inappropriate route through Little Chesterton, despite signage*"¹⁷⁰, it has failed to undertake any sensitivity testing of that scenario whatsoever. That, in my view, is

¹⁶⁸ The Appellant's Highway Matters Technical Note, Appendix D, 'Network Layout Diagram'

¹⁶⁹ Ibid, §3.7 (page 3)

¹⁷⁰ Oxfordshire County Council's Response to Consultation dated 10 January 2020 (fourth page)

remarkable especially considering that the Appellant's Transport Assessment assumes "*that some [half of¹⁷¹] guests approaching the Site from the M40 Junction 9 will not follow the signed route and will access the Site from M40 Junction 9 via the A41*"¹⁷². Motion do not explain why, in its view, that half of day visitors to, and guests and staff at the appeal proposal that travel northbound on the M40 and exit at Junction 9 will ignore signage that directs the to follow Route S4 (the longest and equal slowest route) but will, somehow, comply with signage that directs them not to follow Route S1 (the shortest and quickest route). Other than the provision of signage, the Appellant does not propose any measures that would prevent such traffic from following the shorter and quicker route.

- 6.71 That, in my view, represents a significant analytical oversight that seriously undermines the Appellant's Transport Assessment such that I do not consider that it should be relied upon. Moreover, it ignores the legitimate concerns of the local community (as represented by PAW) and expressed in the Local Highway Authority's Initial Response.

Concluding Remarks

- 6.72 I consider that the Appellant's Trip Generation Analysis is reasonable with one notable exception and that is that I believe that it significantly underestimates the volume of vehicular arrivals during the AM peak hour by 31 (47.0%) Mondays to Thursdays, and by 43 (65.2%) on a Friday.
- 6.73 In the context of the capacity analysis of the various junctions on the local highway network provided in the Appellant's Transport Assessment that is significant because the Appellant is likely to have underestimated the traffic impact of the appeal proposal on those junctions during that time period.
- 6.74 I consider that the appeal proposal is *under-parked* by between 145 and 549 spaces (16.1%-60.9%). Unsatisfied parking demand that cannot be accommodated within the appeal site is likely, therefore, to result in inappropriate parking on the verges and footways on the adjacent public highway network, most likely in the village of Chesterton. That, inevitably, will exacerbate the traffic impact of the appeal proposal and is not accounted for in the Appellant's Transport Assessment.
- 6.75 Anyone using a satellite navigation device to drive to the appeal proposal is most likely to follow the *shortest* and *quickest* routes to the appeal proposal rather than rather than follow the Appellant's proposed signage strategy. I also consider it likely that modern dynamic satellite navigation systems will inevitably re-route southbound traffic on the M40 to the appeal proposal via Junction 9 and route S1 in order to avoid the Middleton Stoney Junction at peak times.

¹⁷¹ The Appellant's Transport Assessment, §5.27 (page 17)

¹⁷² Ibid, §5.26 (page 17)

- 6.76 For those reasons, I consider that the visitor car trip assignment (route choice) employed in the Appellant's Transport Assessment is unreliable and, consequentially, its use in the traffic impact analysis of various junctions of the local highway network undertaken by Motion is likely to have resulted in unreasonably optimistic (in favour of the Appellant's case) findings. It should have been subject to rigorous sensitivity testing.
- 6.77 Similarly, and despite the Local Highway Authority's concern that the appeal proposal would also result in *"increased traffic flows through local villages, particularly Chesterton"* and the likelihood of guest and visitor traffic taking *"the inappropriate route through Little Chesterton, despite signage"*¹⁷³, the Appellant's Transport Assessment fails to contemplate the scenario where any of the day visitors to, and guests and staff at the appeal proposal that exit the M40 at Junction 9 will ignore signage that directs them to follow Route S4 (the longest and equal slowest route) and not to follow Route S1 (the shortest and quickest route) to the appeal proposal. The Appellant does not propose any measures that would prevent such traffic from following the shorter and quicker route.
- 6.78 That, in my view, represents a significant analytical oversight that seriously undermines the Appellant's Transport Assessment such that I do not consider that it can, or should, be relied upon.

¹⁷³ Oxfordshire County Council's Response to Consultation dated 10 January 2020 (fourth page)

7 Summary and Conclusions

7.1 My evidence to this Inquiry is concerned with the transport planning and highway engineering issues arising from the Appellant's appeal proposal for the appeal site. I appear and give evidence to this Inquiry on behalf of PAW, which comprises Chesterton Parish Council with the support of 20 adjoining parish councils.

Summary

7.2 It relates to the second (geographically unsustainable location) – insofar as it relates to the accessibility of the appeal proposal and its car dependency – and third (unacceptable traffic impacts) reasons for the District Council's refusal of planning permission for the appeal proposal¹⁷⁴.

7.3 More specifically, and with reference to the main issues identified by the Inspector, it considers:-

- the effect on the safety and free flow of traffic on the highway network; and
- locational sustainability insofar as it relates to the accessibility of the appeal proposal and its car dependency.¹⁷⁵

7.4 I consider that the District Council has wrongly narrowed the focus of its objection to the transport impact of the appeal proposal to its traffic impact on the Middleton Stoney Junction¹⁷⁶.

The Appeal Site

7.5 On the face of it, therefore, and in the context of its accessibility, I consider that the appeal site can be reasonably and fairly be described as isolated and that its accessibility to sustainable modes of travel is very poor such that it is unlikely to be suitable for anything more than minor development.

7.6 In the context of the appeal proposal, with no immediate access to a comprehensive network of continuous footpaths, foot/ cycleways, or to transport interchanges providing access to onward (or inward) sustainable travel opportunities, and with a once-a-day bus service with no available return journey (some distance away), I consider that such isolation means that the appeal proposal is highly unlikely (without an unprecedented (in my experience) level of investment in transport infrastructure and services) to be able to offer a genuine and meaningful choice of sustainable modes of travel to anyone other than those that live within its immediate environs. It is therefore, highly likely that day

¹⁷⁴ 19/02550/F Decision Notice (12 March 2020)

¹⁷⁵ Notes of Case Management Conference (14 December 2020), §5 (page 2)

¹⁷⁶ Ibid, §7 (page 2)

visitors, hotel guests and staff that travel to and from the appeal proposal will be, almost entirely, dependent on travelling by car.

- 7.7 In my professional experience, and other than for minor forms of infill development, the appeal site represents one of the most geographically unsustainable locations that I have considered.

Relevant Land Use and Transport Planning Policy and Guidance

- 7.8 The relevant land use and transport planning policy is provided in the Framework, the development plan and in LTP4. Guidance on the provision of sustainable travel opportunities has, most recently, been published by the CIHT and DfT.

The Appeal Proposal

- 7.9 Given that both the Local Highway Authority's Updated Response and the Local Highway Authority's Initial Response to the appeal proposal set out, comprehensively, a number of fundamental issues regarding the location of the appeal site and the nature of the appeal proposal, I am surprised that the Local Highway Authority only objects to the appeal proposal because the existing:

"Severe congestion at the Middleton Stoney signalised junction will be exacerbated by the additional trips generated by the proposed development. This is contrary to paragraphs 103, 108 and 109 of the NPPF, Cherwell Local Plan Policy SLE4 and Oxfordshire Local Transport Plan 4 Policy 17"¹⁷⁷

- 7.10 It says that the Appellant's proposed improvement to the Middleton Stoney Junction *"is not considered to be deliverable"*¹⁷⁸. That is an important observation given the inadequacy of Motion's *Indicative Mitigation Works* drawing (number 1803047-17, Revision B).

- 7.11 In arriving at that conclusion, I note that the Local Highway Authority's Updated Response also says that while it has not specifically identified an objection on the basis of the appeal site's location and accessibility, it does remind the reader that the Local Highway Authority's Initial Response *"did highlight significant concerns regarding the accessibility of the site and its location"*¹⁷⁹.

¹⁷⁷ Oxfordshire County Council's Updated Response to Consultation dated 3 March 2020 (second page)

¹⁷⁸ Ibid (third page)

¹⁷⁹ Ditto

7.12 In fact, and in this respect, the Local Highway Authority's Initial Response concluded:

*"A new leisure development in this location would not be making the best use of infrastructure, is inaccessible by sustainable modes of transport and would not be reducing the need to travel. Therefore, from a transport perspective it cannot be considered a sustainable location."*¹⁸⁰

7.13 The District Council's case officer considers that the Appellant *"has not demonstrated that this is an appropriate or sustainable location for this type/scale of development"*¹⁸¹ and she believes that the appeal proposal *"will have a material adverse impact upon the highway network locally"*¹⁸².

7.14 She concludes that it is *"contrary to paragraphs 103, 108 and 109 of the NPPF, Cherwell Local Plan Policy SLE4 and ESD1 and Oxfordshire Local Transport Plan 4 Policy 17"*¹⁸³, and she recommended that the planning application for the appeal proposal should be refused.

The District Council's Decision

7.15 The planning application for the appeal proposal was refused by notice dated 12 March 2020 for six reasons. The second reason alleges that the appeal site is *"in a geographically unsustainable location"* with *"no access via public transport"* and that it *"would not reduce the need to travel or offer a genuine choice of alternative travel modes over the private motor vehicle"*. Further, that given *"the predominant guest dynamic (families with children) the majority of trips are likely to be made via private motor vehicle, utilising minor rural roads"*. The third reason, alleges that the Appellant has failed *"to demonstrate that [the] traffic impacts of the development are, or can be made acceptable, particularly in relation to additional congestion at the Middleton Stoney signalised junction"*¹⁸⁴.

¹⁸⁰ Oxfordshire County Council's Response to Consultation dated 10 January 2020 (ninth page)

¹⁸¹ Cherwell District Council's Committee Report, §9.49

¹⁸² Ibid, §9.79

¹⁸³ Ibid, §9.81

¹⁸⁴ 19/02550/F Decision Notice (12 March 2020)

My Assessment of the Transport Planning Issues Arising from the Appeal Proposal

7.16 With reference to the Appellant's transport evidence base, the County Council's consultation responses, and the District Council's case officer's assessment, I have made my own assessment of the sustainability characteristics of the appeal site in the context of the appeal proposal. That assessment comprises:-

- the likely modal choice of visitor trips to the appeal proposal; and
- the likely modal choice of staff trips to the appeal proposal,

because, in my view and in the context of the requirement of paragraphs 103 and 108(a) of the Framework, they are the primary indicators of the geographical sustainability of the appeal proposal from a transport perspective.

7.17 Similarly, with reference to the Appellant's transport evidence base and the County Council's consultation responses, I have made my own assessment of the likely traffic impact of the appeal proposal. That assessment comprises:-

- the traffic attractiveness of the appeal proposal, including my *first principles* analyses;
- my '*first principles*' analysis of the likely demand for car parking at the appeal proposal; and
- the likely routeing of visitor traffic to the appeal proposal,

because, in my view and in the context of paragraphs 108(c) and 109 of the Framework, they are the essential components of a reliable assessment (including appropriate sensitivity testing) of the traffic impact of the appeal proposal.

Conclusions

The Locational Sustainability of the Appeal Site insofar as it Relates to the Accessibility of the Appeal Proposal

7.18 Regardless of the Appellant's investment in providing a new foot/ cycleway, and providing a private *free to use* shuttle bus service once every two-hours (between 09:00 and 17:00) and making a public transport contribution to the County Council towards the provision of an hourly public bus service between the appeal proposal and Bicester, it appears from the Appellant's own proxy for "*a reasonable comparison for guest mode share*"¹⁸⁵ that less than 2% of trips to and from the appeal proposal will be undertaken by sustainable modes of travel.

¹⁸⁵ The Appellant's Transport Assessment, Appendix H, §2.11 (page 3)

7.19 That, in and of itself, is a primary indicator that the appeal site is not an appropriate location for the appeal proposal because it cannot be made sustainable through limiting the need to travel and offering a genuine choice of transport modes, as required by the Framework.

7.20 I conclude, therefore, that the appeal proposal is contrary to paragraphs 103 and 108(a) of the Framework, Policies SLE4 and ESD1 of the 2015 Local Plan and Policy 17 of LTP4.

The Effect on the Safety and Free Flow of Traffic on the Highway Network

7.21 I consider that the Appellant's Trip Generation Analysis significantly underestimates the volume of vehicular arrivals during the AM peak hour by 31 (47.0%) Mondays to Thursdays, and by 43 (65.2%) on a Friday.

7.22 In the context of the capacity analysis of the various junctions on the local highway network provided in the Appellant's Transport Assessment that is significant because the Appellant is likely to have underestimated the traffic impact of the appeal proposal on those junctions during that time period.

7.23 I consider that the appeal proposal is *under-parked* by between 145 and 549 spaces (16.1%-60.9%). Unsatisfied parking demand that cannot be accommodated within the appeal site, is likely therefore to result in inappropriate parking on the verges and footways on the adjacent public highway network, most likely in the village of Chesterton. That, inevitably, will exacerbate the traffic impact of the appeal proposal and is not accounted for in the Appellant's Transport Assessment.

7.24 Anyone using a satellite navigation device to drive to the appeal proposal is most likely to follow the *shortest* and *quickest* routes to the appeal proposal rather than follow the Appellant's proposed signage strategy. I also consider it likely that modern dynamic satellite navigation systems will inevitably re-route southbound traffic on the M40 to the appeal proposal via Junction 9 and route S1 in order to avoid the Middleton Stoney Junction at peak times.

7.25 For those reasons, I consider that the visitor car trip assignment (route choice) employed in the Appellant's Transport Assessment is unreliable and, consequentially, its use in the traffic impact analysis of various junctions of the local highway network undertaken by Motion is likely to have resulted in unreasonably optimistic (in favour of the Appellant's case) findings. It should have been subject to rigorous sensitivity testing.

7.26 Similarly, and despite the Local Highway Authority's concern that the appeal proposal would also result in "*increased traffic flows through local villages, particularly Chesterton*" and the likelihood of guest and visitor traffic taking "*the inappropriate route through Little Chesterton, despite signage*"¹⁸⁶, the

¹⁸⁶ Oxfordshire County Council's Response to Consultation dated 10 January 2020 (fourth page)

Appellant's Transport Assessment fails to contemplate the scenario where any of the day visitors to, and guests and staff at the appeal proposal that exit the M40 at Junction 9 will ignore signage that directs the to follow Route S4 (the longest and equal slowest route) and not to follow Route S1 (the shortest and quickest route) to the appeal proposal. The Appellant does not propose any measures that would prevent such traffic from following the shorter and quicker route.

7.27 That, in my view, represents a significant analytical oversight that seriously undermines the Appellant's Transport Assessment such that I do not consider that it can, or should, be relied upon.

7.28 In the context of the third reason for the District Council's refusal of the appeal proposal, the Appellant clearly *"fails to demonstrate that [the] traffic impacts of the development are, or can be made acceptable"*¹⁸⁷. Quite simply, it has not undertaken that work, it is not provided within the Appellant's evidence base (even as a sensitivity test that similarly contemplated (for example) that 50% of traffic on the A41 (i.e. 10% of total traffic to the appeal proposal) would take route S1), and the participants in this Inquiry do not have a comprehensive, or reliable, enough assessment of the traffic impact of the appeal proposal.

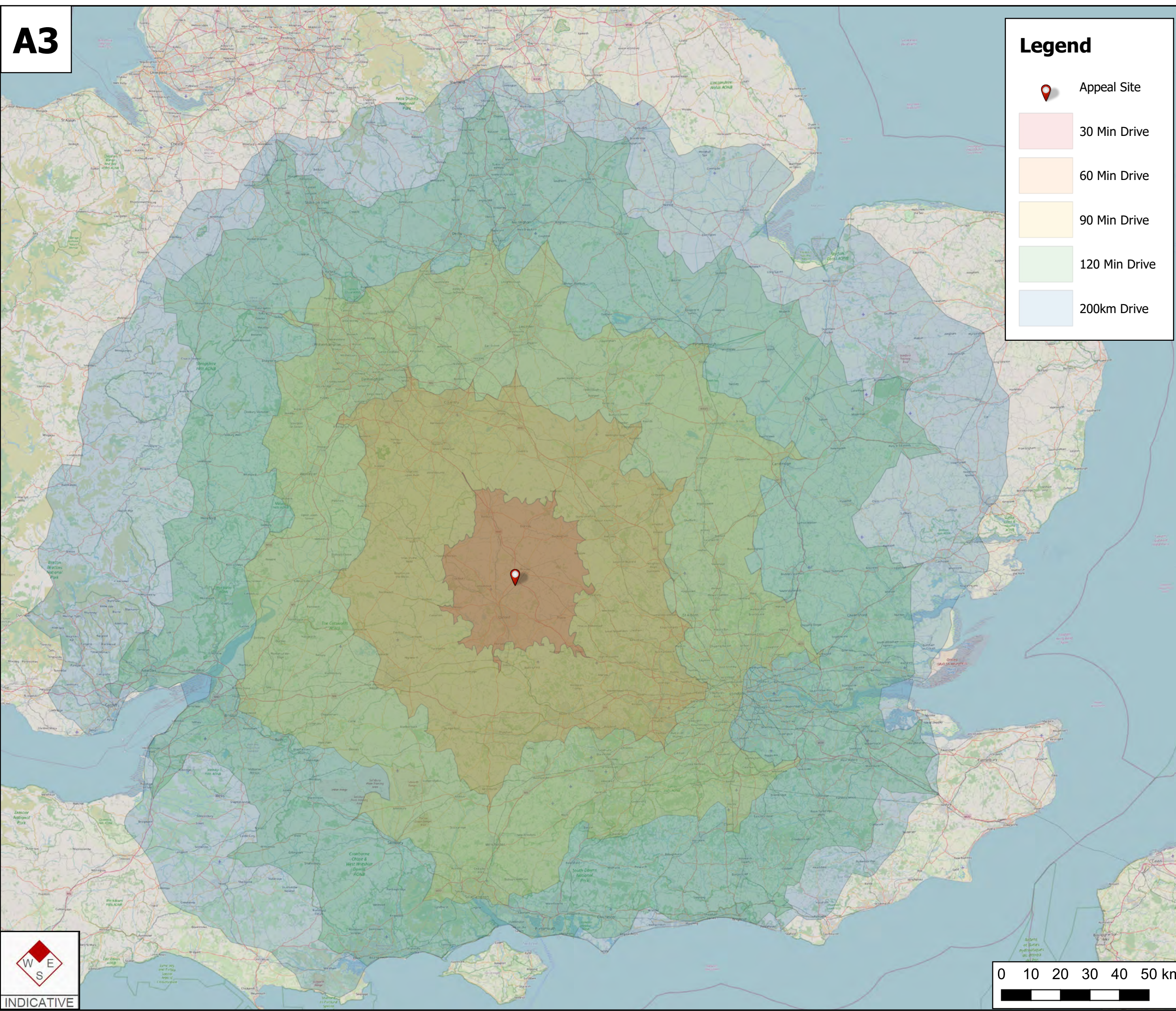
7.29 I conclude, therefore, that the appeal proposal is contrary to paragraphs 108(c) and 109 of the Framework, Policy SLE4 of the 2015 Local Plan, Saved Policy TR7 of the 1996 Local Plan and Policy 17 of LTP4.

Concluding Remarks



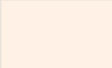
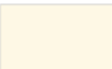
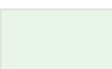
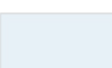
7.30 For all those reasons, I conclude that the District's Council's second and third reasons for refusing to grant planning permission for the appeal proposal are well-founded, that the appeal site is in a geographically unsustainable location, that the appeal proposal will be unacceptably car dependent and that the Appellant has failed to demonstrate that its traffic impact can be appropriately mitigated. I respectfully request that the Appellant's appeal is dismissed.

¹⁸⁷ 19/02550/F Decision Notice (12 March 2020)

Figures



Legend

-  Appeal Site
-  30 Min Drive
-  60 Min Drive
-  90 Min Drive
-  120 Min Drive
-  200km Drive

NOTES
 Base mapping from OS Open Data
 Isochrones based on data provided by Open Route Service

Rev.	Date	Details	Drawn By	Checked By	Approved By

Bristol
 Cambridge
 London
 Manchester
 Oxford
 Welwyn Garden City



90 High Holborn
 London
 WC1V 6LJ
 020 7119 1155
www.tpa.uk.com

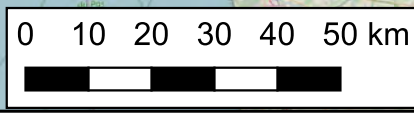
CLIENT
Parishes Against Wolf

PROJECT
LAND TO THE EAST OF M40 AND SOUTH OF A4095, CHESTERTON, OXFORDSHIRE

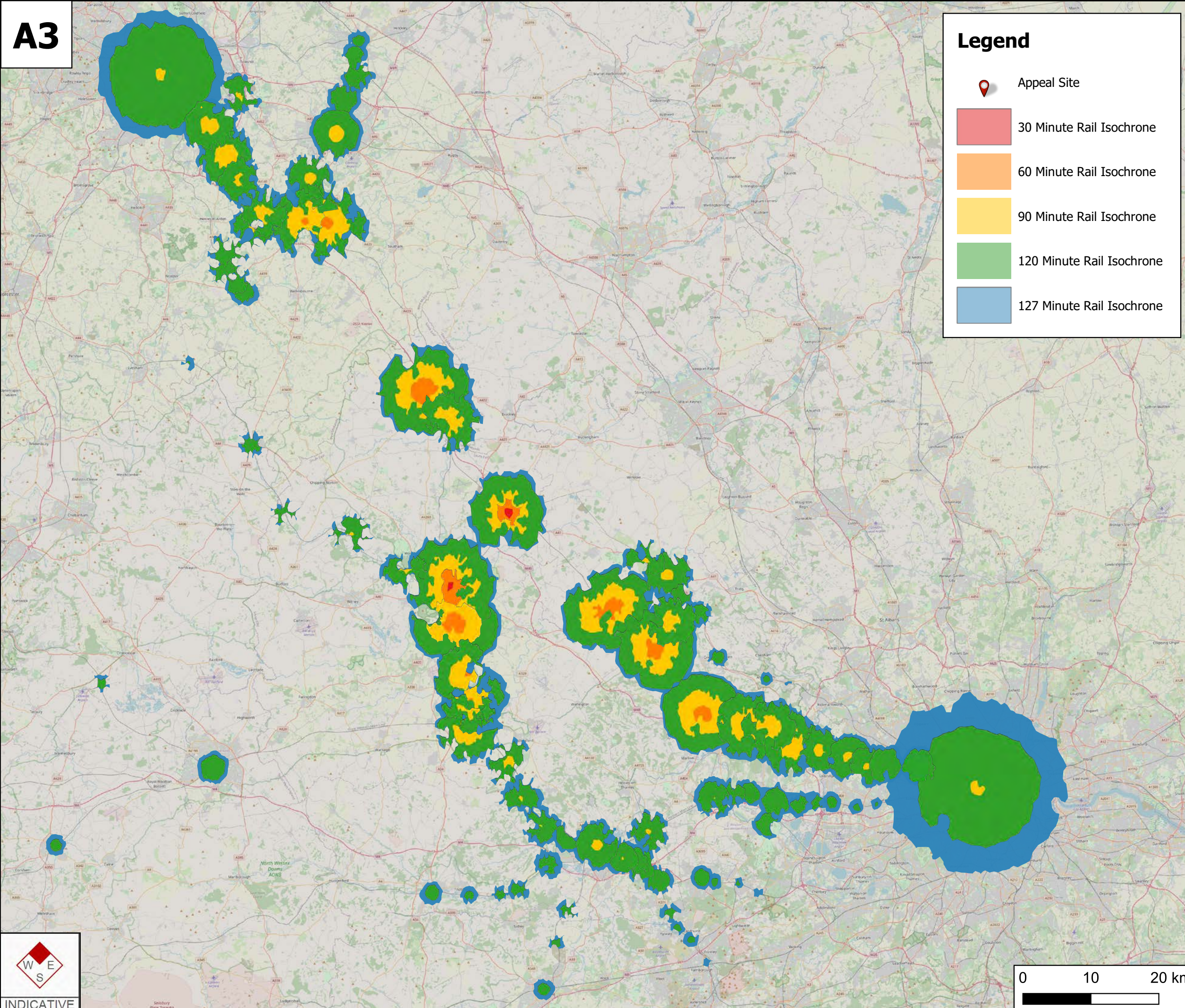
TITLE
DRIVE-TIME/ DISTANCE ISOCHRONES OF THE APPEAL SITE

STATUS
FOR INFORMATION







SCALE: 1:1200000	PREPARED BY: TW	CHECKED BY: RTBL	APPROVED BY: RTBL
JOB NO: 2011-008	DRAWING NO: Figure 6.1	DATE: 05/01/2020	



A3



Legend

-  Appeal Site
-  30 Minute Rail Isochrone
-  60 Minute Rail Isochrone
-  90 Minute Rail Isochrone
-  120 Minute Rail Isochrone
-  127 Minute Rail Isochrone

NOTES

1. Base mapping from OS Open Data.
2. Isochrones based on data provided by Open Route Service
3. Average travel times have been take from National Rail Enquiries
4. Rail-time isochrones have allowed for a 15 walk / interchange from Bicester Town Centre.

Rev.	Date	Details	Drawn By	Checked By	Approved By

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 90 High Holborn
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CLIENT
Parishes Against Wolf

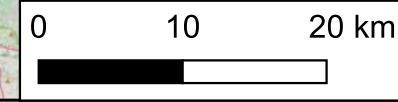
PROJECT
LAND TO THE EAST OF M40 AND SOUTH OF A4095, CHESTERTON, OXFORDSHIRE

TITLE
RAIL-TIME ISOCHRONES OF THE APPEAL SITE





STATUS
FOR INFORMATION

SCALE: 1:525000	PREPARED BY: TW	CHECKED BY: RTBL	APPROVED BY: RTBL
--------------------	--------------------	---------------------	----------------------

JOB NO: 2011-008	DRAWING NO: Figure 6.2	DATE: 05/01/2020
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Key

-  Indicative Site Boundary
-  800 m
-  1200 m
-  2000 m

NOTES

Base mapping from OS Open Data
 Isochrones based on data provided by Open Route Service

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Bristol
 Cambridge
 London
 Manchester
 Oxford
 Welwyn Garden City

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 London
 WC1V 6LJ
 020 7119 1155
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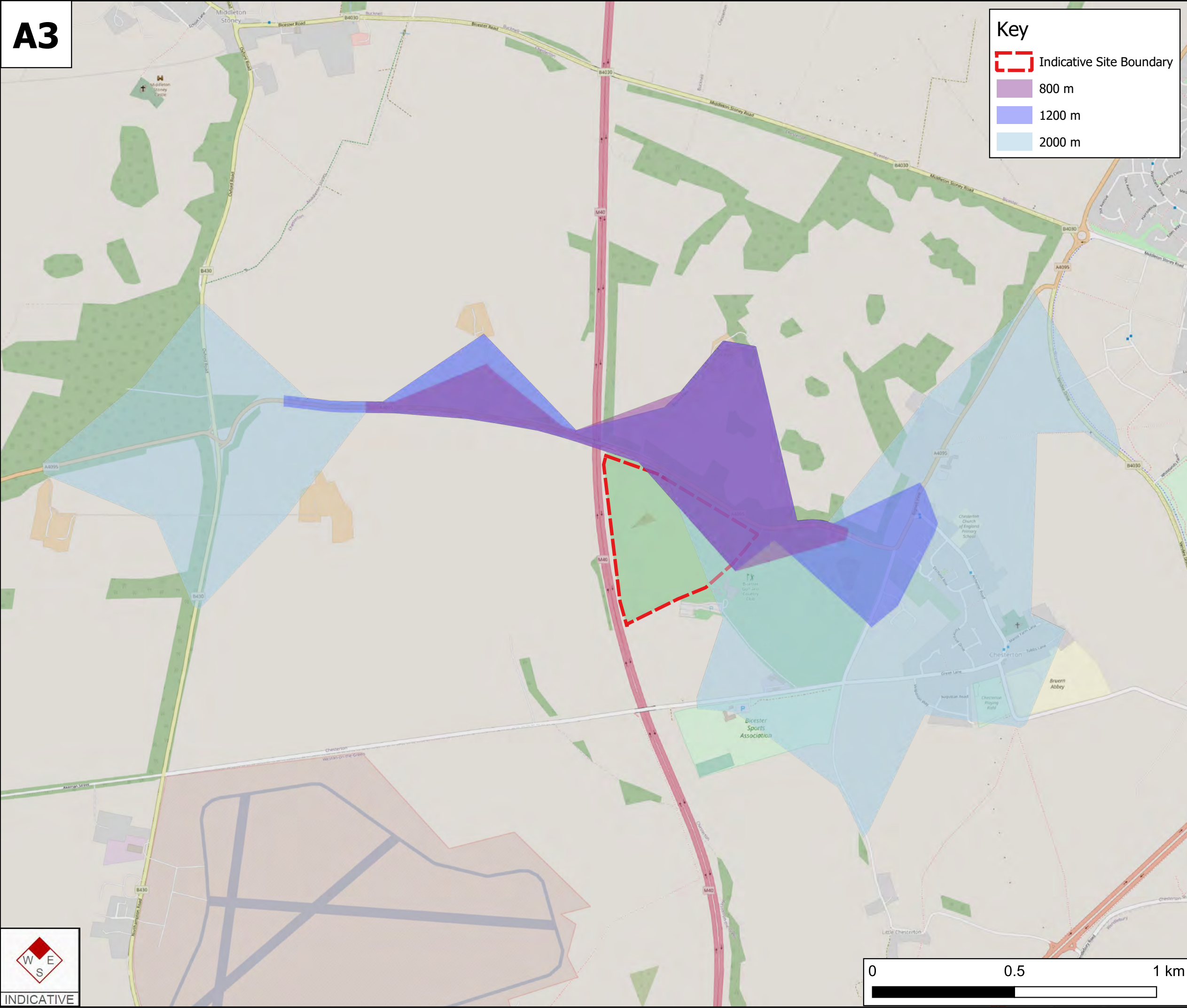
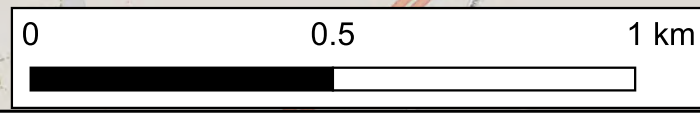
CLIENT
Parishes Against Wolf

PROJECT
**LAND TO THE EAST OF M40
 AND SOUTH OF A4095,
 CHESTERTON, OXFORDSHIRE**

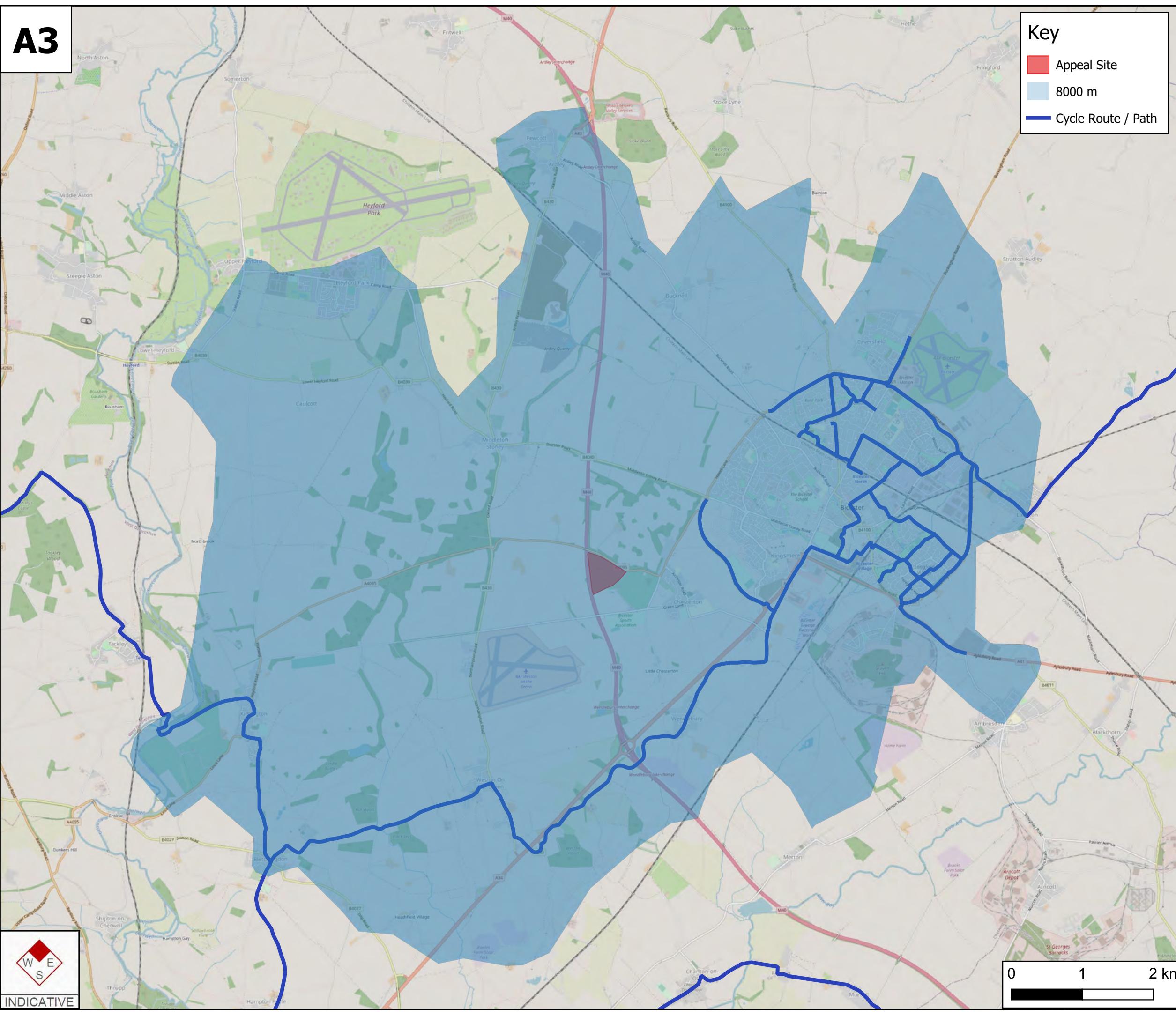
TITLE
**WALKING ISOCHRONES OF
 THE APPEAL SITE**

STATUS
FOR INFORMATION

SCALE: 1:12500	PREPARED BY: TW	CHECKED BY: RTBL	APPROVED BY: RTBL
JOB NO: 2011-008	DRAWING NO: Figure 6.3	DATE: 05/01/2020	



A3



Key

- Appeal Site
- 8000 m
- Cycle Route / Path

NOTES

Base mapping from OS Open Data
 Isochrones based on data provided by Open Route Service

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Rev.	Date	Details	Drawn By	Checked By	Approved By

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Transport Planning Associates

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London
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CLIENT

Parishes Against Wolf

PROJECT

**LAND TO THE EAST OF M40
AND SOUTH OF A4095,
CHESTERTON, OXFORDSHIRE**

TITLE

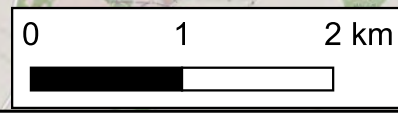
**CYCLING ISOCHRONE
OF THE APPEAL SITE**

STATUS

FOR INFORMATION

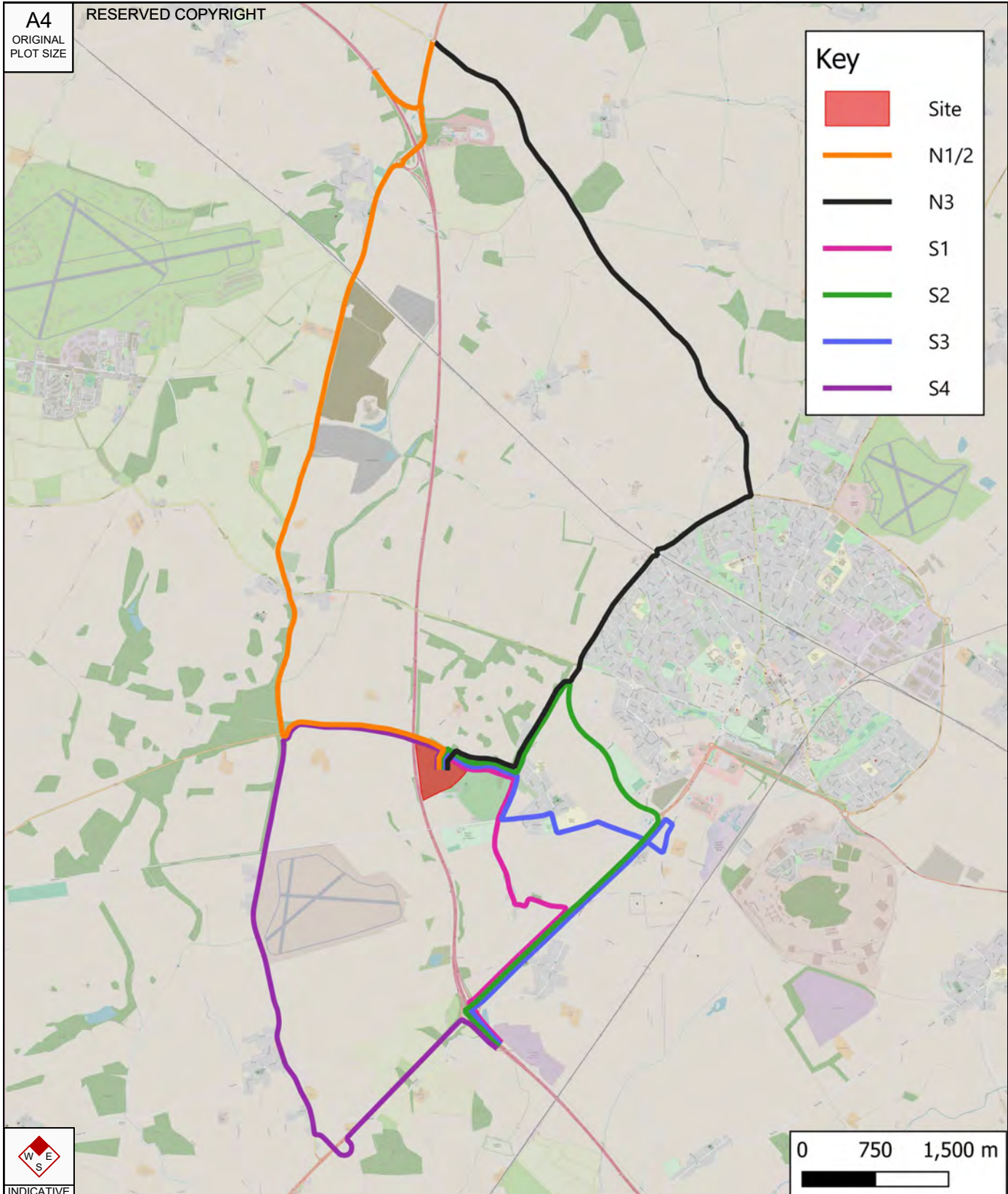
SCALE:	PREPARED BY:	CHECKED BY:	APPROVED BY:
1:50000	TW	RTBL	RTBL

JOB NO:	DRAWING NO:	DATE:
2011-008	Figure 6.4	05/01/2020



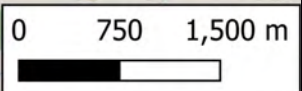
A4
ORIGINAL
PLOT SIZE

RESERVED COPYRIGHT



Key

- Site
- N1/2
- N3
- S1
- S2
- S3
- S4




INDICATIVE

PROJECT: Land to the east of M40 and south of A4095, Chesterton, Oxfordshire

CLIENT: Parishes Against Wolf

TITLE: ROUTES TO THE APPEAL PROPOSAL

Bristol
Cambridge
London
Manchester
Oxford
Welwyn Garden City



90 High Holburn
London
WC1V 6LJ
020 7119 1155
www.tpa.uk.com

NOTES:
1. Based on OS Street Map base mapping

Rev	Date	Details	Drawn by	Checked by	Approved by
-	-	-	-	-	-

STATUS: **FOR INFORMATION**

SCALE: NTS	DATE: 04/02/21	DRAWN: TW	CHECKED: RTBL	APPROVED: RTBL
JOB NO: 2011-008		DRAWING NO: Figure 6.8		REVISION: -

APPENDIX RL-A



Director

MSc Transportation Planning & Engineering (University of Southampton (1997)

Chartered Member of the Institute of Logistics and Transport (1997)

Member of the Institute of Directors (2001)

Liveryman of the Worshipful Company of Carmen (2019)

Patron of the London Transport Museum (2020)

Key Skills:

- Site Appraisal
- Development Transport Planning
- Transport Assessment
- Travel Planning
- Expert Witness

Synopsis of Experience:

Rupert is a transport planner with extensive experience of the development planning process. In 1997 he became a founding director of Transport Planning Associates Limited (then Pinnacle Transportation Limited), a practice of consulting transport planners and transport infrastructure designers. He has worked in private practice since 1989 having previously held positions with White Young Green and Ove Arup & Partners.

His experience ranges from site development feasibility studies to transport impact assessment and the detailed design and specification of highway and traffic management works. He advises both public and private sector clients on the transportation infrastructure and services requirements of various types of development projects, including residential, food and non-food retail, recreational, industrial, and other commercial land uses throughout the United Kingdom. His work includes the preparation of Transport Assessments and Travel Plans in support of planning applications for development together with the negotiation of the scope and extent of transport infrastructure works to be implemented and/ or financial contributions made pursuant to appropriate legal agreements between developers and local authorities.

He frequently appears as an expert witness at various types of planning inquiries and hearings, most recently in connection with:-

Expert Witness Experience:

49 **Former Poultry Processing Plant, Haughley Park, Stowmarket**

Appeal Reference: APP/W3250/W/20/3258516

Local Planning Authority: Mid Suffolk District Council

Inquiry Date: January/ February 2021

Advocate: Michael Bedford QC

48	382 Hatfield Road, St Albans AL4 0DU Appeal Reference: APP/B1930/W/20/3259211 Appellant: Cedarwood Developments Limited	Written Representations Decision Date Due: January/ February 2021
47	Land adjoining Tuffs Road and Maple Way, Eye, Suffolk Appeal Reference: APP/W3520/W/18/3215534 Local Planning Authority: Mid Suffolk District Council	Inquiry Date: January 2020 Advocate: Anjoli Foster
46	Kelmscott Manor, Lechlade, Kelmscott GL7 3HJ Appeal Reference: APP/D3125/W/19/3237054 Appellant: Society of Antiquaries of London	Written Representations Decision Date: January 2020
45	Land to the East of the A1301, South of the A505 near Hinxton and West of the A1301, North of the A505 near Whittlesford, Hinxton Appeal Reference: APP/W0530/W/18/3210008 Appellant: SmithsonHill Limited	Inquiry Date: June/ July 2019 Advocates: Neil King QC & Robert Walton QC
44	Land north and west of Rosedale Cottage, Little Sampford, Hawkspur Green, Little Bardfield Appeal Reference: APP/C1570/W/18/3197857 Appellant: MJT Securities Ltd	Hearing Date: January 2019 Advocate: Richard Phillips QC
43	Land to the west of Old Norwich Road, Claydon, Suffolk Appeal Reference: APP/W3520/W/18/3200941 Appellant: Ashfield Land Limited	Inquiry Date: December 2018 Advocate: Neil Cameron QC
42	NHC1, NHC2, NHC3, and NHC4, New Horizons Court, Brentford TW7 5NG Appeal Reference: APP/F5540/W/16/3165795 Appeal Reference: APP/F5540/W/16/3165799 Appellant: Sackville UKPEC4 Brentford (GP) Limited	Hearing Date: April 2017 Advocate: Richard Harwood OBE QC
41	100 and 100A West Cromwell Road, London W14 Appeal Reference: APP/K5600/W/15/3134528 Appeal Reference: APP/K5600/W/16/3146132 Appellants: Spen Hill Developments Limited and MB Kensington Limited	Hearing Date: January 2017 Advocate: Reuben Taylor QC
40	Townsend Industrial Estate, Park Royal, London NW10 7NU High Speed Rail (London to West Midlands) Bill, Additional Provision 2 (July 2015) Petitions Number: HL:554 and HL:347 Petitioners: BNP Paribas Securities Trust Company & BNP Paribas Securities Services Trust Company (Jersey) as Trustees of the BlackRock UK Property Fund and Fletchers Bakeries	Select Committee Hearing: November 2016 Advocate: Reuben Taylor QC
39	Higher Newham Farm, Truro, Cornwall TR1 2SN Appeal Reference: APP/D0840/W/15/3030407 Appellant: Living Villages (Newham Farm) Limited	Hearing Date: February 2016
38	Townsend Industrial Estate, Park Royal, London NW10 7NU High Speed Rail (London to West Midlands) Bill, Additional Provision 2 (July 2015) Petitions Number: AP2:151 and AP2:118 Petitioners: BNP Paribas Securities Trust Company & BNP Paribas Securities Services Trust Company (Jersey) as Trustees of the BlackRock UK Property Fund and Fletchers Bakeries	Select Committee Hearing: January 2016 Advocate: Reuben Taylor QC
37	115 Munster Road, Fulham SW6 6DH Appeal Reference: APP/H5390/W/15/3130745 Appeal Reference: APP/H5390/W/15/3130746 Appellants: Irwell (TR) Limited	Written Representations Decision Date: December 2015
36	Land at 823 to 827 London Road, Westcliff-on-Sea, Essex SS0 9SY Appeal Reference: APP/D1590/W/15/3030441 Appellants: Laidon Holdings Limited	Hearing Date: October 2015
35	The Proposed New Haunted House Attraction at LEGOLAND Windsor Resort, Berkshire Appeal Reference: APP/T0355/W/15/3005191 Appellants: LEGOLAND Windsor Park Limited	Inquiry Date: October 2015 Advocate: Russell Harris QC

- 34 **Land at Fenn Roundabout, Burnham Road, South Woodham Ferrers, Essex**
 Appeal Reference: APP/W1525/W/14/3001905 Inquiry Date: September 2015
 Appellants: George Martin Limited Advocate: Brian Ash QC
- 33 **Airport House, Kimpton Road, Luton LU2 0SX**
 Appeal Reference: APP/B0230/A/14/2222398
 Appellants: Motorbodies Luton Limited Hearing Date: September 2014
- 32 **The Crispin Inn, 240 Ashgate Road, Chesterfield S40 4AW**
 Appeal Reference: APP/A1015/A/13/2197205
 Appeal Reference: APP/A1015/A/13/2197208
 Appeal Reference: APP/A1015/A/13/2197209
 Appeal Reference: APP/A1015/A/13/2197213
 Appellants: Tesco Stores Limited Inquiry Date: July 2014
 Advocate: Sasha White QC
- 31 **The Forresters Arms, Windsor Street, Luton LU1 3UB**
 Appeal Reference: APP/B0230/A/13/2203864 Inquiry Date: March 2014
 Appellant: Tesco Stores Limited Advocate: Sasha White QC
- 30 **The Nash Arms, 1 Vale Road, Chesham HP5 3HH**
 Appeal Reference: APP/X0415/A/13/2204029
 Appeal Reference: APP/X0415/A/13/2204036
 Appellant: Bramwood Taverns Limited Hearing Date: February 2014
- 29 **The Cups Public House, 214 Wants Road, Maldon**
 Appeal Reference: APP/X1545/A/13/2200683 Inquiry Date: November 2013
 Appellant: Tesco Stores Limited Advocate: Nicholas Taylor
- 28 **The Former HSS Hire Centre, Huddersfield Road, Halifax HX3 0AA**
 Appeal Reference: APP/A4710/A/13/2192307 Inquiry Date: September 2013
 Appellant: Tesco Stores Limited Advocate: Christopher Young
- 27 **Plot 1A, Rochford Business Park, Cherry Orchard Way, Rochford**
 Appeal Reference: APP/B1550/A/13/2189984
 Appellant: Laindon Holdings Limited Hearing Date: July 2013
- 26 **Land Adjacent to Laindon Police Station, High Road, Laindon**
 Appeal Reference: APP/V1505/A/13/2193138 Inquiry Date: May 2013
 Appellant: Laindon Holdings Limited Advocate: Richard Phillips QC
- 25 **The Former Kings Arms Garage Site, Rickmansworth Road, Harefield UB9 6JT**
 Claim Number: CO/6167/2011 High Court Hearing: April 2012
 Defendant: Secretary of State for C&LG Advocate: Stephen Whale
 Interested Party: Tesco Stores Limited Advocate: Sasha White
- 24 **The Former Rising Sun Public House, Reading Road, Burghfield Common**
 Appeal Reference: APP/W0340/A/11/2164555
 Appellant: Delecia Consolidated Limited Hearing Date: March 2012
- 23 **Homelands Farm, Gotherington Lane, Bishop's Cleeve**
 Appeal Reference: APP/G1630/A/11/2146206 Inquiry Date: September 2011
 Appellant: Comparo Limited Advocate: Jeremy Cahill QC
- 22 **73 Melton Road, Leicester LE4 6PN**
 Appeal Reference: APP/W2465/A/11/2148659 Inquiry Date: July 2011
 Appellant: The Walker Trustees Advocate: Sasha White
- 21 **The Former Fox & Hounds Public House, 279 Abingdon Road, Oxford**
 Appeal Reference: APP/G3110/A/10/2142828
 Appellant: Tesco Stores Limited Hearing Date: June 2011
- 20 **The Former Friar Public House, 2 Old Marston Road, Oxford**
 Appeal Reference: APP/G3110/A/10/2139348 Inquiry Date: March/ May 2011
 Appellant: Tesco Stores Limited Advocate: Sasha White
- 19 **The Former Kings Arms Garage Site, Rickmansworth Road, Harefield UB9 6JT**
 Appeal Reference: APP/R5510/A/10/2142653 Inquiry Date: April 2011
 Appellant: Tesco Stores Limited Advocate: Sasha White

- 18 **Land at Calenick Farm, Lamorran Farm and Higher Newham Farm, Truro, Cornwall**
 Appeal Reference: APP/D0840/A/09/2109056 Inquiry Date: January/ February 2010
 Appellant: Newham Farm Limited Advocate: Mary Cook
- 17 **283 Stockport Road, Cheadle Heath, Stockport SK3 0PP**
 Appeal Reference: APP/C4235/A/09/2113420 Written Representations
 Appellant: Oxfell Limited Decision Date: December 2009
- 16 **Land at Bovingdon Service Station, Chesham Road, Bovingdon, Hemel Hempstead HP3 0EB**
 Appeal Reference: APP/A1910/A/09/2108616 Inquiry Date: November 2009
 Appellant: Tesco Stores Limited Advocate: Sasha White
- 15 **Former Cherry Tre Garage, Mersea Road, Blackheath, Colchester, Essex CO2 0AE**
 Appeal Reference: APP/A1530/A/08/2091039 Inquiry Date: June 2009
 Appellant: Tesco Stores Limited Advocate: Sasha White
- 14 **The Former Kings Arms Garage Site, Rickmansworth Road, Harefield UB9 6JT**
 Appeal Reference: APP/R5510/A/09/2100796 Inquiry Date: May 2009
 Appellant: Tesco Stores Limited Advocate: Sasha White
- 13 **7-11 Victoria Road, East Barnet EN4 9PH**
 Appeal Reference: APP/N5090/A/08/2087340 Inquiry Date: March 2009
 Appellant: Tesco Stores Limited Advocate: Sasha White
- 12 **1-3 High Street and part of 1 School Road, Sunninghill, Berkshire SL5 9NN**
 Appeal Reference: APP/T0355/A/08/2089309 Inquiry Date: February 2009
 Appellant: Tesco Stores Limited Advocate: Hereward Phillpot
- 11 **163-167 Mill Road, Cambridge CB1 3BQ**
 Appeal Reference: APP/Q0505/A/08/2066756
 Appeal Reference: APP/Q0505/A/08/2073579 Inquiry Date: October 2008
 Appellant: Tesco Stores Limited Advocate: Stephen Morgan
- 10 **The Forge, Horton Road, Ashley Heath, Ringwood BH24 2EJ**
 Appeal Reference: APP/U1240/A/07/2041910 Inquiry Date: January 2008
 Appellant: Tesco Stores Limited Advocate: Scott Lyness
- 9 **John Tallis Motors, Bathwick Hill, Bath BA2 4EN**
 Appeal Reference: APP/F0114/A/06/2033644 Inquiry Date: May 2007
 Appellant: Tesco Stores Limited Advocate: Nicolas Cooke QC
- 8 **Tesco Store, West Hill, Wadebridge, Cornwall PL27 7HW**
 Appeal Reference: APP/C0820/H/05/1192949
 Appellant: Tesco Stores Limited Hearing Date: January 2006
- 7 **Land at 78 Uxbridge Road, Slough, Berkshire**
 Appeal Reference: APP/J0350/V/05/1175871 Inquiry Date: August 2005
 Appellant: Spen Hill Developments Limited Advocate: Christopher Katkowski QC
- 6 **Tesco Store, Ravenside Retail and Leisure Park, De La Warr Road, Bexhill-on-Sea**
 Appeal Reference: APP/U1430/V/02/1104003 Inquiry Date: September 2003
 Appellant: Tesco Stores Limited Advocate: Keith Lindblom QC
- 5 **12 King Street, Potton**
 Appeal Reference: APP/J0215/A/01/1077275 Inquiry Date: March 2002
 Appellant: Tesco Stores Limited Advocate: Sasha White
- 4 **Tesco Store, Telegraph Road, Heswall**
 Appeal Reference: APP/W4325/A/01/1073228 Inquiry Date: January 2002
 Appellant: Tesco Stores Limited Advocate: Keith Lindblom QC

APPENDIX RL-B



Better planning,
better transport,
better places



AUGUST 2019

Executive summary

For the last 20 years, governments have attempted to encourage a more sustainable approach to transport within spatial planning but have made limited progress.

Car parking and traffic still dominate housing developments. Sustainable access to local services is poor. Sustainable approaches to transport are largely non-existent. The way we currently travel and the continued growth in road traffic are damaging our health, harming our towns, and contributing to climate change.

Our quality of life depends on transport and easy access to jobs, shopping, leisure facilities, and services. We need an efficient and integrated planning and transport system to not only support a strong and prosperous economy but to reduce carbon emissions. As a sector, we are not achieving these goals.

The current planning practice is not delivering the best outcomes. New developments frequently fail to achieve sustainability because of their locations, the approaches taken to provide access, or the attitudes of everyone involved in their planning and delivery. Far too many examples still exist where the long since discredited approach of 'predict and provide' is used to the detriment of planning better places.

The government, professionals, and communities recognise the need for change. The revised National Planning Policy Framework of February 2019 (NPPF) has moved national policy in the right direction, but practice must also change significantly in a number of ways if we want future developments to provide healthy, successful places for people to live in.

Integrating sustainable transport into new developments is key to achieving that outcome, but three key barriers stand in the way:

- Local authorities are not setting out a vision for development in their Local Plans that includes setting accessibility and mode share targets to which developers and promoters can respond.
- Limited practical examples demonstrate how to deliver sustainable transport outcomes which reinforce risk-averse approaches.
- Collaboration between planning and transport regulatory and delivery bodies is either insufficient or ineffective.

This advice document focuses on the critical practical steps that can be taken by planning professionals, developers, advisers, and local councils to overcome these barriers, from developing a strategic or Local Plan to delivering a development. It not only works within the context of current planning legislation and the NPPF but also provides recommendations for the government for improving current policy.

Through this advice, creating places that meet the requirements of the 21st century in terms of all the critical elements of environmental, economic, and social sustainability, and responding to climate change, while also effectively delivering the homes needed will be possible. The effective integration of planning and transport is fundamental to achieving this objective.

Our quality of life depends on transport and easy access to jobs, shopping, leisure facilities, and services. We need an efficient and integrated planning and transport system to not only support a strong and prosperous economy but to reduce carbon emissions.



Section A: The context

1. Introduction

1.1. Who produced this?

This advice is the outcome of several debates and the increasing frustration of a wide range of organisations and opinion formers who have identified that the current practice leads to more car-based development, contrary to the stated aims of national planning policy and contributing to unhealthy lifestyles and climate change.

To address this, the Chartered Institution of Highways and Transportation (CIHT) set up a working group, drawing in a wide range of professional bodies and stakeholders to create new advice on the integration of planning and transport, the aim of which was to work within the current government and legal framework but secure better implementation. The group includes local authorities, the private sector (both developers and consultants), the Transport Planning Society (TPS), the Royal Town Planning Institute (RTPI), academics, and transport operators.

1.2. Who is it for?

The aim of this guide is to provide practical advice for everyone involved in the planning process and to inform any new national planning guidance from the government but focuses on the planning regime in England. It has been written to guide a wide range of audiences, including the following:

- Local communities responding to local planning policy documents or developments
- Professionals in the public sector, including transport planners and engineers
- Politicians and their advisers
- Professionals in the private sector, including developers, landowners, and their advisers

1.3. Why is it needed?

The objective of this document is to set out how the transport planning process can support the delivery and scale of economic and housing growth required by the government while delivering more sustainable transport and planning outcomes for people and places. It does so in the context of the revised National Planning Policy

Framework (NPPF) 2019¹ and relevant legislation. This document focuses on how to apply policy and regulation requirements in a way that delivers considerably better outcomes that are more consistent with sustainable development.

The government has set an ambition to deliver 300,000 houses per year.² However, in many areas with high housing demand, the capacity to deliver growth without seriously degrading the performance of transport networks is already constrained by a lack of transport capacity. Additional development risks exacerbating congestion, poor air quality, green house gas emissions and overcrowding on public transport. Housing that is poorly located and inaccessible by sustainable transport modes either locks residents into long and expensive journeys on congested roads which leads to socio-economic marginalisation and degrades our natural environment.

Poorly located and designed new development seriously hinders healthy lifestyles. Physical inactivity directly contributes to one in six deaths in the UK, drives rising levels of obesity, and is the fourth largest cause of disease and disability. It costs society an estimated £7.4 billion a year³ and places the national healthcare system under increasing financial strain. Transport journeys also create dangerously high levels of air pollution in many towns and cities, contributing to an estimated 40,000 premature deaths per year.⁴

Better transport planning would support the viability and quality of public transport and ensure value for money for investments in walking and cycling, together with wider economic, environmental, and social benefits.

Over time, patterns of dispersed and car-dependent settlement growth, coupled with underinvestment in public transport and active transport infrastructure, have left many parts of the country with poor accessibility and connectivity. This increases infrastructure costs⁵ and weakens labour market productivity,⁶ which prevent towns and cities from reaching their full potential.

¹ Ministry of Housing, Communities, and Local Government (2019), National Planning Policy Framework, MHCLG.

² Ministry of Housing, Communities, and Local Government (2018), Government announces new housing measures, MHCLG.

³ Public Health England (2017), Health matters: Obesity and the food environment, Public Health England.

⁴ Whitehouse, A. (2016), Every breath we take: The lifelong impact of air pollution, Royal College of Physicians.

⁵ Trubka, R. et al. (2010), The Costs of Urban Sprawl — Infrastructure and Transportation, Royal Australian Institute of Architects.

⁶ Andersson, M. et al. (2017), Unlocking Regional Growth, CBI.

- Transport considerations need to be fundamental throughout the planning process and not retrofitted later.
- The focus needs to be on maximising 'accessibility' rather than levels of 'mobility' and supporting opportunities for people to choose not to travel by car.
- Development needs to be focused on where transport infrastructure and services already exist rather than on new infrastructure to support remote locations.

c. Understand the cost of transport provision

Transport and movement directly affect all socio-economic activities to a greater or lesser extent. Movement creates its own very significant social, economic, and environmental impacts. Transport infrastructure involves major costs in both provision and maintenance, especially for dedicated high-quality facilities. Public transport involves high operational costs.

The cost of making major changes to or extending or reinforcing transport networks represents a potentially significant constraint on development strategies. So it is essential that plan makers have a clear and well-informed view of to what degree and how cost-effectively specific transport measures can be provided and over what timescales. This insight needs to be drawn directly from transport infrastructure and service providers and be based on a clear understanding of how costs and other barriers to delivery may be influenced by other constraints or opportunities.

The scale of development being anticipated across England, set against typically limited capacity in existing networks to accommodate growth, makes it increasingly likely that development strategies will generate the need for investment in major infrastructure.

One of the fundamental objectives of plan-making bodies is to de-risk the delivery of any necessary development as far as possible. This means that they must properly prepare and, where necessary, recognise other stakeholders' input into the transport evidence base as well as understand the effectiveness, feasibility, and costs of any potential transport interventions early in the formulation of the Local Plan.

d. Choose the right sites

The process of selecting sites for development should not be driven by developers or land owners; it should be driven by the local authority. However, the process should be informed by developers. Site allocation driven purely by the availability of land is likely to result in a highly unsustainable pattern of development. However, site allocation processes carried out without reference to the availability of the land or the potential to assemble the site will result in plans that are undeliverable or unsound during examination in public (EiP). The more complex the land ownership, the earlier the processes of site assembly (both informal and formal) needs to start.

LPA should set a vision of the spatial form of development they want, undertake strategic site identification and site assembly feasibility exercises, and then establish effective development policy frameworks across the allocation where necessary. They should establish explicit criteria for evaluating proposed sites, a key element of which is transport accessibility.

In large existing urban and metropolitan contexts, development planning is likely to include restructuring poor-quality urban neighbourhoods close to city centres (e.g. Irk Valley, Greater Manchester) or large-scale employment-to-residential redevelopment (e.g. Ashmore Lake, Trafford Wharf) (see Appendix 1 for relevant case studies).

Outside these areas, the LPA will need to steer development and its effective design and delivery of sustainable to urban extensions and new settlements. The alternatives may create developments too small to generate enough internal trip attractors (e.g. employment, shops, schools) and too remote from existing trip attractors, meaning residents have to travel outside the development for work and leisure activities.²⁹

This needs to be achieved through action by the local authority. If sites are left to come forward individually, they are unlikely to have the infrastructure needed to support sustainable transport, local shops, or local services. These need to be planned to maximise the sustainability of the site.

In a time of reduced resources and added pressures for local authorities, this is not easy, but identifying potential sites is an important part of the plan-making process

²⁹ Melia, S. (2018), Local Transport Summit, University of the West of England.

APPENDIX RL-C

Planning for Walking



2. Walking Characteristics, Behaviour and Trends

2.1 How much do people walk?

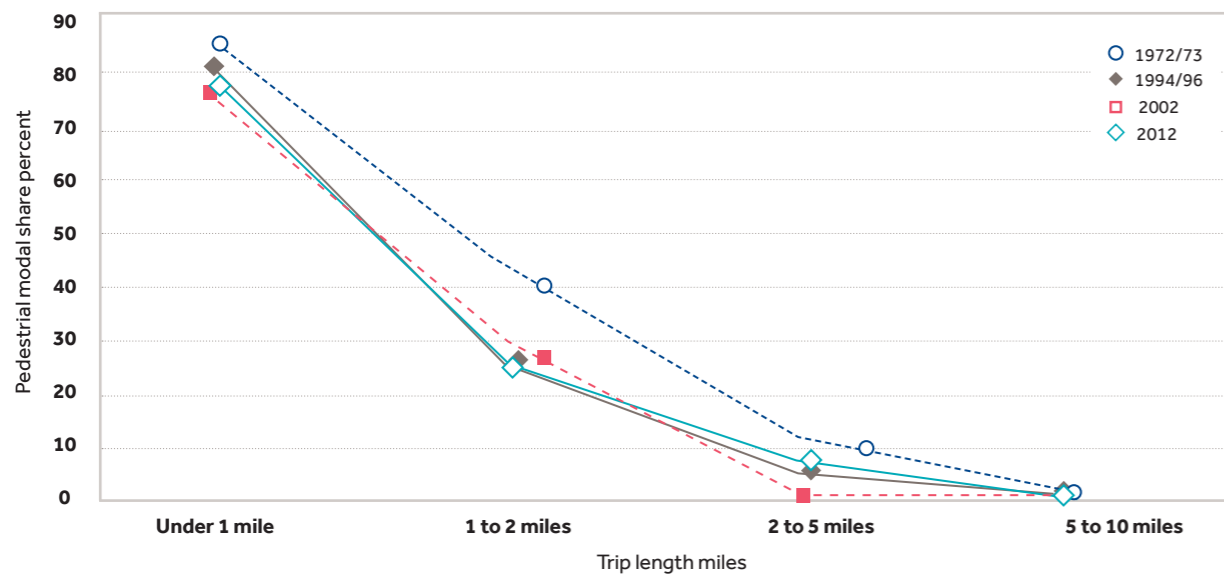
Across Britain about 80 per cent of journeys shorter than 1 mile are made wholly on foot – something that has changed little in thirty years. In 2012 walkers accounted for 79 per cent of all journeys shorter than 1 mile, but beyond that distance cars are the dominant mode (DfT, annual)*. In contrast, in 1972/73, 85 per cent of journeys shorter than 1 mile were made on foot.

For journeys that are 1 to 2 miles long, 26 per cent are made on foot (NTS 2012), more than by bus; beyond 2 miles, trips on foot are few and are outnumbered by bus trips.

The main reason for the decline in pedestrian journeys is the fall in the total number of journeys shorter than 1 mile (Figure 2). It is not that people are less likely to make short journeys on foot, but rather that fewer of the journeys they make can be accomplished on foot. Another way of putting this is that the destinations people want to reach are now further apart.

The number of trips per person per year shorter than one mile fell from 335 in 1985 to 187 in 2007, since when it has been steady at between 187 and 198 per year (Figure 2). Trips on foot of all lengths per person per year declined from 350 in 1985 to 216 in 2007, since when it has been between 210 and 228 per year.

Figure 1: Percentage of journeys on foot 1972/73, 1994/96 and 2010 (National Travel Survey; DfT, annual)



*The 2013 National Travel Survey only covered England. To provide continuity in time series, data from it have not been used in this guideline

Over the same period the average length of pedestrian journeys increased slightly from 0.7 miles to 0.85 miles, and the average duration increased even more marginally from 15 minutes to 17 minutes (speed has increased slightly to 3.0 mph).

In 2012 in all types of urban areas, people made between 196 and 252 pedestrian journeys a year. Size of settlement made little difference and even in rural districts – communities with fewer than 3,000 residents – people averaged 147 walk trips a year (Figure 3).

2.2 Why do people walk?

Historically the most common reason for walking was to go shopping, but the number of shopping trips has declined sharply over the past two decades, roughly halving in number. Now, approximately equal numbers of walk trips are made for shopping, leisure, education and education escort, and going for a walk/ or other. Roughly half this number of trips is made for commuting and business purposes (Figure 4).

For most journey purposes, the percentages made on foot have declined slightly since 1985. The exceptions are trips for 'commuting and business' and 'other' purposes. Aside from 'other' walk trips, the highest share by foot, about 35% to 40%, is for education, personal business and associated escort trips.

2.3 Variations by age and gender

The amount people walk varies with age and gender, as well as with social class and place of residence. Walking is also affected by peoples' disabilities which, likewise, vary with age and gender.

Figure 3: Journeys per year by non-car modes in different types of area, 2012 (National Travel Survey 2012; DfT, annual)

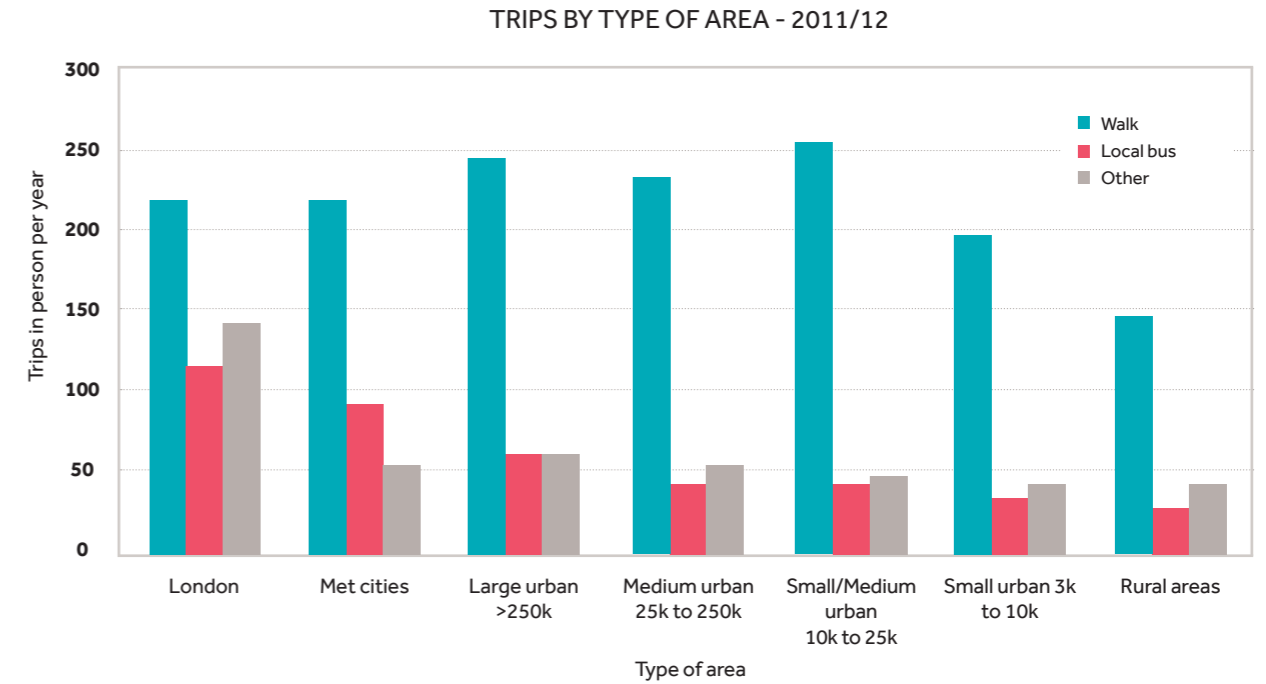


Figure 2: Trend in the number of journeys of different lengths, Great Britain (National Travel Survey; DfT, annual)

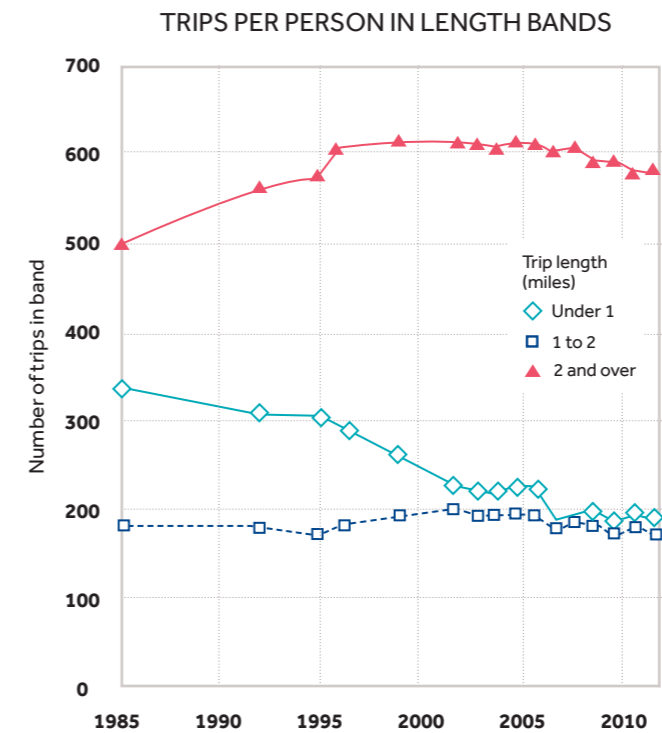
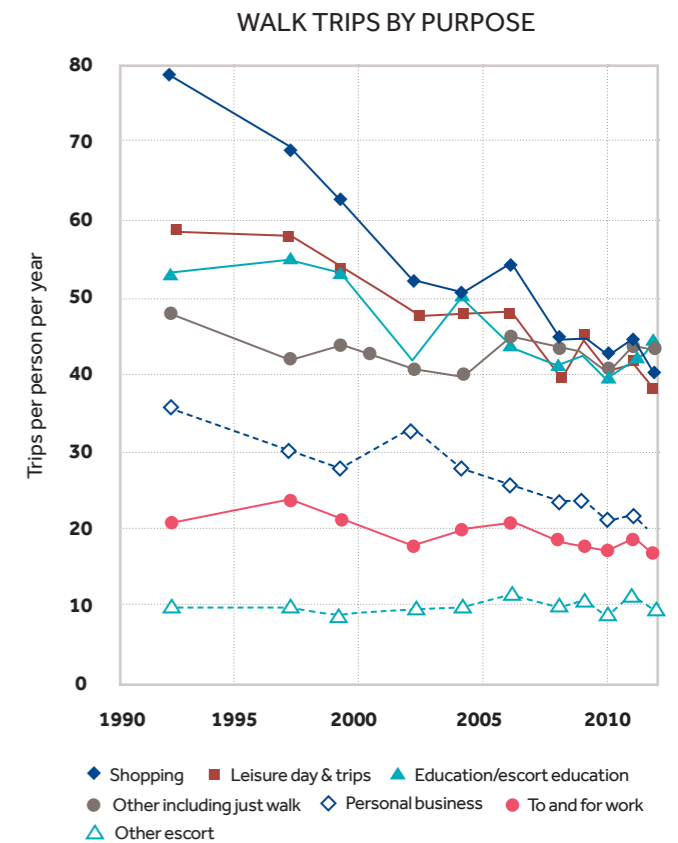


Figure 4: Walk trips by purpose (National Travel Survey; DfT, annual)





Pedestrian priority Gardner Street, Brighton

6.9 Wayfinding

Pedestrians are helped if walking routes are well signed and show the distances and/or times to useful destinations. Maps showing walking routes are also valuable, particularly in places frequented by tourists. Strangers often find it difficult to follow pedestrian routes and do not appreciate the nearness of many destinations.

Research by TfL for the Legible London scheme makes clear that not even the best street-based maps can be expected to suit the needs of all. The preferred mix of information is a wide variety of commercially available paper maps, A to Zs and “rough guides” plus carefully thought-out on-street fingerposts or other wayfinding displays (SDG/TfL, 2014).

Developments in digital wayfinding provide new opportunities to help walkers and encourage walking. All wayfinding systems should therefore be designed to work alongside digital guidance services (see Section 8).

Different settings call for different approaches to sign-writing. Small-scale, discretely coloured, “heritage” signs, fitted to the speed of wandering tourists, are widely used in the centres of historic towns—though modern designs, if equally small and discrete, could be used. The Legible London project has done a great deal to improve signing for way finding in London and has shown that clear signing does not have to be intrusive.

Railway stations, by contrast, are often disorienting in layout and full of harassed travellers and need something bigger and more strident. Examples from Central York, Legible London and a railway station in Copenhagen illustrate the different approaches (Figure 15). In street locations, signs and fingerposts need to be placed near lamp posts or other sources of light.

Figure 14: Signs for pedestrians providing differing degrees of clarity and ease of use



A Legible London finger post



Sign in a Copenhagen urban railway station



Finger post in York

7. Promoting Walking

Delivering Travel Plans through the Planning Process (DfT and DCLG, 2009) defines a travel plan as is a long-term management strategy for an occupier or site that seeks to deliver sustainable transport objectives through positive action and is articulated in a document that is regularly reviewed. Travel plans have been used successfully for many years whether secured through planning or prepared on a voluntary basis. They are an important tool for promoting sustainable travel (e.g., walking, cycling, public transport, and help to reduce single-occupancy car use, as described in the report *Smarter Choices: Changing the Way We Travel* (Cairns et al., 2004). Travel plans are now being used to secure the provision of sustainable travel choices both to new developments and extensions of existing sites.

The DfT Smarter Choices and Sustainable Travel Towns programmes have shown the effectiveness of promoting walking. In the three “sustainable” towns (Worcester, Darlington and Peterborough), where residents were given information about cycling and walking, travel on foot increased by 10% to 13% (Sloman et al., 2010).

The travel plan process may be centred on an activity centre, such as a school, a workplace, or a hospital; on individuals, through Personal Travel Plans; or on a complete area, as in the Sustainable Travel Towns. In each case, the process involves identifying barriers to the use of sustainable travel modes, followed by a programme of information and persuasion to encourage their use, plus relatively low-cost investments to reduce or remove the barriers. These investments can include improvements to pedestrian infrastructure, including safer road crossings, provision of cycle racks, bus shelters, seats, real-time information, priority parking for car sharers and, where appropriate, support for improved public transport, at least for a limited period.

Getting the correct “building blocks” in place is key to securing successful travel plans; robust clear local policies are needed, which build on national and regional policy. To achieve clarity, local authorities should publish guidance, stating the nature and scale of new development that will require travel plans, what type of travel plan is needed in different situations and the broad objectives they are seeking. These objectives are more effective when linked to the wider spatial planning objectives of achieving effective use of existing transport networks, supporting sustainable accessibility to sites and encouraging more efficient use of land. Considering the transport assessment and travel plan as an integrated package to deal with the transport impacts of a development is the most effective approach. They should be submitted together with the planning application wherever possible.

Cairns et al. (2004) concluded that under a “high-intensity” scenario provided by a much more widespread implementation of good practice, albeit to a realistic level, travel changes could be:

- a reduction in peak period urban traffic of approximately 21% (off-peak 13%),
- a reduction of peak period nonurban traffic of approximately 14% (off-peak 7%) or
- a nationwide reduction in all traffic of approximately 11%.

These figures represent a cautious estimate of the effects of significantly scaling up work on soft factors from its current level. The scenario described is one where soft measures have benefited from a high-intensity policy buildup over a period of approximately 10 years. The “low-intensity” scenario is defined as a projection of the 2003–2004 levels of local and national activity on soft measures. This would achieve substantially smaller changes in travel behaviour, including a reduction in peak period urban traffic of approximately 5%, and a nationwide reduction in all traffic of 2% to 3%.

APPENDIX RL-D

GUIDELINES FOR

PROVIDING FOR

JOURNEYS ON FOOT

PUBLISHED BY

THE INSTITUTION OF

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2000



1.20. Leisure is an all-pervading part of life and walking is an important part of it. Of an estimated 5.7 billion day visits per annum in the UK, the main form of travel for nearly one third of them was walking. Public transport is seldom used. Walking – including hill walking and rambling – accounted for 15% of all visits. Day visiting is popular in winter and summer, and seven in ten visits are to a town or city (SCPR, 1997).

Benefits of Walking

Walking is sustainable travel

1.21. Walking is the most sustainable form of travel and provides one way of helping to reduce pressures on the environment. It uses less space per person than any other form of travel. It burns no fossil fuels, involves no harmful emissions, and can accommodate peaks in use more easily and at less cost than any other mode. Indeed, the more that people walk, the more secure everyone feels.

1.22. For the majority of the population, regular walking is practical only for short trips. Measured by distance, only three percent of the average person's travelling was undertaken on foot in 1994/96 (DETR, 1998b). However, measuring travel by distance hides the prominence of walking and its contribution to sustainable living. The number of trips is a better measure of the benefit derived from travel as each journey is a means to an end. Of the journeys where many motorists could choose to walk instead of driving, nearly 25% are less than two miles, a distance that is practicable for walking.



Pedestrians are very efficient users of road space.
Courtesy: Beton-Verlag GmbH.

1.23. Increased use of public transport will normally require additional walking. Good quality and direct walking routes can improve access to public transport, assist interchange and encourage modal shift.

Walking is healthy

1.24. For most people, walking is the best overall physical activity for maintaining and improving fitness and health. The major health benefits of walking are:

- reduced risk of heart diseases;
- weight control;
- reduced risk of osteoporosis;
- reduced risk of diabetes;
- reduced risk of high blood pressure;

Types of pedestrians

3.27. The types of pedestrian using the route will need to be considered at the planning stage, as this will have implication for layout and design. Significant use by shoppers, tourists, young children, the visually impaired, people using wheelchairs, and other groups with particular needs should be identified where possible. This can usually be worked out from the main land uses and the location.

Transportation Planning Models

3.28. There are various tools available to transportation planners to assist with planning or modifying highway networks for motor vehicles (eg, IHT, 1997, Chapter 8). Models for pedestrian movement are less common. Pedestrian modelling techniques have been developed for those locations where there are large numbers of pedestrians and where virtually all journeys are on foot, for example in large public squares or within passenger terminals. However, they are less well developed for multi-modal situations covering large areas, such as a new settlement or existing town. In these instances conventional origin and destination forecasting techniques/survey results can be used to determine desire lines but modal split assumptions may have to be made on assignment. These assumptions should also take account of the implications of new policies and schemes that will change the current situation.

3.29. The absence of specific pedestrian models for planning new developments is not necessarily a major problem. Most pedestrian networks are planned without models. Observation and experience are probably more important. It is also worth remembering that models can be expensive to construct and are not always sufficiently accurate.

Acceptable walking distances

3.30. Approximately 80% of walk journeys and walk stages in urban areas are less than one mile. The average length of a walk journey is one kilometre (0.6 miles). This differs little by age or sex and has remained constant since 1975/76. However, this varies according to location. Average walking distances are longest in Inner London. The main factors that influence both walking distance and walking time in a city or town centre appear to be the size of the city or town itself, the shape and the quality of the pedestrianised area, the type of shops and number of activities carried out. An average walking speed of approximately 1.4 m/s can be assumed, which equates to approximately 400m in five minutes or three miles per hour. The situation of people with mobility difficulties must be kept in mind in applying any specific figures.

3.31. "Acceptable" walking distances will obviously vary between individuals and circumstances. Acceptable walking distances will depend on various factors including:

- An individual's fitness and physical ability
- Encumbrances, eg shopping, pushchair
- Availability, cost and convenience of alternatives transport modes
- Time savings
- Journey purpose
- Personal motivation
- General deterrents to walking.

3.32. Table 3.2 contains suggested acceptable walking distances, for pedestrians without a mobility impairment for some common facilities. These may be used for planning and evaluation purposes. (See also Table 4.2.)

Table 3.2: Suggested Acceptable Walking Distance.

	Town centres (m)	Commuting/School Sight-seeing (m)	Elsewhere (m)
Desirable	200	500	400
Acceptable	400	1000	800
Preferred maximum	800	2000	1200

3.33. Planning Policy Guidance Note 6 states that the acceptable distance from a supermarket car park to the town centre is about 200–300m (DOE, 1996). Further sources of information on acceptable walking distances are provide by IHT (1997 and 1999) and DETR (1998).

3.34. For shopping, Carley and Donaldsons (1996) advise that that “acceptable” walking distances depend on the quality of the shops, the size of the shopping centre and the length of stay of the shopper. Specifically, they state that parking time governs the distance walked from parking. See Table 3.3) Higher quality and larger centres generate longer acceptable walking distances with up to 1250m of walking journey to 100,000m² of floor space.

Table 3.3: Acceptable walking distances for car-borne shoppers.

Parking time (hours)	Acceptable walking distance (metres)
30 mins	100
1	200
2	400
4	800
8	1000

Source: Carley and Donaldsons (1997)

Individual Sites/Redevelopment

3.35. For smaller areas and individual new developments or redevelopment, usually within an existing urban area, origin /destination surveys and network planning may not be appropriate. It will be important to identify the anticipated desire lines, crossing locations, volume and type of pedestrian activity. The practicality and attractiveness of walking depend not only on the general location but also on the access details. The most important considerations are likely to be:

- the ease of pedestrian access to the site
- the orientation and location of buildings within the site
- the access arrangements within the site
- the architectural style of the development (car or pedestrian oriented).

3.36. Additional walking distances or gradients, can be crucial in determining whether a development is pedestrian friendly. Layouts that require pedestrians to walk through car parks or to follow indirect footpaths should be avoided as far as possible. These are issues that should be addressed jointly by planners and engineers involved in development control.

3.37. If the development is sufficiently large to warrant a Transport Impact Assessment, the local authority should ensure that this thoroughly addresses the issues of pedestrian access, both to the site and within it. Some guidance is provided in IHT *Guidelines for Providing for Public Transport in Developments* (IHT, 1999). Further Guidelines on Transport Assessments are expected from DETR.

APPENDIX RL-E

Planning for Cycling

Rob Gallagher and
John Parkin





1. Introduction

Cycling is an important part of urban transport. However, for many years its role has been neglected in the UK, with the focus mainly on the needs of motor traffic. Cycling is one of the most sustainable forms of transport, and increasing its use has great potential. To release this potential, highways, public spaces and other rights-of-way need to be organised accordingly. Planning for cycling is discussed in these guidelines; detailed design of infrastructure and facilities for cycle users will be examined elsewhere.

These guidelines are organised in the following sections:

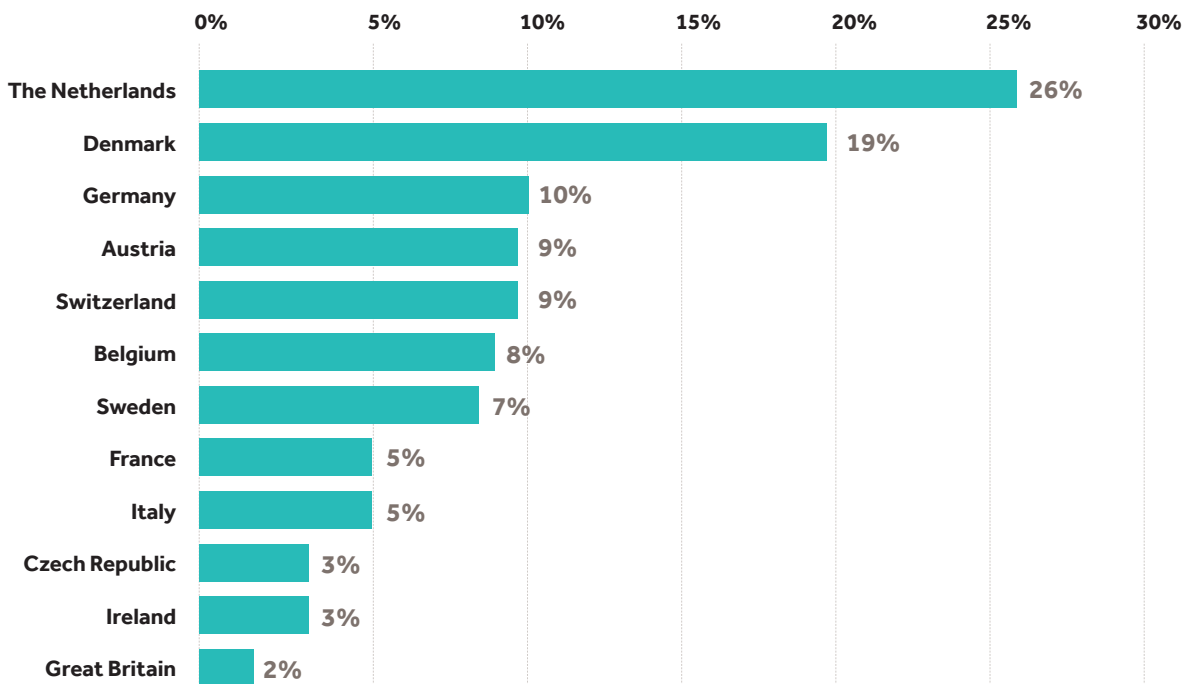
2. **Cycling Characteristics, Behaviour and Trends in the UK**
3. **Benefits of Cycling**
4. **Current Conditions and Challenges**
5. **Legal and Regulatory Context for Cycling**
6. **Cycling Strategies and Plans**
7. **Planning Cycle Networks and Routes**
8. **Promoting Cycling**
9. **Monitoring and Evaluation of Cycling Schemes**
10. **Further Information on Planning for Cycling**

2. Cycling Characteristics, Behaviour and Trends in the UK

Cycling was once widely undertaken in the UK, but the level of use declined from the 1950s as car ownership grew. It reached its lowest point in the 1990s and then stabilised, though at a generally lower level than in some Northern European countries. Since the new millennium, however, significant growth has been observed in some places.

Around 23 million bicycles can be found in the UK. These bicycles are owned by nearly half the population. However, only 15% of the population cycle once a week or more, and around 65% do not cycle at all (DfT, 2014). Figure 1 compares cycle use in twelve European countries.

Figure 1: Cycling as a percentage of all trips in the mid-2000s in twelve European countries



Source: DfT (2010)

In the UK, the highest proportions are seen in the cities of Cambridge (18% of all trips), Oxford (14%) and York (10%). Across Greater London, approximately 2% of all trips are made by bicycle. In Scotland, Edinburgh has one of the highest levels of cycling (around 5% of journeys to work), but most other Scottish towns and cities are below 2%.

Significant variations can occur within a county or city. For example, in the Somerset towns of Yeovil, Taunton and Bridgwater, cycling accounts for 6%–10% of all trips; yet in other towns in the county such as Crewkerne, Chard and Glastonbury, it accounts for only 1%–3% of all trips. Wide variations also occur within cities like London and Bristol, with significantly higher proportions in central and inner areas. For example, in 2011 in the London Borough of Hackney, 15% of journeys to work were by bicycle; but in most outer London boroughs, only 1%–2% of the working population cycled to work.

The variations reflect differences in topography, town size, urban function, demography (for example, the presence of a university), street layout, congestion and the availability of public transport. A further important factor is the influence of central and local government: research in the Netherlands identified government support as a major reason why Dutch cycling levels recovered in the 1970s after years of decline (Ministrie van Verkeer en Waterstraat, 2009).

Who Cycles and Why?

People of all ages cycle, but in the UK, the proportion of young and elderly cyclists is much lower than in European countries with high levels of cycling. Similarly, the proportion of female cyclists in the UK, at 30%, is significantly lower than the 45%–55% in Denmark, Germany and the Netherlands (Pucher and Buehler, 2008). UK towns and cities with high levels of cycling also have the highest proportions of female cyclists, and London’s recent growth in cycle use has seen the proportion of female cyclists increase.

Bicycle mode shares in the UK tend to be lower for people from non-white ethnic backgrounds, particularly those from Bangladeshi, Chinese and black African backgrounds; and higher-income households generally cycle more than lower-income households.

Cycle use is more seasonal than for other modes, with up to twice as many cyclists in summer compared with winter. The majority of cycling trips are for short distances, with 80% being less than five miles and with 40% being less than two miles. However, the majority of trips by all modes are also short distances (67% are less than five miles, and 38% are less than two miles); therefore, the bicycle is a potential mode for many of these trips (DfT, 2014a). Electric bicycles extend the range that can be cycled comfortably, and combined cycle-rail or cycle-bus journeys offer an alternative to car travel for many longer trips.

4. Current Conditions and Challenges

Despite the benefits of cycling, many barriers, both real and perceived, also exist. Surveys in London identified seven major factors that discourage people from cycling: (i) danger, (ii) effort, (iii) poor cycling environment, (iv) weather, (v) cycle theft, (vi) lack of information and skills and (vii) culture/attitude/credibility; and of these, the first three were most frequently mentioned (TfL, 2004). Research in the Cycling Demonstration Towns has shown a complex interplay between the different factors; and the behavioural changes that prompt people to take up cycling are often linked to important life events such as changing schools or jobs or moving to a new location (Cycling England, 2010).

Road Safety

Fear of traffic is one of the main factors that discourage people from cycling, and cyclists (along with pedestrians) experience proportionately higher rates of road casualties than any other road users except motorcyclists. In 2013, 109 cyclists were killed in Great Britain, representing 6% of road deaths that year, a higher proportion than their modal share of 2%. Cyclists also accounted for 14.5% of seriously injured road casualties in 2013, with the great majority occurring in built-up areas, particularly at or near road junctions.

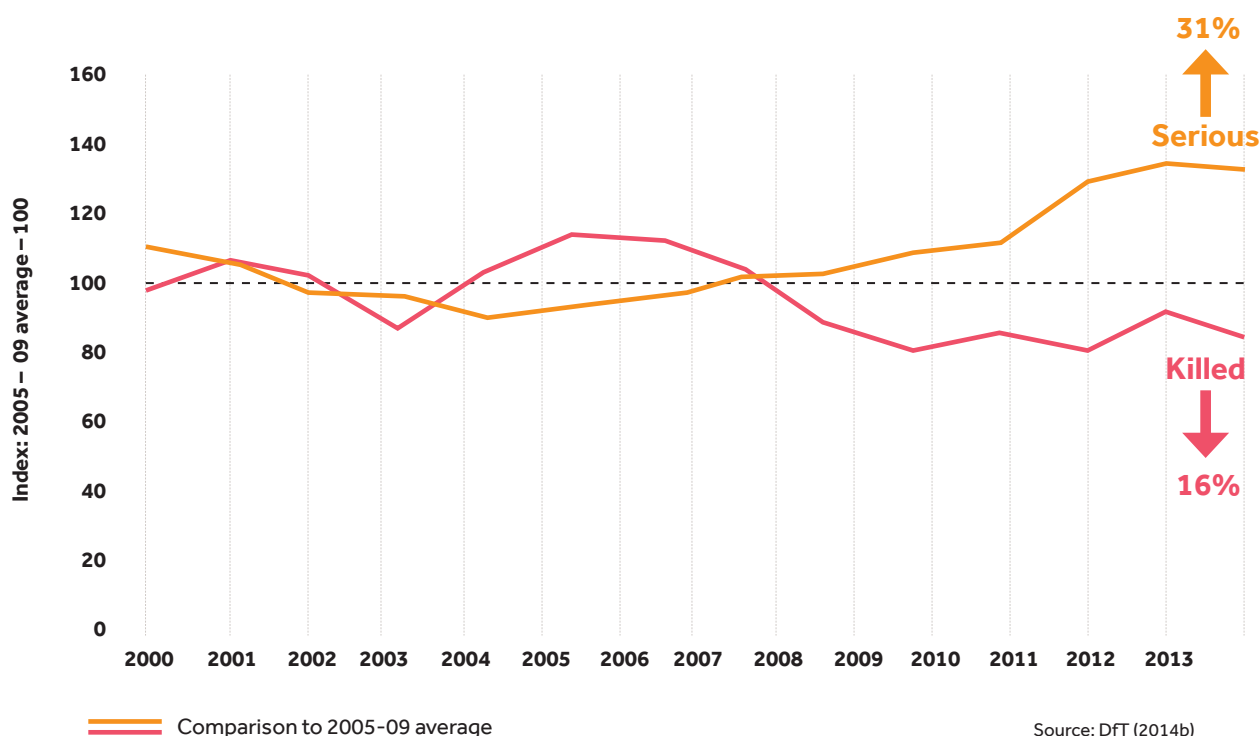
Cycling casualties are generally underreported. Europe-wide, it is estimated that less than half of

hospital admissions for traffic-related cycling injuries are reported in police statistics. Non-traffic-related cycling injuries are also significantly underreported – only 4% appeared in police records in England, though they are numerically much more common than vehicle-related collisions. The main causes of these non-collision injuries were (i) slipping on ice, (ii) slipping on wet or loose surfaces and (iii) losing control at potholes or kerbs or rail or tramlines (Benington, 2012).

The large number of non-collision injuries means that cyclists account for more hospital admissions than any other transport mode, including cars and motorcycles. The majority of these non-collision admissions (70%) are minor and require no treatment, but their prevalence highlights the need for maintaining good road and path surfaces as well as raising cyclist awareness and competence (Benington, 2012).

Overall, however, the risk of a cyclist being a road casualty is low compared with many other activities. In the UK there is, on average, one cyclist death per 33 million kilometres of cycling, whereas lack of exercise presents a much greater risk. Over 50,000 people die in the UK each year because of coronary heart disease related to insufficient physical activity; and research suggests that the health benefits of cycling outweigh the safety risks by a factor of around twenty-to-one (DfT, 2010), a figure mirrored in European cities, as shown in Figure 5.

Figure 4: Number of killed and seriously injured pedal cyclists, GB 2000–2013





The challenge is to improve the environment for cycling.

Photo: Chandra Prasad/Sustrans

The number of cycling fatalities in the UK has declined steadily since the 1950s. Nonetheless, cycling casualty rates are significantly higher in the UK compared with other countries with higher levels of cycling, both for fatal and nonfatal collisions. The experience from other countries with higher levels of cycling suggests a 'safety in numbers' effect, that is, the more people cycle, the lower the relative risk, as illustrated in Figure 6. This phenomenon is consistent with other considerable evidence about nonlinear relations between risk and exposure, but discussion continues concerning the underlying causal mechanisms (Bhatia and Weir, 2011).

London's recent experience supports the notion of 'safety in numbers': between 2000 and 2008, cycling

levels on London's major roads increased by 107%, but the number of cyclists killed or seriously injured increased by only 16% and slight casualties by 9%; hence, the relative risk decreased by almost half (TfL, 2009) – see Figure 7. However, while the rate of collisions may decrease with increased cycle volume, an absolute increase in collisions may still happen.

The barriers to cycling are thus more in people's perceptions and habits than in actual levels of risk. The challenge is how to respond to these barriers, especially by improving the environment for cycling by making it more attractive and comfortable and thus encouraging more people to cycle.

Recent Growth Trends

There has been limited growth in cycling at a national level during the past decade; but substantial growth in some places, for example, more than doubling in central and inner London during the 2000s, and increasing by between 20% and 50% in Bristol, Leicester, Sheffield and Hull in the latter half of the 2000s. In the first six Cycling Demonstration Towns supported by Cycling England, an overall 27% increase in cycling levels was achieved in three years (2005-08); see box.

It appears that the growth has taken place mainly in congested inner urban areas and in leisure cycling. On-road cycling in suburbs and rural areas has changed little from the low levels of the 1990s. In outer London, for example, which accounts for about half of all cycling trips in the capital, there was only a 0.2% increase in cycling between 2001 and 2009, while Wiltshire experienced no increase between 2004 and 2008. In Scotland, there have been small annual increases since 2008 in the total distance cycled and the number of people cycling to work and school.

There is other evidence of cycling growth at a national level, including the following:

- **Record cycling levels in London in 2014 (up 173% on the TfL Road Network since 2001)**
- **Annual increases of 9% – 13% on the National Cycle Network in the late 2000s**
- **The appearance of large-scale commercial sponsorship (for example, the sponsored Cycle Hire scheme in London and 'Sky Ride' events around the country)**

A wide range of factors has contributed to this growth in cycling, including the following:

- **Infrastructure to improve the attractiveness and comfort of cycling**
- **Promotional programmes and growing public awareness**
- **Rising costs and crowding on public transport**
- **Increased car parking costs and reduced availability**
- **Other factors such as congestion charging in London**

Growth Potential

Undoubtedly, a great potential demand for cycling exists in the UK. A survey by Sport England in 2009/10 identified 2.2 million 'latent' cyclists in England (LSE, 2011), and Sustrans (the sustainable transport charity) has found that nearly half of children at school would like to cycle to school, given the right conditions (Sustrans, 2008).

The Cycling Demonstration Towns



Cycling England was established by the government in 2005 as a non-departmental public body to promote cycling. It existed for six years before being disbanded in 2011.

Cycling England initially granted 'Cycling Demonstration Town' (CDT) status to six towns, with funding for three years to boost cycling through a combination of infrastructure and promotional measures. Later, the funding for the six towns was extended, and an additional eleven towns and one city (Bristol) were designated as 'Cycling Cities and Towns' (CCTs).

The funding increased cycling investment in the towns to around £10–20 per capita per year, nearly three times the previous average. Half of this was 'match funding' from the local authority.

However, local authorities seeking to improve the environment for cycling face a dilemma: low numbers of cyclists mean that cycling projects tend to receive less priority and funding compared with other transport projects, yet the limited investment in improving conditions for cycle users discourages many would-be cyclists from taking up cycling. For local authorities, the challenge is to transform this 'vicious' circle into a 'virtuous' circle.

5. Legal and Regulatory Context for Cycling

There is a wide range of legislations and regulations relevant to cycling, which for convenience can be considered under two broad categories: (i) those relating to cyclists' use of roads and paths and (ii) those relating to the provision of specific infrastructure for cycle traffic.

The Cyclist as Road User

The term 'cycling' covers a range of different types of vehicle. The Traffic Signs Regulations and General Directions 2002 define a pedal cycle as a 'unicycle, bicycle, tricycle, or cycle having four or more wheels', while bicycles, tricycles, velocipedes, and other similar machines are defined by Section 85 of the Local

Designs for cycle traffic have usually assumed that a cyclist has the knowledge and skill to be able to handle the bicycle at up to the appropriate design speed and in mixed traffic, according to national training standards (Franklin, 1997). Efforts should continue to ensure that cycle users are offered suitable training (see Section 8 for cycle training). However, whatever level of training they may have, it is unrealistic to expect many existing and potential cycle users to find high volume or fast-moving mixed traffic conditions either attractive or comfortable. Network planning should therefore be concerned with creating direct cycle routes that provide comfortable passage for all types and ages of cycle user. This will usually be via a combination of:

- **routes dedicated to cycle traffic that are free from motorised traffic;**
- **routes with mixed traffic of appropriate speed and volume;**
- **routes with higher volumes and speeds of motor traffic, which have well-designed segregated space for cycle traffic.**

Local Transport Note 02/08 advises that at speeds of twenty miles per hour and below, cycle traffic and motor traffic readily mixes. At speeds up to thirty miles per hour, it may be appropriate to manage traffic within the carriageway by providing separate lanes for cycle traffic. At speeds greater than thirty miles per hour and for volumes of more than 10,000 vehicles per day, it may be appropriate to provide infrastructure for cycle traffic separate from motor traffic.

In the UK, cycle users have commonly been categorised by type, for example, 'fast commuter' or 'inexperienced leisure cyclist' (DfT, 2008a). While these categories may be helpful in identifying market segments for promotional measures, they are not sufficient for determining design requirements; and a better approach, particularly if the interest is to allow for large growth in cycle use, is to focus on the cycle users' needs, as follows (CROW, 2007):

- **Keeping energy use to a minimum;**
- **Providing smooth surfaces;**
- **Ensuring sufficient space around a bicycle to separate it from threats;**
- **Avoiding involuntary low speeds;**
- **Providing shelter from wind and rain, as far as possible;**
- **Allowing cyclists to ride side by side, hence allowing cycling to be sociable;**
- **Minimising the number and complexity of tasks that cyclists have to perform.**

When the UK motorway network was being planned, appropriate design criteria were established at the

outset. In a similar manner, cycle infrastructure planning should ensure appropriateness in all details and adhere to the following five principles, originally expounded by the Dutch (CROW, 2007) and repeated in much guidance around the world:

- **Coherence: Infrastructure for cycle traffic needs to form a coherent whole and provide connections that link origins and destinations; key elements include way-finding and consistency of quality of route.**
- **Directness: A cycle user needs to be offered the most direct route possible and particularly routes which are shorter and quicker than by car.**
- **Attractiveness: Cycling infrastructure should be well designed to fit in with the surroundings and engender feelings of personal security.**
- **Safety: Infrastructure should be designed to offer space to cycle users to reduce their feelings of vulnerability from all potential threats.**
- **Comfort: Infrastructure should reduce delay at particular locations and the consequential additional effort required to recover normal cycle speed; similarly, infrastructure should provide smooth surfaces with no discrete discontinuities such as kerb edges.**

Local Transport Note 2/08 (DfT, 2008a) advises that provision should be according to a hierarchy in which the designer attempts first to (i) reduce motor traffic volume, (ii) reduce motor traffic speed, (iii) treat junctions and hazard sites, (iv) reallocate road space in favour of cycling, (v) provide cycle tracks away from the road and, only lastly, (vi) convert footways for cycle use. A similar approach is advocated in Local Transport Note 1/12 (DfT, 2012).

However, if a large-scale increase in cycle volumes is the desired aim, a more comprehensive approach to planning for cycle traffic is required than this simple 'hierarchy of provision', as the following pages explain.

Planning of Networks and Routes

Several approaches can be used in selecting the most suitable routes for cycle traffic. One approach is to compare cycle users' desired lines with existing networks; and increasingly, this is being done electronically, using apps on mobile phones. Another approach is to consult local cycle users and carry out 'saddle surveys'. The Dutch guidance (CROW, 2006) suggests specific dimensions for the size of the 'mesh'. A more extensive approach suggested in Danish guidance (Danish Road Directorate, 2012) considers numerous factors, including cyclists' choice of corridor, desired speed, standard of the route, number and type of junctions, type of surfacing to be provided, whether the route will be lit and the level of maintenance to

APPENDIX RL-F



Department
for Transport

Cycle Infrastructure Design

Local Transport Note 1/20
July 2020



Table 4-1: Factors affecting cycling effort

Factors	Comments	Design implications
The cycle and rider – speed, mass and acceleration	<p>Energy is required to move from rest to the cyclist's chosen speed, depending on the rate of acceleration and the mass of the rider and cycle.</p> <p>Stopping and then restarting means that significant additional effort is required, over and above maintaining a constant speed.</p>	<p>Routes that are direct and allow cyclists to maintain a steady speed are the most appealing.</p> <p>Designers should avoid layouts which make cyclists stop, slow down, or deviate unnecessarily from their desired route.</p>
Surface quality and resistance	<p>The greater the surface resistance, the harder it is to cycle. This is particularly true for small-wheeled cycles.</p>	<p>Cycle routes should be surfaced in smooth bound materials that are unaffected by weather and are well-maintained at all times of year.</p>
Gradient	<p>The steeper the gradient, the more energy is required to overcome it.</p> <p>Three and four wheeled cycles are affected by excessive camber, making it hard to steer. All cyclists are affected by camber in icy conditions.</p>	<p>Directness of route may need to be balanced with avoiding steep gradients. The Route Selection Tool (RST), used as part of the LCWIP process, can be useful in assessing alternatives.</p> <p>Camber should be adequate for drainage but not excessive, and fall to the inside of bends.</p>
Air resistance	<p>Air resistance can add significantly to the effort required to cycle, particularly for 'city bikes' where the rider is more upright.</p> <p>Cycling into a prevailing headwind, which can be exacerbated by a local microclimate, can increase this effort.</p>	<p>Windbreaks using planting, trees, hedges or fences, can help mitigate the effects of strong prevailing winds.</p>

4.3 The effort required to cycle

4.3.1 The effort required to cycle and to maintain a constant speed is affected by physical conditions and the local environment: surface quality, surface material, gradients, deflections and undulations, and prevailing winds.

4.3.2 Minimising effort should be a key consideration in the design of any infrastructure, so that cycling is a comfortable and pleasant experience. Suggested positive steps to achieve this are shown in Table 4-1. E-bikes (electrically-assisted pedal cycles) also overcome some of these issues by providing a boost in power to assist the rider.

4.4 Protection from motor traffic on highway links

When to protect

4.4.1 Motor traffic is the main deterrent to cycling for many people¹² with 62% of UK adults feeling that the roads are too unsafe for them to cycle on.¹³ Providing protected space has resulted in huge increases of cyclists on routes in London,¹⁴ Manchester and other major cities.¹⁵ The need to provide protected space for cycling on highways generally depends on the speed and volume of motor traffic. For example, in quiet residential streets, most people will be comfortable cycling on the carriageway even though they will be passed by the occasional car moving at low speeds.

12 Davies, D, Gardner, G, Gray, C, Harland, G A Quantitative Study of the Attitudes of Individuals to Cycling, TRL Report 481, 2001

13 Walking and Cycling Statistics: England 2017, DfT, 2018

14 London's Cycling Infrastructure Report, London Assembly Transport Committee, March 2018

15 Cycle City Ambition Programme, Baseline and Interim Report, Transport for Quality of Life (for DfT), 2017

On busier and faster highways, most people will not be prepared to cycle on the carriageway, so they will not cycle at all, or some may unlawfully use the footway.

4.4.2 Figure 4.1 summarises the traffic conditions when protected space for cycling (fully kerbed cycle tracks, stepped cycle tracks and light segregation), marked cycle lanes without physical features and cycling in mixed traffic are appropriate.

4.4.3 More detail on the design of these types of cycle infrastructure is given in Chapters 6 and 7.

4.4.4 Figure 4.1 shows that:

- Protected space for cycling will enable most people to cycle, regardless of the volume of motor traffic, although stepped cycle tracks and light segregation are not generally considered suitable for roads with speed limits above 40mph in urban areas. Stepped cycle tracks and light segregation may be appropriate on some suburban and interurban roads with 40mph

speed limits where HGV traffic is limited and traffic flows are less than 6,000 PCU per day.

- Although there may be fewer cyclists and pedestrians in rural areas, the same requirement for separation from fast moving motor vehicles applies. A well-constructed shared use facility designed to meet the needs of cycle traffic – including its width, alignment and treatment at side roads and other junctions – may be adequate where pedestrian numbers are very low.
- Reducing the volume and speed of motor traffic can create acceptable conditions for on-carriageway cycling in mixed traffic and should always be considered as it delivers other safety and environmental benefits to streets. This is often the only feasible approach on narrow roads lined by buildings.
- Cycle lanes on the carriageway can be appropriate on less busy roads with lower speed limits, but do not provide any physical protection from motor vehicles and so do not adequately meet the needs of most people on busier and faster roads.

Figure 4.1: Appropriate protection from motor traffic on highways

Speed Limit ¹	Motor Traffic Flow (pcu/24 hour) ²	Protected Space for Cycling			Cycle Lane (mandatory/ advisory)	Mixed Traffic
		Fully Kerbed Cycle Track	Stepped Cycle Track	Light Segregation		
20 mph ³	0	Green	Green	Green	Green	Green
	2000	Green	Green	Green	Green	Green
	4000	Green	Green	Green	Yellow	Yellow
	6000+	Green	Green	Green	Yellow	Pink
30 mph	0	Green	Green	Green	Yellow	Yellow
	2000	Green	Green	Green	Yellow	Yellow
	4000	Green	Green	Green	Yellow	Pink
	6000+	Green	Green	Green	Yellow	Pink
40 mph	Any	Green	Yellow	Yellow	Pink	Pink
50+ mph	Any	Green	Pink	Pink	Pink	Pink

- Provision suitable for most people
- Provision not suitable for all people and will exclude some potential users and/or have safety concerns
- Provision suitable for few people and will exclude most potential users and/or have safety concerns

- Notes:**
- If the 85th percentile speed is more than 10% above the speed limit the next highest speed limit should be applied
 - The recommended provision assumes that the peak hour motor traffic flow is no more than 10% of the 24 hour flow
 - In rural areas achieving speeds of 20mph may be difficult, and so shared routes with speeds of up to 30mph will be generally acceptable with motor vehicle flows of up to 1,000 pcu per day

Table 5-2: Cycle lane and track widths

Cycle Route Type	Direction	Peak hour cycle flow (either one way or two-way depending on cycle route type)	Desirable minimum width* (m)	Absolute minimum at constraints (m)
Protected space for cycling (including light segregation, stepped cycle track, kerbed cycle track)	1 way	<200	2.0	1.5
		200-800	2.2	2.0
	>800	2.5	2.0	
	2 way	<300	3.0	2.0
		>300-1000	3.0	2.5
		>1000	4.0	3.0
Cycle lane	1 way	All – cyclists able to use carriageway to overtake	2.0	1.5

*based on a saturation flow of 1 cyclist per second per metre of space. For user comfort a lower density is generally desirable.

Table 5-3: Additional width at fixed objects

Type of edge constraint	Additional width required to maintain effective width of cycle track (mm)
Flush or near-flush surface including low and splayed kerbs up to 60mm high	No additional width needed
Kerbs 61mm to 150mm high	200
Vertical feature from 151mm to 600 mm high	250
Vertical feature above 600 mm high	500

Additional width at fixed objects

5.5.4 Where a cycle track is bounded by a vertical feature, people will not be able to use the entire width as they will naturally be wary of riding immediately next to walls and kerbs. Designers should provide additional width as shown in Table 5-3.

equestrian traffic to avoid conflict and allow cyclists to travel at a comfortable speed (see Chapter 6). Where cycling is on-carriageway, it is assumed that the geometry provided for motor traffic will be adequate to cater for all types of cycle.

5.6 Cycle design speed

5.6.1 The design speed determines relevant aspects of horizontal and vertical geometry of cycle tracks. The design speeds in Table 5-4 should be used for cycle only tracks and for rural shared use facilities where there are few pedestrians – such routes should be designed as cycle tracks which pedestrians may lawfully use rather than a footway that can be cycled on. Cycle traffic should preferably be separated from pedestrian and

Table 5-4: Design Speed for off-carriageway cycle routes

Circumstance	Design speed (kph)	Absolute min design speed (kph)
General off-carriageway cycle tracks	30	20
Downhill gradients > 3%	40	N/A

Figure 6.17: Low level light segregation features adjacent to a mandatory cycle lane



6.3.7 Low level light segregation can present a tripping hazard to pedestrians and should not therefore be used in areas where high numbers of people cross the road, whether that is at a formal crossing place or informally at a point of their choosing. A run of low level features should begin with a vertical feature to alert road users to their presence, particularly motorcyclists, who may lose control if they strike a light segregation feature unexpectedly. The vertical features should be repeated where light segregation is interrupted at a side road or major access. Light segregation should not be used where general traffic is expected to straddle it.

6.3.8 Where regular servicing access is required across light segregation, a local kerbed island may be required – see Figure 6.18.

6.3.9 Where space is limited, car parking bays can be marked adjacent to the light segregation. A buffer strip is preferred to allow for car doors to be opened safely without compromising the safety of cyclists.

Figure 6.18: Local kerbed island for servicing across light segregation facility



6.4 Cycle lanes

6.4.1 Cycle lanes are areas of the carriageway reserved for the use of pedal cycles, as defined in Schedule 1 of TSRGD. Mandatory cycle lanes are marked with a solid line to TSRGD diagram 1049B. Optional upright signs to TSRGD diagram 959.1 may also be provided. Motor vehicles must not enter the lane during its hours of operation – if no upright sign is provided, the lane operates at all times. Advisory cycle lanes are marked with a broken white line to TSRGD diagram 1004 and should not be entered by other vehicles unless it is unavoidable.

6.4.2 The width of cycle lanes should meet the geometric requirements set out in Chapter 5. A 2.0m wide lane allows space for overtaking within the lane and is the minimum recommended width.

6.4.3 Cycle Lanes less than 1.5m wide should not normally be used as they will exclude the use of the facility by larger cycles and are therefore not inclusive. They can also encourage ‘close-passing’ of cyclists by motorists, who tend to judge their road position with reference to the nearside marking.

6.4.4 Cycle lanes are part of the carriageway, therefore a number of factors should be considered:

- Cyclists are not physically protected, and it is important that the traffic conditions are appropriate to the presence of cyclists on the carriageway (see Section 4.2 in Chapter 4).
- The design of cycle lanes needs to consider the movements of both cyclists and other vehicles.

Figure 6.26: The END marking (TSRGD diagram 1058) and give way marking (TSRGD diagram 1003B) should not normally be used.



6.5 Shared use

6.5.1 For the purpose of this document shared use is defined as a route or surface which is available for use by both pedestrians and cyclists. Within the highway, it is normally created by converting the footway using the power in Section 65 of the Highways Act 1980 (see Appendix C). The issues around separating pedestrians and cyclists on off-highway routes are discussed in Chapter 8, section 8.2.

6.5.2 The term ‘shared use’ has been used to describe both unsegregated and segregated routes, the latter typically being achieved with a white line marking to TSRGD diagram 1049B to separate pedestrians and cyclists. This form of separation is not well observed, and pedestrians walking on or crossing the cycle side can encounter greater conflict than with unsegregated facilities due to the increased cycling speeds that can result from the designation.

6.5.3 White line segregation is not recommended and the term ‘shared use’ within this document refers only to facilities without any marked separation between pedestrians and cyclists. Where cycle tracks are provided at the same level as a pedestrian route, they should be clearly designed and marked as cycle tracks – see Section 6.2 and Chapter 8.

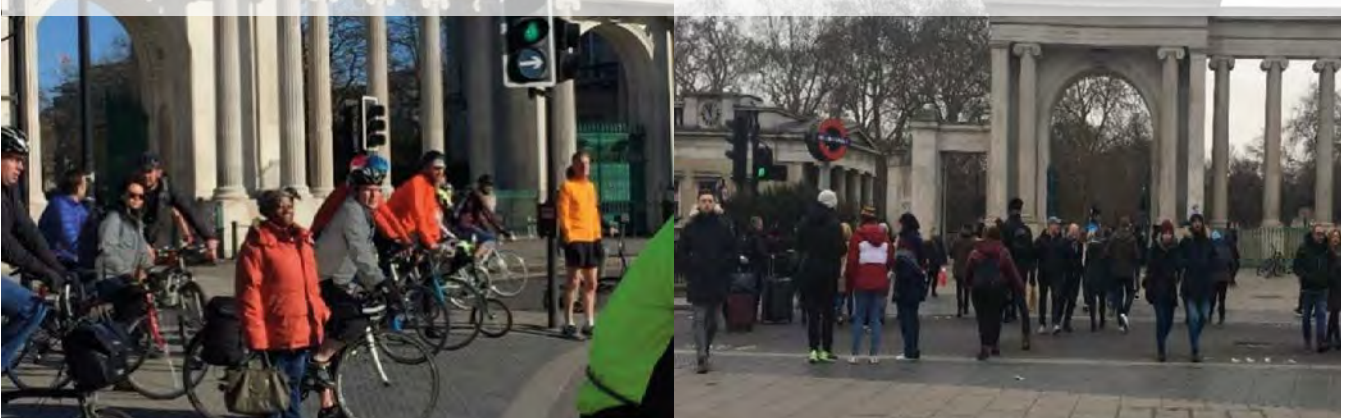
6.5.4 In urban areas, the conversion of a footway to shared use should be regarded as a last resort. Shared use facilities are generally not favoured by either pedestrians or cyclists, particularly when flows are high. It can create particular difficulties for visually impaired people. Actual conflict may be rare, but the interactions between people moving at different speeds can be perceived to be unsafe and inaccessible, particularly by vulnerable pedestrians. This adversely affects the comfort of both types of user, as well as directness for the cyclist.

6.5.5 Where a shared use facility is being considered, early engagement with relevant interested parties should be undertaken, particularly those representing disabled people, and pedestrians and cyclists generally. Engaging with such groups is an important step towards the scheme meeting the authority’s Public Sector Equality Duty.

6.5.6 Shared use may be appropriate in some situations, if well-designed and implemented. Some are listed below:

- ▶ Alongside interurban and arterial roads where there are few pedestrians;
- ▶ At and around junctions where cyclists are generally moving at a slow speed (see Figure 6.27), including in association with Toucan facilities;
- ▶ In situations where a length of shared use may be acceptable to achieve continuity of a cycle route; and

Figure 6.27: Large shared use area at Hyde Park Corner, showing how high levels of cyclist and pedestrian use occur at different times.



- In situations where high cycle and high pedestrian flows occur at different times (also see Figure 6.27).

6.5.7 Recommended minimum widths of shared use routes carrying up to 300 pedestrians per hour are given in Table 6-3. Wherever possible, and where pedestrian flows are higher, greater widths should be used to reduce conflict.

Table 6-3: Recommended minimum widths for shared use routes carrying up to 300 pedestrians per hour

Cycle flows	Minimum width
Up to 300 cyclists per hour	3.0m
Over 300 cyclists per hour	4.5m

6.5.8 Designers should be realistic about cyclists wanting to make adequate progress. The preferred approach for shared use routes is therefore to provide sufficient space so that cyclists can comfortably overtake groups of pedestrians and slower cyclists.

6.5.9 Research shows that cyclists alter their behaviour according to the density of pedestrians – as pedestrian flows rise, cyclists tend to ride more slowly and where they become very high cyclists typically dismount.³⁰ It should therefore rarely be necessary to provide physical calming features to slow cyclists down on shared use routes, but further guidance on this, and reducing conflict more generally, is given in Chapter 8, section 8.2.

6.6 Cycling on bus and tram routes

Bus lanes

6.6.1 Cyclists are usually permitted to use with-flow and contraflow bus lanes. Whilst not specifically a cycle facility, bus lanes can offer some degree of segregation for cyclists as they significantly reduce the amount of interaction with motor traffic. However, they do not provide an environment attractive to a wide range of people and should therefore not be regarded as inclusive. Some bus lanes also allow taxis and motorcycles to use them, which can significantly increase traffic flows, thereby acting as a deterrent to cycling while also increasing risk of conflict.

6.6.2 Where cyclists are using bus lanes, the lane should be at least 4m wide, and preferably 4.5m, to enable buses to pass cyclists with sufficient room. Bus lanes less than 4m in width are not recommended and widths between 3.2m and 3.9m wide should not be used.

6.6.3 Cycle lanes or protected space for cycling may be provided within or adjacent to bus lanes where the overall width available is 4.5m or more – see Figure 6.28. At bus stops a bus stop bypass or bus boarder arrangement may be appropriate (see 6.6.7).



Figure 6.28: Cycle lane within bus lane, Brighton

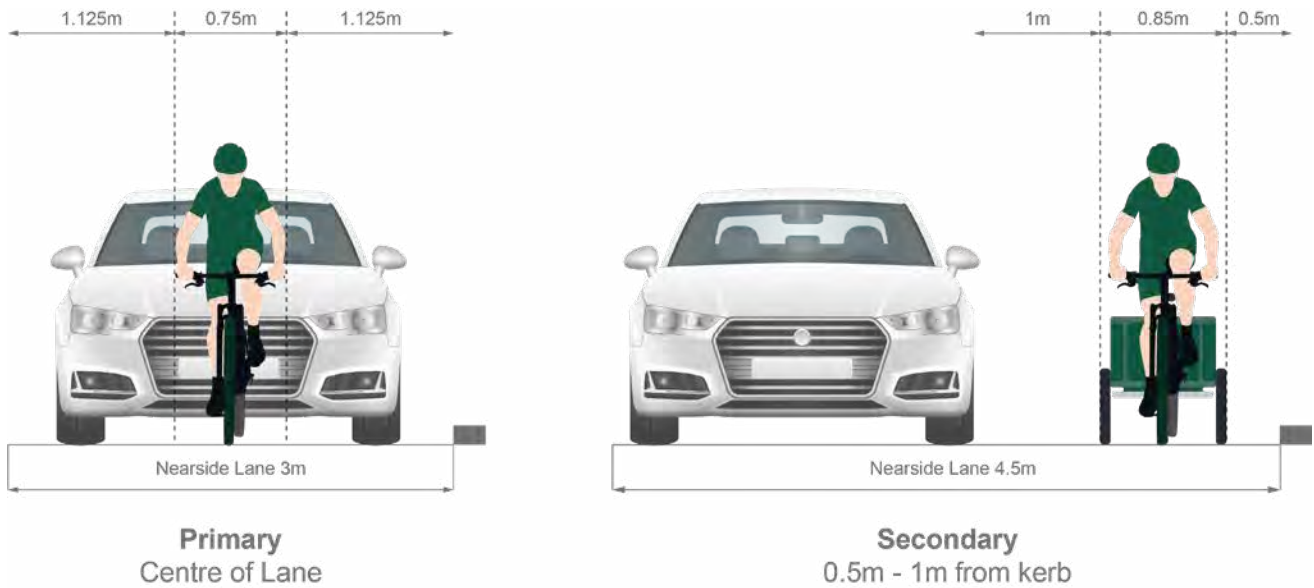
Bus gates and bus-only roads

6.6.4 Bus gates are used to control routes and access to bus-only roads by preventing access by general traffic. Nearside bus gates and bus-only roads should by default be accessible by cyclists.

6.6.5 Bus gates may be implemented through the use of rising bollards, traffic signals or simply traffic signs. Where bus activated signals are used without a cycle bypass, it will be necessary to provide a means for cyclists to activate the signals. This may be achieved by a suitable means of detection or a pushbutton unit for cyclists to operate. Care should be taken to ensure push-buttons can be reached by cyclists who cannot dismount, including from a recumbent position.

30 Davies DG et al. (2003) Cycling in Vehicle Restricted Areas: TRL583

Figure 7.2: Primary and secondary riding positions



Carriageway and lane widths

7.2.5 UK practice has generally adopted a standard lane width of 3.65m, which gives a standard single carriageway of 7.3m. However, this width can be unsatisfactory for cycling in mixed traffic as it does not include any allowance for cycle facilities on the carriageway and the lane widths are unsatisfactory. Lanes between 3.2m and 3.9m wide allow motor vehicles to drive alongside a cyclist without crossing the centre line, but without any safety margin for the comfort and protection of cyclists. This will potentially lead to close overtaking behaviour that may endanger the cyclist.

7.2.6 For locations where on-carriageway cycling is appropriate, Table 7-2 sets out minimum acceptable lane widths. This should be viewed in conjunction with

Figure 4.1 in Chapter 4 which advises on when it is necessary to separate cyclists from motor traffic. Additional width may be required at sharp bends and at junctions to accommodate turning and larger vehicles.

7.2.7 A highway typically includes several other features (shown in Table 7-3) that may reduce the space available for cycling. Providing sufficient width for these other functions will help to prevent cyclists coming into conflict with other road users.

Critical widths at pinch points

7.2.8 The National Cycle Training Standards recommend that cyclists ride away from the edge of the carriageway to avoid gulleys and to make themselves visible to other carriageway users.

Table 7-2: Minimum acceptable lane widths*

Feature	Desirable minimum	Absolute minimum	Notes
Traffic lane (cars only, speed limit 20/30mph)	3.0m	2.75m	2.5m only at offside queuing lanes where there is an adjacent flared lane
Traffic lane (bus route or >8% HGVs, or speed limit 40mph)	3.2m	3.0m	Lane widths of between 3.2m and 3.9m are not acceptable for cycling in mixed traffic.
2-way traffic lane (no centre line) between advisory cycle lanes	5.5m	4.0m	4.0m width only where AADT flow <4000 vehicles** and/or peak hour <500 vehicles with minimal HGV/Bus traffic.

* these lane widths assume traffic is free to cross the centre line, see 7.2.9 for details on critical widths at pinch points

** While centre line removal is still feasible with higher flows, the frequency at which oncoming vehicles must enter the cycle lane to pass one another can make the facility uncomfortable for cycling.

APPENDIX RL-G

Buses in Urban Developments

Principal author: Tim Pharoah, FCIHT



Section A - Context and policy framework

A.1 Introduction

This section is relevant particularly to those involved in urban policymaking, master planning, development management and transport planning. It deals with the policies required to enable attractive and efficient bus services in new developments.

These guidelines focus on bus services as the predominant form of collective urban transport whilst acknowledging that technology is changing transport through, for example, Mobility as a Service (MaaS) (Transport Systems Catapult, 2016).

Bus services are important to urban areas for several reasons (see section A2):

- Bus use enables more people to be moved along a corridor of limited vehicle capacity;
- Buses enable people who either do not have a car or who do not wish to use one to travel farther than they can walk, with benefits to social equality;
- Bus services from peripheral developments can reduce car use from those developments and the resulting congestion on main radial roads;

- Bus users contribute substantially to retail activity in town centres;
- Towns and cities in which access to the centre is largely by bus can achieve a better city centre environment through more pedestrian space and better air quality;
- Buses contribute to active travel and healthier lifestyles because of walking (or cycling) to and from bus stops.

The challenge bus operators face when trying to provide high-quality bus services are the following:

- Competition from the car, particularly where there is ample low-cost parking;
- Delays to services by congestion;
- Street layouts that make it impossible to provide an economically efficient bus service that is attractive to passengers.

The use of buses varies considerably between different towns. It is high in London at 15% of all trips, reducing to 10% in the bigger cities, 5% in smaller towns and only 3% in rural towns and fringe areas (see Table 1).

Table 1: Mode split of all trips in England, 2014 – 2015 percentages

	England excluding London	London	Urban conurbation	Urban city and town	Rural town and fringe
Walk	21	26	23	23	20
Local bus	5	15	10	5	3
Other public transport	3	16	9	3	2
Car	68	38	56	66	72
Other private transport (including cycle)	3	4	3	3	3

Source: NTS, Table 9903, sum of 2014 and 2015 (DfT, annual (a))



A.4.5 Walking distance to bus stops and hubs

The planning of development sites should consider the walking distance to bus stops and the corresponding bus catchment areas. This affects the distance between adjacent bus routes and hence the street layout as a whole.

Custom and practice for many years⁶ suggests a maximum walking distance of 400 metres from a bus stop (DOE, 1973). There are a number of factors, however, that demand a more rigorous approach to catchment area planning.

1. The 400-metre criterion dates from a time when bus use was less challenged by competition from the private car, and it may not be consistent with the goal of shifting mode share from car to bus. *Bus Services and New Residential Developments* (Stagecoach, 2017) strongly recommends that all housing development be located within 400 metres of a bus stop and preferably closer;
2. The acceptability of the walking distance is not a stand-alone consideration. People take account of the total journey travel time, including the 'in bus' time as well as the walk at either end. Consequently, people will accept longer walks to reach bus services that are fast and direct, or more frequent, and to stops serving a wider range of destinations;
3. The proportion of elderly people is increasing. A walking distance of 400 metres may be excessive when slower walking speeds are taken into account. People with children, buggies, heavy shopping, and the like will also be more sensitive to distance;
4. Acceptable walking distances are lower in town

centres than in residential areas;

5. The quality of the walking route itself may affect people's judgement of an acceptable walking distance. Safe routes, well overlooked and with visual interest along the way will be perceived as less onerous than isolated, poorly lit and uninteresting routes;

Taking all these factors into account, it is recommended that new developments be planned with sufficient compactness and density to enable the maximum walking distances to bus stops shown in Table 4 to be achieved with viable services. These maxima are intended to enable the bus to compete effectively with the car and to benefit a wide range of people with differing levels of motivation and walking ability.

These standard distances should not be applied uniformly without regard to the specific characteristics of the particular location or route. For example, a shorter maximum distance may be appropriate for hilly terrain, or for access to hospitals or older people's residences, or where the walking environment is unattractive.

When planning bus routes and stops in relation to new developments, it is crucial to use actual walking distances and not notional circles whose radius is the maximum desired walking distance. Even with a regular grid layout, the actual walking catchment area will be less than two-thirds of the area described by a circle (Figure 12). The proportion can be very much smaller than this in irregular layouts. Also, the average time taken to walk the distance may be extended where the crossing of major roads is involved, and this should be taken into account.

Table 4: Recommended maximum walking distances to bus stops

Situation	Maximum walking distance
Core bus corridors with two or more high-frequency services	500 metres
Single high-frequency routes (every 12 minutes or better)	400 metres
Less frequent routes	300 metres
Town/city centres	250 metres

⁶Department of Environment Circular 82/73 (DOE, 1973) gives 400 metres as the recommended maximum walking distance along the footpath system, which represents a 5-minute walk at about 5 kph (roughly the average walking speed in the National Travel Survey).

APPENDIX RL-H



Bicester Village Retail Outlet Centre

Transport Assessment

Value Retail Plc

June 2012

Submission Report

3P7640PL



ROYAL HASKONING
Enhancing Society



2 SITE DESCRIPTION AND EXISTING CONTEXT

2.1.1 This section will provide a description of the development site together with details of the existing site context in terms of highway matters. This will consider the following areas: -

- Existing Operational Characteristics
- Traffic Flow & conditions
- Parking
- Junction Capacity

2.2 Site Description

2.2.1 The application site extends to approximately 6.94ha and adjoins the western boundary of the Bicester Village Retail Outlet Centre (referred to as Bicester Village hereafter), approximately 500m south of Bicester town centre.

2.2.2 The central section of the site currently accommodates a Tesco foodstore, Petrol Filling Station (PFS) and associated car parking. It also includes Pingle Drive, which runs along the northern boundary of the existing Tesco and Bicester Village sites and part of Oxford Road (A4030) and the A41, which run along the western and southern sides of the existing Tesco site.

2.2.3 Adjacent land uses include an area of recreation land comprising a number of sports pitches to the north, beyond which lies Bicester town centre. Bicester Village itself extends to the east and a thin strip of tree-lined open space lies between the existing Tesco site and the area of the A41 within the application site. Land currently in agricultural use extends south from the A41, but benefits from an extant planning permission to accommodate the Bicester Business Park. A service station comprising an Esso petrol station, a Little Chef restaurant and associated car parking lies to the west of Oxford Road, beyond which lies the site of the Kingsmere residential development.

2.2.4 Vehicular access to the existing Tesco and Bicester Village sites is taken from a roundabout off Pingle Drive into the north western corner of the site.

2.3 Existing Operational Characteristics

2.3.1 Bicester Village (BV) Shopping Centre is a designer outlet centre accommodating approximately 130 outlets, as well as a small number of restaurants and cafés, Bicester Villages stores generally stock end-of-line ranges produced by high end designer fashion at discounted prices.

2.3.2 Currently the Bicester Village complex consists of floor area amounting to some 20,450 sqm. It is open seven days a week and whilst opening times vary, the following can be seen as the typical regime



- Monday – Friday 10 am – 8pm
- Saturday 9 am – 8pm
- Sunday 10am – 6pm

2.3.3 The Restaurants and Café's at the complex generally have different opening hours to the core retail outlets. Generally, the cafes open and close before the retail facilities with the restaurants generally staying open later into the evening.

2.3.4 As with any retail operator, the number of visits to Bicester Village varies across the year and by definition, visits are discretionary. Demand at Bicester Village does increase around the Christmas season and also around Bank Holidays. The busiest times of the year are known by the Facilities Management element of Value Retail as "Red Days" and these also allow for other times of the year such as promotional periods.

2.3.5 The site is actively managed in order to try and reduce the propensity to travel to the site during peak traffic times. This has resulted in opening hours being extended, promotions to try encourage visitors to visit out of peak times, investing in public transport improvements and arranging where possible, promotional events outside of weekends.

2.3.6 Bicester Village is not only of regional importance it is also nationally recognised as a location to visit by tourists to the UK and this is often part of linked trips to Oxford and other surrounding places of interest. These visits are generally by coach or train.

2.4 Highway Network

2.4.1 Through the scoping process that was carried out with OCC, it was required that consideration be given to the following junctions: -

- B4030 Oxford Road / Pingle Drive Roundabout. (Pingle Drive junction)
- B4030 Oxford Road / Middleton Stoney Road Roundabout.
- B4030 Oxford Road / A41 Esso Roundabout.(Esso roundabout)
- A4095 / Banbury Road Roundabout.
- A4421 / Buckingham Road Roundabout.
- Link Road between Esso and Pingle Drive Roundabout.
- Access to Acorn Public House Priority Junction.
- Access to Bicester Business Park and the Residential Scheme.
- The New Roundabout on A41 associated with the Western Perimeter Road.



- 4.2.5 To the north and west of the extension, additional car parking will be provided. The existing car park aisles from the current car park will extend into the area of new parking that will be provided.
- 4.2.6 With regard to ease of movement on foot through BV, this will primarily be by way of the extension of the pedestrianised street from the existing BV through to the west.
- 4.2.7 As discussed in Section 9, the proposed highway works would introduce widened footways from the west towards BV and these would be provided along the southern edge of Pingle Drive up to the existing main central mall into BV which is some 380 metres to the east.
- 4.2.8 The extension would create a new focal point towards the west and naturally people travelling to BV on foot from this direction will look to this area as an arrival point. To accommodate this, it is proposed to introduce a pedestrian entrance to cater for people arriving from the west on foot. This pedestrian route would take visitors directly into the new extension.
- 4.2.9 Given the alterations to Pingle Drive, it has been necessary to review the configuration of the existing bus turnaround area that serves the Bicester Village Shuttle Bus which transports visitors from Bicester North Station.
- 4.2.10 The turnaround area has been extended in order to ensure that it can accommodate vehicles of the size utilised at BV and ensure two vehicles can park next to one another. The location of the existing Bus Shelter will remain as currently provided on site. The island of the bus turnaround area will be landscaped.

4.3 Parking

- 4.3.1 Due to the alterations to Pingle Drive which provide an additional inbound lane, it has been necessary to lose some 42 spaces within the existing main car park.
- 4.3.2 However 372 parking spaces will be provided within the former Tesco Car park. With regard to disabled parking 7 of the 372 spaces provided within the former Tesco Site will be designated as such with 8 parent and child spaces provided. These spaces will be provided at the western end of the new extension.
- 4.3.3 Overall, parking numbers at BV would amount to 2516 spaces.

4.4 Servicing

- 4.4.1 With regard to servicing, two new service bays will be provided to the north of the new extension. These will be accessed via the new roundabout junction and from the main car park aisle through the new car park. In addition, the existing service road that is located at the western edge of the current BV site will be closed.



10.12.6 The results of the exercise show that during a weekday, sufficient parking provision would be available. With regard to Saturdays and Sundays, generally sufficient on site provision is available however some additional demand for spaces is shown between 1300 – 1600 on a Saturday. The applicant is working to progress the consented Park and Ride site at the Kingsmere Development on behalf of Oxford County Council which would be available during weekends and it is considered that this would address the latent demand.

10.13 Highway Safety

10.13.1 A Stage 1 Road Safety Audit of the proposed highway works will be undertaken during the determination period of the planning application. A designer's response to the Safety Audit will be prepared and submitted to OCC. It should be noted that no departures from standard are anticipated in relation to these proposals.

10.13.2 Overall it is considered that there is betterment in terms of highway safety arising from the proposals. The introduction of positive traffic signal control will assist crossing of the highway by pedestrians and cyclists whilst the capacity improvements that the scheme offers will reduce driver frustration and delay which can be a contributory factor to driver error leading to incidents.

APPENDIX RL-I

OXFORDSHIRE COUNTY COUNCIL'S UPDATED RESPONSE TO CONSULTATION ON THE FOLLOWING DEVELOPMENT PROPOSAL

District: Cherwell

Application No: 19/02550/F-2

Proposal: Redevelopment of part of golf course to provide new leisure resort (sui generis) incorporating waterpark, family entertainment centre, hotel, conferencing facilities and restaurants with associated access, parking and landscaping

Location: Land to the east of M40 and south of A4095, Chesterton, Bicester, Oxon

Response date: 3rd March 2020

This report sets out the officer views of Oxfordshire County Council (OCC) on the above proposal. These are set out by individual service area/technical discipline and include details of any planning conditions or informatives that should be attached in the event that permission is granted and any obligations to be secured by way of a S106 agreement. Where considered appropriate, an overarching strategic commentary is also included. If the local County Council member has provided comments on the application these are provided as a separate attachment.

This response updates OCC's transport comments on the application and should be read in conjunction with OCC's previous response dated 10th January 2020. All points raised previously continue to apply other than where addressed in the Transport Schedule below.

Application no: 19/02550/F-2

Location: Land to the east of M40 and south of A4095, Chesterton, Bicester

Transport Schedule

Recommendation:

Objection for the following reasons:

- Severe congestion at the Middleton Stoney signalised junction will be exacerbated by the additional trips generated by the proposed development. This is contrary to paragraphs 103, 108 and 109 of the NPPF, Cherwell Local Plan Policy SLE4 and Oxfordshire Local Transport Plan 4 Policy 17

If, despite OCC's objection, permission is proposed to be granted then OCC requires prior to the issuing of planning permission a S106 agreement including an obligation to enter into a S278 agreement to mitigate the impact of the development plus planning conditions as detailed below.

S106 Contributions

Contribution	Amount £	Price base	Index	Towards (details)
Highway works	To be confirmed	To be confirmed	Baxter	The partial funding of a mitigation scheme at the Middleton Stoney signalised junction
Highway works	To be confirmed	To be confirmed	Baxter	The partial funding of a mitigation scheme at the M40 Junction 10 southern roundabout
Highway works	To be confirmed	To be confirmed	Baxter	Installation of off-site directional signage
Public transport services	£1,600,000	November 2019	RPI-x	Provision of a new bus service linking the site to Bicester town centre and railway stations
Public transport infrastructure (<i>if not dealt with under S278/S38 agreement</i>)	£2,105.60	November 2019	Baxter	Provision of two pole and flag units for Chesterton village
Travel Plan Monitoring	£2,040	November 2019	RPI-x	Monitoring of the development Travel Plan
Cycle Improvements	£70,000	November 2019	Baxter	Improvements to cycle routes between Chesterton and Bicester

Key Points:

This updated consultation response is to provide an update in light of further discussions that have taken place with Motion, the Transport Consultant for the scheme.

Comments are also made on the DP9 letter (dated 13 January 2020) regarding Sustainable Day Passes.

This updated response should also be read in conjunction with the county council's original response dated 10 January 2020.

The County Council maintain their objection to the application as the mitigation scheme at Middleton Stoney suggested by Motion is not considered to be deliverable.

Comments:

Accessibility and Site Location

While the county council has not specifically identified an objection to the application on the basis of the site's location and accessibility, the response did highlight significant concerns regarding the accessibility of the site and its location.

The county council has identified requests for obligations and contributions to improve the accessibility of the site by sustainable transport modes should the development be granted planning permission. However, concern remains over the site's location which dictates that car travel to the site will remain the primary mode of travel to the site, even with the improvements identified.

Shuttle Bus Service

Motion have maintained that a private shuttle bus would be preferable to the County Council's proposal for a public bus service.

The County Council's position is clear. When delivered on a like for like basis, there are no reasons why a private shuttle bus would be preferable to a public bus service. The difference is simply the type of bus and its availability to potential users.

The County Council considers that the benefits of a public bus service over a private shuttle bus service, when operated on completely equal terms, to be as follows:

- A public bus service can generate revenue.

The possibility of revenue generation is a potential method of offsetting the cost of bus service provision of Great Wolf. Even if staff and guests can travel for free, the service would potentially be open to residents of Chesterton and western Bicester.

- A public bus service can claim Bus Service Operator's Grant (BSOG) and/or low carbon incentives to offset operating costs.

Bus Service Operator's Grant (BSOG) is a rebate of fuel duty which applies to registered local bus services where at least 50% of the seats are 'available' to the general public. It consists of a payment of 34.57p per litre of fuel used and makes a significant contribution to bus service income.

Further enhancements to BSOG payments are made for vehicles with low carbon certificates (6p per km), smartcard readers (8%) and AVL equipment (2%).

Private shuttle services are not eligible for this benefit.

- It forms part of the comprehensive planning of bus services in the wider Bicester area.

The County Council collects Section 106 funds (or permits developers to liaise directly with operators where appropriate) from developments with the intention of developing a longer-term, commercially sustainable bus network. We do not believe that the operation of private shuttle buses is conducive to this aim.

Bicester is an area with significant development coming forwards, including a number of large, high profile leisure schemes. The County Council do not consider that permitting each of these to operate their own services, purely for their own use, would be in the best interests of Bicester in the longer term, when a sensible alternative would be to integrate such services into the public network for the benefit of all.

The argument that integrating services in this manner would make it less attractive for guests to use is not supported. Most visitors to Great Wolf arriving by rail will either have (a) no access to a private car or (b) no knowledge of the geography of Bicester. Whether a bus takes 10 or 15 minutes to reach their destination is of no consequence to their decision to use it, which would have been made at a much earlier stage.

- It avoids difficult legislative issues surrounding tax implications for staff.

See our further comments below for a more detailed review of the tax implications for staff with regards to private bus services, which limits what other functions they can provide.

- The accessibility of such a service is defined in law.

Public bus services, operated with vehicles over 22 seats, must meet certain standards in relation to accessibility. Such rules do not apply to privately-operated services. Great Wolf would be required to demonstrate how the services would be accessible by all potential staff and guests in a private shuttle bus scenario, given that the requirement to do so does not apply to such services.

Operators of such a service must have at least one spare accessible vehicle to ensure that accessibility of services are maintained during maintenance or inspection downtime.

- Sufficient capacity would be assured.

Most private shuttle bus services are provided by minibuses, which by definition have a limited capacity. At staff changeover periods and guest arrival/departure times (particularly in relation to day passes), it is considered that such a vehicle would be insufficient to meet demand. A midi-coach may be necessary, although many of these do not currently meet accessibility regulations which apply to the public bus network.

- Public bus services have priority access to certain areas.

Private shuttle bus services are unable to use bus stops marked with a clearway and plate showing 'except local buses', or to access certain sections of road including bus gates or bus lanes. The main town centre bus stops in Manorsfield Road, for example, are designated for use by 'local buses' only.

Motion have raised a number of points concerning the supposed benefits of the shuttle bus service. The County Council's response to each of these points is set out below:

- The shuttle bus services can be operated in perpetuity.

OCC response: When comparing the 'in perpetuity' option against the originally suggested contribution, it should be noted that nowhere in the Transport Assessment did it suggest the services would be operated in perpetuity.

Therefore, if Great Wolf are willing to operate these services on that basis, there is no reason why they should not be willing to fund a public bus service in perpetuity either.

Whilst OCC's original response proposed a 10-year subsidy requirement, this provision can be amended just as Great Wolf have proposed to amend the shuttle bus service specification; this is not, per se, a benefit of a shuttle bus, merely a benefit of it as originally proposed.

- Proposed shuttle bus frequency would be higher than for a public bus service.

OCC response: Again, this is not a particular benefit of a shuttle bus over a public bus, merely of how it has been described in negotiations thus far. Great Wolf have sought to increase the frequency of a shuttle bus since the Transport Assessment was submitted, and therefore there is no particular reason why this could not similarly apply to a public bus. In theory, a half-hourly service is achievable on a public bus route with one vehicle, if the most direct route was taken.

Great Wolf now propose to operate two services, one on an hourly basis for guests and one on an hourly basis (at shift change times) for staff. Further information was requested at our meeting as to the timings of these services (particularly in relation to rail connections), which has not yet been received.

In the absence of this information it could be assumed that two vehicles may now be required instead of one at key shift times in order to meet the competing demands that Great Wolf consider only a shuttle bus can satisfy – unless the hourly guest service would attempt to serve both stations.

Whilst in theory both a staff shuttle and guest service can coexist with hourly schedules on each, no evidence has yet been presented that meeting rail connections at Bicester Village and Bicester North, whilst operating a separate staff shuttle, would be achievable with a single vehicle (as originally stated by the applicant). There is also no long-term guarantee that such rail connections will continue to be available following changes to timetables.

- The proposed shuttle buses would be operated by Great Wolf.

OCC response: Guests who are staying at Great Wolf, or paying for a day pass, are being provided with a service for which an indirect payment is being made (i.e. payment to Great Wolf provides them with the right of carriage on the service). Therefore, this falls under the scope of “hire or reward” and a PSV operator’s licence is required.

Unless Great Wolf will be willing to obtain a PSV operator’s licence on this basis and be subject to all the regulatory requirements this entails (including the hiring of a suitably qualified Transport Manager), they will need to contract the service to a provider who already has one.

Further details on ‘hire and reward’ and the expectations related to PSV operator licensing are available at [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/194259/PSV Operator Licensing Guide.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/194259/PSV_Operator_Licensing_Guide.pdf)

In order to be able to commit to providing the service at all times, a spare vehicle or vehicles would be required to cover regulatory requirements such as inspections and annual test as well as eventualities such as breakdowns. Provision of this service by an external operator means that a wider fleet of vehicles can be called upon for these instances.

- The shuttle bus services will be flexible.

OCC response: As with previous responses, there is no reason why a public bus service cannot be as flexible as a shuttle bus service. The detail will be in the design of the service at the appropriate time.

Public buses can wait for a set time for rail connections, provided this is accounted for in the timetable and there would not be a significant knock-on

effect on later services. Several bus routes in Oxfordshire, timed to connect with coach or rail services, have previously operated using this facility.

Again, no evidence has yet been supplied which demonstrates how a shuttle bus operated by a single vehicle would make better rail connections than a public bus.

- Both proposed shuttle buses would be available to residents of Chesterton.

OCC response: As previously explained, there are complex tax implications for the provision of free buses to staff. HMRC guidance states that privately-operated shuttle buses must be used “almost exclusively” by staff or only have “minor occasional” use by others. Consequently, to have any real benefit to residents of Chesterton there would be greater than occasional use and a taxable benefit would arise to the employees.

Therefore, residents of Chesterton would only be able to use services which were exclusively for the use of guests. A taxable benefit also arises if staff were to use buses intended for guests.

If the service was operated as a public bus service, Great Wolf would be able to offer free passes for staff and it would be available for residents of Chesterton to use.

Further details are available at <https://www.gov.uk/hmrc-internal-manuals/employment-income-manual/eim21850> and <https://www.gov.uk/hmrc-internal-manuals/employment-income-manual/eim21855>.

For clarity it is reiterated that there are no reasons why any of the supposed benefits of a shuttle bus service cannot be replicated with a public bus service.

In particular, the ‘flexibility’ of such a service is not considered to be of significant relevance. Staff changeover times, and guest arrival and departure times, are unlikely to alter on such a basis that these cannot be attended to by changes to the public bus timetable made through the normal statutory channels.

The County Council are of the opinion that the planning test is still met by a public bus service of equivalent value to a shuttle bus service. It is necessary to make the development acceptable, it is directly related to the development, and it is fairly and reasonably related to the scale of the proposal. On an equal comparison basis, the ‘planning test’ is therefore irrelevant.

The County Council remains of the opinion that provision of a public bus service is the preferred method of serving the development, secured by legal obligation with an annual cap on costs equivalent to one vehicle operating between the earliest shift start time and latest shift finish time.

Motion have since indicated to the County Council that the requested public transport contribution is acceptable to the applicant, but that they may also operate a shuttle bus service.

Public Rights of Way

The county council welcomes the proposals to provide an additional stretch of footway along the A4095 either side of the M40 overbridge to connect with PROW 161/11 to the west.

We also welcome the proposed new footway to be provided along Green Lane either side of the junction with The Hale, to connect the southern end of PROW 161/06 to Chesterton.

These improvements are considered appropriate to mitigate the development's detrimental impact on the PROW network through the site. I can confirm that, with these improvements accepted, OCC no longer requests the provision of a perimeter trail within the development site.

The proposals include the diversion of part of the existing PROW 161/06 through a landscaped area of the development. OCC is agreeable to the approach for the applicant to take responsibility for the maintenance of the diverted PROW through the site. This obligation must be secured in the S106 Agreement should planning permission be granted.

The county council has identified that improvements to the cycle facilities between the site and Bicester including along the PROW 161/1 between Chesterton and Vendee Drive would improve accessibility to the site for cyclists and provide a more direct route, although any route would still require cyclists to travel along the A4095 through Chesterton. A contribution of £70,000 index linked to January 2015 is requested towards improvements to the cycle route between the site and Bicester. This is required both in order to improve the site's accessibility and to improve the safety of the route for those accessing the site. It should be noted however that, due to distance, enhancements to the cycle route are unlikely to result in a significant modal shift away from car use. Motion have indicated that the applicant is willing to make this contribution.

Effect on Local Highway Network

The county council's objection set out in the response to the application dated 10 January 2020 remains. The development is not planned for and would not be making best use of infrastructure given the need to accommodate the planned growth allocated within the Local Plan.

Future year modelling shows that the B430 corridor is forecast to experience significant congestion without a package of mitigation measures required to accommodate Local Plan growth. Additional traffic as a result of unplanned development will add to the significant congestion forecast along the corridor and could prejudice the ability to deliver a package of suitable mitigation measures required to accommodate planned growth.

Motion have submitted to OCC indicative proposals for modifications to the consented highway works scheme at the B430/B4030 Middleton Stoney signalised junction. This scheme is to mitigate the effect of the first phase of the Heyford Park development. The intention of the proposed modifications is to further increase capacity at the junction to mitigate for the additional Great Wolf traffic. Following a preliminary review, OCC have fundamental concerns, meaning that the proposals are considered as undeliverable. The objection to the scheme is therefore maintained on this basis.

Signage Strategy

OCC agrees that a joined-up approach to the signage strategy is required alongside a review of local signage. A S106 contribution would be required for the delivery of a signage strategy for the site should the Local Planning Authority be minded to grant permission. The level of contribution is still to be determined and will require further details of the site's proposed signage strategy.

Sustainable Day Passes

The original application documents propose a guest shuttle bus service once every two hours, connecting with both railway stations. It is not known what size/capacity of bus is envisaged. The OCC response was that this service will not be attractive to many of the guests who arrive by rail as they may have a significant wait.

My concern is that if 30 additional guests with Sustainable Day Passes are to be travelling on the shuttle bus then the carrying capacity may not be sufficient to meet demand. The expected guest arrival profile, taken from Centre Parcs data, shows the arrivals peaking between 10am and 2pm. As Day Pass holders are unable to use the facilities before 10am I would expect that most of them will aim to arrive on site between 10am and 12 noon, thus coinciding with a high proportion of the hotel guests.

The applicant has indicated that they will review the suggested shuttle bus arrangements. Any changes to the proposals need to take account of the additional demand generated by the Sustainable Day Passes so that adequate capacity is available at all times.

S106 obligations and their compliance with Regulation 122(2) Community Infrastructure Levy Regulations 2010 (as amended):

£ (figure to be confirmed) Highway Works Contribution 1 indexed using Baxter Index

Towards:

The partial funding of a mitigation scheme at the Middleton Stoney signalised junction

Justification: See response dated 10 January 2020

£ (figure to be confirmed) Highway Works Contribution 2 indexed using Baxter Index

Towards:

The partial funding of a mitigation scheme at the M40 Junction 10 southern roundabout

Justification: See response dated 10 January 2020

£ (figure to be confirmed) Highway Works Contribution 3 indexed using Baxter Index

Towards:

The installation of off-site directional signage

Justification: See response dated 10 January 2020

£1,600,000 Public Transport Service Contribution indexed from November 2019 using RPI-x

Towards:

Provision of a new bus service linking the site to Bicester town centre and railway stations

Justification: See response dated 10 January 2020

£2,105.60 Public Transport Infrastructure Contribution indexed from November 2019 using Baxter Index

Towards:

Provision of two pole and flag units for Chesterton village

Justification: See response dated 10 January 2020

£2,040 Travel Plan Monitoring Fee indexed from November 2019 using RPI-x

Justification:

To cover the cost to the County of monitoring progress of the Travel Plan against the mode share targets to ensure that the Travel Plans is either meeting targets or being adjusted to meet targets.

Calculation: See response dated 10 January 2020

£70,000 Cycle Improvements Contribution indexed from November 2019 using Baxter Index

Towards: Improvements to cycle routes between Chesterton and Bicester

Justification: Improvements to the cycle route between Chesterton and Bicester are required in order to improve the safety of the cycle route to the site for cyclists and to enhance the site's accessibility by sustainable transport modes.

Calculation: The figure requested has been based on a cost per metre estimate for upgrades to a surface and width that is more appropriate for cyclists.

S278 Highway Works:

An obligation to enter into a S278 Agreement will be required to secure mitigation/improvement works, including:

- A new site access priority junction from the A4095, including a ghosted right-turn lane, as shown indicatively on Motion drawing 1803047-03 Rev F
- A new shared use cycletrack along the south side of the A4095, as shown indicatively on Motion drawings 1803047-03 Rev F and 1803047-02 Rev A
- A new length of 2m wide footway on the southern side of the A4095 between the site access and the motorway overbridge and continuing west of the overbridge connect PRow 161/6 with 161/11, including a suitable crossing to connect the rights of way, as shown in drawing 1803047-03 Rev F
- A new length of footway at the A4095 connection of the Public Right of Way 161/1, as shown indicatively on Motion drawing 1803047-08
- A new length of Public Right of Way 161/6 along part of the south-east boundary of the site
- Two new lengths of footway, approximately 150m and 240m, along Green Lane either side of The Hale, to connect PRow 161/6 with Chesterton village, as shown in drawing 1803047-15

Notes:

This is secured by means of S106 restriction not to implement development (or occasionally other trigger point) until S278 agreement has been entered into.

The trigger by which time S278 works are to be completed shall also be included in the S106 agreement.

Identification of areas required to be dedicated as public highway and agreement of all relevant landowners will be necessary in order to enter into the S278 agreements.

S278 agreements include certain payments that apply to all S278 agreements however the S278 agreement may also include an additional payment(s) relating to specific works.

Planning Conditions:

In the event that permission is to be given, the following planning conditions should be attached:

Access: Full Details

Prior to the commencement of the development hereby approved, full details of the means of access between the land and the highway, including, position, layout,

construction, drainage and vision splays shall be submitted to and approved in writing by the Local Planning Authority. Thereafter, the means of access shall be constructed and retained in accordance with the approved details.

Reason - In the interests of highway safety and to comply with Government guidance contained within the National Planning Policy Framework

No Other Access

Other than the approved access no other means of access whatsoever shall be formed or used between the land and the highway.

Reason - In the interests of highway safety and to comply with Government guidance contained within the National Planning Policy Framework

Details of Turning for Service Vehicles

Prior to the commencement of the development hereby approved, and notwithstanding the application details, full details of refuse, fire tender and pantechnicon turning within the site shall be submitted to and approved in writing by the Local Planning Authority. Thereafter, the development shall be carried out in accordance with the approved details.

Reason - In the interests of highway safety and to comply with Government guidance contained within the National Planning Policy Framework

Plan of Car Parking Provision

Prior to the commencement of the development hereby approved, a plan showing car parking provision for vehicles to be accommodated within the site, shall be submitted to and approved in writing by the Local Planning Authority. Thereafter, and prior to the first occupation of the development, the parking spaces shall be laid out, surfaced, drained and completed in accordance with the approved details and shall be retained for the parking of vehicles at all times thereafter.

Reason - In the interests of highway safety, to ensure the provision of off-street car parking and to comply with Government guidance contained within the National Planning Policy Framework.

Cycle Parking Provision

Prior to the first use or occupation of the development hereby permitted, covered cycle parking facilities shall be provided on the site in accordance with details which shall be firstly submitted to and approved in writing by the Local Planning Authority. Thereafter, the covered cycle parking facilities shall be permanently retained and maintained for the parking of cycles in connection with the development.

Reason - In the interests of sustainability and to ensure a satisfactory form of development, in accordance with Government guidance contained within the National Planning Policy Framework

Travel Plan

Prior to the first occupation of the development hereby approved, a Travel Plan, prepared in accordance with the Department of Transport's Best Practice Guidance Note "Using the Planning Process to Secure Travel Plans", shall be submitted to and approved in writing by the Local Planning Authority. Thereafter, the approved Travel Plan shall be implemented and operated in accordance with the approved details.

Reason - In the interests of sustainability and to ensure a satisfactory form of development, in accordance with Government guidance contained within the National Planning Policy Framework

Provision of New Permanent Public Footpaths

Prior to the first use of any new public footpath, the new footpath shall be formed, constructed, surfaced, laid and marked out, drained and completed in accordance with specification details which shall be firstly submitted to and approved in writing by the Local Planning Authority.

Reason - In the interests of highway safety and public amenity and to comply with Government guidance contained within the National Planning Policy Framework

Construction Traffic Management plan

No development shall take place in respect of the development until a Construction Traffic Management Plan (CTMP) has been submitted to and approved by the relevant Local Planning Authority, in conjunction with the Local Highway Authorities.

The CTMP shall provide for:

- (i) the routing of construction vehicles and Construction Plan Directional signage (on and off site)
- (ii) the parking of vehicles of site operatives and visitors
- (iii) loading and unloading of plant and materials
- (iv) storage of plant and materials used in constructing the development
- (v) operating hours and details of deliveries
- (vi) the erection and maintenance of security hoarding including decorative displays and facilities for public viewing, where appropriate
- (vii) wheel washing facilities
- (viii) measures to control the emission of dust and dirt during construction
- (ix) a scheme for recycling/disposing of waste resulting from demolition and construction works
- (x) Overall strategy for managing environmental impacts which arise during construction
- (xi) Procedures for maintaining good public relations including complaint management, public consultation and liaison
- (xii) Control of noise emanating from the site during the construction period
- (xiii) Details of construction access(s)
- (xiv) Provision for emergency vehicles

Reason - In the interests of highway safety, convenience of highway users and to protect the amenities of residents and safeguard the visual amenities of the locality and to comply with Government guidance contained within the National Planning Policy Framework.

Delivery and Servicing Management Plan

The development shall not be occupied until a delivery and servicing management plan has been submitted to and approved in writing by the Local Planning Authority. The development shall thereafter be carried out strictly in accordance with the approved delivery and servicing management plan.

Reason - In the interests of highway safety and to comply with Government guidance within the National Planning Policy Framework.

Signage Strategy

The development shall not be occupied until a signage strategy for the site has been submitted and approved in writing by the Local Planning Authority. The development shall thereafter be completed and signage installed in accordance with the approved details prior to the first use of any building on the site.

Reason - To ensure that traffic is directed along the most appropriate routes and to comply with Government guidance contained within the National Planning Policy Framework.

Officer's Name: Roger Plater
Officer's Title: Transport Planner
Date: 3 March 2020

APPENDIX RL-J

OXFORDSHIRE COUNTY COUNCIL'S RESPONSE TO CONSULTATION ON THE FOLLOWING DEVELOPMENT PROPOSAL

District: Cherwell

Application No: 19/02550/F

Proposal: Redevelopment of part of golf course to provide new leisure resort (sui generis) incorporating waterpark, family entertainment centre, hotel, conferencing facilities and restaurants with associated access, parking and landscaping

Location: Land to the east of M40 and south of A4095, Chesterton, Bicester, Oxon

Response date: 10th January 2020

This report sets out the officer views of Oxfordshire County Council (OCC) on the above proposal. These are set out by individual service area/technical discipline and include details of any planning conditions or informatives that should be attached in the event that permission is granted and any obligations to be secured by way of a S106 agreement. Where considered appropriate, an overarching strategic commentary is also included. If the local County Council member has provided comments on the application these are provided as a separate attachment.

Application no: 19/02550/F

Location: Land to the east of M40 and south of A4095, Chesterton, Bicester

Strategic Comments

The proposed leisure resort at Chesterton includes:

- 498 bed hotel (27,250 sq.m)
- Indoor waterpark (8,340 sq.m)
- Family entertainment centre, food and beverage, conferencing and back of house (12,350 sq.m)
- 902 new parking places

The proposal is not allocated in the Cherwell Local Plan and is not in a sustainable location in transport terms. There is no public bus service and the site is not conducive to walking or cycling, making it car dependent and therefore contrary to the NPPF, Local Plan and Local Transport Plan policies which require development to be suitably located to maximise opportunities for sustainable travel.

Transport Development Control have raised an objection for the following reason:

- Severe congestion at the Middleton Stoney signalised junction will be exacerbated by the additional trips generated by the proposed development. This is contrary to paragraphs 103, 108 and 109 of the NPPF, Cherwell Local Plan Policy SLE4 and Oxfordshire Local Transport Plan 4 Policy 17

There is an archaeology objection for the following reason:

- The results of an archaeological evaluation will need to be submitted prior to the determination of this application in order that the impact on any surviving archaeological features can be assessed.

There is also a drainage objection on the basis that further information is required.

OCC Bicester members have specific concerns about the following issues:

- Traffic impact on: the A41, the Vendee roundabout, access into Chesterton, peak traffic up to Middleton Stoney and Bucknell.
- The cumulative impact of this development and all the other planned growth in Bicester.

Detailed officer comments are provided below.

Officer's Name: Helen Whyman

Officer's Title: Planner

Date: 08/01/2020

Application no: 19/02550/F

Location: Land to the east of M40 and south of A4095, Chesterton, Bicester

General Information and Advice

Recommendations for approval contrary to OCC objection:

IF within this response an OCC officer has raised an objection but the Local Planning Authority are still minded to recommend approval, OCC would be grateful for notification (via planningconsultations@oxfordshire.gov.uk) as to why material consideration outweighs OCC's objections, and given an opportunity to make further representations.

Outline applications and contributions

The number and type of dwellings and/or the floor space may be set by the developer at the time of application, or if not stated in the application, a policy compliant mix will be used for assessment of the impact and mitigation in the form of s106 contributions. These are set out on the first page of this response.

In the case of outline applications, once the unit mix/floor space is confirmed by the developer a matrix (if appropriate) will be applied to assess any increase in contributions payable. The matrix will be based on an assumed policy compliant mix as if not agreed during the s106 negotiations.

Where unit mix is established prior to commencement of development, the matrix sum can be fixed based on the supplied mix (with scope for higher contribution if there is a revised reserved matters approval).

Where a S106/Planning Obligation is required:

- **Index Linked** – in order to maintain the real value of s106 contributions, contributions will be index linked. Base values and the index to be applied are set out in the Schedules to this response.
- **Security of payment for deferred contributions** – An approved **bond** will be required to secure payments where the payment of S106 contributions (in aggregate) have been agreed to be deferred to post implementation and the total County contributions for the development exceed £1m (after indexation).
- **Administration and Monitoring Fee - TBC**
This is an estimate of the amount required to cover the extra monitoring and administration associated with the S106 agreement. The final amount will be based on the OCC's scale of fees and will be adjusted to take account of the number of obligations and the complexity of the S106 agreement.
- **OCC Legal Fees** The applicant will be required to pay OCC's legal fees in relation to legal agreements. Please note the fees apply whether an s106 agreement is completed or not.

Application no: 19/02550/F

Location: Land to the east of M40 and south of A4095, Chesterton, Bicester

Transport Schedule

Recommendation:

Objection for the following reason:

- Severe congestion at the Middleton Stoney signalised junction will be exacerbated by the additional trips generated by the proposed development. This is contrary to paragraphs 103, 108 and 109 of the NPPF, Cherwell Local Plan Policy SLE4 and Oxfordshire Local Transport Plan 4 Policy 17

Key points

- The development will lead to increased congestion and delay at Middleton Stoney signalised junction and the M40 Junction 10 southern roundabout
- There will be increased traffic flows through local villages, particularly Chesterton
- Traffic may take the inappropriate route through Little Chesterton, despite signage
- The site is not in a sustainable location in transport terms – there is no public bus service and an incomplete cycle route to Bicester
- The proposal goes against policies for sustainable transport
- If the permission is to be granted, a contribution towards public transport to serve the site is required
- The proposed guest shuttle bus frequency is inadequate
- The site is not allocated in the Local Plan and does not make best use of existing infrastructure

If, despite OCC's objection, permission is proposed to be granted then OCC requires prior to the issuing of planning permission a S106 agreement including an obligation to enter into a S278 agreement to mitigate the impact of the development plus planning conditions as detailed below.

S106 Contributions

Contribution	Amount £	Price base	Index	Towards (details)
Highway works	To be confirmed	To be confirmed	Baxter	The partial funding of a mitigation scheme at the Middleton Stoney signalised junction
Highway works	To be confirmed	To be confirmed	Baxter	The partial funding of a mitigation scheme at the M40 Junction 10 southern roundabout
Highway works	To be confirmed	To be confirmed	Baxter	Installation of off-site directional signage
Public transport services	£1,600,000	November 2019	RPI-x	Provision of a new bus service linking the site to Bicester town centre and railway stations
Public transport infrastructure (<i>if not dealt with under S278/S38 agreement</i>)	£2,105.60	November 2019	Baxter	Provision of two pole and flag units for Chesterton village
Travel Plan Monitoring	£2,040	November 2019	RPI-x	Monitoring of the development Travel Plan
Public Rights of Way	To be confirmed	To be confirmed	Baxter	Maintenance of the realigned PRow through the site
Total	N/A			

Comments:

Pre-application advice

Oxfordshire County Council (OCC) have given pre-application advice by reviewing several documents, principally concerning the content of the Transport Assessment (TA). Specific topics covered related to traffic surveys, junction assessments, trip generation, committed developments, traffic growth, vehicle distribution, parking and Public Rights of Way.

The OCC responses did not give any indication of the likely recommendation to a subsequent full planning application.

Transport Strategy

The following planning policies are relevant in the consideration of the proposed development:

National Planning Policy Framework (NPPF)

Revised NPPF para 103 states that:

“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.”

Revised NPPF para 108 states that:

“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 109:

“Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.”

Cherwell District

Cherwell Local Plan Policy SLE 4: Improved Transport and Connections sets out that:

“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.”

It should be noted that the infrastructure outlined in the Bicester Area Strategy of the Local Transport Plan is designed to accommodate the allocated growth in the Cherwell Local Plan, none of which is allocated in Chesterton. This site is a speculative development and therefore has not been taken account of in the plan making process.

Cherwell Local Plan Policy SLE 3: Supporting Tourism Growth sets out that:

The Council will support proposals for new or improved tourist facilities ***in sustainable locations***, where they accord with other policies in the plan, to increase overnight stays and visitor numbers within the District (emphasis added).

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:

- Continuing to work with Highways England to improve connectivity to the strategic highway. We will continue to work in partnership on the A34 and A43 strategies, as well as Junctions 9 and 10 of the M40 to relieve congestion

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”

Key Local Planning Decision

An appeal on the refusal of planning application 15/00454/FUL for 51 dwellings accessed from the Hale, Chesterton, was dismissed in February 2016. On whether the development would amount to sustainable development, the inspector concluded the following:

Appeal Decision APP/C3105/W/15/3130576

42. On the environmental dimension of sustainability, the development would have a harmful effect on the rural character of the countryside. There would be some benefits to biodiversity from the proposed pond and linear swales and additional planting. But the likely reliance of occupiers on the private car for their travel needs would have environmental disbenefits.
43. Taking all these considerations into account, I conclude that the harm the development would cause would significantly outweigh the benefits, and that it would not amount to sustainable development as envisaged in the Framework.
44. I have taken all other matters raised in the representations and at the hearing into account, but none of them lead me to alter my conclusion that the appeal should be dismissed.

The appeal site is in immediate proximity to the proposed leisure resort site. The weight given to the environmental disbenefits of car dependent development in this appeal decision and that the conclusion that it would not amount to sustainable development should be of key consideration by the LPA. This decision is particularly relevant to the proposed leisure resort because of the parallels with location and dependency on the private car.

Sustainable Travel

There is currently a lack of sustainable alternatives to the private motor vehicle in the area of the site. Proposals need to demonstrate sustainability in transport terms, with suitable access available on foot, by cycle and public transport, as well as availability of local amenities.

It is noted that a shared use cycle connection is proposed with 2.5m width on the south side of the A4095 between the proposed site access and The Hale. For shared use paths, the Cycling Design Guidance¹ states:

“3.4.9 Usage should dictate the width of such paths, with 3 metres the recommended width, 2.5 metres the minimum. Paths wider than 3 metres should normally be segregated rather than shared.”

Although the pedestrian/cycle measures proposed are welcomed, they are unlikely to make any significant change in modal shift. There is no onward cycle provision on the A4095 through Chesterton and I am not aware of any funding mechanism in place to deliver cycle provision through the Country Park between Chesterton and Bicester.

There are no designated cycle routes in the vicinity of the proposed development site beyond what is proposed. Any visitor wishing to cycle to the site would have to do so along sections of road that are unlit and unrestricted.

Although a shuttle bus is proposed, without some certainty that an appropriate level of service will be provided and in perpetuity, the site is as good as inaccessible by public transport. Access to public transport is by a very long 2.3 km walk to the Park and Ride site, taking approximately 30 minutes, where a 15-minute frequency service operates between Oxford City Centre and Bicester, with some buses extending to Glory Farm, Launton, Langford and Arccott.

The routing of the shuttle bus is noted; however, there is no entry into The Causeway from Market Square and Manorsfield Road bus stops would be another key interchange to service. Please see the comments below under “Sustainability and Public Transport” which justify the reasoning for a public bus service to the development rather than the proposed shuttle buses.

A new leisure development in this location would not be making the best use of infrastructure, is inaccessible by sustainable modes of transport and would not be reducing the need to travel. Therefore, from a transport perspective it cannot be considered a sustainable location.

Site Access

Access to the development site will be via a new priority junction. Speed surveys have been carried out (not included with the submission but viewed by OCC) which indicate that the available visibility splays are adequate according to the requirements of the Design Manual for Roads and Bridges.

The junction design will incorporate a ghosted right-turn lane allowing vehicles arriving on the A4095 from the west to be able to pull off the main carriageway so that they do not cause an obstruction to through traffic while waiting to turn into the site. The minor arm will incorporate a central refuge to aid pedestrians and cyclists continuing along the A4095. Highway works required to create the access will be subject to a S278 agreement.

Car Park

The capacity of the car park was discussed during the pre-application stage. Based on a total occupancy of 2,250 persons and an average car occupancy of three guests per car (based on a Centre Parcs survey), 750 spaces are required for guests. 160 spaces are estimated for staff use, assuming that 80% of the 200 staff on site have driven. Therefore, a car park capable of accommodating approximately 910 vehicles is to be provided. The figures appear robust in relation to the number of hotel rooms (498) so there should be spare capacity to allow efficient turnover of spaces.

10% of all parking bays will be equipped with electric charging facilities, and ductwork will be installed to allow future expansion of charging equipment to all bays in future as required. 6% of spaces will be disabled accessible bays in accordance with good practice.

Cycle Parking

A total of 40 cycle parking spaces are to be provided for staff use. This is an over-provision in relation to OCC guidelines, but has been promoted to encourage cycling as a sustainable mode of transport for those employees from Bicester or other nearby locations as there is no public transport available. It is recognised that guests, other than a few local people with day tickets, are extremely unlikely to travel by cycle, so the number of cycle stands for guests reflects this.

Trip Generation

In the absence of data from comparable leisure facilities in the UK, the trip generation was based on traffic surveys from three of the existing Great Wolf resorts in the USA. The surveys were undertaken over a Veteran Day weekend (comparable to a UK Bank Holiday) so are considered to represent a peak period of occupation. There was a geographical spread of the resorts, which had between 402 and 608 bedrooms. Recorded trip numbers did not distinguish between guests and staff.

At OCC's request, a "first principles" analysis was carried out to verify the results of the surveys. This required various assumptions on room occupancy, length of stay, car occupancy, and guest/staff arrival and departure profiles. Even assuming the "worst-case" scenario, the number of trips derived from the first principles assessment was less than the survey results. Therefore, it is accepted that the trip generation numbers used in the TA are appropriate and suitably robust, given the relative unpredictability of leisure uses.

Number of movements (in and out, guests and staff) assuming 100% occupancy:

Weekday 3.955/room = 1977/day 113 (am peak) 154 (pm peak)

Saturday 5.522/room = 2761/day 247 (lunchtime peak)

Assuming an arrival and departure profile similar to that of a Centre Parcs resort, the majority of guest trips will occur between the network peak hours. 68% of arrivals and 57% of departures will take place between the hours of 10:00 to 15:00. Staff movements are more likely to coincide with the peak hours.

Conference facilities

The proposals include approximately 550 m² of floorspace that would be available for use as a conference or meeting space. The Transport Consultant has previously confirmed that the facilities are not typically for business type conferences, and delegates would usually be staying in the hotel so would not be creating additional vehicle movements. The surveyed resorts in the USA have comparable conference facilities.

Day tickets

The application documents state that day tickets will only be issued if the hotel is not at full occupancy. This may not necessarily be controlled, unless CDC consider that an appropriate condition could be applied. The total number of residents plus day visitors will not exceed the capacity of the hotel, i.e. 2,250 people. A maximum of number of day tickets (450), equivalent to 20% of hotel capacity, will be issued irrespective of the occupancy.

The distribution of day tickets will not increase traffic levels above that of full hotel occupancy. As the opening hours for day visitors are 10:00 to 23:00, their journeys will not coincide with the local network morning peak, and the departures are likely to be spread out across the afternoon and evening. It is proposed to sell discounted day passes to local postcode areas, including Banbury and Kidlington, so the distribution of trip origins is unlikely to be affected significantly.

Trip Distribution and Signage Strategy

It has been assumed that visitors will be drawn from a catchment area with a radius of 125 miles. Vehicle trips have been assigned to the primary highway routes according to the distribution of population within the catchment area, which results in the following proportions of total trips:

M40 from south	40%
A34	22%
M40 from north	16%
A43	14%
A4421	7%
A41	1%

The philosophy is to direct all M40 and A34 traffic to the site from the west side, via the B430. Signs on the M40 northbound (subject to the agreement of Highways England) will direct development traffic down the A34 to the B430 junction near Weston-on-the-Green. However, the distribution used in the junction assessment assumes that 50% of the M40 northbound traffic actually turns right at Junction 9, to follow the A41 towards Bicester.

Signage on the A41 will advise drivers to carry on to the Vendee Drive roundabout, rather than turning off to pass through Little Chesterton.

Traffic through Chesterton

The average two-way flow on the A4095 through Chesterton, between the hours of 06:00 to 22:00, is 5,312 vehicles. This is taken from the data recorded by an Automated Traffic Counter over the five months, January to May 2019.

The maximum predicted daily flow due to the development, through Chesterton, is 552 cars. (This is robust as it assumes 50% of M40 cars from the south take the A41, rather than following signage via the A34/B430). Therefore, the maximum predicted traffic increase equates to 46 per hour when averaged over a 12-hour period. The figures for the peak hours are lower than the average (32 in the morning peak and 44 in the evening) as the majority of guest trips will take place between 9am and 2pm. Nearly all additional vehicle movements will be private cars as there will be few HGV trips associated with the development.

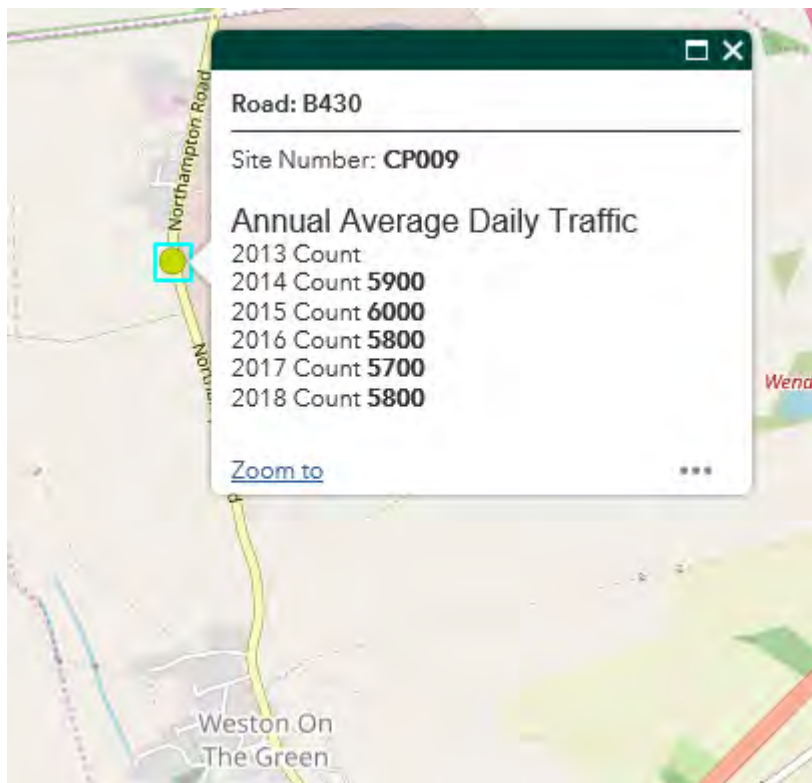
There is a build-out traffic calming feature on the northern edge of the village that requires incoming vehicles to give-way to outbound traffic. It is understood this feature can cause considerable delays, particularly in the morning when two-way flows over 800 vehicles have been recorded between 7:00 and 8:00, with the majority of vehicles heading into the village. Peak evening total flows are approximately three-quarters of the morning flows, with the primary direction of travel reversed. As noted above, additional traffic associated with the development will tend to be mainly outside of the peak hours and will, therefore, not have a significant effect on the queuing at the build-out.

The LPA will need to consider the environmental impacts of the predicted traffic increase through Chesterton (noise, vibration, air quality) separately.

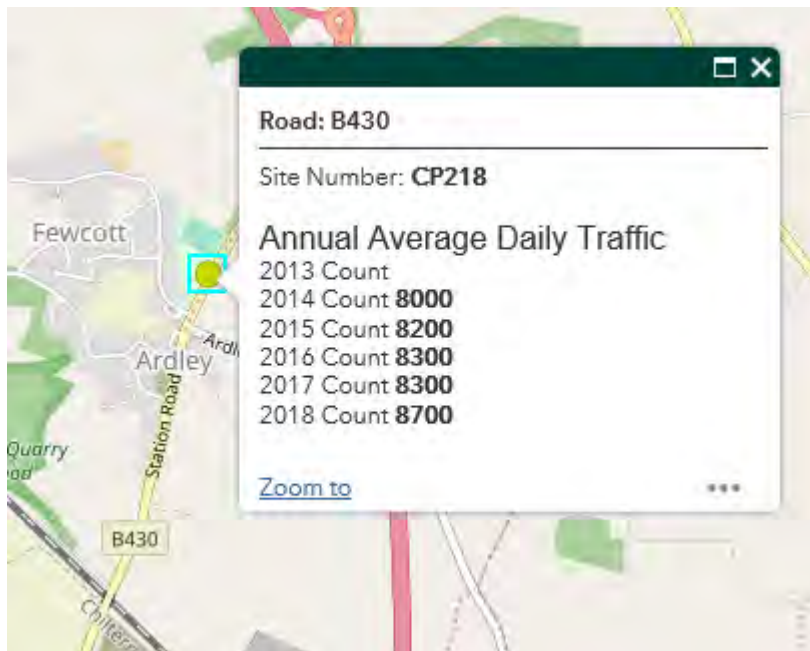
Traffic through other local villages

The average two-way flow on the B430 through Weston-on-the-Green, over the last five years, is 5,840 vehicles. The maximum predicted daily flow due to the development is approximately 834 cars, leading to an increase of 14.3%. If all M40 northbound development traffic were to follow the signed route via the A34/B430 then an additional 400 cars approximately would pass through Weston-on-the-Green, leading to an increase of 21%.

The B430 occasionally accommodates significant traffic volumes that re-route due to incidents or blockages on the M40 or Junction 9, with daily flows up to 12,500 having been recorded. Although the percentage increase is greater than the A4095, the effect of the development traffic on the B430 is not considered to be sufficiently severe to justify an objection. OCC agree that the proposed signage strategy is the most appropriate and will more evenly distribute the additional traffic, should the application be permitted.



The average two-way flow on the B430 through Ardley, over the last five years, is 8,300 vehicles. The maximum predicted daily flow due to the development is approximately 591 cars, leading to an increase of 7.1%. This will be in addition to the significant increase in traffic that will result from the Local Plan development at Heyford.



Smaller increases in daily traffic flows may also be experienced in other villages that are not on the primary routes to the site, such as Kirtlington and Enslow on the A4095 to the west. Although this is acknowledged, it cannot be specifically cited as a reason for objection

Sustainability and Public Transport

The site is not directly served by public transport so there will be a very heavy reliance on private car use. This is contrary to the aims of the local and national policies listed above.

The applicant has included the following proposed measures in order to improve the sustainability of the site in transport terms:

- Shuttle buses to/from both rail stations for guests
- Shuttle bus to Bicester for staff (and Chesterton residents)
- Walking/cycle access to Chesterton via new cycletrack along A4095
- Improvements to the Public Right of Way 161/1 (across new country park to Vendee Drive) connection with the A4095
- Travel Plan and advance info to guests on booking

OCC considers that a single, publicly accessible, bus service should be available between the site and Bicester so that it could be properly integrated into the rest of the town bus network, with the associated benefits for staff access that would result. The opportunities for integration are significant given the scale of wider development in the area, meaning that the bus service could ultimately be integrated with another service to secure its ongoing viability, which would never be achieved with two separate shuttle-type minibus services.

The potential to utilise a high quality, branded vehicle on the service would appeal to their guests and provide a mobile advertisement for the scheme. The existence of such a service should be promoted on their website, in all promotional material and in booking details for guests.

The opportunity would also be there for the applicant to reduce their financial exposure by collecting revenue for the service, either for all users or for non-site users only. If the service could be secured in perpetuity then that would provide comfort on the future accessibility of the site.

Should the scheme be approved then the applicant should provide sufficient funds for an operation using one bus which would run between the site, Bicester town centre and Bicester North and Village railway stations for a period of 10 years post-completion. The total cost of this would be £1.6m at today's prices, subject to indexation.

The situation is analogous to the level of bus service provided at Centre Parcs in Cumbria, where inter-urban service 104 is extended on an hourly basis from Penrith (two-hourly late evenings and Sundays) with a last journey from Centre Parcs at 0035.

https://tiskon-maps-stagecoachbus.s3.amazonaws.com/Timetables/Cumbria/Carlisle/104_Sep18.pdf

The 104 bus service will be mainly for staff but also facilitates access for visitors from the national bus and rail networks (Penrith rail/bus stations and Carlisle bus/rail stations).

A bus service to/from the proposed Chesterton facility does not need to have an inter-urban element, but it does need to connect with the national rail network (at one or both Bicester rail stations) and with the regional bus network (at Manorsfield Road). It does need to operate at least hourly at regular memorable intervals, which could permit operation through some residential areas of Bicester, as required. Also it does need to operate until late evening, to take staff working evening shifts at the various facilities on site back to Bicester (again, note the 0035 departure from Centre Parcs in Cumbria, which is presumably specified to perform this function, seven nights per week). The bus service to this site does not necessarily need to be free to users, as this would work against the longer-term sustainability of the public transport service. A suitable covered bus stop would be required in a convenient location within the resort, and the movement of an appropriate vehicle through the site would need to be demonstrated by a swept path analysis.

The application proposes two separate shuttle bus services, one for guests and the other for staff and local residents. The former is proposed to run on a two-hour basis, which will not be attractive to many of the guests who arrive by rail as they may have a significant wait. Similarly, it is suggested that the staff bus will run only to coincide with the start and finish times of the main shifts, whereas a public bus service would provide a benefit over a greater portion of the day.

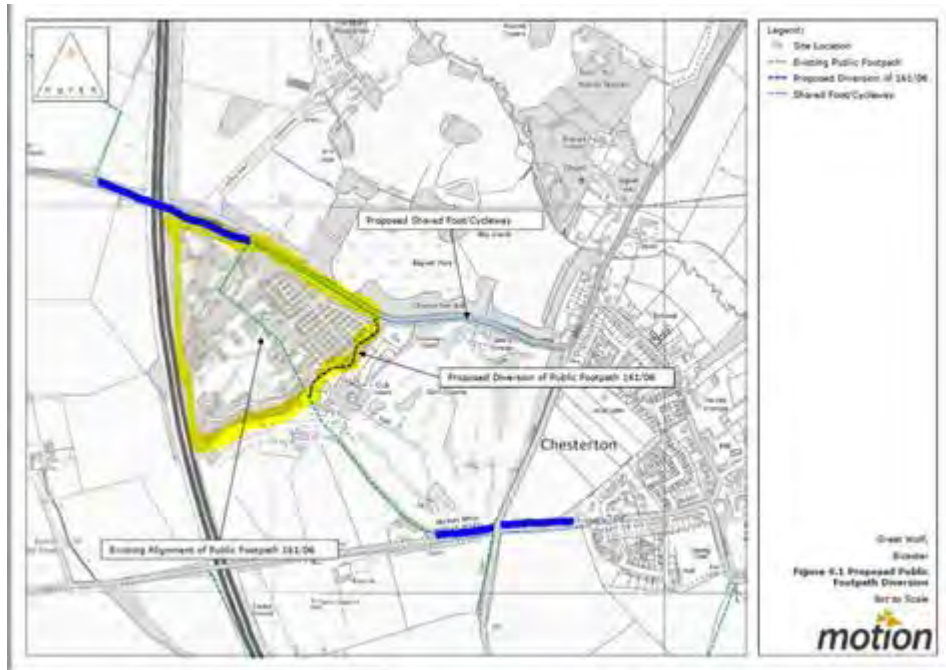
Public Rights of Way

The proposed footpath diversion, as set out in Ch6 of the Environmental Statement and the lack of consideration for its continuance to the northwest and south east are the main points of concern here.

The current footpath alignment offers traffic-free walking from the golf resort's car park to the A4095. Currently users have the ability to enjoy the feeling of open space of the golf course the path passes through. The development proposes removing and diverting the section of footpath northwest of the golf resort buildings and car park and diverting along a landscape strip to the A4095 and a new shared use cycleway and footpath. This proposal will reduce the amount of traffic-free walking route in open landscape and replace it with a roadside path shared with cycle. In addition it will be necessary for footpath users to have to negotiate the main vehicle access junction with the A4095. It is recognised that this provision will make the A4095 safer for NMUs and will increase the likelihood for local journeys to be made on foot and by bike to the site – but by itself it does nothing to improve the situation for the public footpath users as all this does is remove the footpath to enable development to take place.

A better solution delivering net gain for access would be to create a circular footpath around the perimeter of the site that includes the proposed diverted route onto the cycle path. A rough route suggestion is highlighted in yellow below. This or a similar route would enable access to the proposed new public greenspace areas/public nature trail and also give options for traffic-free access to complement the proposed A4095 cycle route. It could be developed into a shared “trim trail” type facility benefitting the public as well as visitors to the development and incorporate outside exercise stations. Ladygrove park at Didcot is a good example of this. Operational security could be maintained at the development site as it is assumed that there will be additional internal security fencing to the development anyway.

Additionally, there does not appear to be any consideration of the continuation of the footpath to the northwest and south east. It is requested that the footpath/cycleway is extended to the M40 overbridge as part of s278 works as well as creation of shared used cycle path or NMU segregation along Green lane into Chesterton (shown in blue on the plan below). Taken together this will help address the expected increase in traffic along the A4095 in the vicinity of the development and give more sustainable access connection choices for the golf resort as well as to the development.



Junction Analyses

The Transport Assessment has examined local highway junctions as requested by OCC. The analyses consider the weekday morning and evening peak hours and the Saturday peak.

The following junctions show a slightly increased Ratio of Flow to Capacity (RFC) and queue lengths but remain within capacity:

A4095 / Site Access (new)

A4095 / B430

B430 / B430 mini-roundabout (north of A34 interchange)

A41 / Bicester Park & Ride / Vendee Drive

B430 / Church Road (Weston-on-the-Green)

M40 Junction 9

It should be noted that that allocated development at Cherwell's Bicester 10 Phase 2 employment site, on the A41 to the east of the Vendee Drive junction, has yet to be assumed in the Bicester Saturn Model given the lack of certainty of what will be delivered there and so forecast capacity at Junction 9 is likely to be underestimated.

The following junction is marginally over capacity with the proposed development in place:

A4095 / Vendee Drive

The analysis predicts the RFC for the A4095 to Vendee Drive north arm movement will increase from 0.83 to 0.87. The accepted figure for efficient operation is generally regarded as 0.85. As the analysis is based on the worst case in terms of generated numbers of vehicles, this minor theoretical exceedance is not considered to justify improvement measures.

The following junctions are already over-capacity so are adversely affected by the proposed development:

B430 / B4030

The 2026 baseline model including Heyford Park Phase 2 shows significant queues on all arms in AM and PM peaks.

Development traffic adds to the queues on the B430 both directions:

- Northbound AM peak 86 to 92 Passenger Car Units (PCUs)
 - PM peak 86 to 83 PCUs
- Southbound AM peak 140 to 151 PCUs
 - PM peak 67 to 86 PCUs

M40 Junction 10 southern roundabout

The 2026 baseline model indicates the M40 northbound exit slip is forecast to operate over capacity in PM peak.

Development traffic increases the queue length from 87 to 90 PCUs, although the RFC remains unchanged.

B430 / B4030

The impact on this signalised junction is discussed in paragraphs 6.29 to 6.41 of the Transport Assessment (TA). It should be noted that the planning ref. in 6.29, for the initial Heyford Park application, is 10/01642/OUT.

As noted in the TA, the submitted Heyford Park Phase 2 scheme results in a significant increase in traffic movements at the B430 / B4030 junction. OCC objected to this application, partly for the reason that “The application cannot be fully assessed until a strategic mitigation package has been identified as appropriate and deliverable”.

A mitigation package that includes this junction is currently being developed and negotiated. However, whatever measures are agreed upon, they are unlikely to eliminate the very significant congestion that occurs on a regular basis, and which is confirmed by the outputs of the junction analysis contained within the TA (see summary above).

Heyford Park is a Local Plan allocated site, whereas the proposed Great Wolf scheme is a speculative development. It is, therefore, considered that any additional capacity that may be created at the junction should be to the benefit of Heyford Park and that extra traffic from this application will negate the potential improvements, to the detriment of all road users. Any additional pressure on this sensitive junction would exacerbate the challenges and could prejudice delivery of an appropriate scheme to meet the needs of Heyford Park.

Paragraph 6.41 of the TA states “..... *it is considered that the development will not have a material effect on the operation of the junction. Furthermore, it is anticipated that the Heyford Park Development will be required to provide a package of mitigation measures and as such the effect of the Proposed Development may be lessened. On this basis, no further analysis or mitigation works are deemed necessary.*”

OCC’s position is that the development **will** have a material effect on the operation of the junction, and that further mitigation works (beyond Heyford Park Phase 2) will not be able to counteract the effect. It is considered that the development traffic will have a severe impact on the road network, so the proposals are contrary to paragraphs 108 (c.) and 109 of the NPPF. **Reason for objection.** OCC will be seeking contributions for a proportion of the mitigation scheme cost that is currently under discussion with Heyford Park, should the Great Wolf proposal be approved.

M40 Junction 10 southern roundabout

This junction is discussed in paragraphs 6.51 to 6.55 of the TA. The roundabout itself, along with the M40 slip roads and A43 arm, are classified as trunk roads and come under the management of Highways England.

The junction analysis shows that the M40 off-slip is over capacity during the afternoon peak in the 2026 baseline scenario, and that the development will add marginally to the expected queue length. This will be due to the additional flows across the roundabout on the B430 and A43 arms as there will be no northbound cars coming off the M40 at this junction.

Improvements to this roundabout are expected as part of the mitigation scheme being negotiated for, and primarily funded by, Heyford Park Phase 2. Any additional pressure on this sensitive junction would exacerbate the challenges and could prejudice delivery of an appropriate scheme to meet the needs of Heyford Park. OCC will be seeking funding towards this scheme should the Great Wolf application be approved.

Travel Plans

The submitted travel plan has been checked against our approved guidance and requires further development. Our comments on the submitted travel plan are included below.

At the moment, the submitted travel plan is quite basic and does not include the level of detail that is required. Although we have provided comments on what has been submitted so far these comments, because of the limited scope of the submitted plan are not exhaustive and bringing the plan up to the required standard is likely to take a collaborative approach to its development.

- Para 1.1 There appears to be three main groups of people that will be travelling to and from this proposed development, employees, guests and conference delegates. The travel plan will need to consider each of these groups separately and to provide full details of where each group will be travelling from to access these facilities. All these groups will need separate targets for travel plan purposes.
- Para 1.3 If this framework travel plan is to be acceptable for the whole site it should carry specific details for each area of the proposed facility. At the moment it carries no information about employee numbers to be based on the proposed site, where they are likely to be travelling from on a daily basis, their shift patterns or recruitment policies. It contains no information relating to guests who will be staying and making use of the facilities, where they are likely to be travelling from or any idea of predicted trips rates to and from the site. For conferences no detail is given about the frequency of planned conferences or the number of attendees that they are likely to attract etc.
- Para 1.5 Bearing in mind the sites location and the availability of sustainable travel options to make journeys to and from the site the focus of the travel plan is to reduce the level of single occupancy car trips made to and from the site. Car share is one practical measure that may be employed to do this but will advocate the use of the private motor car.
- Para 2.12 The current bus stops are 700 metres from the site which is 300 metres more than is desirable. This is going to make travelling by bus less attractive as a travel option. How will this barrier be overcome?
- Para 3.2 Please consider the three main groups, that have been mentioned previously, who will be travelling to and from the site separately. Each group must be considered separately and will need their own set of targets for travel plan purposes.
- Para 3.4 Until the baseline survey has taken place 2011 travel to work data should be included to set initial mode share for employees which will be updated within the months of occupation. As the sites operator already runs a similar business at another location, they should be able to provide details of travel for guests. A commitment to carry out the baseline survey should be made within three months of occupation and once this survey has taken place to update the travel plan with this new information.
- The travel plan contains no details of on site car parking, or cycle parking or how these facilities will be managed. This will need to be included as well as any car park management policy.
- Para 4.3 Employees should be given the travel information pack at the recruitment stage to help them to make informed travel choices before they commence employment.
- Para 5.6 How will the shuttle bus service be managed to ensure that it meets the demands of employees and guests? How will it be ensured that there are enough spaces to meet demand?

- Para 5.8 Will guests using the shuttle bus service pre book to ensure that there is room for the service to take them?
- Para 6.1 It would be best to allow travel patterns amongst employees to settle down before carrying out the baseline survey. A copy of the survey that will be used should be included in the travel plans appendices.
- Para 6.3 Targets will be set separately for the three main groups who will need to travel to and from then site. A 5-10% reduction in SOV travel will be sought and a target for all modes will need to be specified in actual numbers as well as percentages for each year in which a travel survey will take place.
- Para 6.12 Within a month of a survey taking place a monitoring report will be sent to the Travel Plan Team at Oxfordshire County Council.
- How will travel by guests and conference delegates be captured for travel plan purposes?
- Once specific targets have been introduced into the travel plan the action table should be checked to ensure that the action table provides a credible mix of short, medium and longer term actions that will help the travel plan to achieve these targets. All actions should be specific about what will actually be done, have a start and completion date and a named representative who will be responsible for ensuring each action is carried out.

A link to our guidance is included below.

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

Construction Management Plan

The important factor at this stage is the commitment to a lorry route which avoids Chesterton. All HGVs must approach the site from the west along the A4095.

The potential to utilise a shuttle bus to Bicester and other “crew buses” is welcomed.

Delivery and Servicing Management Plan

The Plan demonstrates how delivery and servicing vehicles will be kept apart from guest movements. Swept path analysis has been included for a 10m rigid vehicle and a Refuse Collection Vehicle, and for a 11m vehicle in the servicing area only.

The Plan should clarify the maximum size of vehicle expected, and the predicted numbers of daily vehicle movements.

Planning Statement

The Planning Statement provides an overview of the development proposals. Section 7 outlines the suggested obligations that may be secured through a Section 106 Agreement. Our comments on some of the proposed obligations are as follows:

- Free-to-use shuttle buses for guests, staff and the public. OCC's preference, as outlined above, is for a financial contribution that would allow a service to be procured for a minimum of ten years. This would allow guests, staff and the public to use a single vehicle on an hourly (approx.) basis that would operate for most of the day. An obligation would be secured by S106.
- The enhanced Public Right of Way would be provided as part of the S278 works. It would be included in the S106 to secure a commitment to future maintenance.
- The Travel Plan, Construction Management Plan and Delivery and Servicing Management Plan will be subject to planning conditions
- Co-ordinated off-site signage cannot be delivered as part of the S278 works but will require an appropriate condition and S106 funding. It should be noted that "white-on-brown" tourist road signs are only applicable to facilities that are "open to the public without prior booking", therefore, it may be necessary to provide alternative signage. This must be established in consultation with OCC – please see the following webpage for details: <https://www.oxfordshire.gov.uk/residents/roads-and-transport/street-maintenance-z/tourism-signing>

Environmental Statement

The Environmental Statement is based on the Guidelines for the Environmental Assessment on Road Traffic, which is an old document (1993) but has not been superseded. Impacts on local roads are judged by the estimated percentage increases in all traffic.

Due to the routing strategies for construction lorries and guest trips, the most notable percentage impacts are on the A4095 adjacent of the site. LGV construction traffic numbers on links 7 and 8 need to be reviewed as the percentage changes are incorrect. HGV movements are forecast to increase during the construction period by 224% to the west of the access but it is agreed that there are few residential properties along this route so the environmental impacts are limited.

It is assumed that the LGV numbers for operational traffic are the guest car trips, and the figures given for links 7 and 8 were those determined when M40 northbound traffic was all to arrive via the A41 and Vendee Drive (i.e. too low west of access and too high to the east).

S106 obligations and their compliance with Regulation 122(2) Community Infrastructure Levy Regulations 2010 (as amended):

£ (figure to be confirmed) Highway Works Contribution indexed using Baxter Index

Towards:

The partial funding of a mitigation scheme at the Middleton Stoney signalised junction

Justification:

The junction suffers from very significant congestion at present. Heyford Park Phase 2 development is to deliver a package of measures that is designed to mitigate the impact of further traffic generated by that development. The proposed development would contribute towards the need for these measures, so it is reasonable for this scheme to contribute towards the overall cost.

Calculation:

The extent and cost of the measures are not yet agreed. Therefore, the contribution required from Great Wolf is to be confirmed.

£ (figure to be confirmed) Highway Works Contribution indexed using Baxter Index

Towards:

The partial funding of a mitigation scheme at the M40 Junction 10 southern roundabout

Justification:

Analysis has indicated that this junction will be over-capacity at times in the 2026 baseline assessment. Heyford Park Phase 2 development is to deliver a package of measures that is designed to mitigate the impact of further traffic generated by that development. The proposed development would contribute towards the need for these measures, so it is reasonable for this scheme to contribute towards the overall cost.

Calculation:

The extent and cost of the measures are not yet agreed. Therefore, the contribution required from Great Wolf is to be confirmed.

£ (figure to be confirmed) Highway Works Contribution indexed using Baxter Index

Towards:

The installation of off-site directional signage

Justification:

Suitable signage will be required to direct guests to use the appropriate routes to and from the site, in accordance with the strategy discussed above. This will be designed and installed in conjunction with OCC.

Calculation:

To be determined

£1,600,000 Public Transport Service Contribution indexed from November 2019 using RPI-x

Towards:

Provision of a new bus service linking the site to Bicester town centre and railway stations

Justification:

The development is required to provide a sustainable transport solution which would allow visitors and staff to access the site from residential areas of Bicester and the public transport interchanges at the railway stations and town centre. This is best achieved by a frequent, publicly accessible service that could be integrated into other potential Bicester developments in the future, with hours of operation that would suit all shift patterns.

Calculation:

The cost of providing a single bus is approximately £160,000 per year.

Total cost = £160,000 x 10 years = £1,600,000

£2,105.60 Public Transport Infrastructure Contribution indexed from November 2019 using Baxter Index

Towards:

Provision of two pole and flag units for Chesterton village

Justification:

The proposed public bus service will stop at one location each way in Chesterton village.

Calculation:

2 x Pole and flag unit at £1,052.80 each = £2,105.60

£ (figure to be confirmed) Public Rights of Way Contribution indexed using Baxter Index

Towards:

Maintenance of the realigned PRow through the site

Justification:

The development will necessitate the realignment of Public Footpath 161/6 through the site, which will be included in the S278 works. Long-term maintenance by OCC of the footpath will be required unless the landowner is obligated to take on this responsibility.

Calculation:

To be determined

£2,040 Travel Plan Monitoring Fee indexed from November 2019 using RPI-x

Justification:

To cover the cost to the County of monitoring progress of the Travel Plan against the mode share targets to ensure that the Travel Plans is either meeting targets or being adjusted to meet targets.

Calculation:

The fees charged are for the work required by Oxfordshire County Council to monitor a travel plan related solely to this development site.

The work to be carried out by the monitoring officer is as follows.

- Review the survey data produced by the developer.
- Compare it to the progress against the targets in the approved travel plan and census or national travel survey data sets.
- Agree any changes, updated actions, and future targets in an updated travel plan.

Three biennial monitoring and feedback procedures to be undertaken at years 1, 3 & 5 following first occupation would require an expected 51 hours of officer time at £40 per hour. Total £2,040.

S278 Highway Works:

An obligation to enter into a S278 Agreement will be required to secure mitigation/improvement works, including:

- A new site access priority junction from the A4095, including a ghosted right-turn lane, as shown indicatively on Motion drawing 1803047-03 Rev E
- A new shared use cycletrack along the south side of the A4095, as shown indicatively on Motion drawings 1803047-03 Rev E and 1803047-02 Rev A
- A new length of footway at the A4095 connection of the Public Right of Way 161/1, as shown indicatively on Motion drawing 1803047-08
- A new length of Public Right of Way 161/6 along part of the south-east boundary of the site
- Two new lengths of footway, approximately 235m and 125m, along the A4095 either side of the M40 overbridge, to connect PRow 161/6 with 161/11
- 150 240 Two new lengths of footway, approximately 150m and 240m, along Green Lane either side of The Hale, to connect PRow 161/6 with Chesterton village

Notes:

This is secured by means of S106 restriction not to implement development (or occasionally other trigger point) until S278 agreement has been entered into.

The trigger by which time S278 works are to be completed shall also be included in the S106 agreement.

Identification of areas required to be dedicated as public highway and agreement of all relevant landowners will be necessary in order to enter into the S278 agreements.

S278 agreements include certain payments that apply to all S278 agreements however the S278 agreement may also include an additional payment(s) relating to specific works.

Planning Conditions:

In the event that permission is to be given, the following planning conditions should be attached:

Access: Full Details

Prior to the commencement of the development hereby approved, full details of the means of access between the land and the highway, including, position, layout, construction, drainage and vision splays shall be submitted to and approved in writing by the Local Planning Authority. Thereafter, the means of access shall be constructed and retained in accordance with the approved details.

Reason - In the interests of highway safety and to comply with Government guidance contained within the National Planning Policy Framework

No Other Access

Other than the approved access no other means of access whatsoever shall be formed or used between the land and the highway.

Reason - In the interests of highway safety and to comply with Government guidance contained within the National Planning Policy Framework

Details of Turning for Service Vehicles

Prior to the commencement of the development hereby approved, and notwithstanding the application details, full details of refuse, fire tender and pantechnicon turning within the site shall be submitted to and approved in writing by the Local Planning Authority. Thereafter, the development shall be carried out in accordance with the approved details.

Reason - In the interests of highway safety and to comply with Government guidance contained within the National Planning Policy Framework

Plan of Car Parking Provision

Prior to the commencement of the development hereby approved, a plan showing car parking provision for vehicles to be accommodated within the site, shall be submitted to and approved in writing by the Local Planning Authority. Thereafter, and prior to the first occupation of the development, the parking spaces shall be laid out, surfaced, drained and completed in accordance with the approved details and shall be retained for the parking of vehicles at all times thereafter.

Reason - In the interests of highway safety, to ensure the provision of off-street car parking and to comply with Government guidance contained within the National Planning Policy Framework.

Cycle Parking Provision

Prior to the first use or occupation of the development hereby permitted, covered cycle parking facilities shall be provided on the site in accordance with details which shall be firstly submitted to and approved in writing by the Local Planning Authority. Thereafter, the covered cycle parking facilities shall be permanently retained and maintained for the parking of cycles in connection with the development.

Reason - In the interests of sustainability and to ensure a satisfactory form of development, in accordance with Government guidance contained within the National Planning Policy Framework

Travel Plan

Prior to the first occupation of the development hereby approved, a Travel Plan, prepared in accordance with the Department of Transport's Best Practice Guidance Note "Using the Planning Process to Secure Travel Plans", shall be submitted to and approved in writing by the Local Planning Authority. Thereafter, the approved Travel Plan shall be implemented and operated in accordance with the approved details.

Reason - In the interests of sustainability and to ensure a satisfactory form of development, in accordance with Government guidance contained within the National Planning Policy Framework

Provision of New Permanent Public Footpaths

Prior to the first use of any new public footpath, the new footpath shall be formed, constructed, surfaced, laid and marked out, drained and completed in accordance with specification details which shall be firstly submitted to and approved in writing by the Local Planning Authority.

Reason - In the interests of highway safety and public amenity and to comply with Government guidance contained within the National Planning Policy Framework

Construction Traffic Management plan

No development shall take place in respect of the development until a Construction Traffic Management Plan (CTMP) has been submitted to and approved by the relevant Local Planning Authority, in conjunction with the Local Highway Authorities.

The CTMP shall provide for:

- (i) the routing of construction vehicles and Construction Plan Directional signage (on and off site)
- (ii) the parking of vehicles of site operatives and visitors
- (iii) loading and unloading of plant and materials
- (iv) storage of plant and materials used in constructing the development
- (v) operating hours and details of deliveries
- (vi) the erection and maintenance of security hoarding including decorative displays and facilities for public viewing, where appropriate
- (vii) wheel washing facilities
- (viii) measures to control the emission of dust and dirt during construction
- (ix) a scheme for recycling/disposing of waste resulting from demolition and construction works
- (x) Overall strategy for managing environmental impacts which arise during construction
- (xi) Procedures for maintaining good public relations including complaint management, public consultation and liaison
- (xii) Control of noise emanating from the site during the construction period
- (xiii) Details of construction access(s)
- (xiv) Provision for emergency vehicles

Reason - In the interests of highway safety, convenience of highway users and to protect the amenities of residents and safeguard the visual amenities of the locality and to comply with Government guidance contained within the National Planning Policy Framework.

Delivery and Servicing Management Plan

The development shall not be occupied until a delivery and servicing management plan has been submitted to and approved in writing by the Local Planning Authority. The development shall thereafter be carried out strictly in accordance with the approved delivery and servicing management plan.

Reason - In the interests of highway safety and to comply with Government guidance within the National Planning Policy Framework.

Signage Strategy

The development shall not be occupied until a signage strategy for the site has been submitted and approved in writing by the Local Planning Authority. The development shall thereafter be completed and signage installed in accordance with the approved details prior to the first use of any building on the site.

Reason - To ensure that traffic is directed along the most appropriate routes and to comply with Government guidance contained within the National Planning Policy Framework.

Officer's Name: Roger Plater

Officer's Title: Transport Planner

Date: 8 January 2020

APPENDIX RL-K



Department for Transport

Travel time measures for the Strategic Road Network and local 'A' roads, England: January to December 2018

In 2018, average delay on the Strategic Road Network increased by 0.4 seconds per vehicle per mile (up 3.9%), and average delay on local 'A' roads increased by 0.4 seconds per vehicle per mile (0.8%).

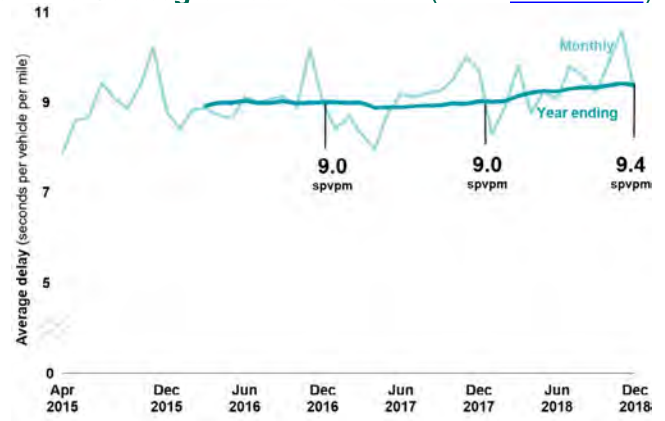


Key Statistics

On the Strategic Road Network (SRN) in 2018:

- ▶ The **average delay** is estimated to be **9.4 seconds per vehicle per mile compared to speed limits**, a 3.9% increase on previous year.
- ▶ The **average speed was 59.0 mph**, down 0.6% on previous year.

Figure 1: Average delay, compared to speed limits, on the Strategic Road Network (Table [CGN0402a](#))



- ▶ The reliability of travel times is measured using the Planning Time Index. This presents **68.4% of additional time needed compared to speed limits**, on average, on individual roads sections to ensure on time arrival. This is up 0.7 percentage points compared to the previous year.

On local 'A' roads in 2018:

- ▶ The **average delay** is estimated to be **47.3 seconds per vehicle per mile compared to free flow**, a 0.8% increase on the previous year.
- ▶ The **average speed was 24.9 mph**, down 1.3% on the previous year.

Figure 2: Average delay, compared to free flow, on local 'A' roads (Table [CGN0502a](#))



About this release

This statistical release presents information about travel times on Strategic Road Network (roads managed by Highways England) and local highway authority managed 'A' roads in England. The measures in this release are estimated using in-vehicle Global Positioning Systems. (GPS) observations.

In this publication

- SRN figures [p4](#)
- Local 'A' road figures [p8](#)
- Background [p15](#)

RESPONSIBLE STATISTICIAN:

Helen Sleight

Email: congestion.stats@dft.gov.uk

FURTHER INFORMATION:

Media: 020 7944 3066

Public: 020 7944 5850

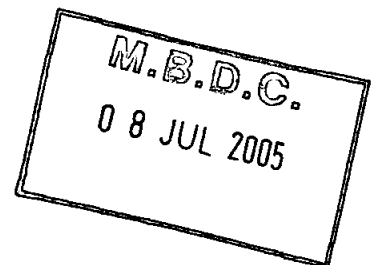


APPENDIX RL-L

**CENTER PARCS –
WARREN WOOD**

**TRANSPORTATION
ASSESSMENT**

Center Parcs Limited
One Edison Rise
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Newark
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C-204073/June 2005

5.0 THE DEVELOPMENT AND KEY ASSUMPTIONS

Key assumptions.

- 5.1 The Holiday village will be similar in size and operation to existing Center Parcs Holiday villages.
- 5.2 The opening date is assumed to be 2008. It is anticipated that the A507 Ridgmont bypass and the A507/Millbrook roundabout scheme promoted by Bedfordshire County Council will be constructed and operational by that time.
- 5.3 The site entrance will be via a priority junction approximately 500 metres south of the proposed new A507/ Millbrook roundabout, down Fordfield road. **From Site Access Drawing No.1, Appendix B.**
- 5.4 Permission is being sought for 787 accommodation units, Elveden Forest Village has 822 units. Traffic surveys were undertaken at Elveden in Suffolk on Wednesday 11th August 2004, a non change over day and Friday 13th August, a changeover day. The normal operation is two changeover days, Monday and Friday. The data is included as **Appendix H**. The complete Report on Traffic Generation-2004 has been sent to Mid Beds and Beds CC via e-mail, a copy is included in the CD in Appendix M with a number of other reports and data. A traffic survey taken in 1997 at Longleat has also been referred to, and confirms that the assumptions made on daily trips are reasonable. This has since been made available to Bedfordshire County Council and Mid Beds District Council. It is considered, given its location, that Warren Wood will be a closer match to the Elveden Forest village as far as daily arrival/departure patterns are concerned. Snapshot traffic counts checks were taken on a changeover day at Longleat Forest village entrance on a recent visit with Bedfordshire CC which generally supports the assumptions made.
- 5.5 The highway network peaks are 8-9 am and 5-6pm. On a changeover day the Center Parcs peak is 10-11 am with 223 departures and 148arrivals. The secondary peak is 12-1 pm, with 236 arrivals and 129 departures.
- 5.6 Staff will be employed as far as possible from the adjacent main conurbations. An employment catchment has been prepared as **Drawing No 2, Appendix I** This

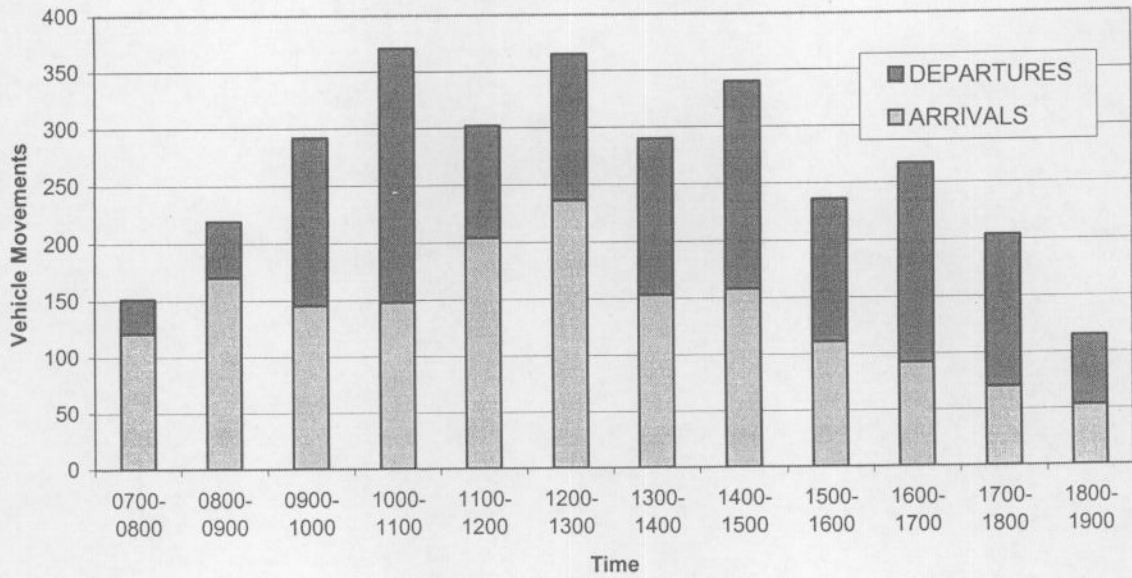
APPENDIX H

Elveden Traffic data

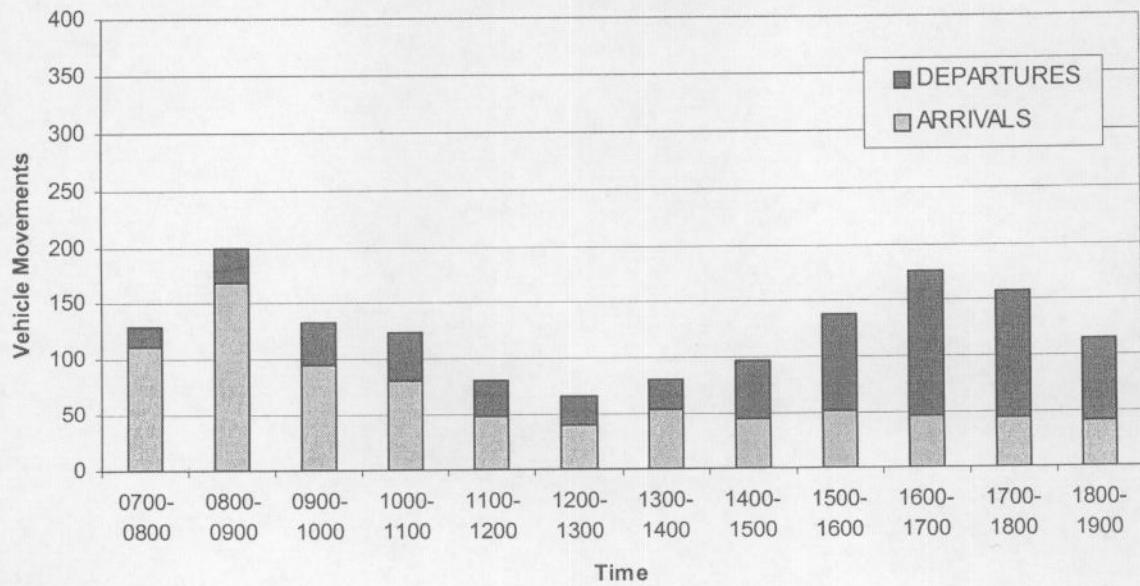
Changeover/non Changeover days

August 2004

Center Parcs Elveden
Changeover Day Veh. Movts (13/08/04)



Center Parcs Elveden
Non-changeover Day Veh. Movts (11/08/04)



Data for Changeover Day (13/08/04)

ARRIVALS

Data Hourly	Walk	Ped Cycle	Total 1 and 2	Motor cycle	Single Occ car	Doub occup	Trip. occup	4+ occup	Light Goods	HGV	Bus	Total 3 to 9
0700-0800	0	0	0	3	77	18	2	0	17	4	0	121
0800-0900	1	1	2	0	123	27	8	1	10	0	1	170
0900-1000	0	1	1	1	64	45	12	3	9	0	11	145
1000-1100	0	1	1	0	36	32	20	44	14	1	1	148
1100-1200	0	4	4	0	20	43	31	96	10	3	1	204
1200-1300	0	1	1	2	24	61	42	99	8	0	0	236
1300-1400	1	1	2	2	31	38	21	56	2	1	2	153
1400-1500	0	3	3	2	30	45	33	34	6	1	7	158
1500-1600	0	0	0	2	24	19	22	39	5	0	0	111
1600-1700	0	0	0	0	26	31	12	19	4	0	0	92
1700-1800	0	0	0	2	30	9	11	16	0	0	2	70
1800-1900	0	0	0	8	20	10	4	9	2	0	0	53
1900-2000	0	0	0	0	7	9	2	2	2	0	0	22
2000-2100	0	0	0	0	9	8	2	1	0	0	0	20
2100-2200	0	0	0	0	4	6	2	0	1	0	0	13
	2	12	14	22	525	401	224	419	90	10	25	1716

1661

55

A total of 3822 people entered the site during the period 0700-2200.

DEPARTURES

Data Hourly	Walk	Ped Cycle	Total 1 and 2	Motor cycle	Single Occ car	Doub occup	Trip. occup	4+ occup	Light Goods	HGV	Bus	Total 3 to 9
0700-0800	0	0	0	0	11	6	2	1	7	1	2	30
0800-0900	0	0	0	0	20	7	2	10	7	3	0	49
0900-1000	0	5	5	0	18	36	19	66	5	1	2	147
1000-1100	0	0	0	0	31	56	26	91	16	1	2	223
1100-1200	0	0	0	0	9	17	19	44	6	2	1	98
1200-1300	0	0	0	0	26	29	16	46	8	1	3	129
1300-1400	0	0	0	0	23	34	20	54	5	1	0	137
1400-1500	0	1	1	1	71	40	18	38	8	2	4	182
1500-1600	0	0	0	1	44	26*	15	33	6	0	0	125
1600-1700	0	0	0	2	105	28	10	22	7	0	1	175
1700-1800	1	1	2	0	73	23	12	21	5	0	0	134
1800-1900	0	0	0	1	32	15	1	10	3	0	0	62
1900-2000	0	0	0	1	25	6	1	11	0	0	0	44
2000-2100	0	0	0	0	9	12	1	4	0	0	0	26
2100-2200	0	3	3	0	26	19	2	5	0	0	0	55
	1	10	11	6	523	354	164	456	83	12	15	1616

1491

125

A total of 3663 people left the site during the period 0700-2200.

IN+OUT COMBINED

Data Hourly	Walk	Ped Cycle	Total 1 and 2	Motor cycle	Single Occ car	Doub occup	Trip. occup	4+ occup	Light Goods	HGV	Bus	Total 3 to 9
0700-0800	0	0	0	3	88	24	4	1	24	5	2	151
0800-0900	1	1	2	0	143	34	10	11	17	3	1	219
0900-1000	0	6	6	1	82	81	31	69	14	1	13	292
1000-1100	0	1	1	0	67	88	46	135	30	2	3	371
1100-1200	0	4	4	0	29	60	50	140	16	5	2	302
1200-1300	0	1	1	2	50	90	58	145	16	1	3	365
1300-1400	1	1	2	2	54	72	41	110	7	2	2	290
1400-1500	0	4	4	3	101	85	51	72	14	3	11	340
1500-1600	0	0	0	3	68	45	37	72	11	0	0	236
1600-1700	0	0	0	2	131	59	22	41	11	0	1	267
1700-1800	1	1	2	2	103	32	23	37	5	0	2	204
1800-1900	0	0	0	9	52	25	5	19	5	0	0	115
1900-2000	0	0	0	1	32	15	3	13	2	0	0	66
2000-2100	0	0	0	0	18	20	3	5	0	0	0	46
2100-2200	0	3	3	0	30	25	4	5	1	0	0	68
	3	22	25	28	1048	755	388	875	173	22	40	3332

3152

180

Data for Non-changeover Day (11/08/04)

ARRIVALS

Data Hourly	Walk	Ped Cycle	Total 1 and 2	Motor cycle	Single Occ car	Doub occup	Trip. occup	4+ occup	Light Goods	HGV	Bus	Total 3 to 9
0700-0800	0	6	6	1	73	16	3	3	11	4	0	111
0800-0900	0	2	2	1	123	31	2	2	8	0	2	169
0900-1000	0	0	0	0	57	16	7	7	5	0	3	95
1000-1100	0	1	1	0	31	17	12	9	5	3	4	81
1100-1200	0	1	1	0	18	14	5	4	4	2	1	48
1200-1300	1	10	11	2	20	3	1	3	6	3	2	40
1300-1400	1	1	2	1	27	11	6	2	3	2	1	53
1400-1500	0	3	3	2	17	12	5	0	5	0	3	44
1500-1600	0	1	1	1	24	19	2	2	2	0	2	52
1600-1700	1	4	5	0	30	8	0	3	2	0	4	47
1700-1800	0	0	0	0	28	7	5	3	2	0	0	45
1800-1900	0	0	0	0	18	14	3	3	2	0	2	42
1900-2000	0	4	4	0	13	2	2	2	0	0	0	19
2000-2100	0	0	0	0	7	3	1	0	0	0	0	11
2100-2200	0	0	0	0	2	1	0	1	1	0	0	5
	3	33	36	8	488	174	54	44	56	14	24	862

827

35

A total of 1267 people entered the site during the period 0700-2200.

DEPARTURES

Data Hourly	Walk	Ped Cycle	Total 1 and 2	Motor cycle	Single Occ car	Doub occup	Trip. occup	4+ occup	Light Goods	HGV	Bus	Total 3 to 9
0700-0800	0	0	0	0	7	2	0	0	5	3	2	19
0800-0900	0	0	0	0	23	2	0	0	3	2	0	30
0900-1000	0	1	1	0	17	9	1	4	4	0	3	38
1000-1100	1	9	10	0	17	10	3	5	2	3	3	43
1100-1200	0	2	2	0	10	10	3	3	3	3	0	32
1200-1300	0	2	2	0	11	2	1	1	6	3	2	26
1300-1400	1	0	1	0	15	2	2	0	4	2	2	27
1400-1500	0	0	0	6	32	4	1	2	3	1	3	52
1500-1600	0	0	0	2	58	15	1	2	5	0	3	86
1600-1700	0	8	8	0	88	24	1	5	6	0	4	128
1700-1800	0	0	0	1	82	18	1	4	5	1	0	112
1800-1900	0	1	0	0	38	13	6	11	3	0	2	73
1900-2000	0	2	2	0	33	8	0	3	0	0	0	44
2000-2100	0	0	0	0	11	6	2	2	1	0	0	22
2100-2200	0	0	0	1	24	11	1	0	0	0	0	37
	2	25	26	10	466	136	23	42	50	18	24	769

666

103

A total of 1077 people left the site during the period 0700-2200.

IN + OUT COMBINED

Data Hourly	Walk	Ped Cycle	Total 1 and 2	Motor cycle	Single Occ car	Doub occup	Trip. occup	4+ occup	Light Goods	HGV	Bus	Total 3 to 9
0700-0800	0	6	6	1	80	18	3	3	16	7	2	130
0800-0900	0	2	2	1	146	33	2	2	11	2	2	199
0900-1000	0	1	1	0	74	25	8	11	9	0	6	133
1000-1100	1	10	11	0	48	27	15	14	7	6	7	124
1100-1200	0	3	3	0	28	24	8	7	7	5	1	80
1200-1300	1	12	13	2	31	5	2	4	12	6	4	66
1300-1400	2	1	3	1	42	13	8	2	7	4	3	80
1400-1500	0	3	3	8	49	16	6	2	8	1	6	96
1500-1600	0	1	1	3	82	34	3	4	7	0	5	138
1600-1700	1	12	13	0	118	32	1	8	8	0	8	175
1700-1800	0	0	0	1	110	25	6	7	7	1	0	157
1800-1900	0	1	0	0	56	27	9	14	5	0	4	115
1900-2000	0	6	6	0	46	10	2	5	0	0	0	63
2000-2100	0	0	0	0	18	9	3	2	1	0	0	33
2100-2200	0	0	0	1	26	12	1	1	1	0	0	42
	5	58	62	18	954	310	77	86	106	32	48	1631

1493

138

Analysis of Elveden Center Parcs Survey Data

Average of Changeover and Non-Changeover Day Arrivals

		Columns																			
		1	2	3	4	5	6	7	5+6+7	4+5+6+7	8	9	10	8+9+10							
Time Period	Walk	Cycle	M/Cycle	Car											LGV	HGV	BUS	Total	TOTAL		
				Single Occupancy	12-hour Profile	15-hour Profile	Double Occupancy	Triple Occupancy	Quadruple Occupancy	Total	12-hour Profile	15-hour Profile	Total	12-hour Profile						15-hour Profile	
				Staff			Guest														
1	07:00 - 08:00	0	3	2	75	15.4%	14.8%	17	2.5	1.5	21	3.3%	3.2%	96	8.6%	8.2%	14	4	0	18	119
2	08:00 - 09:00	0.5	1.5	0.5	123	25.3%	24.3%	29	5	1.5	35.5	5.6%	5.4%	158.5	14.1%	13.6%	9	0	1.5	10.5	171.5
3	09:00 - 10:00	0	0.5	0.5	60.5	12.5%	11.9%	30.5	9.5	5	45	7.1%	6.8%	105.5	9.4%	9.1%	7	0	7	14	120.5
4	10:00 - 11:00	0	1	0	33.5	6.9%	6.6%	24.5	16	26.5	67	10.5%	10.2%	100.5	9.0%	8.6%	9.5	2	2.5	14	115.5
5	11:00 - 12:00	0	2.5	0	19	3.9%	3.8%	28.5	18	50	96.5	15.2%	14.7%	115.5	10.3%	9.9%	7	2.5	1	10.5	128.5
6	12:00 - 13:00	0.5	5.5	2	22	4.5%	4.3%	32	21.5	51	104.5	16.4%	15.9%	126.5	11.3%	10.9%	7	1.5	1	9.5	144
7	13:00 - 14:00	1	1	1.5	29	6.0%	5.7%	24.5	13.5	29	67	10.5%	10.2%	96	8.6%	8.2%	2.5	1.5	1.5	5.5	105
8	14:00 - 15:00	0	3	2	23.5	4.8%	4.6%	28.5	19	17	64.5	10.1%	9.8%	88	7.8%	7.6%	5.5	0.5	5	11	104
9	15:00 - 16:00	0	0.5	1.5	24	4.9%	4.7%	19	12	20.5	51.5	8.1%	7.8%	75.5	6.7%	6.5%	3.5	0	1	4.5	82
10	16:00 - 17:00	0.5	2	0	28	5.8%	5.5%	19.5	6	11	36.5	5.7%	5.5%	64.5	5.8%	5.5%	3	0	2	5	72
11	17:00 - 18:00	0	0	1	29	6.0%	5.7%	8	8	9.5	25.5	4.0%	3.9%	54.5	4.9%	4.7%	1	0	1	2	57.5
12	18:00 - 19:00	0	0	4	19	3.9%	3.8%	12	3.5	6	21.5	3.4%	3.3%	40.5	3.6%	3.5%	2	0	1	3	47.5
13	19:00 - 20:00	0	2	0	10		2.0%	5.5	2	2	9.5		1.4%	19.5		1.7%	1	0	0	1	22.5
14	20:00 - 21:00	0	0	0	8		1.6%	5.5	1.5	0.5	7.5		1.1%	15.5		1.3%	0	0	0	0	15.5
15	21:00 - 22:00	0	0	0	3		0.6%	3.5	1	0.5	5		0.8%	8		0.7%	1	0	0	1	9
Total (15-Hour)		3	23	15	507	100.0%	100.0%	288	139	232	658	100.0%	100.0%	1,165	100.0%	100.0%	73	12	25	110	1,314
Equivalent Number of Person Trips		3	23	15	507			575	417	926	1,918			2,425			73	12			2,550
Car Occupancy					1.00						2.91			2.08							
Total (07:00-19:00)		3	21	15	486			273	135	229	636			1,122			71	12	25	108	

Average of Changeover and Non-Changeover Day Departures

		Columns																			
		1	2	3	4	5	6	7	5+6+7	4+5+6+7	8	9	10	8+9+10							
Time Period	Walk	Cycle	M/Cycle	Car											LGV	HGV	BUS	Total	TOTAL		
				Single Occupancy	12-hour Profile	15-hour Profile	Double Occupancy	Triple Occupancy	Quadruple Occupancy	Total	12-hour Profile	15-hour Profile	Total	12-hour Profile						15-hour Profile	
16	07:00 - 08:00	0	0	0	9	2.1%	1.8%	4	1	0.5	5.5	1.0%	0.9%	14.5	1.5%	1.3%	12	4	2	18	32.5
17	08:00 - 09:00	0	0	0	21.5	5.0%	4.3%	4.5	1	5	10.5	1.9%	1.8%	32	3.3%	3.0%	10	5	0	15	47
18	09:00 - 10:00	0	3	0	17.5	4.1%	3.5%	22.5	10	35	67.5	12.5%	11.5%	85	8.8%	7.9%	9	1	2.5	12.5	100.5
19	10:00 - 11:00	0.5	4.5	0	24	5.6%	4.9%	33	14.5	48	95.5	17.7%	16.3%	119.5	12.3%	11.0%	18	4	2.5	24.5	149
20	11:00 - 12:00	0	1	0	9.5	2.2%	1.9%	13.5	11	23.5	48	8.9%	8.2%	57.5	5.9%	5.3%	9	5	0.5	14.5	73
21	12:00 - 13:00	0	1	0	18.5	4.3%	3.7%	15.5	8.5	23.5	47.5	8.8%	8.1%	66	6.8%	6.1%	14	4	2.5	20.5	87.5
22	13:00 - 14:00	0.5	0	0	19	4.4%	3.8%	18	11	27	56	10.4%	9.5%	75	7.7%	6.9%	9	3	1	13	88.5
23	14:00 - 15:00	0	0.5	3.5	51.5	12.0%	10.4%	22	9.5	20	51.5	9.5%	8.8%	103	10.6%	9.5%	11	3	3.5	17.5	124.5
24	15:00 - 16:00	0	0	1.5	51	11.8%	10.3%	20.5	8	17.5	46	8.5%	7.8%	97	10.0%	9.0%	11	0	1.5	12.5	111
25	16:00 - 17:00	0	4	1	96.5	22.4%	19.5%	26	5.5	13.5	45	8.3%	7.7%	141.5	14.6%	13.1%	13	0	2.5	15.5	162
26	17:00 - 18:00	0.5	0.5	0.5	77.5	18.0%	15.7%	20.5	6.5	12.5	39.5	7.3%	6.7%	117	12.0%	10.8%	10	1	0	11	129.5
27	18:00 - 19:00	0	0.5	0.5	35	8.1%	7.1%	14	3.5	10.5	28	5.2%	4.8%	63	6.5%	5.8%	6	0	1	7	71
28	19:00 - 20:00	0	1	0.5	29		5.9%	7	0.5	7	14.5		2.5%	43.5		4.0%	0	0	0	0	45
29	20:00 - 21:00	0	0	0	10		2.0%	9	1.5	3	13.5		2.3%	23.5		2.2%	1	0	0	1	24.5
30	21:00 - 22:00	0	1.5	0.5	25		5.1%	15	1.5	2.5	19		3.2%	44		4.1%	0	0	0	0	46
Total (15-Hour)		2	18	8	495	100.0%	100.0%	245	94	249	588	100.0%	100.0%	1,082	100.0%	100.0%	133	30	20	183	1,292
Equivalent Number of Person Trips		2	18	8	495			490	281	996	1,767			2,261			133	30			2,451
Car Occupancy					1.00						3.01			2.09							
Total (07:00-19:00)		2	15	7	431			214	90	237	541			971			132	30	20	182	

Analysis of Elveden Center Parcs Survey Data

Changeover Day Arrivals

		Columns																			
		1	2	3	4	5	6	7	5+6+7	4+5+6+7	8	9	10	8+9+10							
Time Period	Walk	Cycle	M/Cycle	Car									LGV	HGV	BUS	Total	TOTAL				
				Single Occupancy	12-hour Profile	15-hour Profile	Double Occupancy	Triple Occupancy	Quadruple Occupancy	Total	12-hour Profile	15-hour Profile						Total	12-hour Profile	15-hour Profile	
				Staff			Guest														
1	07:00 - 08:00	0	0	3	77	15.2%	14.7%	18	2	0	20	2.0%	1.9%	97	6.4%	6.2%	17	4	0	21	121
2	08:00 - 09:00	1	1	0	123	24.4%	23.4%	27	8	1	36	3.6%	3.4%	159	10.5%	10.1%	10	0	1	11	172
3	09:00 - 10:00	0	1	1	64	12.7%	12.2%	45	12	3	60	5.9%	5.7%	124	8.2%	7.9%	9	0	11	20	146
4	10:00 - 11:00	0	1	0	36	7.1%	6.9%	32	20	44	96	9.5%	9.2%	132	8.7%	8.4%	14	1	1	16	149
5	11:00 - 12:00	0	4	0	20	4.0%	3.8%	43	31	96	170	16.8%	16.3%	190	12.5%	12.1%	10	3	1	14	208
6	12:00 - 13:00	0	1	2	24	4.8%	4.6%	61	42	99	202	20.0%	19.3%	226	14.9%	14.4%	8	0	0	8	237
7	13:00 - 14:00	1	1	2	31	6.1%	5.9%	38	21	56	115	11.4%	11.0%	146	9.6%	9.3%	2	1	2	5	155
8	14:00 - 15:00	0	3	2	30	5.9%	5.7%	45	33	34	112	11.1%	10.7%	142	9.4%	9.1%	6	1	7	14	161
9	15:00 - 16:00	0	0	2	24	4.8%	4.6%	19	22	39	80	7.9%	7.7%	104	6.9%	6.6%	5	0	0	5	111
10	16:00 - 17:00	0	0	0	26	5.1%	5.0%	31	12	19	62	6.1%	5.9%	88	5.8%	5.6%	4	0	0	4	92
11	17:00 - 18:00	0	0	2	30	5.9%	5.7%	9	11	16	36	3.6%	3.4%	66	4.4%	4.2%	0	0	2	2	70
12	18:00 - 19:00	0	0	8	20	4.0%	3.8%	10	4	9	23	2.3%	2.2%	43	2.8%	2.7%	2	0	0	2	53
13	19:00 - 20:00	0	0	0	7		1.3%	9	2	2	13		1.2%	20		1.3%	2	0	0	2	22
14	20:00 - 21:00	0	0	0	9		1.7%	8	2	1	11		1.1%	20		1.3%	0	0	0	0	20
15	21:00 - 22:00	0	0	0	4		0.8%	6	2	0	8		0.8%	12		0.8%	1	0	0	1	13
Total (15-Hour)		2	12	22	525	100.0%	100.0%	401	224	419	1,044	100.0%	100.0%	1,569	100.0%	100.0%	90	10	25	125	1,730
Equivalent Number of Person Trips		2	12	22	525			802	672	1,676	3,150			3,675			90	10			3,811
Car Occupancy					1.00						3.02			2.34							
Total (07:00-19:00)		2	12	22	505			378	218	416	1,012			1,517			87	10	25	122	

Changeover Day Departures

		Columns																			
		1	2	3	4	5	6	7	5+6+7	4+5+6+7	8	9	10	8+9+10							
Time Period	Walk	Cycle	M/Cycle	Car									LGV	HGV	BUS	Total	TOTAL				
				Single Occupancy	12-hour Profile	15-hour Profile	Double Occupancy	Triple Occupancy	Quadruple Occupancy	Total	12-hour Profile	15-hour Profile						Total	12-hour Profile	15-hour Profile	
16	07:00 - 08:00	0	0	0	11	2.4%	2.1%	6	2	1	9	1.0%	0.9%	20	1.5%	1.3%	7	1	2	10	30
17	08:00 - 09:00	0	0	0	20	4.3%	3.8%	7	2	10	19	2.1%	2.0%	39	2.8%	2.6%	7	3	0	10	49
18	09:00 - 10:00	0	5	0	18	3.9%	3.4%	36	19	66	121	13.3%	12.4%	139	10.1%	9.3%	5	1	2	8	152
19	10:00 - 11:00	0	0	0	31	6.7%	5.9%	56	26	91	173	18.9%	17.8%	204	14.8%	13.6%	16	1	2	19	223
20	11:00 - 12:00	0	0	0	9	1.9%	1.7%	17	19	44	80	8.8%	8.2%	89	6.5%	5.9%	6	2	1	9	98
21	12:00 - 13:00	0	0	0	26	5.6%	5.0%	29	16	46	91	10.0%	9.3%	117	8.5%	7.8%	8	1	3	12	129
22	13:00 - 14:00	0	0	0	23	5.0%	4.4%	34	20	54	108	11.8%	11.1%	131	9.5%	8.8%	5	1	0	6	137
23	14:00 - 15:00	0	1	1	71	15.3%	13.6%	40	18	38	96	10.5%	9.9%	167	12.1%	11.2%	8	2	4	14	183
24	15:00 - 16:00	0	0	1	44	9.5%	8.4%	26	15	33	74	8.1%	7.6%	118	8.6%	7.9%	6	0	0	6	125
25	16:00 - 17:00	0	0	2	105	22.7%	20.1%	28	10	22	60	6.6%	6.2%	165	12.0%	11.0%	7	0	1	8	175
26	17:00 - 18:00	1	1	0	73	15.8%	14.0%	23	12	21	56	6.1%	5.7%	129	9.4%	8.6%	5	0	0	5	136
27	18:00 - 19:00	0	0	1	32	6.9%	6.1%	15	1	10	26	2.8%	2.7%	58	4.2%	3.9%	3	0	0	3	62
28	19:00 - 20:00	0	0	1	25		4.8%	6	1	11	18		1.8%	43		2.9%	0	0	0	0	44
29	20:00 - 21:00	0	0	0	9		1.7%	12	1	4	17		1.7%	26		1.7%	0	0	0	0	26
30	21:00 - 22:00	0	3	0	26		5.0%	19	2	5	26		2.7%	52		3.5%	0	0	0	0	55
Total (15-Hour)		1	10	6	523	100.0%	100.0%	354	164	456	974	100.0%	100.0%	1,497	100.0%	100.0%	83	12	15	110	1,624
Equivalent Number of Person Trips		1	10	6	523			708	492	1,824	3,024			3,547			83	12			3,659
Car Occupancy					1.00						3.10			2.37							
Total (07:00-19:00)		1	7	5	463			317	160	436	913			1,376			83	12	15	110	

Analysis of Elveden Center Parcs Survey Data

Non-Changeover Day Arrivals

		Columns								4+5+6+7			8			9		10		8+9+10	
Time Period	Walk	Cycle	M/Cycle	Car			Car			Car			LGV	HGV	BUS	Total	TOTAL				
				Single Occupancy	12-hour Profile	15-hour Profile	Double Occupancy	Triple Occupancy	Quadruple Occupancy	Total	12-hour Profile	15-hour Profile						Total	12-hour Profile	15-hour Profile	
				Staff			Guest														
1	07:00 - 08:00	0	6	1	73	15.7%	15.0%	16	3	3	22	8.5%	8.1%	95	13.1%	12.5%	11	4	0	15	117
2	08:00 - 09:00	0	2	1	123	26.4%	25.2%	31	2	2	35	13.5%	12.9%	158	21.8%	20.8%	8	0	2	10	171
3	09:00 - 10:00	0	0	0	57	12.2%	11.7%	16	7	7	30	11.5%	11.0%	87	12.0%	11.4%	5	0	3	8	95
4	10:00 - 11:00	0	1	0	31	6.7%	6.4%	17	12	9	38	14.6%	14.0%	69	9.5%	9.1%	5	3	4	12	82
5	11:00 - 12:00	0	1	0	18	3.9%	3.7%	14	5	4	23	8.8%	8.5%	41	5.6%	5.4%	4	2	1	7	49
6	12:00 - 13:00	1	10	2	20	4.3%	4.1%	3	1	3	7	2.7%	2.6%	27	3.7%	3.6%	6	3	2	11	51
7	13:00 - 14:00	1	1	1	27	5.8%	5.5%	11	6	2	19	7.3%	7.0%	46	6.3%	6.1%	3	2	1	6	55
8	14:00 - 15:00	0	3	2	17	3.6%	3.5%	12	5	0	17	6.5%	6.3%	34	4.7%	4.5%	5	0	3	8	47
9	15:00 - 16:00	0	1	1	24	5.2%	4.9%	19	2	2	23	8.8%	8.5%	47	6.5%	6.2%	2	0	2	4	53
10	16:00 - 17:00	1	4	0	30	6.4%	6.1%	8	0	3	11	4.2%	4.0%	41	5.6%	5.4%	2	0	4	6	52
11	17:00 - 18:00	0	0	0	28	6.0%	5.7%	7	5	3	15	5.8%	5.5%	43	5.9%	5.7%	2	0	0	2	45
12	18:00 - 19:00	0	0	0	18	3.9%	3.7%	14	3	3	20	7.7%	7.4%	38	5.2%	5.0%	2	0	2	4	42
13	19:00 - 20:00	0	4	0	13		2.7%	2	2	2	6		2.2%	19		2.5%	0	0	0	0	23
14	20:00 - 21:00	0	0	0	7		1.4%	3	1	0	4		1.5%	11		1.4%	0	0	0	0	11
15	21:00 - 22:00	0	0	0	2		0.4%	1	0	1	2		0.7%	4		0.5%	1	0	0	1	5
Total (15-Hour)		3	33	8	488	100.0%	100.0%	174	54	44	272	100.0%	100.0%	760	100.0%	100.0%	56	14	24	94	898
Equivalent Number of Person Trips		3	33	8	488			348	162	176	686			1,174			56	14			1,288
Car Occupancy					1.00						2.52			1.54							
Total (07:00-19:00)		3	29	8	466			168	51	41	260			726			55	14	24	93	

Non-Changeover Day Departures

		Columns								4+5+6+7			8			9		10		8+9+10	
Time Period	Walk	Cycle	M/Cycle	Car			Car			Car			LGV	HGV	BUS	Total	TOTAL				
				Single Occupancy	12-hour Profile	15-hour Profile	Double Occupancy	Triple Occupancy	Quadruple Occupancy	Total	12-hour Profile	15-hour Profile						Total	12-hour Profile	15-hour Profile	
16	07:00 - 08:00	0	0	0	7	1.8%	1.5%	2	0	0	2	1.2%	1.0%	9	1.6%	1.3%	5	3	2	10	19
17	08:00 - 09:00	0	0	0	23	5.8%	4.9%	2	0	0	2	1.2%	1.0%	25	4.4%	3.7%	3	2	0	5	30
18	09:00 - 10:00	0	1	0	17	4.3%	3.6%	9	1	4	14	8.3%	7.0%	31	5.5%	4.6%	4	0	3	7	39
19	10:00 - 11:00	1	9	0	17	4.3%	3.6%	10	3	5	18	10.7%	9.0%	35	6.2%	5.2%	2	3	3	8	53
20	11:00 - 12:00	0	2	0	10	2.5%	2.1%	10	3	3	16	9.5%	8.0%	26	4.6%	3.9%	3	3	0	6	34
21	12:00 - 13:00	0	2	0	11	2.8%	2.4%	2	1	1	4	2.4%	2.0%	15	2.7%	2.2%	6	3	2	11	28
22	13:00 - 14:00	1	0	0	15	3.8%	3.2%	2	2	0	4	2.4%	2.0%	19	3.4%	2.8%	4	2	2	8	28
23	14:00 - 15:00	0	0	6	32	8.0%	6.9%	4	1	2	7	4.2%	3.5%	39	6.9%	5.8%	3	1	3	7	52
24	15:00 - 16:00	0	0	2	58	14.6%	12.4%	15	1	2	18	10.7%	9.0%	76	13.4%	11.4%	5	0	3	8	86
25	16:00 - 17:00	0	8	0	88	22.1%	18.9%	24	1	5	30	17.9%	14.9%	118	20.8%	17.7%	6	0	4	10	136
26	17:00 - 18:00	0	0	1	82	20.6%	17.6%	18	1	4	23	13.7%	11.4%	105	18.6%	15.7%	5	1	0	6	112
27	18:00 - 19:00	0	1	0	38	9.5%	8.2%	13	6	11	30	17.9%	14.9%	68	12.0%	10.2%	3	0	2	5	74
28	19:00 - 20:00	0	2	0	33		7.1%	8	0	3	11		5.5%	44		6.6%	0	0	0	0	46
29	20:00 - 21:00	0	0	0	11		2.4%	6	2	2	10		5.0%	21		3.1%	1	0	0	1	22
30	21:00 - 22:00	0	0	1	24		5.2%	11	1	0	12		6.0%	36		5.4%	0	0	0	0	37
Total (15-Hour)		2	25	10	466	100.0%	100.0%	136	23	42	201	100.0%	100.0%	667	100.0%	100.0%	50	18	24	92	796
Equivalent Number of Person Trips		2	25	10	466			272	69	168	509			975			50	18			1,080
Car Occupancy					1.00						2.53			1.46							
Total (07:00-19:00)		2	23	9	398			111	20	37	168			566			49	18	24	91	

APPENDIX RL-M



Great Wolf Resorts – Presentation to Cherwell District Council

5th of February 2019





Why United Kingdom?





Favorable Demographics

Extensive research supports that opening a Great Wolf Resorts in the United Kingdom would be very successful for a variety of reasons

- Demographics and travel trends are better for the Great Wolf product in the UK when compared to the U.S.
- **Discretionary Incomes:** Significantly higher in the UK than the U.S. A UK family with the same PPP-adjusted income as a US family likely has more discretionary income.
 - A UK family making \$30k / yr has discretionary income equivalent to a family in the US making \$50k / yr¹
 - A UK family making \$80k / yr has ~\$5k / year more in discretionary income compared to the US¹
- **Vacation Patterns:** Due to the higher discretionary income levels, UK families are able to take more trips as compared to US families.
 - UK families take ~19% more trips annually than US families
 - Despite having fewer school holidays, UK families take as many trips as US families (when discretionary income levels are normalized)
- **Vacation Spend:** Annual vacation spend as well as per trip spend is higher across all income levels in the UK as compared to the US.

1. Numbers are in US dollars for comparison purposes and are purchase price parity adjusted as of 2016.

APPENDIX RL-N

Parishes Against Wolf

Appeal (Reference APP/C3105/W/20/3259189) by Great Lakes UK Limited

Land to the East of M40 and South of A4095, Chesterton, Bicester, Oxfordshire OX26 1TE

Traffic Attraction and Trip Rate Analysis

No of Hotel Rooms = **500** (not 498 - see §5.13 (page 15)) Comments

Time Period	Weekday Trips (from November 2019 TA/ Appendix E)						Equivalent Trip Rate per Hotel Room							
	Arrivals		Departures		Total		Arrivals	Departures	Total					
1	00:00 - 01:00	8	0.84%	7	0.68%	15	0.75%	0.016	0.014	0.030				
2	01:00 - 02:00	3	0.31%	3	0.29%	6	0.30%	0.006	0.006	0.012				
3	02:00 - 03:00	2	0.21%	2	0.19%	4	0.20%	0.004	0.004	0.008				
4	03:00 - 04:00	2	0.21%	2	0.19%	4	0.20%	0.004	0.004	0.008				
5	04:00 - 05:00	4	0.42%	3	0.29%	7	0.35%	0.008	0.006	0.014				
6	05:00 - 06:00	7	0.73%	9	0.87%	16	0.80%	0.014	0.018	0.032				
7	06:00 - 07:00	18	1.88%	17	1.64%	35	1.76%	0.036	0.034	0.070				
8	07:00 - 08:00	34	3.56%	46.2%	30	2.89%	3.82%	64	3.21%	4.20%	0.128			
9	08:00 - 09:00	66	6.91%	8.97%	47	4.53%	5.98%	113	5.67%	7.42%	0.132 *	0.094 *	0.226 *	* Matches TA Table 5.1 (page 15)
10	09:00 - 10:00	65	6.81%	8.83%	47	4.53%	5.98%	112	5.62%	7.36%	0.130	0.094	0.224	
11	10:00 - 11:00	51	5.34%	6.93%	50	4.82%	6.36%	101	5.07%	6.64%	0.102	0.100	0.202	
12	11:00 - 12:00	49	5.13%	6.66%	70	6.75%	8.91%	119	5.97%	7.82%	0.098	0.140	0.238	
13	12:00 - 13:00	51	5.34%	6.93%	71	6.85%	9.03%	122	6.12%	8.02%	0.102	0.142	0.244	
14	13:00 - 14:00	68	7.12%	9.24%	72	6.94%	9.16%	140	7.03%	9.20%	0.136	0.144	0.280	
15	14:00 - 15:00	71	7.43%	9.65%	69	6.65%	8.78%	140	7.03%	9.20%	0.142	0.138	0.280	
16	15:00 - 16:00	83	8.69%	11.28%	85	8.20%	10.81%	168	8.43%	11.04%	0.166	0.170	0.336	
17	16:00 - 17:00	78	8.17%	10.60%	96	9.26%	12.21%	174	8.73%	11.43%	0.156	0.192	0.348	
18	17:00 - 18:00	66	6.91%	8.97%	88	8.49%	11.20%	154	7.73%	10.12%	0.132 *	0.176 *	0.308 *	* Matches TA Table 5.1 (page 15)
19	18:00 - 19:00	54	5.65%	7.34%	61	5.88%	7.76%	115	5.77%	7.56%	0.108	0.122	0.230	
20	19:00 - 20:00	47	4.92%		48	4.63%		95	4.77%		0.094	0.096	0.190	
21	20:00 - 21:00	42	4.40%		44	4.24%		86	4.32%		0.084	0.088	0.172	
22	21:00 - 22:00	38	3.98%		59	5.69%		97	4.87%		0.076	0.118	0.194	
23	22:00 - 23:00	29	3.04%		37	3.57%		66	3.31%		0.058	0.074	0.132	
24	23:00 - 00:00	19	1.99%		20	1.93%		39	1.96%		0.038	0.040	0.078	
25	00:00 - 00:00	955	100%	100%	1,037	100%	100%	1,992	100%		1.910	2.074	3.984	
26	07:00 - 19:00	736	77.07%		786	75.80%		1,522	76.41%		1.472	1.572	3.044	
Time Period	Weekend Trips (from November 2019 TA/ Appendix E)						Equivalent Trip Rate per Hotel Room							
	Arrivals		Departures		Total		Arrivals	Departures	Total					
27	00:00 - 01:00	27	2.03%	22	1.53%	49	1.77%	0.054	0.044	0.098				
28	01:00 - 02:00	8	0.60%	4	0.28%	12	0.43%	0.016	0.008	0.024				
29	02:00 - 03:00	5	0.38%	4	0.28%	9	0.33%	0.010	0.008	0.018				
30	03:00 - 04:00	3	0.23%	3	0.21%	6	0.22%	0.006	0.006	0.012				
31	04:00 - 05:00	4	0.30%	6	0.42%	10	0.36%	0.008	0.012	0.020				
32	05:00 - 06:00	10	0.75%	9	0.63%	19	0.69%	0.020	0.018	0.038				
33	06:00 - 07:00	16	1.21%	17	1.18%	33	1.19%	0.032	0.034	0.066				
34	07:00 - 08:00	39	2.94%	42	2.93%	81	2.93%	0.078	0.084	0.162				
35	08:00 - 09:00	79	5.95%	62	4.32%	141	5.10%	0.158	0.124	0.282				
36	09:00 - 10:00	70	5.28%	68	4.74%	138	5.00%	0.140	0.136	0.276				
37	10:00 - 11:00	75	5.65%	84	5.85%	159	5.76%	0.150	0.168	0.318				
38	11:00 - 12:00	70	5.28%	114	7.94%	184	6.66%	0.140	0.228	0.368				
39	12:00 - 13:00	91	6.86%	112	7.80%	203	7.35%	0.182	0.224	0.406				
40	13:00 - 14:00	122	9.19%	125	8.71%	247	8.94%	0.244 *	0.250 *	0.494 *	* Matches TA Table 5.1 (page 15)			
41	14:00 - 15:00	116	8.74%	110	7.67%	226	8.18%	0.232	0.220	0.452				
42	15:00 - 16:00	106	7.99%	115	8.01%	221	8.00%	0.212	0.230	0.442				
43	16:00 - 17:00	98	7.39%	113	7.87%	211	7.64%	0.196	0.226	0.422				
44	17:00 - 18:00	79	5.95%	115	8.01%	194	7.02%	0.158	0.230	0.388				
45	18:00 - 19:00	76	5.73%	75	5.23%	151	5.47%	0.152	0.150	0.302				
46	19:00 - 20:00	60	4.52%	60	4.18%	120	4.34%	0.120	0.120	0.240				
47	20:00 - 21:00	54	4.07%	56	3.90%	110	3.98%	0.108	0.112	0.220				
48	21:00 - 22:00	50	3.77%	51	3.55%	101	3.66%	0.100	0.102	0.202				
49	22:00 - 23:00	41	3.09%	42	2.93%	83	3.01%	0.082	0.084	0.166				
50	23:00 - 00:00	28	2.11%	26	1.81%	54	1.96%	0.056	0.052	0.108				
51	00:00 - 00:00	1,327	100%	1,435	100%	2,762	100%	2.654	2.870	5.524				
52	07:00 - 19:00	1,021	76.94%	1,135	79.09%	2,156	78.06%	2.042	2.270	4.312				

APPENDIX RL-O

A First Principles Trip Attraction Analysis and Analysis of Car Parking Demand based on the Appellant's American Data

Assumptions

Hotel Occupancy = 75%	Sundays to Thursdays	}	\$2.7 (on page 2) and Table 2.2 (on page 3) of Motion's Scoping Note Addendum: Trip Generation Analysis (9 July 2019) at Appendix H to the Appellant's Transport Assessment (November 2019)
= 100%	Fridays and Saturdays		
Therefore, the number of rooms occupied = 498	Sundays to Thursdays Fridays and Saturdays		
Room Occupancy Rate = 4.5	persons per room		\$2.6 (on page 2) of Motion's Scoping Note Addendum: Trip Generation Analysis (9 July 2019) at Appendix H to the Appellant's Transport Assessment (November 2019)
Therefore, the total number of hotel guests = 2,241	Sundays to Thursdays Fridays and Saturdays		
Guest Car Dependency = 0.98			Table 2.3 (on page 3) of Motion's Scoping Note Addendum: Trip Generation Analysis (9 July 2019) at Appendix H to the Appellant's Transport Assessment (November 2019)
Therefore, the total number of hotel guests arriving by car = 1,647	Sundays to Thursdays Fridays and Saturdays		
Guest Car Occupancy = 3.06			Calculated from Table 2.3 (on page 3) of Motion's Scoping Note Addendum: Trip Generation Analysis (9 July 2019) at Appendix H to the Appellant's Transport Assessment (November 2019) 66%/32% = 2.0625 passengers per car driver See also \$2.13 (on page 4) of Motion's Scoping Note Addendum: Trip Generation Analysis (9 July 2019) at Appendix H to the Appellant's Transport Assessment (November 2019)
Therefore, the total number of guest car trips to the hotel = 538	Sundays to Thursdays Fridays and Saturdays		
Average Duration of Guest Stay = 1.6	days		\$2.8 (on page 3) of Motion's Scoping Note Addendum: Trip Generation Analysis (9 July 2019) at Appendix H to the Appellant's Transport Assessment (November 2019)
= 38	hours		
Maximum Number of Day Passes Issued = 450	Sundays to Thursdays Fridays and Saturdays		\$5.19 (on page 16) of the Appellant's Transport Assessment (November 2019)
Day Visitor Car Dependency = 0.80			Assumed (based on staff car dependency)
Therefore, the total number of Day Visitors arriving by car = 360	Sundays to Thursdays Fridays and Saturdays		
Day Visitor Car Occupancy = 3.06			Calculated from Table 2.3 (on page 3) of Motion's Scoping Note Addendum: Trip Generation Analysis (9 July 2019) at Appendix H to the Appellant's Transport Assessment (November 2019) 66%/32% = 2.0625 passengers per car driver See also \$2.13 (on page 4) of Motion's Scoping Note Addendum: Trip Generation Analysis (9 July 2019) at Appendix H to the Appellant's Transport Assessment (November 2019)
Therefore, the total number of Day Visitor car trips to the hotel = 118	Sundays to Thursdays Fridays and Saturdays		
Average Duration of Day Visitor Stay = 6	hours		Assumed 50% of day visitors stay 4 hours and 50% stay 8 hours
Total Number of FTE Staff = 420	Sundays to Thursdays Fridays and Saturdays		\$3.4 (on page 7) of Motion's Scoping Note Addendum: Trip Generation Analysis (9 July 2019) at Appendix H to the Appellant's Transport Assessment (November 2019)
= 450			
Staff Car Dependency = 0.80			\$3.5 (on page 7) of Motion's Scoping Note Addendum: Trip Generation Analysis (9 July 2019) at Appendix H to the Appellant's Transport Assessment (November 2019)
Therefore, the total number of Staff arriving by car = 336	Sundays to Thursdays Fridays and Saturdays		
= 360			
Staff Car Occupancy = 1.00			\$3.5 (on page 7) of Motion's Scoping Note Addendum: Trip Generation Analysis (9 July 2019) at Appendix H to the Appellant's Transport Assessment (November 2019) See also \$2.11 (on page 5) of Motion's Scoping Note Addendum: Trip Generation Analysis (9 July 2019) at Appendix H to the Appellant's Transport Assessment (November 2019)
Therefore, the total number of Staff car trips to the hotel = 336	Sundays to Thursdays Fridays and Saturdays		
= 360			
Therefore, the total number of daily car trips to the appeal proposal = 991	Sundays to Thursdays Fridays and Saturdays		
= 1,077			
Hotel Guest Arrival and Departure Profile =	based on the arrival profile provided in Appendix E to the Appellant's Transport Assessment +38 hours		

Day of the Week	Time Period	Hotel Guests			Day Visitors			Staff			TOTAL			Hotel Guests			Day Visitors			Staff			TOTAL			Parking Demand					Time Period	Day of the Week	
		Arrival Profile	Total Number of Guest	Number Arriving by Car	Total Number of Car Trips	Arrival Profile	Total Number of Arrivals	Number Arriving by Car	Total Number of Car Trips	Arrival Profile	Total Number of Arrivals	Number Arriving by Car	Total Number of Car Trips	Number of Arrivals	Number Arriving by Car	Number of Car Trips	Departure Profile	Total Number of Departures	Number Departing by Car	Total Number of Car Trips	Departure Profile	Total Number of Departures	Number Departing by Car	Total Number of Car Trips	Number of Departures	Number Departing by Car	Number of Car Trips	Hotel Guest Cars	Day Visitor Cars	Staff Cars			All Cars
Monday (75% Hotel Occupancy)	00:00 - 01:00	0.84%	14	14	5	0.00%				0.25%	1	1	1	15	15	5				2.00%	8	7	7	8	7	7	5	0	-6	-1	00:00 - 01:00	1	
	01:00 - 02:00	0.31%	5	5	2	0.00%				0.00%	0	0	0	5	5	2				0.75%	3	3	3	3	3	3	6	0	-8	-2	01:00 - 02:00	2	
	02:00 - 03:00	0.21%	4	3	1	0.00%				0.50%	2	2	2	6	5	3				0.50%	2	2	2	2	2	2	7	0	-8	-1	02:00 - 03:00	3	
	03:00 - 04:00	0.21%	4	3	1	0.00%				0.00%	0	0	0	4	3	1				0.00%	0	0	0	0	0	0	8	0	-8	0	03:00 - 04:00	4	
	04:00 - 05:00	0.42%	7	7	2	0.00%				0.50%	2	2	2	9	9	4				1.00%	4	3	3	4	3	3	11	0	-10	1	04:00 - 05:00	5	
	05:00 - 06:00	0.73%	12	12	4	0.00%				3.50%	15	12	12	27	24	16				0.00%	0	0	0	0	0	0	15	0	2	16	05:00 - 06:00	6	
	06:00 - 07:00	1.88%	32	31	10	0.00%				4.00%	17	13	13	48	44	24				0.75%	3	3	3	3	3	3	25	0	13	37	06:00 - 07:00	7	
	07:00 - 08:00	3.56%	60	59	19	0.00%				10.00%	42	34	34	102	92	53				1.25%	5	4	4	5	4	4	44	0	42	86	07:00 - 08:00	8	
	08:00 - 09:00	6.91%	116	114	37	0.00%				18.75%	79	63	63	195	177	100				0.00%	0	0	0	0	0	0	81	0	105	186	08:00 - 09:00	9	
	09:00 - 10:00	6.81%	114	112	37	0.00%				14.00%	59	47	47	173	159	84				0.50%	2	2	2	2	2	2	118	0	150	268	09:00 - 10:00	10	
	10:00 - 11:00	5.34%	90	88	29	25.00%	113	90	29	2.50%	11	8	8	213	186	67				0.75%	3	3	3	3	3	3	146	29	156	332	10:00 - 11:00	11	
	11:00 - 12:00	5.13%	86	85	28	25.00%	113	90	29	2.00%	8	7	7	207	181	64				3.00%	13	10	10	13	10	10	174	59	153	386	11:00 - 12:00	12	
	12:00 - 13:00	5.34%	90	88	29	25.00%	113	90	29	2.00%	8	7	7	211	185	65				2.50%	11	8	8	11	8	8	203	88	151	442	12:00 - 13:00	13	
	13:00 - 14:00	7.12%	120	117	38	25.00%	113	90	29	3.00%	13	10	10	245	217	78				2.50%	11	8	8	11	8	8	241	118	153	511	13:00 - 14:00	14	
	14:00 - 15:00	7.43%	125	122	40	0.00%				6.00%	25	20	20	150	143	60				4.00%	17	13	13	13	13	13	281	103	160	543	14:00 - 15:00	15	
	15:00 - 16:00	8.69%	146	143	47	0.00%				13.00%	55	44	44	201	187	90	12.50%	56	45	15	8.00%	34	27	27	27	27	27	328	88	176	502	15:00 - 16:00	16
	16:00 - 17:00	8.17%	137	135	44	0.00%				13.50%	57	45	45	194	180	89	12.50%	56	45	15	23.00%	97	77	77	77	77	77	372	73	144	590	16:00 - 17:00	17
	17:00 - 18:00	6.91%	116	114	37	0.00%				2.00%	8	7	7	125	121	44	12.50%	56	45	15	8.00%	34	27	27	27	27	27	409	59	124	592	17:00 - 18:00	18
	18:00 - 19:00	5.65%	95	93	30	0.00%				0.25%	1	1	1	96	94	31	12.50%	56	45	15	1.50%	6	5	5	63	50	20	439	44	120	603	18:00 - 19:00	19
	19:00 - 20:00	4.92%	83	81	26	0.00%				0.50%	2	2	2	85	83	28	12.50%	56	45	15	2.50%	11	8	8	67	53	23	466	29	113	609	19:00 - 20:00	20
	20:00 - 21:00	4.40%	74	72	24	0.00%				2.50%	11	8	8	84	81	32	12.50%	56	45	15	8.00%	34	27	27	27	27	27	489	15	95	599	20:00 - 21:00	21
	21:00 - 22:00	3.98%	67	66	21	0.00%				0.00%	0	0	0	67	66	21	12.50%	56	45	15	8.00%	34	27	27	27	27	27	511	0	68	579	21:00 - 22:00	22
	22:00 - 23:00	3.04%	51	50	16	0.00%				1.00%	4	3	3	55	53	20	13.00%	55	44	44	13.00%	55	44	44	55	44	44	527	0	28	555	22:00 - 23:00	23
	23:00 - 00:00	1.99%	33	33	11	0.00%				0.25%	1	1	1	34	34	12	8.50%	36	29	29	8.50%	36	29	29	36	29	29	538	0	0	538	23:00 - 00:00	24
	00:00 - 00:00	100.00%	1,681	1,647	538	100.00%	450	360	118	100.00%	420	336	336	2,551	2,343	991				450	360	118	100.00%	420	336	336	870	696	454		00:00 - 00:00		

Day of the Week	Time Period	Hotel Guests			Day Visitors			Staff			TOTAL			Hotel Guests			Day Visitors			Staff			TOTAL			Parking Demand					Time Period	Day of the Week
		Arrival Profile	Total Number of Guest	Number Arriving by Car	Total Number of Car Trips	Arrival Profile	Total Number of Arrivals	Number Arriving by Car	Total Number of Car Trips	Arrival Profile	Total Number of Arrivals	Number Arriving by Car	Total Number of Car Trips	Number of Arrivals	Number Arriving by Car	Number of Car Trips	Departure Profile	Total Number of Departures	Number Departing by Car	Total Number of Car Trips	Departure Profile	Total Number of Departures	Number Departing by Car	Total Number of Car Trips	Number of Departures	Number Departing by Car	Number of Car Trips	Hotel Guest Cars	Day Visitor Cars	Staff Cars		
Tuesday (75% Hotel Occupancy)	00:00 - 01:00	0.84%	14	14	5	0.00%				0.25%	1	1	1	15	15	5				2.00%	8	7	7	8	7	7	542	0	-3	539	00:00 - 01:00	25
	01:00 - 02:00	0.31%	5	5	2	0.00%				0.00%	0	0	0	5	5	2				0.75%	3	3	3	3	3	3	544	0	-2	542	01:00 - 02:00	26
	02:00 - 03:00	0.21%	4	3	1	0.00%				0.50%	2	2	2	6	5	3				0.50%	2	2	2	2	2	2	545	0	-2	543	02:00 - 03:00	27
	03:00 - 04:00	0.21%	4	3	1	0.00%				0.00%	0	0	0	4	3	1				0.00%	0	0	0	0	0	0	546	0	-2	544	03:00 - 04:00	28
	04:00 - 05:00	0.42%	7	7	2	0.00%				0.50%	2	2	2	9	9	4				1.00%	4	3	3	4	3	3	549	0	-3	545	04:00 - 05:00	29
	05:00 - 06:00	0.73%	12	12	4	0.00%				3.50%	15	12	12	27	24	16				0.00%	0	0	0	0	0	0	552	0	9	561	05:00 - 06:00	30
	06:00 - 07:00	1.88%	32	31	10	0.00%				4.00%	17	13	13	48	44	24				0.75%	3	3	3	3	3	3	563	0	20	582	06:00 - 07:00	31
	07:00 - 08:00	3.56%	60	59	19	0.00%				10.00%	42	34	34	102	92	53				1.25%	5	4	4	5	4	4	582	0	20	602	07:00 - 08:00	32
	08:00 - 09:00	6.91%	116	114	37	0.00%				18.75%	79	63	63	195	177</																	

A First Principles Trip Attraction Analysis and Analysis of Car Parking Demand based on the Appellant's American Data

Day of the Week	Time Period	Hotel Guests					Day Visitors					Staff			TOTAL			Hotel Guests			Day Visitors			Staff			TOTAL			Parking Demand				Time Period	Day of the Week
		Arrival Profile	Total Number of Guest	Number Arriving by Car	Total Number of Car Trips	Arrival Profile	Total Number of Arrivals	Number Arriving by Car	Total Number of Car Trips	Arrival Profile	Total Number of Arrivals	Number Arriving by Car	Total Number of Car Trips	Number of Arrivals	Number Arriving by Car	Number of Car Trips	Departure Profile	Total Number of Departures	Number Departing by Car	Total Number of Car Trips	Departure Profile	Total Number of Departures	Number Departing by Car	Total Number of Car Trips	Departure Profile	Total Number of Departures	Number Departing by Car	Total Number of Car Trips	Number of Departures	Number Departing by Car	Number of Car Trips	Hotel Guest Cars	Day Visitor Cars		
Wednesday (75% Hotel Occupancy)	00:00 - 01:00	0.84%	14	14	5	0.00%				0.25%	1	1	1	15	15	5	90	88	29	2.00%	8	7	7	98	95	35	934	0	1	935	00:00 - 01:00	Wednesday (75% Hotel Occupancy)	Day of the Week		
	01:00 - 02:00	0.31%	5	5	2	0.00%				0.00%	0	0	0	5	5	2	86	85	28	0.75%	3	3	3	89	87	30	908	0	-1	906	01:00 - 02:00				
	02:00 - 03:00	0.21%	4	3	1	0.00%				0.50%	2	2	2	6	5	3	92	90	31	0.50%	2	2	2	92	90	31	880	0	-1	879	02:00 - 03:00				
	03:00 - 04:00	0.21%	4	3	1	0.00%				0.00%	0	0	0	4	3	1	120	117	38	1.00%	4	3	3	120	117	38	0	0	0	843	03:00 - 04:00				
	04:00 - 05:00	0.42%	7	7	2	0.00%				0.50%	2	2	2	9	9	4	125	122	40	1.00%	4	3	3	129	126	43	805	0	-2	803	04:00 - 05:00				
	05:00 - 06:00	0.73%	12	12	4	0.00%				3.50%	15	12	12	27	24	16	146	143	47	0.00%	0	0	0	146	143	47	763	0	10	772	05:00 - 06:00				
	06:00 - 07:00	1.88%	32	31	10	0.00%				4.00%	17	13	13	48	44	24	137	135	44	0.75%	3	3	3	140	137	46	729	0	21	749	06:00 - 07:00				
	07:00 - 08:00	3.56%	60	59	19	0.00%				10.00%	42	34	34	102	92	53	116	114	37	1.25%	5	4	4	121	118	41	711	0	50	761	07:00 - 08:00				
	08:00 - 09:00	6.91%	116	114	37	0.00%				18.75%	79	63	63	195	177	100	95	93	30	0.00%	0	0	0	95	93	30	717	0	113	830	08:00 - 09:00				
	09:00 - 10:00	6.81%	114	112	37	0.00%				14.00%	59	47	47	173	159	84	83	81	26	0.50%	2	2	2	85	83	28	728	0	159	887	09:00 - 10:00				
	10:00 - 11:00	5.13%	86	85	28	25.00%	113	90	29	2.50%	11	8	8	213	186	67	74	72	24	0.75%	3	3	3	77	75	26	733	29	164	926	10:00 - 11:00				
	11:00 - 12:00	5.13%	86	85	28	25.00%	113	90	29	2.00%	8	7	7	207	181	64	67	66	21	3.00%	13	10	10	79	76	31	739	59	161	959	11:00 - 12:00				
	12:00 - 13:00	5.34%	90	88	29	25.00%	113	90	29	2.00%	8	7	7	211	185	65	31	30	16	2.50%	11	8	8	62	58	25	751	88	159	999	12:00 - 13:00				
	13:00 - 14:00	7.12%	120	117	38	25.00%	113	90	29	3.00%	13	10	10	245	217	78	33	33	11	2.50%	11	8	8	44	41	19	779	118	157	1,057	13:00 - 14:00				
	14:00 - 15:00	7.43%	125	122	40	0.00%				6.00%	25	20	20	150	143	60	14	14	5	12.50%	56	45	15	56	45	15	779	118	157	1,057	14:00 - 15:00				
15:00 - 16:00	8.69%	146	143	47	0.00%				13.00%	55	44	44	201	187	90	5	5	2	12.50%	56	45	15	8.00%	34	27	27	95	77	43	859	88	184	1,132	15:00 - 16:00	
16:00 - 17:00	8.17%	137	135	44	0.00%				13.50%	57	45	45	194	180	89	4	3	1	12.50%	56	45	15	23.00%	97	77	77	156	126	93	902	73	152	1,128	16:00 - 17:00	
17:00 - 18:00	6.91%	116	114	37	0.00%				2.00%	8	7	7	125	121	44	4	3	1	12.50%	56	45	15	8.00%	34	27	27	93	75	43	938	59	132	1,129	17:00 - 18:00	
18:00 - 19:00	5.65%	95	93	30	0.00%				0.25%	1	1	1	96	94	31	7	7	2	1.50%	6	5	5	70	67	22	966	44	128	1,139	18:00 - 19:00					
19:00 - 20:00	4.92%	83	81	26	0.00%				0.50%	2	2	2	85	83	28	8	8	4	2.50%	11	8	8	87	85	27	818	29	121	1,140	19:00 - 20:00					
20:00 - 21:00	4.40%	74	72	24	0.00%				2.50%	11	8	8	84	81	32	12	12	4	12.50%	56	45	15	8.00%	34	27	27	122	103	62	1,002	15	103	1,120	20:00 - 21:00	
21:00 - 22:00	3.98%	67	66	21	0.00%				0.00%	0	0	0	67	66	21	60	59	19	12.50%	56	45	15	8.00%	34	27	27	150	131	51	1,005	0	76	1,081	21:00 - 22:00	
22:00 - 23:00	3.04%	51	50	16	0.00%				1.00%	4	3	3	55	53	20	116	114	37	13.00%	55	44	44	171	158	81	984	0	36	1,020	22:00 - 23:00					
23:00 - 00:00	1.99%	33	33	11	0.00%				0.25%	1	1	1	34	34	12	114	112	37	8.50%	36	29	29	150	141	65	958	0	8	966	23:00 - 00:00					
	00:00 - 00:00	100.00%	1,681	1,647	538	100.00%	450	360	118	100.00%	420	336	336	2,551	2,343	991	1,681	1,647	538	100.00%	420	336	336	2,551	2,343	991	0	0	0	0	0	0	0	00:00 - 00:00	

Day of the Week	Time Period	Hotel Guests					Day Visitors					Staff			TOTAL			Hotel Guests			Day Visitors			Staff			TOTAL			Parking Demand				Time Period	Day of the Week
		Arrival Profile	Total Number of Guest	Number Arriving by Car	Total Number of Car Trips	Arrival Profile	Total Number of Arrivals	Number Arriving by Car	Total Number of Car Trips	Arrival Profile	Total Number of Arrivals	Number Arriving by Car	Total Number of Car Trips	Number of Arrivals	Number Arriving by Car	Number of Car Trips	Departure Profile	Total Number of Departures	Number Departing by Car	Total Number of Car Trips	Departure Profile	Total Number of Departures	Number Departing by Car	Total Number of Car Trips	Departure Profile	Total Number of Departures	Number Departing by Car	Total Number of Car Trips	Number of Departures	Number Departing by Car	Number of Car Trips	Hotel Guest Cars	Day Visitor Cars		
Thursday (75% Hotel Occupancy)	00:00 - 01:00	0.84%	14	14	5	0.00%				0.25%	1	1	1	15	15	5	90	88	29	2.00%	8	7	7	98	95	35	934	0	2	936	00:00 - 01:00	Thursday (75% Hotel Occupancy)	Day of the Week		
	01:00 - 02:00	0.31%	5	5	2	0.00%				0.00%	0	0	0	5	5	2	86	85	28	0.75%	3	3	3	89	87	30	908	0	0	907	01:00 - 02:00				
	02:00 - 03:00	0.21%	4	3	1	0.00%				0.00%	0	0	0	4	3	1	120	117	38	0.00%	0	0	0	120	117	38	843	0	0	843	03:00 - 04:00				
	03:00 - 04:00	0.21%	4	3	1	0.00%				0.00%	0	0	0	4	3	1	120	117	38	0.00%	0	0	0	120	117	38	843	0	0	843	03:00 - 04:00				
	04:00 - 05:00	0.42%	7	7	2	0.00%				0.50%	2	2	2	9	9	4	125	122	40	1.00%	4	3	3	129	126	43	805	0	-1	804	04:00 - 05:00				
	05:00 - 06:00	0.73%	12	12	4	0.00%				3.50%	15	12	12	27	24	16	146	143	47	0.00%	0	0	0	146	143	47	763	0	11	773	05:00 - 06:00				
	06:00 - 07:00	1.88%	32	31	10	0.00%				4.00%	17	13	13	48	44	24	137	135	44	0.75%	3	3	3	140	137	46	729	0	22	750	06:00 - 07:00				
	07:00 - 08:00	3.56%	60	59	19	0.00%				10.00%	42	34	34	102	92	53	116	114	37	1.25%	5	4	4	121	118	41	711	0	50	761	07:00 - 08:00				
	08:00 - 09:00	6.91%	116	114	37	0.00%				18.75%	79	63	63	195	177	100	95	93	30	0.00%	0	0	0	95	93	30	717	0	114	831	08:00 - 09:00				
	09:00 - 10:00	6.81%	114	112	37	0.00%				14.00%	59	47	47	173	159	84	83	81	26	0.50%	2	2	2	85	83	28	728	0	159	887	09:00 - 10:00				
	10:00 - 11:00	5.13%	86	85	28	25.00%	113	90	29	2.50%	11	8	8	213	186	67	74	72	24	0.75%	3	3	3	77	75	26	733	29	165	927	10:00 - 11:00				
	11:00 - 12:00	5.13%	86	85	28	25.00%	113	90	29	2.00%	8	7	7	207	181	64	67	66	21	3.00%	13	10	10	79	76	31	739	59	162	960	11:00 - 12:00				
	12:00 - 13:00	5.34%	90	88	29	25.00%	113	90	29	2.00%	8	7	7	211	185	65	31	30	16	2.50%	11	8	8	62	58	25	751	88	160	989	12:00 - 13:00				
	13:00 - 14:00	7.12%	120	117	38	25.00%	113	90	29	3.00%	13	10	10	245	217	78	33	33	11	2.50%	11	8	8	44	41	19	779	118	162	1,058	13:00 - 14:00				
	14:00 - 15:00	7.43%	125	122	40	0.00%				6.00%	25	20																							

A First Principles Trip Attraction Analysis and Analysis of Car Parking Demand based on the Appellant's American Data

Day of the Week	Time Period	Hotel Guests			Day Visitors			Staff			TOTAL			Hotel Guests			Day Visitors			Staff			TOTAL			Parking Demand				Time Period						
		Arrival Profile	Total Number of Guest	Number Arriving by Car	Total Number of Car Trips	Arrival Profile	Total Number of Arrivals	Number Arriving by Car	Total Number of Car Trips	Arrival Profile	Total Number of Arrivals	Number Arriving by Car	Total Number of Car Trips	Number of Arrivals	Number Arriving by Car	Number of Car Trips	Departure Profile	Total Number of Departures	Number Departing by Car	Total Number of Car Trips	Departure Profile	Total Number of Departures	Number Departing by Car	Total Number of Car Trips	Number of Departures	Number Departing by Car	Number of Car Trips	Number of Departures	Number Departing by Car		Number of Car Trips	Hotel Guest Cars	Day Visitor Cars	Staff Cars	All Cars	
Sunday (75% Hotel Occupancy)	00:00 - 01:00	0.84%	14	14	5	0.00%				0.25%	1	1	1	15	15	5	120	117	38	2.00%	8	7	7	128	124	45	1,244	0	5	1,249	00:00 - 01:00	145				
	01:00 - 02:00	0.31%	5	5	2	0.00%				0.00%	0	0	0	5	5	2	115	113	37	0.75%	3	3	3	118	115	39	1,208	0	3	1,211	01:00 - 02:00	146				
	02:00 - 03:00	0.21%	4	3	1	0.00%				0.50%	2	2	2	6	5	3	120	117	38	0.50%	2	2	2	122	119	40	1,171	0	3	1,174	02:00 - 03:00	147				
	03:00 - 04:00	0.21%	4	3	1	0.00%				0.00%	0	0	0	4	3	1	160	156	51	0.00%	0	0	0	160	156	51	1,121	0	3	1,124	03:00 - 04:00	148				
	04:00 - 05:00	0.42%	7	7	2	0.00%				0.50%	2	2	2	9	9	4	167	163	53	1.00%	4	3	3	171	167	57	1,070	0	2	1,072	04:00 - 05:00	149				
	05:00 - 06:00	0.73%	12	12	4	0.00%				3.50%	15	12	12	27	24	16	195	191	62	0.00%	0	0	0	195	191	62	1,012	0	14	1,026	05:00 - 06:00	150				
	06:00 - 07:00	1.88%	32	31	10	0.00%				4.00%	17	13	13	48	44	24	183	179	59	0.75%	3	3	3	186	182	61	963	0	25	988	06:00 - 07:00	151				
	07:00 - 08:00	3.56%	60	59	19	0.00%				10.00%	42	34	34	102	92	53	155	152	50	1.25%	5	4	4	160	156	54	933	0	54	987	07:00 - 08:00	152				
	08:00 - 09:00	6.91%	116	114	37	0.00%				18.75%	79	63	63	195	177	100	127	124	41	0.00%	0	0	0	127	124	41	930	0	117	1,047	08:00 - 09:00	153				
	09:00 - 10:00	6.81%	114	112	37	0.00%				14.00%	59	47	47	173	159	84	110	108	35	0.50%	2	2	2	112	110	37	931	0	162	1,093	09:00 - 10:00	154				
	10:00 - 11:00	5.34%	90	88	29	25.00%	113	90	29	2.50%	11	8	8	213	196	67	99	97	32	0.75%	3	3	3	102	99	34	928	29	168	1,126	10:00 - 11:00	155				
	11:00 - 12:00	5.13%	86	85	28	25.00%	113	90	29	2.00%	8	7	7	207	181	64	89	87	29	3.00%	13	10	10	102	97	39	927	59	165	1,151	11:00 - 12:00	156				
	12:00 - 13:00	5.34%	90	88	29	25.00%	113	90	29	2.00%	8	7	7	211	185	65	68	67	22	2.50%	11	8	8	79	75	30	934	88	163	1,185	12:00 - 13:00	157				
	13:00 - 14:00	7.12%	120	117	38	25.00%	113	90	29	3.00%	13	10	10	245	217	78	44	44	14	2.50%	11	8	8	55	52	23	958	118	165	1,241	13:00 - 14:00	158				
	14:00 - 15:00	7.45%	125	122	40	0.00%				6.00%	25	20	20	150	148	60	19	18	6	12.50%	56	45	15	4.00%	17	13	13	92	77	34	992	103	172	1,267	14:00 - 15:00	159
	15:00 - 16:00	8.69%	146	143	47	0.00%				13.00%	55	44	44	201	187	90	7	7	2	8.00%	34	27	27	97	79	44	1,037	88	188	1,313	15:00 - 16:00	160				
	16:00 - 17:00	8.17%	137	135	44	0.00%				13.50%	57	45	45	194	180	89	5	5	2	12.50%	56	45	15	23.00%	97	77	77	158	127	93	1,079	73	156	1,309	16:00 - 17:00	161
17:00 - 18:00	6.91%	116	114	37	0.00%				2.00%	8	7	7	125	121	44	5	5	2	12.50%	56	45	15	8.00%	34	27	27	95	76	43	1,115	59	136	1,310	17:00 - 18:00	162	
18:00 - 19:00	5.65%	95	93	30	0.00%				0.25%	1	1	1	96	94	31	9	9	3	1.50%	6	5	5	72	59	23	1,142	44	132	1,318	18:00 - 19:00	163					
19:00 - 20:00	4.92%	83	81	26	0.00%				0.50%	2	2	2	85	83	28	16	16	5	12.50%	56	45	15	2.50%	11	8	8	83	69	28	1,163	29	125	1,318	19:00 - 20:00	164	
20:00 - 21:00	4.40%	74	72	24	0.00%				2.50%	11	8	8	84	81	32	42	41	14	12.50%	56	45	15	8.00%	34	27	27	132	113	55	1,173	15	107	1,295	20:00 - 21:00	165	
21:00 - 22:00	3.98%	67	66	21	0.00%				0.00%	0	0	0	67	66	21	80	78	26	12.50%	56	45	15	8.00%	34	27	27	170	150	67	1,169	0	80	1,249	21:00 - 22:00	166	
22:00 - 23:00	3.04%	51	50	16	0.00%				1.00%	4	3	3	55	53	20	155	152	50	13.00%	55	44	44	209	195	93	1,136	0	40	1,176	22:00 - 23:00	167					
23:00 - 00:00	1.99%	33	33	11	0.00%				0.25%	1	1	1	34	34	12	153	149	49	8.50%	36	29	29	188	178	77	1,098	0	12	1,110	23:00 - 00:00	168					
	00:00 - 00:00	100.00%	1,681	1,647	538	100.00%	450	360	118	100.00%	420	336	336	2,551	2,343	991	2,241	2,196	717	450	360	118	100.00%	420	336	336	3,111	2,892	1,171					00:00 - 00:00		
Monday (75% Hotel Occupancy)	00:00 - 01:00																120	117	38					120	117	38	1,060	0	12	1,072	00:00 - 01:00	169				
	01:00 - 02:00																115	113	37					115	113	37	1,023	0	12	1,035	01:00 - 02:00	170				
	02:00 - 03:00																120	117	38					120	117	38	985	0	12	997	02:00 - 03:00	171				
	03:00 - 04:00																160	156	51					160	156	51	934	0	12	946	03:00 - 04:00	172				
	04:00 - 05:00																167	163	53					167	163	53	880	0	13	893	04:00 - 05:00	173				
	05:00 - 06:00																195	191	62					195	191	62	818	0	13	831	05:00 - 06:00	174				
	06:00 - 07:00																183	179	59					183	179	59	759	0	13	772	06:00 - 07:00	175				
	07:00 - 08:00																155	152	50					155	152	50	710	0	13	723	07:00 - 08:00	176				
	08:00 - 09:00																127	124	41					127	124	41	669	0	13	682	08:00 - 09:00	177				
	09:00 - 10:00																110	108	35					110	108	35	634	0	13	647	09:00 - 10:00	178				
	10:00 - 11:00																99	97	32					99	97	32	602	0	13	615	10:00 - 11:00	179				
	11:00 - 12:00																89	87	29					89	87	29	574	0	13	587	11:00 - 12:00	180				
	12:00 - 13:00																68	67	22					68	67	22	552	0	13	565	12:00 - 13:00	181				
	13:00 - 14:00																45	44	14					45	44	14	538	0	13	551	13:00 - 14:00	182				
	14:00 - 15:00																14	14	5					14	14	5	533	0	13	546	14:00 - 15:00	183				
	15:00 - 16:00																5	5	2					5	5	2	532	0	13	545	15:00 - 16:00	184				
	16:00 - 17:00																4	3	1					4	3	1	531	0	13	544	16:00 - 17:00	185				
17:00 - 18:00																4	3	1					4	3	1	529	0	13	542	17:00 - 18:00	186					
18:00 - 19:00																7	7	2					7	7	2	527	0	13	540	18:00 - 19:00	187					
19:00 - 20:00																12	12	4					12	12	4	523	0	13	536	19:00 - 20:00	188					
20:00 - 21:00																32	31	10					32	31	10	513	0	13	526	20:00 - 21:00	189					
21:00 - 22:00																60	59	19					60	59	19	494	0	13	507	21:00 - 22:00	190					
22:00 - 23:00																116	114	37					1													

APPENDIX RL-P



A Planning Application by
LEGOLAND WINDSOR PARK LIMITED

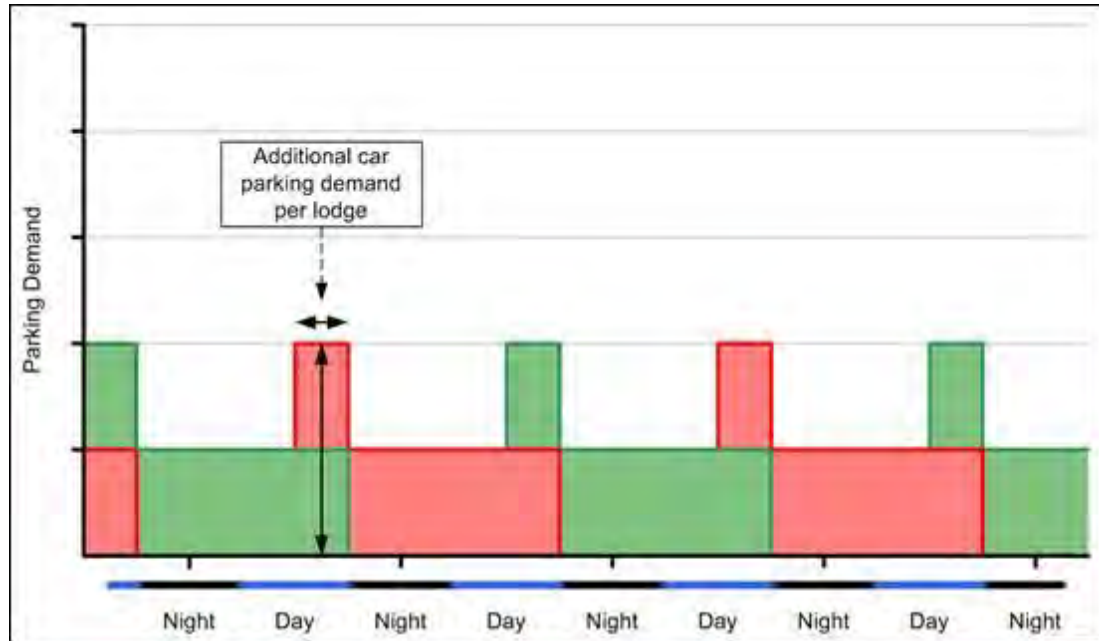
In respect of
**LEGOLAND Resort,
WINDSOR**

Transport Assessment

June 2017

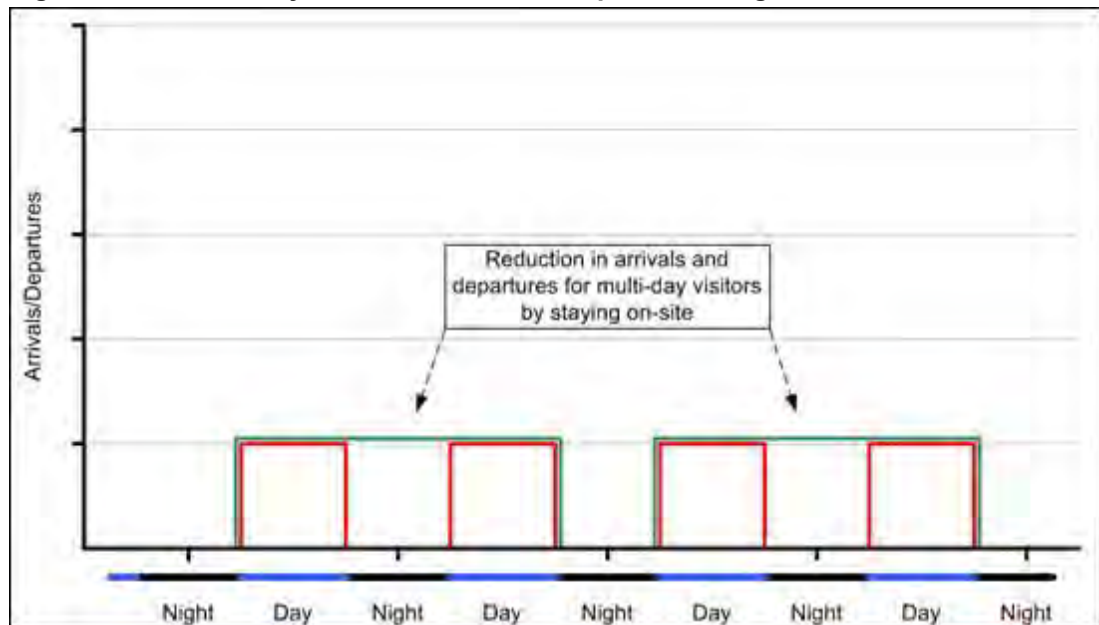


Figure 5.2 Multi-Day Visitor Parking Demand Diagram



5.13 Furthermore, **Figure 5.3** outlines the principle of reduction in vehicle movements from multi-day visitors staying off-site (in red), compared to multi-day visitors staying within the on-site accommodation, including the proposed Holiday Village (in green).

Figure 5.3 Multi-Day Visitor Arrivals and Departures Diagram



5.14 Additional accommodation on-site does not lead to an increase in vehicular trips as day trips are replaced with multi-day visits, as well as bringing multi-day visitors into the Site who currently stay off-site. Furthermore, multi-day visitors are more likely to avoid peak network travel times since the extended stay at the Site provides more time overall at the Resort, compared to a day trip.

APPENDIX RL-Q

Re-worked First Principles Analysis of Car Parking Demand based on the Appellant's American Data but with Reduced Duration of Stay

Assumptions

Hotel Occupancy = 75%	Sundays to Thursdays	}
the number of rooms occupied = 498	Fridays and Saturdays	
Room Occupancy Rate = 4.5	persons per room	
Therefore, the total number of hotel guests = 1,647	Sundays to Thursdays	}
Guest Car Dependency = 0.98	Fridays and Saturdays	
Therefore, the total number of hotel guests arriving by car = 1,647	Sundays to Thursdays	
Guest Car Occupancy = 3.06	persons per car	
Therefore, the total number of guest car trips to the hotel = 538	Sundays to Thursdays	
Average Duration of Guest Stay = 1.125 days = 27 hours		
Maximum Number of Day Passes Issued = 0	Sundays to Thursdays	
Day Visitor Car Dependency = 0.80	Fridays and Saturdays	
Therefore, the total number of Day Visitors arriving by car = 360	Sundays to Thursdays	
Day Visitor Car Occupancy = 3.06	persons per car	
Therefore, the total number of Day Visitor car trips to the hotel = 118	Sundays to Thursdays	
Average Duration of Day Visitor Stay = 6 hours	Fridays and Saturdays	
Total Number of FTE Staff = 420	Sundays to Thursdays	
Staff Car Dependency = 0.80	Fridays and Saturdays	
Therefore, the total number of Staff arriving by car = 336	Sundays to Thursdays	
Staff Car Occupancy = 1.00	Fridays and Saturdays	
Therefore, the total number of Staff car trips to the hotel = 336	Sundays to Thursdays	
Therefore, the total number of daily car trips to the appeal proposal = 991	Fridays and Saturdays	
Hotel Guest Arrival and Departure Profile =	based on the arrival profile provided in Appendix E to the Appellant's Transport Assessment +38 hours	

Sources/ Notes:

\$2.7 (on page 2) and Table 2.2 (on page 3) of Motion's Scoping Note Addendum: Trip Generation Analysis (9 July 2019) at Appendix H to the Appellant's Transport Assessment (November 2019)
\$2.6 (on page 2) of Motion's Scoping Note Addendum: Trip Generation Analysis (9 July 2019) at Appendix H to the Appellant's Transport Assessment (November 2019)
Table 2.3 (on page 3) of Motion's Scoping Note Addendum: Trip Generation Analysis (9 July 2019) at Appendix H to the Appellant's Transport Assessment (November 2019)
Calculated from Table 2.3 (on page 3) of Motion's Scoping Note Addendum: Trip Generation Analysis (9 July 2019) at Appendix H to the Appellant's Transport Assessment (November 2019) 66%/32% = 2.0625 passengers per car driver See also \$2.13 (on page 4) of Motion's Scoping Note Addendum: Trip Generation Analysis (9 July 2019) at Appendix H to the Appellant's Transport Assessment (November 2019)
\$5.19 (on page 16) of the Appellant's Transport Assessment (November 2019)
Assumed (based on staff car dependency)
Calculated from Table 2.3 (on page 3) of Motion's Scoping Note Addendum: Trip Generation Analysis (9 July 2019) at Appendix H to the Appellant's Transport Assessment (November 2019) 66%/32% = 2.0625 passengers per car driver See also \$2.13 (on page 4) of Motion's Scoping Note Addendum: Trip Generation Analysis (9 July 2019) at Appendix H to the Appellant's Transport Assessment (November 2019)
\$3.4 (on page 7) of Motion's Scoping Note Addendum: Trip Generation Analysis (9 July 2019) at Appendix H to the Appellant's Transport Assessment (November 2019)
\$3.5 (on page 7) of Motion's Scoping Note Addendum: Trip Generation Analysis (9 July 2019) at Appendix H to the Appellant's Transport Assessment (November 2019)
\$3.5 (on page 7) of Motion's Scoping Note Addendum: Trip Generation Analysis (9 July 2019) at Appendix H to the Appellant's Transport Assessment (November 2019) See also \$2.11 (on page 5) of Motion's Scoping Note Addendum: Trip Generation Analysis (9 July 2019) at Appendix H to the Appellant's Transport Assessment (November 2019)

Day of the Week	Time Period	Hotel Guests															Day Visitors															Staff															TOTAL															Parking Demand					Day of the Week
		Arrival Profile	Total Number of Guest	Number Arriving by Car	Total Number of Car Trips	Arrival Profile	Total Number of Arrivals	Number Arriving by Car	Total Number of Car Trips	Arrival Profile	Total Number of Arrivals	Number Arriving by Car	Total Number of Car Trips	Number of Arrivals	Number Arriving by Car	Number of Car Trips	Departure Profile	Total Number of Departures	Number Departing by Car	Total Number of Car Trips	Departure Profile	Total Number of Departures	Number Departing by Car	Total Number of Car Trips	Number of Departures	Number Departing by Car	Number of Car Trips	Number of Departures	Number Departing by Car	Number of Car Trips	Hotel Guest Cars	Day Visitor Cars	Staff Cars	All Cars																																	
Monday (75% Hotel Occupancy)	00:00 - 01:00	0.84%	14	14	5	0.00%				0.25%	1	1	1	15	15	5					2.00%	8	7	7	8	7	7	8	7	7	5	0	-6	-1	00:00 - 01:00	1																															
	Tuesday (75% Hotel Occupancy)	00:00 - 01:00	0.84%	14	14	5	0.00%				0.25%	1	1	1	15	15	5					2.00%	8	7	7	8	7	7	8	7	7	5	0	-3	539	00:00 - 01:00	25																														

Re-worked First Principles Analysis of Car Parking Demand based on the Appellant's American Data but with Reduced Duration of Stay

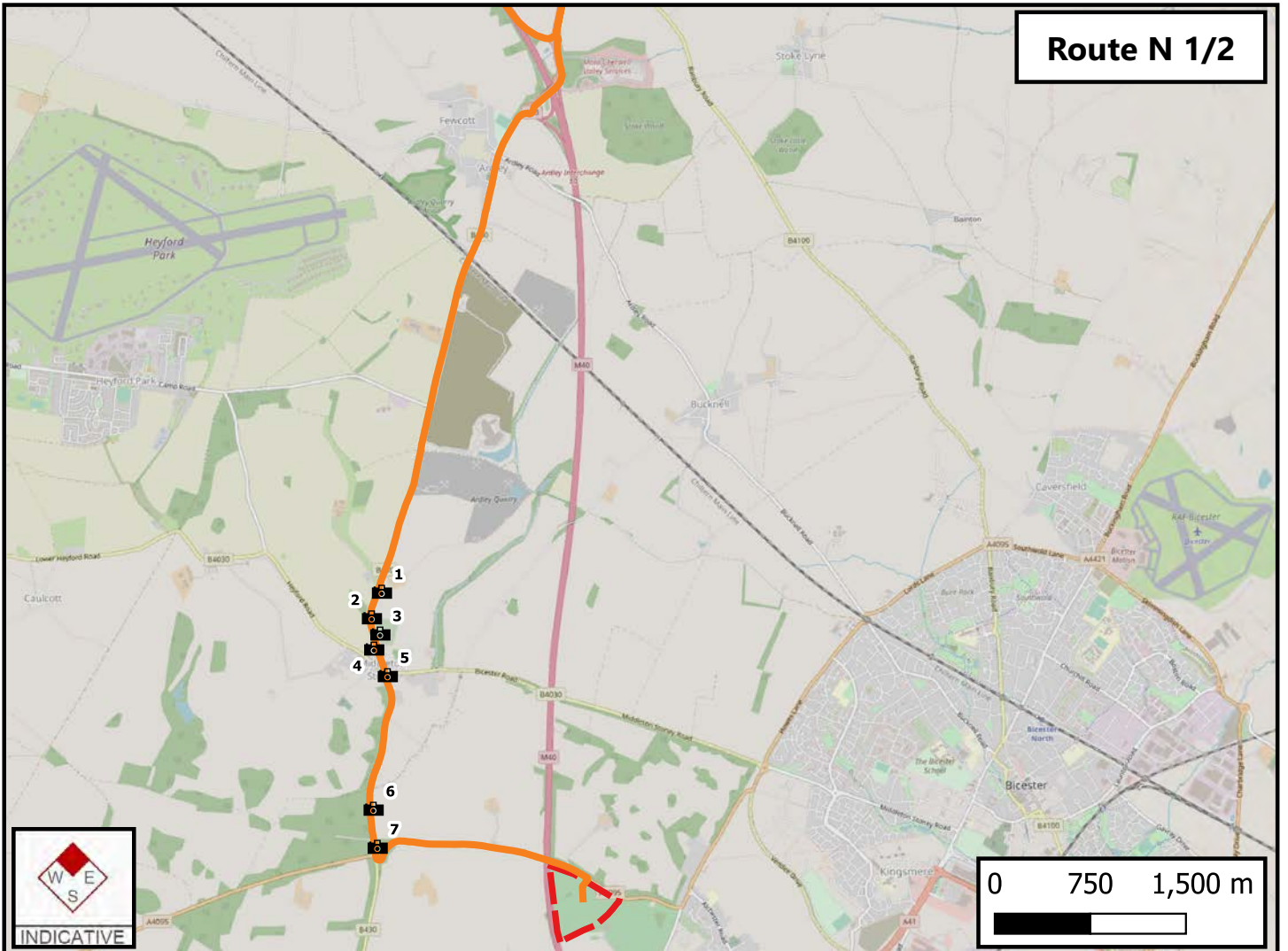
Day of the Week	Time Period	Hotel Guests									Day Visitors									Staff									TOTAL			Hotel Guests			Day Visitors			Staff			TOTAL			Parking Demand				Time Period	Day of the Week
		Arrival Profile	Total Number of Guest	Number Arriving by Car	Total Number of Car Trips	Arrival Profile	Total Number of Arrivals	Number Arriving by Car	Total Number of Car Trips	Arrival Profile	Total Number of Arrivals	Number Arriving by Car	Total Number of Car Trips	Number of Arrivals	Number Arriving by Car	Number of Car Trips	Departure Profile	Total Number of Departures	Number Departing by Car	Total Number of Car Trips	Departure Profile	Total Number of Departures	Number Departing by Car	Total Number of Car Trips	Number of Departures	Number Departing by Car	Number of Car Trips	Number of Departures	Number Departing by Car	Number of Car Trips	Hotel Guest Cars	Day Visitor Cars	Staff Cars	All Cars															
																																			Hotel Guest Cars	Day Visitor Cars	Staff Cars	All Cars											
Wednesday (75% Hotel Occupancy)	00:00 - 01:00	0.84%	14	14	5	0.00%				0.25%	1	1	1	15	15	5				67	66	21	2.00%	8	7	7	75	72	28	569	0	1	570	00:00 - 01:00	Wednesday (75% Hotel Occupancy)														
	01:00 - 02:00	0.31%	5	5	2	0.00%				0.00%	0	0	0	5	5	2				51	50	16	0.75%	3	3	3	54	53	19	555	0	-1	553	01:00 - 02:00															
	02:00 - 03:00	0.21%	4	3	1	0.00%				0.50%	2	2	2	6	5	3				33	33	11	0.50%	2	2	2	36	34	12	545	0	-1	544	02:00 - 03:00															
	08:00 - 09:00	6.91%	116	114	37	0.00%				18.75%	79	63	63	195	177	100				12	12	4	0.00%	0	0	0	12	12	4	604	0	114	718	08:00 - 09:00															
	15:00 - 16:00	8.69%	146	143	47	0.00%				13.00%	55	44	44	201	187	90				90	88	29	12.50%	34	27	27	180	160	70	663	88	184	935	15:00 - 16:00															
	17:00 - 18:00	6.91%	116	114	37	0.00%				2.00%	8	7	7	125	121	44				125	122	40	12.50%	34	27	27	215	194	82	666	59	132	857	17:00 - 18:00															
	00:00 - 00:00	100.00%	1,681	1,647	538	100.00%	450	360	118	100.00%	420	336	336	2,551	2,343	991	1,681	1,647	538	450	360	118	100.00%	420	336	336	2,551	2,343	991	0	0	0	00:00 - 00:00																
	Thursday (75% Hotel Occupancy)	00:00 - 01:00	0.84%	14	14	5	0.00%				0.25%	1	1	1	15	15	5				67	66	21	2.00%	8	7	7	75	72	28	569	0	2	571		00:00 - 01:00	Thursday (75% Hotel Occupancy)												
		01:00 - 02:00	0.31%	5	5	2	0.00%				0.00%	0	0	0	5	5	2				51	50	16	0.75%	3	3	3	54	53	19	555	0	0	554		01:00 - 02:00													
		08:00 - 09:00	6.91%	116	114	37	0.00%				18.75%	79	63	63	195	177	100				12	12	4	0.00%	0	0	0	12	12	4	604	0	114	718		08:00 - 09:00													
		15:00 - 16:00	8.69%	146	143	47	0.00%				13.00%	55	44	44	201	187	90				90	88	29	12.50%	34	27	27	180	160	70	663	88	185	936		15:00 - 16:00													
		17:00 - 18:00	6.91%	116	114	37	0.00%				2.00%	8	7	7	125	121	44				125	122	40	12.50%	34	27	27	215	194	82	666	59	132	857		17:00 - 18:00													
		00:00 - 00:00	100.00%	1,681	1,647	538	100.00%	450	360	118	100.00%	420	336	336	2,551	2,343	991	1,681	1,647	538	450	360	118	100.00%	420	336	336	2,551	2,343	991	0	0	0	00:00 - 00:00															
		Friday (100% Hotel Occupancy)	00:00 - 01:00	0.84%	19	18	6	0.00%				0.25%	1	1	1	20	19	7				67	66	29	2.00%	9	7	7	76	75	36	564	0	3		566		00:00 - 01:00	Friday (100% Hotel Occupancy)										
			01:00 - 02:00	0.31%	7	7	2	0.00%				0.00%	0	0	0	7	7	2				53	55	28	0.75%	3	3	3	54	87	30	538	0	0		538		01:00 - 02:00											
			08:00 - 09:00	6.91%	155	152	50	0.00%				18.75%	64	68	68	239	219	117				32	31	10	0.50%	2	2	2	32	33	12	633	0	171		804		08:00 - 09:00											
			15:00 - 16:00	8.69%	195	191	62	0.00%				13.00%	59	47	47	253	238	109				90	88	29	12.50%	36	29	29	126	117	58	736	0	199		935		15:00 - 16:00											
			17:00 - 18:00	6.91%	155	152	50	0.00%				2.00%	9	7	7	125	122	40				125	122	40	12.50%	36	29	29	126	117	58	736	0	199		935		17:00 - 18:00											
			00:00 - 00:00	100.00%	2,241	2,196	717	0.00%	450	360	360	100.00%	450	360	360	2,691	2,556	1,077	1,681	1,759	574	450	360	360	100.00%	450	360	360	2,641	2,507	1,061	16	0	0		00:00 - 00:00													
			Saturday (100% Hotel Occupancy)	00:00 - 01:00	0.84%	19	18	6	0.00%				0.25%	1	1	1	20	19	7				67	66	21	2.00%	9	7	7	76	73	29	714	0		4		717		00:00 - 01:00	Saturday (100% Hotel Occupancy)								
				01:00 - 02:00	0.31%	7	7	2	0.00%				0.00%	0	0	0	7	7	2				51	50	16	0.75%	3	3	3	54	53	19	699	0		1		700		01:00 - 02:00									
08:00 - 09:00				6.91%	155	152	50	0.00%				18.75%	64	68	68	239	219	117				32	31	10	0.50%	2	2	2	32	33	12	633	0	171	804	08:00 - 09:00													
15:00 - 16:00				8.69%	195	191	62	0.00%				13.00%	59	47	47	253	238	109				90	88	29	12.50%	36	29	29	126	117	58	736	0	199	935	15:00 - 16:00													
17:00 - 18:00				6.91%	155	152	50	0.00%				2.00%	9	7	7	125	122	40				125	122	40	12.50%	36	29	29	126	117	58	736	0	199	935	17:00 - 18:00													
00:00 - 00:00				100.00%	2,241	2,196	717	0.00%	450	360	360	100.00%	450	360	360	2,691	2,556	1,077	1,681	1,759	574	450	360	360	100.00%	450	360	360	2,641	2,507	1,061	16	0	0	00:00 - 00:00														

Re-worked First Principles Analysis of Car Parking Demand based on the Appellant's American Data but with Reduced Duration of Stay

Day of the Week	Time Period	Hotel Guests			Day Visitors			Staff			TOTAL			Hotel Guests			Day Visitors			Staff			TOTAL			Parking Demand				Time Period	Day of the Week					
		Arrival Profile	Total Number of Guest	Number Arriving by Car	Total Number of Car Trips	Arrival Profile	Total Number of Arrivals	Number Arriving by Car	Total Number of Car Trips	Arrival Profile	Total Number of Arrivals	Number Arriving by Car	Total Number of Car Trips	Number of Arrivals	Number Arriving by Car	Number of Car Trips	Departure Profile	Total Number of Departures	Number Departing by Car	Total Number of Car Trips	Departure Profile	Total Number of Departures	Number Departing by Car	Total Number of Car Trips	Number of Departures	Number Departing by Car	Number of Car Trips	Hotel Guest Cars	Day Visitor Cars			Staff Cars	All Cars			
Sunday (75% Hotel Occupancy)	00:00 - 01:00	0.84%	14	14	5	0.00%				0.25%	1	1	1	15	15	5	89	87	29	2.00%	8	7	7	98	94	35	721	0	5	726	00:00 - 01:00	Sunday (75% Hotel Occupancy)				
	01:00 - 02:00	0.31%	5	5	2	0.00%				0.00%	0	0	0	5	5	2	68	67	22	0.75%	3	3	3	71	69	24	701	0	3	704	01:00 - 02:00					
	02:00 - 03:00	0.21%	4	3	1	0.00%				0.50%	2	2	2	6	5	3	45	44	14	0.50%	2	2	2	47	45	16	688	0	3	690	02:00 - 03:00					
	03:00 - 04:00	0.21%	4	3	1	0.00%				0.00%	0	0	0	4	3	1	19	18	6	0.00%	0	0	0	19	18	6	683	0	3	686	03:00 - 04:00					
	04:00 - 05:00	0.42%	7	7	2	0.00%				0.50%	2	2	2	9	9	4	7	7	2	1.00%	4	3	3	11	10	6	683	0	2	685	04:00 - 05:00					
	05:00 - 06:00	0.73%	12	12	4	0.00%				3.50%	15	12	12	27	24	16	5	5	2	0.00%	0	0	0	5	5	2	685	0	14	699	05:00 - 06:00					
	06:00 - 07:00	1.88%	32	31	10	0.00%				4.00%	17	13	13	48	44	24	5	5	2	0.75%	3	3	3	8	7	4	694	0	25	719	06:00 - 07:00					
	07:00 - 08:00	3.56%	60	59	19	0.00%				10.00%	42	34	34	102	92	53	9	9	3	1.25%	5	4	4	15	13	7	710	0	54	764	07:00 - 08:00					
	08:00 - 09:00	6.91%	116	114	37	0.00%				18.75%	79	63	63	195	177	100	16	16	5	0.00%	0	0	0	16	16	5	742	0	117	859	08:00 - 09:00					
	09:00 - 10:00	6.81%	114	112	37	0.00%				14.00%	59	47	47	173	159	84	42	41	14	0.50%	2	2	2	44	43	15	765	0	162	928	09:00 - 10:00					
	10:00 - 11:00	5.34%	90	88	29	25.00%	113	90	29	2.50%	11	8	8	213	186	67	80	78	26	0.75%	3	3	3	83	81	28	768	29	168	966	10:00 - 11:00					
	11:00 - 12:00	5.13%	86	85	28	25.00%	113	90	29	2.00%	8	7	7	207	181	64	155	152	50	3.00%	13	10	10	167	162	60	746	59	165	970	11:00 - 12:00					
	12:00 - 13:00	5.34%	90	88	29	25.00%	113	90	29	2.00%	8	7	7	211	185	65	153	149	49	2.50%	11	8	8	163	158	57	726	88	163	978	12:00 - 13:00					
	13:00 - 14:00	7.12%	120	117	38	25.00%	113	90	29	3.00%	13	10	10	245	217	78	120	117	38	2.50%	11	8	8	130	126	47	726	118	165	1009	13:00 - 14:00					
	14:00 - 15:00	7.43%	125	122	40	0.00%				6.00%	25	20	20	150	148	60	115	113	37	12.50%	56	45	15	4.00%	17	13	13	188	171	65	730		103	172	1004	14:00 - 15:00
	15:00 - 16:00	8.69%	146	143	47	0.00%				13.00%	55	44	44	201	187	90	120	117	38	12.50%	56	45	15	8.00%	34	27	27	210	189	80	738		88	188	1,015	15:00 - 16:00
	16:00 - 17:00	8.17%	137	135	44	0.00%				13.50%	57	45	45	194	180	89	160	156	51	12.50%	56	45	15	23.00%	97	77	77	312	279	143	731		73	156	961	16:00 - 17:00
17:00 - 18:00	6.91%	116	114	37	0.00%				2.00%	8	7	7	125	121	44	167	163	53	12.50%	56	45	15	8.00%	34	27	27	256	235	95	715	59	136	910	17:00 - 18:00		
18:00 - 19:00	5.65%	95	93	30	0.00%				0.25%	1	1	1	96	94	31	195	191	62	12.50%	56	45	15	1.50%	6	5	5	257	241	82	683	44	132	859	18:00 - 19:00		
19:00 - 20:00	4.92%	83	81	26	0.00%				0.50%	2	2	2	85	83	28	183	179	59	12.50%	56	45	15	2.50%	11	8	8	179	175	62	651	29	125	805	19:00 - 20:00		
20:00 - 21:00	4.40%	74	72	24	0.00%				2.50%	11	8	8	84	81	32	155	152	50	12.50%	56	45	15	8.00%	34	27	27	245	224	91	625	15	107	746	20:00 - 21:00		
21:00 - 22:00	3.98%	67	66	21	0.00%				0.00%	0	0	0	67	66	21	127	124	41	12.50%	56	45	15	8.00%	34	27	27	217	196	82	606	0	80	686	21:00 - 22:00		
22:00 - 23:00	3.04%	51	50	16	0.00%				1.00%	4	3	3	55	53	20	110	108	35	13.00%	55	44	44	165	152	79	587	0	40	626	22:00 - 23:00						
23:00 - 00:00	1.99%	33	33	11	0.00%				0.25%	1	1	1	34	34	12	99	97	32	8.50%	36	29	29	134	125	60	566	0	12	578	23:00 - 00:00						
	00:00 - 00:00	100.00%	1,681	1,647	538	100.00%	450	360	118	100.00%	420	336	336	2,551	2,343	991	2,241	2,196	717	100.00%	420	336	336	3,111	2,892	1,171					00:00 - 00:00					
Following Monday (75% Hotel Occupancy)	00:00 - 01:00																														00:00 - 01:00	Following Monday (75% Hotel Occupancy)				
	01:00 - 02:00																														01:00 - 02:00					
	02:00 - 03:00																														02:00 - 03:00					
	03:00 - 04:00																														03:00 - 04:00					
	04:00 - 05:00																														04:00 - 05:00					
	05:00 - 06:00																														05:00 - 06:00					
	06:00 - 07:00																														06:00 - 07:00					
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	00:00 - 00:00																1,731	1,697	554					1,731	1,697	554					00:00 - 00:00					
Following Tuesday (75% Hotel Occupancy)	00:00 - 01:00																														00:00 - 01:00	Following Tuesday (75% Hotel Occupancy)				
	01:00 - 02:00																														01:00 - 02:00					
	02:00 - 03:00																														02:00 - 03:00					
	03:00 - 04:00																														03:00 - 04:00					

APPENDIX RL-R

Route N 1/2



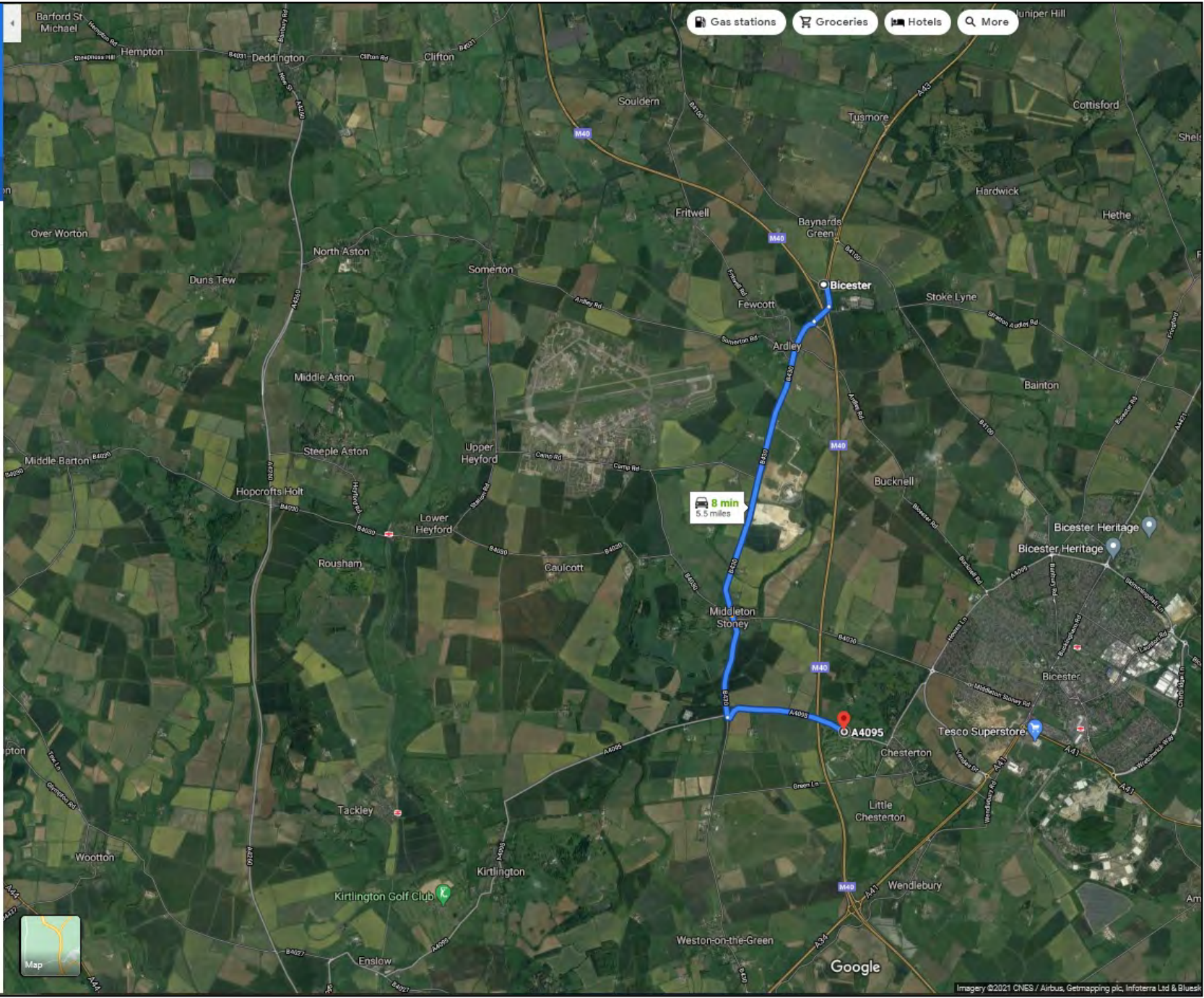
Leave now OPTIONS

Send directions to your phone

via B430 **8 min**
 Fastest route, the usual traffic 5.5 miles
[DETAILS](#)

Explore A4095

- Restaurants
- Hotels
- Gas stations
- Parking Lots
- More



Google

1



2



3



4



5

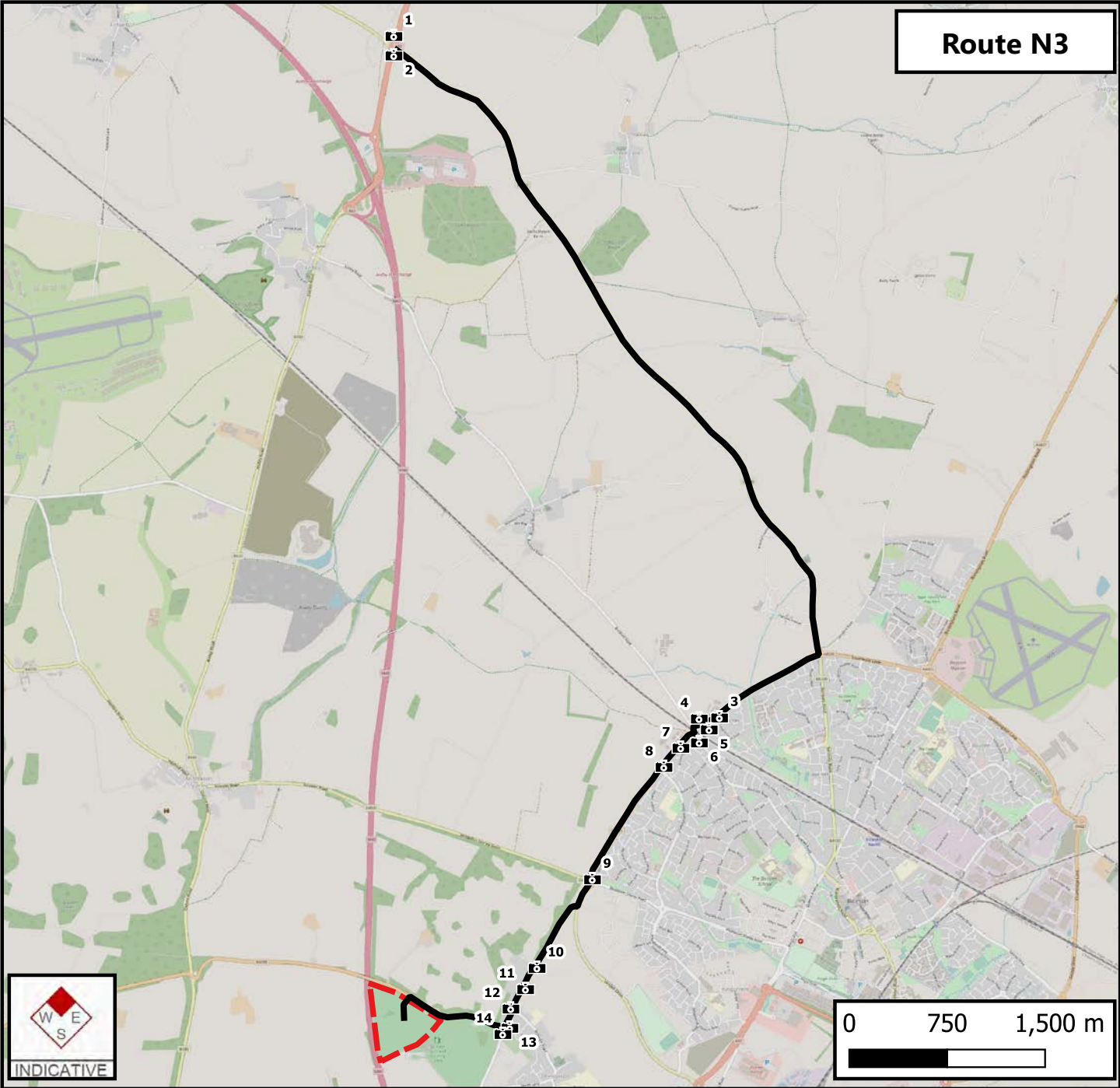


6





Route N3



← from A43, Bicester OX27 79G
to A4095, Bicester OX26 1TE

10 min (6.5 miles)

via B4100 and A4095



A43

Bicester OX27 79G

↑ Head south on A43

39 ft

📍 At the roundabout, take the 1st exit onto B4100

3.6 mi

📍 At the roundabout, take the 3rd exit onto A4095

0.7 mi

📍 At the roundabout, take the 1st exit onto Bucknell Rd/A4095

223 ft

↘ Turn right onto Howes Ln/A4095

0.9 mi

📍 At the roundabout, take the 2nd exit onto Vendee Dr/B4030

0.2 mi

↘ Turn right onto A4095

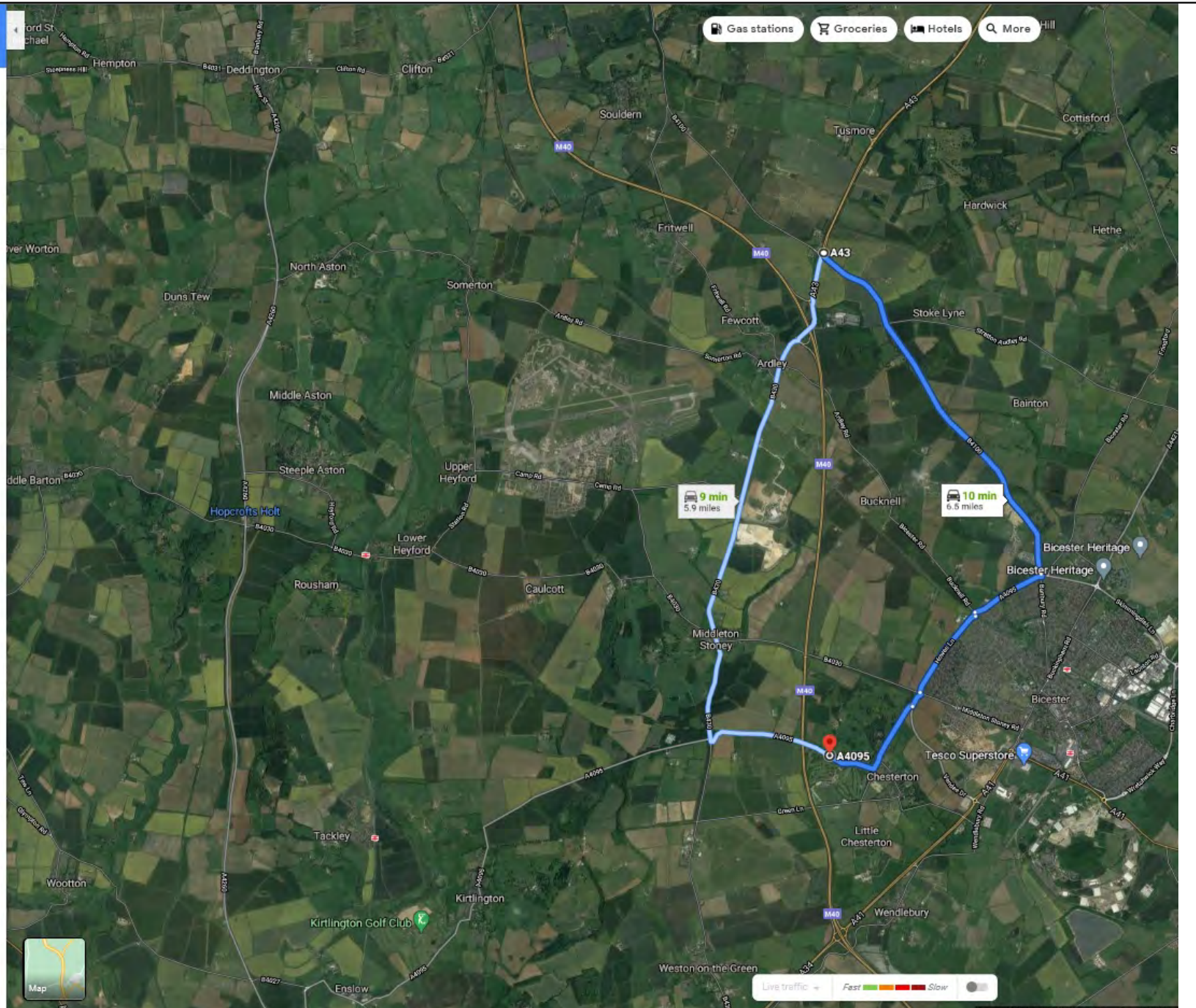
📍 Destination will be on the right

1.1 mi

A4095

Bicester OX26 1TE

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.



Live traffic



3



4





7



8



9



10



11



12



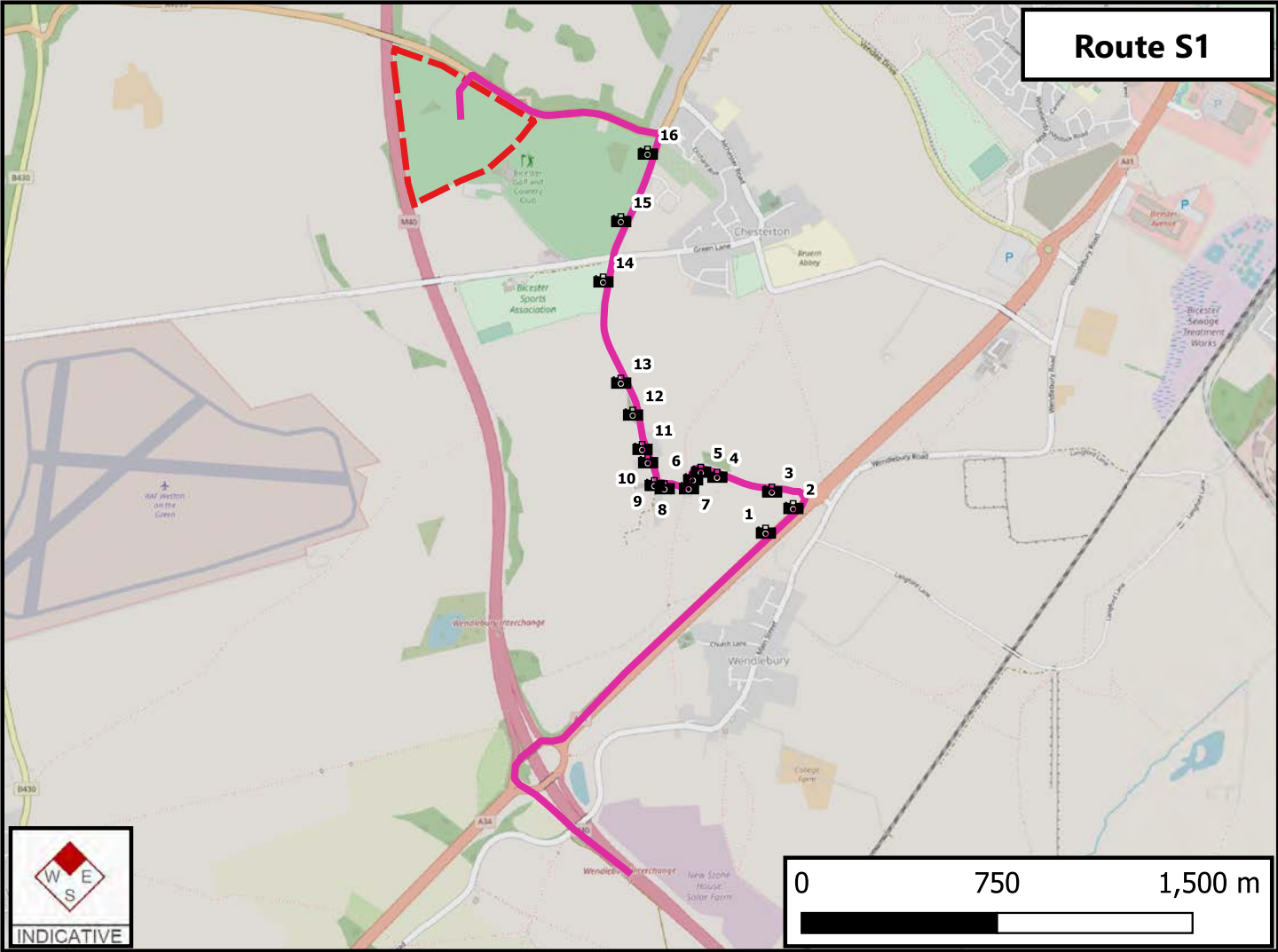
13



14



Route S1



← from Bicester OX25 3QE
to A4095, Bicester OX26 1TE

6 min (2.7 miles)

via A41

Fastest route



Bicester

OX25 3QE

↑ Head north-west towards Wendlebury Interchange

52 ft

📍 At Wendlebury Interchange, take the 3rd exit onto A41

1.0 mi

↶ Turn left

1.2 mi

↶ Turn left onto A4095

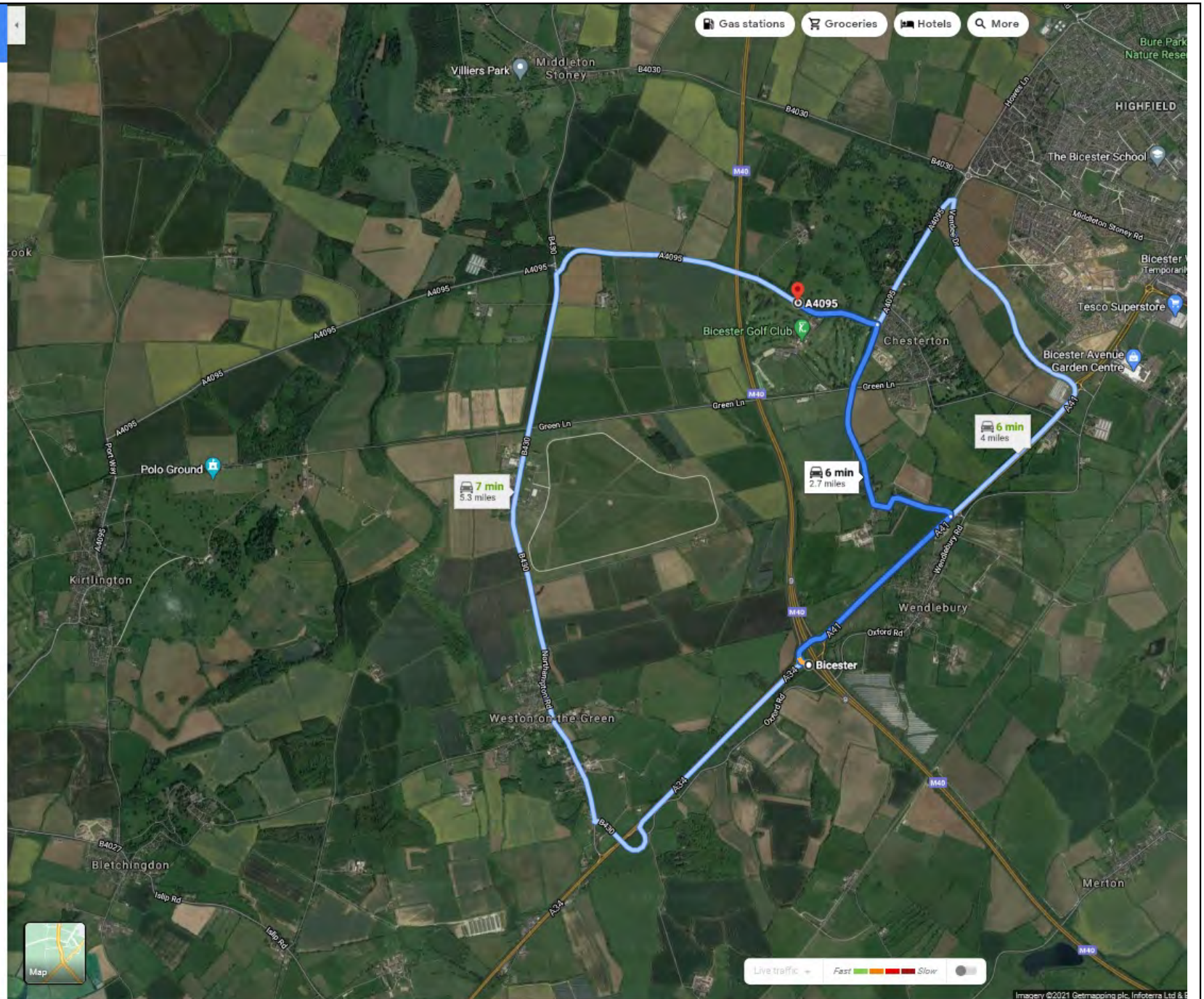
0.4 mi

A4095

Bicester OX26 1TE

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

Gas stations Groceries Hotels More



7 min
5.3 miles

6 min
2.7 miles

6 min
4 miles



Live traffic + Fast Slow

1



2



3



4



5



6



7



8



9



10



11



12



13



14



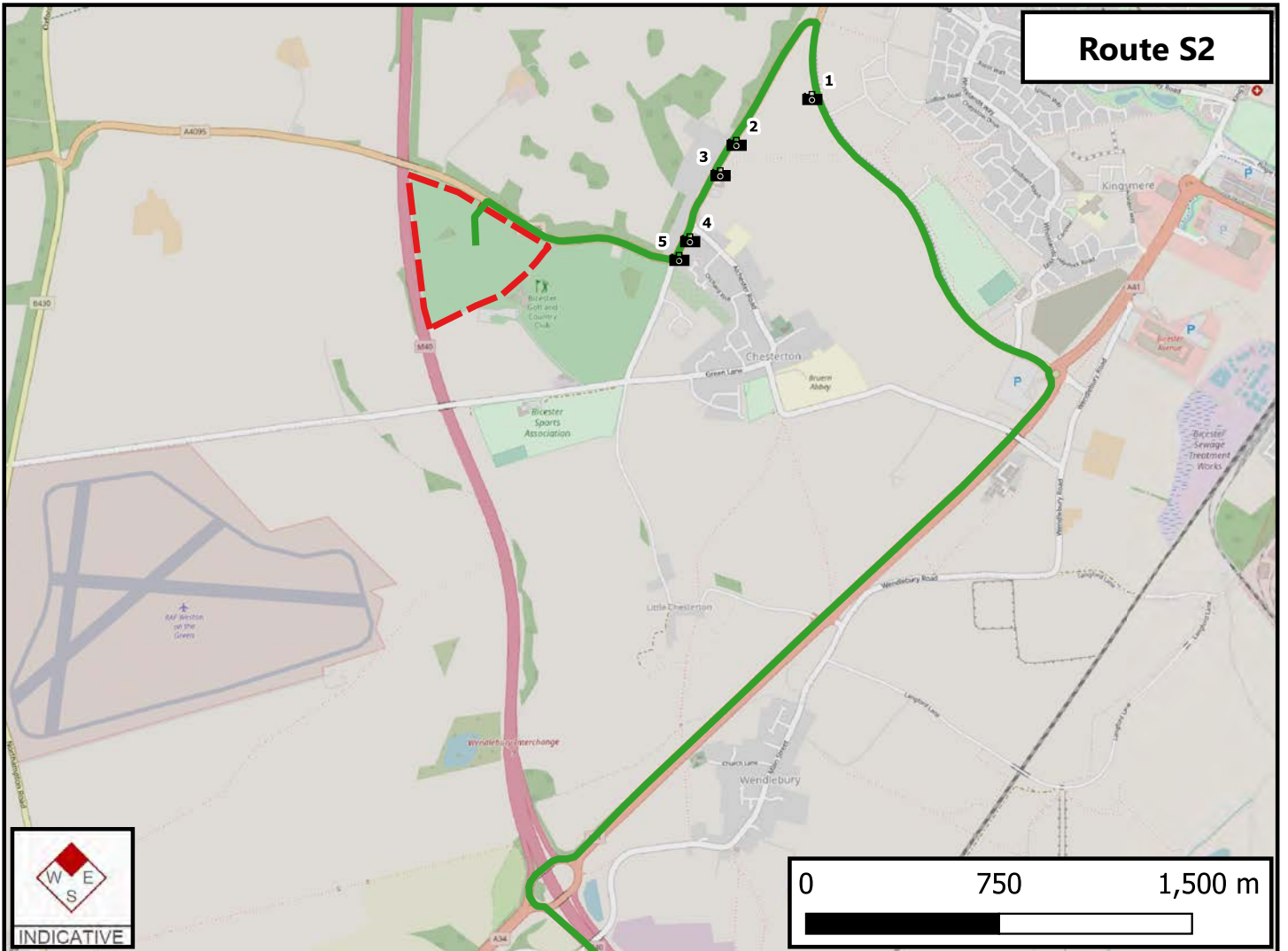
15



16



Route S2



← from Bicester OX25 3QE
to A4095, Bicester OX26 1TE

6 min (4.0 miles)

via A41, Vendee Dr/B4030 and A4095



Bicester

OX25 3QE

↑ Head north-west towards Wendlebury Interchange

52 ft

📍 At Wendlebury Interchange, take the 3rd exit onto A41

1.8 mi

📍 At the roundabout, take the 2nd exit onto Vendee Dr/B4030

1.1 mi

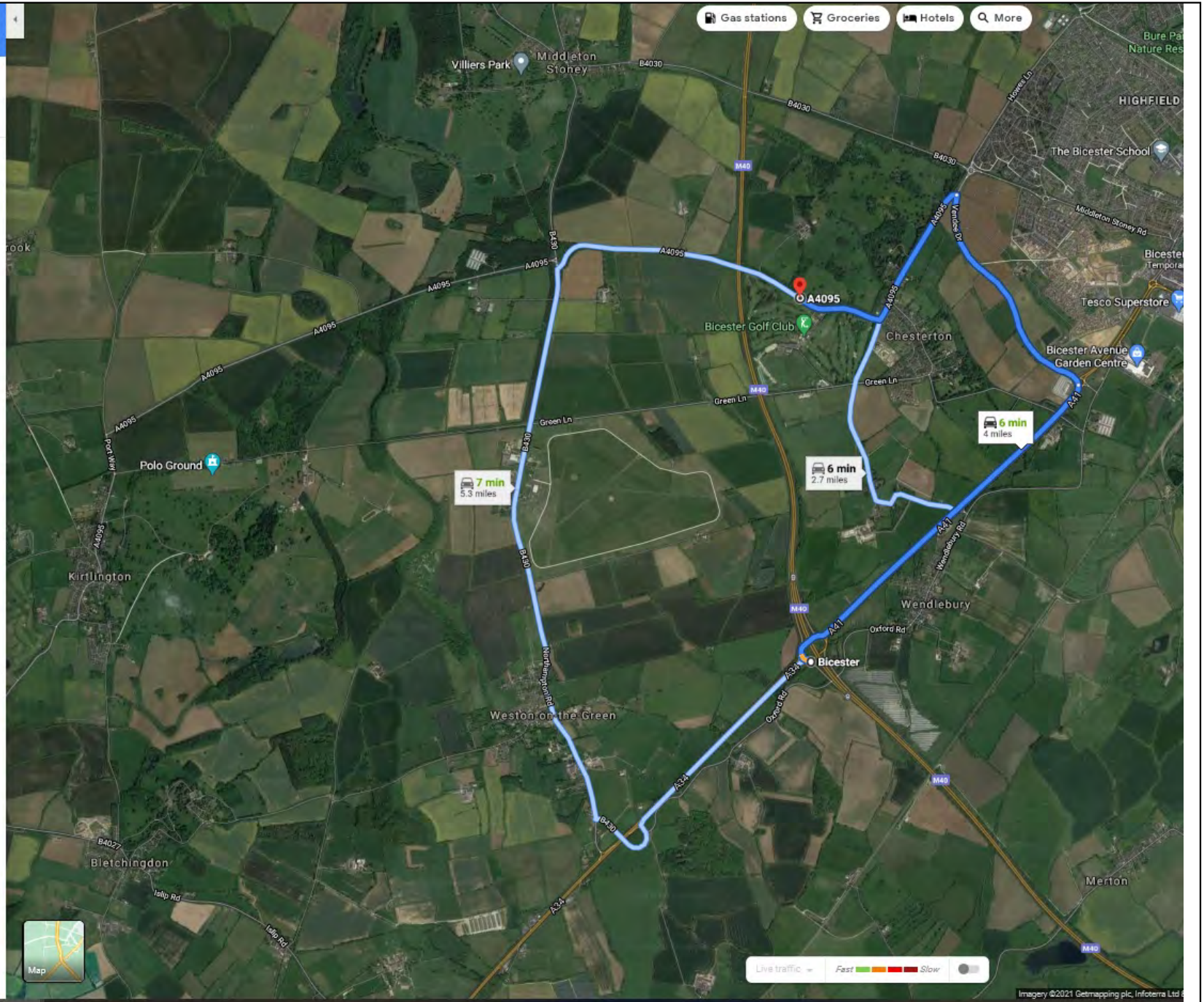
↩ Turn left onto A4095

1.1 mi

A4095

Bicester OX26 1TE

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.



Live traffic Fast Slow

1



2



3



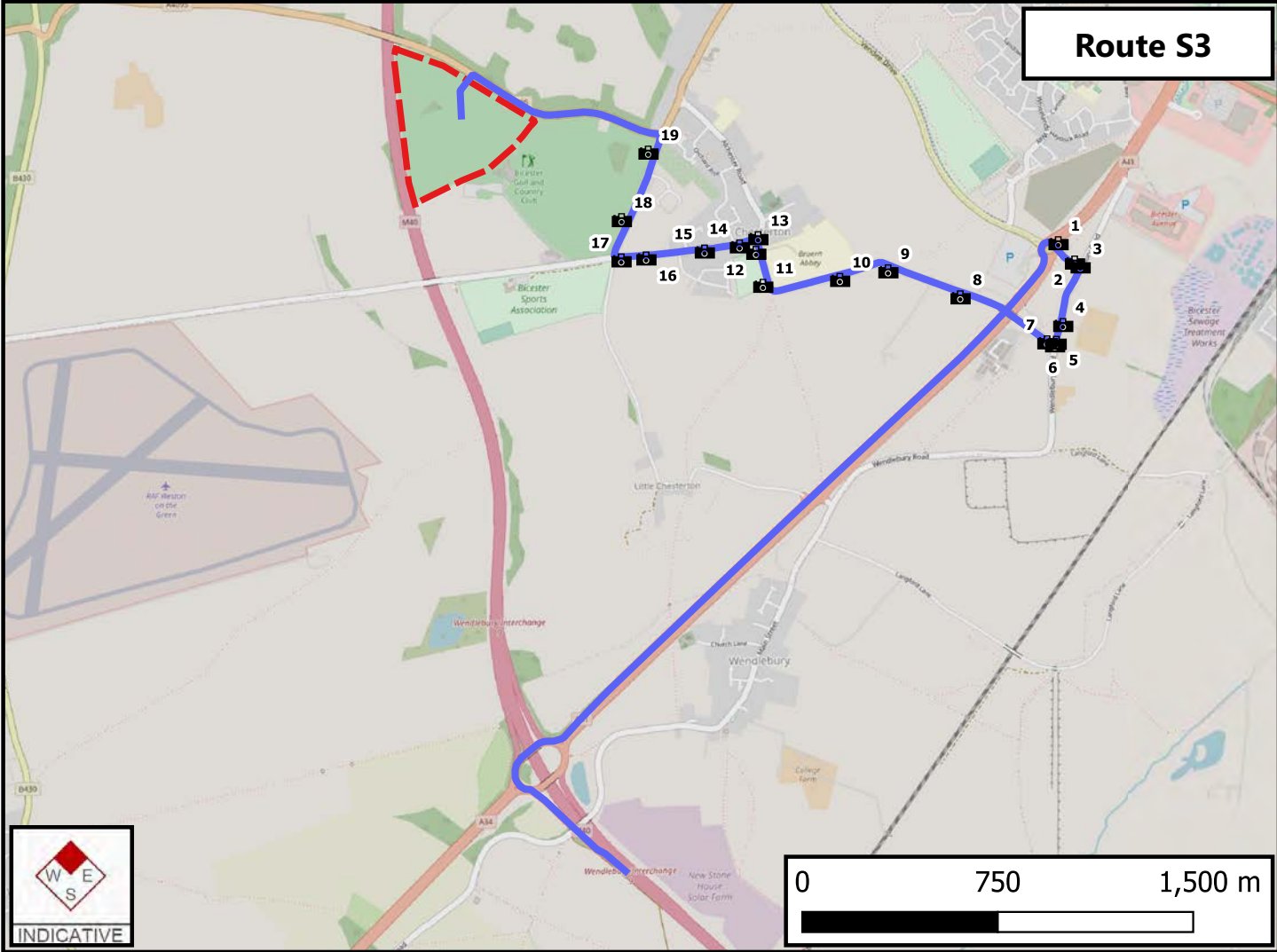
4



5



Route S3



Bicester OX25 3QE
 A4095, Bicester OX26 1TE
 Add destination

Route options CLOSE

Avoid

- Highways
- Tolls
- Ferries

Distance units

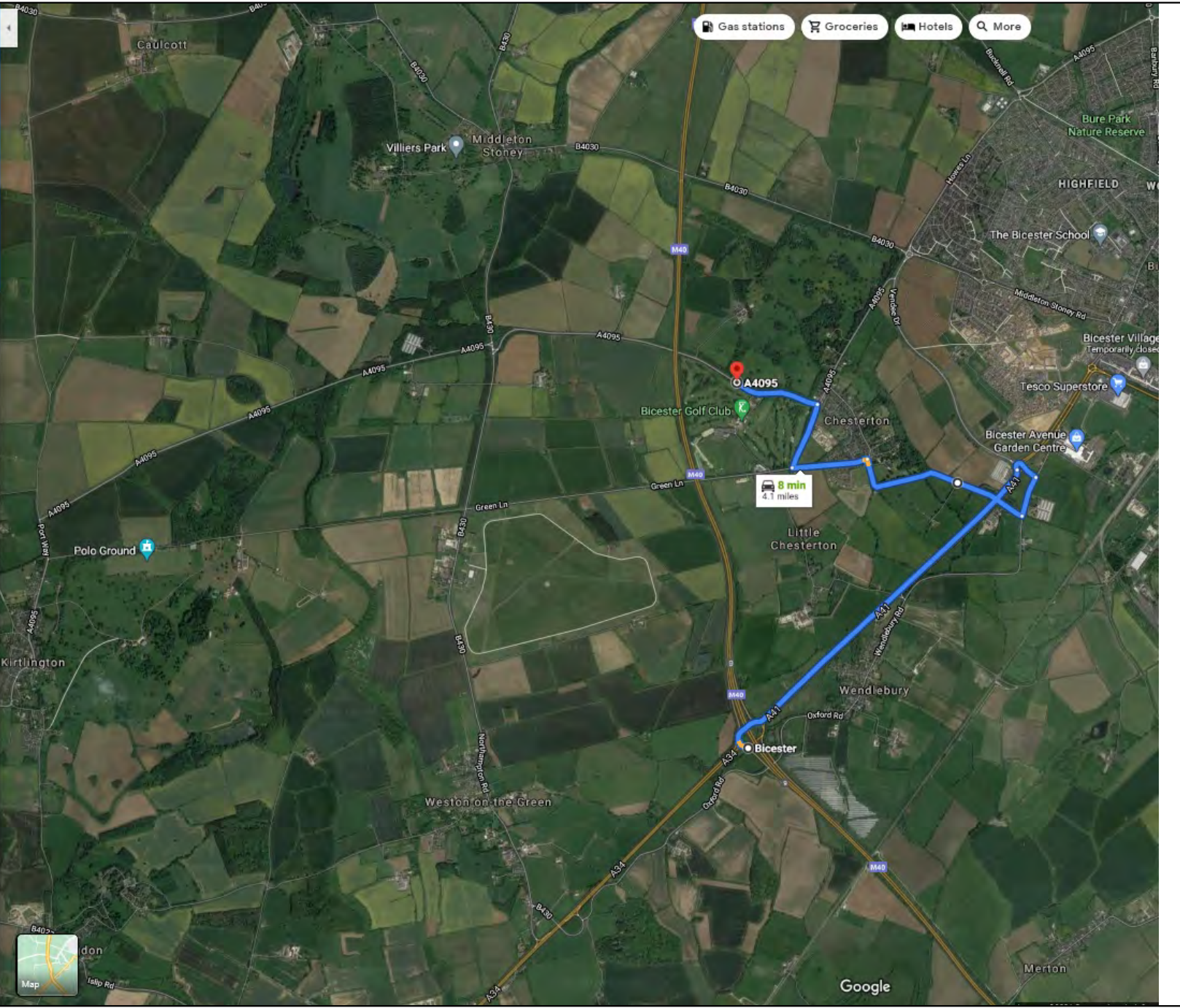
- Automatic
- miles
- km

Send directions to your phone

via A41 **8 min**
 7 min without traffic 4.1 miles
[DETAILS](#)

Explore A4095

Restaurants
 Hotels
 Gas stations
 Parking Lots
 More



[Gas stations](#)
[Groceries](#)
[Hotels](#)
[More](#)

1



2



3



4



5



6







11



12



13



14



15



16



17

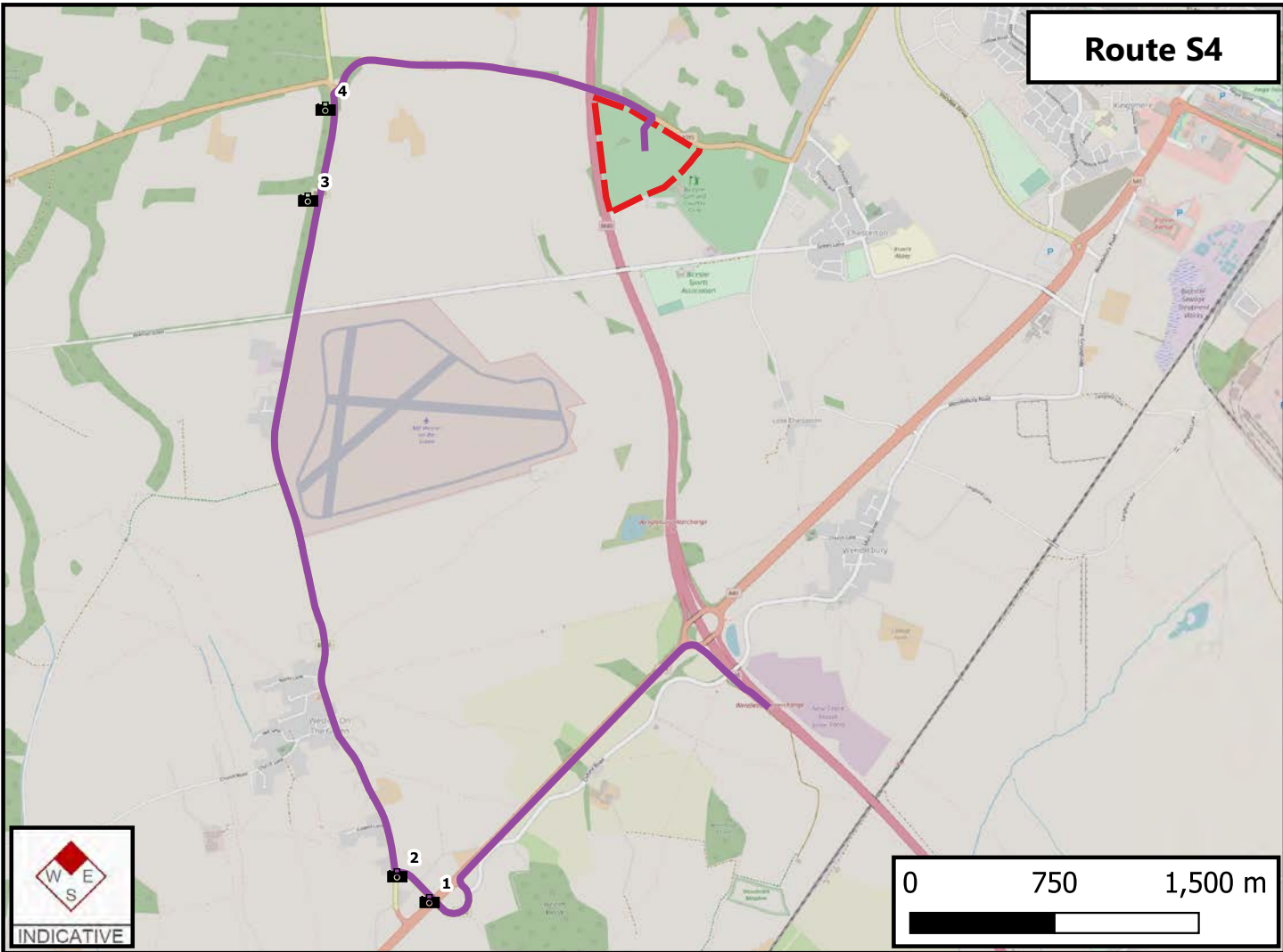


18





Route S4



← from Bicester OX25 3QE
to A4095, Bicester OX26 1TE

7 min (5.3 miles)

via Northampton Rd/B430



Bicester

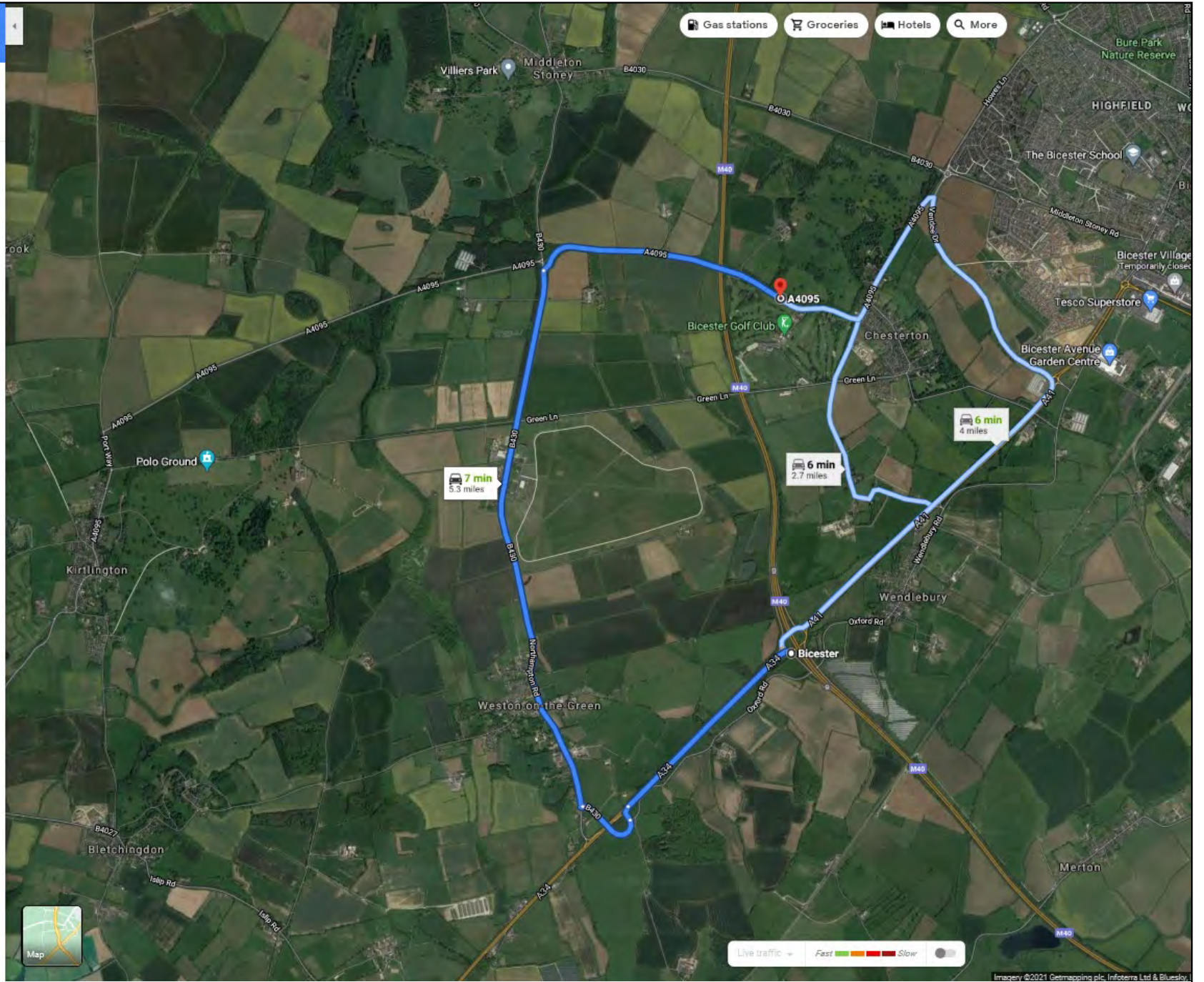
OX25 3QE

- ↑ Head north-west towards Wendlebury Interchange
52 ft
- 📍 At Wendlebury Interchange, take the 1st exit onto A34
1.1 mi
- ↘ Take the exit towards Middleton Stony/Weston On The Green/Wendlebury
307 ft
- ↑ Continue onto B430
0.3 mi
- 📍 At the roundabout, take the 2nd exit onto Northampton Rd/B430
2.6 mi
- ↘ Turn right onto A4095
1.2 mi

A4095

Bicester OX26 1TE

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.



1



2



3



4

