Alan DeVenny – Proof of Evidence

Appendix F:

WSP Environmental Statement (Transport and Access Extract)

ENVIRONMENTAL STATEMENT
VOLUME 1
CHAPTER 6 – TRANSPORT AND ACCESS

6. TRANSPORT AND ACCESS

6.1. INTRODUCTION

6.1.1. This Chapter reports the outcome of the assessment of likely significant effects arising from the Proposed Development upon transport and traffic matters in the vicinity of the Site. This Chapter has considered the effect of the Proposed Development on pedestrians, cyclists, drivers and public transport users and considers the effects of the Proposed Development during both the construction and operation phases.

6.1.2. The Chapter describes the assessment methodology, the baseline conditions at the Site and in the surrounding area, any primary and tertiary mitigation adopted for the purposes of the assessment, a summary of the likely significant effects taking into account national legislation, the further mitigation measures required to prevent, reduce or offset any significant negative effects (secondary mitigation), and the likely residual effects and any required monitoring after these measures have been employed.

6.2. LEGISLATION, POLICY AND GUIDANCE

PLANNING POLICY

6.2.1. The following key policy documents should be reviewed and key (only) policies summarised here:

- National Planning Policy Framework (NPPF) (February2019) (**Ref 6.1**);
- National Planning Practice Guidance (NPPG) (March 2014) (**Ref 6.2**); and
- Cherwell Local Plan 2011-2031 (December 2016) (**Ref 6.3**).

GUIDANCE

6.2.2. The following guidance documents have been used during the preparation of this Chapter:

- Institute of Environmental Assessment (now Institute of Environmental Management and Assessment (IEMA's)) 'Guidelines for the Environmental Assessment of Road Traffic' (**Ref 6.4**); and
- Design Manual for Roads and Bridges (DMRB) (**Ref 6.5**).

6.2.3. This section summarises the relevant transport policy documents against which the Proposed Development would be considered at a national, regional and local level. National Planning Policy. Full details of the relevant transport related planning policy and guidance is provided within the Transport Assessment.

National Planning Policy Framework (February 2019)

6.2.4. The NPPF February 2019 sets out the Government's planning policies for England and how they are expected to be applied.

6.2.5. The NPPF presumes in favour of sustainable development and is a material consideration in planning decisions. *"Transport issues should be considered from the earliest stages of plan-making and development proposals, so that:*

a) the potential impacts of development on transport networks can be addressed;

b) opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated;
c) opportunities to promote walking, cycling and public transport use are identified and pursued;
d) the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and
e) patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places."

6.2.6. Section 9 of the NPPF deals with 'Promoting Sustainable Transport'. Paragraph 103 states that:

"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."

6.2.7. Off-street parking provision is referred to by Paragraph 105, which says that, in setting local parking standards for development, local planning authorities should take into account accessibility; the type, mix and use of the development; the availability of and opportunities for public transport; local car ownership levels; and an overall need to reduce the use of high-emission vehicles.

6.2.8. Paragraph 106 states:

"Maximum parking standards for residential and non-residential development should only be set where there is a clear and compelling justification that they are necessary for managing the local road network, or for optimising the density of development in city and town centres and other locations that are well served by public transport (in accordance with chapter 11 of this Framework). In town centres, local authorities should seek to improve the quality of parking so that it is convenient, safe and secure, alongside measures to promote accessibility for pedestrians and cyclists."

6.2.9. Paragraph 108 addresses the relationship between development and sustainable transport as follows:

"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."

6.2.10. Paragraph 110 suggests that development should be located and designed where practical to, among other things, give priority to pedestrians and cycle movements, have access to high quality public transport facilities, create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians and consider the needs of people with disabilities by all modes of transport. Additionally, allow efficient delivery of goods and access by emergency vehicles and be designed to enable charging of plug-in and other ultra-low emission vehicles.

6.2.11. Paragraph 111 states:

"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."

National Planning Practice Guidance (March 2014)

6.2.12. On 6 March 2014 the Department for Communities and Local Government (DCLG) launched the NPPG web-based resource. A section relates specifically to transport, titled 'Travel Plans, Transport Assessments and Statements', and sets out the overarching principles of the transport input into a planning application.

6.2.13. The guidance explains the role of Transport Assessments and Statements as:

"ways of assessing the potential transport impacts of developments (and they may propose mitigation measures to promote sustainable development. Where that mitigation relates to matters that can be addressed by management measures, the mitigation may inform the preparation of Travel Plans)."

6.2.14. The guidance also states that Travel Plans are:

"long-term management strategies for integrating proposals for sustainable travel into the planning process" and "…should, where possible, be considered in parallel to development proposals and readily integrated into the design … of the new site …".

6.2.15. The guidance explains that when preparing Transport Assessments and Travel Plans the following key principles should be considered:

- *"proportionate to the size and scope of the proposed development to which they relate and build on existing information wherever possible;*
- *established at the earliest practicable possible stage of a development proposal;*
- *be tailored to particular local circumstances (other locally-determined factors and information beyond those which are set out in this guidance may need to be considered in these studies provided there is robust evidence for doing so locally);*
  be brought forward through collaborative ongoing working between the local planning authority/transport authority, transport operators, rail network operators, Highways Agency where there may be implications for the strategic road network and other relevant bodies. Engaging communities and local businesses in Travel Plans, Transport Assessments and Statements can be beneficial in positively supporting higher levels of walking and cycling (which in turn can encourage greater social exclusion, community cohesion and healthier communities)."

6.2.16. This guidance demonstrates that Transport Assessments and Statements and Travel Plans can positively contribute in the following ways:

- *"encouraging sustainable travel;*
- *lessening traffic generation and its detrimental impacts;*
- *reducing carbon emissions and climate impacts;*
- *creating accessible, connected, inclusive communities;*
- *improving health outcomes and quality of life;*
- *improving road safety; and*
- *reducing the need for new development to increase existing road capacity or provide new roads."*

6.2.17. The Cherwell Local Plan is the key planning policy document within the district and sets out the overarching planning policies upon which planning applications will be determined.

6.2.18. Policy SLE 4 considers transport and connections and states:

"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."

Summary

6.2.19. It is evident that the policies set out within the NPPF and the Cherwell Local Plan focus on a presumption in favour of sustainable development and that development should only be resisted or refused on transport grounds where residual impacts of development are severe.

6.3. CONSULTATION, SCOPE, METHODOLOGY AND SIGNIFICANCE CRITERIA

CONSULTATION UNDERTAKEN TO DATE

6.3.1. **Table 6.1** provides a summary of the consultation activities undertaken in support of the preparation of this Chapter.

Table 6.1 - Summary of Consultation Undertaken to Date

Body / organisation	Individual / stat body / organisation	Meeting dates and other forms of consultation
Oxfordshire County Council	Roger Plater	Pre-Application Meetings on 7th May, 13th June 2019 and 7th October 2019.
Highways England	Glen Strongitharm	Pre-Application Meeting 22nd May 2019 and 23rd October 2019.

SCOPE OF THE ASSESSMENT

6.3.2. An EIA Scoping Report was submitted to Cherwell District Council in June 2019, as presented in **Appendix 2.1**. Further information can be found in **Chapter 2: Approach to the Assessment.**

ELEMENTS SCOPED INTO THE ASSESSMENT

6.3.3. Error! Reference source not found. details the potentially significant effects that have been assessed during the construction and operational phases. The assessment considers the total traffic across the day and not just at peak periods on the highway network.

Table 6-2 - Effects to be Assessed

Element	Phase	Receptor	Justification
Severance	Construction/ Operation	Pedestrians, Cyclists and Public Transport Users	Potential for effect on severance due to change in traffic movements
Delay	Construction/ Operation	Pedestrians, Cyclists, Public Transport Users and Car Drivers	Potential for effect on delay due to change in traffic movements and based on junction capacity modelling
Amenity	Construction/ Operation	Pedestrians, Cyclists, Public Transport Users and Car Drivers	Potential for effect on local amenity due to change in traffic movements
Accidents and Safety	Construction/ Operation	Pedestrians, Cyclists, Public Transport Users and Car Drivers	Potential for effect on accidents and safety due to change in traffic movements
Fear and Intimidation	Construction/ Operation	Pedestrians, Cyclists, Public and Transport Users	Potential for effect on fear and intimidation due to change in traffic movements

METHODOLOGY FOR DETERMINING CONSTRUCTION AND OPERATIONAL EFFECTS

6.3.4. In accordance with IEMA Guidelines for the Environment Assessment of Road Traffic, the assessment will consider the following possible key effects of the construction and operation of the Proposed Development:

- Severance;
- Delay;
- Amenity;
- Fear and intimidation; and,
- Accidents and safety.

6.3.5. A qualitative assessment will be undertaken of the potential LGV and HGV movements that are likely to be associated with construction of the Proposed Development. The expected level of LGV and HGV movements will be assessed against IEMA Guidelines to determine the likely impact. The IEMA Guidelines advise that changes in traffic flow, or the HGV component, of over 30% can be regarded as requiring detailed environmental assessment, this threshold will be use as the criteria for assessing the potential effect of LGVs and HGVs during construction.

6.3.6. The assessment will assess the operational effects of the Proposed Development for the expected opening year. The assessment will present baseline traffic data inclusive of cumulative development

schemes for the highway network local to the Site as well as considering the impact of the Proposed Development flows.

6.3.7. With regard severance. the IEMA Guidelines advises that changes in traffic flows of 30%, 60% and 90% can be regarded as producing slight, moderate and severe impacts respectively and these levels are used as the criteria against which the effect of the Proposed Development is considered during both construction and operational phases.

6.3.8. The IEMA guidance advises that detailed studies are normally only triggered when the change in traffic movements on a link is 30% or greater and this will be used as the basis for assessing likely material changes in delay during construction and operational phases. In addition, reference will be made to junction capacity assessment of the local highway network.

6.3.9. The IEMA guidance defines amenity as the relative pleasantness of a journey and provides a threshold for judging the significance of an effect of amenity as a doubling of traffic flow on a link. This criterion will be used for assessing the impact of the Proposed Development during both construction and operational and should traffic flow double on any nearby link, this will be considered a significant effect on amenity.

6.3.10. The assessment of fear and intimidation is considered to be linked to that of accidents and safety and as such they will be considered together. Traffic accident records for the local highway network have been obtained from Oxfordshire County Council and used to assess whether there is an inherent safety concern of accident patterns on the local highway network. The assessment considers whether the construction or operation of the Proposed Development will have a material effect on the accident patterns on the local highway network. There is no specific threshold for assessing the effect of a development on accidents and safety and as such the assessment will be undertaken on the basis of professional expertise and judgement.

6.3.11. Finally, consideration is made on the potential effect of the Proposed Development on local public transport infrastructure and cycle infrastructure. There is no specific threshold for assessing these factors and as such the assessment will be undertaken on the basis of professional expertise and judgement.

EXTENT OF THE STUDY AREA

6.3.12. The scope of study area was defined the Scoping Report and within the Transport Assessment, based on the expected trip attraction of the Site and routing of vehicle trips and was agreed with Officers at Oxfordshire County Council (OCC).

METHOD OF BASELINE DATA COLLATION

Desk Study

6.3.13. Traffic data for the local highway network was collected through traffic surveys, review of Highways England and OCC traffic survey databases and data from the Bicester Transport Model (managed by OCC). The

6.3.14. **Table** 6-3 below summaries the baseline traffic data (24-hour AADT) for the 2019 baseline year.

Table 6-3 – Baseline Traffic Data (2019)

Link	Total	LGV	HGV	Average Speed
1 B430 (North of A4095)	6,393	6,153	240	46
2 B430 (South of A4095)	5,650	5,424	226	43
3 Green Lane	3,079	3,017	62	36
4 M40 North of J10	91,936	79,065	12,871	69
5 M40 South of J10	10,2753	88,368	14,385	63
6 M40 South of J9	73,288	63,028	10,260	69
7 A4095 West of Access	2,870	2,815	55	53
8 A4095 East of Access	2,882	2,824	58	41
9 The Hale	1,653	1,620	33	29
10 Green Lane	1,686	1,652	34	35
11 A4095	5,493	5,383	110	37
12 Howes Lane	10,100	9,898	202	50
13 A4095 North	13,800	13,524	276	50
14 Vendee Drive	7,658	7,194	464	39
15 A41 South	32,355	30,414	1,941	60
16 A41 North	25,945	24,388	1,557	40
17 Kings End	20,800	20,624	176	30
18 Market Square	6,586	9,490	96	30
19 London Road	9,000	8,910	90	30

Site Visit

6.3.15. A site visit was undertaken reviewing the highway network local to the Site include pedestrian and cycle infrastructure and the layout of junctions within the study area.

RECEPTOR SENSITIVITY

6.3.16. The sensitivity of each receptor has been assigned with consideration of potential sensitivity of each receptor to changes in vehicles movements associated with the Proposed Development or changes to the highway network and street layout as a result of the Proposed Development. The sensitivity of each receptor has been determined based on professional judgement and with consideration to the need to promote sustainable travel choices, in particular walking and cycling.

MAGNITUDE OF CHANGE

6.3.17. Table 6-4 below sets out the criteria that has been used to identify the magnitude of change in relation to transport and access issues.

Table 6-4 – Magnitude of Change

Scale	Description
Negligible	Changes which are unlikely to be perceptible
Low	Changes which are likely to be perceptible but not to an extent that it would materially change conditions which would otherwise prevail
Medium	Changes which are likely to be perceptible and which would materially change conditions which would otherwise prevail to the extent that it would affect travel behaviour to a measurable degree
High	Changes which are likely to be perceptible and which would significantly change conditions which would otherwise prevail to the extent that it would significantly affect travel behaviour

SIGNIFICANCE CRITERIA

6.3.18. The assessment of potential effects as a result of the Proposed Development has taken into account both the construction and operational phases. The construction phase includes enabling works, earthworks and construction activities as set out in **Chapter 4: The Proposed Development**.

6.3.19. The significance level attributed to each effect has been assessed based on the magnitude of change due to the Proposed Development and the sensitivity of the affected receptor, as well as a number of other factors that are outlined in more detail in **Chapter 2: Approach to the Assessment.** The sensitivity of the affected receptor is assessed on a scale of high, medium, low and negligible, and the magnitude of change is assessed on a scale of high, medium, low and negligible (as shown in **Chapter 2: Approach to the Assessment**).

EFFECT SIGNIFICANCE

6.3.20. The following terms have been used to define the significance of the effects identified and apply to both beneficial and adverse effects:

- **Major effect**: where the Proposed Development could be expected to have a very noticeable effect (either beneficial or adverse) on receptors;
- **Moderate effect**: where the Proposed Development could be expected to have a noticeable effect (either beneficial or adverse) on receptors;

- **Minor effect**: where the Proposed Development could be expected to result in a small, barely noticeable effect (either beneficial or adverse) on receptors; and
- **Negligible**: where no discernible effect is expected as a result of the Proposed Development on receptors.

6.3.21. As set out in **Chapter 2: Approach to the Assessment**, effects that are classified as **major or moderate** (either beneficial or adverse) are considered to be **significant**. Effects classified as **minor or negligible** are considered to be **not significant**.

6.4. BASELINE CONDITIONS

6.4.1. The Site is located to the south of the A4095 to the west of Chesterton. The site currently forms part of the Bicester Golf Hotel and Spa (BHGS) that benefits from a main customer/ visitor access from Green Lane and a secondary access from the A4095 which operates as the service access to the golf course.

Local Highway Network

6.4.2. The Site is located west of Chesterton and fronts the A4095 to the north, with the M40 to the west. The A4095 is a two-way carriageway operating under the national speed limited of 60mph, from which a new vehicle access will be provided.

6.4.3. To the east of the Site, the A4095 passes through the edge of Chesterton village and links to the Vendee Drive. Vendee Drive runs between the A41 Oxford Road to the south and the B4030/Middleton Stoney Road/Howes Lane roundabout to the north. The A41 connects south to the M40 at Junction 9 and east towards Aylesbury.

6.4.4. To the west of the Site, the A4095 provides a link to Kirlington, Enslow and Long Hanborough as well as connecting to the B430. The B430 operates on a north-south orientation between the A43 and Junction 10 of the M40 to the north and the A34 and Junction 9 of the M40 to the south, providing access to the wider strategic highway network.

Sustainable Transport Accessibility

Pedestrian Facilities

6.4.5. There is currently no footway provided on the A4095 in the immediate vicinity of the Site. However, a footway is provided approximately 500 metres to the east of the Site along the A4095, from which there is a network of interconnected footways which provides access into the centre of Chesterton.

6.4.6. A Public Footpath (Ref: 161/06), runs through the Site from Green Lane to the A4095. **Figure 6.1** provides details of the local footpaths in the vicinity of the Site.

Cycle Facilities

6.4.7. There are a range of cycle opportunities in the vicinity of the Site including a shared foot/cycle way alongside Vendee Drive which forms part of a signed cycle route connecting to Bicester town centre and nearby residential areas.

6.4.8. National Cycle Network Route 51 (NCN51), runs alongside the A41 Oxford Road south east of the Site and is a traffic-free shared pedestrian cycle route. NCN51 provides a signed cycle route connecting the Site south towards Wendlebury, Kidlington and Oxford and north towards Bicester Village and Bicester Town Centre.

Bus Services

6.4.9. The nearest bus stop to the Site is situated on Alchester Road approximately 700 metres east of the Site. This bus stop is served by the 21 service which runs once a day from Chesterton to Bicester Town Centre.

6.4.10. Additional bus stops are situated in the centre of Bicester along Manorsfield Road which provide services to the wider area. **Table 6-** summarises the bus routes within the centre of Bicester.

Table 6-5 - Bus Routes

Route No.	Route	Frequency
8	Middle Baton to Bicester	2 per day (Friday only)
21	Highfield – Bicester	Every 30 minutes
26	Bicester to Kingsmere	Every 30 minutes
250	Oxford to Bicester	Every 60 minutes
NS5	Oxford to Gosford & Bicester	Every 60 minutes (night bus)
S5	Oxford to Gosford & Bicester	Every 10 to 20 minutes
X5	Cambridge to Bedford & Oxford	Every 30 minutes

Train Services

6.4.11. The nearest station is Bicester Village Railway Station located approximately 4.6 kilometres to the east of the Site. Bicester Village Station is located on the Oxford to London Marylebone line with services operating in each direction every 30 minutes.

6.4.12. Bicester North Railway Station is located approximately 4.8 kilometres to the north east of the Site and offers connections to London Marylebone, Banbury, Birmingham Moor Street and Snow Hill. Services run up to twice per hour in each direction.

Personal Injury Accident Data

6.4.13. Collision data for the latest available five-year period up to the 31st December 2018 has been obtained from OCC for the immediate vicinity of the Site and is presented within the Transport Assessment.

6.4.14. The review of the incidents on the local network indicates that the identified causation factors were predominantly driver error or poor driver behaviour and, as such, are unrelated to the existing design or layout of the highway.

6.4.15. As such, it is concluded that there are no inherent safety issues associated with the existing highway network and junction arrangements in the vicinity of the Site.

FUTURE BASELINE

6.4.16. There are no anticipated changes to the highway network or pedestrian and cycle infrastructure in the vicinity of the Site in the future baseline scenario.

6.4.17. Traffic flow on the local road network is expected to increase as a result of committed developments in the local area and the potential change in traffic flows in the future baseline has been assessed with reference to traffic flows associated with committed developments and traffic data from the Bicester Transport Model, provided by OCC. **Table 6-6** summaries the 2022 future baseline flows including expected traffic growth as a result of committed developments.

Table 6-6 - Future Baseline Traffic Flows

Link	Total	LGV	HGV	Average Speed
1 B430 (North of A4095)	7,685	7,387	298	46
2 B430 (South of A4095)	6,211	5,962	248	43
3 Green Lane	3,145	3,082	63	36
4 M40 North of J10	97,519	83,866	13,653	69
5 M40 South of J10	108,993	93,734	15,259	63
6 M40 South of J9	77,739	66,855	10,883	69
7 A4095 West of Access	3,039	2,979	59	53
8 A4095 East of Access	3,051	2,990	61	41
9 The Hale	1,689	1,655	34	29
10 Green Lane	1,721	1,686	35	35
11 A4095	9,184	9,000	184	37
12 Howes Lane	10,980	10,760	220	50
13 A4095 North	17,940	17,581	359	50
14 Vendee Drive	9,957	9,357	600	39
15 A41 South	33,480	31,472	2,009	60
16 A41 North	28,347	26,646	1,701	40
17 Kings End	26,465	26,218	246	30
18 Market Square	12,462	12,337	125	30
19 London Road	11,700	11,583	117	30

SENSITIVE RECEPTORS

6.4.18. Consideration been made as to the likely receptors affected by the Proposed Development. For the purpose of this assessment the receptors identified are those people making journeys within the study area. The potential receptors are summarised below along with the likely sensitivity of each receptor:

- Pedestrians - Medium
- Cyclists - Medium
- Bus Passengers - Low
- Car Drivers - Medium

6.4.19. There is no specific industry standard guidance identifying the sensitivity of a receptor. As such, the sensitivity of each receptor has been assigned with consideration of the potential sensitivity to changes in vehicle movements on the local highway network.

6.5. RELEVANT ELEMENTS OF THE PROPOSED DEVELOPMENT AND ESTABLISHING THE PRE-MITIGATION SCENARIO

CONSTRUCTION PHASE

- A construction vehicle access to the Site will be constructed from the A4095 and will serve as the point of access for all construction vehicle movements;
- A Construction Management Plan (CMP) has been prepared and is submitted as **Appendix 4.1** and details measure to control effects during the construction phase; and,
- The Construction Management Plan will include details of proposed routes for construction deliveries and drivers will be directed to uses those routes.

OPERATIONAL PHASE

6.5.1. The Proposed Development includes a number of measures which have been designed into the scheme including:

- Construction of a new vehicle access to the Site from the A4095;
- A signage strategy has been developed which will direct drivers onto appropriate routes to access the Site and, in particular, direct drivers to avoid passing through Chesterton when approach and leaving the Site. Full details of the proposed signage strategy and routing assessment are detailed in the Transport Assessment.;
- Construction of a new shared foot/cycleway from the Site entrance to Chesterton (east of the Site entrance) and from the Site entrance to the end of the existing public footpath (west of the Site entrance), along with dropped kerbs and pedestrian refuge at the site entrance;
- Provision of on-site cycle parking for both staff and guest with 40 staff cycle parking spaces and 40 guest cycle parking spaces to be provided;
- Provision of a shuttle bus service between the Site and local station and town centre for staff and guests. The shuttle bus service will be available free of charge and full details of the shuttle bus service routing and frequency are provided in the Transport Assessment; and,
- A Framework Travel Plan has been prepared to promote sustainable travel choices amongst both staff and visitors. A final Travel Plan will be secured by Planning Condition or Obligation.

6.6. ASSESSMENT OF EFFECTS, MITIGATION AND RESIDUAL EFFECTS

6.6.1. The expected peak construction year is 2021. Information provided within the CMP provides details of the expected number of staff on site, expected construction Heavy Goods Vehicle (HGV) movements and the routing of construction HGVs. **Table 6-7** summaries the baseline traffic flows in the peak construction year and the expected construction traffic movements associated with the Proposed Development.

Table 6-7 - Assessment of Construction Traffic

	LGV			HGV		
Link	**Baseline**	**Dev**	**%Change**	**Baseline**	**Dev**	**%Change**
1 B430 (North of A4095)	6,975	90	2%	279	65	23%
2 B430 (South of A4095)	5,783	72	2%	241	65	27%
3 Green Lane	3,061	0	0%	63	0	0%
4 M40 North of J10	8,226	42	<1%	13,392	65	0%
5 M40 South of J10	91,946	0	0%	14,968	0	0%
6 M40 South of J9	65,580	12	<1%	10,675	65	1%
7 A4095 West of Access	2,925	186	14%	58	130	224%
8 A4095 East of Access	2,935	414	0%	60	0	0%
9 The Hale	1,644	0	0%	33	0	0%
10 Green Lane	1,675	0	0%	34	0	0%
11 A4095	7,794	372	5%	159	0	0%
12 Howes Lane	10,473	252	2%	214	0	0%
13 A4095 North	16,229	252	2%	331	0	0%

14 Vendee Drive	8,636	0	0%	555	0	0%
15 A41 South	31,119	12	<1%	1,986	0	0%
16 A41 North	25,893	30	<1%	1,653	0	0%
17 Kings End	24,354	0	0%	223	0	0%
18 Market Square	11,388	0	0%	115	0	0%
19 London Road	10,692	0	0%	108	0	0%

6.6.2. The Tables below assess the effect of the Proposed Development during the construction phase with reference to the change in traffic flows presented at **Table 6-7**.

CONSTRUCTION PHASE

Severance	**Table 6-7** demonstrates that construction vehicle movements associated with the Proposed Development are not considered to be significant on the majority of links relative to existing traffic on the local road network. As part of the CMP, routes for construction vehicles have been identified which seek to route construction vehicles via a direct route to the strategic road network and also seek to avoid local villages such as Chesterton. Based on traffic data above it is evident that changes in LGV movements are significantly below the thresholds identified by the IEMA guidance on all links (apart from Link 7 – see below) and therefore the effect of LGV movements associated with the construction phase is considered to be negligible. With regard HGV movements, the traffic data presented demonstrates that is on all links expected once the change in HGV movements is below the thresholds set by the IEA guidance. It is noted that there is one link, Link 7 A4095 west of the Site access, where the expected temporary change in HGV movements during the construction phase exceeds this threshold. However, the percentage increase in HGV movements is as a result of low baseline HGV movements on the link. Furthermore, there are limited residential properties and receptors along this link and limited number of movements seeking to cross this section of road which would be affected by the change in HGV movements. Therefore, the effect of these HGV movements on severance on this link would be limited. The sensitivity of each receptor (pedestrians, cyclists, public transport users and drivers) is either low or medium and the magnitude of change relating to severance, prior to mitigation is considered to be negligible. Therefore, there is a likely to be **negligible** (**not significant**) effect on each receptor, prior to implementation of mitigation measures.
Secondary Mitigation	No secondary mitigation over the elements of the Proposed Development identified at Section 6.5 are considered necessary.

Residual effects and monitoring	The sensitivity of each receptor (pedestrians, cyclists, public transport users and drivers) is either low or medium and the magnitude of change relating to severance, is considered to be negligible and therefore no secondary mitigation over the elements of the Proposed Development identified at Section 6.5, is considered necessary. Therefore, there is a likely to be a **negligible** (**not significant**) residential effect on each receptor.

Delay	**Table 6-7** demonstrates that during construction the Proposed Development is not expected to result in material change to traffic movements on the local highway network which would affect the perceptions of driver delay. The change in traffic flow on the A4095 (link 7) during the construction phase would be negligible relative to existing flow (as explained above). As part of the CMP a defined route for construction traffic has been identified which provides both a convenient route to the strategic road network and seeks to avoid Chesterton village. All construction deliveries and unloading would be undertake within the curtilage of the Site and construction vehicles would not be required to stop or wait on the public highway. The sensitivity of each receptor (pedestrians, cyclists, public transport users and drivers) is either low or medium and the magnitude of change relating to delay, prior to mitigation is considered to be negligible. Therefore, there is a likely to be a **negligible** (**not significant**) effect on each receptor, prior to implementation of mitigation measures.
Secondary Mitigation	No secondary mitigation over the elements of the Proposed Development identified at Section 6.5 are considered necessary.
Residual effects and monitoring	The sensitivity of each receptor (pedestrians, cyclists, public transport users and drivers) is either low or medium and the magnitude of change relating to delay, is considered to be negligible and therefore no secondary mitigation over the elements of the Proposed Development identified at Section 6.5, is considered necessary. Therefore, there is a likely to be a **negligible** (**not significant**) residential effect on each receptor.

Amenity	Table 6.7 above it is evident that changes in LGV and HGV movements are significantly below this threshold guidance of a doubling of traffic movements (or its HGV component) for judging the significance of changes in amenity and therefore the effect of LGV/HGV movements associated with the construction phase is considered to be negligible. It is noted that Link 7 A4095 west of the Site access has the highest percentage increase in HGV movements. However, the percentage increase in HGV movements is as a result of low baseline HGV movements on the link and is still below the defined significance threshold. Furthermore, there are limited residential properties and receptors along this link and therefore the effect of these HGV movements on amenity on this link would be limited. The sensitivity of each receptor (pedestrians, cyclists, public transport users and drivers) is either low or medium and the magnitude of change relating to amenity, prior to mitigation is considered to be negligible. Therefore, there is a likely to be a **negligible**

	(**not significant**) effect on each receptor, prior to implementation of mitigation measures.
Secondary Mitigation	No secondary mitigation over the elements of the Proposed Development identified at Section 6.5 are considered necessary.
Residual effects and monitoring	The sensitivity of each receptor (pedestrians, cyclists, public transport users and drivers) is either low or medium and the magnitude of change relating to amenity is considered to be negligible and therefore no secondary mitigation over the elements of the Proposed Development identified at Section 6.5, is considered necessary. Therefore, there is a likely to be a **negligible** (**not significant**) residential effect on each receptor.

Fear, Intimidation, Accidents and Safety	A dedicated construction access to the Site will be constructed from the A4095 in accordance with relevant national and local guidance and will provide a safe point of entry for construction vehicles. All construction deliveries and unloading would be undertake within the curtilage of the Site and construction vehicles would not be required to unload or undertake complex manoeuvres on the public highway. Table 6.7 demonstrates that during construction the Proposed Development is not expected to result in material change to traffic movements on the local highway network. The development includes a CMP which will manage construction traffic associated with the development, including defined appropriate routes for construction deliveries and drivers will be directed to use those routes, Given that the analysis of traffic incident reports has not identified any inherent road safety concerns on the local road network, the change in traffic flows associated with the construction phase of the Proposed Development would not have a material effect on fear, intimidation, accidents and safety. The sensitivity of each receptor (pedestrians, cyclists, public transport users and drivers) is either low or medium and the magnitude of change relating to fear, intimidation, accidents and safety, prior to mitigation is considered to be negligible. Therefore, there is a likely to be a **negligible** (**not significant**) effect on each receptor, prior to implementation of mitigation measures.
Secondary Mitigation	No secondary mitigation over the elements of the Proposed Development identified at Section 6.5 are considered necessary.
Residual effects and monitoring	The sensitivity of each receptor (pedestrians, cyclists, public transport users and drivers) is either low or medium and the magnitude of change relating to fear, intimidation, accidents and safety, is considered to be negligible and therefore no secondary mitigation over the elements of the Proposed Development identified at Section 6.5, is considered necessary. Therefore, there is a likely to be a **negligible** (**not significant**) residential effect on each receptor.

OPERATIONAL PHASE

6.6.3. The expected opening year of the Proposed Development is 2022. The expected trip generation of the Proposed Development has been calculated with reference to other comparable sites operated

by the Applicant. Full details of the assessment of the trip generation of the Site are detailed within the Transport Assessment. The trip generation methodology has been agreed with Officers at OCC. **Table 6-** summaries the baseline traffic flows at the opening year expected operational traffic movements associated with the Proposed Development.

Table 6-8 - Assessment of Operational Traffic

	LGV			HGV		
Link	**Baseline**	**Dev**	**%Change**	**Baseline**	**Dev**	**%Change**
1 B430 (North of A4095)	7,387	587	8%	298	6	2%
2 B430 (South of A4095)	5,962	431	7%	248	4	2%
3 Green Lane	3,082	0	0%	63	0	0%
4 M40 North of J10	83,866	314	<1%	13653	3	<1%
5 M40 South of J10	93,734	0	0%	15259	0	0%
6 M40 South of J9	66,855	783	1%	10883	8	0%
7 A4095 West of Access	2,979	1019	34%	59	10	17%
8 A4095 East of Access	2,990	940	31%	61	9	15%
9 The Hale	1,655	0	0%	34	0	0%
10 Green Lane	1,686	0	0%	35	0	0%
11 A4095	9,000	940	10%	184	9	5%
12 Howes Lane	10,760	137	1%	220	1	<1%
13 A4095 North	17,581	137	1%	359	1	<1%
14 Vendee Drive	9,357	803	9%	600	8	<1%

15 A41 South	31,472	783	2%	2009	8	<1%
16 A41 North	26,646	20	<1%	1701	0	0%
17 Kings End	26,218	0	0%	246	0	0%
18 Market Square	12,337	0	0%	125	0	0%
19 London Road	11,583	0	0%	117	0	0%

6.6.4. The Tables below assess the effect of the Proposed Development during the operational phase with reference to the change in traffic flows presented at the Table 6.8.

Severance	Table 6.8 above demonstrates that vehicle movements associated with the Proposed Development during the operational phase are not considered to be significant relative to existing traffic on the local road network. The Proposed Development will provide a new shared foot/cycleway along the southern side of the A4095 between the Site and Chesterton. Furthermore, the Proposed Development will provide improved pedestrian crossing facilities including dropped kerbs at the access point to public footpath (Ref: 161/1) to the north of Chesterton, enhancing the pedestrian connection to this route and providing a beneficial effect for pedestrians. Based on Table 6.8 it is evident that changes in vehicle movements associated with the development is significantly below the IEMA thresholds on the majority of links. On Links 7 and 8, the A4095 directly east and west of the Site access, the change in vehicle movements could result in a 'slight' change in severance with reference to the IEMA thresholds. It is noted that on the A4095 west of the access there are limited residential properties and along this link and therefore there are limited associated receptors susceptible to changes in severance including cyclist, pedestrians, public transport users and drivers along this link which would be affected by the change in vehicle movements on this link. Therefore, the effect of these vehicle movements on severance on this link would be low. Whilst the change in traffic movements would result in a 'slight' change in severance, it is considered that this is mitigated by the new shared foot/cycleway and crossing facilities provided by the Proposed Development on the A4095 east of the Site, as detailed at Section 6.5. The sensitivity of each receptor (pedestrians, cyclists, public transport users and drivers) is either low or medium and the magnitude of change relating to severance, prior to mitigation is considered to be negligible. Therefore, there is a likely to be a **negligible** (**not significant**) effect on each receptor, prior to implementation of mitigation measures.
Secondary Mitigation	No secondary mitigation over the elements of the Proposed Development identified at Section 6.5 are considered necessary.

Residual effects and monitoring	The sensitivity of each receptor (pedestrians, cyclists, public transport users and drivers) is either low or medium and the magnitude of change relating to severance, is considered to be negligible and therefore no secondary mitigation over the elements of the Proposed Development identified at Section 6.5, is considered necessary. Therefore, there is a likely to be a **negligible** (**not significant**) residual effect on each receptor.

Delay	Table 6.8 above demonstrates that vehicle movements associated with the Proposed Development during the operational phase are not considered to be significant relative to existing traffic on the local road network. A detailed analysis of the effect of vehicle movements associated with the Proposed Development is presented within the Transport Assessment. That analysis demonstrates that the Proposed Development would not have a material effect on the operation of the highway network local to the Site or vehicle delay at the scope of junctions assessed. The Proposed Development includes the diversion of public footpath (Ref: 161/06) which currently runs through the Site and this is detailed at Figure 6.1, attached. The diverted route of public footpath (Ref: 161/06) would connect from an existing point where it intersects the Site boundary to the existing end of the public footpath and therefore does not change the overall start and end points of the route and would not have a material change on the journey time for pedestrians using the public footpath. The sensitivity of each receptor (pedestrians, cyclists, public transport users and drivers) is either low or medium and the magnitude of change relating to delay, prior to mitigation is considered to be negligible. Therefore, there is a likely to be a **negligible** (**not significant**) effect on each receptor, prior to implementation of mitigation measures.
Secondary Mitigation	No secondary mitigation over the elements of the Proposed Development identified at Section 6.5 are considered necessary.
Residual effects and monitoring	The sensitivity of each receptor (pedestrians, cyclists, public transport users and drivers) is either low or medium and the magnitude of change relating to delay is considered to be negligible and therefore no secondary mitigation over the elements of the Proposed Development identified at Section 6.5, is considered necessary. Therefore, there is a likely to be a **negligible** (**not significant**) residual effect on each receptor.

Amenity	The Proposed Development will provide a new shared foot/cycleway along the southern side of the A4095 between the Site and Chesterton. Furthermore, the Proposed Development will provide improved pedestrian crossing facilities including dropped kerbs at the access point to public footpath (Ref: 161/1) to the north of Chesterton, enhancing the pedestrian connection to this route. The creation of a new shared foot/cycleway between the site and Chesterton, where pedestrians are currently required to walk within the grass verge, provides improved amenity over the current arrangement. Table 6.8 demonstrates that the change in vehicle movements as a result of the Proposed Development during the operational phase are not considered to be significant relative to existing traffic on the local road network and are below the threshold set out by the IEMA on all links. The sensitivity of each receptor (pedestrians, cyclists, public transport users and drivers) is either low or medium and the magnitude of change relating to amenity, prior to

	mitigation is considered to be negligible. Therefore, there is a likely to be a **negligible** (**not significant**) effect on each receptor, prior to implementation of mitigation measures.
Secondary Mitigation	No secondary mitigation over the elements of the Proposed Development identified at Section 6.5 are considered necessary.
Residual effects and monitoring	The sensitivity of each receptor (pedestrians, cyclists, public transport users and drivers) is either low or medium and the magnitude of change relating to amenity is considered to be negligible and therefore no secondary mitigation over the elements of the Proposed Development identified at Section 6.5, is considered necessary. Therefore, there is a likely to be a **negligible** (**not significant**) residual effect on each receptor.

Fear, Intimidation, Accidents and Safety	A full analysis of existing traffic incident records on the highway network local to the Site is included within the Transport Assessment and that analysis reviewed traffic incident records, obtained from OCC, for the most recent five-year period available. The analysis indicated that the most predominant causation factors for incidents were driver error or poor driver behaviour, unrelated to the design and operation of the existing highway network and infrastructure. As such the Transport Assessment concluded that there are no inherent safety issues associated with the existing highway network local to the Site which result in any concerns regarding road safety. On this basis, it is concluded that the change in traffic movements as a result of the operation of the Proposed Development would have a negligible effect on accident patterns and highway safety in the vicinity of the Site. The Proposed Development will provide a new shared foot/cycleway along the southern side of the A4095 between the Site and Chesterton. Furthermore, the Proposed Development will provide improved pedestrian crossing facilities including dropped kerbs at the access point to public footpath (Ref: 161/1) to the north of Chesterton, enhancing the pedestrian connection to this route. The creation of a new shared foot/cycleway between the site and Chesterton, where pedestrians are currently required to walk within the grass verge, provides a betterment for pedestrians, reducing fear and intimidation of walking along this route, reducing the risk of accidents and improving safety. The sensitivity of each receptor (pedestrians, cyclists, public transport users and drivers) is either low or medium and the magnitude of change relating to fear, intimidation, accidents and safety, prior to mitigation is considered to be negligible. Therefore, there is a likely to be a **negligible** (**not significant**) effect on each receptor, prior to implementation of mitigation measures.
Secondary Mitigation	No secondary mitigation over the elements of the Proposed Development identified at Section 6.5 are considered necessary.
Residual effects and monitoring	The sensitivity of each receptor (pedestrians, cyclists, public transport users and drivers) is either low or medium and the magnitude of change relating to fear, intimidation, accidents and safety, is considered to be negligible and therefore no secondary mitigation over the elements of the Proposed Development identified at Section 6.5, is considered necessary. Therefore, there is a likely to be a **negligible** (**not significant**) residual effect on each receptor.

6.7. LIMITATIONS AND ASSUMPTIONS

6.7.1. To ensure transparency within the EIA process, the following limitations and assumptions have been identified:

- All future traffic forecasts include a degree of uncertainty and therefore has been taken of reasonable uncertainty when assessing the potential significant effects.
- At this stage, detailed construction information is not available and therefore the preliminary the possible impact of construction has been estimated at this stage.

6.8. SUMMARY

6.8.1. This chapter has considered the potential environmental effects of the Proposed Development in relation to traffic and transportation.

6.8.2. Methodologies were determined for determining both the construction and operational traffic effects of the Proposed Development on highway network local to the Site and significance factors were determined with regard to delay, severance, intimidation and safety.

6.8.3. During the construction phase, the Proposed Development includes a number of measures including:

- A construction vehicle access to the Site will be constructed from the A4095 and will serve as the point of access for all construction vehicle movements;
- A Construction Management Plan (CMP) has been prepared and is submitted as **Appendix 4.1** and details measure to control effects during the construction phase; and,
- The Construction Management Plan will include details of proposed routes for construction deliveries and drivers will be directed to uses those routes.

6.8.4. It has been demonstrated that during the construction phase the Proposed Development would result in a **negligible (not significant)** residual effect on the highway network local to the Site. The construction works would be managed through a CMP which would encourage construction activity to be undertaken in an efficient and sustainable manner and minimise any effect on the highway network local to the Site.

6.8.5. The Proposed Development includes a number of measures which have been designed into the scheme including:

- Construction of a new vehicle access to the Site from the A4095;
- A signage strategy has been developed which will direct drivers onto appropriate routes to access the Site and, in particular, direct drivers to avoid passing through Chesterton when approach and leaving the Site. Full details of the proposed signage strategy and routing assessment are detailed in the Transport Assessment.;
- Construction of a new shared foot/cycleway from the Site entrance to Chesterton (east of the Site entrance) and from the Site entrance to the end of the existing public footpath (west of the Site entrance), along with dropped kerbs and pedestrian refuge at the site entrance;
- Provision of on-site cycle parking for both staff and guest with 40 staff cycle parking spaces and 40 guest cycle parking spaces to be provided;
- Provision of a shuttle bus service between the Site and local station and town centre for staff, guests and residents of Chesterton. The shuttle bus service will be available free of charge and

full details of the shuttle bus service routing and frequency are provided in the Transport Assessment; and,

- A Framework Travel Plan has been prepared to promote sustainable travel choices amongst both staff and visitors. A final Travel Plan will be secured by Planning Condition or Obligation.

6.8.6. With regard to the operation of the Proposed Development, it has been demonstrated that the Proposed Development is likely to result in a negligible (**not significant**) residual effect on the highway network local to the Site. Furthermore, the proposed development of a Travel Plan will promote sustainable travel choices at the Site and reduce reliance on the private car, reducing the effect of the Proposed Development on the local highway network.

Table 6.9 - Summary of Effects Table for Transport and Access

Description of Effects	Receptor	Significance and Nature of Effects Prior to Mitigation / Enhancement	Summary of Mitigation / Enhancement	Significance and Nature of Effects Following Mitigation / Enhancement (Residual)
Construction Phase				
Severance.	Pedestrians, Cyclists, Public Transport Users and Drivers	Negligible (not significant)	No secondary mitigation over the elements of the Proposed Development identified at Section 6.5 are considered necessary.	Negligible (not significant)
Delay	Pedestrians, Cyclists, Public Transport Users and Drivers	Negligible (not significant)	No secondary mitigation over the elements of the Proposed Development identified at Section 6.5 are considered necessary.	Negligible (not significant)
Amenity	Pedestrians, Cyclists, Public Transport Users and Drivers	Negligible (not significant)	No secondary mitigation over the elements of the Proposed Development identified at Section 6.5 are considered necessary.	Negligible (not significant)
Fear, Intimidation, Accidents and Safety	Pedestrians, Cyclists, Public Transport Users and Drivers	Negligible (not significant)	No secondary mitigation over the elements of the Proposed Development identified at Section 6.5 are considered necessary.	Negligible (not significant)

Operational Phase				
Severance.	Pedestrians, Cyclists, Public Transport Users and Drivers	Negligible (not significant)	No secondary mitigation over the elements of the Proposed Development identified at Section 6.5 are considered necessary.	Negligible (not significant)
Delay	Pedestrians, Cyclists, Public Transport Users and Drivers	Negligible (not significant)	No secondary mitigation over the elements of the Proposed Development identified at Section 6.5 are considered necessary.	Negligible (not significant)
Amenity	Pedestrians, Cyclists, Public Transport Users and Drivers	Negligible (not significant)	No secondary mitigation over the elements of the Proposed Development identified at Section 6.5 are considered necessary.	Negligible (not significant)
Fear, Intimidation, Accidents and Safety	Pedestrians, Cyclists, Public Transport Users and Drivers	Negligible (not significant)	No secondary mitigation over the elements of the Proposed Development identified at Section 6.5 are considered necessary.	Negligible (not significant)

NB: Aspects of the Proposed Development considered as part of the pre-mitigation scenario are summarised above in Section 6.5.

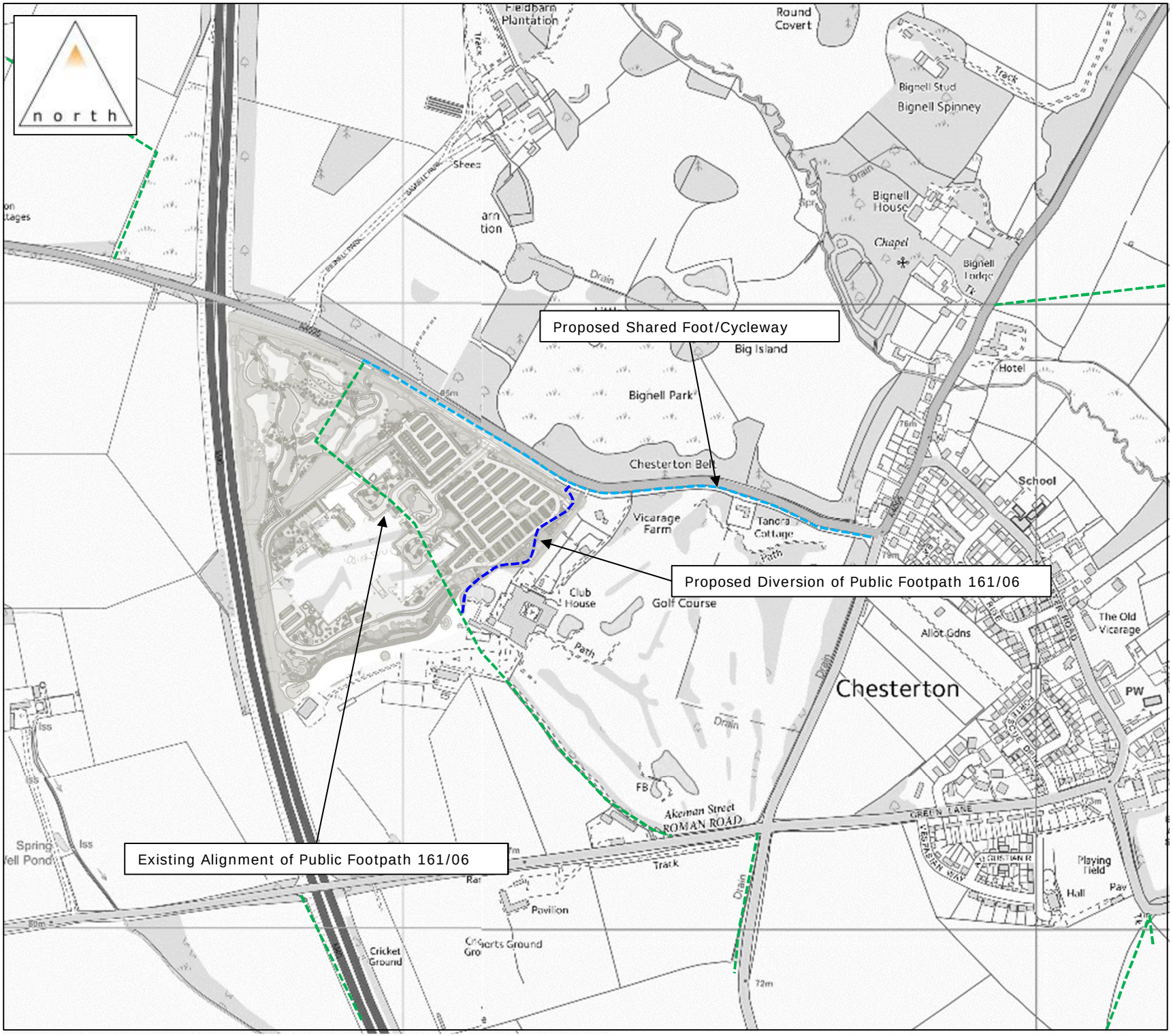
Key to table:

+ / - = Beneficial or Adverse P / T = Permanent or Temporary, D / I = Direct or Indirect, ST / MT / LT = Short Term, Medium Term or Long-Term N/A = Not Applicable

6.9. REFERENCES

- **Ref 6.1**: National Planning Policy Framework (NPPF) (February 2019). Online available at https://www.gov.uk/government/publications/national-planning-policy-framework--2
- **Ref 6.2**: National Planning Practice Guidance (NPPG) (March 2014) Online available at https://www.gov.uk/government/collections/planning-practice-guidance
- **Ref 6.3**: Cherwell Local Plan 2011-2021. Online available at https://www.cherwell.gov.uk/info/83/local-plans
- **Ref 6.4**: Institute of Environmental Assessment (now Institute of Environmental Management and Assessment (IEMA's)) 'Guidelines for the Environmental Assessment of Road Traffic'
- **Ref 6.5**: Design Manual for Roads and Bridges (DMRB). Online available at http://www.standardsforhighways.co.uk/ha/standards/dmrb/

FIGURES



Legend:

- Site Location
- Existing Public Footpath
- Proposed Diversion of 161/06
- Shared Foot/Cycleway

Great Wolf,

Bicester

Figure 6.1 Proposed Public Footpath Diversion

Not to Scale

motion